

		C.A 6113	C.A 6116N	C.A 6117
CONTINUITY / RESISTANCE				
I rated / Range / Resolution	I > 200 mA / 39.99 Ω/ 0.01Ω / ± (1.5% of measurement + 2 cts) 12 mA / 39.99 Ω & 399.9 Ω / 0.01 & 0.1 Ω /± (1.5% of measurement + 5 cts) with beep			
Range / Resolution / Accuracy	4 kΩ/ 1 Ω / ±(1.5 % of measurement + 5 cts) 40 kΩ - 400 kΩ/ 10 Ω - 100 Ω / ±(1.5 % of measurement + 2 cts)			
INSULATION				
Rated voltage	Utest: 50 /100 / 250 / 500 / 1,000 V DC			
Range / Resolution / Accuracy	0.01 MΩ to 2 GΩ / 10 kΩ to 1 MΩ / ±(5 % of measurement + 3 cts)			
Short-circuit current	≤ 3 mA			
EARTH				
3P EARTH	0.50 Ω to 40 Ω/ 0.01 Ω / ±(2 % of measurement + 10 cts) 40 Ω to 15 kΩ / 0.1 Ω to 1 Ω / ±(2 % of measurement + 2 cts)			
Range / Resolution / Accuracy	15 kΩ to 40 kΩ / 10 Ω/ ±(10 % of measurement + 2 cts)			
Others	Measurement of resistance of auxiliary stakes RH & RS (up to 40 kΩ)			
Ufk	Complies with SEV 3569			
1P SELECTIVE EARTH	0.20 Ω to 39.99 Ω - 40 Ω to 399.9 Ω / 0.01 Ω – 0.1 Ω / ±(10 % of measurement + 10 cts) (ISel via clamp)			
Range / Resolution / Accuracy				
LOOP IMPEDANCE (Zs (L-PE) and Zi (L-N or L-L)) – 1P LIVE EARTH				
LIVE EARTH	90 to 500 V / 15.8 to 17.5 Hz - 45 to 65 Hz			
Installation voltage / Freq.				
High-current mode with TRIP	Max. test current: 7.5 A			
Zs (L-PE) & Zi (L-N or L-L)	(0.050) 0.100 Ω to 0.5 Ω / 0.001 Ω/ ±(10% of measurement + 20 cts) • 0.5 Ω to 3.999 Ω / 0.001 Ω/ ±(5 % of measurement + 20 cts) 3.999 to 39.99 Ω/ 0.01Ω / ±(5% of measurement + 2 cts) • 39.99 Ω to 399.99 Ω / 0.1 Ω/ ±(5 % of measurement + 2 cts)			
Range / Resolution / Accuracy				
NO TRIP mode (Zs (L-PE) only)	Test current: 6 mA – 9 mA – 12 mA (as required) 0.20 Ω to 0.99 Ω / 0.01 Ω / ±(15 % of measurement + 10 cts) 1.00 to 1.99 Ω / 0.01 Ω / ±(15 % of measurement + 3 cts) 2.00 to 39.99 Ω / 0.01 Ω / ±(10 % of measurement + 3 cts) 40.00 Ω to 399.9 Ω / 0.1 Ω / ±(5 % of measurement + 2 cts) 400 to 3999 Ω / 1 Ω / ±(5 % of measurement + 2 cts)			
Calculation of Ik short-circuit current (PFC (Zs)), I Sc PSCC (Zi)	Fault current and short-circuit current: 0.1 A to 20 kA			
Integrated fuse table	-		Yes	
Voltage drop ΔV%(Zi)	-		-40 % to + 40 %	
Others	Measurement of the resistive and inductive components of the Zs and Zi impedances			
AC and A-type RCDs				
Installation voltage / Frequency	90 V to 500 V / 15.8 Hz to 17.5 Hz and 45 Hz to 65 Hz			
IΔn	10/30/100/300/500/650/1,000 mA (90 V – 280 V) or variable - 10/30/100/300/500 mA (280-550 V) or variable Ramp and pulse test			
No-trip test	at ½ IΔn – Duration: 1,000 ms or 2,000 ms			
Ramp mode	0.2 to 0.5 x IΔn (Uf) / 0.3 x IΔn to 1.06 x IΔn in increments of 3.3 % x IΔn			
Trip time measurement:	0.2 to 0.5 x IΔn (Uf) / 0.5 x IΔn / 2 x IΔn (selective) / 5 x IΔn			
Range / Resolution / Accuracy	Pulse: 0 to 500 ms / 0.1 and 1 ms / 2 ms, Ramp mode: 0 to 200 ms / 0.1 ms / 2 ms			
B-type RCDs				
Installation voltage / Frequency	-		90 V to 275 V / 15.8 Hz to 17.5 Hz and 45 Hz to 65 Hz	
IΔn: ramp / pulse 2 x IΔn pulse 4 x IΔn	-		10/30/100/300/500 mA 10/30/100 mA with pulse 4 IΔn Duration: 150 ms with 4 x IΔn or 300 ms with 2 x IΔn	
Test in ramp mode	-		0.2 x IΔn to 2.2 x IΔn	
Trip test:	2 x IΔn 4 x IΔn	-	IΔN ≤ 200 mA: 2.2 x 2 x IΔn IΔN > 200 mA: 1.1 x 2 x IΔn IΔN ≤ 100 mA: 2.2 x 4 IΔN	
OTHER MEASUREMENTS				
Current by clamps C177/C177A	(0.5 mA*) 5 mA to 19.99 A (C177) / 20 mA to 199.9 A (C177A)	5.0 mA to 199.9 A (C177A)		
Current by clamp MN77	(1 mA*) 5.0 mA to 19.99 A			
Voltage	0 to 550 Vac/dc / DC and 15.8 to 500 Hz			
Frequency	10 to 500 Hz			
Phase rotation	20 to 500 Vac			
Active power	-	0 to 110 kW single-phase - 0 to 330 kW three-phase Simultaneous display of voltage and current waveforms		
Harmonics	-	Voltage and current / up to 50th order / THD-F /THD-R		
GENERAL SPECIFICATIONS				
Display	Large 5.7" backlit graphic monochrome LCD screen, 320 x 240 points	Large 5.7" backlit graphic colour LCD screen, 320 x 240 points		
Storage/Communication	-	via USB for data transfer and report creation		
Power supply: rechargeable battery	NiMH 9.6 V rated 4 Ah	Lithium-ion 10.8 V rated 5.8 Ah		
Battery life	up to 24 hours	up to 30 hours		
Dimensions / weight	280 x 190 x 128 mm / 2.2 kg			
Protection	IP 53 / IK04			
EMC	IEC 61326-1			
Electrical safety	IEC 61010 -1 – 600 V CAT III – 300 V CAT IV – IEC 61557			