

LOW FREQUENCY SPLIT PHASE SOLAR INVERTER

PV3900 TLV Series

8~12KW | PV 250V | MPPT 200A



Powerful Off-Grid Performance

8~12 kW low-frequency design for heavy-load applications.

Efficient Solar Charging

200A MPPT, up to 98% efficiency, supports 250V PV input.

Smart Control & Monitoring

Smart LCD with adjustable settings and optional WiFi monitoring.

Lithium Battery Compatibility

Built-in BMS with DC start and self-diagnostic functions.

Expandable & Generator-Ready

Supports parallel operation of up to 3 units and generator compatibility.

MAIN PARAMETER

MODEL	PV39-8048 TLV	PV39-10048 TLV	PV39-12048 TLV
Nominal Battery System Voltage		48VDC	
Stand-alone mode		Yes	
Parallel operation		3 units	
INVERTER OUTPUT			
Rated power	8KW	10KW	12KW
Surge rating	24000VA	30000VA	36000VA
Capable of starting electric motor	4HP	5HP	6HP
Nominal output voltage RMS	100V/110V/120V/200V/220V/240V		
Inverter efficiency(peak)	>90%		
Line mode efficiency	>95%		
Power factor	1.0		
Typical transfer time	10ms(max)		
AC INPUT			
Voltage	220V/230V/240V		
Selectable voltage range	90-280 VAC (APL)		
Frequency range	50Hz / 60Hz		
BATTERY			
Low battery voltage cutoff	40-48VDC for 48VDC mode		
Low battery voltage recover	42-50VDC for 48VDC mode		
High battery voltage cutoff	60VDC for 48VDC mode		
High battery voltage recover	57VDC for 48VDC mode		
No-load loss	<50W		
AC CHARGER			
Output voltage	Depends on battery type (Supports lead-acid, gel, and lithium batteries)		
Charger AC input breaker rating	100A		
Overcharge protection S.D.	62.8VDC for 48VDC mode		
Maximum charge current	10~100A	10~120A	10~140A
BTS			
Continuous output power	Yes Variances in charging voltage & S.D. voltage base on the battery temperature		
BYPASS & PROTECTION			
Nominal input frequency	50Hz or 60Hz		
Overload protection (SMPS Load)	Software + Circuit breaker		
Output short circuit protection	Software + Circuit breaker		
Bypass breaker rating	63A		
Max bypass current	80A		
SOLAR CHARGER			
Maximum PV charge current	200A		
DC voltage	48V		
Maximim PV array power	10000W	10000W	10000W
MPPT range @ operating voltage(VDC)	64~235VDC		
Maximum PV array open circuit voltage	250VDC		
Maximum efficiency	>98%		
Standby power consumption	<2W		

OTHER PARAMETER

MODEL	PV39-8048 TLV	PV39-10048 TLV	PV39-12048 TLV
MECHANICAL SPECIFICATIONS			
Packing	Wooden box		
Machine Dimension (W*H*D)(mm)	439*660.5*233.2		
Package Dimension (W*H*D)(mm)	782*314.5*520.5		
N.W(kg)	55	62	69
G.W(kg)	73	80	87
OTHER			
Operation temperature range	0°C to 50°C		
Storage temperature	15°C to 60°C		
Audible noise	60dB MAX		
Communication	WiFi		
Display	LED+LCD		
Standard Warranty	2 year		

CERTIFICATION & STANDARDS

CE-LVD (IEC62109-1:2010, EN IEC62109-2:2011); UL1741