CHAUVIN ARNOUX

metrix

Chauvin Arnoux

Solutions built to meet your needs



Mesurer pour mieux Agir



Chauvin Arnoux Test & Measurement

Performance – Safety – Reliability

Energy efficiency: every kWh counts

Chauvin Arnoux offers measuring instruments to help you regain control of your consumption.

Industrial maintenance: plan ahead to avoid business interruption

Chauvin Arnoux supports you with measurement solutions to implement effective predictive maintenance. Anticipating means optimising.

Safety of people and property

Chauvin Arnoux offers measurement solutions to guarantee the safety of your teams, your installations, your machines and your business.

SOME FIGURES

More than **130** years in business

10 subsidiaries worldwide

120 million in turnover

1,000 employees

6 design offices worldwide

8 production sites
3 in Normandy
1 in Lyon
1 in Montpellier
1 in Milan (Italy)
1 in Dover (USA)
1 in Shanghai (China)

11 % of turnover invested in R&D

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www.chauvin-arnoux.com

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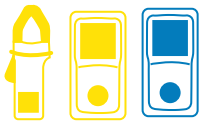

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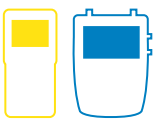

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Digital multimeter clamps

IP 54 | 1000 V CAT IV | TrueInRush





3 series of clamps for 3 measurement ranges: discover our range and choose your clamp!

F200	F400	F600
600 Aac / 900 Adc	1000 Aac / 1500 Adc	2000 Aac / 3000 Adc
Clamping Ø 34 mm	Clamping Ø 48 mm	Clamping Ø 60 mm

Voltage up to 1200 VAC and 1700 VDC+ Resistance, audible continuity
TrueInRush

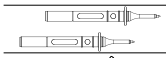
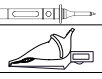
F201 / F402	F203 / F404 /F604	F205 / F406 /F606	F407 / F607
Applications 'Alternating current'	**Applications 'Alternating or direct current'**	**Applications 'Mixed AC+DC' + control and maintenance**	**Applications 'Mixed AC+DC' + Analysis and expertise**
Essential for mains-powered installations and equipment	DC current Temperature Adapter function ΔREL	Powers THD (except F205) ΔREL Min/Max/Peak Phase rotation	Powers Harmonics Ripple Recording PC software

TrueInRush
CHAUVIN ARNOUX innovation

Thanks to the TrueInRush function, the clamp automatically determines the nature of the signal and the current level in the installation, adapts the algorithm and the measurement for capturing the upcoming overcurrent.

	F200 Series			F400 Series				F600 Series		
	F201	F203	F205	F402	F404	F406	F407	F604	F606	F607
Reference	P01120921	P01120923	P01120925	P01120942	P01120944	P01120946	P01120947	P01120964	P01120966	P01120967
Clamping Ø	34 mm			48 mm				60 mm		
Display	LCD	Backlit LCD		Backlit LCD				Backlit LCD		
Resolution	6000-count			10,000-count				10,000-count		
Number of values displayed	1			1			3	1		3
Type of acquisition	TRMS AC	TRMS AC/DC	TRMS AC, AC+DC/DC	TRMS AC	TRMS AC/DC	TRMS AC, DC, AC+DC		TRMS AC/DC	TRMS AC, DC, AC+DC	
Automatic ranges (Autorange)	Yes			Yes				Yes		
Automatic AC/DC detection		Yes			Yes			Yes		
A AC	0.25 to 600 A (900 A peak)			0.25 to 1,000 A (1,500 A peak)				0.25 to 2,000 A (3,000 A peak)		
A DC		0.25 to 900 A			0.25 to 1500 A			0.25 to 3000 A		
A AC+DC			0.25 to 600 A (900 A peak)			0.25 to 1,000 A (1500 A peak)			0.25 to 2,000 A (3000 A peak)	
Improved accuracy	1% L. + 3 pts			1% L. + 3 pts				1% L. + 3 pts		
V AC	0.15 V to 1000 V (1400 V peak)			0.15 V to 1200 V (1700 V peak)			0.15 V to 1000 V (1400 V peak)	0.15 V to 1200 V (1700 V peak)		0.15 V to 1000 V (1400 V peak)
V DC	0.15 V to 1,000 V			0.15 V to 1700 V			0.15 V to 1000 V	0.15 V to 1700 V		0.15 V to 1000 V
V AC+DC			0.15 V to 1,000 V (1400 V peak)			0.15 V to 1,200 V (1700 peak)	0.15 V to 1,000 V (1400 peak)		0.15 V to 1,200 V (1700 V peak)	0.15 V to 1,000 V (1400 peak)
Improved accuracy	1% L.+ 3 pts			1% L.+ 3 pts				1% L.+ 3 pts		
Hz	Current: 5.0 Hz to 3,000 Hz Voltage: 5.0 Hz to 20.00 kHz			Current: 5.0 Hz to 2,000 Hz Voltage: 5.0 Hz to 20.00 kHz				Current: 5.0 Hz to 1,000 Hz Voltage: 5.0 Hz to 20.00 kHz		
Ohm	0,1 Ω to 59.99 kΩ			0,1 Ω to 99.99 kΩ				0,1 Ω to 99.99 kΩ		
Open-circuit voltage	≤ 3.6 V			≤ 3.6 V				≤ 3.6 V		
Measuring current	≤ 550 µA			≤ 550 µA				≤ 550 µA		
Audible continuity	Yes			Yes				Yes		
Continuity threshold	Adjustable between 1 and 599 Ω.			Adjustable between 1 and 999 Ω.			40 Ω	Adjustable between 1 and 999 Ω.		40 Ω
Diode test (semiconductor junction)	Yes			Yes				Yes		
Temperature (K type)	°C: -60.0 to +1,000.0°C °F: -76.0 to +1,832°F			°C: -60.0 to +1,000.0°C °F: -76.0 to +1,832°F				°C: -60.0 to +1,000.0°C °F: -76.0 to +1,832°F		
Single-phase and total three-phase powers			Yes			Yes				Yes
Active powers			1 W to 600 kW			1 W to 1,200 kW	1 W to 1,000 kW		1 W to 2,400 kW	1 W to 2,000 kW
Reactive power			1 var to 600 kvar			1 var to 1,200 kvar	1 var to 1,000 kvar		1 var to 2,400 kvar	1 var to 2,000 kvar
Apparent power			1 VA to 600 kVA			1 VA to 1,200 kVA	1 VA to 1,000 kVA		1 VA to 2,400 kVA	1 VA to 2,000 kVA
FP / DPF			Yes / No			Yes / No	Yes / Yes		Yes / No	Yes / Yes
Harmonic analyses			Yes			Yes	Yes		Yes	Yes
THD_f / THD_r			- / -			Yes / Yes	Yes / Yes		Yes / Yes	Yes / Yes
Frequency analysis							Rank 25			Rank 25
Phase rotation (2-wire method)			Yes			Yes	-		Yes	
Functions										
TrueInRush (overcurrent measurement)	Yes			Yes				Yes		
Motor start	Yes			Yes				Yes		
Load evolution	Yes			Yes				Yes		
Hold	Yes			Yes				Yes		
Min. / Max.	Yes			Yes				Yes		
Peak+ / Peak-			Yes			Yes			Yes	
RELativ ΔX / Differential ΔX/X (%)		Yes / Yes			Yes / Yes			Yes / Yes		
Auto Power Off	Yes			Yes				Yes		
Recording the data							Yes			Yes
Communication interface							Bluetooth			Bluetooth
Ingress protection code	IP40			IP54				IP54		
Electrical safety according to IEC 61010	600 V CAT IV			1000 V CAT IV / 1500 V CAT III			1000 V CAT IV	1000 V CAT IV / 1500 V CAT III		1000 V CAT IV
Power source	1 x 9 V LF22			4 x 1.5 V AA				4 x 1.5 V AA		
Dimensions / Weight	78 x 222 x 42 mm / 340 g			92 x 272 x 41 mm / 600 g				111 x 296 x 41 mm / 640 g		

Delivery condition

		F201 / F203	F402 / F404 / F604	F205 / F406 / F606	F407 / F607
	**1 set of PVC leads (black/red) with integrated test probes Insulated angled male banana plug Ø 4 mm**	x1			
	**1 set of PVC leads (black/red) Insulated angled male banana plug Ø 4 mm Insulated straight male banana plug Ø 4 mm**		x1	x1	x1
	**2 black/red test probes insulated female plug Ø 4 mm**		x1	x1	x1
	**1 black safety crocodile clip**			x1	x2
	**1 thermocouple wire with insulated banana plugs Ø 4 mm, centre distance 19 mm, integrated**	x1	x1		
	**1 x 9 V 6LR061 battery (F200 series) 4 x 1.5 V LR03 batteries (F400/F600 series)**	x1	x1	x1	x1
	**Multifix bag: 120 x 245 x 60 mm (F200 series) 120 x 320 x 60 mm (F400/F600 series)**	x1	x1	x1	x1

MULTIMETERS

Digital multimeters TRMS AC/DC, AC/DC/AC+DC

Easy to use and accessible even to inexperienced users, the B-ASYC MTX 203 and MTX 204 are equally powerful.

IP 54

600 V CAT III





		MTX 203	MTX 204
Reference		**MTX203-Z**	**MTX204-Z**
Display		6,000 pts	6,000 pts
Acquisition		TRMS AC/DC	TRMS AC /DC/AC+DC
Measurement rate		2 measurements per second	
Automatic ranges (Autorange) / Disengageable		Yes / Yes	
VDC	Ranges	6 V / 60 V / 600 V	
	Typical accuracy	0.2% + 2 pts	
	Resolution	0.01 V to 1 V	0.001 V
VAC	Ranges	6 V / 60 V / 600 V / 750 V	0.6 to 750 V
	Resolution	0.001 V to 1 V	0.5% + 4 pts
	Pass band	1 kHz	
VLow AC (Low impedance + Low Pass Filter)	Ranges	6 V / 60 V / 600 V / 750 V	0.5% + 4 pts
	Resolution	0.001 V to 1 V	0.001 V
VAC+DC	Ranges		
	Resolution		1% + 4 pts
ADC	Ranges	600 µA / 6 mA / 60 mA / 600 mA / 6 A / 10 A	600 µA / 60 mA / 6 A
	Resolution	0.1 µA to 0.01 A	0.1 µA
AAC	Ranges	600 µA / 6 mA / 60 mA / 600 mA / 6 A / 10 A	600 µA / 60 mA / 6 A
	Resolution	0.1 µA to 0.01 A	0.1 µA
AAC+DC	Ranges		600 µA / 60 mA / 6 A
	Resolution		0.1 µA
Resistance	Ranges	600 / 6 k / 60 k / 600 k / 6 M / 60 MΩ	
	Resolution	0,1 Ω at 0,01 MΩ	
Audible continuity		Yes	600 Ω
Frequency and duty cycle		2 Hz to 1 kHz	
Diode test		Yes	
Hz	Ranges	No	2 Hz to 1 kHz
	Resolution		0.001 Hz
Capacity	Ranges	1 nF / 10 nF / 100 nF / 10 µF / 100 µF / 1 mF / 10 mF / 100 mF	
	Resolution	0,001 nF to 10 µF	
T°	Ranges	-55°C to +1200°C	No
	Resolution	0.1 °C	No
Hold		Yes	
Min / Max (100 ms)		No	Yes
Differential measurement (ΔX) / Relative measurement (ΔX/X%)		Yes (disengageable)	Yes
Automatic switch-off		Yes (disengageable)	
Power source		2 x 1.5 V AA	
Dimensions / Weight		170 x 80 x 50 mm / 320 g	

USEFUL

Backlit screen and torch light



CONVENIENT

Shockproof and magnetic sheath with storage for leads and 3-position prop



Delivery condition

MTX 203: supplied with 1 shockproof sheath, 2 x 1.5 m straight leads / test probe, 1 flexible K thermocouple with Ø 4 mm adapter and 1 user manual, 2 x 1.5 V AA batteries.

MTX 204: supplied with 1 shockproof sheath, 2 x 1.5 m straight leads / test probe, 1 user manual and 2 x 1.5 V AA batteries.

Accessories

MULTIFIX accessory	**P01102100Z**
Adapter + TK temperature probe (MTX 203)	**P01102107Z**
CMS clamp	**HX0064**
Set of 2 magnetic test probes	**P01103058Z**
Fuse F1000 V 10 A, 10 x 38 mm (x 5)	**P01297096**
F1000 V 0.63 A, 6.3 x 32 mm (x 5)	**P01297098**

Industrial digital multimeters, ASYC IV range

IP 67 | 600 V CAT IV | 1000 V CAT III | IEC 61010-2-033





	MTX 3290	MTX 3291*
Reference	**MTX3290**	**MTX3291**
DC, AC and AC+DC voltages (range)	60 mV to 600 V	60 mV to 1000 V
DC accuracy	0.3 %	0.05 %
AC AC+DC bandwidth	20 kHz	100 kHz
DC, AC, AC+DC current (range)	600 µA at 10 A /20 A (30 s max)*	
DC accuracy	1.2 %	0.08 %
Frequency (range)	60 Hz to 600 kHz	
Resistance (range)	600 Ω to 60 MΩ	
Audible continuity	600 Ω SIGNAL < 30 Ω ±5 Ω < 5 V	
Diode test	3 V resolution 1 mV	
Capacities (range)	6 nF to 60 mF	
Temperature PT100/1000	-200°C to 800°C	
Other functions		
Monitoring	MAX/MIN / AVG with time stamp or PEAK ±, on all main positions	
REL	Relative value REL+ secondary display shows the measured reference value*	
PWM filter	300 Hz low-pass filter, 4th order for measurement on asynchronous motor drive	
Clamp function V direct reading	Integration ratio 1/1, 1/10, 1/100, 1/1000 mV/A	
Functions or secondary measurements	dBm and resistive power VA, duty cycle +/-, and pulse width*	
Central zero	Selectable or automatic bar graph* in VDC and I DC	
General specifications		
Display type	LCD with backlight*, and 14 mm digit height Dual display 60,000-count* or 6,000-count	
PC interfaces		Optical USB connector and SX-DMM software
Power source	4 AA batteries or Ni-MH batteries	
Security	Safety according to IEC61010-1 1000 V CAT III / 600 V CAT IV* or 600V CAT III / 300V CAT IV - Safety according to IEC 61010-2-033	
Environment	Storage -20 °C to +70 °C - Use -10 °C to +55 °C	
Mechanical specifications	Dimensions (W x D x H): 196 x 90 x 47.1 mm – Weight: 570 g	
Warranty	3 years	

Delivery condition

MTX 3290: supplied with 4 x 1.5 V alkaline batteries, 1 x 1.5 m straight/straight red lead, 1 x 1.5 m straight/straight black lead, 1 x red CAT IV 1 kV test probe, 1 x black CAT IV 1 kV test probe, 1 x user manual and 1 x quick start guide.

MTX 3291: supplied with 4 x 1.5 V alkaline batteries, 1 x 1.5 m straight/straight red lead, 1 x 1.5 m straight/straight black lead, 1 x red CAT IV 1 kV test probe, 1 black CAT IV 1 kV test probe, 1 user manual and 1 quick start guide, plus 1 bag, 1 USB cable, SCPI remote programming instructions and 1 SX-DMM software.



Accessories

MTX 329X calibration software colour graph	**HX0059B**
4 Ni-MH battery kit	**HX0051B**
MTX digital DMM transport kit	**HX0052B**
Colour graph DMM transport kit	**HX0052C**
MTX 3290 and MTX 3291 calibration software	**P01196770**

MULTIMETERS

Digital multimeters TRMS AC/DC, AC/DC/AC+DC

Versatility for field use

IP 54

600 V CAT IV







		CA 5273	CA 5275	CA 5277
Reference		P01196773	P01196775	P01196777
Display		2 x 6,000-count backlit		
Bargraph		61 + 2 dual-mode elements (full scale / zero centre)		
Acquisition		TRMS AC /DC	TRMS AC / DC / AC+DC	
Measurement rate		5 measurements per second		
Automatic ranges (Autorange) / Disengageable		Yes / Yes		
Automatic AC/DC detection		Yes	No	
VDC	Ranges	600 mV / 6 V / 60 V / 600 V / 1000 V	60 mV / 600 mV / 6 V / 60 V / 600 V / 1000 V	
	Typical accuracy	0.2% + 2 pts	0.09% + 2 pts	
	Resolution	0.1 mV to 1 V	0.01 mV to 1 V	
VAC	Ranges	600 mV / 6 V / 60 V / 600 V / 1000 V	60 mV / 600 mV / 6 V / 60 V / 600 V / 1000 V	
	Resolution	0.1 mV to 1 V	0.01 mV to 1 V	
	Pass band	40 Hz to 3 kHz	40 Hz to 10 kHz	
VLow AC (Low impedance + Low Pass Filter)	Ranges	600 mV / 6 V / 60 V / 600 V / 1000 V		
	Resolution	0.1 mV to 1 V		
VAC+DC	Ranges		60 mV / 600 mV / 6 V / 60 V / 600 V / 1000 V	
	Resolution		0.01 mV to 1 V	
ADC	Ranges	6 A / 10 A (20 A / 30 s)	6 000 µA / 60 mA / 600 mA / 6 A / 10 A (20 A / 30 s)	
	Resolution	0.001 A to 0.01 A	1 µA to 0.01 A	
			Ionisation current: 0.2 µA to 20.0 µA	
AAC	Ranges	6 A / 10 A	6 000 µA / 60 mA / 600 mA / 6 A / 10 A (20 A / 30 s)	
	Resolution	0.001 A to 0.01 A	1 µA to 0.01 A	
AAC+DC	Ranges		6 000 µA / 60 mA / 600 mA / 6 A / 10 A (20 A / 30 s)	
	Resolution		1 µA to 0.01 A	
Resistance	Ranges	600 Ω / 6 000 Ω / 60 kΩ / 600 kΩ / 6 MΩ / 60 MΩ		
	Resolution	0.1 Ω to 0.1 MΩ		
Audible continuity		Yes		
Diode test		Yes		
Hz	Ranges	600 Hz / 6 kHz / 50 kHz		
	Resolution	0.1 Hz to 10 Hz		
Capacity	Ranges	6 nF / 60 nF / 600 nF / 6 µF / 60 µF / 600 µF / 6 mF / 60 mF		
	Resolution	0,001 nF (1 pF) to 10 µF		
T°	Ranges	-59.6°C to +1200°C -4°F to +2192°F		59.6°C to +1200°C -4°F to +2192°F
	Resolution	0,1° to 1 °		0,1° to 1 °
Hold		Yes		
Min / Max (100 ms)		Yes		
Peak+ / Peak- (1 ms)		No		Yes
Differential measurement (ΔX) / Relative measurement (ΔX/X%)		No		Yes
Automatic switch-off		Yes (disengageable)		
Power source		1 x 9 V		
Dimensions / Weight		90 x 190 x 45 / 400 g		

Delivery condition

1 CA 5270 multimeter supplied with a set of banana leads, a set of test probes, a 9 V battery, a user manual and a quick start guide.

CA 5273: also supplied with a K temperature sensor.
CA 5275: also supplied with a bag and a Multifix adapter.
CA 5277: comes with a K thermocouple temperature sensor, a bag and a Multifix adapter.

Accessories

MULTIFIX accessory	**P01102100Z**
Adapter + TK temperature probe	**P01102107Z**
Clamp CMS	**HX0064**
Set of 2 magnetic test probes	**P01103058Z**
1000 V 10 A fuse, 10 x 38 mm (x 5)	**P01297096**
F1000 V 0.63 A, 6.3 x 32 mm (x 5)	**P01297098**

MULTIMETERS

Industrial colour graphic digital multimeters

IP 67 | 1000 V CAT III | 600 V CAT IV | IEC 61010-2-033 | TRMS



	CA 5292	CA 5293
Reference	P01196802	P01196813
DC, AC and AC+DC voltages (range)	100 mV to 1,000 V	
DC accuracy	0.03 %	0.02 %
AC AC+DC bandwidth	100 kHz	200 kHz
DC, AC, AC+DC current (range)	1 000 µA / 10 mA / 100 mA / 1 000 mA / 10 A / 10 A / 20 A (30 s max)	
DC accuracy	0.08 %	
Frequency (range)	10 Hz to 5 MHz	
Resistance (range)	100 Ω to 100 MΩ	
Audible continuity	1000 Ω SIGNAL < 20 Ω < 3.5 V	
Diode test	Diode 0 -2.6 V < 1 mA + Zener diode or LED 0-20 V < 11 mA	
Capacities (range)	1 nF to 10 mF	
Temperature PT100/1000	-200°C to 800°C	
Temperature TK/TJ	-40 to +1200°C	
Other functions		
Monitoring	MAX/MIN/AVG with time stamp or PEAK ±, on all main positions	
REL	Relative value REF-delta unit or on 3 displays + main measurement	
PWM filter	300 Hz low-pass filter, 4th order for measurement on asynchronous motor drive	
Clamp function V direct reading	Configurable Ax report	
Functions or secondary measurements	3 measures + main measure	
SPEC	Measurement tolerance display + Smin + Smax	
GRAPH	Main measurement trend < 60 s + Zoom + Cursor	
Central zero	Automatic trend bargraph	
Measurement memory	1,000	6,500
SPEC	Measurement tolerance display + Smin + Smax	
General specifications		
Display type	Colour graphic display (70 x 52) with backlighting, black background on 4 displays with 100,000-count	
PC interfaces	Optical USB connector – SX-DMM software	
Power source	Charger or 4 AA batteries or Ni-MH batteries	
Security	Safety according to IEC 61010-1 1000 V CAT III / 600 V CAT IV Safety according to IEC 61010-2-033	
Environment	Storage -20 °C to +70 °C - Use 0 °C to +40 °C	
Mechanical specifications	Dimensions (W x D x H): 196 x 90 x 47.1 mm – Weight: 570 g	
Warranty	3 years	

Delivery condition

CA 5292 and CA 5293 : supplied with 1 bag, 4 NI-MH 2400 mAH 1.5 V batteries, 1 charger, 1 straight/straight red 1.5 m lead, 1 straight/straight black lead, 1 red CAT IV 1 kV test probe, 1 black CAT IV 1 kV test probe, 1 USB optical lead + SX-DMM software, 1 user manual, 1 SCPI programming command manual and 1 quick start guide.



Accessories

MTX 329X calibration software colour graph	**HX0059B**
4 Ni-MH battery kit	**HX0051B**
External charger MTX 328X, MTX 329X (4 batteries included)	**HX0053B**
MTX digital DMM transport kit	**HX0052B**
Colour graph DMM transport kit	**HX0052C**

Intrinsically-safe multimeter



- TRMS AC+DC acquisition
- 60,000-count display resolution
- 100 kHz bandwidth
- 1 µV voltage resolution

and 0.01 µA current resolution

- Large 5.7" backlit digital display
- Secure terminal block with clear connection markings to prevent errors

LCI 19 ATEX 36011 X	IECEx LCIE 19.0003X
Ex I M1 Ex ia IMa	Ex ia I Ma Ex ia IIC T4 Ga Ex ia IIIC T135 °C Da -10 °C ≤ Ta ≤+55 °C
Ex II 1 G D Ex ia IIC T4 Ga Ex ia IIIC T135 °C Da -10 °C ≤ Ta ≤+55 °C	

IP 67 [1] | 600 V CAT IV [2] | TRMS AC + DC | Ex | IECEx

		MTX 3297Ex
Reference		**MTX3297**
DC, AC and AC+DC voltages		
V DC	Measurement range	0.001 mV to 1000.0 V DC
	Uncertainty	0.05% + 25 pts
V AC, V AC+DC	Measurement range	0.001 mV to 1000.0 V AC or AC+DC
	Uncertainty AC, AC+DC / Bandwidth	0.05% + 25 pts, 0.05% + 40 pts / 100 kHz
VLOWZ	Measurement range	0.01 mV to 1000.0 V
	Uncertainty / Bandwidth	0.05% + 25 pts/ 300 Hz
Qualified measurement range in ATEX zones		0.001 mV to 65.00 V
DC, AC & AC+DC currents (fuse protection)		
A DC	Measurement range	0.01 µA to 10.00 A DC (max. 20 A/30 s)
	Uncertainty	0.8% + 20 pts
A AC, A AC+DC	Measurement range	0.01 µA to 10.00 A AC or AC+DC (max. 20 A/30 s)
	Uncertainty / Bandwidth	1.0% + 25 pts/ 20 kHz
Measurement range qualified in ATEX Zone [3]		0.01 µA to 5.00 A
with external sensor (clamp)		**up to 6000 A depending on sensor, transformation ratio 1 , 10, 100, 1000 mV/A**
Frequency		
Hz	Measurement range	10.00 Hz to 200.0 kHz (in V), 20.00 kHz (in A)
	Uncertainty	0.1% + 1 pts
Resistance & Continuity, Diode		
Ω	Measurement range	0.00 Ω to 60.000 MΩ
	Uncertainty	0.1% + 20 pts
Continuity		Audible signal < 30 ± 5 Ω / < 5 V, I < 1.1 mA
Diode test		3.000 V, 1% + 30 pts / U < 5 V, I < 1.1 mA
Capacity		
nF/µF/mF	Measurement range	0.100 nF to 60.000 mF
	Accuracy	1% + 10 pts
Temperature		
°C/°F	Measurement range	-200.0°C to +800.0°C
	Uncertainty	0.1 % ± 1.5°C
Other measurements		
Secondary measurements		Duty cycle, Pulse width, Resistive power (U^2/R), dBm
Functions		
MAX/Min/AVG, Peak+/Peak-		On all main measurements 100 ms except Peak 1 ms
ΔREL, ΔREL/R		Differential value, Relative value
PWM filter		Low-pass filter 300 Hz 4th order
General specifications		
Display		Dual 60,000-count LCD display with 3-level backlighting
Power source		4 AA/FR6 Li-FeS2 batteries, ATEX-qualified / 350 hours battery life
Compliance outside ATEX zone		IEC 61010-2-033 1000V CAT III/600V CAT IV, EN 61326-1 class B
Waterproofing / Environment		IP 67 / Storage -20°C to +70°C, Use -10°C to +55 °C
Mechanical specifications		Dimensions (W x D x H): 196 x 90 x 47.1 mm – Weight: 715 g
Warranty		3 years

[1] IP67 when not in operation. [2] In a 'safe zone' (non-ATEX zone).
[3] Current measurement in hazardous areas must be carried out using the ampere input.

Delivery condition

MTX 3297: supplied with 1 set of 2 straight/angled leads 1.5 m, 1 set of test probes, 1 start-up guide (18 languages) including information (link & QR code) for free download of the user manual, 1 ATEX safety manual and 1 set of 4 batteries (pre-installed in the instrument) 1.5V AA/ FR6 Li-FeS2 ATEX-qualified.

Spare parts certified for use in explosive environments:

ATEX fuse 10x38 10 A 1000 V / 30 kA (single)	**AT0097**
Set of 4 ATEX 1.5V AA/FR6 Li-FeS batteries	**HX0097**
Set of 2 red/black moulded PVC straight/angled leads	**P01295451Z**
Set of 2 red/black moulded test probes	**P01295454Z**

TESTERS & DDT/VAT

Voltage detector (DDT/VAT)

Versatility for field use

IP 65 | 1000 V CAT IV



	CA 773
Reference	**P01191773**
Display	LEDs + backlit digital display
Voltage detection (DDT)	
Voltage	1.0 V to 299.0 VAC/DC 300 V to 1000 VAC / 1400 VDC
Frequency	DC, $16^{2/3}$ at 800 Hz
Impedance	> 500 kΩ
Max. peak current	3.5 mA RMS
Indication of polarity	Yes
Redundant indication of dangerous voltage	The ELV (Extra Low Voltage) LED indicates a voltage higher than the TBT (Extra Low Voltage) with a flashing speed proportional to the voltage.
Stray voltage detection	Yes (by low impedance load switching)
Differential protection triggering	Yes (by low impedance load switching) (approx. 30 mA at 230 V)
Phase/Neutral marking	Above 50 V (45 - 65 Hz) Above 150 V (162/3 - 45 Hz)
Continuity & Resistance	
Buzzer triggering threshold	100 Ω typical (150 Ω max.)
Extended continuity test (resistance)	0.5 Ω to 2.999 kΩ
Test current / Open circuit voltage	≤ 1 mA / ≤ 3.3 V
Phase rotation	
Voltage Ph/Ph	Microprocessor 2-wire method 50 V ≤ U ≤ 1000 VAC (45 - 400 Hz)
Buzzer	Intermittent beep for voltage detection Continuous beep for continuity
Electrical standards and safety	IEC 61243-3:2009, EN 61243-3:2010, IEC 61010 1000 V CAT IV
Degree of protection of the envelope	IP 65
Weather conditions	-15°C to +45°C (class N)
Battery life	> 2,500 measurements of 10 seconds
Dimensions / Weight	228 x 60 x 39 mm (without test probe) Approx. 350 g

Delivery condition

CA 773 : supplied with 1 NF in 5 languages, 2 x 1.5 V LR06/AA batteries, 1 set of removable test probes Ø 2 mm with crystal safety cap, 1 probe protector and 1 Velcro strap.

Accessories and spares:

CAT IV test probes for DDT	**P01102123Z**
Ø 2 mm test probes for DDT	**P01102124Z**
Ø 4 mm test probes for DDT	**P01102125Z**
Probe protectors for DDT	**P01102126Z**
IP2X CAT IV probes for DDT	**P01102127Z**
Ø 4 mm IP2X probes for DDT	**P01102128Z**
MultiFix bag 120 x 320 x 60 mm	**P01298076**

Digital tester

IP 54 | 600 V CAT III



	CA 757
Reference	**P01191757**
Current test	
Measurement range via current sensor	from 500 mA to 30 A (2 calibres)
Resolution	from 0.01 A to 0.1 A
DC voltage	
Measurement range	3 mV to 1000 V (4 ranges)
Resolution	From 1mV to 1V
AC voltage	
Measurement range	100 mV to 1000 V (4 ranges)
Resolution	From 1mV to 1V
Operating frequency	DC and 50/60 Hz
Impedance	10 MΩ
Contactless voltage detection	Under 230 V 50/60 Hz at a distance of approx. 5 cm
Audible continuity test	R ≤ 30 Ω
Resistance test	
Measurement range	from 0.3 Ω to 30 MΩ (6 calibres)
Resolution	from 0.1 Ω to 0.01 MΩ
Capacity test	
Measurement range	from 400 pF to 30 mF
Resolution	from 0.001 nF to 0.01 mF
Standards	600 V CAT III, IEC 61010-1, IEC 61010-031, IEC 61010-032, IEC 61010-033
Power source	2 x 1.5 V LR03 batteries
Battery life	100 hours with alkaline batteries Automatic standby after 10 minutes
Dimensions / Weight	180 x 52 x 45 mm / 200 g

Delivery condition

CA 757: supplied with 1 set of CAT III / IV thin test probes (red/black), 2 x 1.5 V LR03 alkaline batteries, 1 MiniFlex® sensor (loop length 250 mm) and 1 Velcro strap.

Accessories and spares:

Red/black CAT III/IV test probes	**P01102152Z**
Red/black test probes Ø 2 mm, CAT II	**P01102153Z**
Red/black test probes Ø 4 mm, CAT II	**P01102154Z**
Velcro strap x 5	**P01102113**
1.5 V alkaline battery LR3/AAA (x 1)	**P01296032**
MultiFix accessory bag, 120 x 200 x 60	**P01298074**
MultiFix mounting accessory	**P01102100Z**
MA101-250, current sensor for CA 757	**P01120591**

Recording contact thermometers

- Thermocouples J, K, T, N, E, R, S (CA 1821 & CA 1822)
- Pt100, Pt1000 resistive probes (CA 1823)
- Compact and magnetic for fixed or portable use
- Recording of up to 1 million points

°C °F





	CA 1821	CA 1822	CA 1823
Reference	P01654821	P01654822	P01654823
Sensor	J, K, T, N, E, R, S		Pt100, Pt1000
No. of entries	1	2	1
Range	-250°C to 1767°C		-100°C to 400°C
Resolution	θ < 1000 °C: 0.1°C and θ ≥ 1000 °C : 1 °C		0.1 °C
Accuracy	± (0.1 % L + 0.6 °C)		± (0.4 % L + 0.3 °C)
Functions	Min, Max, HOLD, Alarms		
Recording	Manual triggering and stopping on the product - Scheduled recording		
Alarms	Visual alert when threshold is exceeded, configurable via Data Logger Transfer Recording can be triggered on alarm threshold		
Battery life	1,000 hours (portable mode) 800 hours (for CA 1823) / 3 years in recording mode (15-minute measurement basis)		
Protection	IP54		
Mounting	Housing featuring: a magnet, a wall mounting system, a slot for hanging the product. Compatible with the Multifix accessory.		
Connection	CA 1821 and CA 1822: miniature female compensated - CA 1823: 3-point flat pin		
Dimensions / Weight	150 x 72 x 32 mm / 260 g with batteries		

Delivery condition

CA 1821, CA 1822, CA 1823: supplied with carrying bag, batteries, 1 USB cable, 1 measurement chart and quick start guide (full instructions and Data Logger Transfer software available on the Chauvin Arnoux website).

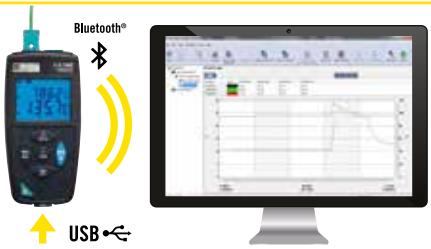


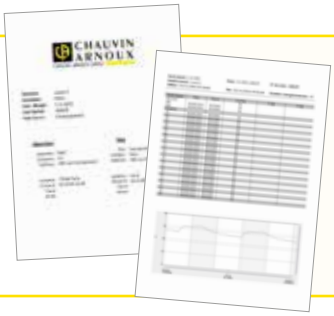


Accessories and spares:

Handle for CK extension	**P03652912**
Connector for K torque	**P03652925**
Shockproof sheath + Multifix	**P01654252**
Multifix	**P01102100Z**
Power adapter	**P01651023**
Carrying case	**P01298075**
Metal case	**P01298071**
DataView software	**P01102095**
BLE/USB Bluetooth modem for PC	**P01654253**
NiMH AA/LR06x4 batteries + charger	**HX0053**

Data Logger Transfer, the software for analysing your data





Automatic report creation

Exportable to Word format

Editing and archiving are thus simplified.

Thermo-hygrometer

°C °F %RH



	CA 1246
Reference	*P01654246*
Relative humidity range	from 3.0 to 98.0% RH
Accuracy relative humidity	from 10 to 90% RH: ± (2% RH ± 1 pt) outside this range:: ± (4% RH ± 1 pt)
Temperature range	from -10.0 to +60.0°C
Accuracy Temperature	from 10 to 40 °C: ± (0.5 °C ± 1 pt) outside this range: ± (0.032 x (T-25) ± 1 pt) /T= temperature in °C
Dew point range and accuracy	Dew point: -20.0 to +60.0 °C Accuracy: 1.5 °C
Functions	Min, Max, HOLD, Alarms
Recording	Manual triggering and stopping on the product Scheduled recording
Alarms	Visual alert when threshold is exceeded, configurable via Data Logger Transfer Recording can be triggered on alarm threshold
Battery life	1,000 hours (portable mode) / 3 years in recording mode (15-minute measurement basis)
Ingress protection code	IP54
Mountings	Housing featuring: a magnet, a wall mounting system, a slot for hanging the product. Compatible with the Multifix accessory.
Dimensions / Weight	187 x 72 x 32 mm / 260 g

Delivery condition



CA 1246: supplied with carrying bag, batteries, 1 USB cable, 1 measurement report and quick start guide (full instructions and Data Logger Transfer software available on the Chauvin Arnoux website).

Accessories and spares:



75% RH salt cartridge	**P01156401**
33% RH salt cartridge	**P01156402**
Shockproof sheath + Multifix	**P01654252**
Multifix	**P01102100Z**
Power adapter	**P01651023**
Carrying case	**P01298075**
Metal case	**P01298071**
DataView software	**P01102095**
BLE/USB Bluetooth modem for PC	**P01654253**
NiMH AA/LR06x4 batteries + charger	**HX0053**

CO_2 logger - Temperature - Humidity

°C °F %RH PPm CO_2

	CO_2	Temperature	Humidity
Measurement range	0 to 5,000 ppm	-10°C to +60°C	5 to 95% RH
Accuracy	± 50 ppm ±3% L	±0.5°C	2% RH
Resolution	1 ppm	0.1° C	0.1% RH



	CA 1510	CA 1510 black
Reference	P01651011	P01651010
Recording speeds	Customisable from 1 minute to 2 hours	
Data storage	More than 1 million points	
Buzzer and units	Yes / °C or °F	
Backlight / Hold / Min Max	Yes	
Dimensions / Weight	125 x 65.5 x 32 mm / 190 g with batteries	
Power source	Batteries: 2 x 1.5V LR06 batteries or rechargeable battery Can be connected to the mains using the mains adapter/ micro USB supplied as standard	
Interfaces	2 communication modes available: wireless Bluetooth connection and USB connection, in which case the product is recognised as a USB stick for easy file transfer	
Mountings	Housing for the CA 1510 with: ▪ a magnet. ▪ a wall-hanging system. ▪ a slot for hanging. ▪ a wall support with anti-theft protection (padlock not supplied) available as an accessory, ▪ a desk stand (supplied as standard with the CA 1510W)	

Delivery condition

CA 1510 white: supplied in a cardboard box with batteries, mains adapter, 1 USB-micro USB lead, a desk stand, quick start guide, 1 user manual and data processing software.

CA 1510 black: supplied in a case with batteries, mains adapter, 1 USB lead, quick start guide, 1 user manual and data processing software.

Accessories and spares:

Wall support	**P01651024**
Calibration kit supplied with adjustment software	**P01102133**



Wall support



Calibration kit supplied with adjustment software

Thermo-anemometer

m/s km/h | m³/s m³/h | °C | °F | USB | Bluetooth



	CA 1227
Reference	**P01654227**
Air velocity/flow sensor	Optical detection vane
Air velocity range	from 0.25 m/s to 35.0 m/s (49.0 to 6890.0 fpm)
Air velocity accuracy	± 3 % L ± 4 pt
Air flow range	0 to 2,999 m³/h
Air flow accuracy	± 8% r
T range °C/°F	- 20 to +50 °C / -4 to +122 °F
T °C accuracy	from 0 to 50 °C: ± 0.8 °C from -20 to 0 °C: ± 1.6 °C
Functions	Min., Max., HOLD, Average
Recording	Manual triggering and stopping on the product Scheduled recording
Data storage	More than 1 million points
Power source	▪ Alkaline batteries: 3 x 1.5 V LR06 or rechargeable NiMH battery ▪ Connection to mains via mains adapter / micro USB. (optional)
Battery life	200 hours (portable mode) / 8 days in recording mode (15-minute measurement basis)
Dimensions	Housing: 150 x 72 x 32 mm Sensor: 160 x 80 x 38 mm Coiled cable: 24 to 120 cm
Ground	approximately 400 g
Ingress protection code	IP40 housing
Operating temperature/humidity	-10 to +60 °C - 10 to 90% RH
Standards	IEC 61010-1 - IEC 61326-1

Delivery condition

CA 1227: supplied with carrying bag, 3 x 1.5 V AA alkaline batteries, USB cable, 1 measurement sheet and quick start guide (full instructions and Data Logger Transfer software available on the Chauvin Arnoux website).



Light meter

LUX | FC | CLASS C NF C 42-710 | LED FLUO | USB | Bluetooth



	CA 1110
Reference	**P01654110**
Measurement range	0.1 to 200,000 lx 0.01 to 18,580 fc
Accuracy in standard mode	
Incandescent lamp	± 3 % reading
LED	± 6% of reading (3000 K and 6000 K)
Fluorescent lamps	± 9% of reading
Accuracy in compensation mode	
LED mode	± 4% of reading (at 4000 K)
Fluo Mode	± 4 % of reading (type F11, 4000 K)
Functions	Min., Max., HOLD, Average
Recording	Manual triggering and stopping on the product Scheduled recording
MAP mode	The MAP function allows you to map the illuminance on a surface or in a room. The illuminance measurements are then saved in a single file.
Data storage	More than 1 million points
Power source	▪ Alkaline batteries: 3 x 1.5V LR06 or rechargeable NiMH battery ▪ Connection to mains via mains adapter / micro USB. (optional)
Battery life	500 hours (portable mode) / 3 years in recording mode (15-minute measurement basis)
Dimensions	Housing: 150 x 72 x 32 mm Sensor: 67 x 64 x 35 mm (with protective cover) Coiled cable: 24 to 120 cm
Ground	345 g with batteries
Ingress protection code	IP50 housing
Operating temperature/humidity	-10 to +60 °C - 10 to 90 % RH
Standards	Class C according to standard NF C 42-710

Delivery condition

CA 1110: supplied with carrying bag, 3 x 1.5 V AA alkaline batteries, USB cable, 1 measurement report and quick start guide (full manual and Data Logger Transfer software available on the Chauvin Arnoux website).



Accessories and spare parts for CA 1227 & CA 1110

Cone kit for vane flow measurement for CA 1227 (circular section Ø 210 mm and rectangular 346 x 346 mm)	**P01654250**	Carrying case	**P01298075**
Vane sensor Ø 80 mm for CA 1227	**P01654251**	Metal case	**P01298071**
Shockproof sheath + Multifix	**P01654252**	DataView software	**P01102095**
Multifix	**P01102100Z**	BLE/USB Bluetooth modem for PC	**P01654253**
Power adapter	**P01651023**	NiMH AA/LR06x4 batteries + charger	**HX0053**

Thermal Camera CA 1954

The perfect blend of performance and technology!

DiaCAM 2

Scan this code
to discover
the presentation video

IP 54 | 160 x 120 | PNG | 2 m | SD | USB | Bluetooth



Key features

- Exceptional battery life
- Speed: start-up in 3 seconds
- Emissivity table can be expanded as required
- Images and thermograms can be renamed by site
- Configurations can be saved and stored according to application
- Voice annotation to record your comments directly on the image
- Connectivity with current clamps and multimeters: all necessary measurements simultaneously
- Bluetooth™ communication
- CamReport analysis and report creation software
- Integrated protective cover

VOICE RECORDING

Voice recording via Bluetooth headset supplied as standard



Recovery via Bluetooth of measurements taken simultaneously with:

- multimeters or clamps (current...)
- thermometers, thermo-hygrometers (ambient temperature, humidity, dew point, etc.)



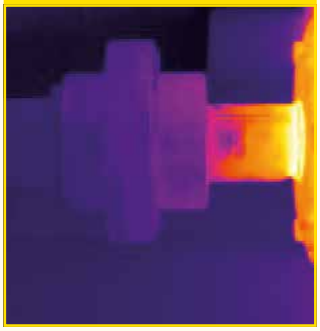
Applications

Quickly and easily detect all thermal faults!

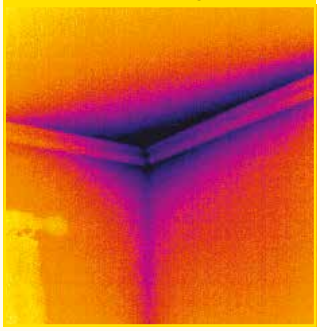
Electrical inspections



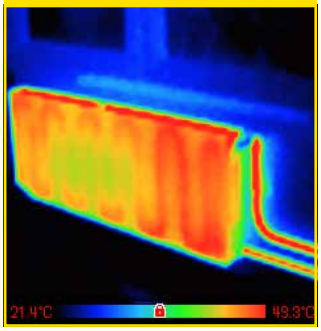
Mechanical inspections



Thermal inspections in buildings



Radiator inspections



THERMOGRAPHY



	CA 1954
Reference	**P01651904**
Detector	120 x 160
Sensitivity (NETD)	80 mK @ 30 °C (0.08 °C @ 30 °C)
Temperature range	-20°C to +250°C
Accuracy	±2 °C or ±2 % of reading
Field of view	28 ° x 38 °
IFOV (spatial resolution)	4.1 mrad
Focus	Fixed
Real image	Yes
Measurement tools	1 manual cursor, automatic Min Max detection, temperature profile, isotherm
Parameter settings	Emissivity, ambient temperature, distance, relative humidity
Voice comments	Yes via Bluetooth (headset supplied)
Connectivity	Clamps (F407, F607), multimeters (MTX 3292, MTX 3293) and environmental measurement products (CA 1821, CA 1822, CA 1823, CA 1246)
Data storage	On 2 GB micro SD card (approx. 4,000 images), removable up to 32 GB
Battery life	9 h
Type	Low self-discharge NiMH rechargeable batteries or alkaline batteries
Ingress protection code	IP 54
Resistance	Drop height: 2 metres
Dimensions and weight	225 x 125 x 83 mm / 700 g with batteries

Delivery condition

CA 1954: supplied in a hard case with 4 NiMH batteries and 1 battery charger, 1 HD micro SD card, 1 USB cable, 1 Bluetooth headset and CAmReport software, a user manual and a list of measurements.



Software for thermogram analysis!

Software: CAmReport included

CA 1954

The CAmReport software is supplied as standard with the CA 1954 camera.
It is comprehensive and offers all the features required for reliable analysis of measurement results.

Key features

- Cursors (automatic display of the temperature at the selected point)
- Thermal profile (automatic display of the min/max/average temperatures of the line)
- A square or circle for zone analysis
- Results tables automatically and quickly display all thermogram information/analysis tools
- Polygons and polylines for more accurate analysis of specific areas of the thermogram
- Standard emissivity table that can be expanded by the user
- Ready-to-use, customisable report templates



Reports are created automatically using a range of available templates

Digital insulation tester

IP 40 | 1000 V CAT III | 600 V CAT IV

	CA 6528
Reference	**P01140838**
Measurement range / resolution	1-700 V / 1 V
Accuracy / input impedance	±1.2% L ± 1 pt in AC+DC; ±1% L ± 1 pt in DC / 25 MΩ
Operating frequency	DC; 30-440 Hz
Test voltage	250-500-1000 V
Range with max. test voltage	11 GΩ
Measurement range	250 V: 50 kΩ - 4.2 GΩ / 500 V: 100 kΩ - 4.2 GΩ / 1,000 V: 200 kΩ - 11 GΩ
Measurement range / Resolution	50 kΩ - 3.999 / 1kΩ; (0.2)1 3.6-39.99 MΩ / 10 kΩ; 36-399.9 MΩ / 100 kΩ; 360-4200 MΩ / 1 MΩ; (1kV) 3.6 - 11.00 GΩ / 10 MΩ
Accuracy	0.05-399.9 MΩ : ±1.5% L ± 10 pt / 360 -4200 MΩ: ±4% L ± 10 pt; ±4% L ± 5 pt (at 1000 V) 3.6-11 GΩ : ±10% L ± 10 pt
Timer (min:s)	10 s to 39 min 59 s
Alarms	1 threshold / test voltage
Measurement range	0.02 Ω - 40 Ω (200 mA)
Accuracy / Open circuit voltage	±1.2% L ±3 pt / 6 VDC < U < 9 VDC
Measurement current	≥ 200 mA (up to 2 Ω)
Continuity thresholds (rapid beep)	1 Ω / 2 Ω
Cord compensation	up to 5 Ω
Measurement range / Resolution	1 -399.9 Ω / 0.1 Ω - 360-2 999 Ω / 1 Ω - 3.60-39.99 kΩ / 10 Ω - 36.0-420.0 kΩ / 100 Ω
Accuracy	±1.2% L ± 3 pt
Display	2 x 4000 pts
Power supply / Auto shut-off	6 x LR 6 or AA batteries / 10 min, can be deactivated
Battery life	1,000 measurements: at 1 MΩ @ 1 kV (5 s ON / 25 s OFF); >3,000 continuity measurements (5 s ON / 25 s OFF) at 1 Ω
Dimensions / weight / IP rating	218 x 95 x 63 mm / 760 g / IP 40
EMC / Electrical safety	IEC 61326-1 / IEC 61010-1, IEC 61010-2-030 and IEC 61010-2-034 / 600 V CAT IV
Compliance with standards	IEC 61557 parts 1, 2, 4 and 10



Delivery condition

CA 6528: supplied in a hand-free bag including 2 safety leads (1 red and 1 black), 1 red crocodile clip, 1 black test probe, 1 protective sheath mounted on the instrument, 6 x LR06 or AA batteries, 1 safety data sheet, 1 quick start guide and 1 certificate of verification.

Accessories and spares:

Set of red + black safety leads, 1.5 m	**P01295289Z**
Red + black crocodile clips	**P01295457Z**
Red + black test probes	**P01295454Z**
Continuity pole	**P01102084A**

Installation tester

IP 40 | 300 V CAT III | IEC 61557-4

	CA 6011	
Reference	**P01191611**	
Display	2000-count with two-colour backlighting	
Measurement range	0.00 Ω to 2.00 Ω	2.00 Ω to 20.00 Ω
Resolution	10 mΩ	
Measurement current	200 mA	20 mA
	with automatic polarity reversal	
Open-circuit voltage	±(4 VDC < U < 6 VDC)	
Measurement range	1.0 Ω to 200.0 Ω	
Resolution	100 mΩ	
Measurement current	10 mA	
Open-circuit voltage	±(4 VDC < U < 6 VDC)	
Continuity threshold	Programmable 1 Ω or 2 Ω	
Lead resistance compensation	Yes	
Test compliance/ non-compliance indication	Visual, audible and/or vibrating, configurable	
Regulatory compliance	IEC 61557-1 & IEC 61557-4, IEC 61010-1, IEC 61010-2-030 300 V CAT IV	
Automatic sleep mode	10 minutes / can be deactivated	
Battery life	30,000 measurements in real use 4,500 according to IEC 61557-4 protocol	
Power source	4 x 1.5 V AA/LR06 batteries	
Dimensions (instrument + reeling box)	225 x 185 x 135 mm	
Ground	CA 6011 alone: 350 g - Reeling box with 30 m cable: 1.2 kg	



Delivery condition

CA 6011 KIT: supplied with 1 elastic strap for attaching the measurement housing to the wrist, 1 waist belt + 1 shoulder strap, 1 'Cable Reeler No. 01' reeling box with 1 green PVC cable 30 m, 1 black PVC spiral lead 3.5 m, 1 green crocodile clip with banana socket Ø 4 mm, 1 moulded black test probe, 1 green PVC lead 0.50 m and 1 set of 4 alkaline batteries 1.5 V LR06.

Accessories and spares:

Cable reeler no. 1, 30 m	**P01295492**
Continuity pole	**P01102084A**

Installation tester

Test the electrical safety of your installations.

IP 54 | 600 V CAT III | Auto Script



Discover our new CA 6133 electrical installation tester

- Earth measurement using stake and loop method
- Continuity measurement below 0.2
- Insulation test
- RCD test: current and triggering time
- Automatic test sequences
- Test storage
- ANDROID application for report generation
- Power supply via rechargeable batteries, mains, USB socket or cigarette lighter socket



Delivery condition

CA 6133: supplied with 1 carrying bag containing:
1 neck strap, 1 three-pole mains cable EURO, 3 safety leads, 3 crocodile clips, 1 test probe, 1 USB 2A power supply + 1 USB lead, 6 Ni MH batteries (CA 6133) and 1 test report with list of measurements.

Accessories

Type 4 remote control probe	**P01102157**
MN73A current clamp for AC 6133	**P01120439**

	CA 6133
Reference	**P01146013**
Continuity/ Resistance	
Range / Resolution / Accuracy	0.00 to 9.99 Ω — Lead compensation up to 5 Ω; I >= 200 mA / 0.01 Ω / ± (2 % L + 2 pt)
Range / Resolution / Accuracy	1 to 9 999 Ω - 10.00 to 99.99 kΩ / 1 Ω - 10 Ω / ± (1 % L + 5 pt)
Insulation	
Nominal voltage	Utest :250 V / 500 V / 1 000 V
Range / Resolution / Accuracy	0.01 to 999.9 MΩ / 10 kΩ • 100 kΩ / ± (3 % L + 3 pt)
Short-circuit current	≤ 3 mA
3P earth	
Range / Resolution / Accuracy	0.50 - 99.99 Ω /0.01 Ω/±(2 % L + 10 pt) 100.0 to 999.9 Ω /0.1 Ω/±(2 % L + 5 pt) 1000 to 2000 Ω /1 Ω/±(2 % L + 5 pt)
Loop impedance (Zs (L-PE) and Zi (L-N or L-L)	
System voltage / Freq.	90 to 550 V / 45 to 65 Hz
High current mode with disconnection (TRIP) Zs (L-PE) & Zi (L-N or L-L) Range / Resolution / Accuracy	Measurement current 300 mA; 0.1 to 0.9 Ω • 1.0 to 399.9 Ω / 0.1 Ω / ±(2 pt) • ±(5 % L + 2 pt)
No disconnection mode (NO TRIP) (only Zs (L-PE))	Measurement current 12 mA • 1 to 19 Ω • 20 to 39 Ω 40 to 2,000 Ω / 1 Ω / ±(2 pt) • ±(15% L + 3 pt) • ± (5 % L + 2 pt)
Calculation of short-circuit current Ik (PFC (Zs)), (I Sc PSCC (Zi))	1 to 999 A, 1 to 9,999 A
AC and A type differentials	
System voltage / Frequency	90 to 450 V; 45 to 65 Hz
IΔn	30 mA - 100 mA - 300 mA - 500 mA - 650 mA
Non-triggering test	300ms
Ramp mode (30 mA)	12 mA (Uf) / 0.3 to 1.06 x IΔn in steps of 3.3% x IΔn
Triggering time measurement: Range / Resolution / Accuracy	impulse: 5 to 300 ms / 0.1 ms / ± 2 ms
Automatic test sequence	DDR, Loop-DDR-Insulation
Other measurements	
Current via MN73A clamp	2A calibre: 10.0 mA to 2,400 mA, 200A calibre: 1.00 to 200 A
Voltage Range / Resolution / Accuracy	2.0 to 550.0 VAC / 0.1 V / ± (1%L+2pt); 0.0 to 800.0 VDC / 0.1 V / ± (1%L+2pt)
Frequency Range / Resolution / Accuracy	30.0 to 999.9 Hz / 0.1 Hz / ±(0.1 % L + 1 pt) Voltage > 2 V
Phase rotation	45 to 550 V / 45 to 65 Hz
General specifications	
Display	231-segment LCD with blue backlight
Memory / Communication	30 sites x 99 tests / Bluetooth Class 1; range > 10 m
Power supply/Battery life	6 rechargeable NiMH batteries via mains < 6 hours, USB or cigarette lighter/1,700 continuity measurements at 1 Ω
Dimensions / Weight	223 x 126 x 70 mm / approx. 700 g
Ingress protection code / EMC	IP 54; IK 04 / EMC: IEC 61326-1
Electrical safety	IEC 61010-1 ; IEC 61010-2-030 ; IEC 61010-2-034, 600 V CAT III, 300 V CAT II (charger) / Compliant with IEC 61557 parts 1, 2, 3, 4, 5, 6, 7, 10

A connected instrument!



The ANDROID IT-Report app allows test results stored in the CA 6133 to be transferred to a tablet or smartphone via Bluetooth.
Test reports are then generated and automatically sent by email, or simply stored for later processing.



Installation testers

IP 65 | 600 V CAT III





Reference ** GB version: X = A, IT version: X = B, CH version: X = C, US version: X = D, EU version: X = N*	CA 6116N P01145455 X*	CA 6117 P01145460 X*
Continuity/ Resistance		
I nominal / Range / Resolution	I > 200 mA / 39.99 Ω / 0.01 Ω / ± (1.5% of measurement + 2 pts) 12 mA / 39.99 Ω and 399.9 Ω / 0.01 and 0.1 Ω /± (1.5% of measurement + 5 pts) with audible beep 12 mA / 39.99 Ω and 399.9 Ω / 0.01 and 0.1 Ω /± (1.5% of measurement + 5 pts) with audible beep	
Range / Resolution / Accuracy	4 kΩ / 1Ω / ±(1.5% of measurement + 5 pts) • 40 kΩ - 400 kΩ / 10Ω - 100Ω / ±(1.5% of measurement + 2 pts)	
Insulation		
Nominal voltage	Utest: 50 /100 / 250 / 500 / 1000 VDC	
Range / Resolution / Accuracy	0.01 MΩ to 2 G Ω / 10 kΩ to 1 MΩ / ±(5% of measurement + 3 pts)	
Short-circuit current	≤ 3 mA	
Earth		
3P earth Range / Resolution / Accuracy	0.50 Ω to 40 Ω / 0.01 Ω / ±(2% of measurement + 10 pts) • 40 Ω to 15 kΩ / 0.1 Ω to 1 Ω / ±(2% of measurement + 2 pts) 15 kΩ to 40 kΩ / 10Ω / ±(10% of measurement + 2 pts)	
Others	Measurement of resistance of auxiliary stakes R_H & R_S (up to 40 kΩ)	
Ufk	Compliant with SEV 3569	
Selective 1P earth - Range / Resolution / Accuracy	0.50 Ω to 39.99 Ω - 40 Ω to 399.9 Ω / 0.01 Ω - 0.1 Ω / ±(10% of measurement + 10 pts) (ISel via clamp)	
Loop independence (Zs (L-PE) and Zi (L-N or L-L) - Live earth 1P		
Live earth - Installation voltage / Freq.	90 to 500 V / 15.8 to 17.5 Hz - 45 to 65 Hz	
High current mode with disconnection (TRIP) Zs (L-PE) & Zi (L-N or L-L) Range / Resolution / Accuracy	Maximum test current: 7.5 A (0.050) 0.100 Ω to 0.5 Ω / 0.001 Ω / ± (10% of measurement + 20 pts) • 0.5 Ω to 3.999 Ω / 0.001 Ω / ± (5% of measurement + 20 pts) 3.999 to 39.99 Ω / 0.01 Ω / ± (5% of measurement + 2 pts) • 40.0 Ω to 399.99 Ω / 0.1 Ω / ± (5% of measurement + 2 pts)	
No disconnection mode (NO TRIP) (only Zs (L-PE))	Test current: 6 mA - 9 mA - 12 mA (selectable) • 0.20 Ω to 0.99 Ω / 0.01 Ω / ± (15% of measurement + 10 pts) 1.00 to 1.99 Ω / 0.01 Ω / ± (15% of measurement + 3 pts) • 2.00 to 39.99 Ω / 0.01Ω / ± (10% of measurement + 3 pts) 40.00 Ω to 399.9 Ω / 0.1 Ω / ± (5% of measurement + 2 pts) • 400 to 3 999 Ω / 1 Ω / ± (5% of measurement + 2 pts)	
Calculation of short-circuit current Ik (PFC (Zs)) , I Sc PSCC (Zi)	Fault and short circuit current: 0.1 A to 20 kA	
On-board fuse table		Yes
Voltage drop ΔV%(Zi)		-40 % to +40 %
Others	Measurement of resistive and inductive components of impedances Zs and Zi	
AC and A type differentials		
System voltage / Frequency	90 V to 500 V / 15.8 Hz to 17.5 Hz and 45 Hz to 65 Hz	
IΔn	6/10/30/100/300/500/650/1000 mA (90 V - 280 V) or variable 6/10/30/100/300/500 mA (280 V - 550 V) or variable Ramp and pulse test	
Non-triggering test	at ½ IΔn – Duration: 1000 ms or 2000 ms	
Ramp mode	0.2 to 0.5 x IΔn (Uf) / 0.3 x IΔn to 1.06 x IΔn in steps of 3.3% x IΔn	
Triggering time measurement: Range / Resolution / Accuracy	0.2 to 0.5 x IΔn (Uf) / 0.5 x IΔn / 2 x IΔn (selective) / 5 x IΔn Impulse: 0 to 500 ms / 0.1 and 1 ms / 2 ms, Ramp Mode 10 to 200 ms / 0.1 ms / 2 ms	
Type B differentials		
System voltage / Frequency		90 V to 280 V / 15.8 Hz to 17.5 Hz and 45 Hz to 65 Hz
IΔn: ramp/pulse 2 x IΔn impulse 4 x IΔn		6/10/30/100/300/500 mA 6/10/30/100 mA pulse 4 IΔn Duration: 150 ms at 4 x IΔn or 300 ms at 2 x IΔn
Test in ramp mode		From 0.2 x IΔn to 2.2 x IΔn
Triggering test: 2 x IΔn 4 x IΔn		IΔN Δ 200 mA: 2.2 x 2 x IΔn IΔN > 200 mA: 1.1 x 2 x IΔn IΔN Δ 100 mA: 2.2 x 4 IΔN
Other measurements		
Current via C177A clamp	5.0 mA to 199.9 A (C177A)	
Current via MN77 clamp	(1 mA*) 5.0 mA to 19.99 A	
Voltage	0 to 550 VAC/DC / DC and 15.8 to 450 Hz	
Frequency	15.8 to 500 Hz	
Phase rotation	20 to 500 VAC	
Active power	from 0 to 110 kW single-phase - from 0 to 330 kW three-phase - Simultaneous display of voltage and current waveforms	
Harmonics	Voltage and Current / up to rank 50 / THD-F /THD-R	
General specifications		
Display	Large 5.7" backlit colour graphic LCD screen, 320 x 240 pixels	
Memory / Communication	1000 tests / via USB for data transfer and report creation	
Power supply/Battery life	Rechargeable lithium-ion battery 10.8 V nominal 5.8 AH / up to 30 hours	
Dimensions / Weight	280 x 190 x 128 mm / 2.2 kg	
Ingress protection code / EMC	IP 53 / IK04 / IEC 61326-1	
Electrical safety	IEC 61010 -1 – 600 V CAT III – 300 V CAT IV – IEC 61557	

**if voltage is connected to the instrument*

Delivery condition

CA 6161N, CA 6117: supplied with 1 carrying bag with 1 mains adapter/charger type 2, 1 Li-Ion battery pack mounted on the instrument, 1 USB A/B cable 1.50 m, with ferrite, 1 three-pole cable - 3 safety leads, 3 test probes Ø 4 mm, 3 crocodile clips, 2 angled-straight safety leads 3 m, 1 three-pole mains cable EURO, 1 mains cable 2P EURO, 1 remote control probe, 1 scratch protection film for the instrument, 1 hand strap, 1 4-point hand strap, 1 ICT data export software and 1 user manual.



Insulation and continuity tester

IP 54 | 600 V CAT IV | IEC 61557 | TRMS



Discover our range:

- Test voltage from 10 V to 1,000 V / 200 GΩ
- Manual, Lock, Timer and PI / DAR ratio modes
- Red / green visual Pass / Fail
- 200 mA / 20 mA continuity with active protection without fuse
- Measurement of V (TRMS & DC), F, Ω, kΩ, C and cable length
- ΔRel mode & configurable alarms
- Storage of measurements

Remote control probe

The remote control probe is an accessory specially developed to facilitate and speed up insulation tests in the field.

- Simply pressing the yellow button on the probe triggers the insulation measurement.
- Equipped with a light, this probe effectively illuminates the measurement point.
- Thanks to the backlighting of the tester screen, the measurement results are visible at all times.



Reference	P01102092A

Software DataView®

The Megohmmeter Transfer module of the software DataView® automatically recognises the instrument when it is connected to the PC and launches the corresponding menu.

This menu gives the user direct access to the data stored in the instrument and to its configuration.

Other functions:

- Remote test launch
- Real-time display
- DAR and PI ratios
- Graphical test trace
- Measurement report generation



Reference	P01102095

Choose your tester according to your needs:

CA 6536

Applications 'Special & ESD'

With a variable test voltage from 10 V to 100 V in 1 V steps, this model is designed for special applications in areas such as avionics, aerospace and defence.
With the appropriate electrodes, the test voltages 10 V and 100 V cover the electrostatic discharge test application.

CA 6532

Applications 'Telecommunications'

Suitable for measurements on telephone lines:

- Tests insulation under 50 V or 100 V
- Specific functions: measurement of resistance, capacity, test current and AC voltage.
- Measurement of the resistance difference between two wires in a pair using the ΔREL function.
- Display of the length of a line under test, thanks to the programming of the line capacity in nF/km.

CA 6522 / CA 6524 / CA 6526

Applications 'Industrial maintenance'

Periodic insulation testing of installations and equipment:

- Insulation measurement for a programmed duration.
- Alarms and Pass/Fail indicator lights (CA 6526).
- PI and DAR ratios to determine insulation quality, with the advantage of being little affected by temperature.
- Storage for comparison of measurement histories.

CA 6534

Applications 'Electronics'

With its wide range of test voltages, from 10 V to 500 V, this model covers the specific needs of the electronics industry.

Its measurement range is from 2 kΩ to 50 GΩ.

TESTING AND ELECTRICAL SAFETY



		CA 6522	CA 6524	CA 6526	CA 6532	CA 6534	CA 6536
Reference		P01140822	P01140824	P01140826	P01140832	P01140834	P01140836 / P01299974
Application		Industrial maintenance			Telecommunications	Electronics	Special & ESD / ESD Kit
Voltage							
Measurement range / Resolution		0.3 V - 399.9 V / 0.1 V ; 400 V - 700 V / 1 V					
Accuracy / Input impedance		± (3 % + 2 pts) / 400 kΩ					
Operating frequency		DC ; 15.3 - 800 Hz					
Frequency							
Measurement range / Resolution/ Accuracy			15.3 Hz-399.9 Hz / 0.1 Hz / ± (1 % + 2 pts); 400-800 Hz / 1 Hz / ± (1 % + 1 pt)				
Insulation							
Test voltage		250 - 500 - 1 000 V	50 - 100 - 250 - 500 - 1,000 V		50 - 100 V	10 - 25 - 100 - 250 - 500 V	10 V to 100 V in 1 V steps
Range at maximum test voltage		40 GΩ	200 GΩ		20 GΩ	50 GΩ	20 GΩ
Compliant with IEC 61557 - 2		2 GΩ			2 GΩ		2 GΩ
Measurement range	10 V					2 kΩ - 1 GΩ	2 kΩ - 2 GΩ
	25 V					5 kΩ - 2 GΩ	(U_N/5) kΩ - (U_N/5) GΩ
	50 V		10 kΩ - 10 GΩ		10 kΩ - 10 GΩ		
	100 V		20 kΩ - 20 GΩ		20 kΩ - 20 GΩ	20 kΩ - 10 GΩ	20 kΩ - 20 GΩ
	250 V	50 kΩ - 10 GΩ	50 kΩ - 50 GΩ			50 kΩ - 25 GΩ	
	500 V	100 kΩ - 20 GΩ	100 kΩ - 100 GΩ			100 kΩ - 50 GΩ	
	1,000 V	200 kΩ - 40 GΩ	200 kΩ - 200 GΩ				
Variable test voltage							10 V to 100 V
Measurement range / Resolution		10[1] -999 kΩ and 1.000-3.999 MΩ / 1 kΩ; 4.00 - 39.99 MΩ / 10 kΩ; 40.0-399.9 MΩ / 100 kΩ; 400 - 3999 MΩ / 1 MΩ; 4.00 - 39.99 GΩ / 10 MΩ; 40.0 - 200 GΩ / 100 MΩ					
Accuracy		± (3 % + 2 pts)[2]					± (3 % + 2 pts)[3]
Test voltage (I < 1 mA)		- 0 % + 20 %					± 0.5 V
Test current / resAff		± (3 % + 3 pts)					± (3 % + 3 pts)
Test current / Resolution			0.01 µA - 39.99 µA / 10 nA ; 40.0 - 399.9 µA / 100 nA ; 0.400 - 2,000 mA/ 1 µA				
Test current accuracy			± (10 % + 3 pts)				
PI/DAR ratio			10 mn / 1 mn - 1 mn / 30 s				
Timer (min:s)		0:00 - 39:59					
Discharge time (at 25 V)		< 2 s/µF					
Alarms			2 fixed thresholds + 1 programmable threshold				
Continuity							
Continuity measurement range		0.00 Ω-10.00 Ω (200 mA)	0.00 Ω - 10.00 Ω (200 mA); 0.0 - 100.0 Ω (20 mA)				
Accuracy / Open circuit voltage		± (2 % + 2 pts) / ≥ 6 V					
Measurement current		200mA range: 200 mA (- 0 mA +20 mA); 20 mA range: 20 mA ± 5 mA					
Continuity thresholds (rapid beep)		2 Ω fixed	2 Ω, 1 Ω, programmable threshold				
Cord compensation		Up to 9.99 Ω					
Resistance							
Measurement range / Resolution			0 - 3999 Ω / 1 Ω ; 4.00 kΩ - 39.99 kΩ / 10 Ω / ± (3 % + 2 pts) 40.0 kΩ - 399.9 kΩ / 100 Ω ; 400 kΩ - 1 000 kΩ / 1 kΩ / ± (3 % + 2 pts)				
General specifications							
Display		2 x 4,000 pts + logarithmic bargraph					
Storage			300 measurements	1,300 measurements			
Communication				Bluetooth® Class II			
Power supply / Automatic shut-off		6 LR06 (AA) batteries / 5 min, can be deactivated					
Battery life		1,500/2,500/6,000 measurements (4): U x 1 kW @ U (5 s ON / 55 s OFF); 3,000 continuity measurements (5 s ON / 55 s OFF)					
Dimensions (HxWxL) / Weight / IP rating		211 x 108 x 60 mm / 850 g / IP 54 / IK 04					
EMC / Electrical safety		IEC 61326 - 1 / IEC 61010 - 1 and IEC 61010 - 2 - 030, 600 V CAT IV					
Compliance with standards		IEC 61557 parts 1, 2, 4 and 10					

[1]: 2 kΩ for models CA 6532 - CA 6534 - CA 6536 – [2]: the following is added: 10 V: 1% per 0.1 GΩ; 25 V: 0.4% per 0.1 GΩ , 50 V: 2% per GΩ, 100 V: 1% per GΩ; 250 V: 0.4% per GΩ; 500 V: 0.2% per GΩ; 1000 V: 0.1% per GΩ - [3]: there is an additional 10% /UN per 100 MΩ - [4]: depending on models.

Delivery condition

CA 6522, CA 6524: supplied with a carrying bag and hands-free use, 2 straight-angled safety leads (red and black) 1.50 m long, a red crocodile clip, a black test probe, 6 LR06 or AA batteries, a multilingual user manual, a quick start guide and a multilingual safety data sheet.

CA 6526: same as above + Megohmmeter Transfer software.

CA 6532, CA 6534: same as CA 6526 + 2 wire grips (red and black).

CA 6536: same as CA 6524 + 2 wire grips (red and black).

Accessories and spares:

Continuity pole	**P01102084A**
1-channel thermocouple thermometer, CA 1821	**P01654821**
2 straight angled safety leads (red and black) 1.50 m long	**P01295453Z**
2 crocodile clips (red and black)	**P01295457Z**
2 test probes (red and black)	**P01295454Z**
2 wire grips (red and black)	**P01102053Z**
Carrying bag for hands-free use	**P01298049**

Insulation testers

IP 53



	CA 6541	CA 6543	CA 6505	CA 6545	CA 6547	CA 6549
	Quantitative and qualitative measurement	*Measurement backup Rechargeable battery*	*Insulation and leakage current*	*Insulation, capacity, current*	*Storage and communication*	*The 'Pro' of preventive maintenance*
Reference	**P01138901**	**P01138902**	**P01139714**	**P01139711**	**P01139712**	**P01139713**
Voltage	1 to 1000 VAC/DC		1 to 5100 VAC/DC			
Insulation	50 / 100 / 250 / 500 / 1000 VDC		500 /1000/ 2,500 / 5000 VDC + variable from 50 V to 5100 VDC (in steps of 10 or 100 V)			
Range	2 kΩ to 4 TΩ		10 kΩ to 10 TΩ			
Continuity	0.01 to 40 Ω (buzzer + lead comp.)					
Resistance	0.01 to 400 kΩ					
Capacity	0.005 to 4.999 µF		0.001 to 49.99 µF			
Current			0,001 nA to 3000 µA			
Voltage ramp mode						5 steps
R calculation (T° ref.)						Yes
Alarms	Yes					
Smooth display	Yes		No	Yes		
Stopwatch	Yes					
Programmed test time	Yes					
Quality ratios	DAR / PI			DAR / PI / DD		
R(t)	Sample storage		No	Sample storage		On-screen display
Data storage		128 ko		4 ko	128 ko	
Communication		Bidirectional	No		Bidirectional	
Power source	8 LR14 batteries	NiMH battery				
Security	IEC 61010-1 CAT III 600 V - IEC 61557		IEC 61010-1 CAT III 1000 V, CAT IV 600 V (CAT I, 2500 V)- IEC 61557			
Display	Giant LCD + bargraph		Giant LCD + bargraph			Graph
Backlighting	Yes					
Dimensions	240 x 185 x 110 mm		270 x 250 x 180 mm			
Weight	3.4 kg		4.3 kg			
PC software	No	DataView® (optional)	No	No	DataView® (optional)	DataView® (optional)
Delivery condition	Carrying bag containing: 3 leads, 1.5 m long (one with guard), 3 crocodile clips, 1 test probe + batteries or power supply lead		Carrying bag containing: 3 high-voltage leads, length 2 m or 3 m with large crocodile clips (one with guard), 1 rear connection lead (35 cm) + 1 power supply lead			

Software DataView®

For CA 6543, CA 6547, CA 6549

The indispensable tool for configuring, starting measurements, viewing data in real time, retrieving recorded data and creating standard or customised measurement reports.

Reference	P01102095

Accessories and spares:

Thermo-hygrometer CA 1246 for CA 6505, CA 6545, CA6547 and CA 6549	**P01654246**
Thermometer CA 1821	**P01654821**
Remote control probe for CA 6541 and CA 6543	**P01101935**

Digital insulation testers

- Wide measurement range from 10 kΩ to 30 TΩ:
  - Load current of 5 mA
  - Large backlit LCD screen with digital display, bargraph and R(t)+u(t), i(t), i(u) graph
  - Automatic calculation of DAR / PI / DD / ΔR (ppm/V) ratios
- 3 filters for optimised measurement stability

IP 54

1000 V CAT IV





	CA 6550	CA 6555
Reference	**P01139715**	**P01139716**
Voltage	10 kV	15 kV
Insulation	500/1000/2500/5000/10000 V	500/1000/2500/5000/10000/15000 V
Range	from 10 kΩ to 25 TΩ	from 10 kΩ to 30 TΩ
Resistance	Yes	
Capacity	0.001 - 9.999 µF / 10.00 - 19.99 µF	
Current	Leakage current from 0 to 8 mA	
Voltage ramp mode	3 pre-configurable ramps	
R calculation (T° ref.)	Yes	
Alarms	Yes	
Smooth display	Yes	
Stopwatch	Yes	
Programmed test time	Yes	
Quality ratios	DAR / PI / DD / ΔR (ppm/V)	
R(t)	On-screen display	
R(t) + U(t), I(t), I(u)	Graphical display of curves	
Data storage	256 KB for up to 80,000 records	
Communication	Opto-insulated port for USB connection	
Power source	Rechargeable NiMH batteries via external voltage supply	
Security	1000 V CAT IV - IEC 61010-1 and IEC 61557	
Backlighting	Yes	
Dimensions	340 x 300 x 200 mm	
Weight	6.2 kg	

Delivery condition

CA 6550, CA 6555: supplied with 2 x 3 m safety leads fitted with a high-voltage plug at each end (red/blue), 1 x 3 m safety lead with guard and fitted with a high-voltage plug at one end and a high-voltage plug with rear connection at the other end (black), 3 crocodile clips (red/blue/black), 2 test probes (red/black) CAT IV 1000 V for voltage measurement, 1 blue rear connection lead, 1 x 2 m mains power supply lead, 1 DataView® software package, 1 optical/USB communication lead and 1 user manual.

Accessories

3 x 3 m HV crocodile leads for 10/15 kV	**P01295517+P01295520 +P01295523**
8 m blue HV crocodile lead	**P01295521**
8 m red HV crocodile lead	**P01295518**
8 m black HV crocodile lead	**P01295524**
15 m blue HV crocodile lead	**P01295522**
15 m red HV crocodile lead	**P01295519**
15 m black HV crocodile lead	**P01295525**
3 x 3 m HV leads for 10/15 kV	**P01295465**
50 cm blue HV lead with rear connection	**P01295526**
2 red/black test probes	**P01295454Z**
3 red/blue/black crocodile clips	**P01103062**
Mains lead 2P	**P01295174**
Carrying case	**P01298066**

Earth testers

IP 65 | 600 V CAT IV | IEC 61557 | USB



	CA 6422	CA 6424
Reference	**P01127012**	**P01127014**
Voltages (ultra-high voltage)		
Range		0.1 - 600 V
Resolution		0.1 V
Accuracy		± (1%L + 1 pt)
2P resistance		
Range	0.05-99.99 Ω / 80.0-999.9 Ω / 0.800-9.999 kΩ / 8.00-50.00 kΩ	
Resolution	0.01 Ω / 1 Ω / 10 Ω / 100 Ω	
Accuracy	± (2%L + 10 pt) / ± (2%L + 2 pt) / ± (2%L + 1 pt) / ± (2%L + 1 pt)	
Cord compensation		up to 5 Ω
2P resistance		
Range	0.5 Ω - 2,000 kΩ	0.5 Ω - 50,00 kΩ
Resolution	0.01 Ω / 0.1 Ω / 1 Ω	0.01 Ω / 0.1 Ω / 1 Ω/ 10 Ω
Accuracy	±(1%L + 10 pt) / ±(1%L + 2 pt) / ±(1%L + 1 pt)	
Measurement frequency	128 Hz or 256 Hz	
No-load voltage	± 10 V peak	
Measurement mode	Single-shot or permanent	
Storage		BR @ 62%; BR @ 52%; BR @ 72% Registers
Calculation of the average		calculation of the average, and % deviation from the average
Measurement of the resistance of the stake RH		
Range		0.05–9.999 kΩ / 8–49.99 kΩ
Resolution		10 Ω / 1 Ω
Accuracy		±(10%L + 1 pt)
Voltage measurement U_{SE}		0,10 V_{AC} to 600 V_{AC}
Range		0.10 - 99.99 V_{AC} / 80.0 - 600 V_{AC}
Resolution		0.01 V / 0.1 V
Accuracy		±(2%L + 2 pt)
Current resistance (via optional clamp G72)		
Range		0.5 - 999.9 mA / 0.800-9.999 A / 8.00-60.00 A
Resolution		0.1 / 1 / 10 mA
Accuracy		±(1%L + 4 pt) / ±(1%L + 2 pt)
Display	Custom 206-segment backlit LCD	
Measurement mode	R 2P (Ω), R 3P (Ω)	V, I, R 2P (Ω), R 3P (Ω)
Power source	6 x LR06 or AA batteries	6 x NiMH rechargeable batteries, charging time approx. 6 hours
Charger		Internal via mains adapter/USB supplied
Automatic switch-off		Can be deactivated
Battery life	> 2,000 3P earth measurements 3P at 100 Ω	> 1,500 3P earth measurements 3P at 100 Ω
Dimensions and weight	223 x 126 x 70 mm / 1 kg	
Environment	Use: -10 to +50 °C / Storage: -40 to + 70 °C (without batteries or accumulators)	
Protection	Up to 600 V on any of the 3 input terminals	
IP / IK rating	IP 65 according to IEC 60529 / IK 04 according to IEC 50102	
Drop test	1 metre according to IEC 61010-1	
Standards / Electrical safety	EMC: IEC 61326-1 ; IEC 61010-2-030 / 600 V CAT IV	
Compliance IEC 61557	IEC 61557-1 and IEC 61557 -4	

Delivery condition

CA 6422: supplied with 6 LR06 AAA batteries, 1 quick start guide, 1 safety data sheet, 1 test report with list of measurements and user manuals.

CA 6424: supplied with 1 carrying bag, 6 NiMH batteries, 1 USB 2A power supply, 1 micro-USB power lead, 1 multilingual quick start guide, 1 safety data sheet, 1 battery information sheet, test report with list of measurements and user manuals.

Accessories

Carrying bag	**P01298006**
G72 current clamp	**P01120872**
4-point hand-free strap	**HX0302**
15 m earth kit	**P01102017**
50 m expert earth kit	**P01102021**

Earth and resistivity testers



		CA 6460	CA 6462	CA 6470N	CA 6471
Reference		P01126501	P01126502	P01126506	P01126505
3P method	Range	0.01 to 2000 Ω		0.01 Ω to 99.99 kΩ	
	Resolution	10 mΩ/100 mΩ/1 Ω		0.01 to 100 Ω	
	Measurement frequency	128 Hz		41 to 513 Hz	
	Coupling measurement	Yes		Yes (Automatic)	
4P method	Range	0.01 to 2000 Ω		0.001 Ω to 99.99 kΩ	
	Resolution	10 mΩ/100 mΩ/1 Ω		0.001 to 100 Ω	
	4P Selective				Yes
Earth measurement with 2 clamps	Range				0.01 to 500 Ω
	Resolution				0.01 to 1 Ω
	Measurement frequency				Auto: 1611 Hz Manual: 128 Hz, 1367 Hz, 1611 Hz, 1758 Hz
Resistivity	Test method	Wenner and Schlumberger		Wenner and Schlumberger with automatic calculation	
	Range	0.01 to 2,000 Ω		0.01 to 99.9 kΩ	
	Measurement frequency	128 Hz		41 to 128 Hz	
DC resistance measurement	Measurement type			2 or 4 wires	
	2F / 4F range			0.12 Ω / 0,020 Ω to 99,9 kΩ	0.12 Ω / 0,020 Ω to 99,9 kΩ
	Measurement current			200 mA DC	
Data storage				512 memory locations	
Communication				Optical/USB connection	
Dimensions / weight		273 x 247 x 127 mm / 2.8 kg / 3.3 kg		272 x 250 x 128 mm / 3 kg / 3.2 kg	
Security		50 V CAT III, IEC 61010 & IEC 61557		50 V CAT IV, IEC 61010 & IEC 61557	
Power source		8 x 1.5 V LR06 batteries	NiMH battery	NiMH battery	

Delivery condition

CA 6460: supplied with 8 x 1.5 V LR06 batteries and 1 user manual.

CA 6462: supplied with 1 mains lead for recharging and 1 user manual.

CA 6470N: supplied with 1 external mains charger, data export software + optical/USB communication lead, 5 user manuals (one per language), 5 simplified user manuals (one per language) and 5 descriptive labels (one per language).

CA 6462: supplied with 1 external mains charger, data export software + optical/USB communication lead, 2 C182 clamps with 2 safety leads, 1 user manual, 1 simplified user manual, 5 descriptive labels and 1 carrying bag.

Kits



Earth and Resistivity Kit (100 m kit) P01102024

Compartmentalised bag with space for the tester containing: 4 T-shaped stakes, 4 cable reels (100 m red, 100 m blue, 100 m green, 30 m black), 1 green 10 m cable reeling box, 1 mallet and 5 lug / banana plug adapters Ø 4 mm.

Standard earth kit, 3P method

50 m kit P01102021

Carrying case containing: 2 T-shaped stakes, 2 cable reels (50 m red, 50 m blue), 1 green 10 m cable reel, 1 mallet and 5 lug/banana plug adapters Ø 4 mm.

100 m kit P01102022

Carrying case containing: 2 T-shaped stakes, 2 cable reels (50 m red, 50 m blue), 1 green 10 m cable reel, 1 mallet and 5 lug/banana plug adapters Ø 4 mm.

Accessories

For the CA 6471:

MN82 (Ø 20 mm) (supplied with 1 x 2 m cable for connecting the ES terminal)	**P01120452**
C182 clamp (Ø 20 mm) (supplied with 1 x 2 m cable for connecting the ES terminal)	**P01120333**

For CA 6471 and CA 6470N:

DataView® report editing software	**P01102095**
Adapter for charging on cigarette lighter	**P01102036B**
Optical communication lead / RS	**P01295252**
GB mains power supply lead	**P01295253**
Set of 10 fuses F 0.63 A – 250 V – 5 x 20 mm – 1.5 kA	**AT0094**
Mains battery charger adapter	**P01102035**
Battery pack	**P01296021**
Optical communication lead / USB	**HX0056-Z**

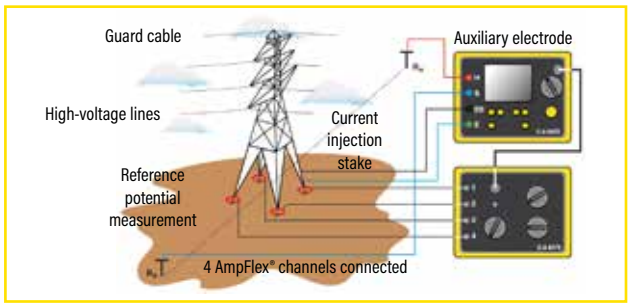
Earth and resistivity testers and adapter for earth measurements on pylons

The CA 6472 allows you to quickly and comprehensively assess all earthing configurations.
When used with the CA 6474 accessory, it can measure the earth resistance of a pylon.





	CA 6472	Accessory CA 6474
Reference	P01126504	P01126510
Specifications		
Measurements	Earth / Selective earth / Resistivity / Coupling / Continuity / Ground potential / Tower earth (with CA 6474)	Overall earth resistance of pylons Earth resistance of each tower foot Overall line impedance Guard cable connection quality
Type	Methods: 3P / 4P / 4P with clamp / 2 clamps	Active measurement (injection via CA 6472) Passive measurement (using disturbance currents)
Measurement range	0.011 to 100 kW (automatic calibres)	
No-load voltage	16 V or 32 V (selectable)	
Frequency	41 Hz to 5078 Hz	
Frequency scanning	Yes	
Measurement of resistance of auxiliary stakes	Yes: 0.14 Ω to 100 kΩ	
U disturbance		
Measurement	0.00 to 65.0 V	
High rejection	Yes	
Power source	Rechargeable NiMH battery	Powered by CA 6472
Display	3 digital LCD displays	Supplied by CA 6472
Storage	512 memory locations	Supplied by CA 6472
Communication output	Optical/USB connection	
Security	IEC 61010 & IEC 61557	
Dimensions / weight	272 x 250 x 128 mm / 3.2 kg	272 x 250 x 128 mm / 2.3 kg

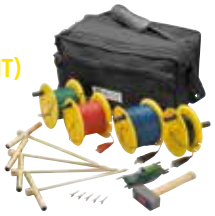


Delivery condition

CA 6472: supplied with mains adapter + 2P mains lead for battery charging from mains, data export software + optical/USB communication lead, 2 C182 clamps, 2 safety leads, 1 user manual, 1 simplified user manual, identification labels and 1 carrying bag.

CA 6474: supplied with a carrying bag for accessories containing 1 connection lead, 6 BNC/BNC cables, 15 m long, 4 flexible current sensors (AmpFlex®), 5 m long, 1 set of 12 identification rings for AmpFlex®, 2 cables (5 m green, 5 m black) with safety plugs in a reeling box, 5 spade lug/banana plug adapters Ø 4 mm, 3 clamps, 1 calibration loop, 1 user manual and data labels.

EARTH AND RESISTIVITY KIT (100 M KIT)
See page 25



Accessories

For the CA 6472:

MN82 clamp (Ø 20 mm) (supplied with 1 x 2 m cable for connecting the I/O terminal)	**P01120452**
C182 clamp (Ø 20 mm) (supplied with 1 x 2 m cable for connecting the I/O terminal)	**P01120333**

For CA 6472 and CA 6474:

CA 6472 – CA 6474 connection lead	**P01295271**
15 m BNC/BNC cable	**P01295272**
AmpFlex® 5 m flexible current sensor for CA 6474	**P01120550**
Set of 12 AmpFlex® identification rings	**P01102045**
Set of 3 clamps	**P01102046**
Green cable 5 m for CA 6474 (connection terminal I)	**P01295291**
Black cable 5 m for CA 6474 (connection terminal I/O)	**P01295292**
Spade lug/banana plug adapters	**P01102028**
Calibration loop	**P01295294**
AmpFlex® flexible current sensors: other lengths available on request	

Earth clamps and loop testers

Discover the CA 6418,
Oblong Head Earth Clamp

IP 54



Delivery condition

CA 6416: supplied with 1 clamp in a carrying case with 4 x 1.5 V batteries, 1 user manual and 1 wrist strap.

CA 6417: supplied with clamp in a carrying case with 4 x 1.5 V batteries, 1 user manual and software with simplified GTT driver and 1 wrist strap.

CA 6418: supplied with 1 clamp in a carrying case with 4 x 1.5 V batteries, 1 user manual, 1 wrist strap, 1 quick start guide, 1 multilingual safety data sheet and 1 certificate of verification.





	CA 6416	CA 6417	CA 6418
Reference	P01122015	P01122016	P01122018
Specifications			
Loop ohmmeter	**Measurement ranges (Ω) / Resolution (Ω) / Accuracy**		
	Display on 1,500-count		**Display on 1,200-count**
	0.010 to 0.099 / 0.001 / ±1.5 % ±0.01 Ω		0.010 to 0.099 / 0.001 ±1.5% L ±0.01 Ω
	0.10 to 0,99 / 0,01 / ±1.5 % ±2 r		0.10 to 0.99 / 0.01 / ±1.5 % L ±2 r
	1.0 to 49,9 / 0,1 / ±1.5 % ± r		1.0 to 49.9 / 0.1 / ±1.5 % L ± 2r
	50.0 to 99,5 / 0,5 / ±2 % ± r		50.0 to 149 / 1 / ±2.5 % L ± 2r
	100 to 199 / 1 / ±3 % ± r		150 to 245 / 5 / ±5 % L ± 2r
	200 to 395 / 5 / ±5 % ± r		250 to 440 / 10 / ±10 % L ± 2r
	400 to 590 / 10 / ±10 % ± r		450 to 640 / 10 / ±15 % L ± 2r
	600 to 1150 / 50 / Approx. 20 %		650 to 1200 / 50 / ±20 % L ± 2r
	1200 to 1500 / 50 / Approx. 25 %		
Frequency	Measurement frequency 2083 Hz / Transposition frequency 50, 60, 128 or 2083 Hz		Measurement frequency 2083 Hz
Loop inductance measurement	**Measurement ranges (Ω) / Resolution (Ω) / Accuracy**		
	10 to 100 / 1 / ±5 %±r		
	100 to 500 / 1 / ±3 %±r		
Contact voltage (calculation)	**Measurement ranges (V) / Resolution (V)**		
	0.1 to 4.9 / 0.1		
	5.0 to 49.5 / 0.5		
	50.0 to 75.0 / 1		
Ammeter Measurement ranges (A) / Resolution (A) / Accuracy Display over 4,000-count	0.200 to 0.999 mA / 1 µA / ±2 % ±50 µA		0.5 to 9.995 mA / 50 µA ±2 % L ±200 µA
	1.000 to 2.990 mA - 3.00 to 9.99 mA / 10 µA / ±2 % ±50 µA		10.00 to 99.90 mA / 100 µA ±2 % L ±r
	10.00 to 29.90 mA - 30.0 to 99.9 mA / 100 µA / ±2 % ±r		100.00 to 299.0 mA / 1 mA ±2 % L ±r
	100.0 to 299.0 mA - 0.300 to 0.990 A / 1 mA / ±2 % ±r		0.300 to 2.990 A / 10 mA ±2 % L ±r
	1.000 to 2.990 A - 3.00 to 39.99 A / 10 mA / ±2 % ±r		3.00 to 20.00 A / 100 mA ±2 %± r
Setup			
Modes	Standard or advanced		Standard
Alarms	Configurable in Z, V and A		Configurable in Z, I
Accuracy	± (0.1 % L + 0.6 °C)		± (0.4 % L + 0.3 °C)
Buzzer	Active		
HOLD	Manual or automatic PRE-HOLD		
Automatic switch-off	Active / Inactive		
General specifications			
Display	152-segment OLED. Active surface 48 x 39 mm		
Maximum clamping	Ø 35 mm		ø 32 mm - WxH: 30 x 40 mm / 20 x 55 mm
Storage	300 time-stamped measurements	2,000 time-stamped measurements	300 time-stamped measurements
Communication		Bluetooth Class 2	
Power source	152-segment OLED. Active surface 48 x 39 mm		
Battery life	1440 measurements of 30 seconds		2440 measurements of 30 seconds
Calibration	Automatic on start-up		
Electrical safety	IEC 61010 600 V CAT IV		IEC 61010 100 V CAT IV, 150 V CAT III
Dust- and water-tightness	IP40		
Dimensions	55 x 95 x 262 mm		56 x 106 x 300 mm
Ground	Approximately 935 g with batteries		Approximately 1.2 kg with batteries

Accessories

CL1 calibration loop	**P01122301**
DataView	**P01102095**
Case	**P01298080**

Testers for electrical equipment, machines and switchboards

Versatile, multi-standard testers

The CA 6161 and CA 6163 electrical equipment testers enable all electrical safety tests required by standards and regulations to be carried out, such as low voltage switchboards in accordance with IEC/EN 61439-1 and machines in accordance with IEC/EN 60204-1. The EN 50699 and EN 50678 standards are also covered.



IP 64 | 300 V CAT II | Auto Script

	CA 6161	CA 6163	Socket test
Reference	P01145811	P01145831	
High voltage			
AC / AC Ramp	40 - 3,000 V	40 - 5,350 V	
Resolution / accuracy	10 V / ±1 % L		
Max. current	200 mA		
Insulation			■
Test voltage	100 V / 250 V / 500 V / 1,000 V		
Maximum measurement / accuracy	1,000 MΩ / ±10 % L	50 GΩ* / ±10 % L	
Continuity			
Measurement current	0.1 A; 0.2 A; 10 A (voltage drop)		■
Measurement current outside test socket		25 A	
Maximum measurement range	120 Ω; 60 Ω; 0,5 Ω	120 Ω; 60 Ω; 0.5 Ω ; 0.4 Ω	
Accuracy	±2 % L	±2 % L	
Leakage current			■
I-PE-direct & I-differential Range / accuracy	Socket: 30 mA / ±2 % L Clamp: 40 A / ±2.5 % L		
I-substitution		Socket: 50 mA	
Contact leakage		Socket and three-pole cable: 30mA / measurement network: unweighted, weighted	
Loop / fuse table			
Zs without disjunction (Zs & Rs) Range / Accuracy	2,000 Ω / ±5 % L / Ik (display range) 20 kA		
ZS heavy current and Zi Range / Accuracy	400 Ω / ±5 % L / Ik (display range) 20 kA		
Inductance Range / Accuracy	15 mH / ±10 % L		
Discharge time 34 V, 60 V, 120 V			■
Time / Voltage Up	0.1 s - 9.9 s / 0.1 s / ±(1% L + 1 pt); Socket & Three-pole cable: 34 V ; 60 V; 120 V		
Power			■
Quantity	Socket: U, I, P, S , F, Pf, cos φ, THD U, THD I		
Quantity	Three-pole cable + clamp: U, I, P, S , F, cos φ, Pf, THD U, THD I		
Phase rotation			
Voltage and frequency of the installation	190.0 - 440.0 V ; 45-55 Hz		
G72 current clamp (optional)			
Measurement range / accuracy	40 A / ±2.5 % L		
General specifications			
Display	Colour touch screen; TN 800 x 480 5"		
Storage	100,000 tests	100,000 tests	
Timer max	40 min (depending on the type of test)		
Communication	1 x USB-B; 2 x USB-A; Wifi		
Interface	Pedals, DOOR Open, High-voltage pistol trigger, 4 lamps, Barcode reader, RFID reader, Sticker printer		
Power source	230 VAC; ±10%		
Dimensions / Weight	407 x 341 x 205 mm; 16 kg		
Temperature / IP rating	Operating: 0; + 45 °C; Storage: - 30; + 60 °C / IP 40 open / IP 64 closed / IK 08		
Security	C 61010-1; IEC 61010-2-030; IEC 61010-2-034; 300 V CAT II; 300V CAT III; 600V CAT III ; IEC 61010-2-032		
Standards	IEC 61557-1; -2; -3; -4; -6; -7; -10; -13; -14; -16 (partial)		

Delivery condition

CA 6161 and CA 6163: supplied with an accessory bag, 2 high-voltage pistols 3 m, 2 silicone insulation leads 3 m, 4 test probes, 1 three-pole cable with separate wires 2.5 m, 1 three-pole cable with European plug 2.5 m, 1 bag with 3 extension connectors, 1 USB-A / USB-B lead, 1 C19 Euro mains lead 2.5 m, 1 quick start guide, 1 product safety data sheet and 1 test report with list of measurements.

CA 6161: supplied additionally with 6 crocodile clips (2 red, 2 black, 1 green and 1 blue) and 2 double continuity leads, length 3 m, 10 A.

CA 6163: supplied additionally with 3 crocodile clips (red, green, blue), 1 Kelvin crocodile clip 25 A with a 2.5 m cable and 1 Kelvin pistol 25 A with a 3 m cable.

Micro-ohmmeters

- 4-wire measurement method
- Test current up to 10 A
- Resolution 0.1 to 1 µΩ

IP 53 | 50 V CAT III





	CA 6240	CA 6255
	Measurement of low resistances	
Reference	**P01143200**	**P01143221**
Measurement method	4-wire method	
Resistance	From 5 µΩ to 400.0 Ω	From 1 µΩ to 2500 Ω
Resolution	1 µΩ	0.1 µΩ
Accuracy	0.25 %	0.05 %
Current	From 10 mA to 10 A	From 1 mA to 10 A
Reversal of current direction	Yes	No, but automatic compensation for eddy currents
Measurement mode	Normal	Inductive, non-inductive, non-inductive with automatic trigger
Temperature compensation	No	Manual or with Pt 100 probe
Power source	Rechargeable NiMH battery	
Security	IEC 61010-1 / Cat III 50 V	
Dimensions	270 x 250 x 180 mm	
Weight	4.5 kg	4.5 kg
Storage	100 measurements	1500 measurements

Delivery condition

CA 6420: supplied with 1 bag, 1 set of 2 x 10 A Kelvin clamps with 3 m cable, 1 x 1.8 m European 2P mains power supply lead, 1 data export software package, 1 optical/USB communication cable.

CA 6255: supplied with a bag, 1 set of 3 m cables terminated with Kelvin clamps, 1 x 2 m Euro mains power supply lead, MOT (Micro-Ohmmeter Transfer) data transfer software, 1 x RS 232 communication cable and 1 user manual.

Accessories

Double test probes 1 A (x 2)	**P01102056**
Mini Kelvin clamp (set of 2)	**P01101783**

Micro-ohmmeters



- Continuous test under 100 A and up to 120 s under 200 AA
- Test current up to 200 A
- Resistances from 0.1 µΩ to 1 Ω
- Safe measurements: 2-side grounding method (BSG)
- Storage of up to 8,000 measurement results

IP 54 | BSG

	CA 6292		
Reference	**P01143300**		
Test current	Programmable from 20 to 200 A		
Resistance	0.1 µΩ to 2 mΩ	2 to 200 mΩ	200 mΩ to 1 Ω
Resolution	0.1 µΩ (200 A max)	10 µΩ (25 A max to 200 mΩ)	1 mΩ (5 A max to 1 Ω)
Output voltage	110 VAC: 4,2 V @ 200 A / 220 VAC: 8.6 V @ 200 A		
Max. load resistance	100 VAC: 20 mW @ 200 A / 220 VAC: 42 mW @ 200 A		
Measurement method	4 connection terminals, Kelvin type		
Test mode	Normal or 2 sides to earth (BSG)		
Test duration	Adjustable from 5 to 120s @200 A / unlimited below 100 A		
Storage	Up to 8,000 measurement results		
Interface	USB 2.0		
Software	DataView®		
Power source	100 to 240 VAC - 50/60 Hz		
Dimensions	502 x 394 x 190 mm		
Weight	Approximately 13 kg		
Storage temperature	-10°C to +70°C		
Humidity	95% RH		
Protection	Protected against voltage swells, short circuits, overheating, voltage swells at the output terminals		
Ingress protection code	IP54		
Electrical safety	IEC 61010-1		

Current measurement with the MR6292 clamp (optional)	**MR6292**
Reference	P01120470
Measurement field	1.0 - 50.0 Adc
Resolution	0.1 mA
Intrinsic uncertainty	± (1.5% + 2 pt)
Output signal	10 mV / Adc
Load impedance	>100 kΩ // 100 pF
Influence of the position of the conductor in the jaws	0.50 %

Delivery condition

CA 6292: supplied with a case containing: 1 set of 2 x 6 m Kelvin leads (red/black) with clamp connections, 1 x 3 m green earth lead with 1 crocodile clip, 1 x 1.5 m USB cable, 1 x 15 A 250 V T-fuse mounted in the instrument, 1 European mains lead, 1 user manual and DataView software.

Accessories and spares:

1 set of 2 Kelvin leads 15 m (Red / Black) with clamp connections	**P01102056**
1 MR 6292 current clamp for CA 6292	**P01120470**
1 set of 2 Kelvin leads 6 m (Red / Black) with clamp connections	**P01295486**
1 green earth lead with crocodile clip	**P01295488**
1 set of 5 fuses T 15A 250 V 5x20 mm	**P01297101**
1 USB-A USB-B cable, length 1.5 m	**P01295293**

Ratiometer

- Measurement of the transformation ratio of power, potential and current transformers
- Storage of up to 10,000 measurement results

IP 53 | 50 V CAT IV



	DTR 8510	
	Digital ratiometer for transformers	
Reference	**P01157702**	
Ratio range (VT/PT)	Autoranging: from 0.8000 to 8000:1	
Accuracy (VT/PT)	Ratio range	Accuracy (% of reading)
	0.8000 to 9.9999	± 0.2%
	10.000 to 999.99	± 0.1%
	1000.0 to 4999.9	± 0.2%
	5000.0 to 8000.0	± 0.25%
Ratio range (CT)	Autoranging: 0.8000 to 1000.0	
Accuracy (CT)	± 0.5% r	
Excitation signal	VT/PT mode: 32 Vrms max CT Mode: Auto level 0 to 1 A, 0.1 to 4.5 Vrms	
Excitation current display	Range: 0 to 1000 mA; Accuracy: ± (2 % of Reading + 2 mA)	
Excitation frequency	70 Hz	
Display	Alphanumeric LCD, 2 lines of 16 characters with contrast adjustment and backlight control. Day/night visible.	
Languages available	French, English, Spanish, Italian, German, Portuguese	
Measurement method	According to IEEE Std C57, 12.90™	
Power source	Two 12 V, NiMH, 1650 mAH rechargeable batteries	
Battery life	Up to 10 h continuous operation, low battery warning	
Battery charger	Universal input (90 to 264 Vrms), smart recharger	
Charging time	< 4 hours for full charge	
Data storage	10,000 tests	
Date / time	Battery-backed, Real-time clock	
Communication	USB 2.0, optically insulated, 115.2 kB	
Software	DataView® analysis software included	
Dimensions / Weight	272 x 248 x 130 mm / 3.7 kg	
Connection	XLR connectors	
Leads	Shielded H and X leads, length 4.6 m (15 ft), with colour-coded crocodile clips	
Enclosure	Heavy duty Polypropylene case, UL 90 V0	
Vibrations	IEC 68-2-6 (1.5 mm at 55 Hz)	
Shock	IEC 68-2-27 (30 G)	
Drop	IEC 68-2-32 (1 m)	
Ingress protection code	IP 40 (Instrument lid open) per EN 60529 IP 53 (Instrument lid closed) per EN 60529	
Security	EN 61010-1, 50 V CAT IV; pollution degree 2	

Delivery condition

DTR 8510: supplied with a carrying bag containing 1 set of 4.6 m leads with crocodile clips, 1 external battery charger with mains lead, 1 USB lead, 1 NiMH battery plug, 1 user manual and 1 DataView software.

Energy analysers for three-phase networks

QUALISTAR+

- 5 voltage inputs
- 4 current inputs
- 10-minute inrush mode
- Distorting power calculation

IP 53 | 1000 V CAT III | 600 V CAT IV | IEC 61000-4-30 | EN 50160 | 3U 4I | 4U 4I | IP 67



		CA 8331	CA 8333	CA 8336	CA 8436
Reference		P01160511	P01160541	P01160591	P01160595
Number of channels		3U / 4I		4U / 4I	
Number of entries		4V / 3I		5V / 4I	
IEC 61000-4-30			EN50160 reports		
Voltage (TRMS AC+DC)		2 V to 1,000 V			
	Range	up to 500 kV			
Current (TRMS AC+DC)	MN clamps	MN93: 500 mA to 200 Aac; MN93A: 0.005 Aac to 100 Aac			
	C193 clamp	1 A to 1,000 Aac.			
	AmpFlex® or MA clamps	100 mA to 10,000 Aac.			
	PAC93 clamp	1 A to 1,300 Aac/dc			
	E3N clamp	50 mA to 100 Aac/dc			
	J93				50 a to 3500 Aac / 5000 Adc
	Current ratio	Up to 60 kA			
Frequency		40 Hz to 69 Hz			
Powers		W (P), VA (S), var (N, Q1, D), VAD, PF, DPF, cos φ, tan φ			W (P), VA (S), var (N, Q1, D), PF, DPF, cos φ, tan φ
Harmonics		Yes			
	THD	Yes, from rank 0 to 50, phase			
	Expert mode		Yes		
Transients			50	210	
Flicker (Pst and Plt)		Pst		Pst and Plt	
Inrush mode			Yes over 4 periods	Yes > 10 minutes	
Imbalance		Yes			
Recording		Yes			
	Min/Max	Yes, from rank 0 to 50, phase			
	of a selection of parameters on a sample max	4 hours to 2 weeks	From a few days to several weeks	2 weeks to several years	
Alarms			4,000 of 10 different types	10,000 of 40 different types	
Peak		Yes			
Vector representation		Automatic			
Display		¼ VGA colour TFT screen, 320 x 240, diagonal 148 mm			
Screenshots & curves		12		50	
Electrical safety		IEC 61010 1 000 V CAT III / 600 V CAT IV			
Ingress protection code		IP53 / IK08			IP67
Languages		More than 27			
Battery life		Up to 13 hours			
Communication interface		USB			
Power source		9.6 V NiMH rechargeable battery or mains power supply			
EN50160 report			Yes, with DataView® software		
Dimensions - Weight		240 x 180 x 55 mm / 1.9 kg			270 x 250 x 180 mm / 3.7 kg
Warranty		3 years			

Delivery condition

CA 8336, CA 8333, CA 8331 (models without sensors): supplied with a bag for accessories, 5 voltage leads with 4 mm banana plugs, 3 m long, 5 crocodile clips, a set of 12 colour codes for leads and inputs, a scratch-resistant protective screen (fitted), a USB lead, a mains lead, a mains adapter, a safety data sheet, a multilingual user manual and PC data transfer software (Power Analyser Transfer).

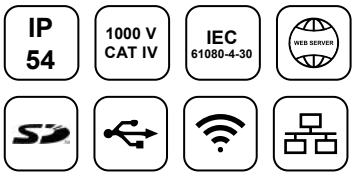
CA 8436: supplied with a bag No. 22, 1 IP67 mains lead, 1 USB lead, 5 voltage leads 4 mm banana plugs, 3 m long, 5 crocodile clips, 1 set of 12 colour-coded leads and inputs, 1 scratch-resistant screen protector (fitted), 1 safety data sheet and Power Analyser Transfer PC data transfer software.

Class A power analyser

The CA 8345 is a three-phase power analyser with a colour touchscreen display. The CA 8345 provides an instant snapshot of the main characteristics of the electrical network quality.

- Voltage quality diagnostics
- Full compliance with IEC 61000-4-30 Class A
- Highly communicative instrument: SD card, USB, remote connections, WiFi (direct or via server) or RJ45





	CA 8345
	Easy to use with help
Reference	**P01160657N**
Power supply via phase	**P01160658N**
Inputs	Insulated voltage/current
Voltage	from 5 V to 1000 VAC and VDC.
IEC 61000-4-30 (Ed 3)	Class A (Full)
Screen	7" colour touchscreen LCD: 800 x 480 (WVGA)
GPS clock	Yes, internal
Real-time mode	Yes
Sampling	Voltage 400 kSps / Current 200 kSps / Surge 2 MSps
Power mode	Yes
Energy mode	Yes
Imbalance mode	Phase-to-phase
Harmonic mode	from DC to rank 127
Interharmonic mode	from 0 to rank 126
Trend recording	> 900 parameters
Alarm mode (type / number)	52 / 20000
Power line detection mode	Yes
Inrush capture (number)	100
Transient > 2.5µs (number)	No maximum (SD card)
Shock wave	Up to 12 kV, sampled every 500 ns
Monitoring mode EN50160	With PAT3 software
USB communication	Yes
SD card	Accessible, external
Ethernet	Yes
Wifi	Yes
Webserver	Yes
USB key port (Type A)	Yes
Battery cartridge	Li-ion - 5800 Ah
Security IEC 61010	CAT IV 1000V
Protection	IP54
Operating temperature	[+0 °C; +40 °C]
Environmental compliance	IEC 61557-12 & IEC 126586
Dimensions (H x W x D)	200 x 285 x 55 mm / 1.9 kg
Warranty	3 years

Delivery condition

CA 8345: supplied with 1 PA40W-2 mains adapter, 1 removable handle, 1 magnetic hook, 5 x 3 m banana leads, 5 black crocodile clips, 1 USB cable, 1 safety data sheet, 1 Power Analyser Transfer PC data transfer software and 1 user manual.

Accessories

E94 clamp	**P01120044**
PA32ER mains load block	**P01103076**

Software

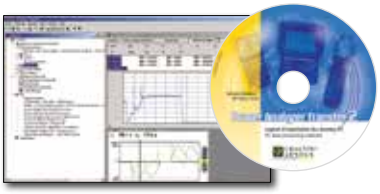
The measurements taken with Qualistar+ are analysed using two software packages:

- Standard:
  Power Analyzer Transfer
- Optional:
  DataView®

Power Analyzer Transfer

For data transfer to a PC and real-time communication via USB.

Supplied with Qualistar+



DataView®

Powerful software for configuring, transferring and processing measurement data, with reports generated in accordance with voltage quality standards, including **EN 50160** (models CA 8333 and CA 8336).

DataView® is compatible with other Chauvin Arnoux products:

- CA 8220 & CA 8230 power analysers
- F407 and F607 multimeter clamps
- And other measuring instruments

Minimum operating system requirements: Windows® 7, 8 and 10.

Reference	P01102095



Complementary accessories

E3N/E27 adapter	**P01102081**
Battery pack	**P01296024**
Qualistar film screen	**P01102059**
Set of inserts-rings	**P01102080**
Set of 5 x 3 m IP67 banana leads (BB196)	**P01295479**
Bag no. 21	**P01298055**
Bag no. 22	**P01298056**
1.5 m USB-A USB-B lead	**P01295293**
5 A enclosure	**P01101959**
Lockable crocodile clips (x 5)	**P01102099**
Kit of banana leads (x 5), crocodile clips (x 5) and 1 set of colour rings	**P01295483**
Kit of banana leads (x 4), crocodile clips (x 4) and 1 set of colour rings	**P01295476**
Set of plugs (CA 8436)	**P01102147**
Mains adapter (CA 8436)	**P01102057**

Accessories for all Qualistar+ models

Power adapter

PA31ER power supply adaptor for 1000 V phase

Reference	P01102150



Storage tool

Reeling Box for storing measurement leads

Reference	P01102149



Qualistar+ clamps



	MA194-250	MA194-350	MA196-350	A193-800	A193-800	A196-450
Reference	P01120593	P01120592	P01120568	P01120526B	P01120531B	P01120554
IP 67 rating			Yes			Yes
Measurement range	100 mA to 10 kAAC.					
Ø clamping / length	Ø 70 mm / 250 mm	Ø 100 mm / 350 mm	Ø 100 mm / 350 mm	Ø 140 mm / 450 mm	Ø 250 mm / 800 mm	Ø 190 mm / 610 mm
IEC 61010	1,000 V CAT III / 600 V CAT IV					1,000 V CAT IV



	MN93	MN 93A	PAC93	C193	E27	J93
Reference	P01120425B	P01120434B	P01120079B	P01120323B	P01120027	P01120110
Measurement range	500 mA to 200 AAC.	500 mA to 200 AAC.	1 A to 1,000 AAC 1 A to 1,300 ADC	1 A to 1,000 AAC	50 mA to 10 AAC/DC 100 mA to 100 AAC/DC	50 to 3,500 AAC 50 to 5,000 ADC
Clamping Ø	20 mm		1 x Ø 39 mm 2 x Ø 25 mm	52 mm	11.8 mm	72 mm
IEC 61010	600 V CAT III / 300 V CAT IV		600 V CAT III / 300 V CAT IV	600 V CAT IV	600 V CAT III / 300 V CAT IV	600 V CAT IV / 1,000 V CAT III

Power and energy recorders

- Single-phase, two-phase and three-phase installations
- Installation without interruption of mains power supply
- USB, Ethernet & Bluetooth communication
- Automatic recognition of connected sensors
- Recording on SD card

600 V CAT III | 1000 V CAT III

Scan this code to find out more about the PEL 110 range





	PEL 112	PEL 113
Reference	P01157156	P01157157
Order no. with MA194-350 current transducer and adapter		P01300003
Display	Without	With triple digital display
Types of installation	Single-phase, two-phase, three-phase with or without neutral, and many other specific configurations	
Number of channels	3 voltage inputs / 3 current inputs (calculated neutral current)	
Measurements		
Network frequency	DC, 50 Hz, 60 Hz and 400 Hz	
Voltage (measurement ranges / best accuracy)	10.00 to 1000 VAC/DC / +/- 0.2 % + 0.5 V	
Current (depending on sensor) (measurement ranges / best accuracy)	from 5 mAAC to 10 kAAC / 50 mADC to 1.4 kADC / ±0.5 %.	
Calculated measurements		
Ratios	Up to 650,000 V / up to 25,000 A	
Power	From 10 W to 10 GW / from 10 var to 10 Gvar (N) / from 10 VA to 10 GVA	
Energy	Up to 4 EWh / 4 EVAh / 4 Evarh (E = 10^{18})	
Phase	cos φ, tan φ, PF	
Harmonics	Up to rank 50	
Additional functions		
Phase order	Yes	
Min / Max	Yes	
Mounting	Magnet, hook	
Recording		
Sampling / Acquisition step / Aggregation	128 samples/period - 1 measurement/s - from 1 min to 60 min	
Data storage	SD card, 8 GB (SD-HC card up to 32 GB)	
Communication	Ethernet, Wifi and USB	
Power source	110 V - 250 V (+10 %, -15 %) @ 50-60 Hz & 400 Hz	
Security	IEC 61010 600 V CAT IV – 1000 V CAT III	
Mechanical specification		
Dimensions	256 x 125 x 37 mm without sensor	
Weight	900 g	950 g
Enclosure	IP54 , ETL	

Clamps for PEL

	MA194-250	MA194-350	MA196-350	A193-800	A193-800	A196-610
Reference	P01120593	P01120592	P01120568	P01120526B	P01120531B	P01120554
IP 67 rating			Yes			Yes
Measure-ment range	100 mA to 10 kAAC.					
Ø clamping / length	Ø 70 mm / 250 mm	Ø 100 mm / 350 mm	Ø 100 mm / 350 mm	Ø 140 mm / 450 mm	Ø 250 mm / 800 mm	Ø 190 mm / 610 mm
IEC 61010	1,000 V CAT III / 600 V CAT IV					1,000 V CAT IV

	MN93	MN 93A	PAC93	C193	E94	J93
Reference	P01120425B	P01120434B	P01120079B	P01120323B	P01120044	P01120110
Measure-ment range	500 mA to 200 AAC.	500 mA to 200 AAC.	1 A to 1,000 AAC 1 A to 1,300 ADC	1 A to 1,000 AAC	50 mA to 10 AAC/DC 100 mA to 100 AAC/DC	50 to 3,500 AAC 50 to 5,000 ADC
Clamping Ø	20 mm		1 x Ø 39 mm 2 x Ø 25 mm	52 mm	11.8 mm	72 mm
IEC 61010	600 V CAT III / 300 V CAT IV		600 V CAT III / 300 V CAT IV	600 V CAT IV	600 V CAT III / 300 V CAT IV	600 V CAT IV / 1,000 V CAT III

Accessories

DataView® software	**P01102095**	5 A adapter	**P01101959**
Bag no. 23	**P01298078**	PEL 110 mains adapter	**P01102204B**
Leads and clamps kit	**P01295476**	Mains power supply lead	**P01295174**
Set of inserts/rings	**P01102080**	Reeling Box	**P01295149**

Delivery condition

PEL 112, PEL 113: supplied with 1 carrying bag, 4 voltage leads, 4 crocodile clips, 1 set of inserts/rings, 1 SD card, 1 SD to USB card adaptor, 1 USB lead, PEL TRANSFER PC software with its user manual and 1 quick start guide.



PEL 110 mains adapter

For self-supply of PEL 112 and PEL 113 via the voltage measurement channel.

Power and energy logger

- Suitable for installation on electricity poles
- All-terrain enclosure, resistant to shock, UV and high temperatures
- Self-powered with voltage inputs up to 1,000 V
- Continuous recording in 200 ms steps
- Measurements in accordance with IEEE 1459 standard



	PEL 115
Reference	**P01157169**
Display	With triple backlit digital display
Types of installation	Single-phase, two-phase, three-phase with or without neutral, and many other specific configurations
Number of entries	5 voltage inputs, 4 current inputs
Number of channels	4 voltage channels, 4 current channels
Measurements	
Network frequency	DC, 50 Hz, 60 Hz and 400 Hz
Voltage (measurement ranges / best accuracy)	10.00 V to 1,000 V_{AC} @ 50/60 Hz, or 600 V_{AC} @ 400 Hz / 1,000 V_{DC}.
Current (depending on sensor) (measurement ranges)	from 5 mA_{AC} to 10 kA_{AC} / 50 mA_{DC} to 5 kA_{DC}.
Calculated measurements	
Ratio	Up to 650,000 V / up to 25,000 A
Power	From 20 W to 10 GW / from 20 var to 10 Gvar (Q_1, N) / from 20 VA to 10 GVA
Energy	Up to 4 EWh / 4 EVAh / 4 Evarh ($E = 10^{18}$)
Phase	cos φ, tan φ, PF
Harmonics	Up to rank 50
Additional functions	
Phase order	Display of connection validity
Min / Max	On all quantities
Recording	
Sampling / Acquisition step / Aggregation	128 samples/period - 5 measurements/s - from 1 min to 1 h
Data storage	SD card, 8 GB (SD-HC card up to 32 GB)
Communication	Ethernet, Wifi and USB
Power source	Internal self-supply from 94 to 1000 V @ 50-60 Hz & 400 Hz / DC
Security	IEC 61010 1000 V CAT IV
Mechanical specifications	
Dimensions	245 x 270 x 180 mm
Weight	< 4 kg
Ingress protection code	IP 67

Reeling Box

for storing your PEL measurement leads



Reference	P01102149

Delivery condition

PEL 115: supplied with 1 accessory bag, 5 IP67 voltage leads, 5 lockable crocodile clips, 1 set of inserts/rings, 1 SD card, 1 SD to USB card adaptor, 1 USB lead, PEL TRANSFER PC software with its user manual and 1 quick-start guide.

CLAMPS FOR PEL
See page 34



Accessories

Clamps for PEL	**see page 34**
Set of IP 67 plugs	**P01102147**
Pole fixing kit	**P01102146**
DataView® software	**P01102095**
Crocodile clip kit (x 5)	**P01102099**
Set of inserts/rings	**P01102080**
5 A adapter	**P01101959**
Lead kit (x 5) BB196	**P01295479**
Reeling Box	**P01102149**
PA30 mains unit	**P01102057**

Portable oscilloscopes with insulated channels

IP 54

600 V CAT III





	CA 922	CA 942
Reference	P01143200	P01194200
Bandwidth	20 and 40 MHz	
Channels (number / type)	2 insulated	
Safety IEC61010	1,000 V CAT II - 600 V CAT III	
Analogue display or equivalent	No	
One-shot digital sampling	50 MS/s	
Repetitive mode	2 GS/s	
Vertical resolution	9 bits	
Glitch detection	> 20 ns	
Scaling / Physical unit	•/•	
PC communication / Ethernet USB	•	
Mains power supply / Battery	•/•	
Integrated mode	Harmonics and multimeter	
Oscilloscope specifications		
Max input sensitivity	5 mV/div	
Max input amplitude	200 V/div	
Analogue filter	1.5 MHz, 5 kHz	
Time base (per division)	25 ns - 200 s	
Roll mode / XY mode	•/•	
Memory depth	2.5 k/channel	
Acquisition memory	2 MB memory	
No. of reference curves or maths on screen	2	
Envelope / Averaging modes	•/•	
SPO (Smart Persistence Oscilloscope)	-	
Automatic measurements / Cursors	19/•	
Calculation functions + - / x /: / Advanced	•/•/•	
Autoset with channel selection	•	
Other functions		
TRMS multimeters	50 kHz	
Harmonic analysis	31 ranks	
Threshold recorders (number of channels)	2	
Power measurement / Power harmonics	•	
General specifications		
Colour display	3.5"	







Delivery condition

CA 922: supplied with 2 BNC-Banana adaptors, 2 sets of 1.5 m moulded PVC straight/angled banana leads (red, black) + 2 sets of crocodile clips (red, black), 2 sets of CAT IV 1000 V test probes (red, black), Jack-USB lead, USB WALLPLUG, USB optical lead, Bag, 1 quick-start guide, safety and test report plug and NiMH battery plug.

CA 942: supplied with 1 BNC-Banana adaptor, 1 set of 1.5 m moulded PVC straight/angled banana leads R/N, 1 set of crocodile clips (red, black), 1 set of CAT IV 1000 V test probes (red, black), 1 probe 1/10 600 V, Jack-USB lead, WALLPLUG USB, Optical USB lead, Bag +QSG paper, safety and test report plug and NiMH battery plug.

OSCILLOSCOPES

Insulated channel field oscillosc

Scopix IV - 5 instruments in 1:

- Oscilloscope
- FFT
- Multimeter
- Wattmeter
- Logger & harmonic analyzer

Scopix bus - OX9302-BUS:

- 2 insulated channels 300 MHz bandwidth
- For physical integrity testing of field buses.



Scan this code
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about the Scopix® range

IP 54 | 600 V CAT III

	OX9302-BUS	OX9304	OX9104 / OX9102	OX9062
Family of products	*Bus Fields*	*Electronics*	*Electric*	*Industrial*
Reference	**OX9302-BUS**	**OX9304**	**OX9104 / OX9102**	**OX9062**
Bandwidth	300 MHz	300 MHz	100 MHz	60 MHz
Channels (number/type)	2 Insulated	4 Insulated	2 or 4 / Insulated	2 / Insulated
Safety IEC61010	CAT II 1000 V / CAT III 600 V			
One-shot digital sampling	2.5 GS/s	2.5 GS/s	2.5 GS/s	2.5 GS/s
Repetitive mode max. sampling	100 GS/s	100 GS/s	100 GS/s	100 GS/s
Vertical resolution	12 bits	12 bits	12 bits	12 bits
Up-scaling / physical unit	·/·	·/·	·/·	·/·
PC communication Ethernet/ Wifi	·/-	·/·	·/·	·/·
ScopeNet PC web server	·	·	·	·
Ni-MH/LI-ION battery	·/-	-/·	-/·	-/·
Oscilloscope specifications				
Min. input sensitivity	156 µV/div	156 µV/div	156 µV/div	156 µV/div
Max input amplitude	200 V/div	200 V/div	200 V/div	200 V/div
Analogue filters	15 MHz, 1.5 MHz, 5 kHz	15 MHz, 1.5 MHz, 5 kHz	15 MHz, 1.5 MHz, 5 kHz	15 MHz, 1.5 MHz, 5 kHz
Time base (per division)	1 ns-200 s	1 ns-200 s	1 ns-200 s	1 ns-200 s
Roll mode / XY mode	·/·	·/·	·/·	·/·
Memory depth	100 k / channel	100 k / channel	100 k / channel	100 k / channel
Acquisition memory	> 2 GB on SD card, all formats			
No. of reference curves or maths on screen	4			
Automatic measurements/Cursors	20/·			
Pulse trigger width/number	·/·	·/·	·/·	·/·
Hold-Off / Adjustable delay	·/·	·/·	·/·	·/·
Calculation functions + - / x /: / Advanced	·/·/·/·	·/·/·/·	·/·/·/·	·/·/·/·
Autoset with channel selection	·	·	·	·
Other functions				
Lin & Log FFT spectral analysis	12 bits / 72 dB+ waveform			
TRMS multimeters	200 kHz			
Logger	MULTIMETER mode recording 100 kpts file			
Harmonic analysis	63 ranks			
Threshold recorders (number of channels)	2	4	2 or 4	2
Power measurement / Power harmonics	·/-	·/-	·/-	·/-
General specifications				
Colour screen LCD 5.7/ 7 / 3.5"	7"			
100% 'closed enclosure' soft calibration	·	·	·	·

Delivery condition

SCOPIX IV: supplied with carrying bag, 1 PA40W-2 mains/charger unit and 1 2P EURO mains lead, 1 Li-Ion battery pack, 1 stylus, 1 Ethernet lead, 1 USB lead, 2 safety leads (red, black), 2 Ø 4 mm test probes (red, black), 2 or 4 voltage probes depending on model, 1 µSD card (8 GB), 1 USB/ µSD adapter, 1 hand strap, 1 PROBIX banana, 1 USB installation procedure for using ScopeNet data export software, 1 user manual, 1 start-up guide and 1 safety data sheet.

SCOPIX BUS: supplied in bag with 1 mains adapter/charger, 1 LI-ION battery pack, 1 stylus, 2 Probix HX0130 1/10 probes, 1 Probix Ø4 mm banana adapter, 1 set of Ø4 mm banana leads+touch probe, 1 Ethernet lead, 1 USB lead, 1 8 GB µSD card with SD card adapter, HX0190 and HX0191 bus connection cards, 1 operating manual, programming manual and SX-BUS 2.0 software.

AC and AC/DC current measurements

		Input [1]						Output - Connections					Specific characteristics						
		Very low current	Low current	Medium current	High current	AC	DC	Current	Voltage	Leads + safety plug ø 4 mm	Socket ø 4 mm	BNC connector (oscilloscopes)	Transformation ratio (input/output)	Output protected against voltage swells	Automatic DC detection	Power measurement (low phase difference)	Bandwidth (frequency in Hz)	Typical accuracy	
AC	MINI 01		2 to 150 A			■		0.15 A AC		■			1000/1	■			48 Hz...500 Hz	≤ 2.5 %	P01051101Z
	MINI 02	50 mA to 100 A				■		0.1 A AC		■			1000/1	■		■	48 Hz...10 kHz	≤ 1 %	P01051102Z
	MINI 03		1 to 100 A			■			0.1V AC	■			1 A / 1 mV					≤ 2 %	P01051103Z
	MINI 05	5 mA to 10 A 1 to 100 A				■			10 V A AC 0.1V AC	■			1 mA / 1 mV 1 A / 1 mV				48 Hz...500 Hz	≤ 3 % ≤ 2 %	P01051105Z
	MINI 09		1 to 150 A			■			15V DC	■			1 A / 100 mV					≤ 4 %	P01051109Z
	MINI 102	0.05 A - 200 A				■		0.2 Aac			■		1000/1				48 Hz...10 kHz	≤ 1 %	P01106102
	MINI 103	0.1 A - 200 A				■			0.2 A VC		■		1 A / 1 mV				48 Hz...10 kHz	≤ 1.5 %	P01106103
	MN08		0.5 to 240 A			■		0.2 A AC			■		1000/1				40 Hz...10 kHz	≤ 1 %	P01120401
	MN09		0.5 to 240 A			■		0.2 A AC		■			1000/1				40 Hz...10 kHz	≤ 1 %	P01120402
	MN11		0.5 to 240 A			■		0.2 A AC		■			1000/1	■			40 Hz...10 kHz	≤ 1 %	P01120404
	MN12		0.5 to 240 A			■			2V AC		■		1 A / 10 mV				40 Hz...10 kHz	≤ 1 %	P01120405
	MN13		0.5 to 240 A			■			2V AC	■			1 A / 10 mV				40 Hz...10 kHz	≤ 1 %	P01120406
	MN14		0.5 to 240 A			■			0.2V AC		■		1 A / 1 mV				40 Hz...10 kHz	≤ 1 %	P01120416
	MN39		0.5 to 240 A			■			2V AC 2V AC	■			1 A / 100 mV 1 A / 10 mV				40 Hz...10 kHz	≤ 1 %	P01120408
	MN73	10 mA to 2.4 A 100 mA to 240 A				■			2V AC 2V AC	■			1 mA / 1 mV 1 A / 10 mV				40 Hz...10 kHz	≤ 1 % ≤ 2 %	P01120421
	MN89		0.5 to 240 A			■			20V DC	■			1 A / 100 mV				40 Hz...10 kHz	≤ 2 %	P01120415
	Y1N		4 A to 600 A			■		0.5 A AC		■			1000/1	■			48 Hz...10 kHz	≤ 3 %	P01120001A
	C100	0.1 A to 1200 A				■		1 A AC			■		1000/1				30 Hz...10 kHz	≤ 0.5 %	P01120301
	C103	0.1 A to 1200 A				■		1 A AC		■			1000/1	■			30 Hz...10 kHz	≤ 0.5 %	P01120303
	C122	1 A to 1200 A				■		5 A AC			■		1000/5	■			30 Hz...10 kHz	≤ 1 %	P01120306
	C148		1 to 300 A 1 to 600 A 1 to 1200 A			■		5 A AC			■		250/5 500/5 1000/5	■			48 Hz...1 kHz	≤ 2 % ≤ 1 % ≤ 1 %	P01120307
	C173	1 mA to 1.2 A 0.01 to 12 A 0.1 to 120 A 1 to 1200 A				■			1V AC	■			1 A / 1 V 10 A / 1 V 100 A / 1 V 1000 A / 1 V				10 Hz...3 kHz	≤ 0.7 % ≤ 0.5 % ≤ 0.3 % ≤ 0.2 %	P01120309
	D30CN			1 to 3600 A		■				■				■		■	30 Hz...5 kHz	≤ 0.5 %	P01120064
	D36N			1 to 3600 A		■					■			■		■	30 Hz...10 kHz	≤ 0.5 %	P01120055A
AC/DC	E25		5 mA .. 2 A DC 5 mA .. 1.5 A AC 50 mA .. 80 A DC 50 mA .. 60 A AC			■	■		2V DC 1.5V AC 800mV DC 600mV DC	■			1 A / 1 V 1 A / 10 mV		■		DC .. 20 kHz	≤ 2 % ≤ 4 %	P01120025

(1) The higher value corresponds to 120% of the maximum rated value.

CURRENT MEASUREMENTS

AC/DC current measurements

		Input (1)						Output - Connections					Specific characteristics						
		Very low current	Low current	Medium current	High current	AC	DC	Current	Voltage	Leads + safety plug ø 4 mm	Socket ø 4 mm	BNC connector (oscilloscopes)	Transformation ratio (input/output)	Output protected against voltage swells	Automatic DC detection	Power measurement (low phase difference)	Bandwidth (frequency in Hz)	Typical accuracy	
AC/DC	PAC15		0.5 to 400 A AC 0.5 to 600 A DC			■	■		600 mV AC/DC	■			1 A / 1 mV		■		DC... 30 kHz	≤ 2 %	P01120115
	PAC16		0.5 to 40 A AC 0.5 to 60 A DC 0.5 to 400 A AC 0.5 to 600 A DC			■	■		600 mV AC/DC 600 mV AC/DC	■			1 A / 10 mV 1 A / 1 mV		■		DC... 30 kHz	≤ 1.5 % ≤ 2 %	P01120116
	PAC25		0.5 to 1000 A AC 0.5 to 1400 A DC			■	■		1.4 V AC/DC	■			1 A / 10 mV		■		DC... 30 kHz	≤ 4 %	P01120125
	PAC26		0.5 to 100 A AC 0.5 to 150 A DC 0.5 to 1000 A AC 0.5 to 1400 A DC			■	■		1.5 V AC/DC 1.4 V AC/DC	■			1 A / 10 mV 1 A / 1 mV		■		DC... 30 kHz	≤ 1.5 % ≤ 4 %	P01120126

Oscilloscope measurements

			Input (1)						Output - Connections					Specific characteristics						
			Very low current	Low current	Medium current	High current	AC	DC	Current	Voltage	Leads + safety plug ø 4 mm	Socket ø 4 mm	BNC connector (oscilloscopes)	Transformation ratio (input/output)	Output protected against voltage swells	Automatic DC detection	Power measurement (low phase difference)	Bandwidth (frequency in Hz)	Typical accuracy	
AC	MN60			0.1 A to 60 A peak 0.5 A to 600 A peak			■			6 V peak			■	1 A / 100 mV 1 A / 10 mV				40 Hz to 40 kHz	≤ 2 % ≤ 1.5 %	P01120409
	Y7N			1 A to 1200 A peak			■			1.2 peak			■	1 A / 1 mV				5 Hz to 10 kHz	≤ 2 %	P01120075
	C160			0.1 A to 30 A peak 1 A to 300 A peak 1 A to 2000 A peak			■			3 V peak 3 V peak 2 V peak			■	10 A / 1 V 100 A / 1 V 1000 A / 1 V				10 Hz to 100 kHz	≤ 3 % ≤ 2 % ≤ 1 %	P01120308
	D38N			1 A to 90 A peak 1 A to 900 A peak 1 A to 9000 A peak			■			0.9 Vpeak			■	1 A / 10 V 1 A / 1 mV 1 A / 0.1 mV				30 Hz to 50 kHz	≤ 2 %	P01120057A
	MA200	MA200 30-300/3 (17 cm)		0.5 A ... 45 A peak 0.5 A ... 450 A peak			■			4.5 V peak			■	100 mV / A 10 mV / A				5 Hz to 1 MHz overrange at 1 kHz 1.5	≤ 1 % + 0.3 A	P01120570
		MA200 30-300/3 (25 cm)					■						■							P01120571
		MA200 30-300/3 (35 cm)		5 A ... 4500 A peak			■						■	1 mV / A						P01120572
AC/DC	E27			100 mA .. 10 Apeak 500 mA .. 100Acrête			■	■		1 Vpeak 1 Vpeak			■	1 A / 100 mV 1 A / 10 mV		■		DC to 100 kHz	≤ 3 % ≤ 4 %	P01120027
	MH60			0.01 A - 140A peak			■	■		1.4 V peak			■	10 mV/A		■		DC to 1 MHz	≤ 1.5 %	P01120612
	PAC17			0.5 to 60 A peak 0.5 to 60 A DC 0.5 to 600 A peak 0.5 to 600 A DC			■	■		600 mV peak 600 mV peak			■	1 A / 10 mV 1 A / 1 mV		■		DC... 30 kHz	≤ 1.5 % ≤ 2 %	P01120117
	PAC27			0.5 to 150 A peak 0.5 to 150 A DC 0.5 to 1500 A peak 0.5 to 1400 A DC			■	■		1.5 V peak 1.4 V peak			■	1 A / 10 mV 1 A / 1 mV		■		DC... 30 kHz	≤ 1.5 % ≤ 4 %	P01120127

(1) The higher value corresponds to 120% of the maximum nominal value.

CURRENT MEASUREMENTS

Ammeters with flexible sensors

600 V CAT IV | TRMS | 20 mA | MAX Hold





	MA400D-170			MA400D-350		
Reference	P01120575Z			P01120577Z		
Display range	4 A AC	40 A AC	400 A AC	40 A AC	400 A AC	4000 A AC
Measurement field	0.020 A...3.999 A	4.00 A...39.99 A	40.0 A...399.9 A	0.01 A...39.99 A	40.0 A...399.9 A	400 A...3999 A
Resolution	1 mA	10 mA	100 mA	10 mA	100 mA	1 A
Accuracy	± (2 % + 10 pts)	± (1.5 % + 2 pts)	± (1.5 % + 2 pts)	± (2 % + 10 pts)	± (1.5 % + 2 pts)	± (1.5 % + 2 pts)
Clamping Ø / Length of sensor	MA400D-170: Ø 45 mm / 170 mm			MA4000D-350: Ø 100 mm / 350 mm		
Bandwidth	10 Hz ... 3 kHz					
Power source	2 x 1.5 V AAA/LR3 batteries					
Security	IEC 61010 CAT IV 600 V					
Temperature of use	0°C to +50°C					
Mass of the instrument	Approximately 130 g					
Enclosure dimensions	100 x 60 x 20 mm					
Length of fixed link cable	0.8 m					

Delivery condition

MA400D-170, MA400D-350: supplied in blister pack with 2 x AAA 1.5 V batteries, 1 Velcro strap and user manual.

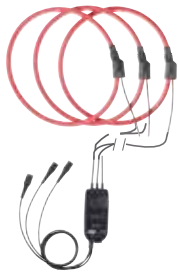
Accessories

Bag 120 x 200 x 60	**P01298074**
MULTIFIX accessory	**P01102100Z**
Velcro straps (set of 5)	**P01102113**

AmpFlex® flexible probes for AC current

IP 67 | 1000 V CAT IV | 80 mA | 4 calibres | 30000 Aac

Other dimensions? **Get in touch with us!**



	Input (1)						Output - Connections					Specific characteristics						
	Measurement range																	
	Very low current	Low current	Medium current	High current	Alternative	Continuous	Current	Voltage	Leads + safety plug ø 4 mm	Socket ø 4 mm	BNC connector (oscilloscopes)	Transformation ratio (input/output)	Output protected against voltage swells	Automatic DC detection	Power measurement (low phase difference)	Bandwidth (frequency in Hz)	Typical accuracy	
A110 3-30-300-3000/3 (45 cm / Ø 14 cm)	0.5 to 400 A AC 0.5 to 600 A DC				■			3 Vac	■			1 V/A 100 mV/A 10 mV/A 1 mV/A			■	10 Hz .. 10 kHz 10 Hz .. 20 kHz 10 Hz .. 20 kHz 10 Hz .. 20 kHz	≤ 1 %	**P01120630**
A110 3-30-300-3000/3 (80 cm / Ø 25 cm)	0.5 to 40 A AC 0.5 to 60 A DC 0.5 to 400 A AC 0.5 to 600 A DC				■			3 Vac	■			1 V/A 100 mV/A 10 mV/A 1 mV/A			■	10 Hz .. 10 kHz 10 Hz .. 20 kHz 10 Hz .. 20 kHz 10 Hz .. 20 kHz	≤ 1 %	**P01120631**
A110 30-300-3000- 30000/3 (120 cm / Ø 38 cm)	0.5 to 1000 A AC 0.5 to 1400 A DC				■			3 Vac	■			100 mV/A 10 mV/A 1 mV/A 0.1 mV/A			■	10 Hz .. 5 kHz 10 Hz .. 20 kHz 10 Hz .. 20 kHz 10 Hz .. 20 kHz	≤ 1 %	**P01120632**
A130 30-300-3000/3 (80 cm / Ø 25 cm)	0.5 to 100 A AC 0.5 to 150 A DC 0.5 to 1000 A AC 0.5 to 1400 A DC				■			3 Vac	■			100 mV/A 10 mV/A 1 mV/A			■	10 Hz .. 20 kHz 10 Hz .. 20 kHz 10 Hz .. 20 kHz	≤ 1 %	**P01120633**

MiniFlex® flexible probes for AC current

Other dimensions? **Get in touch with us!**

IP 67 | 1000 V CAT IV | 600 V CAT III | 4 calibres | 30000 Aac



Model MA110

Measurement from 20 mA.
Connects to the AC voltage input (mVac / Vac) of any multimeter or measurement instrument fitted with Ø 4 mm female banana plugs.



MA130 three-phase model

Connects to the AC voltage input (mVac / Vac) of any power analyser, recorder or measurement instrument fitted with BNC plugs.

1000 V CAT III | 600 V CAT IV | 1 MHz



Model MA200

BNC output for connection to all types of oscilloscopes.
High bandwidth.

	Input (1)						Output - Connections					Specific characteristics						
	Measurement range																	
	Very low current	Low current	Medium current	High current	Alternative	Continuous	Current	Voltage	Leads + safety plug ø 4 mm	Socket ø 4 mm	BNC connector (oscilloscopes)	Transformation ratio (input/output)	Output protected against voltage swells	Automatic DC detection	Power measurement (low phase difference)	Bandwidth (frequency in Hz)	Typical accuracy	
MA110 3-30-300-3000/3 (17 cm / Ø 4.5 cm)		0.08 A - 3 A 0.5 A .. 30 A 0.5 A .. 300 A 0.5 A .. 3000 A			■			3 Vac	■			1 V/A 100 mV/A 10 mV/A 1 mV/A			■	10 Hz .. 10 kHz 10 Hz .. 20 kHz 10 Hz .. 20 kHz 10 Hz .. 20 kHz	≤ 1 %	P01120660
MA110 3-30-300-3000/3 (25 cm / Ø 7 cm)		0.08 A - 3 A 0.5 A .. 30 A 0.5 A .. 300 A 0.5 A .. 3000 A			■			3 Vac	■			1 V/A 100 mV/A 10 mV/A 1 mV/A			■	10 Hz .. 10 kHz 10 Hz .. 20 kHz 10 Hz .. 20 kHz 10 Hz .. 20 kHz	≤ 1 %	P01120661
A110 30-300-3000- 30000/3 (120 cm / Ø 38 cm)		0.08 A - 3 A 0.5 A .. 30 A 0.5 A .. 300 A 0.5 A .. 3000 A			■			3 Vac	■			1 V/A 100 mV/A 10 mV/A 1 mV/A			■	10 Hz .. 10 kHz 10 Hz .. 20 kHz 10 Hz .. 20 kHz 10 Hz .. 20 kHz	≤ 1 %	P01120662
MA130 30-300-3000/3 (25 cm / Ø 7 cm)		0.5 A .. 30 A 0.5 A .. 300 A 0.5 A .. 3000 A			■			3 Vac			■	100 mV/A 10 mV/A 1 mV/A			■	10 Hz .. 20 kHz 10 Hz .. 20 kHz 10 Hz .. 20 kHz	≤ 1 %	P01120663
MA200 30-300/3 (17 cm / Ø 4.5 cm)		0.5 A...45 Apeak 0.5 A...450 Apeak			■			4.5 Vpeak			■	100 mV/A 10 mV/A			■	5 Hz...1 MHz	≤ 1 % + 0.3 A	P01120570
MA200 30-300/3 (25 cm / Ø 7 cm)		0.5 A...45 Apeak 0.5 A...450 Apeak			■			4.5 Vpeak			■	100 mV/A 10 mV/A			■	5 Hz...1 MHz	≤ 1 % + 0.3 A	P01120571
MA200 3000 /3 (35 cm / Ø 10 cm)		5 A...4500 Apeak			■			4.5 Vpeak			■	1 mV/A			■	5 Hz...1 MHz	≤ 1 % + 0.3 A	P01120572

DATA ANALYSIS SOFTWARE



DataView ®

Reference	P01102095

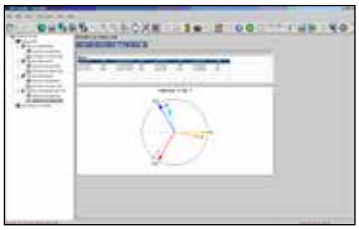
- Common platform for a wide range of Chauvin Arnoux products
- Data transfer tool
- Database backup
- Simplified generation of automatic reports

DataView® software is the essential tool for configuring, launching measurements, viewing data in real time, retrieving recorded data and creating standard or customised measurement reports.

It provides a single software platform for most Chauvin Arnoux products including:

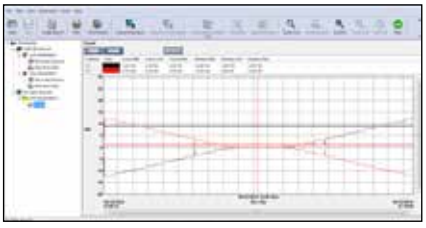
- QualiStar energy analysers CA 8331, CA 8333, CA 8345, CA 8336, CA 8436
- Power testers CA 8220
- Power and energy recorders PEL 112, PEL 113 and PEL 115, PEL 51, PEL 52
- Earthing testers CA 6470N, CA 6471, CA 6472
- Insulation testers CA 6543, CA 6547, CA 6549, CA 6550, CA 6555, CA 6526, CA 6532 & CA 6534
- Multimeter clamps F407 and F607
- Earthing clamps CA 6417
- Multifunction installation testers CA 6116N and CA 6117
- Ratiometer DTR8510
- Thermometers CA 1821, CA 1822 & CA 1823
- Thermo-hygrometer CA 1246
- Thermo-anemometer CA 1227
- Light meter CA 1110
- pH meter CA 10101
- Conductimeter CA 10141
- Micromanometer CA 1550

DataView®



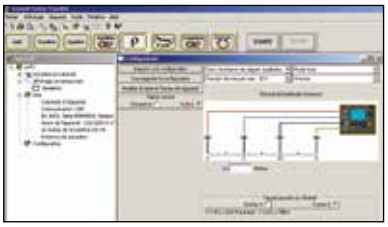
TRANSFER PEL module

Remote display
of a vector representation



Data Logger Transfer

Processing data from climatic and electrochemical measurement instruments



GTT module

Configuration example

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metrix
Trademark of Chauvin Arnoux

MTX 3297Ex

TRMS intrinsically-safe multimeter

For use **permanent**
In explosive atmospheres **ATEX**

906131180 - LB - 04/2025 - Non contractual document



Mines



Gas



Dust



Designed and manufactured in France

ATEX | IECEx | 1000 V CAT III / 600 V CAT IV | TRMS AC+DC | IP 67

*Hors fonctionnement

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