iMagicPower

ETP23006-C2A1

Product Introduction

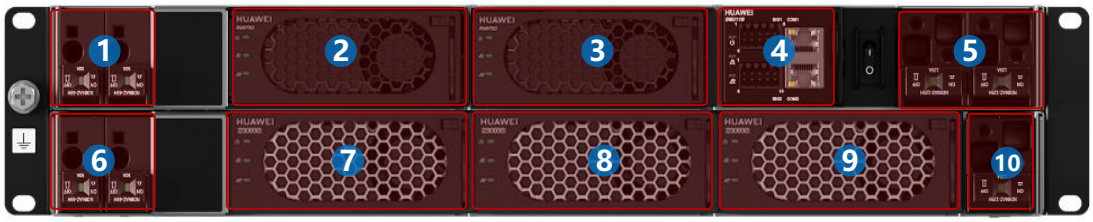
The ETP23006-C2A1 is a new type of AC and DC embedded power supply developed by Huawei. The ETP23006-C2A1 is based on an integrated, all-scenario power supply platform and adopts a modular hardware design. Supports access and scheduling of solar energy, mains, and diesel generators, and supports DC and AC output of multiple modes.

The ETP23006-C2A1 provides a AC power of 6 kVA (max. capacity) and 3 kVA (backup), a maximum DC power of 8 kW. The ETP23006-C2A1 is 2 U high. It can be installed in a 19-inch rack and is easy to integrate and install.

Application Scenario

- Applicable to non-grid, unreliable and reliable grid areas
- Supplies power to sensing devices, such as cameras and sensors.
- Supplies power to communications devices, such as wireless and transmission devices.
- Supplies power to IT devices, such as servers, storage devices, and routers.

Product Structure



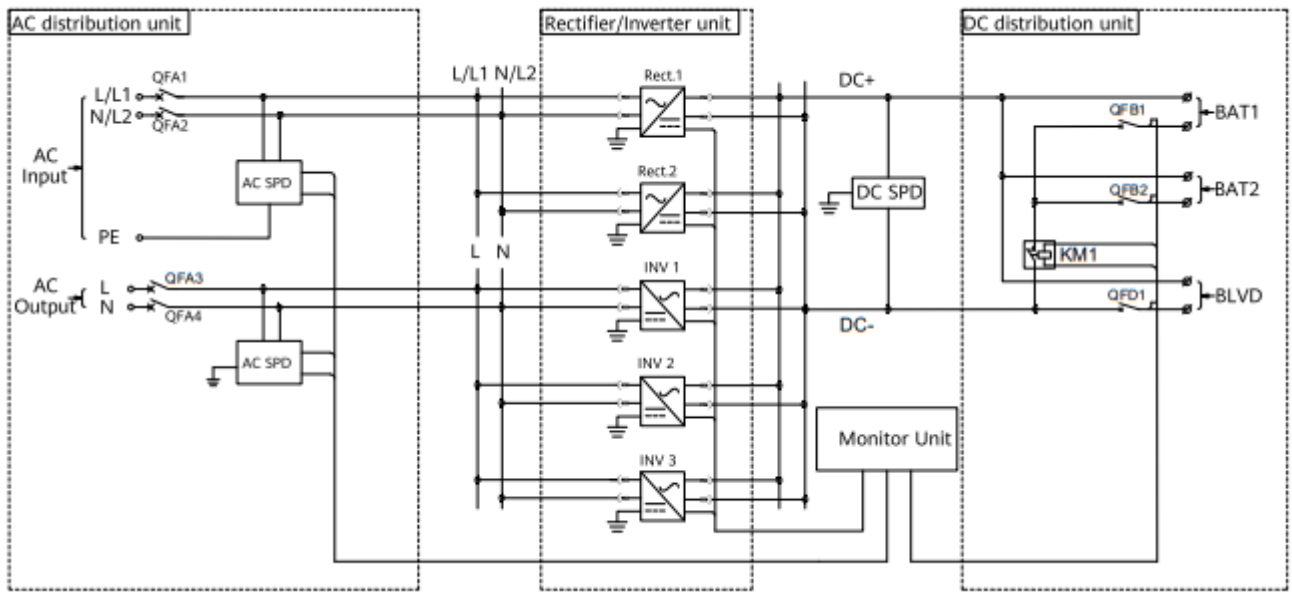
No.	Name	description	No.	Name	description
1	AC input	60 A single-phase/dual-fire	**6**	AC output	63A*2
2 - 3	Rectifier slot	Compatible: • AC-DC module: 3 kW or 4 kW rectifier • Solar module: 4 kW SSU and 4 kW PCU	**7 - 9**	Inverter slot	Compatible: • DC-AC inverter module: 3 kVA inverter module • Multi-mode low-voltage power supply module: MIMO module (12/24/36 V DC; 24V AC) • Intelligent power distribution extension module: iDCDU
4	SMU11B	Main control unit	**10**	DC output	63A*1
5	Battery branch	125A*2 Compatible: lead-acid batteries and lithium batteries			

Product Features

- **high power density**
  Maximum 6 kVA and 8 kW, 2 U high
- **Unified intelligent power supply**
  Supports multiple energy inputs (solar, mains, or diesel generator) and multi-mode output (AC: 24/220 V; DC: 12/24/36/48/57 V).
- **AI-based collaborative scheduling**
  Coordinated scheduling of multiple energy sources, improving site energy efficiency and power supply reliability
- **Intelligent DC load management**
  Accurately divides the service power consumption and accurately prepares the equipment power.
- **Intelligent management**
  Online remote O&M reduces site access and O&M costs.

Electrical

ETP23006-C2A1 electrical schematic diagram



Product

Product Type		ETP23006-C2A1
Basic parameters	Dimensions (W x D x H)	482.6 mm x 330 mm x 2U
	weight	≤ 20 kg (excluding rectifiers)
	Installation Mode	19-inch rack mounting
	Cable routing mode	forward line
	Maintenance Mode	Pre-maintenance
	Degree of protection	IP20
AC input	AC mode	Single-phase/dual-fire: 85–300 V AC
	Rated voltage	220Vac
	Frequency	45 Hz to 66 Hz, rated 50 Hz or 60 Hz
	Input Current	Single-phase/dual-fire: max. current 60 A
	AC surge protection	20kA (8/20μs)
AC output	Capacity	Single-phase 6 kVA (max. capacity) + 3 kVA (backup)
	Output voltage	Single phase 220 V AC
	Output Frequency	50Hz/60Hz
	AC branch	2 x 63A MCB
DC output	capacity	8kW
	Output voltage	-42 V DC to -58 V DC. The default output is -53.5 V DC.
	DC branch	1 x 63A MCB
	Battery branch	2 x 125A MCB
	DC surge protection	10kA/20kA (8/20μs)
Environment	Operating temperature	- 40℃ -+ 65℃ (When the temperature is 50℃ to 65℃, the linear derating is 20%; when the temperature is -40℃ to -33℃, the system can start normally without damage.)
	Storage temperature	- 40℃ - + 70℃
	relative humidity	5% to 95% (Non-condensing)
	Altitude	0 ~5000 m (2000-5000 m, decrease by 1℃ for each 200m increase)

Product

Product Type			ETP23006-C2A1
Inverter module	Model		I23003G1
	DC input	Current	Max. 75 A
		voltage	42 V DC - 58 V DC
	Output voltage regulated voltage precision		≤ ±1%
	Output frequency		50/60 Hz (monitoring can be set)
	Inverter capacity		3000VA/2400W（52V DC~58V DC） 2500VA/2000W（Other input range）
	Peak efficiency		≥ 94%
	Output power factor		0.8
	Overload capacity		105% ≤ Load ≤ 125%; t>1min 125% < load; t≤1s
Rectifier module	Model		R4875G5
	Input voltage		85VAC ~ 300VAC, rated 220VAC
	Rated power		4000W (176VAC - 300VAC) 4000 W to 1600 W (175 V AC to 85 V AC linear derating)
	Maximum efficiency		97%
	Operating temperature		- 40℃ -+ 75℃
	Dimensions (W x D x H)		105 mm x 269 mm x 40.8 mm
	Weight		≤2.2kg
	Power factor		≥ 0.99
	Harmonics		≤ 5%
MIMO module	Model		M48500N1
	12 V DC Output Current/Power		2 x 6 A, total power < 100 W
	24 V DC Output Current/Power		2 x 8 A, total power < 200 W
	24 V AC output current/power		4 x 3 A, total power < 200 W, 50 Hz
Monitoring module	Model		SMU11B
	Signal input		Door magnet, battery midpoint voltage, battery temperature, and ambient temperature
	Dry contact point		2 configurable I/O , 3 DI
	Communication interface		COM, FE, CAN
	Storage capacity		Up to 50, 000 historical alarm records
	Networking Mode		IP

Product

Product Type		ETP23006-C2A1
Solar power module	Model	S4875G1
	DC input current	≤ 58 A
	DC input voltage	58 - 150 V DC
	peak efficiency	> 97% (30% to 80% load) > 98.2% max
	MPPT tracking accuracy	≥ 99.8% (> 100 W, static)
	Output voltage	43.2 to 58 Vdc, rated voltage: 53.5 Vdc/57 Vdc
	Maximum output power	4013 W
	ripple noise	≤ 200 mV (Pk-Pk, 20 M bandwidth)
	Telephone weighing noise	≤ 2 mV
	Output regulated voltage precision	≤ 0.6%
Solar protocol conversion module	Model	PCU-01A
	Input voltage	43.2 V DC to 58 V DC
	Maximum input current	75 A
	Lightning protection	2 kV/4 kV (8/20μs)
	input anti-reverse	Reverse connection protection
	Output voltage	43.2 V DC to 58 V DC
	Maximum output power	4000 W
	Maximum output current	75 A
	Protocol Conversion	The PLC protocol is converted to the CAN protocol.
Intelligent power distribution unit iBreaker	Model	iDCDU-100D1
	Input voltage	40VDC - 60VDC
	Maximum capacity	100A
	Number of DC output channels	Default: 4 x 63A MCB (Rated flow rate of a single route is 40 A, and total flow rate of the module is 100 A.)
	DC lightning protection	10/20kA (8/20μs)
	Detection accuracy	±1%FS
	Function	Independent load management for each channel, intelligent precise power-off, and intelligent power measurement

深圳市龙岗区坂田华为基地

电话： (0755) 28780808

邮编： 518129

www.huawei.com