



Off-grid PV Controller & Inverter

SPO-M Series (20~120kVA)

- » 3 in 1 integrated off-grid system
- » Innovative hybrid system
- » Intelligent energy management system
- » Efficient and flexible

Efficient and Flexible:

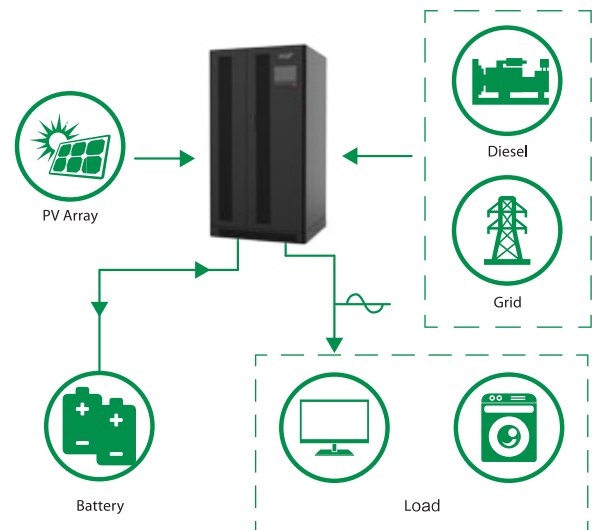
- Wide MPPT range 420~850V
- MPPT efficiency up to 99.8%
- Three phase output isolation transformer support 100% unbalanced load
- Hot-swap MPPT modules, flexible configuration and expansion
- Front access, easy for installation and maintenance
- Integrated design, less initial investment and footprint, lower maintenance cost

Excellent Performance:

- PV controller+AC charger+inverter, 3 in 1 integrated system
- Intelligent EMS achieves smart energy control among Solar, Battery, Grid and Gen-set
- Multi-MPPT tracking function, up to 3 strings, fulfill various application conditions
- Comprehensive central monitoring on MPPT module/utility/inverter parameters

High Reliability:

- Full alarm and protection design
- Advanced no-master-slave parallel technology (optional)
- Unique air tunnel design, increase cooling efficiency and operation lifetime
- High quality components maximize service life



Smart Management:

- RS485 Modbus communication, easy monitoring
- Intelligent BMS enable longer battery lifespan
- User-friendly touch screen provides extensive monitor and control
- 8+6 dry contact communication signal

Technical Specification:

Items	SPO3320~3360-M075~150				SPO3380~33120-M150~225			
Input Features - PV								
MPPT Voltage (Vdc)	420~850							
MPPT Tracking Precision (Max.)	≥99.8%							
MPPT String	1 / 2				2 / 3			
MPPT Current (A)	75 / 150				150 / 225			
Input Features - Battery								
Rated Voltage (Vdc)	348							
Battery Type	Lead-acid or Li battery							
Input Features - AC (Charger Option)								
Rated Input Voltage (Vac)	380/400/415 (L-L)							
Input Voltage Range (Vac)	±25%							
Phase	Three phase four line + 3φ4W + PE							
Input Frequency (Hz)	40~70							
AC Charge Current (A)	10~20 (settable)				10~30 (settable)			
Output Features								
Rated Power (kVA)	20	30	40	50	60	80	100	120
Power Factor	0.8							
Voltage (Vac)	380/400/415±1%							
Frequency (Hz)	Synchronize bypass input (Bypass normal); 50/60 ±0.1% (Bypass abnormal)							
Wave Form	Sine wave, THD<2% (Linear load)							
Transfer Time (ms)	<1ms (Switch from inverting mode to bypass mode); 0ms (Switch from bypass mode to inverting mode)							
Environment								
Operating Temperature (°C)	-5~40							
Storage Temperature (°C)	-20~+55							
Relative Humidity	0%~95% (no condensation)							
Noise (dB)	<65							
Standard								
EMC	IEC 62040-2 CLASS C3							
Safety Standard	IEC 60905-1, IEC 62040-1-1, UL1778							
Design and Test	IEC 62040-3							
Mechanical Feature								
Dimensions (HxWxD)(mm)	850x800x1600				1050x800x1800			
Weight (kg)	360	380	520	570	590	740	760	780
Other Features								
Warning & Protection	INV fault, Battery low voltage, Overload, Short circuit, Over-temp, Bypass abnormal etc.							
Communication	Support MODBUS (RS485), Dry Contact Communication.							

- Specifications are subject to change without prior notice.