

HellermannTyton



Product Catalogue

2015 / 2016

Test Instruments and Tools



Our Mission

HellermannTyton's mission is to provide innovative solutions, with customer satisfaction as our first priority. We aspire, through global leadership and quality products that add value to electrical and communication networks, to be the customers' partner of choice. We aim to achieve world class operational excellence for the benefit of our customers, our employees and the interaction of our business with the environment.

Our Values

- Total commitment to providing customer satisfaction.
- Our employees are our most valuable assets. We are committed to their empowerment in an environment of openness and mutual trust.
- Excellence in quality, efficiency, innovation and reliability.
- Conducting our business with integrity.
- Caring for the environment.
- Providing safe and healthy working conditions.

A Commitment to Quality



HellermannTyton carries the quality certification SABS TS16949, supporting our goal of "First Time Right" every time. All Toptronic test instruments carry a 2 year warranty and are made to the highest international standards. They are rugged, reliable and will give years of trouble-free service in testing conditions.

Lifetime Warranty



HellermannTyton carries a Lifetime Warranty on all tools and selected instruments (TBM811, TBM812, T1832). If any product is found to be defective, HellermannTyton will, at their sole discretion, repair or replace the defective product. This warranty does not cover batteries, fuses, neglect or misuse within abnormal conditions of operation.

Note

Some images and specifications may vary from what is displayed in this catalogue.

Test Instruments



HellermannTyton

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Tools



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In the event that our landline number is not in operation please use the emergency numbers provided below:

082 824 5625 | 082 824 5626 | 082 824 5627 | 082 829 9643

These emergency numbers are only applicable to our Johannesburg office, and not countrywide.

HellermannTyton



HVD - High voltage detector (page 33)



TPC - High voltage phase comparator (page 31)



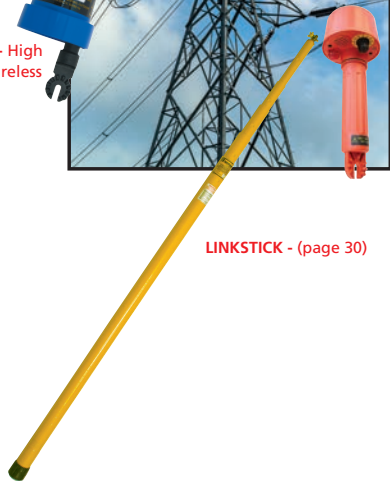
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WPC1000 - High voltage wireless receiver (page 32)



T175 - Proximity High voltage detector (page 34)

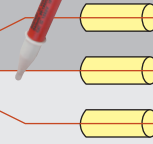
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CAT III 1000V IEC61010-1

TVP1000 - Non Contact Voltage Detector (page 51)



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WIBRE1000 - Voltage tester (page 50)

CAT IV 1000V IEC61010-1



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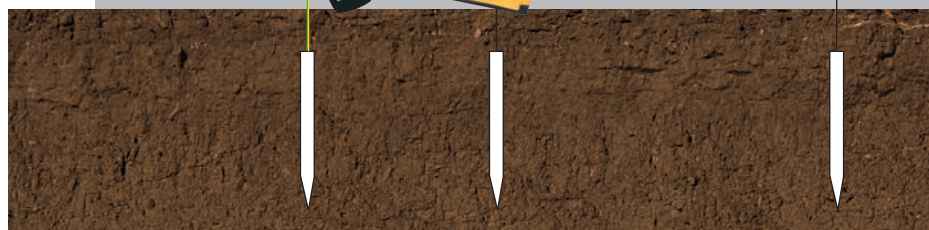


T89 - Compliance Tester/ Single Phase Power Analyser (page 25)

T2000 - Earth Resistance Clamp (page 15)



T1820 - Digital Earth Resistance Tester (page 16)



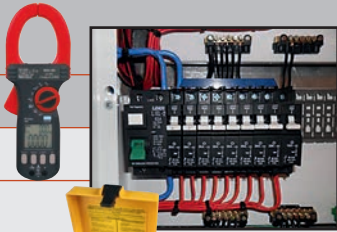
PV Crimping Tool
(page 76)

Full range of PV
installation testers
(page 62-71)



TBM195 - 2000A AC/DC
Clamp Meter (page 15)

CAT IV
1000V
IEC61010-1



T78 - Power Analyser (page 54)



T1825 - Loop/PSC/Load
Tester (page 21)

TEL11 - 3 Phase Rotation/ Earth
Leakage Tester (page 49)



T77N - AC Earth Leakage
Clamp Meter (page 14)



CAT III
1000V
IEC61010-1

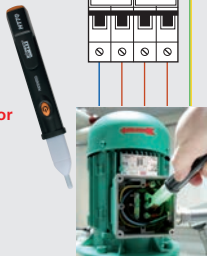
TBM089 - 1000A AC/DC Amptip
Clamp Meter (page 14)



T3601 - DIY Digital
Multimeter (page 4)

CAT IV
1000V
IEC61010-1

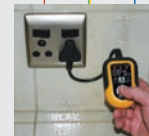
T70 - Phase Sequence Indicator
& Voltage Detector (page 42)



T887 - Phase Rotation Indicator
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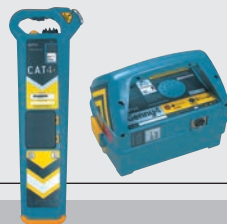
TEL1TLB - Earth Leakage
Polarity Tester
(page 48)



T416 - Earth
Resistivity Tester
(page 17)



CAT4PLUS - Cable and Pipe
locator (page 28-29)



T820 DIY DMM

- Low cost
- Large LCD display
- Continuity
- Diode



Technical Specification

DC Voltage	200m,2,20,200,600V
AC Voltage	200,600V
DC Current	200μ,2m,20m,200m,10A
Resistance	200,2K,20K,200K,20MΩ
Accuracy	
DC Voltage	± 0.5% + 4 Digit
AC Voltage	± 1.2% + 10 Digit
DC Current	± 1.5% + 3 Digit
Resistance	± 0.8% + 3 Digit

Model Specification

Dimensions (mm)	145(L) x 85(W) x 30(H)
Power Source	9V Battery
Weight	170g

**3 -1/2 Digits
1999 Counts**

T835 DIY DMM

- Low Cost
- Temperature
- Continuity
- Diode • Data hold



Technical Specification

DC Voltage	200,2,20,200,500V
AC Voltage	200,500V
DC Current	200m,2m,20m,200m,10A
Resistance	200,2K,20K,200K,20MΩ
Temperature	-20°C to 1000°C
Accuracy	
DC Voltage	± 0.5% + 2 Digit
AC Voltage	± 1.2% + 10 Digit
DC Current	± 1.0% + 2 Digit
Resistance	± 0.8% + 2 Digit
Temperature	± 1.0% + 3 Digit

Model Specification

Accessories	Temp Bead Probe
Dimensions (mm)	150(L) x 73(W) x 35(H)
Power Source	9V Battery
Weight	156g

NEW UPGRADED SPECIFICATION

**3 -1/2 Digits
1999 Counts**

T1300H Electronic DMM

- Low cost
- Backlit
- Diode
- Continuity
- Data hold



Technical Specification

DC Voltage	200m,2,20,200,500V
AC Voltage	200,500V
DC Current	2m,20M,200M,10A
Resistance	200,2K,20K,200K,200MΩ
Accuracy	
DC Voltage	±0,5% + 2 Digit
AC Voltage	±1,2% + 10 Digit
DC Current	2m-200mA ±1%+2 Dig 200m-10A ±2,0% + 5 Dig
Resistance	±1% + 5 Digit
Diode	±1mV

Model Specification

Dimensions (mm)	150(L) x 73(W) x 35(H)
Power Source	9V Battery
Weight	156g

NEW UPGRADED SPECIFICATION

**3 -1/2 Digits
1999 Counts**

T235H Electrician's DMM

- Backlit
- Large display
- Temperature
- Data hold • Capacitance



Technical Specification

DC Voltage	200mV,2mV,20,200,1000V
AC Voltage	20v,200,750V
DC Current	20mV,200mV,20A
AC Current	200mV, 20A
Resistance	200,20K,200K,20MΩ,200MΩ
Temperature	-20°C -1000°C
Capacitance	20nf,2nf,2000μF
Accuracy	
DC Voltage	± 0,5% + 3 Digit
AC Voltage	± 0,8% + 5 Digit
DC Current	± 1,5% + 5 Digit
AC Current	± 1,5% + 5 Digit
Resistance	± 0,8% + 3 Digit
Temperature	± 0,8% + 4 Digit
Capacitance	± 2,5% + 20 Digit

Model Specification

Accessories	Temp Bead Probe
Dimensions (mm)	190(L) x 88(W) x 27(H)
Power Source	9V Battery
Weight	320g

**3 -1/2 Digits
1999 Counts**

T48 Electronic DMM

- Backlit
- Temperature
- Capacitance
- Inductance
- Large display



Technical Specification

DC Voltage	200m,2,20,200,1000V
AC Voltage	200mV,2,20,200,750V
DC Current	20μ,200μ,20m,200m,2A,20A
AC Current	200M,2A,20A
Resistance	200,2K,200K,2M,20M,2000MΩ
Frequency	2K,200KHz
Inductance	2m,20m,200m,2,20H
Temperature	-20 to 1000°C
Capacitance	20n,200n,2μ,20μF,200μF
Accuracy	
DC Voltage	±0,5% + 3 Digit
AC Voltage	±0,8% + 5 Digit
DC Current	± 0,8% + 3 Digit
AC Current	± 1,0% + 5 Digit
Resistance	± 0,8% + 3 Digit
Inductance	200mH ± 2,5% + 20 Digit
Frequency	±0,5% + 4 Digit
Temperature	±1,0% + 4 Digit
Capacitance	20nf-20μf ±2,5% +20 Digit

Model Specification

Accessories	Temp Bead Probe
Dimensions (mm)	189(L) x 97(W) x 35(H)
Power Source	9V Battery
Weight	400g

T3601 Electrician's DMM

- Backlit
- Large display
- Data hold
- Continuity



Technical Specification

DC Voltage	200mV,2mV,20,200,1000V
AC Voltage	20v,200,750V
DC Current	20mV,200mV,20A
AC Current	200mV, 20A
Resistance	200,20K,200K,20MΩ,200MΩ
Capacitance	20nf,2nf,200μF
Accuracy	
DC Voltage	± 0,5% + 3 Digit
AC Voltage	± 0,8% + 5 Digit
DC Current	± 1,5% + 5 Digit
AC Current	± 1,5% + 5 Digit
Resistance	± 0,8% + 3 Digit
Capacitance	± 2,5% + 20 Digit

Model Specification

Accessories	Temp Bead Probe
Dimensions (mm)	155(L) x 90(W) x 48(H)
Power Source	9V Battery
Weight	270g

**3 -1/2 Digits
1999 Counts**

TBM251 General Purpose DMM

- Bar graph
- Beep guard
- USB Interface
- Rugged construction
- Separate battery compartment

3 ⁻⁵/₆ Digits
6000 Counts



Technical Specification	
AC/DC Voltage	60m,600m,6,60,600,1000V
AC/DC Current	600 μ ,6000 μ ,60m,600m,6,8A
Resistance	600,6K,60K,600K,6M,60M Ω
Frequency	5Hz - 1MHz
Accuracy	
DC Voltage	$\pm 0,2\%$ + 3 Digit
AC Voltage	60mV - 600mV - 1% + 5 Digit 1V - 1000V - 1,4% + 5 Digit
DC Current	$\pm 0,5\%$ + 3 Digit
AC Current	$\pm 1,0\%$ + 3 Digit
Resistance	$\pm 1,2\%$ + 4 Digit
Frequency	$\pm 0,003\%$ + 2 Digit

Model Specification	
Accessories	Temp Probe
Optional Accessories	USB Cable & Software (TBU20X) See Pg 9 for USB Adaptor Magnetic Hanger (TBMH01) See Pg 7
Dimensions (mm)	161(L) x 80(W) x 50(H)
Power Source	1.5V AAA
Weight	340g

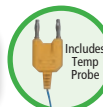


OPTIONAL
USB Connection

TBM252 Electronic General Purpose DMM

- Bar graph
- Beep guard
- USB Interface
- Temperature
- EF detection
- Separate battery compartment

3 ⁻⁵/₆ Digits
6000 Counts



Technical Specification	
AC/DC Voltage	60m,600m,6,60,600,1000V
AC/DC Current	600 μ ,6000 μ ,60m,600m,6,8A
Resistance	600,6K,60K,600K,6M,60M Ω
Frequency	5Hz - 1MHz
Temperature	-50°C - 1000°C
Capacitance	60n,600n,6 μ ,60 μ ,600 μ ,3000 μ F
Accuracy	
DC Voltage	$\pm 0,2\%$ + 3 Digit
AC Voltage	60mV - 600mV - 1% + 5 Digit 1V - 1000V - 1,4% + 5 Digit
Auto Check	1V - 1000 V AC/DC
DC Current	$\pm 0,5\%$ + 3 Digit
AC Current	$\pm 1,0\%$ + 3 Digit
Resistance	$\pm 1,2\%$ + 4 Digit
Frequency	$\pm 0,003\%$ + 2 Digit
Capacitance	$\pm 2,0\%$ + 5 Digit

Model Specification	
Accessories	Temp Probe (TBMTEMPPROBE)
Optional Accessories	USB Cable & Software (TBU20X) See Pg 9 for USB Adaptor Magnetic Hanger (TBMH01) See Pg 7
Dimensions (mm)	161(L) x 80(W) x 50(H)
Power Source	1.5V AAA
Weight	340g



OPTIONAL
USB Connection

TBM805 General Purpose DMM

- Splash proof
- Beep guard
- Rugged construction
- Data hold
- Min/max
- Relative zero

3 ⁻³/₄ Digits
4000 Counts



Technical Specification	
AC/DC Voltage	400m,4,40,400,1000V
AC/DC Current	400 μ ,4000 μ ,40m,400m,4,10A
Resistance	400,4K,40K,400K,4M,40M Ω
Frequency	50,500,5K,50K,500K,1MHz
Capacitance	500n,5 μ ,50 μ ,500 μ ,3000 μ F
Accuracy	
DC Voltage	$\pm 1,0\%$ + 4 Digit
AC Voltage	4 - 400V $\pm 1,5\%$ + 5 Digit 1000V $\pm 4,0\%$ + 5 Digit
DC Current	$\pm 1,2\%$ + 3 Digit
AC Current	$\pm 1,8\%$ + 4 Digit
Resistance	$\pm 2,0\%$ + 4 Digit
Frequency	$\pm 0,5\%$ + 4 Digit
Capacitance	$\pm 3,5\%$ + 6 Digit

Model Specification	
Dimensions (mm)	198(L) x 97(W) x 55(H)
Power Source	2 x 1.5V AAA Batteries
Weight	396g

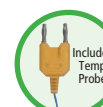


OPTIONAL
USB Connection

TBM807 Electrician's DMM

- Temperature
- Beep guard
- Data hold
- Min/max
- Relative zero
- Backlit

3 ⁻³/₄ Digits
4000 Counts



Technical Specification	
AC/DC Voltage	400m,4,40,400,1000V
AC/DC Current	400 μ ,4000 μ ,40m,400m,4,10A
Resistance	400,4K,40K,400K,4M,40M Ω
Frequency	50,500,5K,50K,500K,1MHz
Temperature	-20°C to 300°C
Capacitance	500n,5 μ ,50 μ ,500 μ ,3000 μ F
Accuracy	
DC Voltage	$\pm 1,0\%$ + 4 Digit
AC Voltage	4 - 400V $\pm 1,5\%$ + 5 Digit 1000V $\pm 4,0\%$ + 5 Digit
DC Current	$\pm 1,2\%$ + 3 Digit
AC Current	$\pm 1,8\%$ + 4 Digit
Resistance	$\pm 2,0\%$ + 4 Digit
Frequency	$\pm 0,5\%$ + 4 Digit
Temperature	$\pm 2,0\%$ + 3°C
Capacitance	$\pm 3,5\%$ + 6 Digit

Model Specification	
Accessories	Temp Probe (TBMTEMPPROBE)
Dimensions (mm)	198(L) x 97(W) x 55(H)
Power Source	2 x 1.5V AAA Batteries
Weight	396g



OPTIONAL
USB Connection

TBM867 Professional DMM

- USB Interface
- 500 000 Count display
- Backlight
- Crest mode
- Duty cycle
- Data hold
- Dual display
- Probe input warning



Technical Specification

AC/DC Voltage	500m,5,50,500,1000V
AC/DC Current	500µ,5000µ,50m,500m, 5,10A
Resistance	500,5K,50K,500K,5m,50mΩ
Frequency Line:	10Hz to 3kHz
Logic:	5Hz to 1MHz
Capacitance	50n,500n,5µ,500µ, 25mf
Diode	2V
Accuracy	
DC Voltage	0.02% + 2 Digit
AC Voltage	1.2% + 40 Digit (20Hz-45Hz)
DC Current	0.15% + 20 Digit (0.5% + 50 Digit At 500µA)
AC Current	0.5% + 50 Digit
Resistance	0.07% + 10 Digit
Frequency	0.002% + 4 Digit
Capacitance	0.8% + 3 Digit
Diode	1% + 1 Digit

Model Specification

Optional Accessories	USB Cable & Software TBU86X See Pg 9
Dimensions (mm)	208(L) x 103(W) x 64(H)
Power Source	9V Battery
Weight	635g



5 ⁻⁴/₅ Digits
500000 Counts

OPTIONAL
USB Connection

TBM869 Professional DMM

- USB Interface
- 500 000 Count display
- 100 kHz Bandwidth
- Dual temperature
- Probe input warning
- Backlight
- Crest mode
- Duty cycle
- Dual display



Technical Specification

AC/DC Voltage	500m,5,50,500,1000V
AC/DC Current	500µ,5000µ,50m,500m, 5,10A
Resistance	500,5K,50K,500K,5m,50mΩ
Frequency Line:	10Hz to 3kHz
Logic:	5Hz to 1MHz
Capacitance	50n,500n,5µ,500µ, 25mf
Temperature	-50 to 1000°C
Accuracy	
DC Voltage	0.02% + 2 Digit
AC Voltage	1.2% + 40 Digit (20Hz-45Hz)
DC Current	0.15% + 20 Digit (0.5% + 50 Digit At 500µA)
AC Current	0.5% + 50 Digit
Resistance	0.07% + 10 Digit
Frequency	0.002% + 4 Digit
Capacitance	0.8% + 3 Digit
Temperature	0.3% + 1.5°C

Model Specification

Accessories	Temp Probe (TBMTEMPPROBE)
Optional Accessories	USB Cable & Software TBU86X See Pg 9
Dimensions (mm)	208(L) x 103(W) x 64(H)
Power Source	9V Battery
Weight	635g



5 ⁻⁴/₅ Digits
500000 Counts

OPTIONAL
USB Connection

TBM525 Data Logger DMM

- Datalogger, 87 000 points single display mode
- Datalogger, 43 000 points dual display mode
- Backlight
- 1000V AC/DC
- USB interface
- Beep guard
- Auto check
- EF detection
- Temperature



Technical Specification

AC/DC Voltage	60m,600m,6,600,1000V
AC/DC Current	600µ,6000µ,60m,600m, 6,10A
Resistance	0.1Ω - 60MΩ
Frequency	5Hz to 1MHz
Capacitance	60n,600n,6µ,60µ,600µ,25mf
Temperature	-50°C to 1000°C
Accuracy	
AC/DC Voltage	0.08% + 2 Digit
AC/DC Current	0.8% + 6 Digit
Resistance	0.8% + 10 Digit
Frequency	0.004% + 4 Digit
Capacitance	5.0% + 5 Digit
Temperature	0.3% + 2°C

Model Specification

Accessories	Temp Probe (TBMTEMPPROBE)
Optional Accessories	USB Cable & Software TBU86X See Pg 9 for USB Adaptor Magnetic Hanger (TBMH01) See Pg 7
Dimensions (mm)	198(L) x 97(W) x 55(H)
Power Source	9V Battery
Weight	430g



3 ⁻⁹/₁₀ Digits
10000 Counts

OPTIONAL
USB Connection

TBM829 Professional DMM

- Splash/Drop proof
- 1000V AC/DC
- USB interface
- Dual display
- Backlit
- Non-contact EF
- Auto check
- Dual temperature
- Crest (Peak-hold)



Technical Specification

DC/AC Voltage	60m,600m,6,600,1000V
DC/AC Current	600µ,6000µ,60m,600m, 6,10A
Resistance	0.1Ω - 60MΩ
Frequency	5Hz - 1MHz
Capacitance	60n,600n,6µ,60µ,600µ,20mf
Temperature	-50°C - 1000°C
Accuracy	
DC Voltage	0.08% + 2 Digit
AC Voltage	2.0% + 3 Digit
DC Current	0.2% + 4 Digit
AC Current	1.0% + 4 Digit
Resistance	1.5% + 5 Digit
Frequency	0.004% + 4 Digit
Capacitance	5.0% + 5 Digit
Temperature	0.3% + 2°C

Model Specification

Accessories	Temp Probe (TBMTEMPPROBE)
Optional Accessories	USB Cable & Software TBU86X See Pg 9 for USB Adaptor Magnetic Hanger (TBMH01) See Pg 7
Dimensions (mm)	208(L) x 103(W) x 64(H)
Power Source	9V Battery
Weight	635g



3 ⁻⁹/₁₀ Digits
6000 Counts

OPTIONAL
USB Connection

TBM811 / TBM811XEX General Purpose DMM

- Splash/Drop proof
- 1000V AC/DC
- USB interface
- Dual display
- Backlit

TBM811XEX



Intrinsically Safe

1A/1kV (IR10kA) for μ A and mA (1000V HRC Fuse)

11A/1kV (IR20kA) for A (1000V HRC Fuse)

These meters comply to IEC SANS 60079-0:2000 and IEC SANS 60079-11:1999, which is an electrical apparatus for explosive gas atmospheres. Part 0 (general requirements) and Part 1 (intrinsic). The approved explosive protection rating of this equipment is suitable for use in Zone 1 hazardous area. Group I (coal mines) underground and Group II (surface).

Markings on meter:

Ex ib I Mb

Ex ib IIC Gb

SAEx MS/09-200X.

Ex ib falls under Zone 1 which is an area where flammable gas can occur in normal operating conditions.



3 ⁻⁹/₁₀ Digits
6000 Counts



TBM811XEX



TBMH01
Magnetic hanger
(Optional Accessory)

Technical Specification

DC/AC Voltage	60m,600m,6,600,1000V
DC/AC Current	600 μ ,6000 μ ,60m,600m, 6,10A
Resistance	0.1 Ω - 60M Ω
Frequency	5Hz - 1MHz
Capacitance	60n,600n,6 μ ,60 μ ,600 μ ,20mF
Accuracy	
DC Voltage	0.08% + 2 Digit
AC Voltage	2.0% + 3 Digit
DC Current	0.2% + 4 Digit
AC Current	1.0% + 4 Digit
Resistance	1.5% + 5 Digit
Frequency	0.004% + 4 Digit
Capacitance	5.0% + 5 Digit
Protection	
DC/AC Voltage	1050Vrms,1450V PEAK
AC/DC Current	0.44A/1000V Fuse (IR10kA) 11A/1000V Fuse (IR20kA)
Resistance	1.2V DC OPEN CIRCUIT
Input Warning	✓
Transient	12kV SURGE
Protection	(1.2/50 μ s) SURGE

Model Specification

Optional Accessories	USB Cable & Software TBU86X See P9 9 for USB Adaptor Magnetic Hanger (TBMH01)
Dimensions (mm)	208(L) x 103(W) x 64.5(H)
Power Source	9V Battery
Weight	635g

OPTIONAL
USB Connection

TBM812 / TBM812XEX General Purpose DMM

- Splash/Drop proof
- 1000V AC/DC
- USB interface
- Dual display
- Backlit

TBM812XEX



Intrinsically Safe

1A/1kV (IR10kA) for μ A and mA (1000V HRC Fuse)

11A/1kV (IR20kA) for A (1000V HRC Fuse)

These meters comply to IEC SANS 60079-0:2000 and IEC SANS 60079-11:1999, which is an electrical apparatus for explosive gas atmospheres. Part 0 (general requirements) and Part 1 (intrinsic). The approved explosive protection rating of this equipment is suitable for use in Zone 1 hazardous area. Group I (coal mines) underground and Group II (surface).

Markings on meter:

Ex ib I Mb

Ex ib IIC Gb

SAEx MS/09-291X.

Ex ib falls under Zone 1 which is an area where flammable gas can occur in normal operating conditions.



3 ⁻⁹/₁₀ Digits
6000 Counts



TBM812XEX



TBMH01
Magnetic hanger
(Optional Accessory)

Technical Specification

DC/AC Voltage	60m,600m,6,600,1000V
DC/AC Current	600 μ ,6000 μ ,60m,600m, 6,10A
Resistance	0.1 Ω - 60M Ω
Frequency	5Hz - 1MHz
Capacitance	60n,600n,6 μ ,60 μ ,600 μ ,20mF
Accuracy	
DC Voltage	0.08% + 2 Digit
AC Voltage	2.0% + 3 Digit
DC Current	0.2% + 4 Digit
AC Current	1.0% + 4 Digit
Resistance	1.5% + 5 Digit
Frequency	0.004% + 4 Digit
Capacitance	5.0% + 5 Digit
Protection	
DC/AC Voltage	1050Vrms,1450V PEAK
AC/DC Current	0.44A/1000V Fuse (IR10kA) 11A/1000V Fuse (IR20kA)
Resistance	1.2V DC OPEN CIRCUIT
Input Warning	✓
Transient	12kV SURGE
Protection	(1.2/50 μ s) SURGE

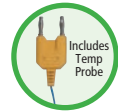
Model Specification

Optional Accessories	USB Cable & Software TBU86X See Pg 9 for USB Adaptor Magnetic Hanger (TBMH01)
Dimensions (mm)	208(L) x 103(W) x 64.5(H)
Power Source	9V Battery
Weight	635g

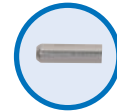
OPTIONAL
USB Connection

TBM878 Insulation/Combination DMM

- Includes industrial test probe
- Insulation resistance 50, 100, 250, 500, 1000V
- 1000V AC/DC
- Earth bond resistance
- VFD AC Voltage
- Relative zero
- Backlit
- Bar-graph
- Temperature
- Beep guard
- Diode
- Capacitance



Temp probe (TBMTEMPPROBE)



Test lead adaptor (TBM878TIPS)



3 ⁻⁵/₆ Digits
6000 Counts



Croc clips (TBM878CLIP)



Test Lead (TBM878LEAD)



Industrial Test Probe (TBM878PROBE)

This probe is used for earth continuity and insulation resistance testing.

These tests can be done by either pressing the "test" probe test button or the test button on the instrument.

Technical Specification

DC/AC Voltage	60m,600m,6,600,1000V
DC/AC Current	60m,400mA
Resistance	600,6k,60k,600k,6M,60MΩ
Frequency	10Hz - 5KHz
Capacitance	3μ,30μ,300μ,3000μF,30mF
Temperature	-50°C - 1000°C
Insulation	50V(3M-55MΩ)
Resistance	100V(3M-110MΩ) 250V(3M-275MΩ) 550V(3M-550MΩ) 1000V(3M-25GΩ)

Accuracy

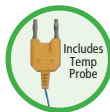
DC Voltage	0.09% + 3 Digit
AC Voltage	2.0% + 3 Digit
DC Current	0.4% + 3 Digit
AC Current	1.5% + 3 Digit
Resistance	1.5% + 3 Digit
Frequency	0.02% + 4 Digit
Capacitance	10% + 5 Digit
Temperature	9% + 2.0°C
Insulation	1.5% + 5 Digit
Resistance	

Model Specification

Accessories	Temp Probe (TBMTEMPPROBE) Croc clips (TBM878CLIP) Test Lead Adaptor (TBM878TIPS) Test Lead (TBM878LEAD)
Dimensions (mm)	208(L) x 103(W) x 64(H)
Power Source	1,5V AA x 4 Battery
Weight	635g

TBM319 Automotive Tester DMM

- Splash/Drop proof
- 1000V AC/DC
- Selectable 4-stroke / 2-stroke
- Sensitivity on RPM / Dwell
- Fuel injection detector
- Selectable 1 to 12 cylinders
- Backlit
- Bar-graph
- Temperature
- Beep guard



Technical Specification

DC/AC Voltage	60m,600m,6,600,1000V
DC/AC Current	600μ,6000μ,60m,600m, 6,10A
Resistance	600,6k,60k,600k,6M,60MΩ
Frequency	10Hz - 1KHz
Capacitance	6μ,60μ,600μ,2000μF
Temperature	-50°C - 1000°C
IP-RPM	240-20000RPM (Inductive)
IG-RPM	60-20000RPM (Contact)
DWELL	0,0° - 360°
FUEL INJECTOR	0,05ms - 250,0ms
Accuracy	
DC Voltage	0.4% + 3 Digit
AC Voltage	2.0% + 5 Digit
DC Current	0.7% + 3 Digit
AC Current	2.2% + 5 Digit
Resistance	0.5% + 5 Digit
Frequency	0.1% + 3 Digit
Capacitance	2.0% + 5 Digit
Temperature	0.5% + 3 Digit
DWELL	1.2°/kRPM + 1 Digit
FUEL INJECTOR	0.05ms + 1 Digit

Model Specification

Accessories	Temp Probe (TBMTEMPPROBE) BKPG60 banana plug BP300 Inductive pickup clip
Dimensions (mm)	160(L) x 80(W) x 50(H)
Power Source	1,5V AAA x 2 Battery
Weight	340g



T8209 Multipurpose DMM 5-in-1

- Auto ranging
- Test probe input warning lights
- Diode test
- Auto power off
- Backlight

3 Digits
3999 Counts



Technical Specification

DC Voltage	400m,4,40,400,1000V
AC Voltage	4,40,400,750V
AC/DC Current	400μ,400m,10A
Resistance	400,4K,40K,400K,40MΩ
Frequency	9,99-200kHz
Temperature	-20°C to 1000°C Bead Probe
Capacitance	4,40,400n,4μ,40,100μF
Humidity	20-95% RH
Sound Level	40-100dB
Illuminance	1-40000 Lux
Duty Cycle	0,1-99,9%
Accuracy	
DC Voltage	±0,7% + 2 Digit
AC Voltage	±1,0% + 3 Digit
DC Current	±2,0% + 10 Digit
AC Current	±3,0% + 10 Digit
Resistance	±2,0% + 5 Digit
Frequency	±2,0% + 5 Digit
Temperature	±3,0% + 5 Digit
Capacitance	±3,0% + 3 Digit
Humidity	±5,0% RH
Sound Level (dB)	±3,5% at 94dB
Illuminance	±5,0% + 10 Digit
Duty Cycle	±3,0%

Model Specification

Accessories	Carry Pouch, Temp Probe
Dimensions (mm)	192(L) x 92(W) x 55(H)
Power Source	3 x 1,5AAA Batteries
Weight	400g

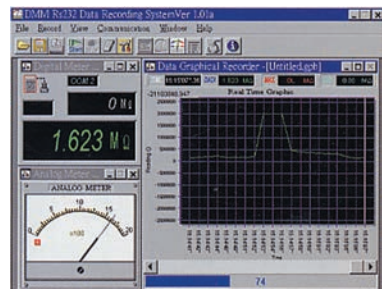


TBU Software

- Optical interface adaptor
- USB Cable and software

Free Software updates available:

www.brymen.com/product-html/software-download/



Cable & Software Specification

Cable & Software (USB PLUG)	DMM
TBU20X	TBM251/252/255/257
TBU86X	TBM811/812/525/829/867/869
	Clamp
TBU13X (Serial and USB Adaptor)	TBM135/157/189
TBRUSB (USB Adaptor)	Fits all TBR RS232 serial plugs



TMULTCSE

Multimeter Carry Pouch

- General purpose
- Dimensions: 250(L) x 150(W) x 60(H)

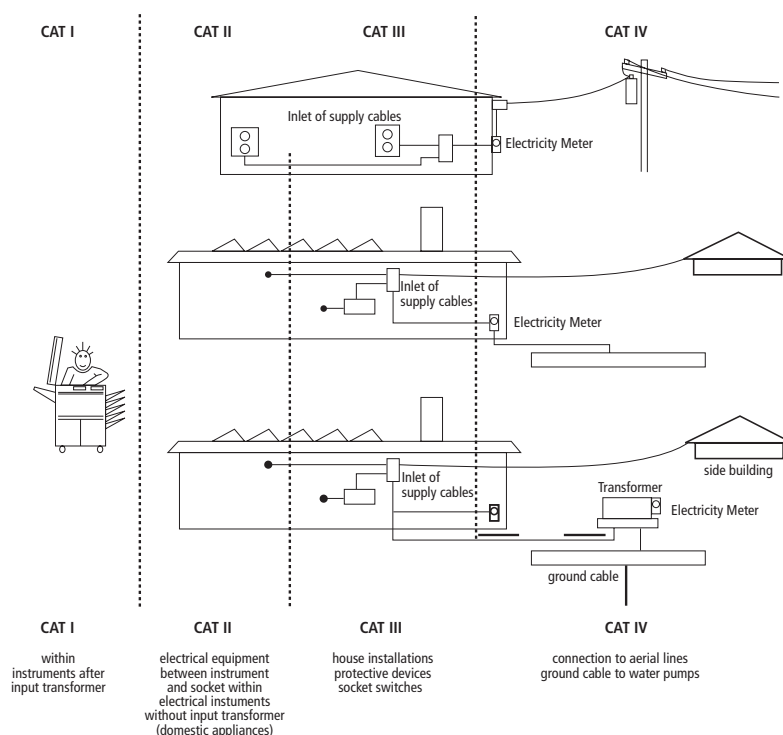


Understanding Measurement Categories:

- CAT IV (Primary supply level)** is for measurements performed at source of low voltage installation. Examples are electricity meters and measurements on primary over-current protection devices and ripple control units.
- CAT III (Distribution level)** is for measurements performed in building installation. Examples are measurements on distribution boards, circuit breakers, bus bars and junction boxes in fixed installations.
- CAT II (Local level)** is for measurements performed on circuits directly connected to the low voltage installation. Examples are measurements on household appliances, portable tools and similar equipment.
- CAT I (Signal level)** is for measurement of electronic equipment.



IEC (International Electrotechnical Commission) is an international safety standard for electrical equipment.



Calibration Certificate:

- Certificate where all the parameters are checked against its specification



Certificate of Conformance:

- Certificate normally issued by the manufacturer that states the instrument meets its specifications

Calibrations available:

SANAS (South African National Accreditation System):

- Full SANAS certificate is a calibration where all the parameters are checked against its specifications
- Partial SANAS certificate is a calibration where some of the parameters are checked against its specifications

Selection Guide

Automotive

FEATURES	T820	T835	T1300H	T235H	T3601	T48	TBM251/252	TBM805	TBM807	T8209	TBM811	TBM812	TBM811EX	TBM812EX	TBM829	TBM525	TBM867	TBM869	TBM319	TBM878
LCD DISPLAY (COUNTS)	1999	1999	1999	1999	1999	1999	6000	4000	4000	3999	6000	6000	6000	6000	6000	10 000	500 000	500 000	6000	6000
LCD DISPLAY (DIGITS)	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 5/6	3 3/4	3 3/4	3 3/4	3 9/10	3 9/10	3 9/10	3 9/10	3 9/10	5 1/5	5 1/5	5 1/5	3 5/6	3 5/6
TRANSISTOR HFE																				
LOGIC																				
MAX. AC VOLTAGE (V)	600	500	500	750	750	750	1000	1000	1000	600	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
MAX. DC VOLTAGE (V)	600	500	500	1000	1000	1000	1000	1000	1000	600	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
MAX AC CURRENT (A)				20	20	20	8	10	10	10	10	10	10	10	10	10	10	10	10	10
MAX DC CURRENT (A)	10	10	10	20	20	20	8	10	10	10	10	10	10	10	10	10	10	10	10	10
FUSED A RANGE																				
MAX RESISTANCE (Ω)	20M	20M	200M	200M	200M	2000M	60M	40M	40M	40M	60M	60M	60M	60M	60M	60M	50M	50M	60M	60M
CONTINUITY BEEPER	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DIODE TEST	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AUTORANGING																				
FREQUENCY (HZ)						10M					1M	1M	1M	1M	1M	1M	1M	1M	1k	5k
CAPACITANCE (F)				200μ	200μ	200μ	TBM252				20m	20m	20m	20m	25m	25m	25m	25m	2000μ	30m
TEMPERATURE (°C)	1000			1000		1000	TBM252									1000			1000	1000
MIN/MAX								MAX	MAX											
DATA HOLD	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
CREST (PEAKHOLD)																				
TRUE RMS				•																
BACKLIT																				
SPLASH AND DUST PROOF																				
TRANSIENT PROOF (KV)											12	12	12	12	12	12	12	12	12	12
RELATIVE REFERENCE																				
BARGRAPH																				
APO (AUTO POWER OFF)																				
FIRE RETARDED CASE																				
USB INTERFACE																				
DATA LOGGER																				
EF DETECT																				
IEC61010 CAT II (V)	600	600	600	1000	1000	1000	1000	1000	1000	600	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
IEC61010 CAT III (V)							600	600	600											
IEC61010 CAT IV (V)							300													
LIFETIME WARRANTY																				
INTRINSICALLY SAFE																				
DUAL DISPLAY																				
PART CODE or mA RATING and DIMENSIONS		250mA 250V 5 x 20mm	250mA 250V 5 x 20mm	250mA 250V 5 x 20mm	250mA 250V 5 x 20mm	250mA 250V 5 x 20mm	630mA 500V 6 x 32mm	6 x 25mm	6 x 25mm		1A 600V 10 x 35mm	1A 600V 10 x 35mm	44mA 1000V 10 x 37mm	44mA 1000V 10 x 37mm	44mA 1000V 10 x 37mm	1A 600V 10 x 35mm	44mA 1000V 10 x 37mm	44mA 1000V 10 x 37mm	630mA 500V 6 x 32mm	630mA 500V 6 x 32mm
PART CODE or A RATING and DIMENSIONS		250mA 250V 5 x 20mm	250mA 250V 5 x 20mm	250mA 250V 5 x 20mm	250mA 250V 5 x 20mm	250mA 250V 5 x 20mm	10A 600V 10 x 37mm	6 x 25mm	6 x 25mm	10A 230V 6 x 31mm	10A 600V 10 x 37mm	10A 600V 10 x 37mm	11A 1000V 10 x 37mm	11A 1000V 10 x 37mm	11A 1000V 10 x 37mm	10A 600V 10 x 37mm	11A 1000V 10 x 37mm	11A 1000V 10 x 37mm	6.3A 500V 10 x 37mm	6.3A 500V 10 x 37mm

TBM3030 600A AC

- Jaw size 26mm
- Large LCD display
- Diode
- Continuity
- Relative zero
- Data hold



3^{-3/4} Digits
4000 Counts

CAT III
300V
IEC61010-1

LISTED
UL

Meter
Supplied With
Certificate of
Conformance

Technical Specification

AC Current	40,600A
DC Voltage	400m,4,40,400,600V
AC Voltage	4,40,400,600V
Resistance	400,4K,40K,400K,4M,40MΩ
Frequency	5Hz to 100KHz
Capacitance	500n,5μ,50μ,500μ,3000μF
Accuracy	
AC Current	±1,9%+ 8 Digit
DC Voltage	±1,0%+ 4 Digit
AC Voltage	4,40,400V ±1,5% + 5 Digit 600V ±2,0% + 5 Digit
Resistance	4K,40K,400KΩ ± 0,6%+4 Digit 4MΩ ± 1,0% + 4 Digit 40MΩ ± 2,0% + 4 Digit
Frequency	± 0,5% + 4 Digit
Capacitance	± 3,5% + 6 Digit

Model Specification

Accessories	Carry Pouch
Dimensions (mm)	190(L) x 63(W) x 32(H)
Power Source	3V CR2032 (TBMBATT)
Weight	187g

TBM126 600A AC Dual Display

- Jaw size 26mm
- Large LCD display
- Diode
- Continuity
- Relative zero
- Data hold



3^{-3/4} Digits
4000 Counts

CAT III
600V
IEC61010-1

LISTED
UL

Meter
Supplied With
Certificate of
Conformance

Technical Specification

AC Current	40,600A
DC Voltage	400m,4,40,400,600V
AC Voltage	4,40,400,600V
Resistance	400,4K,40K,400K,4M,40MΩ
Frequency	5Hz to 100KHz
Temperature	-20°C to 300°C
Capacitance	500n,5μ,50μ,500μ,3000μF
Accuracy	
AC Current	±1,9%+ 8 Digit
DC Voltage	±1,0%+ 4 Digit
AC Voltage	4,40,400V ± 1,5% + 5 Digit 600V ± 2,0% + 5 Digit
Resistance	4K,40K,400KΩ ± 0,6% +4 Digit 4mΩ ± 1,0% + 4 Digit 40mΩ ± 2,0% + 4 Digit
Frequency	±0,5% + 4 Digit
Temperature	±2,0 % + 3°C
Capacitance	±3,5% + 6 Digit

Model Specification

Accessories	Carry Pouch, Temp Probe
Dimensions (mm)	190(L) x 63(W) x 32(H)
Power Source	2 x 3V CR2032 (TBMBATT)
Weight	187g

TBM072 600A AC AmpTip™ Jaws

- Jaw size 30mm
- Amptip™ low current range
- Large LCD display
- Rotary selector switch
- Continuity
- Data hold
- EF Detection



3^{-5/6} Digits
6000 Counts

LISTED
UL

CAT III
600V
IEC61010-1

Meter
Supplied With
Certificate of
Conformance

True
RMS

Technical Specification

AC Current	40,600A
DC Voltage	400m,4,40,400,600V
AC Voltage	4,40,400,600V
Resistance	600,6K,60KΩ
Frequency	5Hz to 100KHz
Accuracy	
AC Current	±1,8%+ 5 Digit
DC Voltage	±1,0%+ 5 Digit
AC Voltage	4,40,400V ± 1,5% + 5 Digit 600V ± 1,2% + 7 Digit
Resistance	4K,40K,400KΩ ± 0,6% +4 Digit 4mΩ ± 1,0% + 4 Digit 40mΩ ± 2,0% + 4 Digit
Frequency	±0,5% + 4 Digit

Model Specification

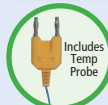
Accessories	Carry Pouch
Dimensions (mm)	223(L) x 76(W) x 37(H)
Power Source	2 x 1.5V AAA
Weight	186g

TBM076 600A AC AmpTip™ Jaws

- Jaw size 30mm
- Amptip™ low current range
- Large LCD display
- Backlit
- 3 Phase rotation for mains
- 3 Phase rotation for motors
- Temperature
- EF Detection
- Rotary selector switch
- Continuity
- Data hold



3^{-5/6} Digits
6000 Counts



CAT III
600V
IEC61010-1

LISTED
UL

Meter
Supplied With
Certificate of
Conformance

True
RMS

Technical Specification

AC Current	40,600A
DC Voltage	400m,4,40,400,600V
AC Voltage	4,40,400,600V
Resistance	600,6K,60KΩ
Frequency	5Hz to 100KHz
Temperature	-40°C to 400°C
Capacitance	200μ,2000μF
Accuracy	
AC Current	±1,8%+ 5 Digit
DC Voltage	±1,0%+ 5 Digit
AC Voltage	4,40,400V ± 1,5% + 5 Digit 600V ± 1,2% + 7 Digit
Resistance	4K,40K,400KΩ ± 0,6% +4 Digit 4mΩ ± 1,0% + 4 Digit 40mΩ ± 2,0% + 4 Digit
Frequency	±0,5% + 4 Digit

Model Specification

Accessories	Carry Pouch, Temp probe
Dimensions (mm)	223(L) x 76(W) x 37(H)
Power Source	2 x 1.5V AAA
Weight	186g

TBM086 1000A AC AmpTip™ Jaws

- Jaw size 51mm
- Amptip™ low current range
- Large LCD display
- Backlit
- 3 Phase rotation for mains
- 3 Phase rotation for motors
- Temperature
- EF Detection
- Rotary selector switch
- Continuity
- Data hold
- Peak RMS 80ms in-rush current



3^{-5/6} Digits
6000 Counts



CAT III
1000V
IEC61010-1

LISTED
UL

Meter
Supplied With
Certificate of
Conformance

True
RMS

Technical Specification

AC Current	60, 600, 1000A
DC Voltage	600, 1000V
AC Voltage	600, 1000V
Resistance	600,6K,60KΩ
Frequency	5Hz to 400KHz
Temperature	-40°C to 400°C
Capacitance	200μ,2000μF
Accuracy	
AC Current	±1,8%+ 5 Digit
DC Voltage	±1,0%+ 5 Digit
AC Voltage	4,40,400V ± 1,5% + 5 Digit 600V ± 1,2% + 7 Digit
Resistance	4K,40K,400KΩ ± 0,6% +4 Digit 4mΩ ± 1,0% + 4 Digit 40mΩ ± 2,0% + 4 Digit
Frequency	±0,5% + 4 Digit

Model Specification

Accessories	Carry Pouch, Temp probe
Dimensions (mm)	258(L) x 94(W) x 44(H)
Power Source	2 x 1.5V AA
Weight	312g

5-IN-1 CLAMP METERS

The new Amptip™ Digital Clamp Meter with more features!



Applies to the following new models: TBM076, TBM086, TBM079 and TBM089

T98 1000A AC

- Jaw size 42mm
- Backlit
- Continuity
- Data hold



Technical Specification

AC Current	20,200,1000A
DC Voltage	1000V
AC Voltage	750V
Resistance	200,2000Ω
Temperature	-40°C to 750°C
Accuracy	
AC Current	±2,0% + 5 Digit
DC Voltage	±1,0% + 2 Digit
AC Voltage	±1,0% + 5 Digit
Resistance	±1,0% + 3 Digit
Temperature	±1,0% + 5 Digit

Model Specification

Accessories	Carry Pouch, Temp Probe
Dimensions (mm)	250(L) x 99(W) x 43(H)
Power Source	9V Battery
Weight	460g

**3 -1/2 Digits
1999 Counts**

**T260D 1000A AC
Combination Clamp**

- Jaw size 60mm
- Diode
- Continuity buzzer



Technical Specification

AC Current	20,200,1000A
AC Voltage	200,750V
DC Voltage	200m,20,200,1000V
Resistance	200,2K,20K,200K,2MΩ
Accuracy	
DC Voltage	±0,5% + 1 Digit
AC Voltage	±1,2% + 10 Digit
AC Current	±2% + 5 Digit
Resistance	±1,0% + 2 Digit

Model Specification

Dimensions (mm)	230(L) x 70(W) x 37(H)
Power Source	9V Battery
Weight	310g

**3 -1/2 Digits
1999 Counts**

**TBM116 1000A AC
Auto Check**

- Jaw size 45mm
- Diode
- Continuity
- Relative zero
- Data hold



**3 -3/4 Digits
4000 Counts**



Meter
Supplied With
Certificate of
Conformance

Technical Specification

AC Current	400,1000A
DC Voltage	400m,4,40,600V
AC Voltage	4,40,400,600V
Resistance	400,4K,40K,400K,40MΩ
Accuracy	
DC Voltage	2% + 4 Digit
AC Voltage	3% + 5 Digit
AC Current	1,5% + 5 Digit
Resistance	1,2% + 4 Digit

Model Specification

Accessories	Carry Pouch
Dimensions (mm)	224(L) x 78(W) x 40(H)
Power Source	2x1.5V AAA Batteries
Weight	220g

**TBM118 2000A AC
Auto Check**

- Jaw size 45mm
- Emf detection
- Diode
- Continuity
- Relative zero
- Data hold



**3 -5/6 Digits
6000 Counts**



Meter
Supplied With
Certificate of
Conformance

Technical Specification

AC Current	400,2000A
DC Voltage	6,60,600V
AC Voltage	6,60,600V
Resistance	6K,60K,600K,6MΩ
Frequency	10 to 50KHz
Capacitance	100n,1000n,10μ,100μ,2000μF
Accuracy	
DC Voltage	2% + 5 Digit
AC Voltage	1,5% + 5 Digit
AC Current	1,5% + 5 Digit
Resistance	1,2% + 4 Digit
Frequency	0,5% + 4 Digit
Capacitance	3,5% + 5 Digit

Model Specification

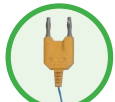
Accessories	Carry Pouch
Dimensions (mm)	224(L) x 78(W) x 40(H)
Power Source	2x1.5V AAA Batteries
Weight	220g

**TBM135 1000A
AC Data Logger**

- Jaw Size 45mm
- Backlight
- 5400 Point logging
- Record function
- Continuity



**3 -5/6 Digits
6000 Counts**



Temp Probe
(TBMTEMPPROBE)



Meter
Supplied With
Certificate of
Conformance

Technical Specification

AC Current	40,400,1000A
DC/AC Voltage	600V
Resistance	999,9Ω
Frequency	5 to 500Hz
Temperature	-50 to 300°C
Thd%-r	0,0%~99,9%
Accuracy	
DC Voltage	0,5% + 5 Digit
AC Voltage	1,5% + 5 Digit
AC Current	2,0% + 5 Digit
Resistance	1,0% + 6 Digit
Frequency	0,5% + 4 Digit
Temperature	2% + 3°C
Thd%-r	Fundamental 1% + 6 Digit 2~3 Harmonics 5% + 6 Digit 4~51 St Harmonics 2%

Model Specification

Optional Accessories	RS232 Cable & Software (TBR13X) See Pg 9 for Adaptor
Accessories	Carry Pouch, Type-K Thermocouple
Dimensions (mm)	224(L) x 78(W) x 40(H)
Power Source	2x1.5V AAA Batteries
Weight	224g

T77N AC Earth Leakage

- Jaw Size 40mm
- High accuracy with no interference
- Data hold • Auto power off
- Low pass filter with high stability
- Autorange • Bargraph
- Auto backlit sensor
- Frequency compare function



Technical Specification

AC Current	0.01mA,6mA,60A,100A
Accuracy	
AC Current	6mA ±1,0% rdg + 8 Digit 60A ±1,0% rdg + 8 Digit 100A ±2,0% rdg + 10 Digit

Model Specification

Dimensions (mm)	200(L) x 70(W) x 40(H)
Power Source	2 x 1.5V AAA Batteries
Weight	265g

**4 Digits
6000 Counts**

TF3000 3000A AC

- Jaw size 110mm
- Flexible jaw (254mm length)
- Sample rate (4 times / second)
- Backlit
- Data hold



CAT III
1000V
IEC61010-1



Technical Specification	
AC Current	1A,30A,300A,3000A
Accuracy	
AC Current	30A ± 3 % + 5 Digit
Resolution	0,01A
AC Current	300A ± 3 % + 5 Digit
Resolution	0,1A
AC Current	3000A ± 3 % + 5 Digit
Resolution	1A

Model Specification	
Accessories	Carry Pouch
Dimensions (mm)	280(L) x 120(W) x 25(H)
Power Source	2 x 1.5V AAA Batteries
Weight	170g

T223 100A AC/DC Automotive

- Jaw size 12.5mm
- Concurrent reading
- Resistance
- Continuity



Technical Specification	
AC/DC Current	1mA,10mA,10A,100A
AC/DC Voltage	0,1V, 600V
Resistance	1, 10kΩ
Accuracy	
AC/DC Current	± 2 % + 10 Digit
AC/DC Voltage	± 1,5 % + 5 Digit
Resistance	± 1 % + 3 Digit
Protection	
AC/DC Voltage	660Vrms
AC/DC Current	150A Rms

Model Specification	
Accessories	Carry Pouch
Dimensions (mm)	202(L) x 70(W) x 34(H)
Power Source	2 x 1.5V AA Batteries
Weight	180g

TBM061 400A AC/DC

- Jaw size 30mm
- Diode
- Continuity
- Relative zero
- Auto power off



3 ⁻³/₄ Digits
4000 Counts

CAT III
600V
IEC61010-1



Meter
Supplied With
Certificate of
Conformance

Technical Specification	
AC/DC Current	0,01,400A
DC Voltage	400m,4,40,400,600V
AC Voltage	4,40,400,600V
Resistance	400,4K,40K,400K,4M,40MΩ
Frequency	1KHz to 100KHz
Capacitance	500n,5μ,50μ,500μ,3000μF
Accuracy	
AC/DC Current	±2,5% + 5 Digit
DC Voltage	±1,0% + 4 Digit
AC Voltage	4,40,400V ±1,0% + 4 Digit 600V ±2,0% + 4 Digit
Resistance	4K,40K,400KΩ ± 0,6%+4 Digit 4MΩ ± 1,0% + 4 Digit 40MΩ ± 2,0% + 4 Digit
Frequency	± 2,0% + 4 Digit
Capacitance	± 3,5% + 6 Digit

Model Specification	
Accessories	Carry Pouch
Dimensions (mm)	188(L) x 63(W) x 40(H)
Power Source	2 x AAA Batteries
Weight	218g

TBM062 400A AC/DC

- Jaw size 30mm
- Diode
- Continuity
- Relative zero
- Auto power off
- Backlit



3 ⁻³/₄ Digits
4000 Counts

CAT III
600V
IEC61010-1



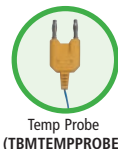
Meter
Supplied With
Certificate of
Conformance

Technical Specification	
AC/DC Current	0,01,400A
DC Voltage	400m,4,40,400,600V
AC Voltage	4,40,400,600V
Resistance	400,4K,40K,400K,4M,40MΩ
Frequency	1KHz to 100KHz
Capacitance	500n,5μ,50μ,500μ,3000μF
Accuracy	
AC/DC Current	±2,5% + 5 Digit
DC Voltage	±1,0% + 4 Digit
AC Voltage	4,40,400V ±1,0% + 4 Digit 600V ±2,0% + 4 Digit
Resistance	4K,40K,400KΩ ± 0,6%+4 Digit 4MΩ ± 1,0% + 4 Digit 40MΩ ± 2,0% + 4 Digit
Frequency	± 2,0% + 4 Digit
Capacitance	± 3,5% + 6 Digit

Model Specification	
Accessories	Carry Pouch
Dimensions (mm)	188(L) x 63(W) x 40(H)
Power Source	2 x AAA Batteries
Weight	218g

TBM189 600A AC/DC

- Jaw size 30mm
- Variable frequency drives
- Ghost voltage detection
- Dual display
- In-Rush crest
- EF Detection



3 ⁻¹/₂ Digits
1900 Counts

CAT III
600V
IEC61010-1

Meter
Supplied With
Certificate of
Conformance

Technical Specification	
AC/DC Current	60, 600A
AC Voltage	600V
DC Voltage	600V
Resistance	600,6K,60K,6M,40MΩ
Frequency	10Hz to 400Hz
Temperature	-50°C to 1000°C
Capacitance	60n,600n,60μ,2000μF
Accuracy	
AC/DC Current	± 1.5 % + 6 Digit
AC Voltage	± 1.2 % + 5 Digit
DC Voltage	± 0.5 % + 5 Digit
Resistance	± 0.5 % + 5 Digit
Low Pass Filter	± 3.5 % + 80 Digit
Temperature	± 0.3 % + 4 Digit
Capacitance	± 2 % + 5 Digit

Model Specification	
Accessories	Carry Pouch
Dimensions (mm)	190(L) x 63(W) x 32(H)
Power Source	2 x 1.5V AAA Batteries
Weight	227g

TBM079 600A AC/DC AmpTip™ Jaws

- Jaw size 35mm • AmpTip™ low current range
- Large LCD display • Backlit
- 3 Phase rotation for mains
- 3 Phase rotation for motors
- Temperature • EF Detection
- Rotary selector switch
- Continuity • Data hold



3 ⁻⁵/₆ Digits
6000 Counts



CAT III
600V
IEC61010-1



Meter
Supplied With
Certificate of
Conformance

Technical Specification	
AC/DC Current	40,600A
DC Voltage	400m,4,40,400,600V
AC Voltage	4,40,400,600V
Resistance	600,6K,60KΩ
Frequency	50Hz to 400Hz
Temperature	-40°C to 400°C
Capacitance	200μ,2500μF
Accuracy	
AC Current	±1,8% + 5 Digit
DC Voltage	±1,0% + 5 Digit
AC Voltage	4,40,400V ± 1,5% + 5 Digit 600V ± 1,2% + 7 Digit
Resistance	4K,40K,400KΩ ± 0,6% + 4 Digit 4mΩ ± 1,0% + 4 Digit 40mΩ ± 2,0% + 4 Digit
Frequency	±0,5% + 4 Digit

Model Specification	
Accessories	Carry Pouch, Temp probe
Dimensions (mm)	223(L) x 76(W) x 37(H)
Power Source	2 x 1.5V AAA
Weight	234g

T8056 1000A AC/DC

- Jaw Size 42mm
- Duty cycle
- Diode
- Continuity
- Auto power off
- Relative zero
- Data hold



Technical Specification

AC/DC Current	400,1000A
DC Voltage	400m,4,40,400,1000V
AC Voltage	4,40,400,700V
Resistance	400,4K,40K,400K,4m,40MΩ
Frequency	40,400,4k,40k,100KHz
Temperature	-40°C to 750°C
Capacitance	4n,40n,400n,4μ,40μF
Accuracy	
DC Current	±3,0% + 3 Digit
AC Current	±3,0% + 3 Digit
DC Voltage	±0,8% + 3 Digit
AC Voltage	±1,0% + 10 Digit
Resistance	±2,0% + 3 Digit
Frequency	±2,0% + 1 Digit
Temperature	±1,0% + 6 Digit
Capacitance	±4,0% + 10 Digit

Model Specification

Accessories	Carry Case & Temp Probe
Dimensions (mm)	250(L) x 99(W) x 43(H)
Power Source	9V Battery
Weight	480g



**3 ⁻¹/₂ Digits
3999 Counts**

TBM162 1000A AC/DC

- Jaw Size 50mm
- Large display
- Max hold
- Continuity
- Diode
- Backlit



Technical Specification

AC/DC Current	1,400,800,1000A
AC Voltage	600V
DC Voltage	600V
Resistance	400,4K,4M,40MΩ
Capacitance	500n,5μ,50μ,500μ,3000μF
Accuracy	
AC/DC Current	± 2 % + 5 Digit
AC Voltage	± 1.5 % + 4 Digit
DC Voltage	± 0.5 % + 3 Digit
Resistance	± 1.0 % + 4 Digit
Capacitance	± 3.5 % + 6 Digit

Model Specification

Accessories	Carry Pouch
Dimensions (mm)	227(L) x 78(W) x 40(H)
Power Source	2 x 1.5V AAA Batteries
Weight	290g



**3 ⁻³/₄ Digits
4000 Counts**

TBM089 1000A AC/DC AmpTip™ Jaws

- Jaw size 51mm • Amptip™ low current range
- Large LCD display • Backlit
- 3 Phase rotation for mains
- 3 Phase rotation for motors
- Temperature • EF Detection
- Rotary selector switch
- Continuity • Data hold
- Clamp light for dim areas
- Peak RMS 80ms in-rush current



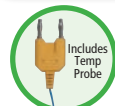
Technical Specification

AC/DC Current	60, 600, 1000A
DC Voltage	600, 1000V
AC Voltage	600, 1000V
Resistance	600,6K,60KΩ
Frequency	5Hz to 400KHz
Temperature	-40°C to 400°C
Capacitance	200μ,2000μF
Accuracy	
AC Current	±1,8%+ 5 Digit
DC Voltage	±1,0%+ 5 Digit
AC Voltage	4,40,400V ± 1,5% + 5 Digit 600V ± 1,2% + 7 Digit
Resistance	4K,40K,400KΩ ± 0,6% +4 Digit 4mΩ ± 1,0% + 4 Digit 40mΩ ± 2,0% + 4 Digit
Frequency	±0,5% + 4 Digit

Model Specification

Accessories	Carry Pouch, Temp probe
Dimensions (mm)	258(L) x 94(W) x 44(H)
Power Source	2 x 1.5V AA
Weight	392g

**3 ⁻⁵/₆ Digits
6000 Counts**



T2608 2000A DC/ 1500A AC

- Jaw Size 57mm
- Min/Max
- Data hold / Peak hold
- Bargraph
- Auto power off
- Diode
- Continuity



Technical Specification

DC Current	400,2000A
AC Current	400,1500A
AC Voltage	400m,4,40,400,750V
DC Voltage	400m,4,40,400,1000V
Resistance	400,4k,40k,400k,4m, 40MΩ
Capacitance	4n,40n,400n,4μ,40μF
Frequency	10,1K,10K,100K,400KHz
Accuracy	
AC/DC Current	±1.5% rdg + 5 Digit
AC Voltage	±1.5% rdg + 4 Digit
DC Voltage	±0.5% rdg + 1 Digit
Resistance	±1.0% rdg + 4 Digit
Frequency	±0.1% rdg + 4 Digit
Capacitance	±1.0% rdg + 4 Digit

Model Specification

Dimensions (mm)	277(L) x 102(W) x 49(H)
Power Source	9V Battery
Weight	540g



**3 ⁻³/₄ Digits
4000 Counts**

TBM195 2000A AC/DC (CAT IV)

- Jaw Size 55mm
- Large display
- Dual display
- Non contact EF detection
- VFD (Variable frequency drives)
- Relative zero
- Autocheck
- Diode

Technical Specification	
AC/DC Current	100, 200, 500, 1000, 2000A
AC Voltage	6, 60, 600, 1000V
DC Voltage	6, 60, 600, 1000V
Resistance	600, 6K, 60K, 6M, 40MΩ
Capacitance	60n, 6μ, 60μ, 600μ, 2000μF
Accuracy	
AC/DC Current	± 2 % + 5 Digit
AC Voltage	± 1.2 % + 5 Digit
DC Voltage	± 0.5 % + 5 Digit
Resistance	± 0.5 % + 5 Digit
Capacitance	± 2.0 % + 5 Digit

Model Specification	
Accessories	Carry Pouch
Dimensions (mm)	264(L) x 97(W) x 43(H)
Power Source	2 x 1.5V AAA Batteries
Weight	608g



CAT IV 1000V IEC61010-1

Meter Supplied With Certificate of Conformance

3 ⁵/₆ Digits 6000 Counts

TBM197 2000A AC/DC (CAT IV)

- Jaw Size 55mm
- Large display
- Backlit
- Dual display
- Non contact EF detection
- VFD (Variable frequency drives)
- Relative zero
- Autocheck
- Diode



AC/DC Current	100, 200, 500, 1000, 2000A
AC Voltage	6, 60, 600, 1000V
DC Voltage	6, 60, 600, 1000V
Resistance	600, 6K, 60K, 6M, 40MΩ
Capacitance	60n, 6μ, 60μ, 600μ, 2000μF
Temperature	-50°C to 1000°C
Accuracy	
AC/DC Current	± 2 % + 5 Digit
AC Voltage	± 1.4 % + 7 Digit
DC Voltage	± 1.4 % + 7 Digit
Resistance	± 0.5 % + 5 Digit
Capacitance	± 2.0 % + 5 Digit
Temperature	± 0.3 % + 4 Digit

Model Specification	
Accessories	Carry Pouch
Dimensions (mm)	264(L) x 97(W) x 43(H)
Power Source	2 x 1.5V AAA Batteries
Weight	608g



CAT IV 1000V IEC61010-1

Meter Supplied With Certificate of Conformance

3 ⁵/₆ Digits 6000 Counts

Includes Temp Probe

TBM157 3 Phase Power Clamp 1000A AC

- Jaw Size 45 mm
- Total power factor
- Thd%-F (Total harmonic distortion)
- Peak hold
- RS232
- 3 Phase unbalanced load
- Backlit



Technical Specification	
AC Current	40, 400, 1000A
DC Voltage	600V
AC Voltage	600V
Resistance	999, 9Ω
Frequency	5 ~ 500Hz
Thd%-f	0, 0% ~ 999, 9%
Power	0, 00 ~ 600kVA 0, 00 ~ 600kW 0, 00 ~ 600kVAR
Accuracy	
DC Voltage	0, 5% + 5 Digit
AC Voltage	1, 5% + 5 Digit
AC Current	2, 2% + 5 Digit
Resistance	1, 0% + 6 Digit
Frequency	0, 5% + 4 Digit
Thd%-f	Fundamental 1, 5% + 6 Digit 2-3 Harmonics 7% + 6 Digit 4-51 Harmonics 2% + 6 Digit
Power Kva	0, 99-0, 01 F-10th 2, 0% + 6 Digit 11-50th 3, 5% + 6 Digit 51th 4, 5% + 6 Digit
Power Kw +Kvar Range	PF 0, 99-0, 70 F-10th 2, 0% + 6 Digit 11-50th 3, 5% + 6 Digit 51th 5, 5% + 6 Digit
	PF 0, 70-0, 50 F-10th 3, 0% + 6 Digit 11-50th 3, 5% + 6 Digit 51th 5, 5% + 6 Digit
	PF 0, 50-0, 30 F-10th 3, 5% + 6 Digit 11-50th 3, 5% + 6 Digit 51th 5, 5% + 6 Digit
	PF 0, 30-0, 01 F-10th 10% + 6 Digit 11-50th 10% + 6 Digit 51th 12% + 6 Digit
Power Factor	0, 01 ~ 0, 99 F-21st 3 Digits 22-51st 5 Digits

Model Specification	
Optional Accessories	RS232 Cable & Software (TBR13X) See Pg 9 for USB Adaptor
Accessories	Carry Pouch
Dimensions (mm)	224(L) x 78(W) x 40(H)
Power Source	2x1.5V AAA Batteries
Weight	224g



3 ⁵/₆ Digits 6000 Counts



Meter Supplied With Certificate of Conformance

T2000 Earth Resistance Clamp

- Jaw Size 32mm • 99 Memory locations
- Resistance measurement on earth probes by means of ground loop method
- Direct measurement on earth probes without any cable breaking
- Measurement of leakage current on earth installations
- Setting of alarm thresholds on measurements
- Storage of measurement results
- Detection of current noise on measurements
- Data HOLD function • Backlit • Auto power off

Technical Specification		
Resistance	0.01Ω-0.999Ω	±(1,0%+0.01Ω) 0.001Ω
	0.10Ω-0.99Ω	±(1,0%+0.01) 0.01Ω
	1Ω-49.9Ω	±(1,5%+0.1Ω) 0.1Ω
	50.0Ω-99.9Ω	±(2,0%+0.3Ω) 0.5Ω
	100Ω-199.9Ω	±(3,0%+1Ω) 1Ω
	200Ω-395Ω	±(6,0%+5Ω) 5Ω
	400Ω-590Ω	±(10%+10Ω) 10Ω
600Ω-1000Ω	±(20%+20Ω) 20Ω	
Current	0.00A-80mA	±(2,5%+1mA) 0.05mA
	80-650mA	±(2,5%+2mA) 0.5mA
	650-999.5mA	±(2,5%+0.003A) 1.5A
	1.000-3.995mA	±(2,5%+0.01A) 0.005A
	4.00-20.00mA	±(2,5%+0.05A) 0.01A

Model Specification	
Dimensions (mm)	293(L) x 90(W) x 66(H)
Accessories	Resistive test loop, carry case
Weight	1320g



Meter Supplied With Calibration Certificate



Earth Resistance Testers

T1805 Analogue Tester

- Large display
- Taut band movement
- 2 & 3 Wire tester

NEW ROBUST DESIGN



CAT III
300V
IEC61010-1

Meter
Supplied With
Certificate of
Conformance

Technical Specification

Measuring Ranges	Resistance: 10, 100, 1,000Ω
Earth Voltage	30V AC (5KΩ/V)
Measuring System	Resistance: (Constant current inverter 820Hz approx, 2mA) Voltage: rectifier type 0 - 30 VAC, 40~500 Hz
Withstand Voltage	1,500V AC (one minute)
Accuracy	
Resistance	±2.5% of full scale
Voltage	±1% of full scale

Model Specification

Accessories	Test Leads, Earth Spikes Carry Strap
Dimensions (mm)	170(L) x 165(W) x 92(H)
Power Source	8 x 1.5V AA Batteries
Weight	1000g

Test Lead Lengths

Red -	1 Meter & 15 Meters
Yellow -	10 Meters
Green -	5 Meters

T1105 Analogue Tester

- Safety voltage protection
- Compact design

COMPACT DESIGN



Meter
Supplied With
Certificate of
Conformance

Model Specification

Accessories	Test Leads, Earth Spikes Shoulder Belt
Dimensions (mm)	175(L) x 85(W) x 75(H)
Power Source	8 x 1.5V AA Batteries
Weight	600g

Test Lead Lengths

Red -	1 meter & 15 meters
Yellow -	10 Meters
Green -	5 Meters

Technical Specification

Measuring Ranges	Resistance: 0-12Ω, 0-120Ω, 0-1200Ω
Earth Voltage	30V AC (5KΩ/V)
Measuring System	Earth resistance by Constant current inverter 820Hz approx, 2mA square signal
Accuracy	
Resistance	±3% of full scale
Voltage	±2.5% of full scale

T1820 Digital Tester

- Earth voltage detection
- 2mA measuring current permits earth resistance to test without tripping earth leakage
- Auto off
- Data hold
- 2 & 3 Wire Testing
- Battery test indication

NEW ROBUST DESIGN

3 1/2 Digits
2000 Counts



CAT III
300V
IEC61010-1

Meter
Supplied With
Certificate of
Conformance

Technical Specification

Measuring Ranges	Resistance: 20, 200, 2kΩ
Earth Voltage	200V AC (40 - 500Hz)
Measuring System	Earth resistance by constant current inverter, 820Hz, 2mA Approx
Over voltage indication	1 (MSD)
Accuracy	
Resistance	±2% rdg + 2 Digit
Voltage	±1% rdg + 2 Digit

Model Specification

Accessories	Test Leads, Earth Spikes Carry Strap
Dimensions (mm)	170(L) x 165(W) x 92(H)
Power Source	8 x 1.5V AA Batteries
Weight	1040g

Test Lead Lengths

Red -	1 Meter & 15 Meters
Yellow -	10 Meters
Green -	5 Meters

T1120 Digital Tester

- Safety voltage protection
- Compact design

COMPACT DESIGN



CAT III
300V
IEC61010-1

Meter
Supplied With
Certificate of
Conformance

Model Specification

Accessories	Test Leads, Earth Spikes Shoulder Belt
Dimensions (mm)	175(L) x 85(W) x 75(H)
Power Source	8 x 1.5V AA Batteries
Weight	585g

Test Lead Lengths

Red -	1 meter & 15 meters
Yellow -	10 meters
Green -	5 meters

Technical Specification

Measuring Ranges	Resistance: 20Ω, 200Ω, 2KΩ
Earth Voltage	0-200V AC
Measuring System	Earth resistance by Constant current inverter 820Hz approx, 2mA square signal
Accuracy	
Resistance	±2.0 % + 2 Digit
Voltage	±1.0 % + 2 Digit

T416 Earth Resistance and Resistivity

- 350 Memory locations
- RS232 interface
- Resistivity

GEOTEST T416 can carry out two and three wire earth resistance measurements, as well as ground resistivity measurements on which the ground quality evaluation is based. This instrument permits the user to check both earth resistance of electrical installations and ground resistivity normally used when designing the earth installation.

Use

The T416 can be employed both in TT and TN systems for earth resistance measurement of installations as well as resistance of external masses. It can be used to determine the ground resistivity value which is an essential parameter for the designing of an earth installation.

Functions

- Two wire earth resistance measurements (**2 WIRES**).
- Three wire earth resistance measurements (**3 WIRES**).
- Calculation of earth resistance average value with both two and three wires (**R_{AVG}**).
- Calculation of resistivity average value (**ρ_{AVG}**).



Optional Accessories:
TOPVIEW2006 - C2006
 USB Cable and Software



Technical Specification

Earth Resistance Measurement			
Range Re (Ω)	0.0 - 19.99	20.0 - 199.9	200 - 1999
Resolution (Ω)	0.01	0.1	1
Accuracy	± (2% Reading + 3 digits)		
Measuring Frequency	125Hz / 75Hz / 41.66Hz ± 1Hz		
Test Current	≤ 10mA		
Open Circuit Voltage	≤ 30V		
Wave form of test voltage	Sinusoidal		

GROUND RESISTIVITY Measurement			
Range p	0.6 - 19.99Ωm	0.125 - 1.256kΩm	1.25 - 19.99kΩm
Resolution	0.1Ωm	0.001kΩm	0.01kΩm
Accuracy	± (2% Reading + 3 digits)		
Measuring Frequency	125Hz / 75Hz / 41.66Hz ± 1Hz		
Test Current	≤ 10mA		
Open Circuit Voltage	≤ 30V		
Wave form of test voltage	Sinusoidal		

Measurement of DISTURBANCE voltage	
Range (V)	500
Resolution (V)	1
Accuracy	± (2% Reading + 3 digits)

Model Specification

Optional Accessories	Software & USB cable (TOPVIEW)
Standard Accessories	Cables & 4 rods Carry case English instruction manual Calibration certificate ISO9000
Dimensions (mm)	225(L) x 165(W) x 58(H)
Power Source	6 x 1,5 AA Batteries
Weight	800g

Test Leads Lengths

Blue -	26 Meters
Red -	13 Meters
Green -	6 Meters
Black -	6 Meters

T1800 1000V Analogue

- Heavy duty carry case
- Analogue display
- Taut band movement
- Auto discharge
- Colour coded scale
- Live circuit indication
- AC Voltage measurement

NEW ROBUST DESIGN



Technical Specification	
Test Voltages and measuring range	250V 0-100MΩ 500V 0-200MΩ 1000V 0-400MΩ
Short circuit terminal current	145mA DC Approx
Output Voltage on open circuit	Rated test voltage + 10%
Short Circuit Current (Max)	2mA DC
Continuity Range	0 - 50Ω
Open circuit terminal voltage	445mV DC Approx
Voltage Measurement	0 - 500 VAC
Accuracy	
Voltage	± 2% of scale length
Insulation	± 5% of Indicated value

Model Specification	
Dimensions (mm)	170(L) x 165(W) x 92(H)
Power Source	8 x 1.5V AA Batteries
Weight	1000g



T1832 1000V Analogue

- Taut band movement
- Live circuit indication
- 200mA continuity short circuit current
- Auto discharge
- AC voltage measurement
- Rugged construction
- Nulling of test leads
- Continuity buzzer
- Mirror scale

NEW ROBUST DESIGN



Technical Specification	
Test Voltages and measuring range	250V 0-100MΩ 500V 0-200MΩ 1000V 0-400MΩ
Short circuit terminal current	210mA DC Approx
Output Voltage on open circuit	Rated test voltage + 10%
Short Circuit Current (Max)	1.3mA
Continuity Range	3Ω - 500Ω
Open circuit terminal voltage	445mV DC Approx
Voltage Measurement	0 - 500 VAC
Accuracy	
Voltage	± 3% of scale length
Insulation	± 5% of Indicated value

Model Specification	
Dimensions (mm)	170(L) x 165(W) x 92(H)
Power Source	8 x 1.5V AA Batteries
Weight	1030g



T1132 1000V Analogue

- Safety voltmeter protection
- Live circuit indication
- Auto discharge
- AC voltage measurement
- Zero adjustment knob

COMPACT DESIGN



Technical Specification	
Insulation Test Voltage	250,500,1000V
Insulation Resistance	250V (100MΩ) 500V (200MΩ) 1000V (400MΩ)
AC Voltage	0 to 600V
Ohm meter	3 to 500Ω
Test Current	205mA

Model Specification	
Dimensions (mm)	175(L) x 85(W) x 75(H)
Power Source	8 x 1.5V AA Batteries
Weight	655g



T1851 1000V Digital

- Continuity buzzer
- Live circuit warning
- 210mA continuity short circuit current
- AC voltage measurement
- Auto power off
- Large display
- Auto discharge
- Live circuit indication

NEW ROBUST DESIGN

**3 -1/2 Digits
2000 Counts**



Technical Specification	
Test Voltages and measuring range	250V 0-200MΩ 500V 0-200MΩ 1000V 0-2000MΩ
Short circuit terminal current	210mA DC Approx
Output Voltage on open circuit	Rated test voltage + 10%
Short Circuit Current (Max)	1mA
Continuity Range	0-2kΩ
Open circuit terminal voltage	4V DC Approx
Voltage Measurement	0 - 500 VAC
Accuracy	
Voltage	± 1.5 % + 3 Digit
Insulation	± 1.5 % + 5 Digit

Model Specification	
Dimensions (mm)	170(L) x 165(W) x 92(H)
Power Source	8 x 1.5V AA Batteries
Weight	1040g



T1151 1000V Digital Insulation Tester

- Safety voltmeter protection
- Live circuit indication
- Auto discharge
- AC voltage measurement

Meter
Supplied With
Certificate of
Conformance

COMPACT
DESIGN



Technical Specification	
Insulation Test Voltage	250,500,1000V
Insulation Resistance	250V (2k-2GΩ) 500V (4k-4GΩ) 1000V (8k-8GΩ)
AC Voltage	0 to 700V
Ohm meter	0,01 to 1999Ω
Test Current	>SH220mA

Model Specification	
Dimensions (mm)	175(L) x 85(W) x 75(H)
Power Source	8 x 1.5V AA Batteries
Weight	655g

T1151OLED 1000V Digital Insulation Tester

NEW

- OLED Display (Organic light-emitting diode)
- Safety voltmeter protection
- Live circuit indication
- Auto discharge
- AC voltage measurement

Meter
Supplied With
Certificate of
Conformance

COMPACT
DESIGN



OLED Display is
visible without a
backlit

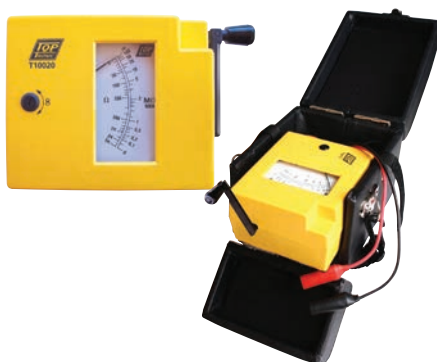


Technical Specification	
Insulation Test Voltage	250,500,1000V
Insulation Resistance	250V (2k-2GΩ) 500V (4k-4GΩ) 1000V (8k-8GΩ)
AC Voltage	0 to 700V
Ohm meter	0,01 to 1999Ω
Test Current	>SH220mA

Model Specification	
Dimensions (mm)	175(L) x 85(W) x 75(H)
Power Source	8 x 1.5V AA Batteries
Weight	655g

T10020C 1000V Hand Crank

- Sturdy movement suitable for stringent fieldwork
- Built-in discharge facility for operator safety
- Accurate & stable reading using knife-edge pointer
- Improved AC brushless generator
- Dust protected terminals



Technical Specification	
Rated Voltage	1000V
Rated Resistance	200mΩ
Continuity Range	0-50kΩ
Accuracy	± 5 % Over First Effective Range ± 10 % Over 2nd Effective Range

Model Specification	
Accessories	Case, leads
Dimensions (mm)	145(L) x 110(W) x 70(H)
Weight	650g

T5010C 500V Hand Crank

- Sturdy movement suitable for stringent fieldwork
- Built-in discharge facility for operator safety
- Accurate & stable reading using knife-edge pointer
- Improved AC brushless generator
- Dust protected terminals



Technical Specification	
Rated Voltage	500V
Rated Resistance	100mΩ
Continuity Range	0-5kΩ
Accuracy	± 5% Over First Effective Range ± 10% Over 2nd Effective Range

Model Specification	
Accessories	Case, leads
Dimensions (mm)	145(L) x 110(W) x 70(H)
Weight	650g

T5050C 5000V Hand Crank

- Cross coil movement suitable for stringent fieldwork
- Built-in discharge facility for operator safety
- Accurate & stable reading using knife-edge pointer
- Improved AC brushless generator
- Guard terminal to minimise effect of surface leakage current



Technical Specification	
Test Voltage	5000V
Insulation Resistance	5000mΩ
Accuracy	± 5 % Over First Effective Range ± 10 % Over 2nd Effective Range

Model Specification	
Accessories	Case, leads
Dimensions (mm)	178(L) x 122(W) x 126(H)
Weight	2kgs

TIN4D 5KV

- Four insulation test voltages (500V-5000V)
- Insulation resistance, auto ranging on all ranges
- Bargraph indicates test voltage, decay can be observed during discharge
- Measures insulation test time
- Displays warning of external voltage
- Fully protected crow bar
- Housed in heavy duty carry case
- Insulation time interval test up to 99 sec selectable

Meter Supplied With Certificate of Conformance

Technical Specification

Insulation Test Voltage	500	1000	2500	5000V
Insulation Resistance	0-30GΩ	0-60GΩ	0-125GΩ	0-250GΩ
Accuracy	±3% reading + 2 digit			
Output Current Limit	50µA to 100µA			
Live Warning	>500 Volts			
Operating Temp (°C)	0-40			
Humidity %	85			

Model Specification

Dimensions (mm)	330(L) x 260(W) x 150(H)
Power Source	6 x 1.5V C Batteries
Weight	1,8kg



TIN5D 10KV

- Four insulation test voltages (1000-10000V)
- Insulation resistance, auto ranging on all ranges
- Bargraph indicates test voltage, decay can be observed during discharge
- Measures insulation test time
- Displays warning of external voltage
- Fully protected crow bar
- Housed in heavy duty carry case
- Insulation time interval test up to 99 sec selectable

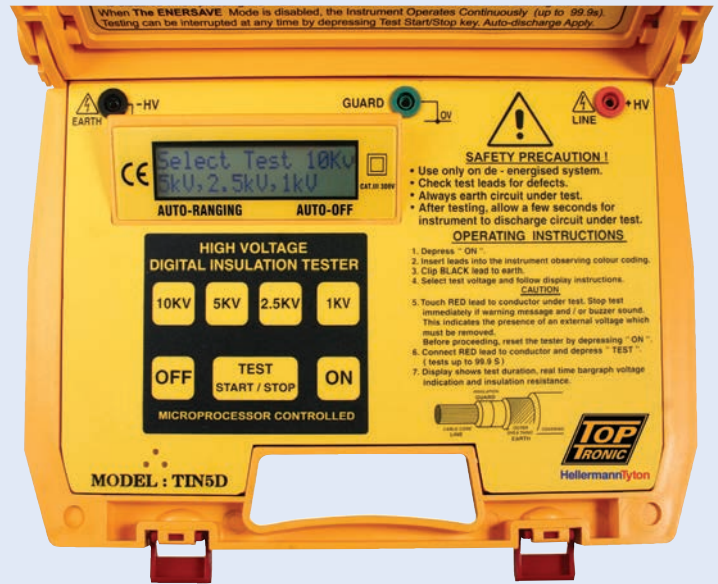
Meter Supplied With Certificate of Conformance

Technical Specification

Insulation Test Voltage	1000V	2500V	5000V	10000V
Insulation Resistance	0-60GΩ	0-125GΩ	0-250GΩ	0-500GΩ
Accuracy	±3% reading + 2 digit			
Output Current Limit	50µA to 100µA			
Live Warning	>500 volts			
Operating Temp (°C)	0-40			
Humidity %	85			

Model Specification

Dimensions (mm)	330(L) x 260(W) x 150(H)
Power Source	6 x 1.5V C Batteries
Weight	1,8kg



TIN6D 10KV

- 20 Insulation test voltages (500V - 10kV)
- Heavy duty carry case
- Silicone test leads
- Anti skid/vibration absorbing enclosure
- Live circuit warning
- Auto discharge
- Insulation time interval test up to 99 sec selectable

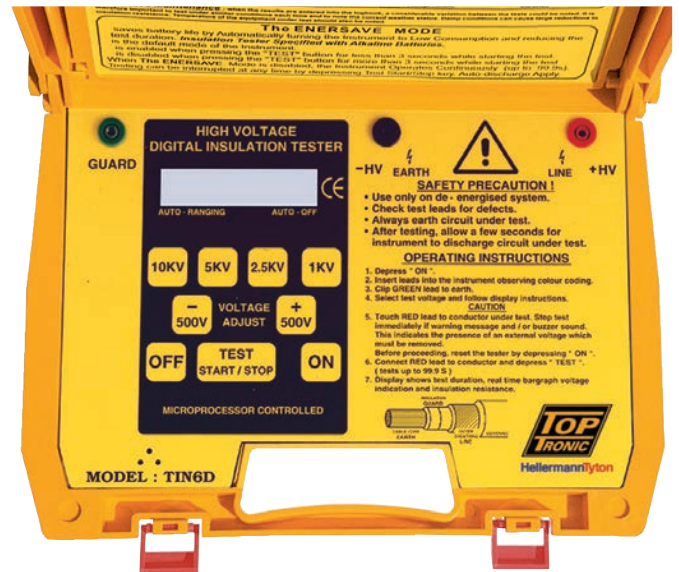
Meter Supplied With Certificate of Conformance

Technical Specification

Test voltages	500V, 10kV (500V increments)
Measuring Range	0-250GΩ, 800k to 500gΩ
Output Power Limit	5W
Short Circuit Current (MAX)	1.25mA
Accuracy	
Insulation Accuracy	± 5% + 1 Digit

Model Specification

Dimensions (mm)	330(L) x 260(W) x 150(H)
Power Source	8 x 1.5V C Batteries
Weight	3,6kg



TIN7D 10kV

- 20 Insulation test voltages (500V - 10kV)
- Heavy duty carry case
- Polarisation index*
- Dielectric absorption ratio*
- Live circuit warning
- Auto discharge
- 10min timer
- Insulation time interval test up to 99 sec selectable

*Polarisation and dielectric ratio are useful to schedule maintenance. The user can keep record of the PI and DAR results and analyse these over time. Maintenance can be done according to analysis and down time can be scheduled thus saving production time.



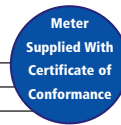
Technical Specification		Model Specification	
Test Voltages	500V, 10kV (500V increments)	Dimensions (mm)	330(L) x 260(W) x 150(H)
Measuring Range	0-250GΩ, 800k to 600GΩ	Power Source	8 x 1.5V C Batteries
Output Power Limit	1W	Weight	3,6kg
Short Circuit Current (MAX)	1.25mA		
Dielectric Absorption Ratio	R @ 1 min		
Polarisation Index	R @ 10 min		
Accuracy	± 5% + 1 Digit		
Insulation Accuracy	± 5% + 1 Digit		



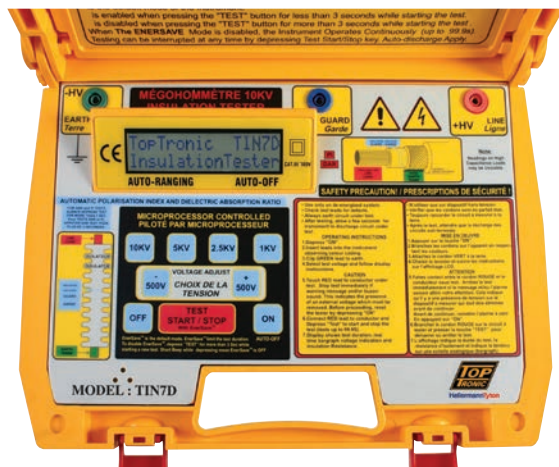
TIN7DOLED 10kV

- OLED Display (Organic light-emitting diode)
- 20 Insulation test voltages (500V - 10kV)
- Heavy duty carry case
- Polarisation index*
- Dielectric absorption ratio*
- Live circuit warning
- Auto discharge • 10min timer
- Insulation time interval test up to 99 sec selectable

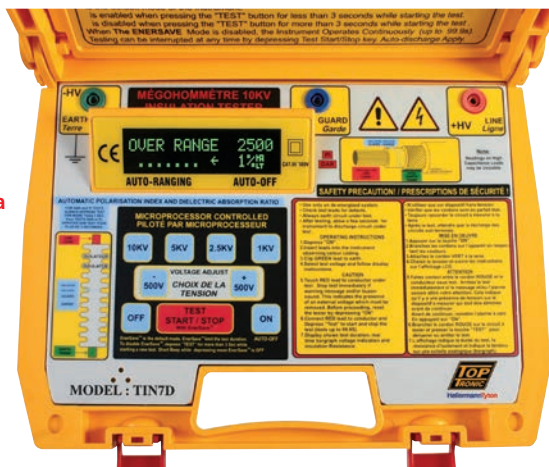
*Polarisation and dielectric ratio are useful to schedule maintenance. The user can keep record of the PI and DAR results and analyse these over time. Maintenance can be done according to analysis and down time can be scheduled thus saving production time.



Technical Specification		Model Specification	
Test Voltages	500V, 10kV (500V increments)	Dimensions (mm)	330(L) x 260(W) x 150(H)
Measuring Range	0-250GΩ, 800k to 600GΩ	Power Source	8 x 1.5V C Batteries
Output Power Limit	1W	Weight	3,6kg
Short Circuit Current (MAX)	1.25mA		
Dielectric Absorption Ratio	R @ 1 min		
Polarisation Index	R @ 10 min		
Accuracy	± 5% + 1 Digit		
Insulation Accuracy	± 5% + 1 Digit		



OLED Display is visible without a backlight



TIN6A 5KV-10KV

- Live circuit warning
- Auto discharge
- Battery life indication
- Heavy duty carry case
- Silicon test leads



Technical Specification		Model Specification	
Insulation Test Voltage	5000V	Dimensions (mm)	330(L) x 260(W) x 150(H)
Insulation Resistance	0-200GΩ	Power Source	6 x 1.5V C Batteries
Accuracy	±3% reading + 2 digit	Weight	1,9kg
Output Current Limit	50µA to 100µA		
Live Warning	>500 volts		
Operating Temp (°C)	0-40		
Humidity %	85		



TIN8D 15kV

- Insulation test voltage up to 15kV
- Test insulation resistance up to 2 TΩ (2000GΩ)
- Short circuit current up to 5mA
- Auto hold function to freeze the reading
- Overload protection
- 30 insulation test voltages
- Adjustment for testing time (duration) : 1-30 minutes
- Auto off • Software included
- USB to RS-232 data transmission.
- 200 Measurement results can be saved and recalled on the display



Technical Specification		Model Specification	
Test Voltages	500V, 15kV (500V increments)	Dimensions (mm)	430(L) x 324(W) x 127(H)
Measuring Range	70GΩ/0.5kV 70GΩ at 0.5kV - 2TΩ at 15kV	Power Source	Rechargeable Battery with AC charger
Short Circuit Current (MAX)	Up to 5mA	Weight	5kg
Dielectric Absorption Ratio	Yes		
Polarization Index	Yes		
Accuracy	± 5% + 5 Digit		
Insulation Accuracy	± 5% + 5 Digit		



T1825 Loop/PSC/Load (6kA)

- Load/No load tester
- PSC (Prospective short circuit current)
- Volt drop test
- Micro processor controlled
- Test up to 100A (6kA) circuit breakers
- Each phase tested separately on a 3 phase system

NEW ROBUST DESIGN



Technical Specification	
Measuring :Loop	0 ~ 2000Ω
:PSC	0 ~ 6ka @230v (L-n)
Operating Voltage (VAC)	50 ~275vac 50 or 60Hz
TEST CURRENT	12A (Load Voltage shown as @ 16A
Resolution (ohm)	0.01 (Loop)
Thermal Protection	Electronic
Accuracy Voltages	±1% (210 ~ 250V)
Accuracy Loop	±2% (0.05 ~ 50Ω) ±3% (500Ω) ±15% (above 500Ω)
Operating Temperature	0 ~ 40°C
Humidity	85%

Model Specification	
Accessories	Carry Case, Strap, Leads
Dimensions (mm)	170(L) x 165(W) x 92(H)
Power Source	8 x 1.5V AA Batteries
Weight	970g

T1125 Loop/PSC/Load (6kA)

- Load/No load tester
- PSC (Prospective short circuit current)
- Safety voltmeter protection
- Micro processor controlled
- Test up to 100A (6kA) circuit breakers
- Each phase tested separately on a 3 phase system

COMPACT DESIGN



Technical Specification	
Measuring :Loop	0 ~ 2000Ω
:PSC	0 ~ 6ka @230v (L-n)
Operating Voltage (VAC)	50 ~275vac 50 or 60Hz
TEST CURRENT	12A (Load Voltage shown as @ 16A
Resolution (ohm)	0.01 (Loop)
Thermal Protection	Electronic
Accuracy Voltages	±1% (210 ~ 250V)
Accuracy Loop	±2% (0.05 ~ 50Ω) ±3% (500Ω) ±15% (above 500Ω)
Operating Temperature	0 ~ 40°C
Humidity	85%

Model Specification	
Dimensions (mm)	175(L) x 85(W) x 75(H)
Power Source	8 x 1.5V AA Batteries
Weight	655g

TIMP57 Line Loop Adaptor (400kA)

ACCESSORY FOR MEASURING AND RECORDING THE EFFICIENCY OF SINGLE-PHASE AND THREE-PHASE MULTI-STRING SYSTEMS

The accessory TIMP57 has been conceived for technical departments and measuring technicians in order to measure in combination with instruments fault loop impedance / line impedance and to calculate the assumed short-circuit current, which is essential for determining the dimension of the protections provided in common industrial electric systems. The high generated test current (max. 200A) allows carrying out high-resolution measurements (0.1mΩ) and therefore obtaining correct and precise results, even near MT/BT transformers. TIMP57 consists of a practical and resistant suitcase structure, it has no display and it can be interfaced by RS232 serial connection to the below mentioned instruments (called Master) in order to obtain the readings. The 4-terminal measurement allows the effect of the resistance of the supplied cables, therefore no preliminary calibrations are required.

Functions

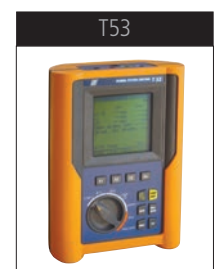
- Type of measurement: P-N, P-P, P-PE Loop/Line impedance and short circuit current calculation
- Resolution of measurement: 0.1mΩ(Zloop) ; 1A (Ipsc)
- Test current: approx: 200A
- Frequency range: 50Hz ± 5%
- Dimensions (LxWxH): 340x300x150mm
- Weight: 4.1kg

Accessories

- 2 test cables, 3m length, with alligator clips
- RS-232 serial cable
- Carrying bag
- ISO9000 calibration certificate



Instruments listed below are to be used in conjunction with the TIMP57 in order to do high line loop tests up to 400kA



TCTCDK Compact Digital Compliance Kit

- This kit is supplied in a sturdy case and foam cut out to secure each instrument



TCTCS - Case
TCTCDKFM - Foam

T1151 1000V Digital Insulation Tester



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T1120 Digital Tester



page 16

TEL1TLB ELCB Polarity Socket Tester



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T1125 LOOP/PSC Tester



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TBM3030 Digital Clamp Meter



page 11

T890 Safety Phase Detector



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TCTRP Analogue Compliance Kit

- This kit is supplied in a sturdy case and foam cut out to secure each instrument



TCTCS - Case
TCTRPFM - Foam

T1800 Insulation Tester



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T1805 Analogue Earth Resistance Tester



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TEL1TLB ELCB Polarity Socket Tester



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T1825 Loop/PSC Tester



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TBM811 Digital Multimeter



page 7

T860 Phase Rotation and Motor Rotation



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TCTDT Digital Compliance Kit

- This kit is supplied in a sturdy case and foam cut out to secure each instrument



TCTCS - Case
TCTDTFM - Foam

T1851 Digital Insulation Tester



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T1820 Digital Earth Resistance Tester



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TEL1TLB ELCB Polarity Socket Tester



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T1825 Loop/PSC Tester



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TBM3030 Digital Clamp Meter



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T887 LCD Phase Rotation



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T419 Compliance Testers (23kA L-N) (40kA L-L)

- Insulation (50,100,250,500,1000V)
- Loop resistance
- Line impedance
- Global earth
- Phase rotation
- 350 Memory locations

COMBITEST T419 is a multifunction tester that joins, in a single unit, features and functions which can be traditionally found in separate instruments.

COMBITEST T419 carries out testing on electrical installations according to IEC 61557, continuity test of earth, protective and potential equalising conductors with test current higher than 200mA and open circuit voltage ranging from 4V to 24V, insulation resistance with voltage of 50V,100V, 250V, 500V or 1000V tests on general and selective RCD's type A and AC (tripping time, tripping current, contact voltage, total earth resistance without RCD tripping), line and /or fault loop impedance measurement with calculation of prospective short circuit current and phase sequence indication.

Functions

- Continuity (>200mA)
- Insulation (50,100,250,500,1000V)
- A, AC and selective RCD tripping time
- A and AC and selective current
- Loop resistance
- Line impedance
- Loop impedance
- Global earth resistance
- Short circuit/loop current calculation
- Phase rotation



Optional Accessories:
TOPVIEW2006 - C2006
USB Cable and Software



Technical Specification

Function	Range	Basic Accuracy	Resolution
Low OHM (I _{test} >200mA R _s ≤16Ω) I _{test} >40mA R>16Ω)	0,0 ÷ 9,99Ω 10,0 ÷ 99,9Ω	±(2% reading + 2 Digit)	0,01Ω 0,1Ω
Insulation	0,01 mΩ ÷ 99,9MΩ/50V 0,01mΩ ÷ 199,9MΩ/100V 0,01mΩ ÷ 249MΩ/250V 0,01mΩ ÷ 499,9MΩ/500V 0,01mΩ ÷ 1999MΩ/1000V	±(5% reading + 2 Digit)	0,01Ω - 0,1Ω 0,01Ω - 1,0Ω 0,01Ω - 1,0Ω 0,01Ω - 1,0Ω 0,01Ω - 1,0Ω
RCD Tripping Time	10,30,100,300,500mA/1 ÷ 999ms (1/2IΔN, IΔN) 10,30,100,300,500mA/1 ÷ 200ms (2IΔN, RCD Type G) 10,30,100,300,500mA/1 ÷ 250ms (5IΔN, RCD Type S) 10,30,100,300mA/0 ÷ 50ms (5IΔN, RCD Type G) 10,30,100,300mA/0 ÷ 160ms (5IΔN, RCD Type S)	±(2% reading + 2 Digit)	1ms
RCD Tripping Current	(0,5 ÷ 1,4) IΔN (RCD type AC) (0,5 ÷ 2,0) IΔN (RCD type A)	±10%IΔN	0,1% IΔN
RCD Loop Resistance	0 ÷ 2kΩ/test = (1/2IΔN)	±(2% reading + 2 Digit)	1Ω
RCD Contact Voltage	50,100v	±(2% reading + 2 Digit)	0,1V
Line/Loop Impedance (I _{test} =6,64A For 230v / 11,5A for 400v)	0,01 ÷ 19,99Ω 10,0 ÷ 199,9Ω 200 ÷ 1999Ω (P - PE)	±(5% reading + 2 Digit)	0,01Ω 0,1Ω 1Ω
Line/Loop Impedance	0,01 ÷ 19,99Ω 10,0 ÷ 199,9Ω 200 ÷ 1999Ω (P - PE)	±(5% reading + 3 Digit)	0,01Ω 0,1Ω 1Ω
Global Earth Resistance	0,01 ÷ 9,99Ω 10,0 ÷ 1999,9Ω 200 ÷ 1999Ω (P - PE)	±(5% reading + 3 Digit)	0,01Ω 0,1Ω 1Ω
Phase Rotation	0 ÷ 415V Single - phase system Display: 123 Correct - 132 Incorrect	±(2% reading + 2 Digit) ±(5% reading + 5 Digit)	±0,5Hz
Voltage	0 ÷ 415V two-phase or three-phase system	±(5% reading + 5 Digit)	0,1V

Model Specification T419

Optional Accessories	Software & USB cable (TOPVIEW)
Standard Accessories	Test leads Carry case English instruction manual Calibration certificate ISO9000
Dimensions (mm)	240(L) x 170(W) x 80(H)
Power Source	6 x 1,5 AA Batteries
Weight	1000g

T89 Compliance / Single Phase Power Analyser (23kA L-N) (40kA L-L)

- Insulation (50,100,250, 500,1000V)
- Loop resistance
- Line impedance
- Global earth
- Phase rotation
- 350 Memory locations
- Power
- Voltage anomalies
- Harmonics
- Power factor
- Single phase power tested individually
- **Memory: 2Mb**

Includes:
TOPVIEW2006 - C2006
USB Cable and Software



Meter
Supplied With
Calibration
Certificate

Technical Specification

Resistivity Measurement					
Range p	0.60 ÷ 19.99Ωm	20.0 ÷ 199.9Ωm	200 ÷ 1999Ωm	2.00 ÷ 99.99kΩm	100.0 ÷ 125.6Ωm
Resolution	0.01Ωm	0.1Ωm	1Ωm	0.01kΩm	0.1kΩm
Accuracy	±(5% reading + 3 digit)				

Voltage Measurement - Single Phase System (Auto Range)		
Range	15 ÷ 310V	310 ÷ 600V
Resolution	0.2V	0.4V
Input Impedance	300kΩ (phase-neutral)	300kΩ (phase-phase)
Accuracy	± (0.5% + 2 Digits)	

Voltage Sag and Surge Detection - Single Phase System (Manual Range)		
Range	15 ÷ 310V	30 ÷ 600V
Resolution (Voltage)	0.2V	0.4V
Input Impedance	300kΩ (phase-neutral)	300kΩ (phase-phase)
Resolution (time)	10ms (1/2 period)	
Accuracy (Voltage)	±(1.0% Reading + 2 Digit)	
Accuracy (rif 50Hz)(time)	±(1.0% Reading + 2 Digit)	

Current Measurement - Single Phase Systems (Auto Range)		
Range	0.005 ÷ 0.26V	0.26 ÷ 1V
Resolution	0.1V	0.4V
Accuracy	±(0.5% Reading + 2 Digit)	
Input Impedance	200kΩ	
Overload Protection	5V	

Cosφ Measurement - Single Phase System			
Cosφ	0.20	0.50	0.80
Accuracy in Degree	0.6°	0.7°	1.0°
Resolution	0.01 Digit		

VOLTAGE and Current Harmonic MEASUREMENT - Single Phase System			
Range	DC - 25H	26H - 33H	34H - 49H
Accuracy in Degree	5% + 2 Digits	10% + 2 Digits	15% + 2 Digits
Resolution	0.1V/0.1A		

Leakage Current Measurement	
Range	0.5 ÷ 999.9mA
Resolution	0.1mA

Model Specification

Standard Accessories	300 - 3000A Flex clamps (HTFLEX33DE) Test leads Earth test leads & spikes Power cable Power adaptor TA0050 (Also for T76) TOPVIEW2006 Software & cable RS232 Carry case Instruction manual Calibration certificate ISO9000
Dimensions (mm)	225(L) x 165(W) x 105(H)
Power Source	6 x 1,5 AA Batteries
Weight	1.7kg

POWER MEASUREMENT - Single Phase System (Auto Range)				
Active Power				
Range	0 ÷ 999.9W	1 ÷ 999.9W	1 ÷ 999.9MW	1000 ÷ 9999MW
Resolution	0.1W	0.1KW	0.1MW	1MW
Accuracy	±(1.0% Reading + 2 Digit)			
Reactive Power				
Range	0 ÷ 999.9VAR	1 ÷ 999.9VAR	1 ÷ 999.9VAR	1000 ÷ 9999MVAR
Resolution	0.1VAR	0.1KVAR	0.1MVAR	1MVAR
Accuracy	±(1.0% Reading + 2 Digit)			
Apparent Power				
Range	0 ÷ 999.9VA	1 ÷ 999.9kVA	1 ÷ 999.9MVA	1000 ÷ 9999MVA
Resolution	0.1VA	0.1kVA	0.1MVA	1MVA
Accuracy	±(1.0% Reading + 2 Digit)			
Active Energy (Classe2 en61036)				
Range	0 ÷ 999.9Wh	1 ÷ 999.9kWh	1 ÷ 999.9MWh	1000 ÷ 9999MWh
Resolution	0.1Wh	0.1kWh	0.1MWh	1MWh
Accuracy	±(1.0% Reading + 2 Digit)			
Reactive Energy (classes3 IEC1268)				
Range	0 ÷ 999.9VARh	1 ÷ 999.9VARh	1 ÷ 999.9VARh	1000 ÷ 9999VARh
Resolution	0.1VARh	0.1kVARh	0.1MVARh	1MVARh
Accuracy	±(1.0% Reading + 2 Digit)			
ENVIRONMENTAL Parameter Measurement				
Range	-20° -80°C	0 ÷ 100% UR	0.001Lux ÷ 20.00Lux	0.1Lux ÷ 2000Lux
Resolution	0.1°C	0.1% UR	0.001 ÷ 0.02 Lux	0.1 ÷ 20 Lux
Accuracy	±(2% Reading + 2 Digit)			

MACROG3 (23kA L-N) (40kA L-L)

MACROTEST G3 is an innovative multifunction installation tester capable of carrying out safety tests on civil and industrial electric systems in compliance with IEC/EN61557-1. Its resistive TFT color touch-screen display, icon menu, help-on-line and its user-friendly development make the instrument extremely intuitive even for unskilled users. Its numberless features grant the user a wide range of applications in the world of measurements. The multifunction installation tester MACROTEST G3 allows saving all measures into an internal memory so transferring the saved data to a PC by means of USB (provided as standard) or built in Wi-Fi interfaces with an iOS and Android smartphones or tablets. The software supplied among standard accessories allows printing testing reports. The multifunction installation tester MACROTESTG3 also drives the optional accessory IMP57 to carry out high resolution (0.1mOhm) loop/line impedance measurements with prospective short-circuit current calculation. This allows accurate measurements even close to power stations enabling the user to correctly size the protection devices in any system. Further possible tests consist in checking breakdown current, tripping current, I_{2t} relative to breakers (MCB) with curves B, C, D, K and fuses type gG as well as aM and the percentage voltage drop on the main power lines. The test on earth leakage relay testers RCDs up to 10A (with optional accessory RCDX10) is also possible with the instrument. Through optional clamp model HT96U it is possible to measure the leakage current. The multi function installation tester MACROTESTG3 has as optional clamp T2100 permits to quickly check the resistance of earth probes without disconnection from earth system.

Functions

- Continuity of protection conductors with 200mA
- Insulation resistance with 50, 100, 250, 500, 1000V DC
- Type A, AC, and B general, selective, and delayed RCDs up to 1000mA
- Test on earth leakage relay RCDs (with RCDX10 optional accessory)
- Line/fault impedance with prospective short circuit current calculation
- High resolution line/fault impedance (with IMP57 optional accessory)
- Curve B, C, D, and K MCBs and type gG and aM fuses
- Selection of length, type, and insulation of the cable under test
- Selection of tripping time of the protection device under test
- Earth resistance and soil resistivity with auxiliary rods
- Earth ground resistance (with T2100 optional accessory)
- Non-trip earth loop impedance
- Phase sequence indication
- Voltage drop on main power lines
- Power analysis, harmonic analysis up to 25th harmonic
- Leakage current by means of the external transducer HT96U (optional)
- Environmental parameters (C/F, HR%, Lux) by means of optional probes
- TFT display with touch-screen
- Help on-line
- Internal memory
- USB interface to connect to the PC
- Built-in Wi-Fi interface to connect to iOS and Android devices
- Rechargeable NiMH batteries (external battery charger)

Model Specifications

Power supply:	6x1.2V type AA rechargeable batteries 6x1.5V type AA alkaline batteries
Display:	TFT, color, 320x240mm, with touchscreen Internal memory: 999 locations, 3 marker levels
PC interface:	Optical/USB
Safety:	IEC/EN61010-1, IEC/EN61557-1
Insulation:	Double insulation
Measurement category:	CAT III 240VAC (to ground) Max 415V between inputs
Dimensions (LxWxH):	225x165x105mm
Weight (battery included):	Approx. 1.2kg

Accessories

Standard

- 3 Terminal cable with SHUKO plug
- Set of 4 cables + 4 alligator clips + 2 test leads
- **TEARTHKIT** - Set of 4 cables + 4 metal earth probes
- Carrying bag
- **TOPVIEW2006** - Windows software + optical/USB cable
- **PR400** - Switch probe
- 1.2V NiMH rechargeable batteries type AA, 6pcs
- External battery charger
- ISO9000 calibration certificate



OPTIONAL ACCESSORIES



T2100 - Earth ground clamp meter

Application video



<http://www.hellermannnyton.co.za/downloads.html>

T53 Compliance / 3 Phase Power Analyser (23kA L-N) (40kA L-L)

- TRMS voltage value
- TRMS current value with clamp adaptors
- Voltage frequency
- Harmonic analysis of voltages and currents up to the 49th harmonic
- Voltage changes beyond the set thresholds (voltage sags and surges) with minimum resolution 10ms
- Active power
- Reactive power
- Apparent power
- Active energy
- Reactive energy
- Cosφ
- Storing and recording of measured quantities

Recording autonomy higher than one month with 64 quantities and IP =15 minutes

Memory: 2Mb

Functions

- Tests on low voltage electrical installations
- Power quality measurement and analysis
- Network disturbances
- Measurement and analysis of environmental parameters



Includes:
TOPVIEW2006 - C2006
USB Cable and Software



CAT III
600V
IEC61010-1

Meter
Supplied With
Calibration
Certificate

Model Specification

Standard Accessories	3 x 300 - 3000A Flex clamps Test leads Earth test leads & spikes Power cable T0050 Power adaptor TOPVIEW2006 Software & cable RS232 Carry case Instruction manual Calibration certificate ISO9000
Dimensions (mm)	225(L) x 165(W) x 105(H)
Power Source	6 x 1,5 AA Batteries
Weight	1.7kg

Technical Specification

Continuity Test on Protective Conductors		Measurement of Earth Resistance and Ground Resistivity	
DC Open Circuit test voltage	> 4 < 24V	Measurement of earth resistance with 4 auxiliary earth rods	0.01 ~ 1999Ω
Test Current	0.2A	Measurement of ground resistivity with 4 earth rods (Wenner Method)	0.01Ω ~ 199.9kΩ
Basic Accuracy	± 2%	Base Accuracy	±2%
Measuring Range	0.01 ÷ 99.9Ω	Measurement of earth resistance from the plug of a TT electrical plant with voltage drop	
Compensation of test cable resistance			
Insulation Resistance Measurement		Phase Sequence Indication	
Test Voltage	50, 100, 250, 500, 1000VDC	Voltage	100 ~ 400V
Measuring Range	0.01 ÷ 99.99MΩ for 50VDC test voltage 0.01 ÷ 199.99MΩ for 100VDC test voltage 0.01 ÷ 499MΩ for 250VDC test voltage 0.01 ÷ 999MΩ for 500VDC test voltage 0.01 ÷ 1999MΩ for 1000VDC test voltage	Direct Measurement of Leakage Current to the Earth	
Base Accuracy	±2%	With Clamp on meter in the range	0 ~ 1A
		Accuracy	±2%
		Tests on Electrical Installations in Medical Rooms	
		Continuity Test on Protective Conductors	
Test of Tripping Time and Current on RCD's (Type A, Ac, General and Selective)		AC Open circuit test voltage	>4 <12V
Tripping Current	10-30-100-300-500mA	Test Current	10A
Tripping Current Ramp	0.5 ~ 1.4 IΔn for type AC 0.5 ~ 2.0 IΔn for type A	Accuracy	±2%
Tripping Time Measurement	1/2 IΔn - IΔn - 2IΔn - 5IΔn & automatic	Measuring range	0.001 ~ 0.999Ω
Base Accuracy	± 5%	4-Wire Measurement	
		Power Quality Analysis According to EN50160	
Measurement of Line and Fault Loop Impedance with Calculation of Prospected Short Circuit Current and Co-Ordination Test of RCDs in TN Systems		The instruments, suitable for measurement on single-phase and three-phase systems with and without neutral, both for balanced and unbalanced loads, indicate the following rated values:	
Measuring range for line impedance phase to phase to neutral	0.01 ~ 199.9Ω	Measurable Voltage	Up to 600V
Measuring range for loop impedance phase to earth	0.01 ~ 1999Ω	Current with clamp-on meters, output	1V
Indication of measured values of Zs, Isc		Frequency	50 ~ 60Hz
Base Accuracy	±5%	Basic Accuracy (Instrument)	±0.5%
Possibility of effecting measurement of fault loop phase to earth without causing RCD tripping		Basic Accuracy (transient)	±1%
		Measurement Selection	
Test of Environmental Parameters (Optional)		The selection of the quality or type of measurement is made by rotating a switch and pressing selection keys	
Measurement and recording of temperature with an adaptor			
Measurement and recording of humidity with an adaptor		Management Software	
Measurement and recording of air speed with an adaptor		The management software is compatible with Microsoft Windows	
Measurement and recording of lux with an adaptor		Operating system: Windows 95/98, Windows NT and Windows 2000	
Measurement and recording of noise and Leq with an adaptor (dB) Type 1			

Cable Locators

VM550 Cable Avoidance Detector

The VM-550 pipe and cable locator is general purpose locators used to detect buried pipe and cable services in a variety of situations. The VM-550 has achieved a compact and lightweight design without compromising strength and performance.

With a choice of passive power locating, active 8kHz and 83kHz frequencies the VM-550 is designed to meet the requirements of those wishing to detect the presence of active power cables and also wishing to trace short ranges. It is particularly useful in helping to detect and trace short distance drop wires.

The VM-550 transmitter can supply a useful 1 watt signal power. Signal application can be either a direct connection or if there is no access point, Induction. With the addition of the optional signal clamp the VM-550 transmitter can be applied to the target line no matter what the situation.

Receiver (RX)

- Passive power and 2 active frequencies
Power (50 or 60Hz), 8kHz, 83kHz
- Twin antenna peak response
- High contrast responsive display
- Simple, four button control pad
- One touch gain control with manual increments
- One touch depth estimation (Imperial or Metric)
- Carbon fiber antenna tube
- IP54 rating
- Audio and visual indication
- 2 x AA battery power
- Continuous battery monitoring

Transmitter (TX)

- 1 watt output power
- Two frequencies: 8kHz and 83kHz
- High and low output settings
- Induction and direct connection modes (automatically selected)
- Range of signal clamp accessories
- Low battery warning
- Good connection indication
- IP54 rating
- Long life battery pack (4 x D cells)
- Hook for hanging transmitter



CAT4PLUS Cable And Pipe Locator

The C.A.T4 Avoidance Mode™ lets the operator check an intended excavation area for power, radio and genny4 signals, and pinpoint located utilities, in a single scan. The bargraph 'tidemark' enables the user to quickly spot and zero-in on a buried conductor.

eCert™ – remote calibration validation

eCert™ remote calibration testing offers an innovative calibration option intended to form part of an annual service regime

- Avoidance instrument, not cable fault locator
- Provides four functions, audio and visual indication and depth estimation in genny mode.
- Signal strength indicator
- Mode/clockface indicator
- Depth button



The Genny4 provides a class-first simultaneous dual-frequency signal output. Alongside the familiar 33kHz signal for general purpose locates, the Genny4 transmits a specialised small diameter Locate frequency which facilitates location of utilities such as telecoms and street lighting, including spurs. For difficult locates, the signal boost function enables the Genny4 signals to travel further and deeper, and couple onto utilities more easily. C.A.T4's Dynamic Overload Protection feature automatically filters out high levels of interference, allowing operators to continue working even in electrically noisy areas such as substations and under high-voltage cables – and requires no input from the operator.

Avoidance Mode™

Avoidance Mode speeds the process of pre-digital scanning by searching for power, radio and genny signals simultaneously. C.A.T4 Avoidance Mode offers fully controllable responses, allowing operators to rapidly pinpoint a buried utility and trace it across an area. Real sound audio enables operators to differentiate between individual signals and utilities to maximise locate speed whilst maintaining safety.



RD7000 Cable And Pipe Locator With Compass

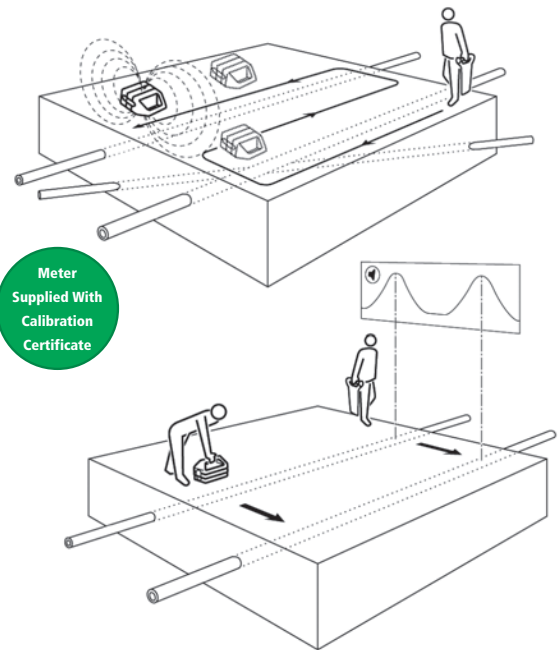
The locator and transmitter both feature large, high contrast, backlit LCD screens that provide the user with clear information in any light conditions. The intuitive and responsive user interface has easily identifiable icons that are consistent across the locator and transmitter range, ensuring straightforward operation.

Compass

Visually follow the target cable or pipe with the dynamic line indicator. Allows the operator to quickly and easily follow the target line by visually indicating the relative orientation of the target cable and the locator.

eCAL™

Validates your RD7000+ against its original factory calibration and allows printing of validation certificates. Unique to radio detection precision locators, eCAL allows users to validate the original factory calibration of the RD7000+ locator through a PC*.



Technical Specifications for locator and transmitter

Sensitivity	6E-15 Tesla, 5µA at 1 meter (33kHz)
Dynamic range	140dB rms / ¹ Hz
Selectivity	120dB/Hz
Depth accuracy	Line: ± 5% tolerance from 0.1m (4") to 3m (10ft) Sonde: ± 5% tolerance from 0.1m (4") to 7m (23ft)
Maximum depth*	Line 6m (20ft), Sonde 15m (50ft)
Fault finding (FF)	Diagnose cable sheath faults from short circuit to 2MΩ using the A-frame
Batteries	Locator: 2 x D-cells (LR20) or rechargeable battery pack† Transmitter: 8 x D-cells (LR20) or rechargeable battery pack†
Warranty	36 Months upon registration
Dynamic overload protection	30dB (automatic)
Compliance	FCC, R55 310 RoHS, WEEE, CE
Weight	Transmitter: 2.84kg (6lbs) (including batteries) 4.2kg (9lbs) (including supplied accessories) Locator: 1.87kg (4lbs) (including batteries)
Environmental protection:	IP54
Operating temperature range:	-20°C to +50°C (4°F to 122°F)



High Voltage Testers

VTT25F Telescopic Hot Stick - Ritz

- ASTM F 1826-00 specification
- Length when extended 7.78m (25ft)
- 6 Sections
- Suitable for voltage ranging 1 to 132kV
- Rubber hook latch
- Base cap for better stability
- Triangular design for easy operation
- Easy replacement sections
- Heavy duty carry bag included
- Comes with conformance certificate



VTT30F Telescopic Hot Stick - Ritz

- ASTM F 1826-00 specification
- Length when extended 9.18m (30ft)
- 7 Sections
- Suitable for voltage ranging 1 to 132kV
- Rubber hook latch
- Base cap for better stability
- Triangular design for easy operation
- Easy replacement sections
- Heavy duty carry bag included
- Comes with conformance certificate



C4031601 (SH250) - Hastings

- Length when extended 7.62m (25ft)
- Suitable for voltage ranging 1 to 132kV
- Fuse hook and bag standard
- Comes with calibration certificate



T99FD - Fuse disconnect included

CSH230 (SH230) - Hastings

- Length when extended 9m (30ft)
- Suitable for voltage ranging 1 to 132kV
- Fuse hook and bag standard
- Comes with calibration certificate



T99FD - Fuse disconnect included

TPC7/11/22/33/44K
High Voltage Phase Comparators / Live Line



IEC approval for models
 TPC7, 11, 22, 33K

Features

- Designed to IEC61481:2001
- No user assembled parts
- Dual colour coded scale (% Vac)
- Neon indicator lit when > 1200 Vac
- Measure and test phase to earth and phasing
- High quality fibreglass wound rod
- Self powered operation - no battery
- Current is limited to Milliampere
- Grounded or ungrounded systems
- Lightweight, robust and compact
- High immunity to interference fields
- Robust carry case

Description

Toptronic High Voltage Phase Comparators are available in five models for applications up to 44 kV. The TPC Series of Phase Comparators utilises a long established technique to detect and measure High Voltages and perform phasing tests. These dual pole high voltage phase comparators incorporate modern, high quality glass fibre front end and composite polyurethane main body mouldings to give tough and very light weight construction with superior safety features. They have an analogue scale with neon indication above 1.2kV.

These are IEC61481:2001 compliant and are housed in a high quality carry case with shock absorbing foam. The TPC Series is self powered, requires no dismantling or assembly thus eliminating the risks of assembly mistakes and accidents.

The indicator has also been screened to have high immunity to interference fields. Important applications include checking voltage fuses, testing for correct phase connections and for absence of high voltage on de-energised lines or apparatus. The Dual scale reads direct (no multiplier) in kVac or in % of full scale and is colour coded (Green = in phase, Red = out of phase). A bright neon is included on the scale for easy visibility indoors and it has a dual purpose; 1. Acting as a voltage detector (lit when the voltage across the poles is higher than 1200 Vac). 2. In case of unlikely failure of the analogue scale indicator, the neon will warn the user when voltage is present.

Checking Phase Relationships

When checking phase relationships current from and to the phases under test are displayed on the analogue meter. If the phases are in phase, the neon will not light and the meter pointer will stay in the green band. For out-of-phase conditions the neon will light and the meter pointer will move into the red band. Before and after using a phase comparator and associated equipment, a functional test should be performed on the phase comparator.

Technical Specification

ELECTRICAL					
Model	TPC7K	TPC11K*	TPC22K	TPC33K*	TPC44K
System Voltage (kV)	6.6	11	22	33	44
Full Scale Voltage (kV)	8	12	24	36	48
Total Resistance (MΩ)	3.95	6.78	13.5	20.1	27
Response Time	1 Second				
Neon Threshold	1.2 kV				
MECHANICAL					
Total Length (m)	1.105	1.105	1.225	1.375	1.525
Total Weight (kg)	1.2	1.2	1.3	1.4	1.5
Handle Material	Composite material with Polyurethane				
Front End	Fibreglass Wound Tubing				
Operating Temp	-25°C to 55°C				
Operating Humidity	20 to 96% RH				
Standard Acc.	Carry Case, Instruction Manual, IEC Certificate				
Optional Acc.	90° Bend TPCAA90				

Note: * - Standard stock items.



SILICON HANDLES



TPCAA90 - 90° Angle bends for the TPC Series (Optional Accessory)



T2713 Proving Unit for TPC series (Optional Accessory)

- Used to test phasing sticks
- 5000V DC supply
- Light Indication for voltage
- Light for battery Indication



Model Specification

Accessories	Carry Case
Dimensions (mm)	210(L) x 90(W) x 55(H)
Power Source	6 x 1,5V AA Batteries
Weight	445g

High Voltage Testers

WPC Series High Voltage Wireless Transmitter Receiver Phasing Comparator

WPC1000 - 11kV-33kV Voltage range (As shown on this page)

WPC3000 - 44kV-132kV Voltage range

- Wireless distance up to 200 metres
- Checks high voltage systems and phase comparator
- All weather use (indoor or outdoor)
- White (transmitter) • Blue (receiver)

Description

The high voltage wireless comparator has been designed to meet IEC 61481 specifications. The function of the comparator is to determine whether the conductor is energised or de-energised and to detect and indicate the correct phase relationship between 2 energised lines at the same nominal voltage and frequency, using a transmitter and receiver.

The receiver compares the phase relationship of the line it is connected to with a line to which the transmitter is connected, and indicates if the lines are IN phase or OUT of phase. Each unit must be used with a link stick.

Proving Operation (To be done before phasing)

Holding the 2 units close to each other, press both the receiver (blue) and the transmitter (white) buttons. RED LED's on both units flash for about 5 seconds.

RED LED's on both units light continuously and receiver GREEN LED flashes ON and OFF every 5 seconds and the buzzer sounds when the GREEN LED is illuminated.

OUT of Phase

If the signal received from the transmitter is $> \pm 20^\circ$ of the phase angle of the conductor to which the receiver is connected, the RED LED will light continuously. The GREEN LED will not light and the buzzer will not sound.

IN Phase

If the signal received from the transmitter is $\leq \pm 10^\circ$ of the phase angle of the conductor to which the receiver is connected, the GREEN LED will light continuously and the buzzer will sound continuously.



Technical Specification			
System Voltage (kV)	11 to 33kV		
Threshold Range (kV)	1,3kV		
Response Time	Less than 1 second		
Spark Protection	The detector will not be damaged as a result of spark discharge while making contact with the conductor under test		
Bridging Protection	The comparator & its accessories will not cause flashover between live parts of the installation or between live parts of the installation & earth/ground		
Current Consumption	45 mA maximum		
Range	30m in air		
Visual Indicator	Transmitter - 2 x Red LED's / Receiver - 1 x Red LED + 1 x Green LED		
Audible Indicator	Buzzer present when IN Phase is indicated - $> 65\text{dB}$ (5 metres)		
Mechanical			
	Length(mm)	Diameter (mm)	Material
Y Electrode	35	40	Stainless steel
Hook	100	40	Stainless steel

Model Specification	
Standard Accessories	Carry case, Cleaning kit 2 x Rose connector 2 x Y contact, 1 x Hook
Dimensions (mm)	180(L) x 100mm(Dia.)
Power Source	9V Battery
Weight	600g



Meter
Supplied With
Calibration
Certificate

HVD High Voltage Detector

- Checks if HV system is alive or dead
- All weather use (indoor or outdoor)
- HVD13AC - 6,6-132 kV
- HVD32AC - 11-33 kV
- HVD33AC - 44-132 kV

Description

The High Voltage Instruments range of capacitive high voltage detectors has been designed to meet the latest IEC standards.

A cone shaped plastic moulding houses the detector. The inner wall of the cone has a metallic screen coating to which the earth/ground parts of the circuit are connected. This screen coating is capacitively coupled to the earth/ground of the electric field and acts as a voltage divider with an internal sensing capacitor. In this manner, high voltage appearing at the electrode is divided down and the voltage across the sensing capacitor is proportional to the voltage at the electrode with respect to earth/ground.

A test button is mounted on the viewing face of the detector. When the button is pressed a red lamp flashes and an audible alarm sounds. This is the display for voltage PRESENT. However, when the button is released the display changes to a green flashing lamp. This is the display for voltage NOT PRESENT. The detector is then armed and ready for use. This armed condition lasts about 150 seconds.

At the narrow top end of the detector housing there is a red band which indicates the limit mark. By definition the limit mark indicates the physical limit to which the detector may be inserted between live components or may touch them. However, when the detector is used with a contact electrode the rear moulding of the extension covers the limit mark. The rear moulding is coloured red and it then constitutes the limit mark.



Meter
Supplied With
Calibration
Certificate

Technical Specification

Electrical	HVD13AC	HVD32AC	HVD33AC
System Voltage (kV)	6.6 to 132	11 to 33	44 to 132
Threshold Range (kV)	2,5kV	2,5kV	10kV
	Non standard threshold voltages can be set outside the range to suit customers requirements		
Spark Protection	The detector will not be damaged as a result of spark discharge while making contact with the conductor under test		
Bridging Protection	The detector & its accessories will not cause flashover between live parts of the installation or between live parts of the installation & earth/ground		
Current Consumption	30 mA maximum		
Test Button	Tests & arms the detector when pressed & released		
Visual Indicator (2Hz)	Red lamp (voltage present), green lamp (safe)		
Audible Indicator	Buzzer - 3.1 kHz tone modulated at 2 Hz - 70 dB (1.5 metres)		
Mechanical			
	Length(mm)	Diameter (mm)	Material
Y Electrode	35	40	Stainless steel

Model Specification

Standard Accessories	Carry bag Cleaning kit Rose connector Y contact
Dimensions (mm)	180(L) x 100mm(Dia.)
Power Source	9V Battery
Weight	600g

High Voltage Testers

THVD Series High Voltage Detector

- This family of Capacitive High Voltage Detectors has been designed to meet the latest IEC standards.
- The THVD's are self starting and automatically activated when the High Voltage is applied to the contact electrode.
- They can also be manually armed before use by depressing the "TEST/ARMING" button.
- These detectors are intended for use on sinusoidal (50 or 60Hz) High Voltage Systems.
- Models are available to cover systems voltage from 6.6kV to 132kV.
- Detectors are utilised to determine if a system is live or not, so that it may be safely earthed/grounded.
- The THVD has a low battery detection which inhibits manual arming when the battery is too low.
- A visual indication shows when the THVD is armed. When armed, the Green LED's flash twice per second.
- When HV is detected, the red LED's flash twice per second together with an audible buzzer.
- Designed, manufactured and tested to IEC 61243-1 for capacitive type contact voltage detector for voltages above 1kV 50/60Hz.



Technical Specification

MODEL	T213HVD	T217HVD	T218HVD	T219HVD	T220HVD	T222HVD
System Voltage	11kV	11/33kV	6/22kV	44/132kV	6.6/132kV	11/44kV
Threshold Set within Range	1.65kV to 4.4kV	3.3kV to 4.95kV	1.8kV to 2.7kV	6.6kV to 19.8kV	1.65kV to 14.6kV	4.4kV to 5.0kV
Response Time	<1 Sec	<1 Sec	<1 Sec	<1 Sec	<1 Sec	<1 Sec
Auto-OFF	±3 Min	±3 Min	±3 Min	±3 Min	±3 Min	±3 Min
Bridging Protection	Yes	Yes	Yes	Yes	Yes	Yes
Spark Protection	Yes	Yes	Yes	Yes	Yes	Yes
Battery Low	<7V	<7V	<7V	<7V	<7V	<7V
Threshold	3.02kV	4.12kV	2.5kV	13.2kV	2.5kV	4.75kV
Battery Current	<30mA	<30mA	<30mA	<30mA	<30mA	<30mA
Green = Armed	Yes	Yes	Yes	Yes	Yes	Yes
Red = V Detected	Yes	Yes	Yes	Yes	Yes	Yes
Test / Arming Button	Yes	Yes	Yes	Yes	Yes	Yes



Model Specification

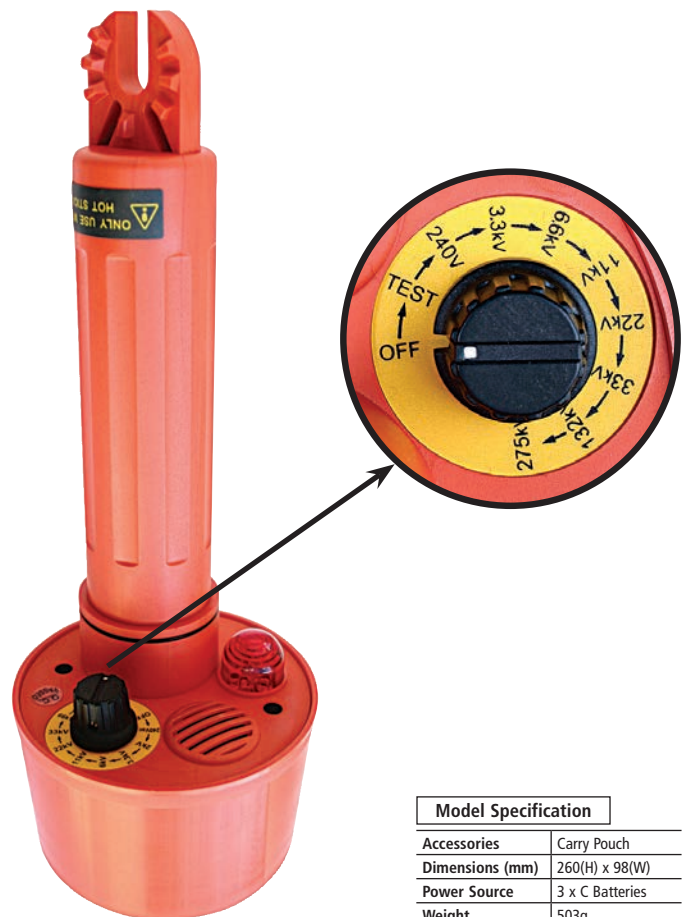
Standard Accessories	Carry Case Cleaning kit Rose connector Y-type contact, 16mm Hook
Dimensions (mm)	180(L) x 100mm(Dia.)
Power Source	9V Battery
Weight	600g

T175HP PROXIMITY DETECTOR

- Non-contact high voltage detector
- Wide range of detection: 80V to 275kV
- Ten switch-selectable voltage sensitivity ranges
- Lightweight
- Audible and visual indication of live voltage
- Test option
- Rose adaptor
- Check high frequency radiation

The T175HP is designed to detect the presence of high voltage without physical contact.

A ten position rotary switch selects the detection range. As the sensor is moved closer to the voltage carrying conductor, its sensor head picks up the radiated electric field. Once the range threshold is reached, the buzzer sounds and a bright red warning light warns the operator of live conductors.



Technical Specification

Ranges	240V, 3.3kV, 6.6kV, 11kV, 22kV 33kV, 66kV, 132kV, 275kV
Detection	Selection range is detected at approx. 25cm from the voltage 240V ±10cm 33kV ± 50cm
Self-Test	Selection
Indicators	Bright red LED & buzzer
Low Battery Indication	Intermittent beeps



Model Specification

Accessories	Carry Pouch
Dimensions (mm)	260(H) x 98(W)
Power Source	3 x C Batteries
Weight	503g

CBTL - Circuit Buddy 6 to 50 Volt Test Light

- Circuit Buddy tester is designed for the automotive industry and used to test for current on wiring, fuses etc. The product is safe and easy to use, especially when piercing wires. The use of LED's instead of globes reduces the risk of damage to electronics.



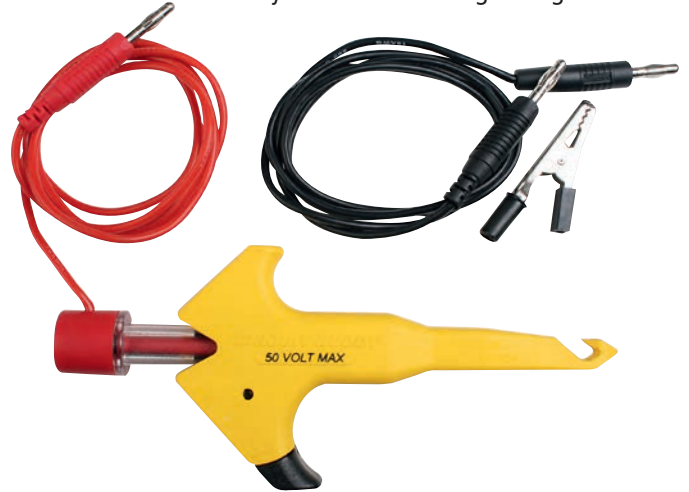
VOLTAGE RANGE 6-50V



Not for use on circuits exceeding 50 Volts.

CBSPK - Circuit Buddy Safety Probe Kit (To be used with a digital multimeter)

- The Circuit Buddy safety probe kit is designed for the automotive industry and can be used with a standard multimeter. The probe makes it easy and safe to pierce wires. Simply hook and press, which makes contact every time while reducing damages to wires.



VOLTAGE RANGE 5A/50V



Not for use on circuits exceeding 50 Volts. When using a multimeter, voltages from 0-50V can be measured. 5A MAX Rating.

T5012 Carcheck

- DC only
- Polarity (LED display)
- 3 - 48 Volts
- No battery



T185 Lan Tester

- LED Display
- Network cable testing (RJ45)
- Test any unenergised wire or cable
- Auto and manual scan function
- Lock status function
- Verify cable continuity, open, short circuit and miss-wired
- Buzzer sound warning for wire status



Model Specification

Accessories	RJ45 Cable, Case
Dimensions (mm)	39(H) x 55(W) x 132(L)
Power Source	9v Batteries
Weight	148g

TDDT7 7 Day Digital Timer (Relay contacts)

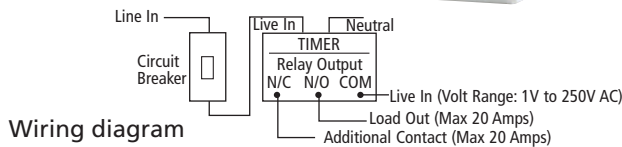
- Rated Voltage: 220 - 240V AC (50 - 60 Hz)
- Relay contacts for various voltage ranges
- Max 20A (3500 Watts) - Resistive load (Geysers, underfloor heating, lights)
- Max 10A - Inductive load (Pool pump, aircon)
- Day/Weekly 16 programmable settings
- Din rail mounting
- 3 Year backup battery
- LCD displays real time hour/minute - on/auto/off

APPROVALS

- IEC 60669-1
- IEC 60669-2-2
- IEC 60730-2-7
- IEC 60730-1
- RCC Certificate



Mounts on both Din rail and mini rail



TDDGT 7 Day Digital Geyser Timer (Internal relay)

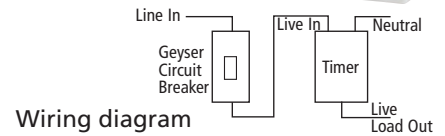
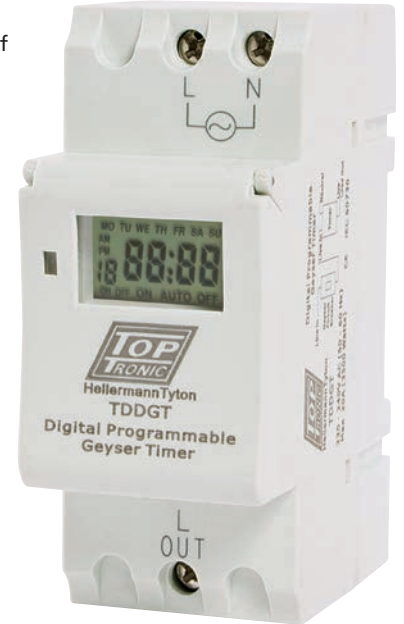
- Rated Voltage: 220 - 240V AC (50 - 60 Hz)
- Max 20A (3500 Watts) - Resistive load (Geysers, underfloor heating, lights)
- Max 10A - Inductive load (Pool pump, aircon)
- Day/Weekly 16 programmable settings
- Din rail mounting
- 3 Year backup battery
- LCD displays real time hour/minute - on/auto/off

APPROVALS

- IEC 60669-1
- IEC 60669-2-2
- IEC 60730-2-7
- IEC 60730-1
- RCC Certificate



Mounts on both Din rail and mini rail



TGTLC Geyser Timer Load Controller Series 2 (Pre-programmed timer) (Internal relay)

- Rated voltage 220 - 240V AC (50 - 60HZ) internal relay contact
- Six preset times with peak demand lock out between 6:00 - 8:00AM and 18:00 - 20:00PM
- Override option up to 2 hours on any program selection including peak demand if required
- 2 Program options out of peak demand
- Time and date preset + 2Hr GMT (South Africa)
- Weekend mode option
- Max 20A (3500 Watts) (resistive loads geysers)
- 1 Year backup battery
- Time limit drift under 3 min/year
- Din rail mounted
- Mini rail adaptor (DINADAPT)
- IEC 60730-2-7; 60730-1; 60669-1; 60669-2-2 / RCC Certificate
- Electrostatic, Electromagnetic field immunity certification

Program options Pre set times (Six available)

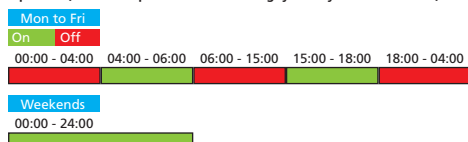
Option 1 (Default recommended) as well as weekend times. Override option will switch on geyser anytime for 2 hours.



Option 2 (Override option will switch on geyser anytime for 2 hours)



Option 3 (Override option will switch on geyser anytime for 2 hours)



Note: Option 5 and option 6 don't fall under peak demand.



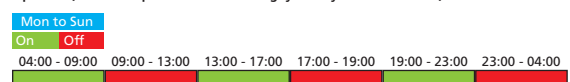
Inside Lid



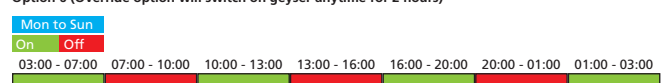
Option 4 (Override option will switch on geyser anytime for 2 hours)



Option 5 (Override option will switch on geyser anytime for 2 hours)



Option 6 (Override option will switch on geyser anytime for 2 hours)



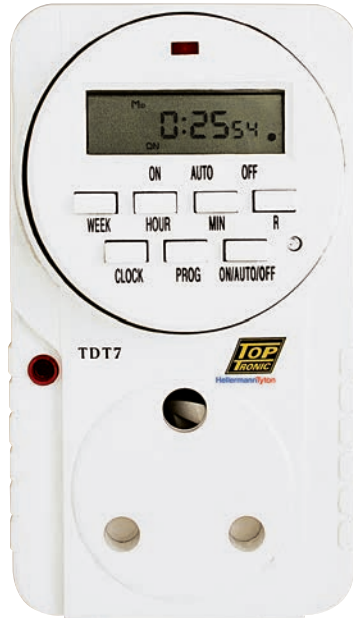
TMT2 24 Hour Mechanical 3 Pin Socket

- IEC 60730 safety standard
- Ideal for household use
- User friendly
- 15min increment adjustment
- 3500 Watt / 16 Amps



TDT7 Digital 3 Pin Socket

- IEC 60730 safety standard
- Ideal for household use
- Backup rechargeable battery
- 8 Group programmable
- 3500 Watt / 16 Amps



TMDT2 24 Hour Mechanical Din Rail

- 15 Day battery back-up
- Ideal for household use in DB boards
- 15min increment adjustment
- 3500 Watt / 16 Amps



T500K Professional Thermometer (Single Input)

- K-type Thermocouple
- 0.1 °C resolution
- Hold function
- °C/°F selection
- Max hold
- Backlit
- Relative zero button

NEW UPGRADED SPECIFICATION



Technical Specification

Temperature Range	-200°C – 1372°C -328°F – 1999°F
Resolution	0.1°C/1°C
Accuracy	±0.1% rdg + 1°C (-60°C to 1372°C) ±0.1% rdg + 2°C (-60°C to -200°C) ±0.1% rdg + 2°F (-76°F to 1999°F) The accuracy specification does not include the probe accuracy.

Model Specification

Accessories	Bead Probe
Dimensions (mm)	160(L) x 83(W) x 38(H)
Power Source	4x1.5V AAA Batteries
Weight	240g

T502KJ Professional Thermometer (Dual Input)

- K-type & J-type Thermocouple
- °C/°F selection
- Data hold
- Min/Max
- Programmable
- Temp1/Temp2 dual display
- High/low limit mode
- Relative mode
- Backlit

NEW UPGRADED SPECIFICATION



Technical Specification

Temperature Range	K -200°C – 1370°C 328°F – 2498°F J -200°C – 1050°C -328°F – 1922°F
Resolution	0.1°C/0.2°F
Accuracy	±0.05% rdg + 0.3°C (-50°C to 1370°C) ±0.05% rdg + 0.7°C (-50°C to 200°C) ±0.05% rdg + 0.6°F (-58°F to 2498°F) ±0.05% rdg + 1.4°F (-58°F to -328°F)

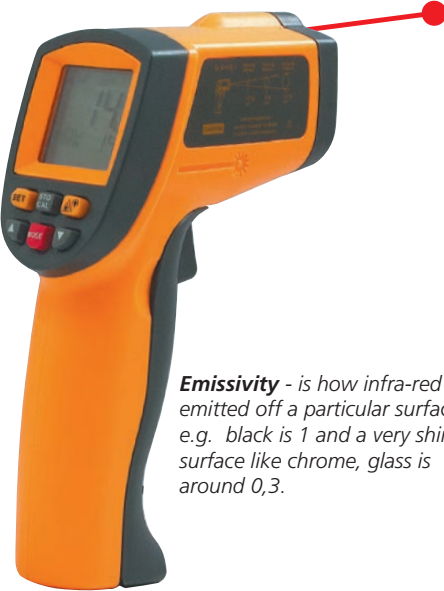
Model Specification

Accessories	2 x Bead Probe
Dimensions (mm)	160(L) x 83(W) x 38(H)
Power Source	4x1.5V AAA Batteries
Weight	240g

Temperature Meters

T306 Non-contact Thermometer

- Auto power off
- Laser pointer
- Low battery indicator
- Gun type
- Backlit
- Data hold
- Emissivity Adjustable
- Distance and spot D:S (Field of view) 12:1
- Max/min/average
- High/low temp alarm setting



Emissivity - is how infra-red is emitted off a particular surface e.g. black is 1 and a very shiny surface like chrome, glass is around 0,3.

Technical Specification

Temperature Range	-50°C~700°C / -58°F~1292°F
Resolution	0,1°C / 0,1°F
Response Time	0,5 Second
Spectral Response	8 to 14 µm Nominal
Emissivity Adj.	0,1 to 1

ACCURACY

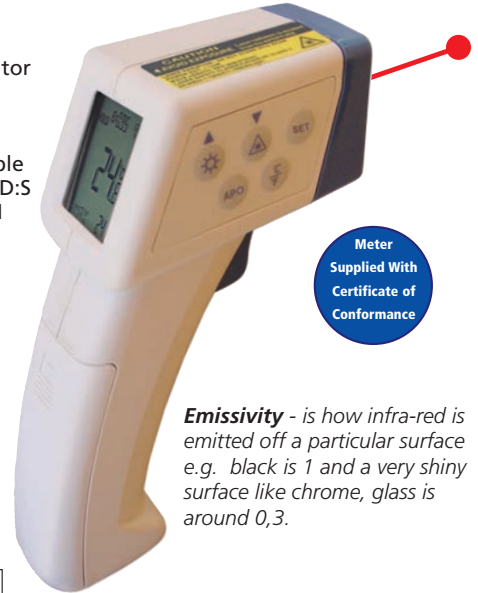
Temperature	0°C~700°C ±1,5°C -50°C~0°C ±3°C
Relative Humidity	10~95%

Model Specification

Dimensions (mm)	172(L) x 110(W) x 50(H)
Power Source	9V Battery
Weight	225g

T111 Non-contact Thermometer

- Auto power off
- Laser pointer
- Low battery indicator
- Gun type
- Backlit
- Data hold
- Emissivity Adjustable
- Distance and spot D:S (Field of view) 10:1



Meter Supplied With Certificate of Conformance

Emissivity - is how infra-red is emitted off a particular surface e.g. black is 1 and a very shiny surface like chrome, glass is around 0,3.

Technical Specification

Temperature Range	-30°C~550°C / -22°F~1022°F
Resolution	0,5 / 1°C (Auto), 1°F
Response Time	0,25 Second
Spectral Response	6 to 14 µm Nominal
Emissivity Adj.	0,1 to 1
Temperature	± 0,2% of Reading
Co-efficient	±0,2°C

ACCURACY

Temperature	± 2°C/4°F for -30°C ~100°C ± 2% for 101°C~550°C
Operating Temp	0°C ~50°C

Model Specification

Dimensions (mm)	148(L) x 105(W) x 42(H)
Power Source	9V Battery
Weight	157g

T685 High Temperature Non-Contact Thermometer

- Auto power off
- Laser pointer
- Data hold
- Backlit
- Dual display
- Emissivity adjustable
- 10 Point memory
- Distance and spot D:S (Field of View 30:1)



Emissivity - is how infra-red is emitted off a particular surface e.g. black is 1 and a very shiny surface like chrome, glass is around 0,3.

Technical Specification

Temperature Range	-50°C~1000°C / 58°F~1832°F
Resolution	0,1°C / 0,1°F
Response Time	0,5 Second
Repeatability	±1°C or ±2°F
Emissivity Adj.	0,1 to 1,0

Accuracy

Temperature	±3°C (±5°F) from -50°C to -20°C ±2°C (±3°F) from -20°C to -100°C ±2% from 100 to 1000°C
Operating Temp	0° - 50°C 10-90% RH

Model Specification

Dimensions (mm)	127(L) x 200(W) x 47(H)
Power Source	9V Battery
Weight	330g

Temperature Probes (Type K) Selection Guide



TP01 Bead probe



TP02A General purpose liquid probe



TP04 Surface contact probe



TP04L Surface contact probe

Temperature probe range selection

Range °C	-50	-20	0	100	200	300	900	1000	1100	1200	1300	1400
TP01												
TP02A												
TP03												
TP04												
TP04L												

T151 Non-Contact IR Thermometer

- 4-IN-1 Designed thermometer featuring as super bright, flashlight, UV refrigerant leak detector, distance and spot size indicator and non-contact IR thermometer
- Coaxial laser in circle with scale indication of distance and measured temperature area
- Super rugged and powerful designed for and measured temperature area
- Drop proof upto 1.2 metres
- Distance and spot D:S (Field of view) 15:1
- Emissivity adjustable
- High and low alarms for measurements outside the limit



Technical Specification

Temperature Range	-30°C--650°C / -22°F--1202°F
Resolution	0,1°C
Response Time	< 300mS
Spectral Response	8 to 14 µm Nominal
Emissivity Adj.	0,1 to 1
Co-efficient	±0,1°C
ACCURACY	
Temperature	≥-10°C to < 0°C ± 2°C

Model Specification

Dimensions (mm)	185(L) x 54(W) x 104(H)
Power Source	3 x AA Batteries
Weight	300g

T630 Digital Luxmeter

- 0-200 000 Lux
- Data hold
- Max hold
- Backlit display



Typical Illuminance Measurements (LUX)

Environment	UNIT(lux)
General Office	
Meeting room, switchboard, printer room	750 ~ 300
Factory	
Research & Development department	1500 ~ 750
Warehouse	75 ~ 30
Hospital	
Operating room	1500 ~ 200
Waiting room	300 ~ 150
Elevator	75 ~ 30
School	
Classroom, workshop	750 ~ 200
Computer room	1500 ~ 300
House	
Study -desk	750 ~ 300
Laundry room, living room	300 ~ 150

Technical Specification

Display	31/2 Digit LCD Display
Ranges	20, 200, 2000, 20000, 200000Lux
Resolution	0.01 Lux
Overrange	OL display
Sampling Time	2.5 times/second
Sensor Material	Silicon Photodiode
Accuracy	±3% rdg + 10dpts
Operating Temp	0 to 50°C
Operating Humidity	Less than 70% RH

Model Specification

Accessories	Carry Pouch
Dimensions (mm)	170(L) x 44(W) x 40(H)
Power Source	4 x 1.5V (AAA) Batteries
Weight	220g

Environmental Testers

T325 Sound Level

- Type 2 sound level meter
- Wide range
- Sampling rate 2 seconds
- Bargraph
- Min/max hold
- Frequency weighting A/C
- Over range indications

Meter Supplied With Certificate of Conformance



Technical Specification	
Display	3,5 Digit with Bar Graph
Function	Fast (125ms) Slow (1000ms)
Measurement Ranges	30dB to 130dB
Level ranges	Low 30dB to 80dB Med 50dB to 100dB Hi 80dB to 130dB
Display Update	2sec
Microphone	1/4inch (ECM)
Accuracy	±1,5dB @ 94dB of 1kHz
General	
Output Impedance	Approx 100Ω
Operation Humidity	90% RH
Operation Temperature	0° ~ 40°C
Accessories	9V Batt, Screw driver instruction manual, carry case, wind shield

Model Specification	
Dimensions (mm)	240(L) x 62(W) x 39(H)
Power Source	9V Battery
Weight	224g

T3004 Humidity / Temperature

- Data hold
- Min/max
- REL function
- Auto power off



Technical Specification	
Display	Dual display
Altitude	Up to 2000meters
Range	-20°C ~ 60°C
Temperature	
Range Humidity	0% RH ~ 100% RH
Resolution Temp	0,1°C / 0,1°F
Resolution Humidity	0,1% RH
Response Time Humidity	180sec
Response Time Temp	10sec
Operation Temp	0°C ~ 40°C
Operation Humidity	<80% RH
Sampling Rate	2,5 times per second
Calibration	Internal calibration
RH Accuracy	±3% RH
Temp Accuracy °C	±0,8°C
Temp Accuracy °F	±1,6°F

Model Specification	
Dimensions (mm)	240(L) x 54(W) x 34(H)
Power Source	9V Battery
Weight	180g

T8000 Anemometer/Hygro/Lux/Temp

- Display LCD
- Auto power off



Technical Specification	
Air Velocity	
Feet Per Minute (Ft/min)	80 to 5910 Ft/min
Metres Per Second (m/s)	0,4 to 30,0 m/s
Kilometers Per Hour (Km/h)	1,4 to 108,0 Km/h
Miles Per Hour (Mph)	0,9 to 67,0 Mph
Knots	0,8 to 58,3 Knots
Temperature	
Deg Celsius (°C/°F)	-100 to 1300°C -148 to 2372°F
Light Intensity	
Lux	0,2,200,1800,20000
Humidity	10 to 95%RH
Resolution	
Air Velocity	
Feet Per Minute (Ft/min)	1 Ft/min
Metres Per Second (m/s)	0,1 m/s
Kilometers Per Hour (Km/h)	0,1 Km/h
Miles Per Hour (Mph)	0,1 Mph
Knots	0,1 Knots
Temperature	
Deg Celsius (°C/°F)	0,1°C/0,1°F
Light Intensity	
0,2,200 Lux	1 Lux
1800 to 20,000 Lux	10 Lux
Humidity	
10 to 95%RH	0,1%RH
Operation Temp	0 ~ 50 °C
Operation Humidity	80%RH Max

Model Specification	
Dimensions (mm)	156(L) x 60(W) x 33(H)
Power Source	9V Battery
Weight	160g

T4201 Anemometer

- Low friction
- Ball bearing design
- High accuracy
- Data hold
- Indicates in 4 different speed units

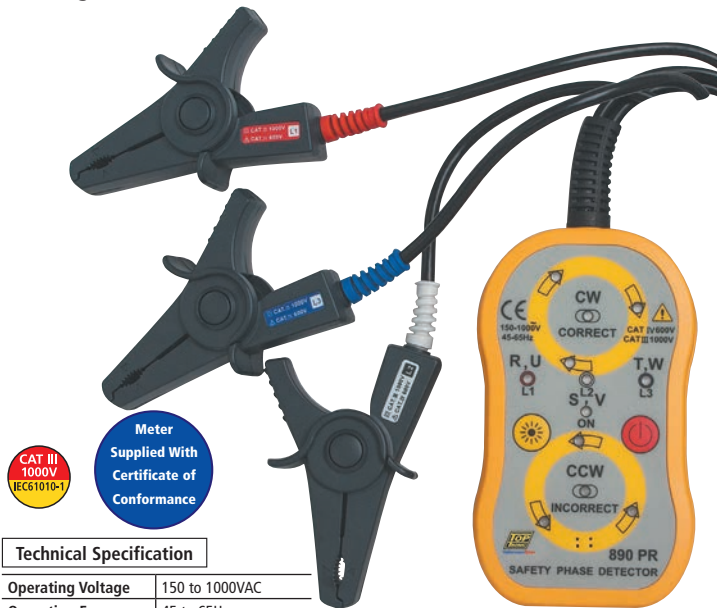


Technical Specification		
Measurement	Range	Resolution
m/s	0,4 – 30,0	0,1
km/h	1,4 – 108,0	0,1
F/min	80 – 5910	10
Knots	0,8 – 58,3	0,1
Display	18mm LCD, 31/2 dgts	
Measurement	m/s (Metres per seconds), km/h (Kilometers per hour), F/min (Feet /per minute), Knots	
Accuracy	±(2% + 1 Digit) ≤ 25 m/s	
Operating Temp	0°C to 50°C	
Dimensions	Sensor Head: Round 72mm Dia.	
Operating Humidity	Max 90% RH (0°C to 35°C)	

Model Specification	
Dimensions (mm)	240(L) x 54(W) x 34(H)
Power Source	9V Battery
Weight	180g

T890 Safety 3 phase Detector (Non contact)

- Clamps over wire insulation without contact on conductor
- Auto off
- Non contact sensor clips
- Open phase and phase sequence
- Magnets on back of unit to mount on metal surfaces



CAT III 1000V IEC61010-1
Meter Supplied With Certificate of Conformance

Technical Specification

Operating Voltage	150 to 1000VAC
Operating Frequency	45 to 65Hz
Circuit Structure	Electronic
Operating Temp	-10°C to 50°C
Humidity	80%
Power Source	4 x 1.5 AA Batteries
Current consumption	15mA
Cable Length	Approx 800mm

Model Specification

Accessories	Carry Pouch
Dimensions (mm)	118(L) x 69(W) x 38(H)
Weight	370g

T855 3 phase Rotation Indicator

- Fused test leads
- Rotating disc
- Colour coded red/white/blue
- Large alligator clips



Meter Supplied With Certificate of Conformance

Technical Specification

Operating Voltage	90 - 600 VAC
Operating Frequency	50/60 Hz
Operating Temp & Humidity	-10°C to 40°C at 80% Max relative humidity
Cord	1.1m each of Red(R), white(S) & Blue(T)

Model Specification

Accessories	Carry Pouch
Dimensions (mm)	106(L) x 75(W) x 40(H)
Weight	515g

T860 3 phase & Motor Rotation indicator

- Determine rotation of unconnected motors
- Heavy duty alligator clips
- Open phase identification



Meter Supplied With Certificate of Conformance

Technical Specification

Operating Voltage	100 to 600VAC
Operating Frequency	45 to 75Hz
Circuit Structure	Electronic
Operating Temp	0°C to 50°C at 90° &
Humidity	Max relative Humidity
Power Consumption (Correct)	± 14mA for motor rotation field test ± 7mA for Phase rotation field indication

Model Specification

Accessories	Carry Pouch
Dimensions (mm)	153(L) x 72(W) x 35(H)
Weight	182g

T887 3 phase Rotation LCD Indicator

- Indicates phase rotation and phase presence
- Colour coded red/white/blue
- Large alligator clips



Meter Supplied With Certificate of Conformance

Technical Specification

Operating Voltage	40 - 700 VAC
Operating Frequency	50/60 Hz
Operating Temp & Humidity	-1°C to 55°C Not in full sunlight
Cord	60cm each of Red(R), white(S) & Blue(T)

Model Specification

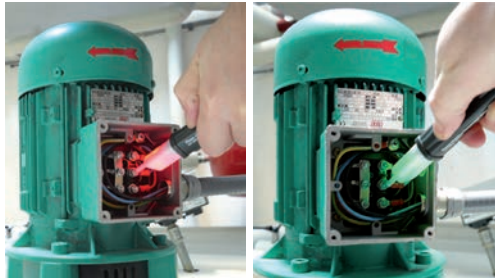
Accessories	Carry Pouch
Dimensions (mm)	150(L) x 72(W) x 34(H)
Weight	159g

T70 Phase Sequence Indicator & Voltage Detector

- Detection AC voltage from 100V to 1000V to ground
- Phase sequence and conformity test with 1 wire method
- Working frequency: 50/60Hz
- With or without contact measurements
- LED red and buzzer indication
- Practical pen clip
- Safety: IEC/EN61010-1, CAT IV 1000V

NEW

CAT IV 1000V IEC61010-1



Incorrect phase sequence

Correct phase sequence

Application video



<http://www.hellermanntyton.co.za/downloads.html>



T534 Circuit Breaker Identifier

- Tracing plug sockets to circuit breakers
- Battery check
- Signal strength buzzer
- Calibrate function by moving receiver across circuit breakers
- Wiring indications



Meter Supplied With Certificate of Conformance

Technical Specification

Operating Voltage	200 - 250 VAC
Frequency	47 - 63Hz
Duty Cycle	10µs
Transmitter Power	Wall Socket
Receiver Power	9V Battery

Model Specification

Dimensions (mm)	(TX) 200(L) x 60(W) x 45(H)
Dimensions (mm)	(RX) 65(L) x 50(W) x 30(H)
Power Source	(TX) 9 V Battery (RX) Mains
Weight	135g

T6236 Digital Tachometer

- Low cost
- Photo/contact
- Removable contact head
- Backlit



Technical Specification

Measurement & Range	Photo: 2.5 to 999999 RPM Contact: 0,5 to 19999 RPM Surface Speeds (m/min): 0,01 to 99,99 m/min
Resolution RPM	0,1 (0,5 to 999,9 RPM)
M/Min	0,01 (0,05 to 99,99 m/min)
Display	5 Digits, 18mm LCD
Accuracy	± (0,05% + 1 Digit)
Memory	Last/Max/Min value

Model Specification

Accessories	Reflecting tape marks (600mm) RPM adaptor (cone) RPM adaptor (Funnel) Surface speed test wheel
Dimensions (mm)	210(L) x 74(W) x 37(H)
Power Source	4 x 1,5V AA Batteries
Weight	200g

T2238 Digital Tachometer

- Photo/contact
- Microprocessor based
- High accuracy
- Variable LCD contrast
- Holds last reading/recalls max & min



TAS35C
Surface Speed
Test Wheel

TMTL35A
Metal
Shaft of
Cone

TAS35B
RPM
Adaptor
(Funnel)

TA535A
RPM
Adaptor
(Cone)

Technical Specification

Measurement & Range	Photo: 5 to 99,999 RPM Contact: 0,5 to 19,999 RPM Surface Speed (m/min): m/min: 0,05 to 1999,9 m/min ft/min: 0,2 to 6,560 ft/min
Resolution RPM	0,1 RPM (<1,000 RPM)
M/Min	1 RPM (≥ 1000 m/min) 0,01 m/min (< 100 m/min.)
Ft/min	0,1 m/min (≥ 100 m/min.) 0,1 ft/min. (< 1,000 ft/min.) 1 ft/min. (≥ 1,000 ft/min.)
Display	5 Digits, 10 mm (0,4") LCD
Accuracy	± (0,05% + 1 Digit)
Memory	Last/Max/Min value

Model Specification

Accessories	Carry Case Reflecting tape marks (600mm) RPM adaptor (cone) RPM adaptor (Funnel) Surface speed test wheel
Dimensions (mm)	195(L) x 61(W) x 39(H)
Power Source	4 x 1,5V AA Batteries
Weight	280g



T8202 Vibration

- Auto power off
- Magnetic probe
- Sensing probe

Meter Supplied With Certificate of Conformance

Technical Specification

Velocity	0,5 ~ 199,9 mm/s
Acceleration	0,5 ~ 199,9m/s ²
Frequency Range	10hz ~ 1Khz
Accuracy	
Accuracy	± 5%+2 Digit @23 ±5°C
Protection	
Min & Max Memory	√
Sampling Time	Approx.1 Second
Operating Temperature	0°C ~ 50°C
Operation Humidity	Less Than 80%Rh

Model Specification

Accessories	Cables with plugs Sensing probe Magnetic base Carrying case Vibration probe RS232 Cable software
Dimensions (mm)	180(L) x 72(W) x 32(H)
Power Source	9V Battery
Weight	Meter 230g Probe 165g



Includes: RS232 Cable, software



T475 Volt/Current Tracer

- Detect current through shielded/armoured cable
- Adjustable sensitivity



Technical Specification

Detection	Non Contact
Indication	Visual & Audio
Sensitivity	Adjustable
Voltage Detection	5V ~ 1000V AC
Current Sensitivity	>100mA
Frequency Range	50 to 500Hz
Operating Temp	-10°C ~ 50°C
Operating Humidity	<80 %RH

Model Specification

Dimensions (mm)	192(L) x 31(W) x 24(H)
Power Source	4 x 1,5V LR44 Batteries (T515BATT)
Weight	60g

SOLDEGAS

- Highest quality butane
- 300ml
- Ultra refined for maximum care & performance



T180 Tone and Probe Kit

- Complete with tone generator and amplifier probe
- Recessed on/off button
- Sensitivity control
- Alligator clips and RJ11 connector
- Single or dual alternating tone
- Use on de-energised circuits

Meter Supplied With Certificate of Conformance

Technical Specification

Tone Generator	Waveform	Square Wave
	Frequency	±1.13kHz
	Amplitude	9V P-P
	Over voltage Protection	±100V
	Single Tone	√
Amplifier Probe	Alternating Tone	√
	Frequency Detection	1-12kHz
	Receiver distance	50-60cm
	Sensitivity Control	√

Model Specification

Optional Accessories	Carry pouch
Dimensions (mm)	Probe 270(L) x 56(W) x 25(H) Tone 62(L) x 58(W) x 34(H)
Power Source	Probe 9V Battery Tone 9V Battery
Weight	250g/Set



Thermal Imager



TPK160 Thermal Imager (160x120 Detector Resolution)

The real Android based Tablet Thermal Camera

Integrates tablet and thermal camera technology, which makes the device multifunctional.

Integrating infrared imaging technology with telecommunications technology. High quality infrared imaging in combination with a tablet allows the user to communicate in real time, and allows live image and video transmission.

Model Specifications

Image Performance

FOV	38° x 28°
Spatial Resolution	4mrad
Thermal Sensitivity	≤0.08°C @ 30°C
Detector Resolution	160x120 pixels
Temperature Range	-20 to 250°C
Focus	Fixed

Image Presentation

Image Mode	IR, CCD
Visible Pixels	High Definition CCD, 8Meg pixel
LCD Display	5" HD Capacitive touch screen
File Format	JPG

Temperature Measurement

Measurement Functions	4 moveable spots, Auto hot/cold spot identification, Isothermal analysis, circle analysis, rectangular analysis, line profile
Measurement Accuracy	±2°C or ±2% of reading

Camera Housing

IP Rating	IP54
Shock / Vibration Resistance	25G / 2G

Additional Features

Wi-Fi	Standard
Bluetooth	Standard
GPS	Standard
Electronic Compass	Standard
Built in Memory	≤ 4MB
Video Recording	Standard
Ports	USB Port
APPS	Reporter Software Installed as Standard

Accessories

- Battery
- Battery charger
- AC adaptor
- USB cable
- Headset
- Wrist strap
- Software app (Installed on the unit)
- Hard carrying case
- Operational manual /calibration report
- Packing list



THT45 Thermal Imager (80x80 Detector Resolution Thermal image only)

THT45 is a professional ultralight compact camera 80x80 pixel, equipped with a very bright 2.8" display and a frequency response of 50Hz. Thanks to its drop-down menu you will get quick access to all functions. THT45 offers a wide range of temperatures (max. 350 °C) as well as a remarkable set of built-in tools such as the possibility of realising advanced analysis with three pointers and cross-over of thermal and visual images mixing them together thanks to PiP technology. THT45 is ideal for detection of electrical problems, control of mechanical parts, analysis of hydraulic systems, air conditioning, etc.

Functions

- Infrared temperature measurement ranging from -20°C to 350°C
- Built-in photo camera for a visual image
- PiP fusion function
- 3 Selectable measuring cursors
- Table with emissivity values of common material
- 4 Standard colour palettes
- Electronic zoom x1-x32
- Automatic detection of hot/cold spots of the image
- Storage of jpeg images on external micro SD card
- IR sensor resolution: 80x80 pixel
- USB port for PC connection and image transfer
- MPEG4 video recording on micro SD card
- Video and microphone output
- Built-in laser pointer and illuminator
- Rechargeable Li-ION battery
- Analysis and printing of images with the dedicated software provided

Model Specifications

Thermal

Detector type:	Uncooled FPA Microbolometer
Spectral range:	8 to 14µm
Pixel sensor form:	80x80 pixel
Thermal Sensitivity:	<0.1° @ 30°C
Field Of View:	9mm / 17° x 17°
IFOV (@1m):	3.78mrad
Focus:	Manual
Image frequency:	50Hz
Colour palette:	4 (Iron, rainbow, grey, grey inverted)

Accessories

- Focal lens 9mm
- Li-ION rechargeable battery
- Battery charger + universal plugs
- Micro SD card 8GB
- USB cable
- Video cable
- Earphone set
- Carry bag
- Wrist strap
- THTLink Windows software
- ISO9000 calibration certificate
- Quick reference guide
- User manual on CD-ROM



Application video



<http://www.hellermanntyton.co.za/downloads.html>

THT47 Thermal Imager (160x120 Detector Resolution Thermal image only)

The THT47 is a infrared thermal camera designed for simple use up to detailed analysis performed by skilled thermal imaging operators. The core of the instrument is the internal icon structure menu inside a capacitive LCD TFT high brightness touch screen which allows really intuitive operations with finger touch selections. THT47 saves the thermal image as jpeg format on a micro SD card. The data is transferred onto a PC via USB interface. Live active IR data video recording is also available. THT47 has an accurate IR sensor with resolution (160x120 pixel) which makes it perfectly suitable when carrying out preventive maintenance operations on any industrial application. The instrument has a wide temperature range (max 400°C) and a host of internal features as the possibility to perform advanced analysis including spots, lines, areas and isothermal on each image. This instrument is ideal for detecting electric problems, to check mechanical devices, to detect problems in the hydraulic system, forced ventilation, etc.

Model Specifications

Thermal

Detector type:	Uncooled FPA Microbolometer
Spectral range:	8 to 14 µm
Pixel sensor form:	160x120 pixel, 25µm
Sensitivity:	<80mK @ (30°C)
Lens/FOV (Field Of View):	7.5mm / 29.8° x 22.6°
Focus:	Manual
Image frequency:	50Hz
Electronic zoom:	x1, x20
Standard palettes:	8
Customized palettes:	8 totally custom + 2 fixed
Advanced analysis on screen:	3 spot + 2 lines + 3 areas
Automatic Hot/Cold detection:	Auto Hot/cold markers
Isotherm:	High/low/temperature interval
Emissivity correction :	Selectable from 0.01 to 1.0 with values of common materials
Measurement corrections:	Emissivity, reflexed temperature, distance, relative humidity, offset temperature
Temperature units:	°C, °F, °K
Display:	LCD, 3.5", 320x240 pixel, capacitive touch screen

General Features

- Auxiliary memory: 4GB micro SD card
- Card memory size: > 1000 standard JPG pictures
- Voice annotation: max 60s/image
- Text annotation: Internal virtual keyboard
- IR video on SD card: MPEG4 format (>60min)
- Video output: PAL/NTSC
- PC interface: USB 2.0

Accessories

- 7.5mm lens and protection cover
- 7.4V Li-ION rechargeable battery
- AC/DC adapter + EU plug
- Charger base
- 4GB micro SD card
- USB cable for PC connection
- RCA video output cable
- Earphone set
- CD-ROM with THTLink software
- User manual on CD-ROM
- Quick reference guide
- ISO9000 calibration certificate
- Soft carry bag



Thermal Imager

THT60 Thermal Imager with Digital Camera (160x120 Detector Resolution)

The THT60 is a powerful infrared thermal camera designed for simple use up to detailed analysis performed by skilled thermal imaging operators. The core of the instrument is the internal icon structure menu inside a capacitive LCD TFT high brightness touchscreen which allows really intuitive operations with finger touch selections. THT60 saves the thermal and visual images in micro SD-cards in a standard jpeg format, and also allow transferring the data onto the PC via USB interface. Live active IR data video recording is also available. THT60 has an IR sensor with optimum resolution (160x120 pixel) which makes it perfectly suitable when carrying out preventive maintenance operations on any industrial application. The instrument has a wide temperature range (max 400°C) and a host of internal features as the possibility to perform advanced analysis including spots, lines, areas and isothermal on each image. This instrument is ideal for detecting electric problems, to check mechanical devices, to detect problems in the hydraulic system, forced ventilation, etc

MODEL SPECIFICATIONS

Thermal

Detector type:	Uncooled FPA Microbolometer
Spectral range:	8 to 14µm
Pixel sensor form:	160x120 pixel
Sensitivity:	<80mK @ (30°C, 50Hz)
Lens/FOV (Field Of View):	7.5mm / 33° x 24°
IFOV (@1m):	3.33mrad
Focus:	Manual
Image frequency:	50Hz
Electronic zoom:	x1 ÷ x20
Rotation of image:	0° ÷ 360° increased by 1°
Standard palette:	8
Customised palettes:	8 totally custom + 2 fixed
Advanced analysis on screen:	3 spot + 2 lines + 3 areas
Automatic hot/cold detection:	Auto Hot/Cold markers
Isotherm	High/low temperature interval selectable from 0.01 to 1.0 with values of common material
Emissivity correction:	Emissivity, reflexed temperature, distance, relative humidity, offset temperature
Measurement corrections:	Emissivity, reflexed temperature, distance, relative humidity, offset temperature
Readout temperature:	°C, °F, °K

Visual

Display:	LCD, 3.5", 320x240 pixel, capacitive touch-screen
Built-in visual camera:	640x480 pixel
Image modes:	IR, Visual, PiP, Image fusion
Picture in picture:	IR area on Visual image and Visual area on IR image
Target illuminator:	White LED torch

General features

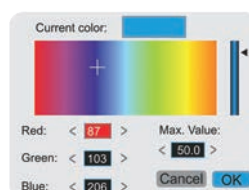
Auxiliary memory:	4GB micro SD card
Card memory size:	> 1000 standard jpeg pictures
Voice annotation:	Max 60s/image
Text annotation:	internal virtual keyboard
IR video on SD card:	MPEG4 format (> 60min)
Video output:	PAL/NTSC
PC interface:	USB 2.0
Laser pointer:	Class 2

Accessories

- 7.5mm lens and protection cover
- 2x7.4V Li-ION rechargeable batteries
- AC/DC adapter + universal plugs
- Charger base
- 4GB micro SD card and card reader
- USB cable for PC connection
- RCA video output cable
- Rubber support for LCD hood
- Rubber support for tripod
- Earphone set
- CD-ROM with THTLink software
- User manual
- ISO9000 calibration certificate
- Hard carry case

Optional Accessory Lenses

- **RL1160** - 11mm lens FOV 20.6° x 15.5° (Short distance)
- **RL2260** - 22mm lens FOV 10.4° x 7.8° (Medium distance)
- **RL3360** - 33mm lens FOV 6.9° x 5.2° (Long distance)



Customised palette



Icon menu



Isothermal feature



TP100 Soldering Iron

- Safety cap
- Adjustable gas flow
- Flint
- Self ignitor
- Ronsons butane gas recommended



Technical Specification

Operating Temp.	200 - 450°C
Operating Time	30 minutes
Adjustable Flow	✓
Hot Blower	✓

TP200 Soldering Iron

- Safety cap
- Adjustable gas flow
- Flint
- Self ignitor
- Ronsons butane gas recommended



Technical Specification

Operating Temp.	200 - 450°C
Operating Time	50 minutes
Adjustable Flow	✓
Hot Blower	✓

TP100K Soldering Kit

- Handy carry case
- Ronsons butane gas recommended



Accessories

TP100 Soldering iron, solder, deflector, hot knife, chisel tip, angle tip, stand, sponge, handy carry case

TP200K Soldering Kit

- Handy carry case
- Ronsons butane gas recommended



Accessories

TP200 Soldering iron, solder, hot knife, 2.4mm chisel tip, 3.0mm angle tip, deflector, hot blow, stand, sponge, handy carry case

TP720K Soldering Kit

- Industrial soldering iron
- Ronsons butane gas recommended



Technical Specification

Operating Temp.	200 - 1300°C
Operating Time	50 minutes
Adjustable Flow	✓
Hot Blower	✓
Self ignitor	✓

Accessories

TP720 Soldering iron, solder, deflector, hot knife, chisel tip, angle tip, self-standing, sponge, handy carry case

ELCB / Polarity Testers

TEL1TLB Socket/ELCB Tester/Polarity

- Live on earth indication (LCD Display)
- Identifies 6 wiring conditions
- Earth tripping function
- Floating earth detection
- Ready-board compatible
- If wiring is incorrect and brass knob is touched, LCD will display a floating earth



Technical Specification

Rated Tripping Current	10,15,20,25,30,35mA
Resolution	5mA
Operation Voltage	220V

TPST Socker/ELCB Tester

- Live on earth indication
- Polarity indication
- Identifies 7 wiring conditions
- Earth tripping function (30mA)



TEL2SC ELCB/Polarity

- Taut band movement
- Wiring check
- Robust
- Two and three wire operation
- No batteries

NEW ROBUST DESIGN



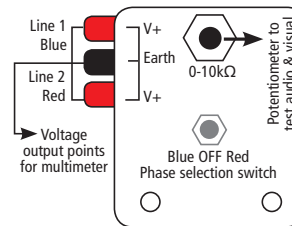
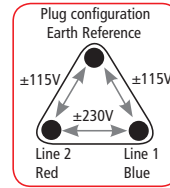
Technical Specification	
Operating Voltage	550
ELCB current	10mA - 50mA
Current Selection	Knob
Frequency of Operation	50/60Hz
Accuracy	
Operating Voltage (L-E)	550Vac @ ± 15%
Meter	±1% of full scale
Protection	
Operator Temperature	-5°C to 45°C
Fuse Protected	0,1A Fast Blow

Meter Supplied With Certificate of Conformance

Model Specification	
Dimensions (mm)	170(L) x 165(W) x 92(H)
Power Source	Mains
Weight	970g

TIMT Line Insulation Monitor Tester

- Testing of IT supply systems from high impedance transformers.
- Test between earth reference and phase with output connections for a multimeter.
- Test Insulation monitoring alarm by adjusting the potentiometer to verify the audio and visual indication.



Application video



<http://www.hellermanntyton.co.za/downloads.html>

TEL28 Industrial ELCB

- Micro-processor controlled
- Fully programmable
- Direct read out of time/current
- Voltage measurement during test
- Suitable for industrial, mining and domestic environments
- Each phase tested separately on a 3 phase system

NEW ROBUST DESIGN



Technical Specification	
Rated tripping current at 317 Volts	0 to 1000mA
Resolution	1mA
Operating voltage	100 to 450V AC
Maximum trip time	100 secs
Resolution	1m sec
Accuracy	
Rated trip current	1% (1mA)
Voltage measurement	1% (1V)
Rated trip time	1ms
Operating temperature	0°C to 40°C
Humidity (%)	80
Phase angle setting	0 & 180° selectable

Meter Supplied With Certificate of Conformance

Model Specification	
Dimensions (mm)	170(L)x165(W)x92(H)
Power Source	8 x 1,5 AA Batteries
Weight	1,5kg

TEL11 ELCB/Phase Rotation Tester

- Indicates phase presence
- Indicates phase rotation
- TEST for disconnection sensitivity
- TEST for disconnection time
- Select one of 3 phase to test ELCB
- Measure voltage phase to earth
- Over temperature protection
- Phase polarity trip indicator

Meter Supplied With Certificate of Conformance



Technical Specification

Current Settings	999mAac/50Hz
Current Selection	Knob
Phase-start-selection	0° & 180°
Operation Voltage (L-e)	60Vac to 317Vac (525V System)
Timer Resolution	1mS (Max Time = 99.99s)
Current Resolution	1mA
Voltmeter Resolution	1V
Accuracy	
Earth Leakage Constant Current Iac	5 to 999 (mA) @50Hz
Ramping Current	5 to 999 (mA)
Sensitivity Disconnection Check	5 to 999 (mA)
Time Delay Disconnection Check(s)	0.001 - 99.999
Maximum Current Consumption	10mA
ELCB Voltage Measurement L-E (Vac)	10 to 330V
ELCB Tester Voltage Present (VELCB)	LED
ELCB Fuse (Slow Blow)	1.5A
Protection	
OverVoltage CLASS III	450V
Over Load between all terminals	550V
Battery OK goes off when battery voltage	<9Vdc

TEL11OLED ELCB/Phase Rotation Tester

- Indicates phase presence
- Indicates phase rotation
- TEST for disconnection sensitivity
- TEST for disconnection time
- Select one of 3 phase to test ELCB
- Measure voltage phase to Earth
- Over temperature protection
- Phase polarity trip indicator

NEW

OLED Display is visible without a backlight



Model Specification

Accessories	Test Leads x 2 (terminate own plug)
Dimensions (mm)	330(L) x 260(W) x 150(H)
Power Source	8 x C Batteries
Weight	2.0kg

Functions

This test instrument is a combination of 3 phase presence and rotation indicator combined with a 3 phase industrial earth leakage tester and measures the current at which the breaker disconnects or the time taken to disconnect.

The earth leakage can be utilised on a single phase (up to 317Vac line to earth) or a 3 phase powered system (550V line to line or phase to phase) with a protective earth conductor.

TELE10L Industrial ELCB

- Micro-processor
- Fully programmable (Direct readout - time or current)
- Voltage measured during test
- Heavy duty carry case

Meter Supplied With Certificate of Conformance



Technical Specification

Rated Tripping Current	0-1000mA at 317 Volts
Lowest Resolution	1mA
System Voltage	380/550 volts
Maximum Trip Time	99.99 secs
Lowest Resolution	10ms
Accuracy	
Rated Trip Current	±1% reading ± 2 digits
Voltage Range	±1% reading ± 1 digits
Trip Time	±1% reading ± 2 digits
Operating Temp (°C)	0°C to 40°C
Humidity %	80

Model Specification

Dimensions (mm)	330(L)x260(W)x150(H)
Power Source	6 x 1,5V Batteries
Weight	1.6kg

T4137 Digital Milliohm Meter

- Four terminal measurement
- Large LCD display
- 12V DC battery powered
- Robust lightweight case with O-ring seal

Meter Supplied With Certificate of Conformance



Technical Specification

Resistance Ranges	Range	Accuracy	
0 to 200Ω	in steps of 100μΩ	±0,5% of reading	
0 to 2000mΩ	in steps of 1Ω		
0 to 20Ω	in steps of 10Ω		
0 to 200Ω	in steps of 100mΩ		
	0 to 2000Ω	±2 digits	
	0 to 2000Ω	in steps of 1Ω	
Test Current	1mA = 2000Ω range 10mA = 200Ω range 100mA = 2000mΩ range		
Maximum Output Voltage	20V rms		
Test Current Accuracy	±0,1%		

Model Specification

Accessories	Test Leads Shoulder belt
Dimensions (mm)	250(L) x 190(W) x 110(H)
Power Source	8 x 1,5V AA Batteries
Weight	1500g

Voltage Testers

WIBRETEST Industrial Heavy Duty

- AC/DC
- Neon Indication (green, red)
- Polarity
- 110-750 Volt
- Oil resistant
- No batteries
- Wibreneon (spare neon optional)



WIBRE1000 1000V CATIV

- IP65 (dust/waterproof)
- IEC61243-3
- LED lights
- DIN / VDE 0682-401
- AC/DC Voltage 110,230,380,690,1000V
- Polarity
- Oil resistant
- No batteries



TBT69 Industrial

- AC/DC Voltage 6,12,24,50,120,230,400,690,1000V
- Polarity LED lights
- Electric field detection
- LCD display
- RCD (ELCB) tripping (30mA)
- Auto hold
- Continuity
- Transient protection 8kV
- Attached red probe with screw-on 4mm test tip
- CAT III 1000V leads



DUSPOLA Analogue Plus

- IP65 (Dust/waterproof)
- IEC 61243-3:2011-02
- ACV 12 ~ 1000V
- DCV 12 ~ 1000V
- No batteries required
- Vibration
- Phase sequence
- LED indication
- Solenoid movement
- Polarity test

NEW UPGRADED SPECIFICATION



DUSPOLE Expert

- IP65 (Dust/waterproof)
- IEC 61243-3:2011-02
- ACV 12 ~ 1000V
- DCV 12 ~ 1000V
- 2 x 1.5V AAA Batteries
- Vibration
- Phase sequence
- Continuity with buzzer/LED
- Measuring point illumination
- Polarity test

NEW UPGRADED SPECIFICATION



TCV6 Voltage Tester

- Voltage range: 6, 12, 50, 110, 230, 415V AC/DC
- Voltage indication: LED
- IP66



TS500 Non-contact

- 70 - 600V AC
- Non contact
- Audio/visual/vibration
- Polarity
- Microwave leakage
- 4 x 1.5V LR44 batteries (T515BATT)



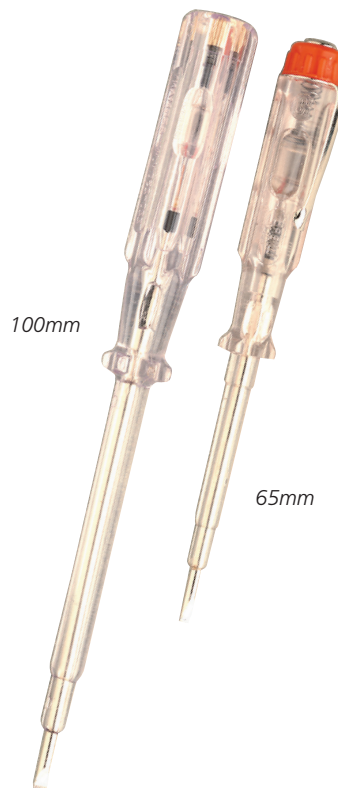
TVP1000 Non-contact 1000V

- 90 - 1000V AC
- CATIII 1000V
- Vibration and flashing red LED
- IP65 waterproof
- Length - 156mm
- 2 x AAA batteries (supplied)



T45200/T45000 Neon Screwdrivers

- 45200 (100mm)
- 45000 (65mm)
- Voltage range: 120 - 250VAC



Surge Plugs

- High surge handling capability
- Incorrect power socket wiring detection
- Economical secondary protection
- Thermal and over-current fusing
- Visual fault indication
- Differential and common mode protection
- 2 Year Warranty

TSP1A Surge Plug Top (Green)

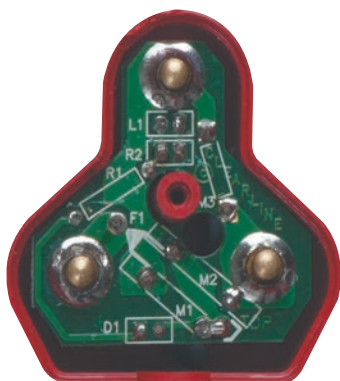
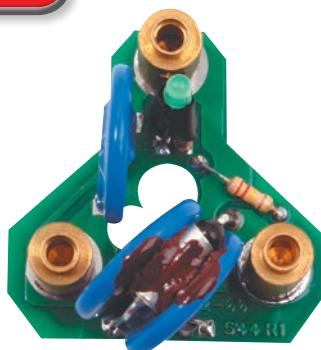


TSP1AF Surge Plug Top (Red) Flat Pin



SANS 164-0 APPROVAL

NEW UPGRADED SPECIFICATION



Rated Voltage	230V/50Hz
Max Continuous	275VAC
Operating Voltage	
Max Continuous Current	16A
Max Surge Current	8kA
Fault Indication	LED On (Protection OK)
Fusing	Integrated 104°C Thermal and 16A over current fuse
Temperature Range	-10°C ~ 70°C
Standards Compliance	IEC 61643-1

TPQA820**Waterproof, Self-Powered Three-Phase Power Quality Analyzer With Usb And Wi-Fi Communication Interface**

TPQA820 is a power quality analyzer performing an easy and wide analysis of the most significant parameters of the electrical system. Thanks to an innovative project, the instrument can be interfaced to smart phones, tablets and PDAs (iOS and/or Android) meeting the requests of the most demanding professionals. All the electrical parameters can be displayed in both numerical and graphical mode, by waveforms, histograms and phasors. The vector diagram shows the phase angle between any voltage and the related current, revealing the inductive or capacitive nature of the loads connected. The large built-in memory allows to log up to 383 parameters, granting a recording lasting more than one month with an integration period of 10 minutes. TPQA820 records all parameters by default so avoiding any failure. The user will never miss recording the parameters he needs, since TPQA820 records everything while selecting one of the three predefined settings (single phase, 3-phase without neutral, 3-phase with neutral). TPQA820 is powered by an internal rechargeable Li-Ion battery with a built-in user-selectable L-N or L-L power supply. The Wi-Fi and the USB interfaces grant connection to smart phones, tablets, PDAs and PCs for instrument setting, recording start and stop, data downloading, and data analysis. Its IP65 waterproof hard carry case allows TPQA820 to work outdoors under critical environmental conditions.

Functions

- AC/DC voltage
- TRMS voltage with 4 inputs for line(s) and neutral (if any)
- AC/DC current
- TRMS current with 4 inputs for line(s) and neutral (if any)
- AC/DC power
- Active, reactive and apparent power and energy
- Power factor and $\cos\phi$
- Frequency
- Up to 383 parameters to be recorded at once
- Integration period selectable from 5 seconds to 60 minutes
- Voltage and current harmonic analysis up to the 49th order
- Voltage anomalies (sags, swells) with 10ms resolution
- Numerical data analysis (DMM function)
- Graphical display of voltage and current (scope)
- Harmonic histogram
- Vectorial diagram of voltages and currents
- Voltage unbalance
- Predefined recording settings
- Built-in memory for data logging
- Wi-Fi and USB interfaces
- Android/iOS/Windows software
- Rechargeable Li-Ion battery with built-in power supply
- Waterproof IP65 hard carrying case

MODEL SPECIFICATIONS

Internal supply:	Li-Ion rechargeable with built-in power supply, duration 1h
Mains supply:	100 ÷ 415V, 50/60Hz
Internal memory:	8MB (approx. 30 days @ IP = 10min max parameters)
PC interface:	USB 2.0
Remote device interface:	Wi-Fi communication
Remote device interface:	Tablet/Smart phone (iOS, Android)
Safety:	IEC/EN61010-1
Insulation:	double insulation
Measurement category:	CAT III 300VAC (to ground) Max 460V between inputs
Dimensions (LxWxH):	245x210x110mm
Weight (battery included):	Approx. 0.7kg



iPad mini
(Wi-Fi only supplied
with product)



IP65



TPQA820 is built in a tough and strong casing making it suitable for any environmental condition.

Application video


<http://www.hellermanntyton.co.za/downloads.html>


TPQA820

Accessories

iPad mini

Flexible transducer for 0÷100A,
0÷1000A AC current 174mm diameter, 4 pcs (TFLEX33L)

Set of 4 cables 2m

Set of 4 alligator clips

Magnetic adaptor for connection
to screw heads, 4 pieces (TMAGCON)

TOPVIEW2007 - Windows software + USB cable

Carrying bag for accessories

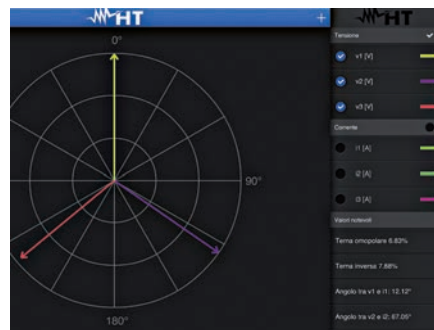
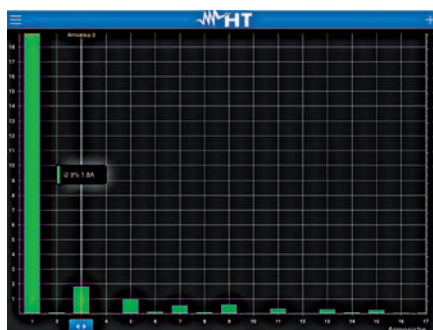
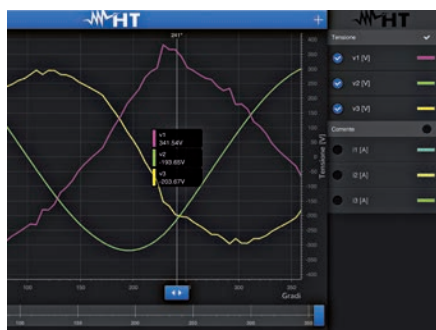
ISO9000 calibration certificate

Quick reference guide

User manual on CD-ROM



Includes:
TOPVIEW2007 - C2007
USB Cable and Software

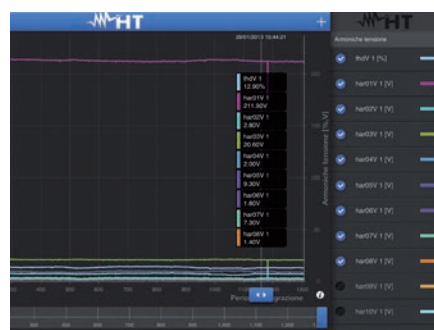
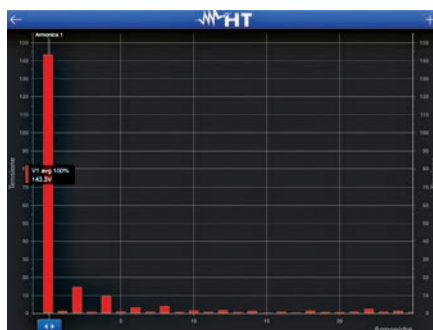
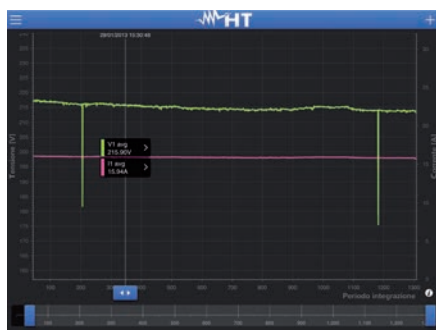


REAL-TIME

Instrument configuration through tablet or smartphone. Quick and detailed display of all waveforms.

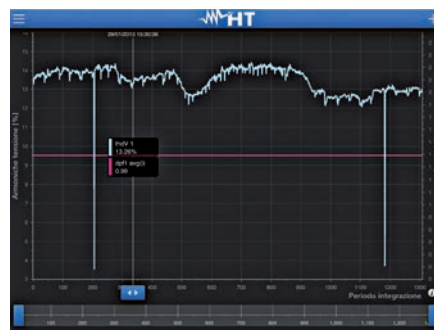
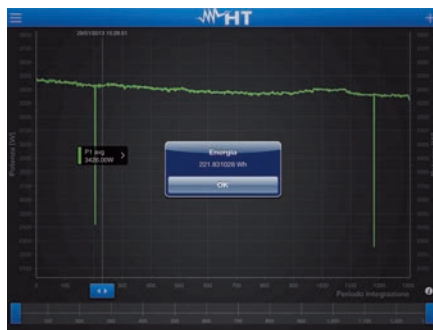
Quick and detailed display of all harmonics relative to the selected quantities.

Real time vector diagrams (phasors), DMM function and THD%.



RECORDING OUTCOME

Zoom and quick access to any part of the recording, harmonic analysis at any quantity just through one touch. Trend of all recorded quantities selectable through menu can be displayed, such as frequency, voltages and currents, powers, cosphi, THD%, harmonics up to 49th order and THD%. Fault tracing and maintenance have never been so easy.



ENERGY CONSUMPTION

PQA820 can record all active, reactive and apparent powers over a long period, compare all of them with quantities such as cosφ, harmonics and THD%. Thanks to dynamic App HTanalysis it will be easy to find an immediate solution to energy-waste problem.

Power Analyser

T78 Three-phase Power Analyser and Recorder

- AC/DC recording
- 4 Current and 5 voltage input channels
- Colour touch screen display
- Voltage and current vectorial diagrams
- Voltage anomalies
- Voltage and current harmonics

The T78 is a new approach to measure, record and analyse power quality on electrical installations. Thanks to an innovative design and a graphic colour TFT "touch screen" wide display this model finally meets all requests from any electrical verifier. The interface is "user-friendly" due to the intuitive icon selection of any kind of feature and a contextual help is available for each screen. Each internal parameter is easy to reach due to the typical Windows tree structure.

Each model permits the visualisation of all parameters both in numeric and graphical mode with large use of waveforms and histograms (for harmonic analysis) screens. The vectorial diagram feature allows the user to evaluate the mutual phase angle between voltages and current in order to understand the inductive or capacitive nature of the loads on an installation.

Functions

- TRMS P-N, P-P, P-PE voltage measures (5 inputs)
- TRMS current on phases and neutral (4 inputs)
- Active, reactive and apparent power measures
- Active, reactive and apparent energy measures
- Power factors measure
- Frequency measure
- Max 251 selected parameters at the same time
- Integrated period selectable from 1 second to 60min
- Harmonic analysis of voltage and current up to 49th component
- Voltage anomalies (sags, swells) with 10ms resolution
- Numerical and graphical (waveforms) visualisation
- Histogram visualisation of harmonic analysis
- Vectorial diagram of voltages and currents
- 5 Predefined recordings of parameters
- TFT colour display with "touch screen"
- 15MB internal memory for recordings saving
- Use of external compact flash and USB pen drives
- USB interface for PC connection
- Windows software for recordings analysis
- Contextual help selectable on each screen
- Virtual keyboard at display



Includes:
TOPVIEW2007 - C2007
USB Cable and Software

Model Specification

Standard	4 Flexible heads 300 - 3000A (TFLEX33E)
Accessories	Test leads Power supply TA0055 TOPVIEW2007 Software & cable Carry case Stylus English instruction disc Calibration certificate ISO9000
Dimensions (mm)	235(L) x 165(W) x 75(H)
Power Source	3.7V Li-ION rechargeable battery
Weight	1.0kg

T78 Three-phase Power Analyser and Recorder

Model Specification

Standard Accessories	4 Flexible heads 300 - 3000A (TFLEX33E) Test leads Power supply TA0055 Software & cable Carry case Stylus English instruction disc Calibration certificate ISO9000
Dimensions (mm)	235(L) x 165(W) x 75(H)
Power Source	3.7V Li-ION rechargeable battery
Weight	1.0kg

True RMS AC/DC Voltage Phase - Neutral / Phase Ground - Single Phase / 3 Phase System	
Range	0.0 ÷ 600V
Resolution	0.1V
Input Impedance	10MΩ
Accuracy	± (0.5% + 2 digits)

True RMS AC/DC Voltage Phase - Phase / 3 Phase System	
Range	0.0 ÷ 1000V
Resolution	0.01V
Accuracy	± (0.5% + 2 digits)
Input Impedance	10MΩ

Voltage Anomalies - Phase - Neutral - Single Phase / Three Phase 4-Wire Systems	
Range	0.0 ÷ 600V
Time Resolution	10ms
Voltage Accuracy	± (1.0% + 2 digits)
Time Accuracy	±10ms
Voltage Resolution	0.2V

Voltage Anomalies - Phase - Phase - 3-Wire Systems	
Range	0.0 ÷ 1000V
Time Resolution	10ms
Voltage Accuracy	± (1.0% + 2 digits)
Time Accuracy	±10ms
Voltage Resolution	0.2V

TRMS AC Current with Standard Transducer Clamp	
Range	0.0 ÷ 1000mA
Input Impedance	510kΩ
Accuracy	± (0.5% + 0.06%)
Resolution	0.1mA
Overload Protection	5V

TRMS AC Current with Flex Transducer Clamp 3000A	
Range	0.0 ÷ 3000A
Input Impedance	510kΩ
Accuracy	± (0.5% + 0.06%)
Resolution	0.1A
Overload Protection	5V

Power - Single Phase / 3 Phase System (@ cosφ > 0.5 and Vmis > 60V, Clamp Type STD)	
Parameter (W, VAR, VA)	Active power, Reactive power and Apparent power
Full Scale Clamp	1A ÷ 3000A
Range (W, VAR, VA)	0.0 ÷ 9.99M
Accuracy	± (1.0% + 6 digits)
Resolution	0.1 ÷ 0.001M

Energy - Single Phase / 3 Phase System (@ cosφ > 0.5 and Vmis > 60V, Clamp Type STD)	
Parameter (W, VAR, VA)	Active energy, Reactive energy and Apparent energy
Full Scale Clamp	1A ÷ 3000A
Range (W, VAR, VA)	0.0 ÷ 9.99M
Accuracy	± (1.0% + 6 digits)
Resolution	0.1 ÷ 0.001M

Power factor (cosφ) - Single Phase / 3 Phase System	
Range	0.20 ÷ 1.0
Resolution	0.01
Accuracy	± (1.0 ÷ 0.6)

Voltage - Current Harmonics	
Range	25 ÷ 49
Resolution	0.1V / 0.1A
Accuracy	± (5.0% + 5 digits)

Frequency	
Range	42.5 ÷ 69.0Hz
Resolution	0.1Hz
Accuracy	± (0.2% + 1 digits)

HT4005N AC Standard Clamp

Ranges: 0 ÷ 5A, 0 ÷ 100A
 Basic accuracy: ±1.0%rdg
 Output signal: 1V AC
 Measurement category: CAT III 600V, CAT IV 300V
 Max clamping cable diameter: 20mm
 Output connector: Hypertac



T824 Three-phase Power Quality Analyser and Recorder

- AC/DC recording
- 4 Current and 5 voltage input channels
- Colour touch screen display
- Voltage and current vectorial diagrams
- Voltage anomalies
- Inrush current
- Voltage and current harmonics

The PQA T824 is a new approach to measure, record and analyse power quality on electrical installations. Thanks to an innovative design and a graphic colour TFT "touch screen" wide display this model finally meets all requests from any electrical verifier. The interface is incredibly "user-friendly" due to the intuitive icon selection of features and a contextual help is available for each screen. Every internal parameter is easy to reach via a typical Windows tree structure.

Each model permits the visualisation of all parameters both in numeric and graphical mode with large waveforms and histograms (for harmonic analysis). The vectorial diagram feature allows users to evaluate the mutual phase angle between voltages and current in order to understand inductive or capacitive loads on an installation.

Functions

- TRMS P-N, P-P, P-PE voltage measures (5 inputs)
- TRMS current on phases and neutral (4 inputs)
- Active, reactive and apparent power measures
- Active, reactive and apparent energy measures
- Power factors measure
- Frequency measure
- Max 251 selected parameters at the same time
- Integrated period selectable from 1 second to 60min
- Harmonic analysis of voltage and current up to 49th component
- Voltage anomalies (sags, swells) with 10ms resolution
- Numerical and graphical (waveforms) visualisation
- Histogram visualisation of harmonic analysis
- Vectorial diagram of voltages and currents
- Flicker analysis (Pst, Plt) in compliance to EN50160
- Voltage unbalance in compliance to EN 50160
- Inrush current measures
- Fast voltage spikes transients with 5µs resolution
- 5 Predefined recordings of parameters
- TFT colour display with "touch screen"
- 15MB internal memory for recordings saving
- Using of external compact flash and USB pen drives
- USB interface for PC connection
- Windows software for recording analysis
- Contextual help selectable on each screen
- Virtual keyboard on display



Includes:
TOPVIEW2007 - C2007
 USB Cable and Software

Model Specification

Standard	4 Flexible heads 300 - 3000A
Accessories	(TFLEX33E) Test leads Power supply TA0055 TOPVIEW2007 Software & cable Carry case Stylus English instruction disc Calibration certificate ISO9000
Dimensions (mm)	235(L) x 165(W) x 75(H)
Power Source	3.7V Li-ION rechargeable battery
Weight	1.0kg

T824 Three-phase Power Quality Analyser and Recorder

True RMS AC/DC Voltage Phase - Neutral / Phase Ground - Single Phase / 3 Phase System	
Range	0.0 ÷ 600V
Resolution	0.1V
Input Impedance	10MΩ
Accuracy	± (0.5% + 2 digits)

True RMS AC/DC Voltage Phase - Phase / 3 Phase System	
Range	0.0 ÷ 1000V
Resolution	0.01V
Accuracy	± (0.5% + 2 digits)
Input Impedance	10MΩ

Voltage Anomalies - Phase - Neutral - Single Phase / Three Phase 4-Wire Systems	
Range	0.0 ÷ 600V
Time Resolution	10ms
Voltage Accuracy	± (1.0% + 2 digits)
Time Accuracy	±10ms
Voltage Resolution	0.2V

Voltage Anomalies - Phase - Phase - 3-Wire Systems	
Range	0.0 ÷ 1000V
Time Resolution	10ms
Voltage Accuracy	± (1.0% + 2 digits)
Time Accuracy	±10ms
Voltage Resolution	0.2V

Voltage Spikes - Phase Ground - Single Phase - 3 Phase System	
Range	100V ÷ 6000V
Time Resolution	10ms
Voltage Accuracy	± (10% + 100V)
Voltage Resolution	1.0 ÷ 15V
Detector Time	5µs ÷ 160µs

TRMS AC Current with Standard Transducer Clamp	
Range	0.0 ÷ 1000mV
Input Impedance	510kΩ
Accuracy	± (0.5% + 0.06%)
Resolution	0.1mV
Overload Protection	5V

TRMS AC Current with Flex Transducer Clamp 3000A	
Range	0.0 ÷ 3000A
Input Impedance	510kΩ
Accuracy	± (0.5% + 0.06%)
Resolution	0.1A
Overload Protection	5V

Power - Single Phase / 3 Phase System (@ cosφ > 0.5 and V _{mis} > 60V, Clamp Type STD)	
Parameter (W, VAR, VA)	Active power, Reactive power and Apparent power
Full Scale Clamp	1A ÷ 3000A
Range (W, VAR, VA)	0.0 ÷ 9.99M
Accuracy	± (1.0% + 6 digits)
Resolution	0.1 ÷ 0.001M

Energy - Single Phase / 3 Phase System (@ cosφ > 0.5 and V _{mis} > 60V, Clamp Type STD)	
Parameter (W, VAR, VA)	Active energy, Reactive energy and Apparent energy
Full Scale Clamp	1A ÷ 3000A
Range (W, VAR, VA)	0.0 ÷ 9.99M
Accuracy	± (1.0% + 6 digits)
Resolution	0.1 ÷ 0.001M

Power factor (cosφ) - Single Phase / 3 Phase System	
Range	0.20 ÷ 1.0
Resolution	0.01
Accuracy	± (1.0 ÷ 0.6)

Voltage - Current Harmonics	
Range	25 ÷ 49
Resolution	0.1V / 0.1A
Accuracy	± (5.0% + 5 digits)

Frequency	
Range	42.5 ÷ 69.0Hz
Resolution	0.1Hz
Accuracy	± (0.2% + 1 digits)

Flicker - Single Phase / 3 Phase System	
Range	0.0 ÷ 10.0
Parameter	Pit, Pst, Pst1
Accuracy	Compliance to EN50160
Resolution	0.1

HT4005N AC Standard Clamp

Ranges: 0 ÷ 5A, 0 ÷ 100A
 Basic accuracy: ±1.0%rdg
 Output signal: 1V AC
 Measurement category: CAT III 600V, CAT IV 300V
 Max clamping cable diameter: 20mm
 Output connector: Hypertac



T8051 Process Calibrator

T8051 is a professional digital process calibrator designed to generate and measure DC voltage and DC current up to 10V and 24mA respectively. Under the current generation mode you can manually select between 0-20mA and 4-20mA as well as automatic ramps on output signal. An innovative adjustment knob permits a "top-easy" settings of the output current/voltage with 0.001mA/V resolution.

Functions

- Generation of output voltage signal with amplitude up to 10VDC
- Voltage measurement up to 10VDC
- Generation of output current signal with amplitude up to 24mADC
- Current measurement up to 24mAVDC
- Current measurement under percentage format (4-20mA)
- Adjustment selector with high sensitivity
- Up to 3 available automatic ramp selection
- Loop current of external transducers measurement
- Simulation of an external transducer
- Li-Ion rechargeable battery powered
- Backlit
- Auto Power OFF



Model Specifications

DC voltage (generated and measured)

Range: 0.01mV ÷ 10V
 Resolution: 0.01mV ÷ 0.001V
 Accuracy: ±(0.02%rdg + 4dgt)
 Protection: 30VDC

DC current (generated and measured)

Range: 0.001mA ÷ 24mA
 Percentage: -25% ÷ 125%
 Resolution: 0.001mA
 Accuracy: ±(0.02%rdg + 4dgt)
 Protection: 30mADC

DC voltage (generated and measured)

Slow linear ramp: from 0% 100% 0% in 40s
 Fast linear ramp: from 0% 100% 0% in 15s
 Step ramp: from 0% 100% 0% in steps of 25% with rampsof 5s each

Accessories

- Test leads
- Alligator clips
- Protection rubber holster
- Li-ION rechargeable battery
- External adapter
- User manual
- Carrying case



T123 Process Calibrator

- Only for sourcing and not for input voltages
- Temperature
- Voltage 100mV to 11V DC
- Current 1µA to 22mA

Technical Specification Output Capabilities

Output	Measuring Range	Output Range	Resolution	Accuracy	Remark
DCV	100mV	-10,000mV to 110,000mV	1µV	0,02 + 0,01	Max ouput current: 0,5mA Max ouput current: 2mA
	1000mV	-100mV to 1100mV	10µV	0,02 + 0,01	
	10V	-1,0000 to 11,0000V	0,1mV	0,02 + 0,01	
DCA	20mA	0,000mA to 22,000mA	1µA	0,02 + 0,02	Max load 1kΩ at 20mA
Resitance	400Ω	0,00Ω to 400,00Ω	0,01Ω	0,02 + 0,02	Current 0,5 to 3mA Current 0,05 to 0,3mA Current 0,01mA
	4kΩ	0,0000kΩ to 4,0000kΩ	0,1Ω	0,05 + 0,025	
	40kΩ	0,000kΩ to 40,000kΩ	1Ω	0,1 + 0,1	
Temperature	R	-0°C to 1767°C	1°C	1,5°C	By using ITS-90 temperature scale: The accuracy does not include the error of internal temperature compensation caused by a sensor
	S	-0°C to 1767°C	1°C	1,5°C	
	B	600°C to 1820°C	1°C	1,5°C	
	E	-200°C to 1000°C	0,1°C	0,6°C	
	K	-200°C to 1372°C	0,1°C	0,6°C	
	J	-200°C to 1200°C	0,1°C	0,6°C	
	T	-250°C to 400°C	0,1°C	0,6°C	
RTD	PT100-385	-200°C to 800°C	0,1°C	0,3°C	By using temperature scale ITS-90. Current varies from 0,5 to 3mA. Does not include lead resistance
	PT200-385	-200°C to 630°C	0,1°C	0,8°C	
	PT500-385	-200°C to 630°C	0,1°C	0,4°C	
	PT1000-385	-200°C to 630°C	0,1°C	0,2°C	
Frequency	100Hz	1Hz to 110,00Hz	0,01Hz	2 count	Output voltage 1 to 11Vp-p Amplitude accuracy 5% + 0,5V Max load > 100KΩ
	1KHz	0,100KHz to 1,10KHz	1Hz	2 count	
	10KHz	1,0KHz to 11,0KHz	0,1KHz	2 count	
	100KHz	10KHz to 110KHz	2KHz	2 count	
Pulse	100Hz	1 to 100000 cycles	1 cycle	2 count	Duty cycle 50%
	1KHz	1 to 100000 cycles	1 cycle	2 count	
	10KHz	1 to 100000 cycles	1 cycle	2 count	
Switch	100Hz to 100KHz	1Hz to 110KHz	0,1Hz to 2KHz	5 count	Max open/close voltage 28V and 50mA



Model Specification

Dimensions (mm)	200(L) x 100(W) x 40(H)
Power Source	9V Battery
Weight	550g

T02AS Universal

- Universal low cost test lead set with probe and crocodile clips, suitable for all testers with 4mm terminals
- Silicon based



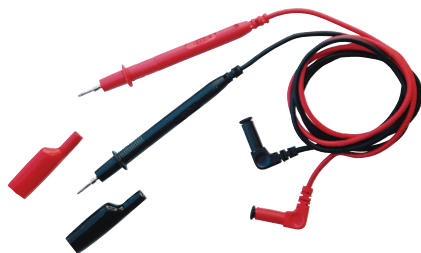
T8040LEAD Universal

- Standard low cost test leads suitable for all Toptronic and Fluke 70 series



TAL24 Universal

- 2mm Probe tip
- PVC test leads
- C/W crocodile clips
- Suitable for Toptronic & other makes of DMM's
- Screw on crocks



TAL25 Universal

- 4mm Probe tip
- PVC test leads
- C/W crocodile clips
- Suitable for Toptronic & other makes of DMM's
- Slide on crocks



TALTBM Silicone

- Category IV 1000V
- Ideal for TBM meters



TAL35RBK Silicone

- Double insulated Silicone wire (1m)
- Spring-shrouded 4mm brass caged banana probe tips
- Shrouded right-angle connector
- Complies with IEC1010, CATIII



TALTIN

- Double insulated silicone wire (1,2m)
- Used for TIN insulation testers (TIN4D, TIN5D, TIN6A, TIN6D and TIN7D)



TAL1825 Accessories

- Used for loop testers (T1825, T2018)
- Short length to reduce resistance with loop test



TAL30CRBK Accessories

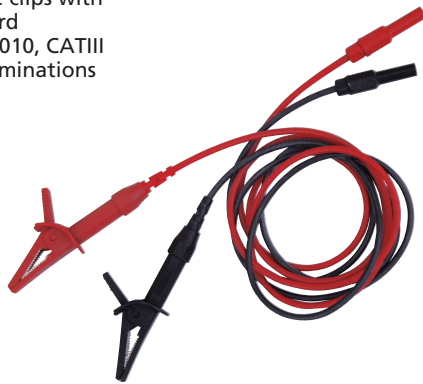
- Wide grip crocodile clip with integral finger guard
- Suitable for use with TAL35RBK & TAL35RBFK test leads
- Compatible with 4mm male leads

**TAL38CRBK Accessories**

- Wide grip crocodile clips with integral finger guard
- Suitable for all 4mm male leads
- Suitable for TAL39RBK

**TAL30ARBK Silicone**

- Double insulated silicone wire (1m)
- Wide grip crocodile clips with integral finger guard
- Complies with IEC1010, CATIII
- Straight shroud terminations

**TAL39RBK Silicone**

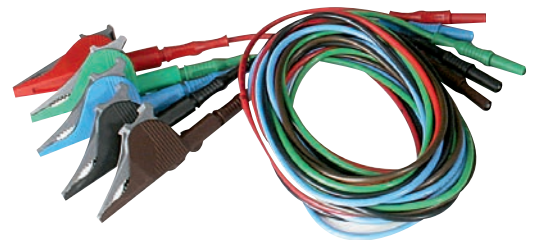
- Double insulated silicone wire (1.2m)
- Straight shroud terminations both sides

**TKPS54\$ Accessory**

- Flexible shaft with twin pointed gripping jaws
- \$ - Denotes Colour
- RD - Red
- BK - Black
- Compatible with 4mm male leads

**TKIT800**

- Used for power analysers (T78, T824)

**TEARTHKIT**

- Used for earthing testers (T416, T89, MACROG3, T53)

**TFLEX Accessories**

- TFLEX33E is for models T78 and T824
- TFLEX33L is for model TPQA820
- TFLEX33DE is for models T76 and T89



**INSTRUMENTS FOR TESTING AND VERIFYING
PHOTOVOLTAIC INSTALLATIONS**
NEW

Model	PV CHECK	SOLAR 300N	I-V400	SOLAR I-V	MPP300
Continuity of protective conductors with 200mA					
Insulation with test voltages of 50, 100, 250, 500, 1000V DC	• (250, 500, 1000)				
String mode and field mode insulation					
Tripping time and current of RCDs type A, AC up to 500mA					
Impedance Line/Loop, also with high resolution (0.1 mΩ), and Ipsc calculation					
Total earth resistance with no RCD tripping					
Phase sequence		•			
DC/AC TRMS voltage/current on single-phase systems	• (DC only)	•		•	•
DC/AC TRMS voltage/current on three-phase systems	• (DC only)	•			•
DC/AC powers on single-phase systems	• (DC only)	•		•	•
DC/AC powers on three-phase systems	• (DC only)	•			•
Power factor (cos φ) on single-/three-phase systems		•			
Energies on single-phase and three-phase systems		•			
Recording of mains parameters with programmable IP	• (5s-60m)	• (1s-60m)		• (5s-60m)	
Maximum number of quantities contemporarily selectable	5	251		9	
Harmonic analysis of voltages/currents up to the 49 th order		•			
Detection of voltage anomalies (dips, peaks) in 10ms		•			
Complete analysis according to EN50160		•			
Inrush current of electric motors		•			
Voltage fast transients (spikes) with a resolution of 5μs (200kHz)		•			
Voltage unbalance (NEG%, ZERO%) and Flicker (Pst, Plt)		•			
Display of vector diagrams and waveforms of voltages/currents		•			
Indication of recording autonomy		•			
Default and customisable recordings		•			
TFT touch-screen colour display		•			
LCD custom backlit display	•		•	•	
Power supply by rechargeable battery and by means of external power supplier		•			•
Use of remote unit	•	•	•	•	•
Efficiency measurement/recording of single-string system	• (DC only)	•		•	•
Efficiency measurement/recording of multi-string system up to 3 MPPTs		• (with MPP 300)		• (with MPP 300)	•
Efficiency measurement/recording of single-phase system		•		•	•
Efficiency measurement/recording of three-phase system		•		• (with MPP 300)	•
Irradiation measurement with reference solar cell	•	•	•	•	
Temperature measurement of modules and environment	•	•	•	•	
Detection of I-V curve of modules and strings			• (1000V, 10A)	• (1000V, 10A)	
Quick test mode	• (1000V, 10A)		• (1000V, 10A)	• (1000V, 10A)	
Internal database of PV modules	•		•	•	
Measurement of modules and strings data (Voc, Vmpp, Imp, Isc, Pmax, FF, Dpmax)	•		•	•	
Auto power off	•	•	•	•	•
Memory capacity	999 locations	1 month @ Pl=15min, 251 par	> 200 curves	> 200 curves 8 days @ Pl=10min	2 MB
Extension of internal memory with external compact flash		•			
USB port for connection of external memory sticks		•			
PC interface with software for Windows	• (optical/USB)	• (USB)	• (optical/USB)	• (optical/USB)	
Context-sensitive help on the display	•	•	•	•	
Saving of recordings and instant values	•	•	•	•	
Dimensions (LxWxH) (mm)	235x165x75	235x165x75	235x165x75	235x165x75	300x265x140
Weight (batteries included)	1,2 Kg	1 Kg	1,2 Kg	1,3 Kg	2,3 Kg
Safety in compliance with IEC/EN61010-1	•	•	•	•	•
Page	62-63	64-65	66-67	68-69	70-71

PVCHECK

Multifunction Instrument To Check Safety, Parameters And Performance Of A Pv Plant

The multifunction instrument PVCHECK allows prompt and safe electrical checks required for a PV system (section DC) as well as controls on working of modules / strings in accordance with IEC/EN62446 guidelines. PVCHECK verifies the continuity of the protective conductors (and the associated connections) and executes insulation resistance measurement of the active conductors on a module, a string or a photovoltaic field in accordance with the requirements of IEC/EN62446, without the need of short-circuiting the positive and negative terminals. PVCHECK allows verification of a PV string's working in accordance with the requirements of IEC/EN62446 by measuring the open circuit voltage and short-circuit current under operating conditions and reporting the results to STC (by means of radiation measurement). It provides an immediate outcome for both absolute measurements and for measurements compared with the previously tested PV strings. PVCHECK also allows carrying out performance analysis of PV array (DC) under operating conditions (connected to the inverter) providing an indication of the power generated and the efficiency of the field as specified by IEC/EN62446.

Functions

Safety test on PV installation

- Continuity test on protective conductors with 200mA
- Insulation test with test voltage of 250, 500, 1000VDC

DC efficiency of PV installation

- DC voltage, DC current, DC Power
- Solar irradiation [W/m²] with reference cell
- Environmental and module temperature by means of PT1000 probe
- SOLAR-02: remote unit for irradiance and temperature measurements
- Recording of PV plant parameters (DC side) with programmable IP (5 seconds – 60 minutes)
- Use of PDC compensation ratios according to environmental and module temperature
- Use of relationship to maximise the DC efficiency
- Outcome OK/NO

Performance of PV modules / strings

- Measurement of open circuit voltage up to 1000V DC
- Measurement of short circuit current up to 10A DC
- Measurement of temperature, automatic or by means of PT1000 probe
- Measurement of solar radiation [W/m²] with reference cell
- Mechanical inclinometer for the detection of solar radiation incidence angle
- Data extrapolation to standard test conditions (1000W/m², 25°C)
- Outcome: OK / NO
- Database to manage up to 30 types of photovoltaic modules

Model Specifications

Display:	LCD Custom, 128x128pxl, backlit
Power supply:	6x1.5V alkaline bat. type AA LR06
Auto power off:	After 5 minutes in stand-by
Internal memory:	256kBytes
PC interface:	Opto isolated optical/USB port
Safety:	IEC/EN61010-1
Meas. accessory safety:	IEC/EN61010-031
Measures:	IEC/EN 62446
Insulation:	Double insulation
Pollution degree:	2
Measurement category:	CAT III 300V (to earth) Max 1000V between inputs
Dimensions:	235x165x75mm
Weight (with batteries):	1.2kg



PVCHECK

Accessories

Kit of 4 cables with 4mm banana plugs + 4 alligator clips

Kit of 2 adapters with MC3 compatible connectors

Kit of 2 adapters with MC4 compatible connectors

Transducer for DC currents 0÷10 - 0÷100A

diameter 30mm

TOPVIEW2006 - Windows software + optical/USB cable C2006

Transport bag

Calibration certificate ISO9000

Optional Accessories:
TOPVIEW2006 - C2006
 USB Cable and Software

Some standard accessories



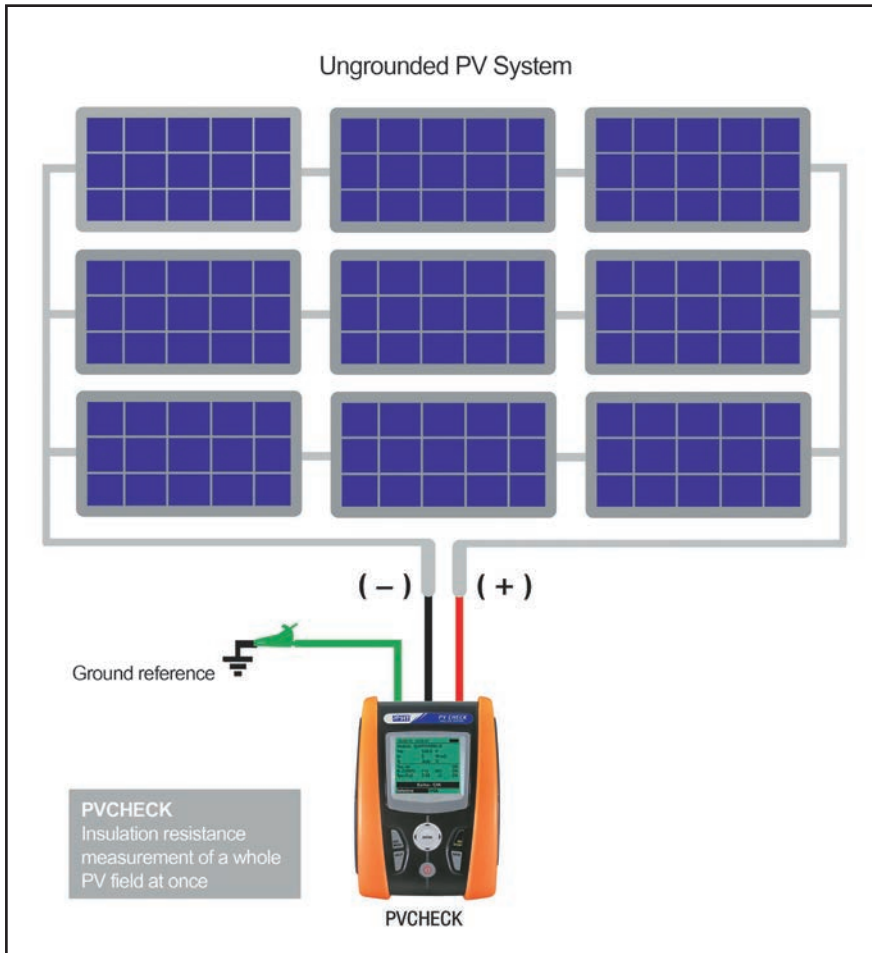
HT4003



KITGSC4



KITPCMC3(2 PCS)



15/05/12 14:52:47			
Module: SUNPOWER210			
Vdc	548.0	V	
Irr	0	W/m ²	
Tc	Auto	°C	
Voc, Isc			OK
Ri (1000V)	116	MΩ	OK
Rpe (Cal)	2.00	Ω	OK
Outcome: OK			
Selection IVCK			

Auto Test: Voc, Isc+ insulation resistance + continuity test

15/12/12 14:52:47			
RPE max	2	Ω	
Rcal	0.01	Ω	
Rpe	0.23	Ω	
Itest	210	mA	
Outcome: OK			
Selection LOWΩ			

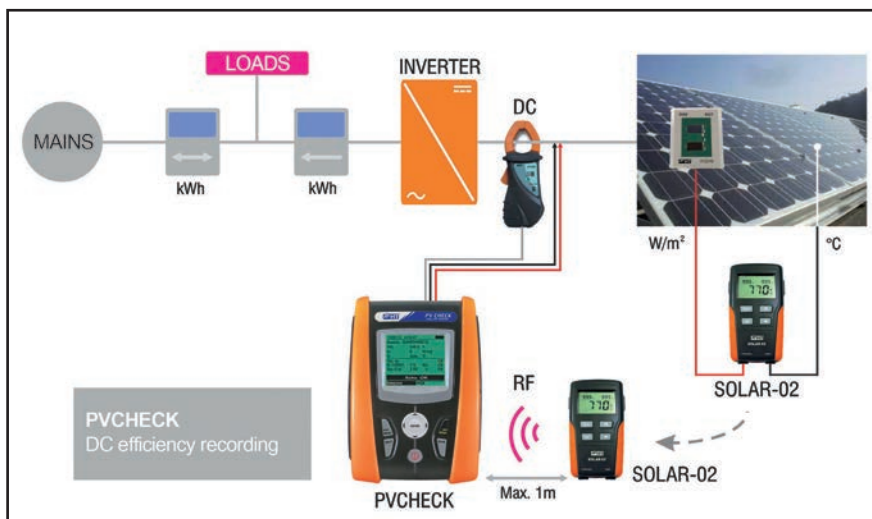
LOWΩ: 200mA continuity test

15/12/12 14:52:47			
Iso Test	1000	V	
Ri min	1.0	MΩ	
Mode	String		
Vtest	1020	V	
Rp	> 100	MΩ	
Outcome: OK			
Selection MΩ			

MΩ: string mode insulation resistance measurement

15/12/12 14:52:47			
Iso Test	1000	V	
Ri min	1.0	MΩ	
Mode	Field		
Vtest	1025 V	1020 V	
Ri (+)	> 100	MΩ	
Ri (-)	> 100	MΩ	
Rp	69	MΩ	
Outcome: OK			
Selection MΩ			

MΩ: field mode insulation resistance measurement



SOLAR300N

Multifunction Instrument For Testing Single-Phase And Three-Phase Photovoltaic Systems and Analyzing Mains Quality In Compliance With Standard En50160

SOLAR300N carries out all tests required for the verification of the efficiency of single-phase and three-phase photovoltaic systems. Testing photovoltaic systems requires contemporarily measuring environmental parameters (incident irradiation of modules, temperature of environment and modules) and electric parameters (continuous power, alternating power, etc.). Typically, modules and inverter can be positioned even at several tens of meters of distance, thus forcing the operator to carry out measurements in different places far from each other at the same time. To carry out these operations, connections by means of long cables or (wireless) radio connections could be necessary, but both these solutions are not acceptable. Cables could hamper the operator's movements or be a hindrance, while radio waves would be attenuated by floors, reinforced concrete or metal structures, thus making communication impossible. In order to avoid the above-mentioned problems and to carry out measurements with the necessary contemporaneity, SOLAR300N is provided with a remote unit, synchronised with the main unit. The remote unit is positioned next to the photovoltaic modules and it is connected to the probes for measuring environmental parameters (irradiation and temperature). SOLAR300N is connected upstream and downstream of the inverter in order to acquire the electric parameters (continuous power and alternating power). The synchronisation between the two units guarantees the necessary contemporaneity of measurements, the two separate and independent units make measurements comfortable and safe. The instrument can be interfaced with accessory MPP300, which extends the characteristics of SOLAR300N by enabling recordings on single-phase and three-phase, single-string and multi-string (up to three strings), single-inverter and multi-inverter photovoltaic systems (therefore also in three-phase systems provided with three single-phase inverters). SOLAR300N is also a powerful instrument for the complete analysis of mains quality in compliance with standard EN50160 (harmonic analysis, analysis of voltage anomalies, flicker, unbalance, etc.). The management software TopView also provides the possibility of creating professional reports, which can be customised by adding the company's logo, the customer's data, comments, etc.

Functions

- DC/AC TRMS (single/three-phase) voltage measurement
- DC/AC TRMS (single/three-phase) current measurement
- DC/AC (single/three-phase) power measurement
- AC (single/three-phase) energy measurement
- Measurement of power factor (single/three-phase)
- Measurement of solar irradiation [W/m²]
- Measurement of environmental and module temperature
- Three-phase up to three strings PV systems (with MPP300)
- Recording of voltage and current harmonics up to the 49th
- Recording of voltage anomalies (dips, peaks)
- Flicker analysis in compliance with standard EN50160
- Recording of starting currents with a resolution of 10ms
- Recording voltage fast transients (spikes) with a resolution of 5µs
- Analysis of mains quality in compliance with EN50160
- Numerical and graphical display of each quantity
- Recalling results on the display
- TFT colour display with touch screen
- Power supply with rechargeable Li-ION battery
- Memory extension by means of CF card
- Data transfer to external USB memory (memory stick)
- USB port for PC connection
- Help on line on the display

Model Specifications

Display:	TFT, 65536 colours, (320x240pxl), high contrast, touch screen
Power supply:	1x3.7V rechargeable Li-Ion battery with external power supply, duration > 6h, auto power off after 5 min in stand-by
Internal memory:	15MB (duration approximately 3 months @ IP = 15min and 251 parameters selected)
Memory extension:	compact flash (CF card)
PC interface:	USB 2.0
Safety:	IEC/EN61010-1
Insulation:	Double insulation
Pollution degree:	2
Measurement category:	CAT IV 600V (to earth) CAT III 1000V (between inputs)
Unbalance:	IEC/EN61000-4-7
Power quality:	IEC/EN50160
Flicker:	IEC/EN61000-4-15
Electric power quality:	IEC/EN61000-4-30 Class B
Dimensions:	235x165x75mm
Weight (batteries incl.)	Approx. 1kg



Application video



<http://www.hellermanntyton.co.za/downloads.html>

Professional transport suitcase

SOLAR300N

Accessories

- Remote unit to record irradiation and temperature SOLAR-02
- Kit of 5 cables + alligator clips for voltage measurement HT4005K
- Transducer for AC 0÷200A, diameter 40mm, 3 pcs HT4004N
- Transducer for AC/DC currents 0÷10 - 0÷100A, diameter 32mm HT304N
- Sensor for irradiation measurement PT300N
- Probe PT1000 for panel temperature
- AC/DC power supply
- Rechargeable 3.7V Li-Ion battery
- Touchscreen pen
- TOPVIEW2007 - Widows software + USB cable
- Rigid transport suitcase
- Calibration certificate ISO9000

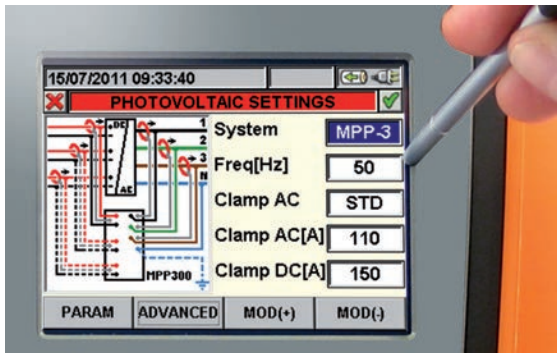
Some standard accessories



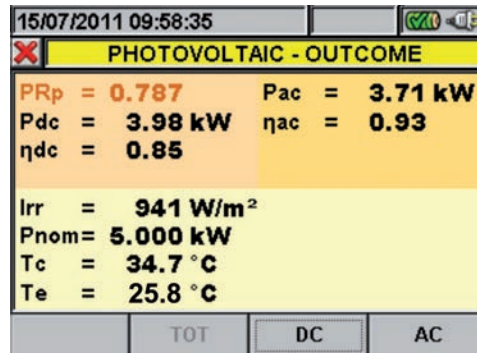
HT4004N HT4005K (3 pcs) SOLAR02 HT304N



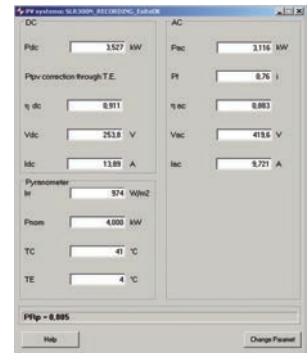
Includes:
TOPVIEW2007 - C2007
USB Cable and Software



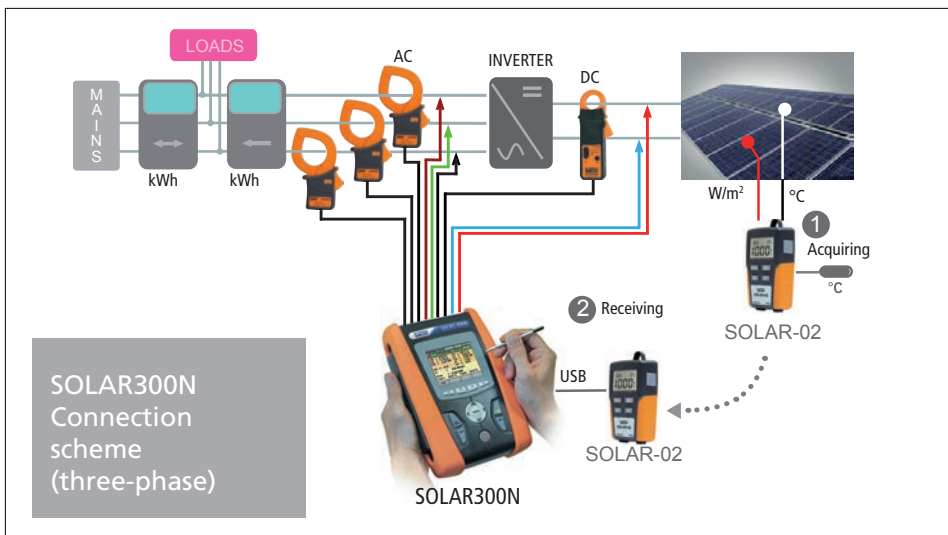
Graphical touchscreen display



Testing result on the display of SOLAR300N



Testing result on TopView software



IV400

Multifunction Instrument For Verification Of I-V Characteristic Of Photovoltaic Strings And Modules

IV 400 is the ideal solution for the ordinary and scheduled maintenance of photovoltaic systems. With IV 400, searching for possible failures and problems in systems is extremely rapid, efficient and intuitive. IV 400 carries out the field measurement of the I-V characteristic and of the main characteristic parameters both of a single module and of module strings. The instrument measures, together with the I-V characteristic of the device being tested, also the values of its temperature and incident irradiation. The acquired data is then processed to extrapolate the I-V characteristic at standard test conditions (STC) in order to proceed with the comparison with the nominal data declared by the modules' manufacturer, thus immediately determining whether or not the string or the module being tested respects the characteristics declared by the manufacturer. In some PV installations, such as roof-top installations, it may be difficult to access the module output cables. Access to the cables at the combiner box or at the inverter's inputs may be the only chance. In this case the measurement of I-V characteristics can be achieved by measuring the environmental parameters (irradiation and temperature) through the remote optional unit SOLAR-02. The remote unit is positioned next to the photovoltaic modules and it is connected to the probes for measuring environmental parameters. The synchronization between the two units guarantees the necessary contemporaneity of measurements making possible the extrapolation of the I-V curve at STC without using long extension cords cable. Output current or voltage from the module or string is measured with the 4-terminal method, which allows extending the measurement cables without requiring any compensation for their resistance, thus always providing accurate and precise measurements. In its internal memory, IV400 manages a database of photovoltaic modules, which can be updated at any time both via the management software and directly on the instrument. Together with the measurement of the I-V characteristic and the extrapolation of the characteristic at standard test conditions, IV 400 compares the obtained values with the values declared by the manufacturer, immediately providing the OK / NO result of the test. The operator does not have to do any calculation, nor any difficult operation. The instrument carries out the comparison rapidly and automatically.

Functions

- Measurement of output voltage from module/string up to 1000V DC
- Measurement of output current from module/string up to 10A DC
- Measurement of solar irradiation [W/m²] with reference cell
- Measurement of module temperature, automatic or by means of external probe
- Measurement of output DC and nominal power of module/string
- Synchronisation with remote unit SOLAR-02
- Numerical and graphical display of I-V characteristic
- Quick test mode
- Measurement of the resistance of photovoltaic module series
- Mechanical inclinometer for the detection of the incidence angle of solar irradiation
- 4 Terminal measuring method
- Extrapolation to standard test conditions (STC)
- Evaluation of testing result: OK / NO
- Management of up to 30 types of photovoltaic modules in the internal database
- Internal memory for data saving
- Recalling results on the display
- Optical/USB port for PC connection
- Help online on the display

Model Specifications

Display:	LCD Custom, 128x128pxl, backlit
Power supply:	6x1.5V alkaline batteries type AA LR06
Auto power off:	After 5 minutes in stand-by
Internal memory:	256kBytes
Curves which can saved:	> 200
PC interface:	Optoisolated optical/USB port
Safety:	IEC/EN61010-1
Measures accessory safety:	IEC/EN61010-031, IEC/EN10-032
Measures:	IEC/EN 60891, IEC/EN 62446
Insulation:	Double insulation
Pollution degree:	2
Measurement category:	CAT II 1000V, CAT III 300V (to earth) Max 1000V between inputs
Dimensions:	235x165x75mm
Weight (batteries included):	1.2kg



Application video



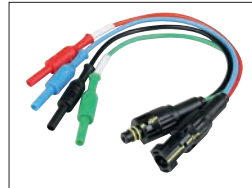
<http://www.hellermanntyton.co.za/downloads.html>

IV400

Accessories

- Kit of 4 cables with 4mm banana plugs + 4 alligator clips
- Kit of 2 adapters with MC3 compatible connectors
- Kit of 2 adapters with MC4 compatible connectors
- Reference cell for irradiation measurement
- Mechanical inclinometer
- TOPVIEW2006 - Windows software + optical/USB cable
- Rigid transport suitcase
- Calibration certificate ISO9000

Includes:
TOPVIEW2006 - C2006
 USB Cable and Software



KITPCVMC3(2 PCS)



KITGSC4

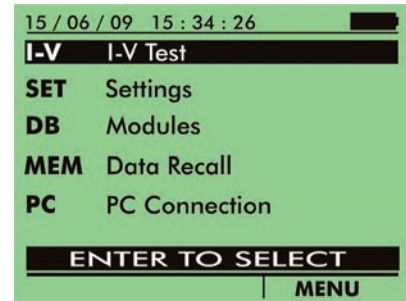
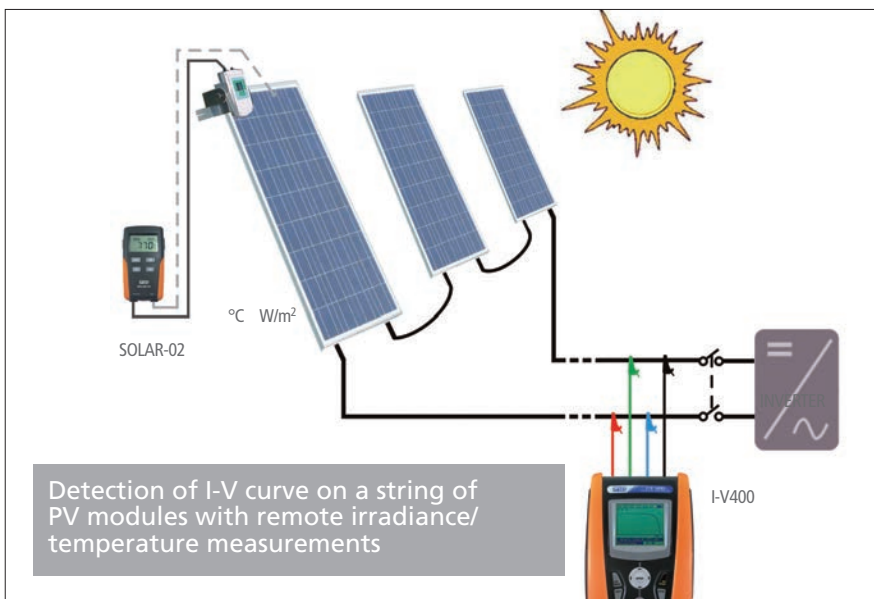
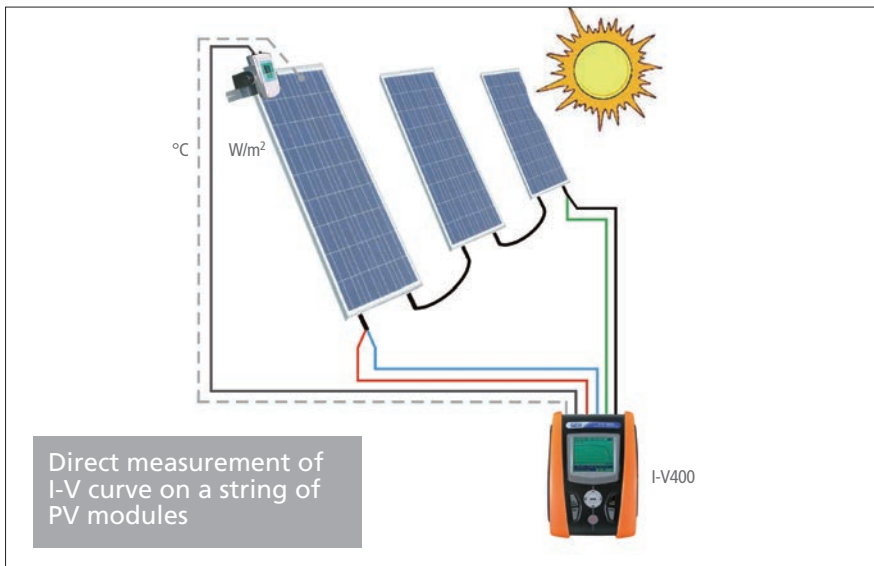
Some standard accessories



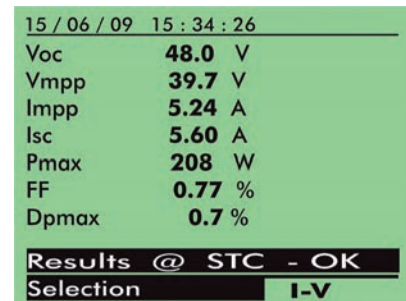
HT304N



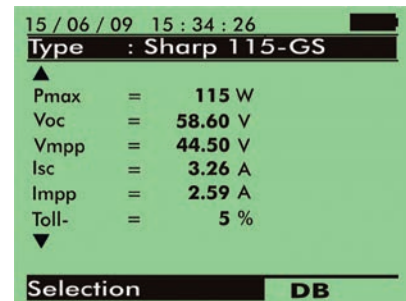
M304



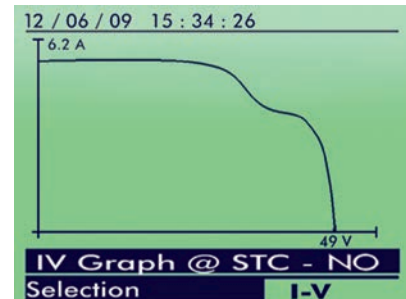
Simple and intuitive user interface



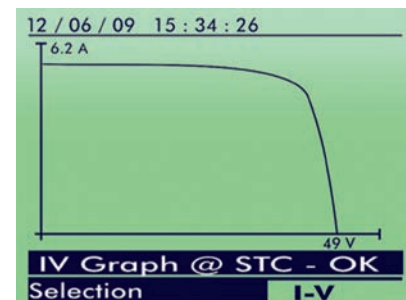
Numerical measurement with OK result



Addition of a PV module to the database



Graph of a NOT-OK curve



Graph of an I-V curve with OK result

SOLARIV

MULTIFUNCTION INSTRUMENT FOR TESTING AND VERIFYING SINGLE-PHASE PHOTOVOLTAIC INSTALLATIONS

SOLAR I-V has been designed to meet any requirement of photovoltaic installation specialists. Further to providing the possibility of measuring and recording the efficiency of single-string and single-phase photovoltaic systems, SOLAR I-V also measures the I-V characteristic both of a single module and of module strings. Thanks to SOLAR I-V, the operator can test the photovoltaic system and, should it give a negative result, immediately identify the problems of the system in order to promptly solve them. SOLAR I-V is provided with the remote unit SOLAR-02 which permits the remote measuring of irradiation and temperature with preliminary automatic synchronization between main unit and remote unit. SOLAR-02 is positioned next to the photovoltaic modules and it is connected to the probes for measuring environmental parameters. The synchronization between the two units guarantees the necessary contemporaneity of measurements. In the case of PV efficiency recordings, this grants the right efficiency calculation. For I-V curve measurements, the synchronization permits to extrapolate the I-V curve at STC without using long extension cord cables. SOLAR I-V allows the carrying out of efficiency recordings over time with programmable integration period from 5 seconds to 60 minutes. Each value is automatically saved in the internal memory and can be downloaded onto the PC for subsequent analyses. The measured I-V characteristic is not affected by the resistance of the measurement cables, as the measurement is carried out with the 4-terminal measuring method. SOLAR I-V also manages a database of photovoltaic modules, which can be updated at any time. The measured values, correctly reported at standard test conditions, are immediately compared with the values declared by the manufacturer to give the OK / NO result of the test. The operator must not do any calculation, the instrument carries out the comparison rapidly and automatically. The instrument can be interfaced with accessory MPP 300, which extends the characteristics of SOLAR I-V by enabling recordings on single-phase and three-phase, single-string and multi-string (up to three strings), single-inverter and multi-inverter photovoltaic systems (therefore also in three-phase systems provided with three single-phase inverters).

Functions

Photovoltaic efficiency recording

- Measurement of DC/AC TRMS voltage and current
- Measurement of DC/AC powers on single-phase systems
- Measurement of solar irradiation [W/m²] with reference cell
- Measurement of environmental and module temperature by means of external probe
- Synchronisation with remote unit SOLAR-02
- Display of real-time irradiation and temperature
- Use of PDC compensation ratios according to environmental and module temperature
- Three-phase up to three strings PV systems (with MPP300)
- Recording of parameters with programmable IP (5 seconds – 60 minutes)

I-V curve measurement

- Measurement of output voltage from module/string up to 1000V DC
- Measurement of output current from module/string up to 10A DC
- Measurement of solar irradiation [W/m²] with reference cell
- Measurement of module temperature, automatic or by means of external probe
- Measurement of output DC and nominal power from module/string
- Synchronisation with remote unit SOLAR-02
- Numerical and graphical display of I-V characteristic
- Quick test mode
- Measurement of the resistance of photovoltaic module series
- Mechanical inclinometer for the detection of the incidence angle of solar irradiation
- 4 Terminal measuring method
- Extrapolation to standard test conditions (STC)
- Evaluation of testing result: OK / NO
- Management of up to 30 types of photovoltaic modules in the internal database

Common Characteristics

- Internal memory for data saving
- Recalling results on the display
- Optical/USB port for PC connection
- Help online on the display

Model Specifications

Display:	LCD custom, 128x128pxl, backlit
Power supply:	6x1.5V alkaline batteries type AA LR06
Auto power off:	After 5 minutes in stand-by
PV testing duration:	1.5 hours (@IP=5s); 8 days (@IP=10min)
Curves which can be saved:	> 200 curves
PC interface:	Optoisolated optical/USB port
Safety:	IEC/EN61010-1
Measuring accessory safety:	IEC/EN61010-031, IEC/EN61010-032
Measures on PV modules:	IEC/EN60891, IEC/EN62446
Insulation:	Double insulation
Pollution degree:	2
Measurement category:	CAT II 1000V DC, CAT III 300V (to earth) Max 1000V between inputs
Dimensions:	235x165x75mm
Weight (batteries included):	1.3kg



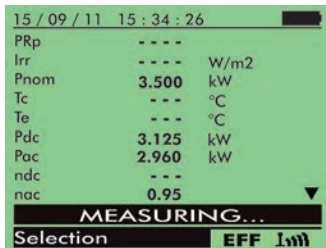
SOLARIV

Accessories

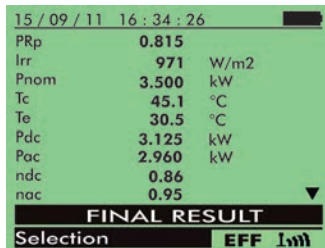
- Remote unit to record irradiation and temperature SOLAR-02
- Kit of 4 cables with 4mm banana plugs + 4 alligator clips
- Kit of 2 adapters with MC3 compatible connectors
- Kit of 2 adapters with MC4 compatible connectors
- Transducer for AC 0÷200A, diameter 40mm HT4005K
- Transducer for AC/DC currents 0÷10 - 0÷100A, diameter 32mm HT4004N
- Reference cell for irradiation measurement HT304N
- Probe PT1000 for environmental and module temperature PT300N
- Mechanical inclinometer
- TOPVIEW2006 - Windows software + optical/USB cable
- Rigid transport suitcase
- Calibration certificate ISO9000

Includes:
TOPVIEW2006 - C2006
 USB Cable and Software

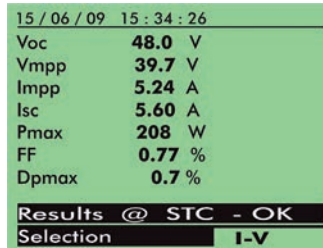
Some standard accessories



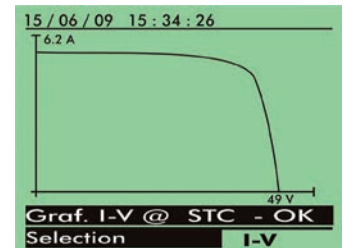
Testing / Recording in progress



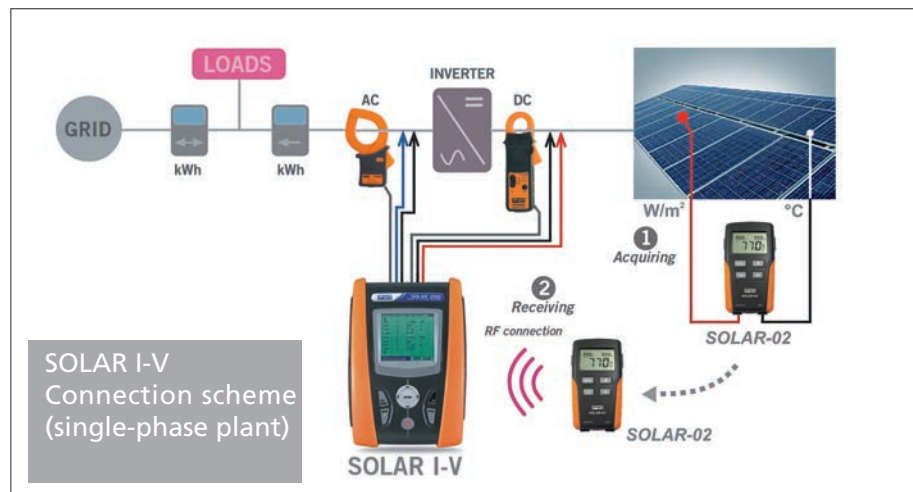
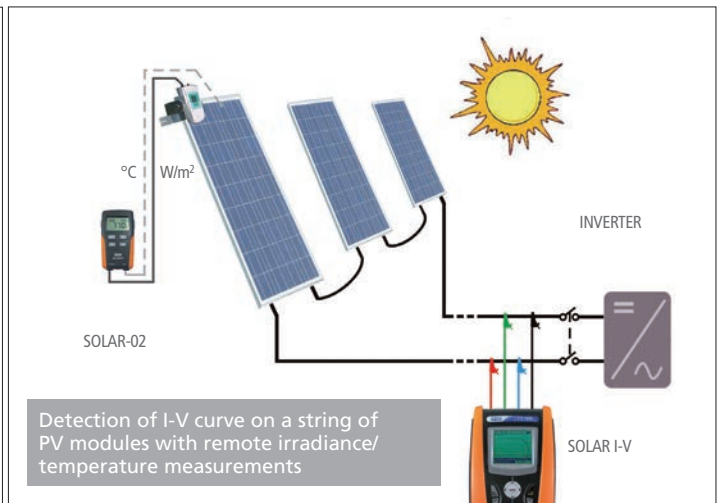
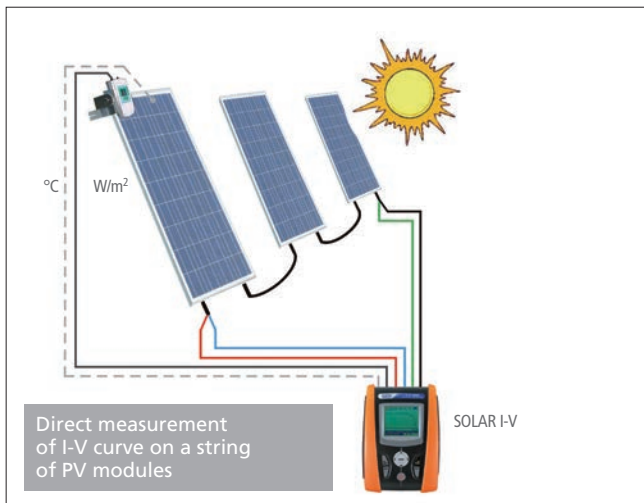
Testing result of photovoltaic system



Numerical display of results with OK result



Graphical display of an I-V curve with OK result



MPP300

Accessory For Measuring And Recording The Efficiency Of Single-Phase And Three-Phase Multi-String Systems

The innovative accessory MPP 300, used together with SOLAR 300N or SOLAR I-V, allows measuring and recording the main parameters which characterise single-phase and three-phase, single-string and multi-string (up to three strings) photovoltaic systems. MPP 300 is perfect for use in systems with three-MPPT three-phase inverter and in three-phase systems provided with three single-phase inverters. MPP 300 is provided with a practical anti-shock "field" case, lightweight and small in size. The front panel carries the LEDs for operating information and the DC and AC inputs for upstream and downstream connection of the inverter(s). MPP 300 interfaces with SOLAR 300N via USB connection and SOLAR I-V via wireless connection. SOLAR 300N and SOLAR I-V are used for MPP 300 settings, to start/stop recording electrical and environmental parameters and to enable the download of the recorded values. The distance between the photovoltaic modules and the inverter is often considerable, and this forces the operator to carry out measurements in different places at the same time. Therefore, it would be necessary to lay long connection cables between the environmental probes and the instrument. These cables could hamper the operator's movements, be a hindrance, etc. This kind of connection is therefore not acceptable. In case of photovoltaic installations on buildings, the so-called photovoltaic roofs, in addition to the problem of the distance between modules and inverter, the presence of floors, of reinforced concrete or metal structures, etc. must be taken into consideration. These structures would make a possible (wireless) radio connection between the environmental probes and the instrument impossible, because of signal attenuation. In order to avoid the above-mentioned problems and to carry out measurements with the necessary contemporaneity, MPP 300 is synchronized with the remote unit SOLAR-02 (provided as standard accessory of master instrument SOLAR 300N or SOLAR I-V). The remote unit SOLAR-02 is positioned next to the photovoltaic modules and it is connected to the probes for measuring environmental parameters (irradiation and temperature). MPP 300 is connected upstream and downstream of the inverter in order to acquire the electric parameters (continuous power and alternating power). The synchronisation between the two units guarantees the necessary contemporaneity of measurements, the two separate and independent units make measurements comfortable and safe.

The master instrument SOLAR 300N or SOLAR I-V is only used in the initial and final phase of recording, and it does not play any active role while recording electrical and environmental parameters. Therefore, while MPP300 and SOLAR-02 respectively record the electrical and environmental parameters of the system being measured, it is possible to use the master instrument SOLAR300N or SOLAR I-V for carrying out other measurements. For example, with SOLAR I-V it is possible to measure the I-V characteristics of strings and modules.

Functions

- DC/AC TRMS voltage meas. (single-phase and three-phase)
- DC/AC TRMS current meas. (single-phase and three-phase)
- DC/AC power measurement (single-phase and three-phase)
- Power factor measurement (single-phase and three-phase)
- Simultaneous measurements up to 3 strings (max 3 MPPT)
- Connection with master unit SOLAR 300N and SOLAR I-V
- Power supply with rechargeable Li-Ion battery
- LED operating indications
- USB port for connection to unit SOLAR 300N
- RF connection for connection to SOLAR-02 and SOLAR I-V
- Internal memory for saving recordings

Model Specifications

Inputs:	3 DC voltage channels (CH1, CH2, CH3), 3 DC current inputs (CH1, CH2, CH3), 4 AC voltage inputs (L1, L2, L3, N), 3 AC current inputs (L1, L2, L3)
Front panel:	4 two-colour LEDs (green, red)
Power supply:	Rechargeable Li-Ion battery. Duration > 3 hours
Internal memory:	2 MBytes
External interface:	USB + RF
Safety:	IEC/EN61010-1
Insulation:	Double insulation
Pollution degree:	2
Mechanical protection:	IP40 (open), IP65 (closed)
Measurement category:	CAT IV 300 V AC (to earth), 600 V AC (between inputs) CAT III 1000 V DC (to earth), 1000 V DC (between inputs)
Dimensions:	300 x 265 x 140 mm
Weight (batteries included):	2.3 kg



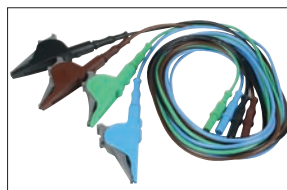
Useful carry case for transport

MPP300

Accessories

- Set of 2 cables, 2m, for DC voltage measurement, 3pcs
- Set of 2 alligator clips for DC voltage measurement, 3pcs
- Set of 4 cables, 2m, for AC voltage measurement
- Set of 4 alligator clips for AC voltage measurement
- Rechargeable Li-Ion battery
- AC/DC battery charger power supply
- USB cable
- Carrying bag for accessories
- Calibration certificate ISO9000

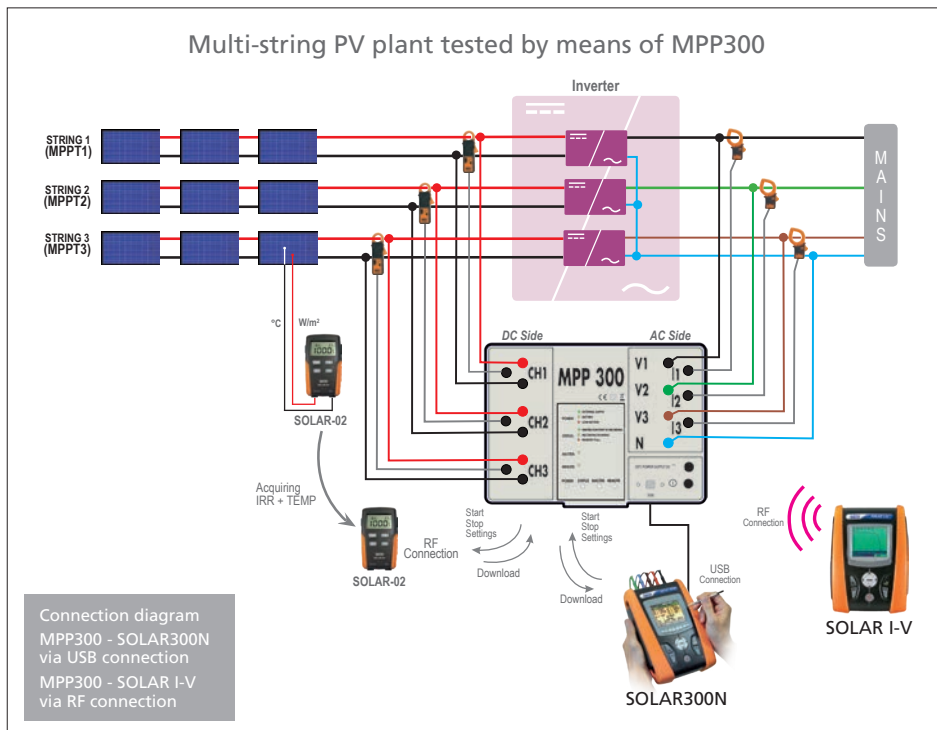
TA0055
C2007



KITMPPACW



KITMPPDCW (3 PCS)



Accessories For Solar Testers

HT4004P DC Unbattered Standard Clamp

Ranges: 0 ÷ 10A; 0 ÷ 100A
Basic accuracy:
±(1.0%rdg+3mA) – Range 10A
±(1.0%rdg+30mA) – Range 100A
Output signal: 1V DC
Measurement category: CAT III 300V
Max clamping cable diameter: 32mm
Output connector: Hypertac 4 poles



SP0400

Hands-free kit



HT4005K AC Standard Clamp



HP30C2 AC Standard Clamps

Ranges: 0 ÷ 200A; 0 ÷ 2000A (HP30C2)
Range: 0 ÷ 3000A (HP30C3)
Basic accuracy: ±0.5%rdg
Output signal: 1V AC
Measurement category: CAT III 600V
Max clamping cable diameter: 70mm
Output connector: Hypertac



HP30D1 DC Standard Clamp

Ranges: 10 ÷ 1000A
Basic accuracy: ±1.5%÷2mV
Output signal: 1V AC
Measurement category: CAT III 600V
Max clamping cable diameter: 83mm
Output connector: Hypertac.



Tools



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Instruments and Tools glossary available
at the back of catalogue



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6006

Tel: (041) 408-2400
Fax: (041) 453-0336

In the event that our landline number is not in operation please use the emergency numbers provided below:

082 824 5625

082 824 5626

082 824 5627

082 829 9643

These emergency numbers are only applicable to our Johannesburg office, and not countrywide.

HellermannTyton

LY2001 - Low Cost DIY Tool

- Cutting, crimping and stripping feature
- Stripping: 0,75mm² - 6mm²
- Insulated crimping: (red, blue, yellow)



HS2004 - Low Cost DIY Tool

- Cutting, crimping and stripping feature
- Uninsulated crimping: 0,5mm² - 5,5mm²
- Stripping: 0,5mm² - 5mm²
- Insulated crimping: (red, blue, yellow)



YYT1 - Pre-Insulated Terminal Crimper

- For insulated terminals
- Ratchet release
- Size: 254mm (L) x 66mm (W)
- Range: 0,5mm² - 1,0mm² (red)
1,1mm² - 2,5mm² (blue)
4,0mm² - 6,0mm² (yellow)



YYT7 - Pre-Insulated Tension Adjustable Terminal Crimper

- For insulated terminals
- Pressure adjustment / ratchet release
- Size: 229mm (L) x 70mm (W)
- Range: 0,5mm² - 1,0mm² (red)
1,1mm² - 2,5mm² (blue)
4,0mm² - 6,0mm² (yellow)



KST2000 - Deluxe Ratchet Crimping Tool

- **KST2000A** Standard
- **KST2000B** Twingrip
- For crimping insulated terminals
- Wire range: 1,25mm² - 6mm² (red, blue, yellow)



YAC3 - Coax Crimper

- Pressure adjustment / ratchet release
- Size: 240mm (L) x 70mm (W)
- Range: 1,72mm²
2,5mm²
5,4mm²
6,48mm²
8,2mm²



YAC5 - Bootlace Ferrule Crimper

- Ratchet release and pressure adjustment feature
- Size: 203mm (L) x 76mm (W)
- Range: 0,5mm² - 0,75mm²
1,0mm² - 1,5mm²
2,5mm²
4,0mm²
6,0mm²



YYTB4 - Compact Bootlace Ferrule Crimper

- Ratchet release and pressure adjustment feature
- Size: 190mm (L) x 70mm (W)
- Range: 0,25mm²
0,5mm²
0,75mm²
1,5mm²
2,5mm²
4,0mm²
6,0mm²



YAC6 - Bootlace Ferrule Crimper

- Ratchet release and pressure adjustment feature
- Size: 203mm (L) x 76mm (W)
- Range: 6,0mm²
10,0mm²
16,0mm²



YYTB6 - Compact Bootlace Ferrule Crimper

- Ratchet release and pressure adjustment feature
- Size: 190mm (L) x 70mm (W)
- Range: 6,0mm²
10,0mm²
16,0mm²



YAC8 - Bootlace Ferrule Crimper

- 4 Point pressure adjustment screw & push to release lever
- Strong but lightweight glass fibre reinforced nylon handles
- Square (quad) profile
- Size: 175mm (L) x 80mm (W)
- Range: 0,08mm²
5,0mm²



YAC9 - Bootlace Ferrule Crimper

- 6 Point pressure adjustment screw & push to release lever
- Strong but lightweight glass fibre reinforced nylon handles
- Hexagonal profile
- Size: 170mm (L) x 80mm (W)
- Range: 0,08mm²
5,0mm²



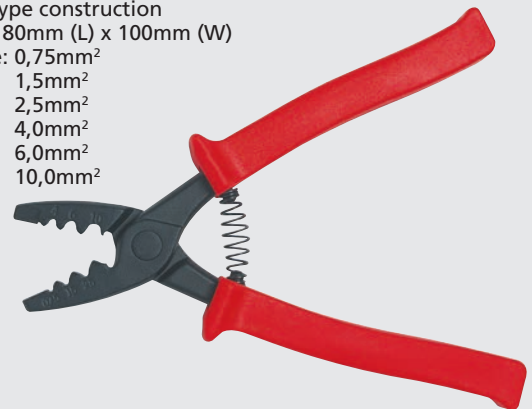
YYT22 - Bootlace Ferrule Crimper

- Plier type construction
- Size: 150mm (L) x 95mm (W)
- Range: 0,5mm²
0,75mm²
1,0mm²
1,5mm²
2,5mm²



YYT21 - Bootlace Ferrule Crimper

- Plier type construction
- Size: 180mm (L) x 100mm (W)
- Range: 0,75mm²
1,5mm²
2,5mm²
4,0mm²
6,0mm²
10,0mm²



YAC17 - Bootlace Ferrule Crimper

- Ratchet release and pressure adjustment feature
- Size: 203mm (L) x 76mm (W)
- Range: 25mm²
35mm²



YYT15 - Close End Connector Crimper

- Ratchet release and pressure adjustment feature
- Size: 203mm (L) x 76mm (W)
- Range: 1,0mm²
2,5mm²
5,5mm²



YAC19 - Angle Griptite Crimper

- For insulated terminals (blue size)
- Ratchet release and pressure adjustment feature
- Size: 203mm (L) x 76mm (W)
- Range: 0,3mm² - 1,3mm²
1,25mm² - 3,5mm²

NEW UPGRADED SPECIFICATION



YYT11 - Crimper Tab (Griptite) Terminals

- Roll over crimp
- Ratchet release and pressure adjustment feature
- Size: 229mm (L) x 70mm (W)
- Range: 0,5mm² - 1,0mm²
1,1mm² - 2,5mm²
4,0mm² - 6,0mm²



HDRJ45N - Modular Connector Crimper

- Ratchet release
- 8 Position
- Size: 250mm (L) x 70mm (W)



YAC13 - Molex Crimper

- 6 Point pressure adjustment screw & push to release lever
- Strong but lightweight glass fibre reinforced nylon handles
- Size: 175mm (L) x 80mm (W)
- Range: 0.08mm² - 0.2mm² (Molex 2.54)
- Range: 0.3mm² - 0.8mm² (Molex 3.96)



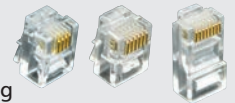
ASA486 - Modular Connector Crimpers

- For crimping handset 4P4C, 4P4C plugs, 6P6C (RJ-12), 6P4C (RJ-11), plugs and 8P8C (RJ-45), plugs work all in one
- Stripping and cutting for 4, 6 and 8 conductors

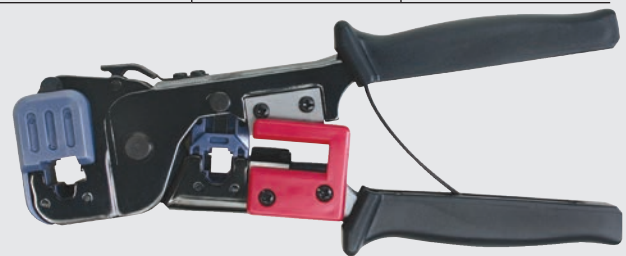


RJ86 - Modular Connector Crimpers

- The RJ86 multifunction telephone modular connector crimp tool offers cutting, stripping and professional crimping.



Tool Code	Connectors	Crimp Cavity
RJ86	RJ45, RJ11	Modular Plugs



YYTB2 - Compact Uninsulated Terminal Crimper

- Ratchet release and pressure adjustment feature
- Size: 190mm (L) x 70mm (W)
- Range: 0,25mm²
1,5mm²
2,5mm²



YYTB3 - Compact Uninsulated Terminal Crimper

- Ratchet release and pressure adjustment feature
- Size: 190mm (L) x 70mm (W)
- Range: 0,5mm² - 1,0mm²
1,5mm² - 2,5mm²
4,0mm² - 6,0mm²



YYT8 - Uninsulated Terminal Crimper

- Ratchet release
- Size: 266mm (L) x 66mm (W)
- Range: 1,5mm²
2,5mm² - 4,0mm²
6,0mm² - 8,0mm²
10,0mm²



YYT9 - Uninsulated Terminal Crimper

- Ratchet release
- Size: 266mm (L) x 66mm (W)
- Range: 10,0mm²
16,0mm²



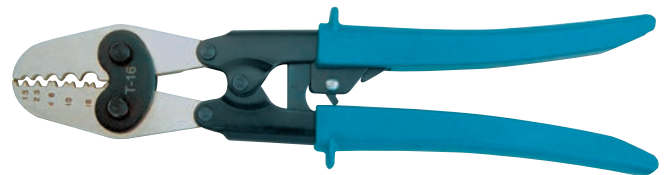
CCMP - Multi-crimp Tool

- Long handles - solid leverage
- Indent crimping and cutting
- Cable size: 0,5mm² - 10mm²



T16 - Uninsulated Terminal Crimper

- Ratchet release
- Size: 325mm (L) x 90mm (W)
- Range: 1,5mm²
2,5mm²
4,0mm² - 6,0mm²
10,0mm²
16,0mm²



PVCT46 - PV Crimping Tool

- Standard die for 2,5/4/6mm² (AWG14/12/10) solar PV cable
- Interchangeable die with thumbscrew
- Crimping pressure adjustment
- Right angle head design- Prevents wrist bending during operation
- Pull force on crimping pins - 45 kg



EK50ML - Electric Terminal Crimper

- Pre-insulated die included for terminals (red/blue/yellow)
- High speed crimping < 1,5 seconds
- Manual pre-clamping motorised crimping
- Single lever control
- Manual retraction
- LED light to illuminate working area
- Crimps per battery charge - 300 at 10mm²
- Charge level indicator on battery



Technical Data	
Crimping Force	15kN (max)
Crimping Range	0,14 - 50mm ² (Pre-Insulated die included)
Crimping Time	<1,5s (Dependent on connecting material)
Crimps/Battery Charge	Approx. 300 at 10mm ² Cu DIN 49234
Battery Voltage	10,8V
Battery Capacity	1,5Ah, 40 min
Charging Time	Approx. 40 min.
Weight incl battery	0,96kg
Environmental Temp	-10°C up to +40°C

- Optional die available for boot lace ferrules:
AE501 - 0,14 to 10mm²
AE502 - 10/16/25mm²
AE503 - 35 to 50mm²



HD16L - Heavy Duty Crimper (Uninsulated Terminals)

- Ratchet release feature
- Range: 1,5mm² - 16.0mm²
- Length: 270mm



HT16UT - Light Duty Crimper (Uninsulated Terminals)

- Ratchet release feature
- Range: 1.5mm² - 16mm²
- Length: 270mm



HD22L - Heavy Duty Crimper (Uninsulated Terminals)

- Ratchet release feature
- Range: 6mm² - 25mm²
- Length: 360mm



HT25UT - Light Duty Crimper (Uninsulated Terminals)

- Ratchet release feature
- Range: 6mm² - 25mm²
- Length: 360mm



HD25X - Heavy Duty Crimper (Uninsulated Terminals)

- Ratchet release feature
- Range: 6mm² - 25mm²
- Length: 360mm



AK19 - Lobster (Uninsulated Terminals)

- Ratchet release
- Industry standard
- Control cycle mechanism
- Range: 2mm² - 5,5mm² - 8mm² - 16mm²
- Length: 290mm



AK15 - Lobster (Uninsulated Terminals)

- Ratchet release
- Industry standard
- Control cycle mechanism
- Range: 1,25mm² - 2mm² - 5,5mm² - 8mm²
- Length: 270mm



HT0650 - Hex Crimper (Budget Range)

- Hexagonal crimper with movable and rotating dies
- For tubular cable lugs and connectors
- Range: 6/10/16/25/35/50mm²
- Length: 380mm • Dies included



Die Code	Crimp Sizes
HD650HTDIE	6/10/16/25/35/50mm ²



HD0650AU - Hex Crimper (Super Range)

- Hexagonal crimper with movable and rotating dies
- For tubular cable lugs and connectors
- Range: 6/10/16/25/35/50mm²
- Length: 380mm • Dies included



Die Code	Crimp Sizes
HD650HTDIE	6/10/16/25/35/50mm ²



K05B - Hex Crimper (Klaue)

- Hexagonal crimper with movable and rotating dies
- For tubular cable lugs and connectors
- Range: 6/10/16/25/35/50mm²
- Length: 390mm • Dies included



Die Code	Crimp Sizes
HD650HTDIE	6/10/16/25/35/50mm ²



HT06120 - Hex Crimper (Budget Range)

- Hexagonal crimper with movable and rotating dies
- For tubular cable lugs and connectors
- Range: 6/10/16/25/35/50/70/95/120mm²
- Length: 650mm • Dies included



Die Code	Crimp Sizes
HD6120HTDIE	6/10/16/25/35/50/70/95/120mm ²



HD06120AU - Hex Crimper (Super Range)

- Hexagonal crimper with movable and rotating dies
- For tubular cable lugs and connectors
- Range: 6/10/16/25/35/50/70/95/120mm²
- Length: 650mm • Dies included



Die Code	Crimp Sizes
HD6120HTDIE	6/10/16/25/35/50/70/95/120mm ²

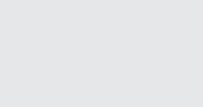


K06B - Hex Crimper (Klaue)

- Hexagonal crimper with movable and rotating dies
- For tubular cable lugs and connectors
- Range: 10/16/25/35/50/70/95/120mm²
- Length: 650mm • Dies included



Die Code	Crimp Sizes
HD6120HTDIE	10/16/25/35/50/70/95/120mm ²



HD25150AU - Hex Crimper (Super Range)

- Hexagonal crimper with movable and rotating dies
- For tubular cable lugs and connectors
- Range: 25/35/50/70/95/120/150mm²
- Length: 660mm • Dies included



Die Code	Crimp Sizes
HD25150D	25/35/50/70/95/120/150mm ²



BOWCRIMP

- Indent crimp
- Adjustable
- Range: 16mm² - 120mm²



HYCP185 - Hand Hydraulic Crimper

- Case included
- Built-in bypass relief valve for constant compression
- Head rotates 180°
- Range: 10mm² - 185mm²
- Dimensions: 370 x 120mm
- Force at die face: 5,2 metric ton
- Similar to D51
- Accepts BEKU type dies
- Dies sold separately (Refer to HYCP185KT table for die part numbers)



HYCP185KT - Hand Hydraulic Crimper Kit

- Refer to HYCP185 for tool specifications
- Dies included



Die Code	Crimp Sizes
H1851016D	10mm ² and 16mm ² (dual die)
H1852535D	25mm ² and 35mm ² (dual die)
H1855070D	50mm ² and 70mm ² (dual die)
H1859512D	95mm ² and 120mm ² (dual die)
H185150D	150mm ² (single die)
H185185D	185mm ² (single die)



HYCP240 - Hand Hydraulic Crimper

- Case included
- Built-in bypass relief valve for constant compression
- Head rotates 180°
- Range: 10mm² - 240mm²
- Dimensions: 375 x 120mm
- Force at die face: 5,2 metric ton
- Similar to D51
- Accepts BEKU type dies
- Dies sold separately (Refer to HYCP240KT table for die part numbers)



HYCP240KT - Hand Hydraulic Crimper Kit

- Refer to HYCP240 for tool specifications
- Dies included



Die Code	Crimp Sizes
H1851016D	10mm ² and 16mm ² (dual die)
H1852535D	25mm ² and 35mm ² (dual die)
H1855070D	50mm ² and 70mm ² (dual die)
H1859512D	95mm ² and 120mm ² (dual die)
H185150D	150mm ² (single die)
H185185D	185mm ² (single die)
H240240D	240mm ² (single die)



HYCP400HE - Hydraulic Crimp Head

- Max output: 20 ton
- Range: 16mm² - 400mm²
- Dies sold separately (Refer to HYCP400KT table for die part numbers)



HYCP630HE - Hydraulic Crimp Head

- Max output: 23 tons
- Range: 16mm² - 630mm²
- Complete with 400/500/630mm² dies



ADP630HE Die Adaptor

- Enables HYCP630HE to take dies of HYCP400 (Refer to HYCP400KT table for die part numbers)

Die Code	Crimp Sizes
CP630500D	500mm ²
CP630630D	630mm ²



ADP630HE



HYCP630HE



PIONEER 3000
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HYCP400 - Hand Hydraulic Crimper

- Automatic low/high - pressure conversion with rapid/slow operating motion
- Heavy duty case included
- Pressure relief valve for overload protection
- Head rotates 180°
- Range: 16mm² - 400mm²
- Dimensions: 590 x 170mm
- Force at die face: 12 metric ton (700 bar)
- C-head opening: 32mm
- Dies sold separately (Refer to HYCP400KT table for die part numbers)



HYCP400KT - Hand Hydraulic Crimper Kit

- Automatic low/high - pressure conversion with rapid/slow operating motion
- Heavy duty case included
- Pressure relief valve for overload protection
- Head rotates 180°
- Range: 16mm² - 400mm²
- Dimensions: 590 x 170mm • Force at die face: 12 metric ton (700 bar)
- C-head opening: 32mm
- Dies sold separately (Refer to HYCP400KT table for die part numbers)

SPECIFICATION				
DIE Code	DIE No.	A	B	C
CP40016D	Cu-16	7.20	3.12	14.00
CP40025D	Cu-25	8.43	3.67	14.00
CP40035D	Cu-35	10.00	4.33	16.00
CP40050D	Cu-50	11.60	5.02	16.00
CP40070D	Cu-70	13.70	5.95	15.60
CP40095D	Cu-95	15.90	6.85	15.70
CP400120D	Cu-120	17.98	7.79	16.00
CP400150D	Cu-150	20.10	8.70	15.00
CP400185D	Cu-185	22.33	9.67	14.00
CP400240D	Cu-240	25.43	11.01	13.00
CP400300D	Cu-300	28.44	12.32	11.20
CP400400D	Cu-400	30.00	14.55	11.50



HYLEC32 - Battery Operated Crimper Kit

- 14,4 Volt Lithium-Ion battery powered
- Number of crimps per charge: 60
- 12.7 ton die force
- Head rotates 180°
- Range: 16mm² - 400mm²
- Dimensions: 385mm (L) x 307mm (H) x 74mm (W)
- Weight: 6.8Kg
- Includes 2 batteries and AC charger
- C-head opening: 32mm
- Dies sold separately (Refer to HYCP400KT table above)
- Additional battery available (HYLEC32BATT)



K240KT - Battery Operated Hydraulic Crimper

- Approx 200 crimps per charge
- 18 Volt Li-Ion battery powered
- 5.3 Ton die force
- Head rotates 180°
- Dies included (10mm² to 240mm²)
- Dimensions:
354mm (L) x 73mm (H) x 91mm (W)
- Weight: 2.67 kg
- Includes 2 batteries and AC charger
- Battery charge indication
- Charging time 30 minutes



Die Code	Crimp Sizes
H1851016D	10mm ² and 16mm ² (dual die)
H1852535D	25mm ² and 35mm ² (dual die)
H1855070D	50mm ² and 70mm ² (dual die)
H1859512D	95mm ² and 120mm ² (dual die)
H185150D	150mm ² (single die)
H185185D	185mm ² (single die)
H240240D	240mm ² (single die)



FH700FP - Hydraulic Foot Pump

- Length: 720mm
- Weight: 12.0 kg
- Two stage pumping action (700 bar)
- Complete with 2 metre hose



PIONEER 3000
STANDARD COUPLING
FOR SA MARKET



HH700HP - Hydraulic Hand Pump

- Length: 590mm
- Weight: 10.0 kg
- Two stage pumping action (700 bar)
- Complete with 2 metre hose



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FOR SA MARKET

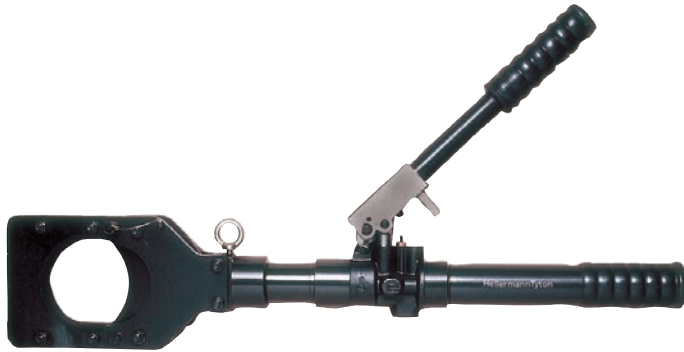


HYCC85 - Hydraulic Cable Cutter

- Two stage pumping action for rapid blade advance
- Lock pin type cutting head
- Head rotates 180°
- Output: 4.9 tons
- Weight: 10.0 kg
- Length: 715mm
- Cuts: Copper strands - 28mm
Aluminium strands - 38mm
Telephone cable CCP - 85mm

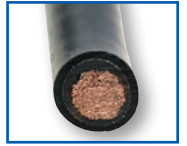


Copper Cable



HYCC85HE - Hydraulic Cutting Head

- Operates off any pump (max. Pressure 700 bar)
- Lock pin type cutting head
- Blade easily replaceable
- Output: 4.9 tons
- Weight: 7.2 kg
- Length: 460mm
- Cuts: Copper strands - 28mm
Aluminium strands - 46mm
Telephone cable CCP - 85mm



Copper Cable



**PIONEER 3000
STANDARD COUPLING
FOR SA MARKET**



HYCCP85Y - Hydraulic Armoured Cable Cutter

- Two stage pumping action for rapid blade advance
- Output: 7.5 tons
- Weight: 5 kg
- Length: 421mm (L) x 202mm (W) x 115mm (H)
- Max Pressure: 700 Bar
- Cuts copper, aluminum and armoured cable up to 60mm diameter
- Not for XLPE cable
- Spare blades available on request (HYP85BLD)



Armoured Cable



**PIONEER 3000
STANDARD COUPLING
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HYCC096 - Hydraulic Armoured Cable Cutter

- Two stage pumping action for rapid blade advance
- Output: 13.5 tons
- Weight: 8.2 kg
- Length: 412mm (L) x 247mm (W) x 105mm (H)
- Max pressure: 700 Bar
- Cuts copper, aluminum and armoured cable up to 95mm diameter
- Not for XLPE cable
- Spare blades available on request (HYO96BLD)



Armoured Cable



**PIONEER 3000
STANDARD COUPLING
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HYPNST - Hydraulic Punch Drive Set with a pump

- Used to punch electrical panels and switchboards
- Punch driver max output: 12.7 tons
- Punch capacity: 3.2mm mild steel
1.6mm stainless steel
- Complete with a plastic carry case
- 2 Draw studs with draw stud adaptor
- Weight: 7.60 kg
- Hand pump output: 590 bar

Specification	
Part No.	Punch Size
HYPH5216D	16mm
HYPH5220D	20mm
HYPH5222D	22mm
HYPH5225D	25mm
HYPH5232D	32mm
HYPH5240D	40mm
HYPH5250D	50mm

Specification	
Part No.	Description
R1STUD	3/8" (16,20,25mm Dies)
RSSTUD	3/4" (32,40,50mm Dies)



HYPN052M - Hydraulic Punch Drive Set

- Used to punch electrical panels and switchboards
- Punch capacity: 3.2mm mild steel
1.6mm stainless steel
- Complete with a plastic carry case
- 2 Draw studs with draw stud adaptor
- Weight: 7.60 kg

Specification	
Part No.	Punch Size
HYPH5216D	16mm
HYPH5220D	20mm
HYPH5225D	25mm
HYPH5232D	32mm
HYPH5240D	40mm
HYPH5250D	50mm

Specification	
Part No.	Description
R1STUD	3/8" (16,20,25mm Dies)
RSSTUD	3/4" (32,40,50mm Dies)

Spare Accessories for HYPN052M

Specification	
Part No.	Description
HYPH5222D	22mm Die
HYPH5220S	22,5mm Die



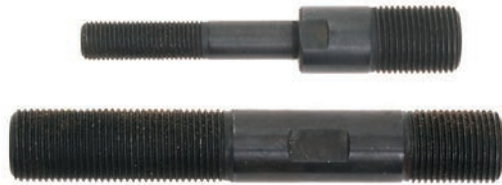
Hydraulic and 360° Hydraulic Rotational Punches

HYTP - Rotary Punch

- Used to punch electrical panels and switchboards
- Punch capacity: 3.0mm mild steel
- Punch capacity: **1.6mm stainless steel**
- Punch force: 60kN
- Complete with a plastic carrying case
- 2 x Draw studs
- Weight: 6,5 kg
- Punch sizes: 20,22,25,32,40,50mm

Space Accessories

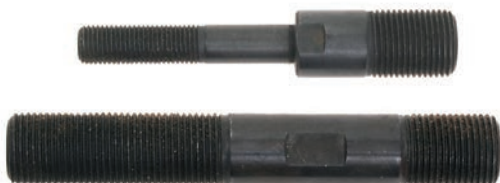
Part No.	Punch Size
HY20DIE	20mm
HY22DIE	22mm
HY25DIE	25mm
HY32DIE	32mm
HY40DIE	40mm
HY50DIE	50mm
HYLARGESTUD	
HYSMALLSTUD	

**HY360RP - 360° Rotational Punch**

- Used to punch electrical panels and switchboards
- Punch capacity: 3.5mm mild steel
- Punch capacity: **1.6mm stainless steel**
- Head can be revolved 360° through rotating axis
- Complete with a plastic carrying case
- 2 x Draw studs
- Weight: 6,5 kg
- Punch sizes: 20,22,25,32,40,50mm

Space Accessories

Part No.	Punch Size
HY20DIE	20mm
HY22DIE	22mm
HY25DIE	25mm
HY32DIE	32mm
HY40DIE	40mm
HY50DIE	50mm
HYLARGESTUD	
HYSMALLSTUD	



HYLEC6 - Battery Operated Indent Crimper Kit

- 14 Volt Li-Ion battery powered
- 6.3 Ton die force
- Head rotates 180°
- Permanent internal dies
- Dimensions: 300mm (L) x 385mm (H) x 89mm (W)
- Includes 2 batteries and AC charger
- C-head opening: 35.8mm
- Conductor dimensions from 25mm² - 120mm²
- Additional battery available (HYC32BATT)



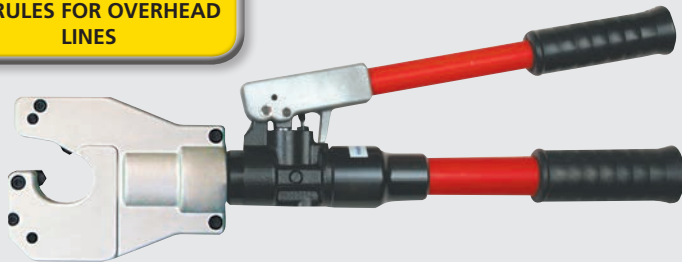
ONLY FOR ROUND ALUMINIUM LUGS AND FERRULES FOR OVERHEAD LINES

HYUC6 - Hand Hydraulic Indent Crimper Kit

- Heavy duty case included
- 6.4 Ton die force
- Head rotates 180°
- Permanent internal dies
- Dimensions: 563mm (L) x 180mm (W)
- C-head opening: 35.8mm
- Conductor dimensions from 25mm² - 120mm²



ONLY FOR ROUND ALUMINIUM LUGS AND FERRULES FOR OVERHEAD LINES

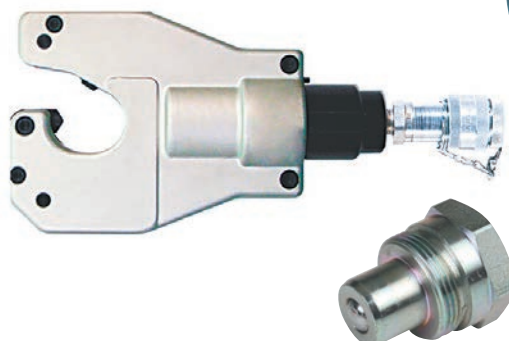


HYUC6HE - Hydraulic Indent Crimping Head

- Carry bag included
- 6.4 Ton die force
- Head rotates 180°
- Permanent internal dies
- Dimensions: 277mm (L)
- C-head opening: 35.8mm
- Conductor dimensions from 25mm² - 120mm²
- Max Pressure: 700 Bar



ONLY FOR ROUND ALUMINIUM LUGS AND FERRULES FOR OVERHEAD LINES



PIONEER 3000 STANDARD COUPLING FOR SA MARKET

SP115N - Cable Cutter

- Stainless steel
- Cuts up to 1,2mm copper



Copper Cable

**CC08 - Cable Cutter**

- Coaxial cable cutter
- Cuts up to 10mm²



Coaxial Cable

**CC22 - Cable Cutter**

- Cuts copper and aluminium
- Cuts up to 25mm²



Copper Cable



Aluminium Cable

**CC38 - Cable Cutter**

- Cuts copper and aluminium
- Cuts up to 38mm²



Copper Cable



Aluminium Cable

**CC60 - Cable Cutter**

- Cuts copper and aluminium
- Cuts up to 60mm²



Copper Cable



Aluminium Cable

**RCC325PH - Core Cutter**

- Speedy cutting of copper cable
- Not for steel or hard copper
- Capacity: 38mm diameter



Copper Cable

**HTJ35 - Core Cutter**

- Speed and safer operation for cutting cables
- Not for steel or hard copper
- Capacity 32mm diameter



Copper Cable

**RCC500 - Core Cutter**

- Speed and safer operation for cutting cables
- Not for steel or hard copper
- Spare blades available
- Capacity 50mm diameter



Copper Cable



CC100 - Cable Cutter

- Copper cable: 120mm²
- Aluminium cable: 120mm²
- Length: 300mm



Copper Cable

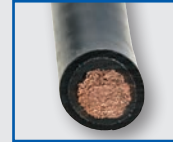


Aluminium Cable



CC250 - Cable Cutter

- Copper cable: 250mm²
- Aluminium cable: 250mm²
- Length: 580mm



Copper Cable



Aluminium Cable



CC500 - Cable Cutter

- Copper cable: 500mm²
- Aluminium cable: 500mm²
- Length: 750mm
- Spare blades available on request (CC500BLD)



Copper Cable



Aluminium Cable



SCC60 - Cable Cutter

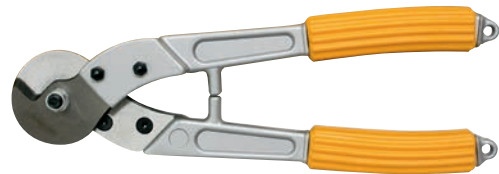
- For steel rod: 5mm max.
- Wire rope: 7mm max.
- Copper cable: 60mm²
- AWG 1/0 max.
- Length: 330mm



Copper Cable



Wire Rope



SCC200 - Cable Cutter

- For steel rod: 9mm max.
- Wire rope: 12mm max.
- Copper cable: 150mm²
- AWG 300 MCM max.



Copper Cable



Wire Rope



S25 - PVC Pipe Cutter

- 34mm PVC cutter
- Metal handle



PVC Pipe



HTJ76 - Cable Cutter

- 70mm diameter
- Short & extended handles
- Copper and armoured cable cutter
- Not for XLPE cable



Copper Cable



Armoured Cable



HTJ30 - Cable Cutter

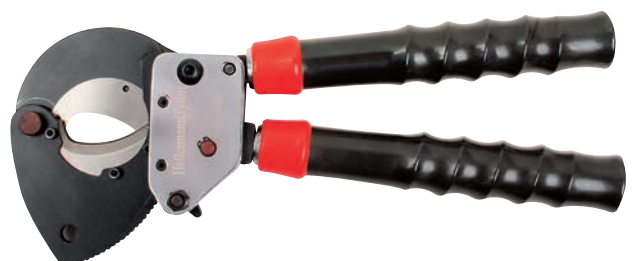
- 30mm diameter
- Changeable blades
- Short & extended handles
- ACSR (Aluminium conductor steel re-inforced) cutter



Pressed Steel Wire



ACSR (Aluminium Conductor Steel Reinforced Cable)



Electrician's Pliers

- High grade carbon steel
- Cutting edge for soft wire

HT Code	Length (mm)		Weight (Grams)
	Overall	Head	
LCP150	160	38	195
LCP180	180	45	270
LCP200	200	45	316



LCP150



LCP180

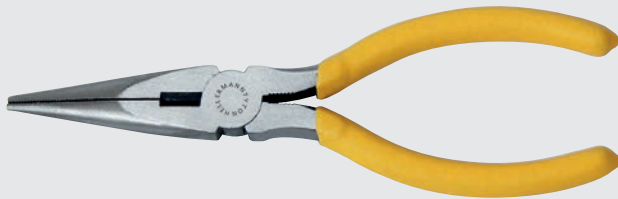


LCP200

Long Nose Pliers

- High grade carbon steel
- Cutting edge for soft wire

HT Code	Length (mm)		Weight (Grams)
	Overall	Head	
LLN150	160	38	110
LLN200	200	45	170



LLN200

Groove Joint Pliers

- High grade carbon steel

HT Code	Length (mm)	Weight (Grams)
	Overall	
LGJ250	250	370
LGJ300	300	390



LGJ250

Diagonal Cutters

- High grade carbon steel
- Cutting edge for soft wire

HT Code	Length (mm)		Weight (Grams)
	Overall	Head	
LDC125	125	30	125
LDC150	160	30	152
LDC180	180	35	230
LDC200	200	30	226



LDC150



LDC180



LDC200

Electrician's Pliers

- Chrome plated satin finish
- High grade carbon steel
- Cutting edge for soft wire

HT Code	Length (mm)		Weight (Grams)
	Overall	Head	
SEP160	160	60	215
SEP180	180	65	300
SEP200	200	70	350



SEP180

Diagonal Cutters

- Chrome plated satin finish
- High grade carbon steel
- Cutting edge for soft wire

HT Code	Length (mm)		Weight (Grams)
	Overall	Head	
SDC160	160	40	185
SDC180	180	50	310
SDC200	200	60	300

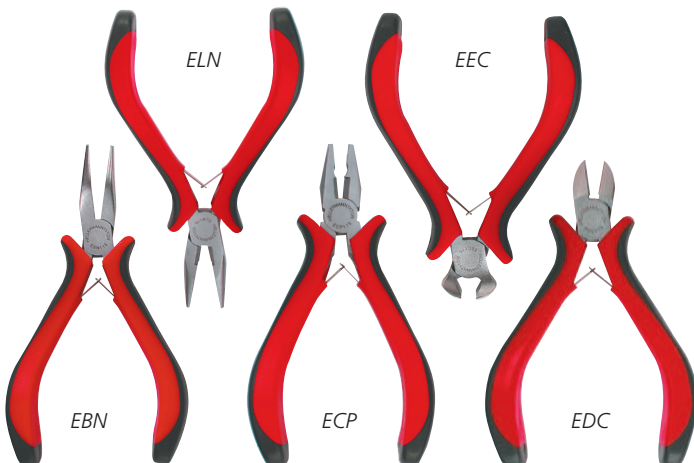


SDC180

Precision Electronic Tools

- Chrome plated satin finish
- High grade carbon steel
- Cutting edge for soft wire

HT Code	Description	Length (mm)		Weight (Grams)
		Overall	Head	
ELN	Long Nose Cutter	135	50	58
EEC	End Cutter	115	25	56
EBN	Bent Nose Cutter	115	30	58
ECP	Combination Plier	115	25	58
EDC	Diagonal Cutter	115	25	56



Long Nose Pliers

- Chrome plated satin finish
- High grade carbon steel
- Cutting edge for soft wire

HT Code	Length (mm)		Weight (Grams)
	Overall	Head	
SLN160	160	75	120
SLN200	200	100	190
SLNS200	200	95	200



SLN200

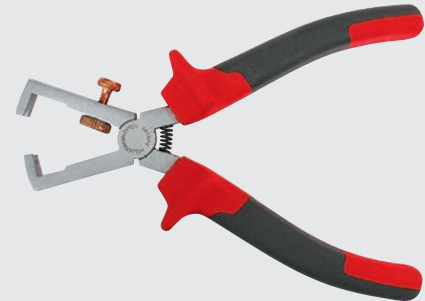


SLNS200

Electrician's Wire Stripper

- Chrome plated satin finish
- High grade carbon steel
- Cutting edge for soft wire

HT Code	Length (mm)		Weight (Grams)
	Overall	Head	
SVN160	160	60	125



SVN160

Joint Pliers

- 5 Positions
- Individual high frequency induction hardened

HT Code	Length (mm)	Weight (Grams)
	Overall	
8325	250	390



Electrician's Pliers

- 1000V – SABS approved
- Chrome molybdenum steel / hardness 38 - 44 HRC
- Cutting edges – induction hardness 58-62 HRC
- General uses – mild steel wire
- HCP205H Piano wire

HT Code	Length (mm)		Weight (Grams)
	Overall	Head	
HCP180	180	62	261
HCP200	200	67	336
HCP200H	200	65	365



Long Nose Pliers

- 1000V – SABS approved
- Chrome molybdenum steel / hardness 38 - 44 HRC
- Cutting edges – induction hardness 58-62 HRC
- General uses – mild steel wire

HT Code	Length (mm)		Weight (Grams)
	Overall	Head	
HLN160	160	68	155
HLN200	200	93	214



Diagonal Cutters - Heavy Duty

- 1000V – SABS approved
- Chrome molybdenum steel / hardness 38 - 44 HRC
- Cutting edges – induction hardness 58-62 HRC
- General uses – mild steel wire
- HDC205H Piano wire

HT Code	Length (mm)		Weight (Grams)
	Overall	Head	
HDC160	160	42	230
HDC180	180	44	302
HDC160H	160	43	251
HDC180H	180	49	269
HDC205H	205	54	361

1000V - IEC60900



PC230W - 1000V Electrical Plier and Crimper

- High grade carbon steel
- With indent crimper
- Cutting edge for soft and hard wire

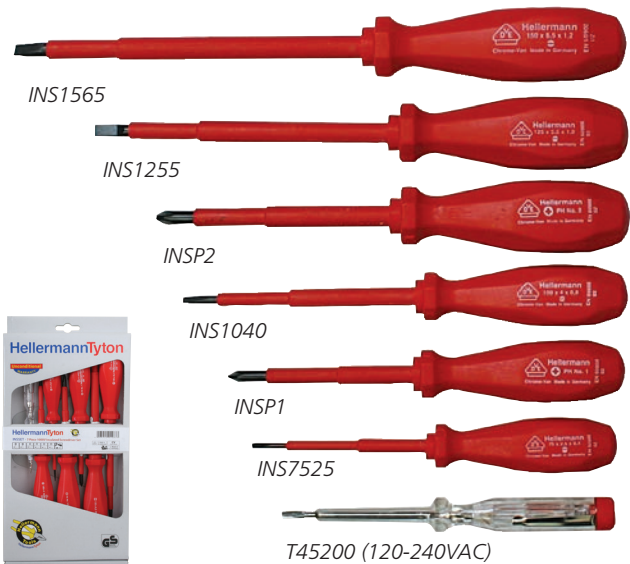
HT Code	Length		Weight
	Overall	Head	
PC230W	225mm	80mm	380g



INSSET - 1000V Insulated

- 7 Piece including neon tester
- Flat blade and Phillips set
- VDE
- Made in Germany

HT Code	Length (mm)		Tip (mm)		Style
	Overall	Head	Width	Thick	
INS7525	150	75	2,5	0,4	⊖
INS1040	180	100	4,0	0,6	
INS1255	220	125	5,5	0,8	
INS1565	255	150	6,5	1,0	⊕
INSP1	165	80	5,0	No 1	
INSP2	195	100	6,0	No 2	
T45000	140	65	3,0	0,5	⊖ Neon
All screwdrivers sold separately / INSSET made-up of table above					
INS1780	290	175	8,0	1,2	⊖
INSP0	150	60	3,0	No 0	⊕
INSPV1	170	85	2,5	No 1	⊕



ECOSET - 1000V Insulated

- 7 Piece including neon tester
- Flat blade and Phillips set
- Insulated - 1000V
- TUV and GS spec

HT Code	Length (mm)		Tip (mm)		Style
	Overall	Head	Width	Thick	
ECO4100	210	100	4,0	0,8	⊖
ECO5125E	235	125	5,5	1,0	
ECO6150E	260	150	6,5	1,2	
ECOPV0	165	75	3,0	No 0	⊕
ECOPV1	210	100	4,0	No 1	
ECOPV2	210	100	6,0	No 2	
T45000	140	65	3,0	0,5	⊖ Neon
All screwdrivers sold separately / ECOSET made-up of table above					
ECO375	185	75	3,0	0,5	⊖



HEXSET - Uninsulated

- 7 Piece including neon tester
- Flat blade and Phillips set
- Hexagon spanner grip for increased leverage
- VDE
- Made in Germany

HT Code	Length (mm)		Tip (mm)		Style
	Overall	Head	Width	Thick	
HEX0945	175	90	4,5	0,6	⊖
HEX1060	195	100	5,5	0,8	
HEX1270	230	125	7,0	1,0	
HEX1580	255	150	8,0	1,0	⊕
HEXP1	165	80	5,0	No 1	
HEXP2	195	100	6,0	No 2	
T45000	140	65	3,0	0,5	⊖ Neon
All screwdrivers sold separately / HEXSET made-up of table above					
HEX1790	295	175	10,0	0,1	⊖



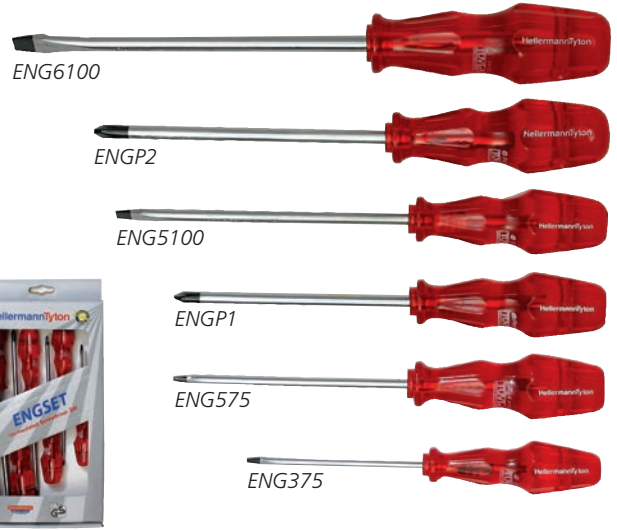


ENGSET - Un-insulated

- 6 Piece screwdriver set
- Flat blade and Phillips set
- Chrome vanadium
- TUV and GS spec

HT Code	Length (mm)		Tip (mm)		Style
	Overall	Head	Width	Thick	
ENG375	150	75	3,0	0,5	
ENG575	185	100	4,0	0,8	
ENG5100	210	125	5,0	0,8	
ENG6100	250	150	7,0	1,0	
ENGP1	185	100	5,0	No 1	
ENGP2	222	125	6,0	No 2	

All screwdrivers sold separately / ENGSET made-up of table above



SWSET - Socket Wrench Set

- 7 Piece socket wrench set
- Chrome vanadium
- GS spec
- Made in Germany

Socket (mm)	Length (mm)		Style
	Overall	Head	
5,0	210	125	
5,5	210	125	
6,0	210	125	
7,0	225	125	
5,0	225	125	
10,0	225	125	
13,0	240	125	

SWSET made-up of table above in kit form only



SW8 and SW10 available individually



95720 - Electronic Screwdriver Kit

- 6 Piece screwdriver set
- Flat blade and Phillips set
- Chrome vanadium
- Made in Germany

Blade (mm)	Tip (mm)	Style
60	1,5	
75	2,5	
100	3,0	
125	2,5	
40	No 00	
60	No 0	

95720 made-up of table above in kit form only



ES6 - Electronic Screwdriver Kit

- 6 Piece screwdriver set
- Blade length: 50mm
- Flat blade, Phillips

Thickness (mm)	Width (mm)	Style
2,0	0,4	
2,4	0,4	
3,0	0,5	
PH00	2,0	
PH0	2,5	
PH1	3,0	

ES6 made-up of table above in kit form only



306 - Bahco Hacksaw

- Length: 470mm
- Lightweight hacksaw frame for DIY use
- Alternative 90° blade mounting for flush cuttings
- Supplied with the 300 mm (12") reliable and shatterproof Bahco bi-metal blade 24 TPI for excellent cutting performance



218 - Bahco Junior Hacksaw

- Basic 150mm junior hacksaw



226 - Bahco Hacksaw (319)

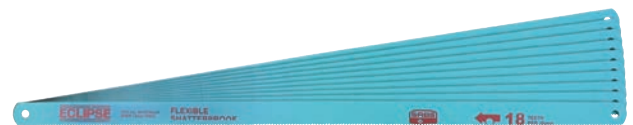
- Length: 390mm
- Die-cast aluminium handle & front grip
- 55° blade mounting
- Solid anodised steel frame
- Lightweight yet strong
- High blade tension for straight cutting



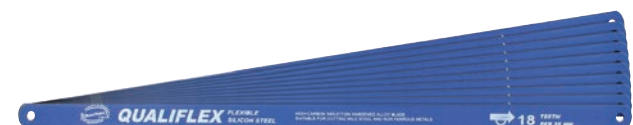
Hacksaw Blades

- 10 Blades per pack

HT Code	Hacksaw Blades			Description	Packs
	Length (mm)	TPI	Cut Type		
HSBLD18HS	300	18	Rough	High Speed Eclipse	Sold as pack of 10
HSBLD24HS		24	General		
HSBLD32HS		32	Precision		
HSBLD18E	300	18	Rough	Econo Qualiflex	Sold as pack of 10
HSBLD24E		24	General		
HSBLD32E		32	Precision		
HSBLD18U	300	18	Rough	Bahco	Sold as pack of 10
HSBLD24U		24	General		
HSBLD32U		32	Precision		
JUNHSBLD	150	32	Precision	Junior	Sold as pack of 10



HSBLD18HS - Eclipse



HSBLD18E - Qualiflex



HSBLD18U - Bahco



JUNHSBLD - Junior

H011 - Mini Deluxe Hacksaw

- Mini deluxe 150mm
- Adjustable blade tension

**H015 - Junior Hacksaw**

- Basic 150mm junior hacksaw
- Heavy duty

**H100A - Heavy Duty Deluxe Hacksaw**

- Heavy duty
- 45° or 90° blade option
- Spare blade storage in top handle

**P100A - Heavy Duty Deluxe Hacksaw**

- Heavy duty
- 45° or 90° blade option
- Overmoulded frame

**H300T - Tubular Hacksaw**

- Tubular frame
- Die cast aluminum handle



ELECBP - 32 Piece Electrician's Backpack Tool Kit

- Bag part number: TOOLBAGBP
- Bag dimensions: 460 (H) x 380 (W) x 210 (T)
- Weight: 8 Kg (Max weight capacity 12 Kg)

HT Code	Description
HD16L	Heavy Duty Uninsulated Crimper (1,5 - 16mm ²)
SW8	8mm Socket Wrench Screwdriver
SW10	10mm Socket Wrench Screwdriver
Headlight	5 LED Headlight with adjustable settings
CC38	38mm Cable Cutter
SVN160	Wire Stripper
SLN160	160mm Long Nose Pliers (Super Range)
SEP200	200mm Pliers (Super Range)
SDC200	200mm Diagonal Cutter (Super Range)
AW200	200mm Adjustable Spanner
WAK2	Utility Knife
ECOSET	1000V Insulated Screwdrivers
HUK1	Universal Panel Key
H5M	5 Metre Tape Measure
VG250	250mm Vice Grip
HAMB300	300g Ball Pein Hammer
H015	Junior Hacksaw
01604LM	7 Piece Allen Key Set
LGJ250	250mm Groove Joint Pliers
LGJ300	300mm Groove Joint Pliers



ELIMBP - 33 Piece Electrician's Mining Backpack with Digital Multimeter/Insulation tester

- Bag part number: TOOLBAGBP
- Bag dimensions: 460 (H) x 380 (W) x 210 (T)
- Weight: 9 Kg (Max weight capacity 12 Kg)

HT Code	Description
TBM878	1000V Multimeter/Insulation Tester (Spec pg 8)
HD16L	Heavy Duty Uninsulated Crimper (1,5 - 16mm ²)
SW8	8mm Socket Wrench Screwdriver
SW10	10mm Socket Wrench Screwdriver
Headlight	5 LED Headlight with adjustable settings
CC38	38mm Cable Cutter
SVN160	Wire Stripper
SLN160	160mm Long Nose Pliers (Super Range)
SEP200	200mm Pliers (Super Range)
SDC200	200mm Diagonal Cutter (Super Range)
AW200	200mm Adjustable Spanner
WAK2	Utility Knife
ECOSET	1000V Insulated Screwdrivers
HUK1	Universal Panel Key
H5M	5 Metre Tape Measure
VG250	250mm Vice Grip
HAMB300	300g Ball Pein Hammer
H015	Junior Hacksaw
01604LM	7 Piece Allen Key Set
LGJ250	250mm Groove Joint Pliers
LGJ300	300mm Groove Joint Pliers



TBM878



ELBKBP - 20 Piece Budget Backpack Tool Kit

- Bag part number: TOOLBAGBP
- Bag dimensions: 460 (H) x 380 (W) x 210 (T)
- Weight: 6 Kg (Max weight capacity 12 Kg)

HT Code	Description
Headlight	5 LED Headlight with adjustable settings
CC38	38mm Cable Cutter
SVN160	Wire Stripper
SLN160	160mm Long Nose Pliers (Super Range)
SEP200	200mm Pliers (Super Range)
SDC200	200mm Diagonal Cutter (Super Range)
AW200	200mm Adjustable Spanner
WAK2	Utility Knife
ECOSET	1000V Insulated Screwdrivers
HUK1	Universal Panel Key
H5M	5 Metre Tape Measure
VG250	250mm Vice Grip
HAMB300	300g Ball Pein Hammer
H015	Junior Hacksaw



Optional Instruments available with any of the backpack kits

Side pouch designed to fit any of these instruments

 TBM086 1000A AC 3 Phase motor/ rotation (Spec pg 11)	 TBM076 600A AC 3 Phase motor/ rotation (Spec pg 11)	 T70 Phase Sequence & Voltage Detector (Spec pg 42)
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ELECKT - 16 Piece Electrical Tool Kit

- Bag dimensions: 370mm x 220mm

HT Code	Description
T235H	Electrician's Digital Multimeter
AW200	200mm Adjustable Spanner
WAK2	Utility Knife
O9FA	Allen Key 1,5 - 2,0 - 2,5 - 3,0 - 4,0 - 5,0 - 5,5 - 6,0 - 8,0
ECOSET	7 Piece 1000V Insulated Screwdrivers
HEADLIGHT	5 LED Headlight with adjustable settings
SDC180	180mm Diagonal Cutter (Super Range)
SLN160	160mm Long Nose Pliers (Super Range)
SEP180	180mm Pliers (Super Range)
CCMP	Indent Crimper



PROKT - 16 Piece Electrician's Tool Kit

- Bag part number: TOOLBAGP
- Bag dimensions: 380mm x 240mm

HT Code	Description
TBM3030	600A AC Clamp Meter
AW200	200mm Adjustable Spanner
WAK2	Utility Knife
INSSET	7 Piece 1000V German Insulated Screwdrivers
CC22	22mm Cable Cutter
SLN160	160mm Long Nose Pliers (Super Range)
SEP180	180mm Pliers (Super Range)
CRMP	Indent Crimper
HUK1	Universal Panel Key
Headlight	5 LED Headlight with adjustable settings
Zip Case	



ELECMINI - 14 Piece Tool Kit

HT Code	Description
HEADLIGHT	5 LED Headlight with adjustable settings
WAK2	Utility Knife
ECOSSET	1000V Insulated Screwdrivers
AW150	150mm Adjustable Spanner
SLN160	160mm Long Nose Pliers (Super Range)
SEP160	160mm Pliers (Super Range)
SDC160	160mm Diagonal Cutter (Super Range)
HUK1	Univesal Panel Key
MINITOOLBAG	Tool bag with external zip up pouch



MINIKT - 13 Piece Compact Electrician's Tool Kit

- Bag part number: TOOLBAGS

HT Code	Description
YYT21	Bootlace Ferrule Crimper (Range: 0,75/1,5/2,5/4/6/10mm ²)
WAK2	Utility Knife
INSSET	7 Piece 1000V German Insulated Screwdrivers
CC22	22mm Cable Cutter
SLN160	160mm Long Nose Pliers (Super Range)
SEP160	160mm Pliers (Super Range)
HUK1	Universal Panel Key



RKES - 15 Piece Roll-up Electrical Kit

- Bag part number: RCS

HT Code	Description
SEP200	200mm Combination Pliers (Super Range)
SLN200	200mm Long Nose Pliers (Super Range)
SDC180	180mm Diagonal Cutters (Super Range)
INSSET	7 Piece 1000V German Insulated Screwdrivers
AW200	200mm Adjustable Spanner
WAK2	Utility Knife
CC38	Cable Cutter
45092	0,32 - 6,0mm Cable Shear Wire Stripper
TORCH1	Torch



ELITK - 25 Piece Electrical Industrial Tool Kit

• Bag part number: TOOLBAGI

HT Code	Description
HD16L	Heavy Duty Uninsulated Crimper (1,5 - 16mm ²)
YYT1	Pre-Insulated Terminal Crimper
Headlight	5 LED Headlight with adjustable settings
AW200	200mm Adjustable Spanner
WAK2	Utility Knife
ECOSEET	1000V Insulated Screwdrivers
SLN160	160mm Long Nose Pliers (Super Range)
SEP200	200mm Pliers (Super Range)
SDC200	200mm Diagonal Cutter (Super Range)
CC38	38mm Cable Cutter
HUK1	Universal Panel Key
H5M	5 Metre Tape Measure
VG250	250mm Vice Grip
HAMCWF	450g Fibre Claw Hammer
SW10	10mm Socket Wrench Screwdriver
H300T	Tubular Hacksaw
T50LBK	Cable Ties
HT2BK	2 x Insulation Tapes
TOOLBAGI	Zip Case



Detachable multimeter carry pouch (Excludes a multimeter)

Detachable multimeter carry pouch (Excludes a multimeter)



TLKEL - 22 Piece Large Electrical Tool Kit

• Bag part number: TOOLBAGL

HT Code	Description
T235H	3 ^{1/2} Digit, Multimeter
PC230W	230mm Plier Crimper
SLN160	160mm Long Nose Pliers (Super Range)
SDC180	180mm Diagonal Cutter (Super Range)
ECP	Combination Pliers
EDC	Diagonal Cutters
ELN	Long Nose Pliers
INSSET	7 Piece 1000V German Insulated Screwdrivers
HEX1790	90 x 4,5 x 0,6mm Engineering Screwdrivers
HUK1	Universal Key
AW200	200mm Adjustable Spanner
WAK1	Utility Knife
CC38	Cable Shear Wire Stripper
PTS4	0,2 - 6,0mm Cable Shear Wire Stripper
VG175	175mm Vice Grip
TORCH1	Torch



2 Internal compartments double zip

PK1000V - 17 Piece Electrical Tool Kit 1000V

• Bag part number: PCS

HT Code	Description
T235H	3 ^{1/2} Digit, Multimeter
HLN200	200mm Long Nose Pliers (1000V)
HDC205H	200mm Diagonal Cutter (1000V)
HCP200H	200mm Combination Pliers (1000V)
INSSET	7 Piece 1000V German Insulated Screwdrivers
AW200	200mm Adjustable Spanner
HUK1	Universal Key
WAK2	Utility Knife
CC38	Cable Shear Wire Stripper
45092	0,32 - 6,0mm Cable Shear Wire Stripper
TORCH1	Torch



ECONOKIT - 22 Piece Economy Electrician's Kit

• Bag part number: TOOLBAGM

HT Code	Description
T3601	3 ^{1/2} Digit, Multimeter
SEP200	200mm Combination Pliers (Super Range)
SLN200	200mm Long Nose Pliers (Super Range)
SDC200	200mm Diagonal Cutters (Super Range)
SVN160	160mm Wire Stripper
ECOSSET	7 Piece 1000V Insulated Screwdrivers
AW200	200mm Adjustable Spanner
WAK1	Utility Knife
CC22	Cable Shear Wire Stripper
CRMP	Multi Crimp Tool
HUK1	Universal Key
8325	Joint Pliers
MHT5	5m Magnetic Tip Tape Measure
TORCH1	Torch
H015	Mini Hacksaw
P100A	Heavy Duty Hacksaw



PKES - 18 Piece Electrician's Tool Kit

• Bag part number: PCS

HT Code	Description
T235H	3 ^{1/2} Digit, Multimeter
PC230W	230mm Plier Crimper
SLN200	200mm Long Nose Pliers (Super Range)
SDC180	180mm Diagonal Cutters (Super Range)
INSSET	7 Piece 1000V German Insulated Screwdrivers
HEX1790	90 x 4,5 x 0,6mm Engineering Screwdrivers
AW150	150mm Adjustable Spanner
AW200	200mm Adjustable Spanner
WAK2	Utility Knife
CC38	Cable Shear Wire Stripper
45092	0,32 - 6,0mm Cable Shear Wire Stripper
TORCH1	Torch



PKELL - 20 Piece Budget Electronic Tool Kit

• Bag part number: PCS

HT Code	Description
T235H	3 ^{1/2} Digit, Multimeter
LCP150	150mm Combination Pliers (Budget Range)
LLN150	150mm Long Nose Pliers (Budget Range)
LDC150	150mm Diagonal Cutters (Budget Range)
EBN	Bent Nose Pliers
ECP	Combination Pliers
EDC	Diagonal Cutter
EEC	End Side Cutter
ELN	Long Nose Pliers
ECOSET	7 Piece 1000V Insulated Screwdrivers
WAK2	Utility Knife
HUK1	Universal Key
PTS4	0,2 - 6,0mm Cable Shear Wire Stripper
TORCH1	Torch



PKELS - 20 Piece Electronic Tool Kit

• Bag part number: PCS

HT Code	Description
T235H	3 ^{1/2} Digit, Multimeter
SEP160	160mm Combination Pliers (Super Range)
SLN160	160mm Long Nose Pliers (Super Range)
SDC180	180mm Diagonal Cutters (Super Range)
EBN	Bent Nose Pliers
ECP	Combination Pliers
EDC	Diagonal Cutter
EEC	End Side Cutter
ELN	Long Nose Pliers
INSSET	7 Piece 1000V German Insulated Screwdrivers
HUK1	Universal Key
WAK2	Utility Knife
PTS4	0,2 - 6,0mm Cable Shear Wire Stripper
TORCH1	Torch



PKEL - 16 Piece Budget Tool Kit

• Bag part number: PCS

HT Code	Description
LCP200	200mm Combination Pliers (Budget Range)
LLN200	200mm Long Nose Pliers (Budget Range)
LDC200	200mm Diagonal Cutters (Budget Range)
ECOSSET	7 Piece 1000V Insulated Screwdrivers
HUK1	Universal Key
AW150	150mm Adjustable Spanner
WAK2	Utility Knife
CC38	Cable Shear Wire Stripper
PTS4	0,2 - 6,0mm Cable Shear Wire Stripper
TORCH1	Torch



TOOLBAGL

- 46 x 36cm
- Inside: 2 internal compartments - 15 pouches
- Outside: 3 pouches
- Hacksaw compartment
- Tool configurations can be made up according to customer specifications
- Multimeter pouch
- Strap with steel buckle



TOOLBAGM

- 43 x 34cm
- Inside: 11 pouches
- Outside: 3 pouches
- Hacksaw compartment
- Tool configurations can be made up according to customer specifications
- Multimeter pouch
- Strap with steel buckle



TOOLBAGS

- 30 x 18cm
- Inside: 14 elastic straps
- Outside: 1 Pouch
- Tool configurations can be made up according to customer specifications



PCS

- 39 x 24cm
- Inside: 6 pouches, elastic straps, removable screwdriver insert
- Tool configurations can be made up according to customer specifications
- Multimeter pouch



TOOLBAGBP

- Bag dimensions: 460 (H) x 380 (W) x 210 (T)
- Weight: Max weight capacity 12 Kg



TOOLBAGP

- 38 x 24cm
- Designed for the PROKT tool kit
- Inside: 14 elastic straps
- 2 pouches



Chassis Punches

- Heavy duty
- Black anti-corrosive finish
- Can be used with various materials
- Accurate and burr free holes

HT Code	Dimension
CP20	20mm
CP22	22mm
CP25	25mm
CP32	32mm
CP40	40mm
CP50	50mm



Holesaws

- Heavy duty
- Complete with arbor
- Cutting depth: 12mm

HT Code	Dimension
HS18	18mm
HS20	20mm
HS21	21mm
HS25	25mm
HS32	32mm
HS40	40mm
HS50	50mm
HS63	63mm
HS75	75mm



Tungsten Holesaws

- Holesaws designed for drilling through aluminium, stainless steel, mild steel and fibre cement ceiling board.
- Hardened tungsten tips
- Complete with arbor
- Lasts up to 80% longer than standard holesaws
- Deep cutting depth
- Two cutting edges

HT Code	Dimension
TCT20	20mm
TCT22	22mm
TCT25	25mm
TCT32	32mm
TCT40	40mm
TCT51	51mm
TCT64	64mm
TCT73	73mm
TCT76	76mm
TCT83	83mm



Example of stainless steel plate (316) 1,5mm where up to 170 holes can be drilled compared to a low cost holesaw where a maximum of 3 holes can be drilled before it has to be replaced

TCTBITS Optional spare bits

Bi-Metal Holesaws

Bi-Metal Holesaws

- High speed bi-metal edge welded to an alloy steel back for heavy duty cutting
- Variable tooth pattern for "chatter-free" cutting - 4/6 TPI
- Maximum cutting depth 38mm

HT Code	Diameter	Arbor Required
WHS16	16mm	WARB2
WHS20	20mm	
WHS22	22mm	
WHS25	25mm	
WHS32	32mm	
WHS38	38mm	
WHS40	40mm	
WHS51	51mm	
WHS60	60mm	
WHS64	64mm	
WHS70	70mm	
WHS73	73mm	
WHS76	76mm	
WHS83	83mm	
WHS95	95mm	
WHS105	105mm	
WHS111	111mm	

NB: Saws do not include arbors shown above.



Bi-Metal Holesaw Kits

WHS9KT - 9 Piece Bi-Metal Holesaw Kit

- High speed bi-metal for heavy duty cutting
- Variable tooth pattern for "chatter-free" cutting - 4/6 TPI.

HT Code	Diameter	Cutting Depth	Arbor Required
WHS20	20mm	30mm	WARB1
WHS22	22mm	30mm	
WHS25	25mm	30mm	
WHS32	32mm	38mm	
WHS38	38mm	38mm	WARB2 or WADAP Adaptor
WHS40	40mm	38mm	



WHS13KT - 13 Piece Bi-Metal Holesaw Kit

- High speed bi-metal edge for heavy duty cutting
- Variable tooth pattern for "chatter-free" cutting - 4/6 TPI
- Spare drill bit included

HT Code	Diameter	Cutting Depth	Arbor Required
WHS20	20mm	30mm	WARB1
WHS22	22mm	30mm	
WHS25	25mm	30mm	
WHS32	32mm	38mm	
WHS38	38mm	38mm	WARB2 or WADAP Adaptor
WHS40	40mm	38mm	
WHS51	51mm	38mm	
WHS60	60mm	38mm	
WHS64	64mm	38mm	



WHS15KT - 15 Piece Bi-Metal Holesaw Kit

- High speed bi-metal for heavy duty cutting
- Extension handle
- Variable tooth pattern for "chatter-free" cutting - 4/6 TPI

HT Code	Diameter	Cutting Depth	Arbor Required
WHS16	16mm	30mm	WARB1
WHS19	19mm	30mm	
WHS20	20mm	30mm	
WHS22	22mm	30mm	
WHS25	25mm	30mm	
WHS32	32mm	38mm	
WHS40	40mm	38mm	
WHS51	51mm	38mm	WARB2 or WADAP Adaptor
WHS60	60mm	38mm	
WHS64	64mm	38mm	
WHS76	76mm	38mm	



Adjustable Spanner

- Chrome vanadium steel
- Corrosion resistant
- Graduated jaw

HT Code	Inch Size	Length
AW100	4"	100mm
AW150	6"	150mm
AW200	8"	200mm
AW250	10"	250mm
AW300	12"	300mm



Vice Grips

- Chrome vanadium steel
- Cutting jaw
- Nickel plated

HT Code	Length	Weight
VG175	175mm	500g
VG250	250mm	600g



Tape Measures

- Tough ABS housing
- High quality scale
- Positive lock
- Integral clip

HT Code	Length
H3M	3m
H5M	5m
H8M	8m
H10M	10m



Magnetic Tip Tape Measures

- Tough ABS housing
- Positive lock
- Magnetic tip
- High quality scale
- Integral clip
- Self locking

HT Code	Length
MHT3	3m
MHT5	5m
MHT8	8m



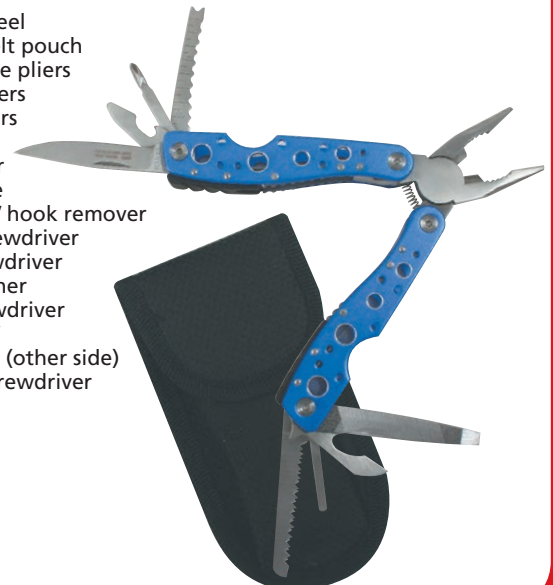
LDM60 - Laser Distance Meter (60m)

- Range 0.05 to 60m
- Accuracy +- 1.5mm
- Measurements: meter/inch/feet
- IP54
- Data hold/data clear function



MTOOL - 16-in-1 Multi Tool

- Stainless steel
- Includes belt pouch
- Needle nose pliers
- Regular pliers
- Pliers scissors
- Saw
- Can opener
- Sharp knife
- Fish scaler / hook remover
- Phillips screwdriver
- Small screwdriver
- Bottle opener
- Large screwdriver
- Single file / Double file (other side)
- Medium screwdriver



Utility Knives/Spirit Levels

WAK1 - Retractable Utility Knife & Stripper

- Rugged construction
- Fold over seam ensures blade security
- Blade storage in the handle
- Overmould frame
- Uses BHD5 replaceable blades



WAK2 - Manual Retractable Utility Knife

- Rugged construction
- Fold over seam ensures blade security
- Blade storage in the handle
- Uses BHD5 replaceable blades



WAK3 - Manual Retractable Utility Knife

- Rugged construction
- Fold over seam ensures blade security
- Blade storage in the handle
- Overmould frame
- 19mm Blade storage

HT Code	Description
WAK3BLD	10 Piece 19mm Blade Set



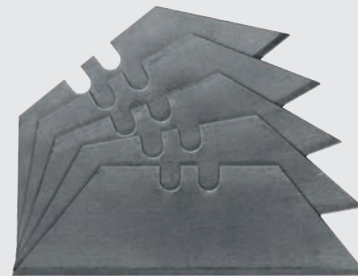
WAK3BLD - 10 Piece Blade Set

- 19mm



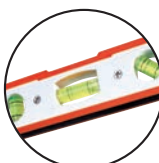
BHD5 - 5 Piece Heavy Duty Blades

- 19mm



L100250 - Spirit Level

- Length: 250mm
- Aluminium extruded section
- Powder coated for extra protection
- Factory set non-breakable plexiglass vials
- Magnetic strip



MAGNETIC STRIP

L100450 - Spirit Level

- Length: 450mm
- Aluminium extruded section
- Powder coated for extra protection
- Factory set non-breakable plexiglass vials



HAMBP300 - Ball and Pein Hammer

- Weight: 0,30 Kg



HAMBP450 - Ball and Pein Hammer

- Weight: 0,45 Kg



HAMCB11 - Club

- Weight: 1,1 Kg



HAMCWA - Steel Claw Hammer

- Weight: 0,45 Kg



HAMCWF - Fibre Claw Hammer

- Weight: 0,5 Kg



Toolbox

- 5 Tier toolbox
- Brazed joints
- Box dimensions: 560(L) x 240(W) x 230(H) mm



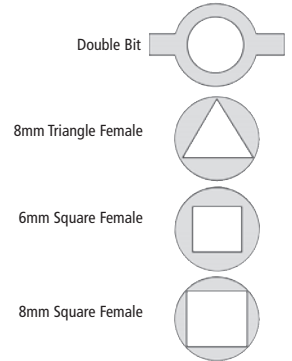
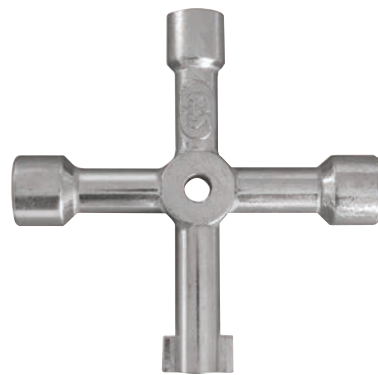
SPAN12 - 12 Piece Spanner Set

- Sizes 6/7/8/9/10/11/12/13/14/15/17/19mm



HUK1 - Universal Key

- Multipurpose - electrical panels, gas, etc.
- Made from die cast zinc
- Ideal for maintenance work



O1003 - 10 Piece Allen Key Set

- Short arm
- Keyring
- Metric

HT Code	Description
O1003	1,5 - 2 - 2,5 - 3 - 4 - 5 - 5,5 - 6 - 8 - 10mm



O1604LM - 7 Piece Allen Key Set

- Long arm ball point
- Metric
- With plastic holder

HT Code	Description
O1604LM	2,5 - 3 - 4 - 5 - 6 - 8 - 10mm



O9FA - 9 Piece Allen Key Set

- Metric
- Foldable allen keys
- With plastic holder

HT Code	Description
O9FA	1,5 - 2 - 2,5 - 3 - 4 - 5 - 5,5 - 6 - 8mm



HTS250 - Universal Tin Snips

- Spring loaded handles
- Finger guards
- Drop forged chrome vanadium steel blades



TORCH1 - Mini Torch

- Hard durable construction
- Spare bulb included
- 2 x AA batteries (not included)
- Length: 150mm



LEDTORCH - Aluminium LED Torch

- Hard durable construction
- 3W Cree LED
- 2 x AA batteries (not included)
- Length: 165mm



HEADLIGHT - LED Headlight

- 5 LED headlight
- Adjustable settings
- 3 AAA batteries (not included)



Fish Tapes

- Steel and nylon

HT Code	Length
FT30	30m Steel Cable
FT60	60m Steel Cable
H2230	30m Nylon



FT60

H2230

CLI - Chalk Line

- High impact housing
- Quality cotton line
- Fold away handle
- Chalk powder - red, blue and white

HT Code	Description
CLR	Red Chalk Powder
CLB	Blue Chalk Powder
CLW	White Chalk Powder



45092 - Stripmaster

- One light squeeze strips wire clean and eliminates all nicking, cutting or fraying
- Metric blades available on request
- Especially good for production stripping of lighter gauge wires, automotive wiring, radio and instrument wire and cable, aviation wire, telephone or fixture wire

HT Code	Wire (mm ²)	No. of Holes	Replacement Blades (Pair)
			HT Code
45092	0,32 - 5	6	L4419



PVST46 - PV Stripping Tool

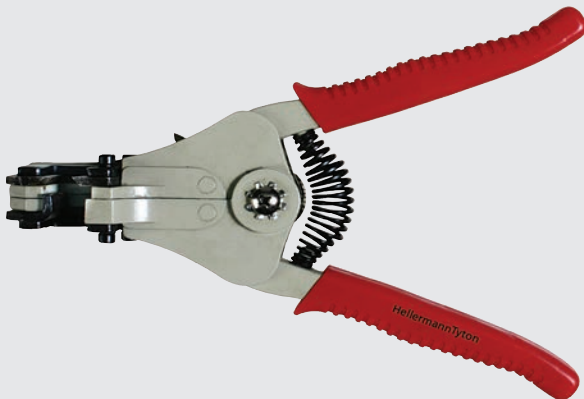
- Standard die for 2,5/4/6mm² (AWG14/12/10) solar PVC cable
- Insulation stripping distance guide
- Automatic spring release action
- Non-slip grip



Wire Stripper

- Inexpensive general purpose wire stripper

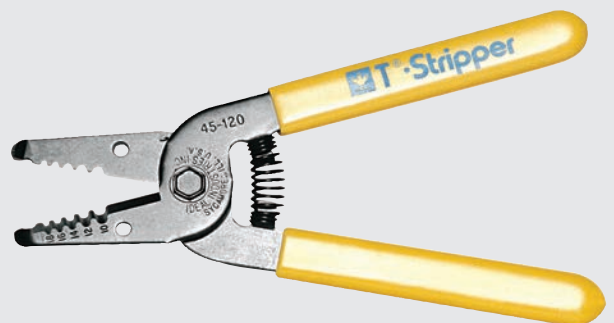
HT Code	Suitable For Wire Sizes	Type
YC1607A	0,5 - 2,0mm ²	Stripper
YC1607B	1,0 - 3,2mm ²	Stripper



T-Type® - Wire Strippers and Cutters

- For quick, easy, clean stripping and cutting of small solid and flexible wires in electronic instruments and appliances

HT Code	Suitable For Wire Sizes	Type
45120	0,75 - 6,0mm ²	Stripper
45121	16 - 26 AWG, Stranded	Stripper



PTS4 - Wire Stripper and Cutter

- Automatic adjustment
- Spare cutting and stripping blades
- Self-adjusting cutting-stripping tool with pressure adjustment of the blade incision.
- Suitable to cut or to strip without any adjustment, electric wires from 0,2 to 6mm² or to strip multiple cables



ASS103 - Cable Stripper

- Coaxial cable stripper
- Strips multi-conductor wire



MK3TEN - Tensioning Tool

- For nylon cable ties only with adjustable tensioning force
- This lightweight tool is ideal for continuous production work
- The MK3TEN can be used for T18, T30 and T50 series cable ties
- Maximum width of tie: 4.8mm
- Dimensions (mm): 184 (L) x 128 (H) x 24 (W)
- Weight: 0.3 Kg



Nylon Cable Tie
Tensioned/Cut/No sharp edges

EVO7TOOL - Tensioning Tool

- For nylon cable ties only with adjustable tensioning force
- Ergonomically lightweight tool
- Extended slim nose to operate in narrow spaces
- The EVO7TOOL can be used for T18 and T50 series cable ties
- Maximum width of tie: 5.1mm
- Dimensions (mm): 191 (L) x 138 (H) x 34 (W)
- Weight: 0.27 Kg



Nylon Cable Tie
Tensioned/Cut/No sharp edges

TG007 - Plastic Frame Tensioning Tool

- For nylon cable ties only with adjustable tensioning force
- This lightweight tool is ideal for heavy duty production work
- The TG007 can be used for T18, T30 and T50 series cable ties
- Maximum width of tie: 4.8mm
- Dimensions (mm): 165 (L) x 135 (H) x 25 (W)
- Weight: 0.21 Kg



Nylon Cable Tie
Tensioned/Cut/No sharp edges

TG008 - Steel Frame Tensioning Tool

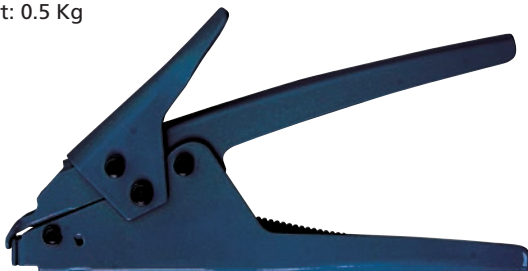
- For nylon cable ties only with adjustable tensioning force
- This lightweight tool is ideal for heavy duty production work
- The TG008 can be used for T18, T30 and T50 series cable ties
- Maximum width of tie: 4.8mm
- Dimensions (mm): 160 (L) x 135 (H) x 25 (W)
- Weight: 0.3 Kg



Nylon Cable Tie
Tensioned/Cut/No sharp edges

MK10TEN - Tensioning Tool

- For nylon cable ties only with adjustable tensioning force
- This lightweight tool is ideal for heavy duty production work
- The MK10TEN can be used for T18, T50 and T120 series cable ties
- Maximum width of tie: 9.5mm
- Dimensions (mm): 190 (L) x 95 (H) x 30 (W)
- Weight: 0.5 Kg



Nylon Cable Tie
Tensioned/Cut/No sharp edges

MK9TEN - Tensioning Tool

- For nylon cable ties only with adjustable tensioning force
- Tensioning tool for heavy duty production work
- The MK9TEN can be used for T18 to LK5 series cable ties
- Maximum width of tie: 13.5mm
- Dimensions (mm): 190 (L) x 150 (H) x 40 (W)
- Weight: 0.385 Kg



Nylon Cable Tie
Tensioned/Cut/No sharp edges

MK9SST - Stainless Steel Tensioning Tool

- For stainless steel cable ties only
- Tensioning tool for heavy duty production work
- The MK9SST can be used for MBT8, MBT14, MBT20 and MBT27 Series cable ties
- Maximum width of tie: 4.6 - 13mm
- Dimensions (mm): 190 (L) x 150 (H) x 40 (W)
- Weight: 0.6 Kg



Stainless Steel Cable Tie Tensioned/Cut/No sharp edges

HT338 - Budget Stainless Steel Tensioning Tool

- Fastens and automatically cut ties with adjustable bundling pressure
- Tension adjusting indicator
- For cable tie thickness up to 0.3mm. Width up to 7.9mm
- Suitable for HellermannTyton MBT cable ties MBT8, MBT14, MBT20 and MBT27



Stainless Steel Cable Tie Tensioned/Cut/No sharp edges

Miscellaneous

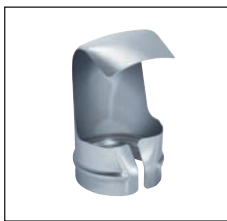
Heat Guns

HG2120E - Professional Steinel Heat Gun

- Output: 2200W
- Operation hours: 750
- Temperature rating 80°C - 630°C
- Temperature Indication: By thumbwheel, infinitely variable (indicated on thumbwheel in 9 steps)
- Temperature adjustments: Manual infinitely variable temperature adjustment
- Airflow rate: 150-500l/min
- Heating element: Ceramic heating element
- Thermal cutout
- Hanging ring
- Protection class (without earth terminal): II
- Dimensions: 253 (L) x 86.5 (W) x 200mm (H)
- Power supply: 220-230V
- Weight: 0,67kg



Optional Accessories



- NOZREF**
Reflector Nozzle
- Perfect for soldering pipes, fitting shrink tubing, thawing frozen pipes and bending pipes



- NOZSUR50**
50mm Surface Nozzle
- Evenly spreads air over a wide area. Ideal for evenly drying filler or stripping paint and removing films



- NOZRED9**
9mm Reduction Nozzle
- Delivers hot air with pinpoint precision for desoldering and welding plastics with welding nozzle



- | | |
|----------------|----------------|
| • Garages | • Decorators |
| • Car Wrappers | • Electricians |
| • Roofing | • Sign Makers |
| • Floor Layers | |

- | | |
|---------------------|------------------|
| • Packaging | • Aviation |
| • Electronics | • Automotive |
| • Mechanical | • Cable Assembly |
| • Tank Construction | |

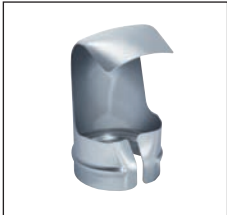
HL1620S - DIY Steinel Heat Gun



- Output: 1600W
- Operation hours: 600
- Temperature rating 300°C - 500°C
- Airflow rate: 240-450l/min
- Heating element: Micanite heating element
- Thermal fuse
- Protection class (without earth terminal): II
- Dimensions: 252 (L) x 85.5 (W) x 200mm (H)
- Power supply: 220-230V
- Weight: 0,67kg



Optional Accessories



NOZREF
Reflector Nozzle

- Perfect for soldering pipes, fitting shrink tubing, thawing frozen pipes and bending pipes



NOZSUR50
50mm Surface Nozzle

- Evenly spreads air over a wide area. Ideal for evenly drying filler or stripping paint and removing films



NOZRED9
9mm Reduction Nozzle

- Delivers hot air with pinpoint precision for desoldering and welding plastics with welding nozzle

Applications

- Removing and shaping
- Heat shrinking

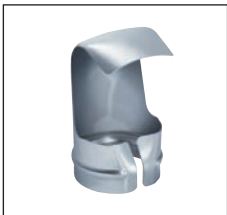
HL1920E - Steinel Heat Gun



- Output: 2000W
- Operation hours: 600
- Temperature rating 80°C - 600°C
- Temperature Indication: By thumbwheel, infinitely variable (indicated on thumbwheel in 9 steps)
- Temperature adjustments: Manual infinitely variable temperature adjustment
- Airflow rate: 150-500l/min
- Heating element: Ceramic heating element
- Thermal fuse
- Hanging ring
- Protection class (without earth terminal): II
- Dimensions: 253 (L) x 86.5 (W) x 200mm (H)
- Power supply: 220-230V
- Weight: 0,84kg



Optional Accessories



NOZREF
Reflector Nozzle

- Perfect for soldering pipes, fitting shrink tubing, thawing frozen pipes and bending pipes



NOZSUR50
50mm Surface Nozzle

- Evenly spreads air over a wide area. Ideal for evenly drying filler or stripping paint and removing films



NOZRED9
9mm Reduction Nozzle

- Delivers hot air with pinpoint precision for desoldering and welding plastics with welding nozzle

Applications

- Removing and shaping
- Heat shrinking
- Welding
- Desoldering

HT762250 - 1000V Insulated Adjustable Spanner

- Din 3117 B
- Burnished

HT Code	Size	Weight
HT762250	250mm	515g



Extension Bars

- Chrome vanadium steel
- Locked system
- Insulated after En/IEC 60900:2004

HT Code	Length	Weight
HT285125	1/2" - 125 mm	190g

HT Code	Length	Weight
HT285250	1/2" - 250 mm	400g



HT285125



HT285250

1000V Insulated Ring Spanners

- DIN 7447
- Forged from chrome vanadium steel (DIN 838)
- Deep cranked

HT Code	Size	Weight
HT21013	13mm	110g
HT21014	14mm	160g
HT21017	17mm	260g
HT21019	19mm	290g
HT21022	22mm	390g



1000V Open-Ended Spanners

- DIN 7446
- Forged from chrome vanadium steel (DIN3110)
- Offset 15°

HT Code	Size	Weight
HT20010	10mm	40g
HT20013	13mm	65g
HT20016	16mm	115g
HT20017	17mm	115g
HT20019	19mm	150g



1000V Insulated Screwdrivers

- DIN 7437
- For slotted screws

HT Code	Length	Weight
HT40055	1,0 x 5,5 x 125mm	100g
HT40065	1,2 x 6,5 x 150mm	125g
HT40010	1,6 x 10,0 x 200mm	260g



HT40010

1000V Insulated Cross Screwdrivers

- DIN 7438
- For extremely high torque loads

HT Code	Style	Weight
HT4101	No 1	60g
HT4102	No 2	95g
HT4103	No 3	150g



HT4101

HT100205 - 1000V Insulated Pliers

- DIN ISO 5746
- Induction-hardened cutting edges
- Suitable for hard wire

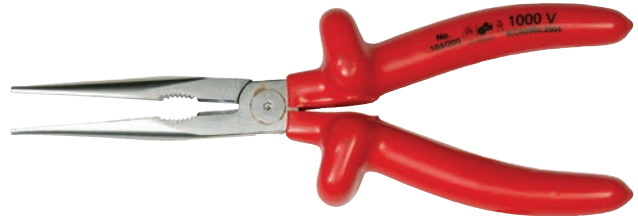
HT Code	Length	Weight
HT100205	205mm	390g



HT104200 - 1000V Insulated Long Nose Pliers

- DIN ISO 5745
- Induction-hardened cutting edges
- Suitable for hard and soft wire

HT Code	Length	Weight
HT104200	200mm	230g



HT112180 - 1000V Insulated Diagonal Pliers

- DIN ISO 5749
- Swedish pattern
- Precision cutting edges relief-milled and induction-hardened

HT Code	Length	Weight
HT112180	180mm	330g



HT116240 - 1000V Insulated Water Pump Pliers

- Box joint
- Made from chrome vanadium 31 CrV3

HT Code	Length	Weight
HT116240	240mm	350g



HT280260 - Reversible Ratchet

- Chrome vanadium steel
- Locked system
- Insulated after EN60900

HT Code	Length	Weight
HT280260	1/2" - 260 mm	700g



6-Point Sockets

- DIN 7448 with 1/2" square drive
- Made from chrome vanadium steel

HT Code	Size	Weight
HT31613	13mm	75g
HT31617	17mm	90g



1000V ⚡ IEC Insulated Range

HT53040 - 1000V Insulated Hooked cable knife

- Strong blade for slitting and dismantling armoured cable

HT Code	Length	Weight
HT53040	40mm	100g



HT52545 - Cable Stripping Knives

- Blade with short, offset cutting edge

HT Code	Length	Weight
HT52545	35mm	75g



HT765250 - 1000V Insulated Mini Hacksaw

- Fully insulated

HT Code	Length	Weight
HT765250	150mm	215g



HT767450 - 1000V Insulated Hacksaw

- Fully insulated
- With plastic screw for tensioning the blade

HT Code	Length	Weight
HT767450	450mm	300g



HT91615 - 1000V Insulated 15 Piece Tool Kit

- Size: 450 x 350 x 100mm
- Weight: 4,4 Kg
- Tool kit contents not sold separately



15 Piece tool kit - made up of table below	
Reversible Ratchet	1/2"
Extension Bars	125 & 250mm 1/2"
T-Lever (HT290200)	1/2"
Ratchet Sockets	10/12/13/14/17/19/22mm
Allen Screw Sockets	5/6/8 mm
Screwdriver	3.5 x 100mm

HT90026 - 1000V Insulated 26 Piece Tool Kit

- Size: 450 x 350 x 100mm
- Weight: 5 Kg
- Tool kit contents not sold separately



26 Piece tool kit - made up of table below	
Engineers Pliers	200mm
Side Cutters	160mm
Telephone Pliers	200mm
Reversible Ratchet	1/2"
Extension	250mm 1/2"
Stripper Knife	-
Cable Knife	-
Sockets	10/11/12/13/14/17/19mm
Open-Ended Spanner	10/11/12/13/14/17/19mm
Voltmeter	-
Screwdrivers	3.5 x 100/5.5x125/6.5x150/8x175

INSTRUMENTS

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TBM162	1000A AC/DC - Digital Clamp Meter	14
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Network Products

Identification Systems

- Helagrip
- Ovalgrip Cable Markers
- Helagrip Kits
- Identification Cable Ties
- Wire Identification Clip (WIC Markers)
- PU Cable Markers (Unicut)
- Polychloroprene Markers (Helsyn)
- Universal Sleeve fitting Tool (D/G Kits)
- Polychloroprene Tubing (Helsyn)
- Hellerine Lubricant
- DYMO / Brother Label Printers
- Hellermark RF
- Hellermark Stainless Steel Marking System
- Helafix Carriers HC and HCR
- HFX Helafix Lables
- Helafix HCT Tools and Accessories
- TagPrint™ Professional Label Creation Software
- TT4000-2, TT4000-3, TT420 Printers
- Thermal Transfer Ribbons
- ShrinkTrak™ Heat Shrinkable Markers
- Laser Tag Label Materials
- Self Laminating Laser Tags

Cable Securing Systems

- Cable Ties / Application tools
- RFID Ties
- Fixing ties
- Cable and Wire Mounts
- Special Purpose Fixing
- Cable Protection Systems
- Other Products
 - Lacing Twine
 - LOH Lacing
 - Hellermann Clips
 - PVC Electrical Insulation Tape
 - Slotted and Solid Trunking
 - Hellermann Cable Glands
 - Utility Junction Box
 - Accessories and Nylon / PVC Glands

Hensel

- Enycase
- Enyboard
- Enystar
- Enymod
- Enyfit
- Enysun

Deutsch

- DRB Series
- DRC Series
- DT Series
- DTM Series
- DTP Series
- DTV Series

Heat Shrink Products

- Heat Shrink Joint Kits
- Mini Reels (Commercial Grade Polyolefin)
- Pre-Packs
- Helashrink Hot Melt Tape
- LVR
- SGP Grade Flame-Retardant Polyolefin Heat Shrink Tubing
- Insultite HFT-A, HFT-B
- HFT-333 High Flexible High Shrink Ratio Polyolefin
- Insultite EPS-300, EPS-400
- Insultite IMCS-A
- Insultite PST-H, PST-HT
- Insultite Vitron®-E
- Insultite Kynar®
- Heat Guns

Accessories

- Flexiform Edge Protection Grommet Strip
- PVC Beading Edge Protection Strip
- Edge Protection Grommets
- Push-on Caps and Elbow Grommets
- Din Rail
- Connector Strips
- Fospro
- HelaCon Plus
- Line Taps
- Kit Boxes and Accessories
- Wall Boxes
- PVC Wall Boxes

Crimping Terminals

- Pre-Packs
- Pre-Insulated Terminal Kits
- Insulated Ring Terminals
- Insulated Spade Terminals
- Insulated Pin Terminals
- Insulated Butt Connectors
- Insulated Blade Terminals
- Insulated Hook Blade Terminals
- Insulated Male Disconnects
- Insulated Female Disconnects
- Fully Insulated Female Disconnects
- Insulated Piggy Back Disconnects
- Insulated Male Bullet Disconnects
- Insulated Female Bullet Disconnects
- Quick Splice Connectors
- Closed End Connectors
- Boot Lace Ferrules (with insulation)
- Boot Lace Ferrules – Twin Entry
- Boot Lace Ferrules (uninsulated)
- Griptite Terminals and Covers
- Brass – Open Barrel Terminals
- HT Heavy Duty Lugs
- HT Heavy Duty Ferrules
- HTB Standard Lugs
- HTB Standard Ferrules
- XPLE Lugs and Ferrules
- T-Ferrules
- HT Pin Terminals
- HTB Lug Kit



[http://www.hellermannntyton.co.za/Test_Equipment_\(3\).html](http://www.hellermannntyton.co.za/Test_Equipment_(3).html)

28009 / jhahka

Note: Instrument instruction manuals are available on our website.

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082 824 5625 | 082 824 5626 | 082 824 5627 | 082 829 9643

These emergency numbers are only applicable to our Johannesburg office, and not countrywide.