



# Microgrid Hybrid Inverter



## > APPLICATION AREA



Off-grid mine Off-grid island Nomadic farm Villages without electricity

MPS series hybrid inverters adopt an integrated design, integrating PV controllers, energy storage converters, and on/off-grid automatic switching units, which greatly improves customer deployment efficiency and reduces installation costs. PV capacity can be flexibly configured, which greatly improves system availability and is suitable for the remote areas and islands where power is relatively weak.

Support unattended, improve the operation and maintenance efficiency of the operator.

With Mixed economy mode.

## MPS Microgrid Series

### AC(on-grid)

Model	MPS0030	MPS0050	MPS0100	MPS0150	MPS0250	MPS0500
Max output power(kVA)	33	55	110	165	275	550
Rate output power(kW)	30	50	100	150	250	500
Rated voltage(V)			400			
Voltage range(V)			320~460			
Rated current(A)	43	72	144	216	361	722
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	100/400	200/400	270/400	270/400	270/400	315/400

### AC(off-grid)

Model	MPS0030	MPS0050	MPS0100	MPS0150	MPS0250	MPS0500
Max output power(kVA)	33	55	110	165	275	550
Rated power(kW)	30	50	100	150	250	500
Rated voltage(V)			400			
Rated current(A)	43	72	144	216	361	722
THDU			≤1% linear; or≤5% nonlinear			
Rated frequency(Hz)			50/60			
Overload capacity			110% long-term			

### PV input

Model	MPS0030	MPS0050	MPS0100	MPS0150	MPS0250	MPS0500
Max.PV input voltage(V)			1,000			
Max.PV power(kW)	36/72	60/120	120/180/240	120/180/240	300/360	600/660/720
MPPT voltage range(V)			250-850			
MPPT voltage range@full load (V)			450-850			

### Battery

Model	MPS0030	MPS0050	MPS0100	MPS0150	MPS0250	MPS0500
Battery voltage range(V)	250~850	320~850	420~850	420~850	420~850	500~850
Max. charging power(kW)	36/72	60/120	120/180/240	120/180/240	300/360	600/660/720

### General data

Model	MPS0030	MPS0050	MPS0100	MPS0150	MPS0250	MPS0500
Dimension W*D*H (mm)	800*800*1,900	800*800*1,900	1,200*800*2,050	1,200*800*2,050	(600*720*2,050)*1+ 1,200*800*2,050	(600*720*2,050)*2+ 1,600*1050*2,050
Net Weight (kg)	576/607	720/750	1,120/1,150/1,180	1,250/1,280/1,310	1,980/2,010	3,265/3,295/3,325
Operation temperature (°C)			-30 ~ 55			
Relative humidity			0 ~95% non-condensing			
Ingress protection			IP20			
Noise emission (dB)			<70			
Operating altitude			5,000m(>3,000 Derating)			
Cooling			Air Cooling			

### Display and communication

Model	MPS0030	MPS0050	MPS0100	MPS0150	MPS0250	MPS0500
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;
- > Buck mode configuration principle - the maximum power operating voltage at the extreme high temperature of PV installation ≥ the highest voltage of the battery;
- > The PV and battery configurations of MPS must comply with the above configuration principles.