

ESSKits

MA-ESSKits-S

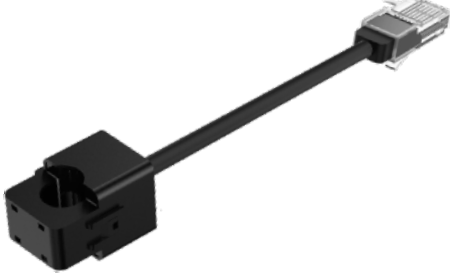
50040013

Single-phase



MG100

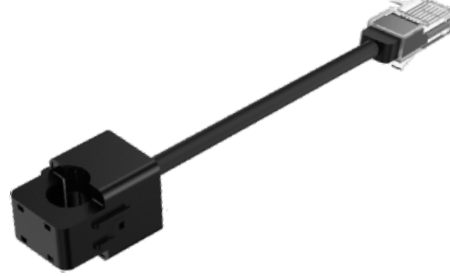
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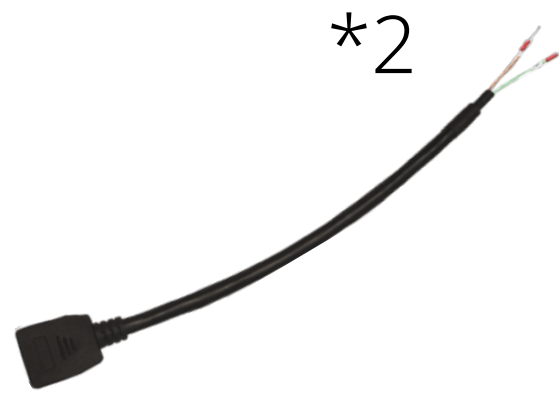
80A PV+Battery CT

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250A Grid CT

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1set

SET/CTN

MA-ESSKits-T

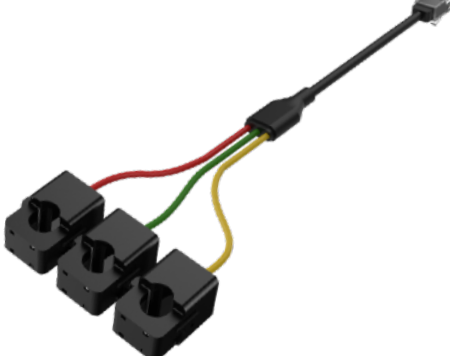
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Three-phase



MG100

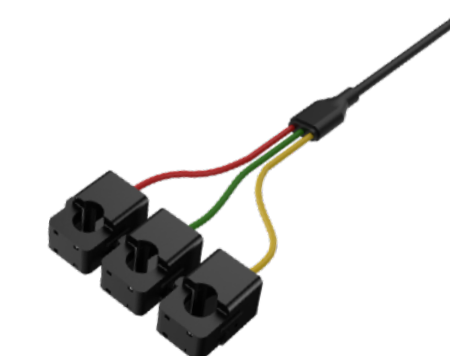
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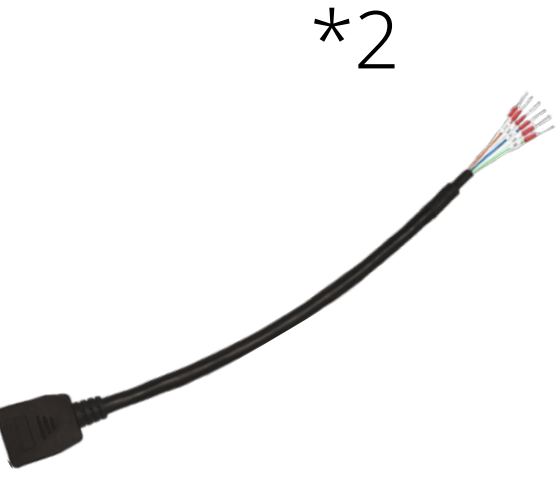
80A PV+Battery CT

+



250A Grid CT

+



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SET/CTN

MA-ESSKits are intelligent kits for PV + battery solutions that work with third-party PV inverters and ATMOCE batteries. The M-Gateway (MG100) manages system performance and devices, and communicates with the ATMOCE-Cloud and ATMOZEN app to give users visibility into their home's energy production and consumption.

M-Gateway

MG100

A black, rectangular ATMOCE M-Gateway (MG100) device. The front panel features the ATMOCE logo in white at the top. Below the logo, there is a horizontal strip of four green LED indicators, each preceded by a small icon: a globe, a lightning bolt, a battery, and a power button. The device has a sleek, modern design with rounded corners.

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Items	Unit	MG100	
Electrical parameters			
Grid setup		Single-phase	Three-phase
Nominal voltage	V	220/230/240	220/380 Va.c., 230/400 Va.c., 3/N~
Operating voltage range (L to N)	V	184 to 276	
Nominal frequency	Hz	50/60	
Extended frequency range	Hz	45 to 65	
Power consumption	W	<5 (without USB device) < 20 (with USB device)	
Overvoltage category		III	
AC surge protection		TYPE II	
Mechanical parameters			
Dimensions (W x H x D)	mm	221 × 148 × 42	
Weight	kg	0.6	
Ambient temperature range	°C	-30 to 65	
Cooling		Natural convection	
Enclosure environmental rating		IP30	
Communication		PLC, Wi-Fi, BLE, ETH, CAN, RS485	
Noise	dB	<25	
Altitude	m	3000	
Protection class		II	
Pollution degree		II	
Communication interfaces			
PV side	PLC	337 × 237 × 99	
	Microinverter CT	1 × CT interface	3 × CT interfaces
Grid side	Consumption CT	1 × CT interface	
Battery side	CAN	Support	
	Battery CT	1 × CT interface	3 × CT interfaces
Load side	ETH	1 × interface, 100 Mb/10 Mb auto-adaptability	
	Digital I/O	4 × 12V DO, 3 × DI	
	RS485	Support	
M-Relay	RS485	Support	
Atmoce-Cloud	Wi-Fi	2.4 GHz	
	ETH	1 × interface, 100 Mb/10 Mb auto-adaptability	
Atmozen app	BLE	2.4 GHz	
Indicators		3 × LEDs	
Compliance			
Safety		IEC 61439-1/-2	
Health		IEC 62311	
EMC		EN 301 489-1/-17, IEC 61000-6-1/-2/-3/-4	
Radio spectrum		EN 300 328	
PLC		EN 50065-1/-2	

Current Transformer

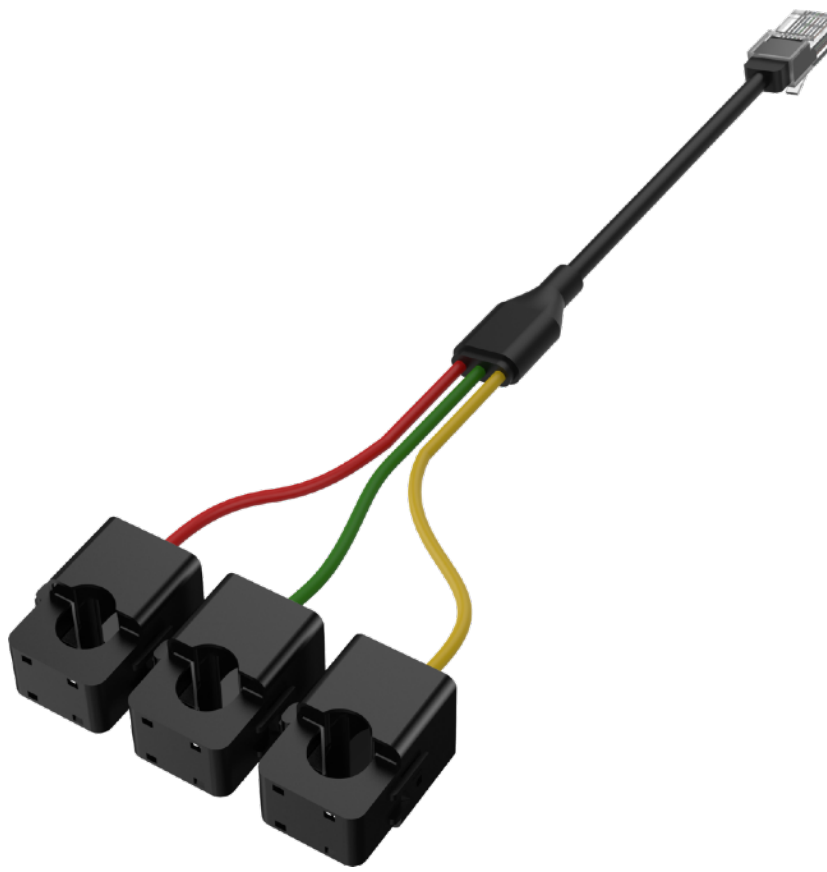


Split-core CT (PV&Battery)

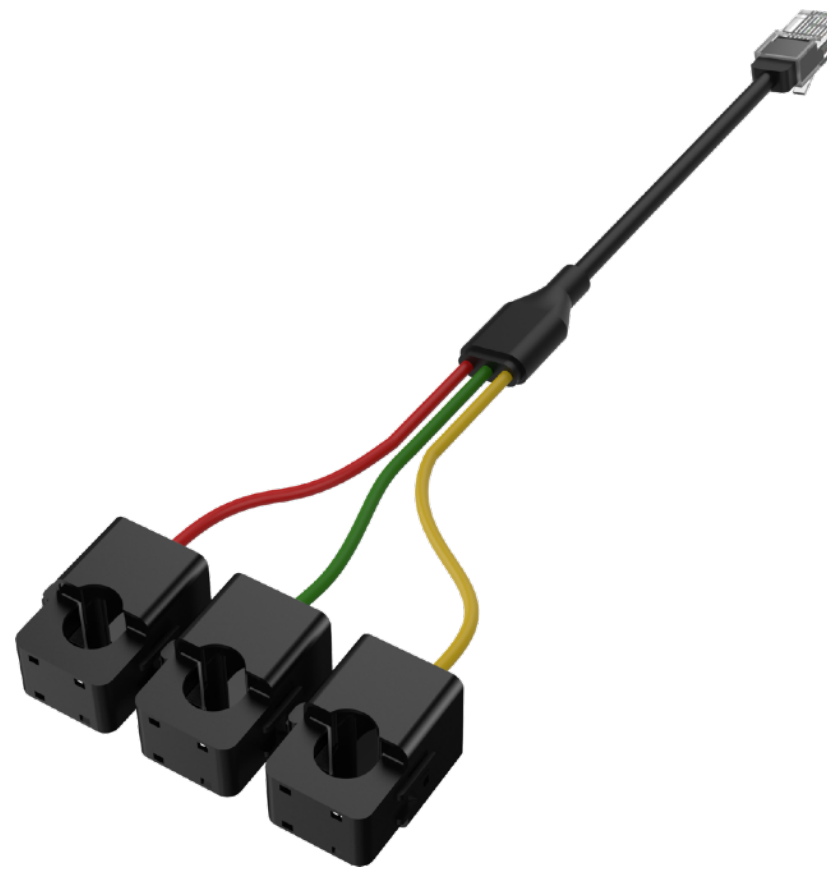
Metering in Single-phase Scenerio



Split-core CT (User Consumption)



Split-core CT (PV&Battery)



Split-core CT (User Consumption)

Metering in Three-phase Scenerio

Parameters	Split-core CTs (PV&Battery)	Split-core CTs (User Consumption)
Nominal frequency	50/60 Hz	50/60 Hz
Nominal primary current	80 A	250 A
Turns ratio	2000:1	5000:1
Rated load	20 Ω	20 Ω
Accuracy	≤0.5%	≤0.5%
Dimensions	36 mm x 47 mm	55 mm x 71 mm
Aperture	16 mm	24.5 mm
Cable length	5,000±80 mm	5,000±80 mm
Operation temperature	-20 to 60°C	-40 to 70°C
Altitude	3000 m	3000 m
Compliance	IEC61010-1	IEC61010-1

Converter Cable

