Accessories

ECC
(Energy Control Center)

Communication & Maintenance

- Wi-Fi, 4G and Ethernet
- Support RS485 & Ethernet for peripherals
- Remote operation and maintenance

Monitor & Control

- Internal relay available to control external devices
- Load consumption monitoring
- Support local firmware update
- Export control, Ripple control, DRM control

ECC (Energy Control Center)

	COMMUNICATION TO SOLAX CLOUD
Ethernet	RJ45 × 1, 10/100Mbps
Wireless	Wi-Fi: 802.11b/g/n / 4G: CAT-M1*
SIM card size	Nano - 4FF 12.3 × 8.8 mm
Sample rate	Per 5 minutes
	COMMUNICATION TO PERIPHERALS
RS485	COM × 1, 115200bps, COM × 3, 19200bps, Modbus-RTU
DRM (for AU/NZ only)	DRM 0 / 1 / 5 / 6 / 7 / 8
Analog input	For external sensor device connection
Digital input	For external control device connection
Digital output	Control external AC contact or relay
USB interface	5 Vdc - 0.5 A Output × 1
	POWER DATA
DC power supply type	External adapter
Adapter input Voltage / frequency	100 - 240 V 50 / 60 HZ
Adapter output voltage / current	11.4 - 12.6 V / 2 A
Power consumption	10 W
	MECHANICAL DATA
Dimensions (W × H × D)	210 × 113 × 26 mm (without antennas)
Weight	0.3 kg
Operating ambient temperature range	-20 ~ 60°C (-40 ~140°F)
Installation method	Wall mounting / Desktop mounting
Cooling	Natural Convection
Environmental rating	Indoor - IP20
	INTERACTION
LED Indicator × 4 – RUN, SERVE1, SERVE2, ALM	LED Indicator × 4 – RUN, SERVE1, SERVE2, ALM
SolaX Cloud	SolaX Cloud
	COMPATIBILITY
Microinverter	A1- Micro Series, X1- Micro Series
	COMPLIANCE
Compliance	CE, FCC

Note: This is optional in Europe

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Accessories

ECC-PLC

Communication & Maintenance

- Bidirectional communication for remote upgrades
- Built-in industrial-grade PLC module
- Remote operation and maintenance

Monitor & Control

- Real-time load control and PV production monitoring
- Web-based monitoring and control

ECC-PLC

	COMMUNICATION TO MICROINVERTER
Communication signal	PLC
Maximum communicating inverters*	40
	COMMUNICATION TO ECC
RS485	COM × 1, 115200bps, Modbus-RTU
	POWER DATA
AC power supply	100-240 VAC, 50-60 Hz Single Phase (Three Phase Optional)
ECC-PLC breaker	2-Pole And Maximum 20 A Overcurrent Protection Required
Power consumption	5 W
	MECHANICAL DATA
Dimensions(W × H × D)	218 × 122 × 50 mm
Weight	0.5 kg
Operating ambient temperature range	-40 ~ +60°C (-40 ~ 140°F)
Installation method	Wall mounting / Rail mounting
Cooling	Natural Convection
Environmental rating	Indoor - IP20
	INTERACTION
LED indicators	LED Indicator × 1 – RUN
	OTHER FEATURES
CT sensor	Production and consumption metering
Meter accuracy	Integrated PV production metering (+/- 1.0% via CT) and consumption monitoring (+/- 1.0% via CT)
	COMPABILITY
Microinverter	A1-Micro Series
	COMPLIANCE
Compliance	CSA C22,2 N0.61010-1-12.UL61010-1. CSA-C22.2 No.61010-2-030:18,UL61010-2-030 FCC SDOC

*Number of inverters supporting PLC communication

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Accessories

ADAPTER BOX G2

High Efficiency

- Maximizing surplus green energy utilization
- Supports multiple types of loads

Assured Safety

- Inverter disconnection protection
- TLS communication protection

Intelligent Design

- Wi-Fi network connection
- Smart APP control

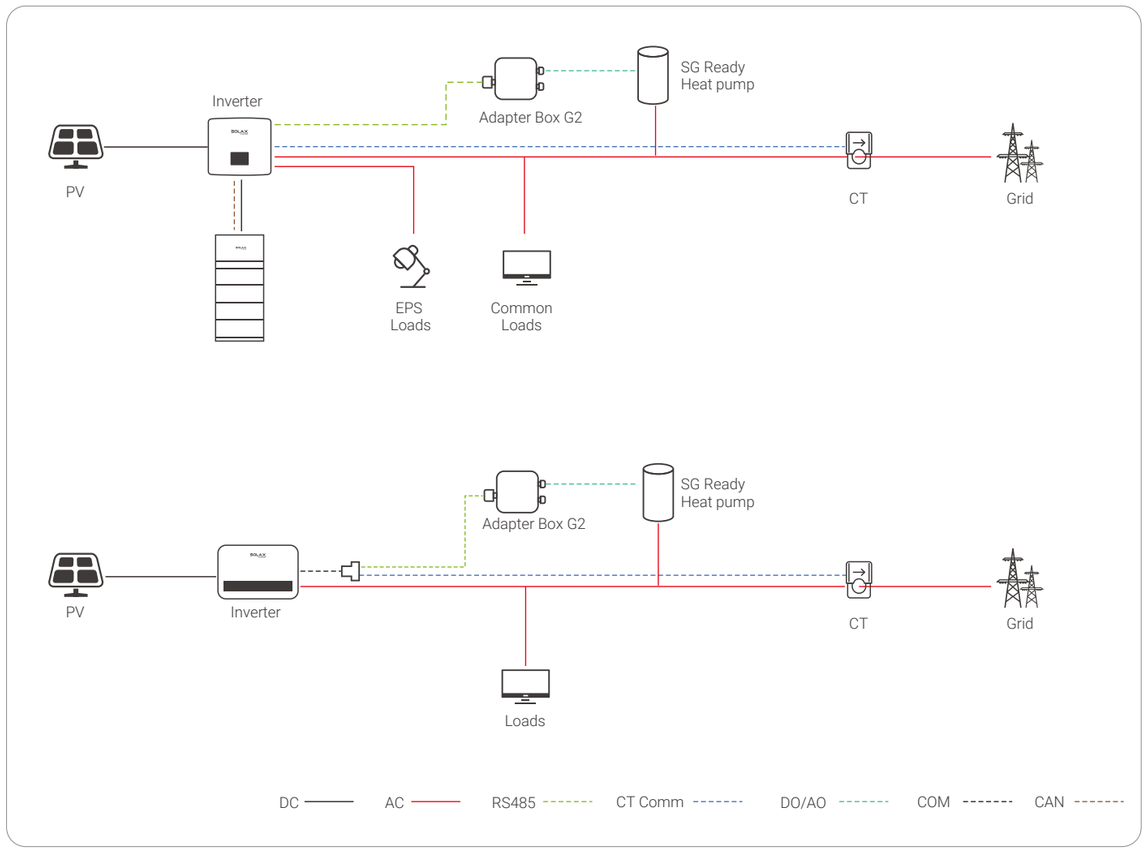
Flexible Adaptability

- Customizable schedule control
- Supports multiple types of signals

Adapter Box G2

	ELECTRICAL PARAMETER
Power adapter	100 ~ 240 V 50 / 60HZ AC power adapter (Optional), 12V 2A, DC input
Power consumption	2.5 W
Digital output	*4, 2 A 30 Vdc
Analog output	*1, 0 ~ 10 Vdc
	COMMUNICATION
Inverter communication	RS485
Wireless module	WiFi 2.4 GHz
Eirp power	17.46 dBm
Demand control interface	Yes
	GENERAL PARAMETERS
Dimensions (L × W × H)	125 × 125 × 75 mm
Weight	0.4 kg
Operating temperature range	-30 ~ 60 °C
Degree of protection	IP65
Installation method	Wall mounting
	STANDARD
Certification	RED / FCC / RCM / RoHS

Solutions



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Rapid Shutdown Device

XRSD-1C

XRSD-2C

Prioritizing safety and rapid shutdown capabilities, the XRSD series offers a sophisticated module-level solution that guarantees the smooth functioning of both new and existing PV systems. Once activated by the SolaX Transmitter—XRSD-Core Kit, the XRSD modules ensure your connected PV system remains operational.

In case of emergencies, you have multiple shutdown options: either remotely control each individual panel through the SolaX cloud, toggle the AC breaker on the Transmitter, or engage the E-STOP button. This versatility makes the XRSD system a reliable safety measure for quick deactivation of your PV system as needed.

Note: To achieve rapid shutdown, please use with the TRANSMITTER KIT (Model: XRSD-CORE KIT).

High Efficiency

- Max. 20A PV input current
- Lower power consumption & wider operating voltage

Assured Safety

- Module-level rapid shutdown
- IP68 with unrivaled reliability

Intelligent Design

- Faster installation with plug-and-play cables and connectors
- Ultra-low signal noise, enhancing system stability

Flexible Adaptability

- Compatible with all SolaX inverters and other major inverter brands*
- Compatible with mainstream PV panels

**Compatibility testing required*

	XRSD-1C	XRSD-2C
ELECTRICAL DATA		
Input voltage range	8 ~ 80 V	
Output voltage range	8 ~ 80 V	16 ~ 160 V
Max. PV input current	20 A	
Max. short circuit current	26 A	
Recommended fuse rating	30 A	
Maximum system voltage	1500 V	
MECHANICAL		
Dimensions (without cables and connectors)	130 × 36 × 21 mm	135 × 59 × 20 mm
Weight	400 g	720 g
Input connectors	MC4 (Standard)	
Input cable length	0.2 m	0.45 m
Output connectors	MC4 (Standard)	
Output cable length	1.2 m	2.4 m
Communication type	PLC	
ENVIRONMENT LIMIT		
Protection class	IP68 / NEMA6P	
Operating temperature range	-40 ~ 85°C	
COMPLIANCE		
Safety	EN 62109-1:2010	
EMC	EN IEC 61000-6-1 / 2 / 3 / 4; EN IEC 61000-3-2 / 3 / 11 / 12; EN 55011	

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Rapid Shutdown Device

XRSD-CORE KIT

The Solax XRSD-Core Kit, in tandem with Rapid Shutdown Devices, forms a crucial segment of the Solax rapid shutdown system. Here's how it functions:

- Once activated, it continuously sends a keep-alive signal to the XRSD, ensuring a stable connection between the PV modules and the string inverter.
- In the event of a power down in the XRSD-Core Kit, the XRSD swiftly transitions to a quick shutdown mode, temporarily suspending energy generation.
- Upon restoring power to the XRSD-Core Kit, energy production resumes seamlessly and without delay.

Note: To achieve rapid shutdown, please use with the Rapid Shutdown Device. (You can choose from models of XRSD-1C or XRSD-2C)

IP65 protection degree

Supports up to 2 cores per transmitter

Seamlessly compatible with SolaX XRSD receivers for module-level rapid shutdown

XRSD-CORE KIT	
ELECTRICAL DATA	
Power supply input voltage	85 ~ 264 VAC
Transmitter input voltage	12 (±2%) V
Transmitter input current	1 A
CORE	
Max. number of configure core	2
Max. current per core	150 A
Max. string voltage	1500 V
Diameter	~31 mm (inner) / 65 mm (outer)
Max. number of strings per core*	10 (This data refers to a cable diameter of Φ 6 mm)
MECHANICAL	
Dimensions	200 × 300 × 170 mm
ENVIRONMENT LIMIT	
Protection class	IP65 / NEMA4
Operating temperature range	-40 ~ 75°C
COMPLIANCE	
Safety	EN 62109-1:2010
EMC	EN IEC 61000-6- 1 / 2 / 3 / 4; EN IEC 61000-3-2 / 3 / 11 / 12; EN 55011

* Note: According to the cable diameter Φ 6 mm, if cable diameter is more than Φ 6 mm, Strings Per Core will be reduced. Extra precaution must be taken to avoid exceeding the permissible current limit.

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Accessories

M1-40

M3-40

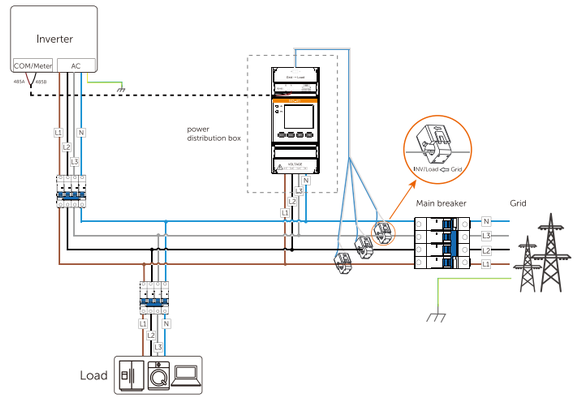
M3-40-Dual

- Plug-and-play CT solution for easy installation
- Supports remote settings via SolaX Cloud APP
- 50ms high refresh rate for more precise and faster control
- Separates strong and weak currents for enhanced security
- Intelligent phase sequence and CT direction adjustment, automatically resolving installation issues
- Capable of monitoring power from both the grid and third-party inverters simultaneously*

** supported only by the two-curcuit model: M3-40-Dual*

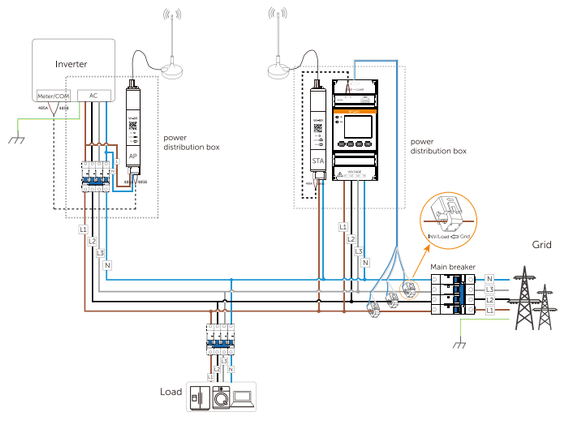
	M1-40	M3-40	M3-40-Dual
Power grid type	1P2W	3P3W / 3P4W	
Rated voltage	220 V ~ 240 V	3 × 220 / 380 V ~ 3 × 240 / 415 V	3 × 57.7 / 100 V ~ 3 × 240 / 415 V
Operating voltage	100 V~288 V	100 V ~ 280 V	50 V ~ 480 V
Current	*A / 40 mA		
Recommended CT specification	100 A / 40 mA, 200 A / 40 mA, 400 A / 40 mA, 600 A / 40 mA, 1000 A / 40 mA, 1500A / 40mA, 2000A / 40mA		
Power consumption	< 1.2 W	< 1.5 W	< 1.2 W
Measurement accuracy class	Voltage and current: Class 0.5 Active power: Class 1 Reactive power: Class 2		
Resolution requirement	Active power: 0.1 W Frequency: 0.001 Hz		
Frequency	45 Hz ~ 65 Hz		
Frequency tolerance	0.01 Hz		
Operating temperature	-40°C~70°C		
Operating humidity	≤95% RH (non-condensing)		
Operating altitude	< 4000 m		
Degree of protection	IP20		
Dimensions (W × H × D)	18 mm × 100 mm × 65.5 mm	45 mm × 100 mm × 65.5 mm	72 mm × 100 mm × 65.5 mm

Solutions



M3-40
Networking through RS485 cable

- L1 wire
- L2 wire
- L3 wire
- N wire
- PE wire
- I* wire
- I wire
- RS485A wire
- RS485B wire



M3-40
Wireless data transmission through Wi-BR

- L1 wire
- L2 wire
- L3 wire
- N wire
- PE wire
- I* wire
- I wire
- RS485A wire
- RS485B wire

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Accessories

Wireless Bridge

Wi-BR

Wide Coverage

- Efficient and stable data transmission up to 200m

Strong Penetration

- Penetration ability up to 4 floors (about 30 meters vertically)

Intelligent Design

- DIN-rail installation for 85-277V AC power supply

Flexible Adaptability

- Compatible with single & three-phase meters

** Wireless communication may be affected by obstacles in complex environments, reducing transmission distance. Lab data shows that it can reach up to 200 meters horizontally in open spaces. However, with walls blocking the signal, installation distance should be reduced, supporting up to 4 layers of partition walls (about 30 meters vertically)*

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	Wi-BR
Working method	AP / STA
Procotol	IEEE 802.11ah
Communication terminal	RS485 * 1 (for each model)
Phase voltage	85 ~ 277 Vac
Max. power consumption	2 W
Operating temperature	-25 ~ 55°C
Dimensions	18 × 98 × 66 mm
Mounting type	DIN rail
Ingress protection rating	IP20
Altitude	≤ 2000 m

Comparison of the performance of four methods across different communication aspects

The following data is obtained through actual testing using inverter equipped with electricity meter in Solax laboratory.

The actual on-site transmission distance may vary depending on the installation environment.

Secuirty	SolaX	Wi-Fi	LORA	Zigbee
Performance	Best	Best	Poor	Good

Anti-interfernce	SolaX	Wi-Fi	LORA	Zigbee
Performance	Best	Best	Poor	Good

Transmission capability	SolaX	Wi-Fi4/5/6	LORA	Zigbee
Transmission distance	200m	100m	130m	20m

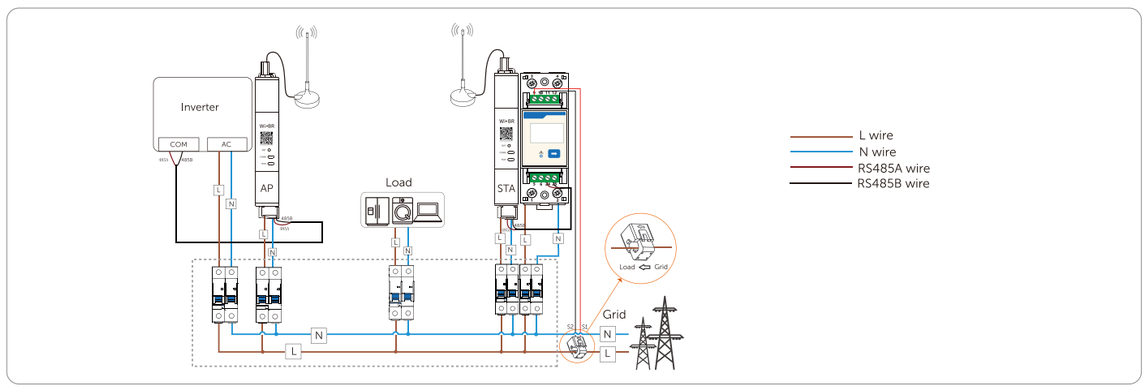
*The test data was obtained in an open area without any barriers.

Signal penetration①	SolaX	Wi-Fi	LORA	Zigbee
Number of floor②	4	1	3	1

*The results were obtained under test conditions of penetrating 120 cm thick reinforced concrete, with a floor-to-floor spacing of 4.5 meters.

① The wall-penetration test is an independent scenario, and its data does not affect or interact with the open-space scenario data
② The complete functions of the inverter can work properly through control across this number of floors

Installation



*The product images are for illustration only and may have slight differences from the actual product