



MPS microgrid series (400V)

MPS microgrid hybrid inverter

MPS0100/150-G3

Key strengths

- Internal integration PV interfaces, battery interfaces, load interfaces and grid interfaces
- Support single-phase and three-phase load power supply at the same time.
- Control power AC and DC redundant power supply, the system is more secure and reliable.
- Port message monitoring function, convenient for debugging and maintenance. Support remote monitoring and data analysis. Compatible with multiple battery BMS protocols.
- Small size, modular assembly, front-door maintenance, suitable for containerized design.
- Easy expansion, support PV flexible configuration.
- DC-coupled solution with 2% higher system efficiency.

Applications

» Off-grid mine

» Off-grid island

» Nomadic farm

» Villages without electricity

AC(on-grid)

Model	MPS0100-G3	MPS0150-G3
Max output power (kVA)	110	165
Rate output power (kW)	100	150
Rated voltage(V)	400	
Voltage range (V)	320~460	
Rated current (A)	144	216
Rated frequency (Hz)	50/60	
Frequency range (Hz)	45~55/55~65	
THDi	<3%	
Power factor	1lagging-1leading (Settable)	
AC connection	3W+N+PE	
Transformer ratio	270/400	270/400

AC(off-grid)

Max output power (kVA)	110	165
Rated power (kW)	100	150
Rated voltage (V)	400	
Rated current (A)	144	216
THDu	≤1% linear; or ≤5% nonlinear	
Rated frequency (Hz)	50/60	
Overload capacity	110% long-term, 120% 1min	

PV input

Max.PV input voltage (V)	1,000	
Max.PV power (kW)	120/180/240	120/180/240
MPPT module quantity	2/3/4	2/3/4
MPPT voltage range (V)	250-850	
MPPT voltage range@full load (V)	450-850	

Battery

Battery voltage range (V)	420~850	420~850
Max. charging power (kW)	120/180/240	120/180/240

General data

Dimension W*D*H (mm)	800*800*1,950	800*800*1,950
Net weight (kg)	970/1,000/1,030	1,100/1,130/1,160
Operation temperature (°C)	-30 ~ 55	
Relative humidity	0 ~95% non-condensing	
Ingress protection	IP20	
Noise emission (dB)	<70	
Operating altitude	<5000m(>3,000 Derating)	
Cooling	Air Cooling	

Display and communication

Display	LCD touch-screen
BMS communication	RS485, CAN
EMS communication	RS485, TCP/IP
Certificates	EN62109-1/-2, EN62477-1, EN61000-6-2, EN61000-6-4, South Africa NRS097-2-1:2017, Pakistan & India IEC61727, IEC62116, IEC 61683

MPS PV and battery configuration principles:

- > Boost mode configuration principle - open voltage at low temperature at the limit of PV installation * number of PV panels in series ≤ the lowest voltage of the battery-20V;
- > Buck mode configuration principle - the maximum power operating voltage at the extreme high temperature of PV installation ≥ the highest voltage of the battery+20V;
- > The PV and battery configurations of MPS must comply with the above configuration principles.