

PV+ESS integrated machine



Villages without electricity



Off-grid island



Nomadic farm



Off-grid mine

Product features:

- Friendly flexible**
- Various working modes can be set flexibly;
 - PV controller modular design, easy to expand;

- Abundant configuration**
- Integrated design, easy to integrate;
 - Support simultaneous access of load, battery, power grid, diesel and PV;
 - Built-in maintenance bypass switch, improve system availability;

- Safe and reliable**
- Built-in isolation transformer for high load adaptability;
 - Perfect protection function for inverter and battery;
 - Redundancy design for important functions;

- Intelligent and efficient**
- Support battery capacity and discharge time prediction;
 - Smooth switching between on and off grid, uninterrupted supply of load;
 - Operate with EMS to monitor system status in real time

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;

Technical specification	MPS0030	MPS0050	MPS0100	MPS0150	MPS0250	MPS0500
AC(on-grid) *						
Max output power(kVA)	33	55	110	165	275	550
Rated power(kW/ kVA)	30	50	100	150	250	500
Rated voltage(V)	400					
Rated current (A)	43	72	144	216	361	722
Voltage range(V)	320~460					
Rated frequency (Hz)	50/60					
Frequency range(Hz)	45~55/55~65					
THDi	<3%					
Power factor	1lagging~1leading					
AC connection	3W+N+PE					
Transformer ratio	100/400	200/400	270/400	270/400	270/400	315/400
AC(Off Grid)						
Max output power(kVA)	33	55	110	165	275	550
Rated power(kW/kVA)	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					
Photovoltaic input						
Max.PV input voltage(V)	1,000					
Max.PV power(kW)	60kW per MPPT		60kW per MPPT		60kW per MPPT	60kW per MPPT
MPPT voltage range(V)	250-850					
Isc	130A per MPPT		130A per MPPT		130A per MPPT	130A per MPPT
Imax	120A per MPPT		120A per MPPT		120A per MPPT	120A per MPPT
MPPT voltage range @full load (V)	450-850					
No. of MPPT **	1~2		2~4		5~6	10~12
Battery						
Battery type	Lithium-ion					
Battery voltage range(V)	250~850	320~850	420~850	420~850	420~850	500~850
Max. charging power(kW)	120	120	240	240	360	720
General data						
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+ 2,800*1050*2,050
Weight(kg)	620/650	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	-10°C ~ 50°C					
Relative humidity	0 ~95% non-condensing					
Ingress protection	IP20					
Noise emission(dB)	<70dB					
Altitude	5,000m(>3,000 Derating)					
Cooling	Air Cooling					
Efficiency	95%	96.5%	96.8%	96.8%	97%	97.5%
Display and communication			LCD touch-screen			
Display			RS485, CAN			
BMS communication			RS485, TCP/IP			
EMS communication			TUV,CE			

* The AC grid port must be connected to a generator only for Australian Market, because the inverters are not certified to AS/NZS 4777.2:2020.
** The number of MPPT can be customized within the range.
*** Made in China