

Say Goodbye to Loadshedding

HUAWEI POWER-S

Seamless switchover | Flexible sizing | All-in-one & simple installation



Seamless Solar Hybrid

Power & Backup Solution for Commercial & Industrial



Typical application scenarios

Small Commercial & Industrial, AC load 10kW~100kW

Farm

Hotel

Bank or gas station branch

Campus



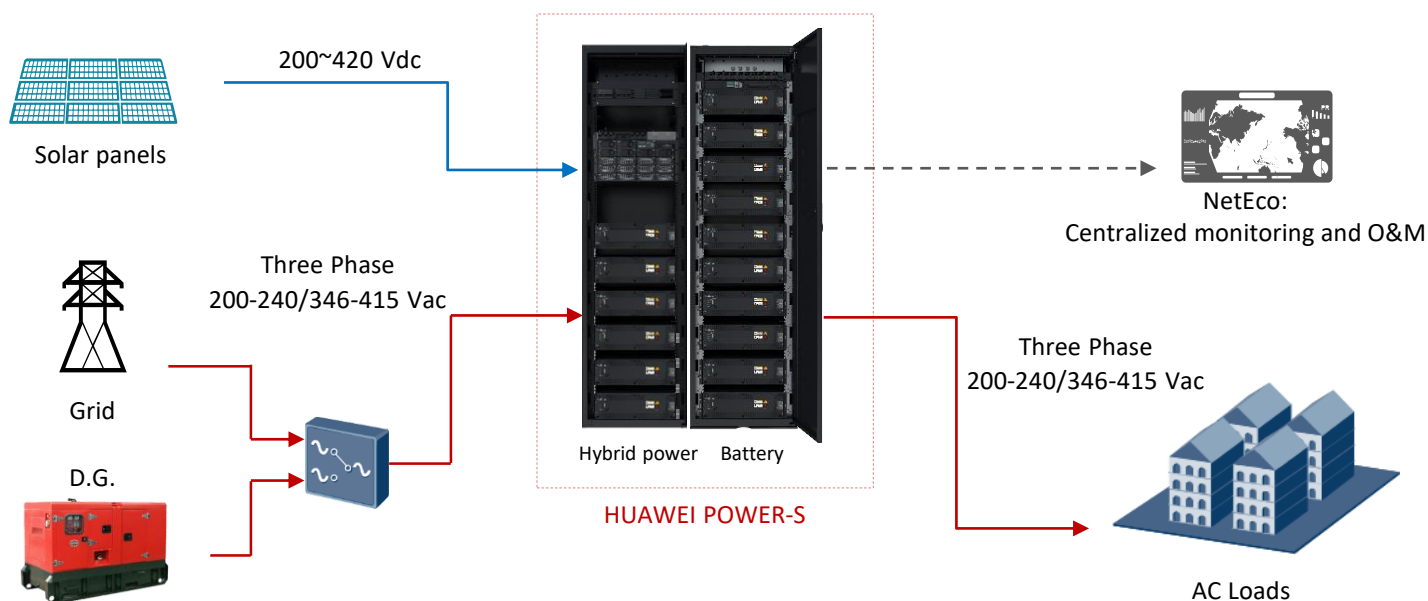
Mall or shop

Restaurant

Office

Factory

POWER-S system connection diagram



POWER-S Solution Advantages

Seamless

- <10 ms energy switchover
- Uninterrupted experience
- Solar-grid-generator-battery Seamless switchover

All-in-one

- Integrated battery, inverter, rectifier, solar MPPT, bypass, AC SPD
- Built-in hybrid EMS, generator controller
- All internal cables pre-integration
- Transformerless, support IP/4G & dual-SIM cards

Flexible sizing for every budget

- Fully modular design, all modules Plug & Play
- Flexible sizing configured as required:
Inverter 3 ~ 72kW, Battery 5 ~ 600 kWh, Solar 0 ~ 144kW
- Easy capacity expansion and flexible for any budget
- Support to work with existing grid-tied solar inverter

Easy & quick installation

- All in one, within one-day installation
- All modules Commissioning-free
no DIP switch setting
- All internal cables pre-integration
- Outdoor solution 0 civil work, more saving

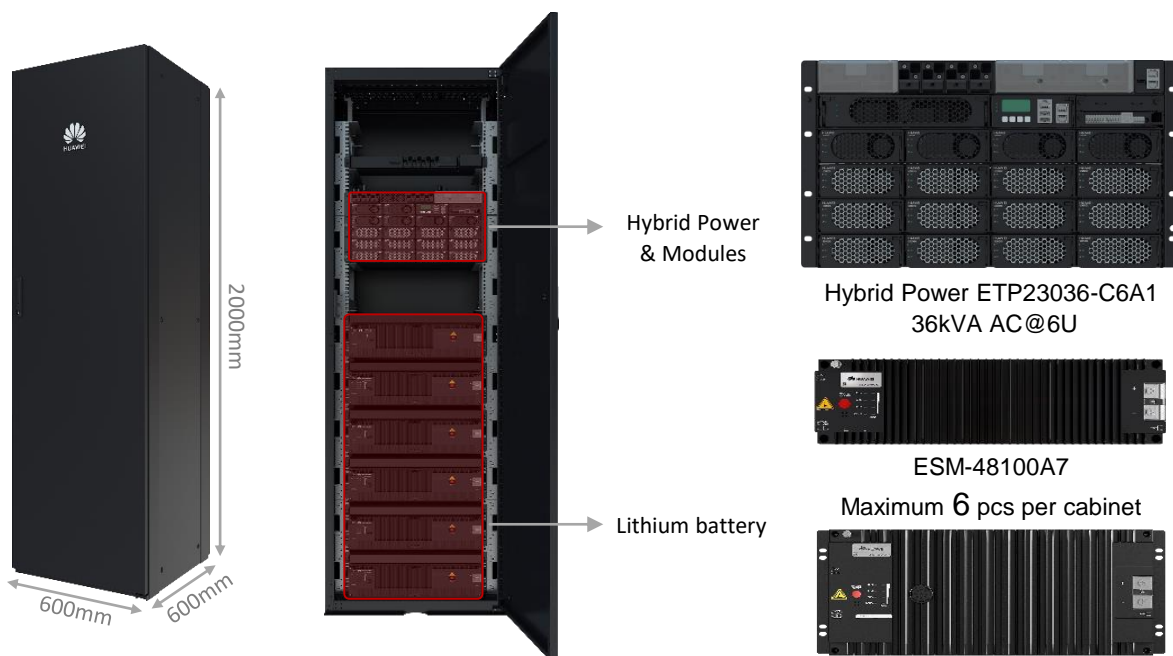
Intelligent generator control

- Remote & intelligent generator control
- Minimum-fuel-consumption-point tracking
- D.G. peak shaving enables reducing from big generator to small generator

Centralized monitoring and O&M

- Remote cloud NMS and APP
- Making savings visible and monetizable
- Supports wide range of intelligent wireless sensors

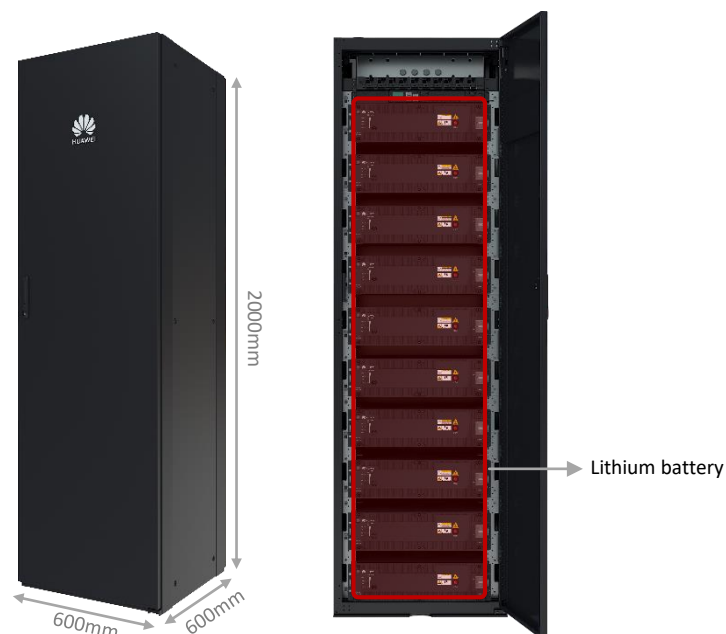
Indoor Power & Battery system ICC200-N6-H2 Specification



Indoor 36kVA power

Technical Specifications		ICC200-N6-H2	
PV input	Input voltage	90~440 V DC	
	Power	4kW per module	
AC input	Rated input voltage	Three-phase, 85~300Vac	
	Rated input frequency	45~66Hz	
	Max. input current	3 x 120 A	
	AC bypass	36kVA	
AC output	Rated output power	16kW DC/36kVA AC, support 2 connected in parallel: 32kW DC/72kVA AC	
	Rated output voltage	Three-phase, 220V AC	
	Rated output frequency	50 Hz / 60 Hz	
	Output branch	1 x 100 A/3P MCB	
DC output	Output voltage	42V to 58V DC, default: 53.5V DC	
	SPD	10 kA differential mode, 20 kA common mode, 8/20 μ s	
Battery parameters	Battery Model	ESM-48100A7	ESM-48200A1
	Battery capacity	100Ah	200Ah
	Battery material type	LiFePO4	LiFePO4
	Battery dimensions	442*396*130 mm	442*560*218 mm
	Battery operating voltage	44~57 V DC	44~57 V DC
	Rated voltage	48V DC	48V DC
	Maximum charging current	100 A @ 35°C	100 A @ 25°C
	Maximum discharge current	100 A	100 A
	Cycle performance	6000 @ 0.5C, 85% DOD, 70% EOL, 35°C	6500 cycles @ 0.5C/0.5C, 85% DOD, 25°C
	Numbers per cabinet	6	3 (Need adjustment guide rails)
General parameters	Dimensions (W x D x H)	600 mm x 600 mm x 2000 mm (excluding the base 100mm)	
	Weight	<150 kg	
	Operating temperature	-20°C~45°C	
	Storage temperature	-40°C ~ 70°C	
	Cooling mode	Natural cooling	
	Altitude	0 ~ 5000m (The temperature is derated when the altitude ranges from 2000 m to 5000 m. The temperature decreases by 1°C for each additional 200 m)	
	Relative humidity	5~95%, non-condensing	
	Protection level	IP20	
	Protection function	Low-voltage protection, over-voltage protection, over-current protection, over-temperature protection, short-circuit protection, and reverse connection protection	
	Communication type	CAN, RS485, GPRS, IP	
	Authentication certificate	CE, ROHS6	

Indoor Battery Cabinet ESC200-N5 Specification



Indoor battery cabinet



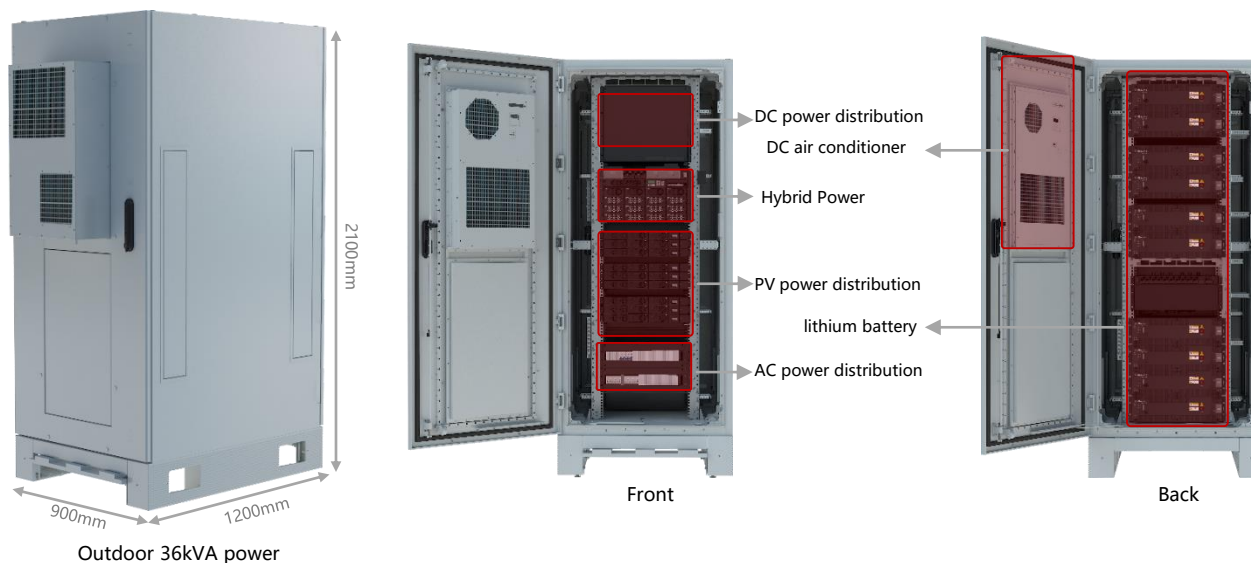
ESM-48100A7
Maximum 10 pcs per cabinet

OR



ESM-48200A1
Maximum 6 pcs per cabinet

Type		ESC200-N5	
System	Dimensions (W × D × H)	600 mm × 600 mm × 2000 mm	
	Weight	< 100 kg (excluding batteries)	
	Installation Mode	Floor-mounted installation	
	Cabling mode	Cable routing from the top	
	Maintenance Mode	Front and rear maintenance	
	Protection level	IP20	
	Cooling Mode	Natural heat dissipation	
Battery parameters	Battery Model	ESM-48100A7	ESM-48200A1
	Battery capacity	100Ah	200Ah
	Battery material type	LiFePO4	LiFePO4
	Battery dimensions	442*396*130 mm	442*560*218 mm
	Battery operating voltage	44~57 V DC	44~57 V DC
	Rated voltage	48V DC	48V DC
	Maximum charging current	100 A @ 35°C	100 A @ 25°C
	Maximum discharge current	100 A	100 A
	Cycle performance	6000 @ 0.5C, 85% DOD, 70% EOL, 35°C	6500 cycles @0.5C/0.5C,85% DOD, 25°C
	Numbers per cabinet	10	6 (Need adjustment guide rails)
Environment	Operating temperature	-20°C ~ +45°C	
	Storage temperature	-40°C ~ +70°C	
	Temperature and humidity	5% ~ 95% (non-condensing)	
	Altitude	0 ~ 5000m (The temperature is derated when the altitude ranges from 2000 m to 5000 m. The temperature decreases by 1°C for each additional 200 m)	



Technical Specifications		ICC1000-A1-E3
PV input	Input voltage	90~440Vdc
	Power	4kW per module
AC input	Rated input voltage	Three-phase, 147VAC~519VAC
	Rated input frequency	45~66Hz, 50 Hz / 60 Hz
	Max. input current	3 x 120 A
	AC bypass	36kVA
	SPD	30kA/30 kA, 8/20us
AC output	Rated output power	16kW DC/36kVA AC
	Rated output voltage	Three-phase, 220Vac
	Rated output frequency	45~66Hz, 50 Hz / 60 Hz
	Maximum output current	One 3 x 100A
	SPD	30kA/30 kA, 8/20us
DC output	Output voltage	48V
	Output current	Max. 1800A
	DC output & Battery distribution	4 x M10, 6 x M6 OT terminal
	SPD	10 kA differential mode, 20 kA common mode, 8/20 μs
Battery parameters	Battery Model	ESM-48100A7
	Battery capacity	100Ah
	Battery material type	LiFePO4
	Battery dimensions	442*396*130 mm
	Battery operating voltage	44~57 V DC
	Rated voltage	48V DC
	Maximum charging current	100 A @ 35°C
	Maximum discharge current	100 A
	Cycle performance	6000 @ 0.5C, 85% DOD, 70% EOL, 35°C
General parameters	Numbers per cabinet	10
	Dimensions (W x D x H)	900 mm × 1200 mm × 2100 mm
	Weight	<475 kg
	Operating temperature	-40°C to +55°C (without PV radiation) -40°C to +50°C (with PV radiation +120 W/m2)
	Storage temperature	-40°C ~ 70°C
	Cooling mode	DC air conditioner
	Altitude	0 ~ 5000m (The temperature is derating when the altitude ranges from 2000 m to 5000 m. The temperature decreases by 1°C for each additional 200 m)
	Relative humidity	5~95%, non-condensing
	Protection level	IP55
	Protection function	Low-voltage protection, over-voltage protection, over-current protection, over-temperature protection, short-circuit protection, and reverse connection protection
	Communication type	CAN, RS485, GPRS, IP
	Authentication certificate	CE, ROHS6

Indoor

1 15kW+30kWh



- 18kVA Inverter
- 16kW Battery charger
- 16kW Solar MPPT charger
- 28.8kWh Lithium battery
- 3*200Ah,0.5C,6500cycles

2 30kW+60kWh



- 36kVA Inverter
- 16kW Battery charger
- 32kW Solar MPPT charger
- 57.6kWh Lithium battery
- 6*200Ah,0.5C,6500cycles

3 60kW+120kWh



- 72kVA Inverter
- 32kW Battery charger
- 64kW Solar MPPT charger
- 115.2kWh Lithium battery
- 12*200Ah,0.5C,6500cycles

4 60kWh



- 57.6kWh Lithium battery
- 6*200Ah,0.5C,6500cycles
- optional

5 30kW



- 36kVA Hybrid inverter
- 16kW Battery charger
- 32kW Solar MPPT Charger

6 8kW-PVDU



Solar access capacity expansion:

- 8kW Solar MPPT Charger
- Optional

Outdoor

7 30kW+30kWh



- 36kVA Inverter
- 16kW Battery charger
- 32kW Solar MPPT charger
- 28.8kWh Lithium battery
- 6*100Ah,1C,6000cycles

8 60kW+60kWh



- 72kVA Inverter
- 32kW Battery charger
- 64kW Solar MPPT charger
- 57.6kWh Lithium battery
- 12*100Ah,1C,6000cycles

Remark:

1. Including: battery, inverter, battery charger, solar MPPT, bypass, AC SPD, EMS, D.G. controller, internal cables, communications module.
2. Common C&I: Typical average load PF ≥ 0.83 ; Data Center Equipment: Typical average load PF ~ 1 .
3. Local touch color screen is optional



South Africa: Huawei Office Park



- Seamless switch, 4~6 hours backup
- 0 D.G. running, no noise, no pollution
- 0 civil work, installation < 1 day

Nigeria: Apartment



- Solar hybrid, reduce 60% electricity bills
- Seamless, saving energy cost \$20k/Year
- 4~5 hours backup, installation < 1 day



Nigeria: Bank Branch (off grid)



- D.G. running: 12h/day → 5h/day
- Reduce 46% Energy Cost
- Seamless switch, 3~4 hours backup







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