

LOW FREQUENCY SOLAR INVERTER
PV3900 TLV Series

12KW | 250V | 200A

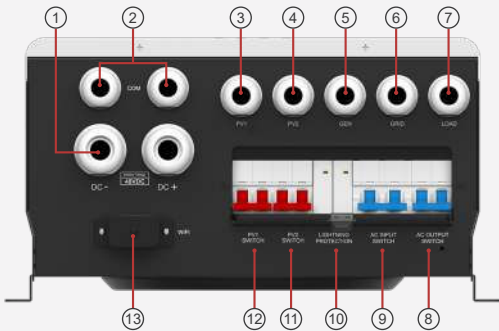
PV3900 TLV series is a multi-function inverter ,combining functions of inverter and MPPT solar charge controller, solar charger and battery charger to offer uninterruptible power support. The comprehensive LCD display offers user-configurable and easy-accessible button operation such as battery charging current, AC/solar charger priority, and selectable input voltage based on different applications.



- Smart LCD setting(Working modes, Charge Current, Charge voltage, etc.)
- Built-in MPPT solar charge controller 200A
- MPPT efficiency max 98%
- Powerful charge rate up to 200A
- Inside BMS function
- DC start &Automatic Self-Diagnostic Function
- WIFI monitoring function (optional)
- Compatible to generator
- Parallel operation with up to 3 units



Back panel description



1. Battery -/+

2. Communication port

3. PV input 1

4. PV input 2

5. GEN port

6. Grid port

7. AC ouput
8. AC output switch

9. AC input switch

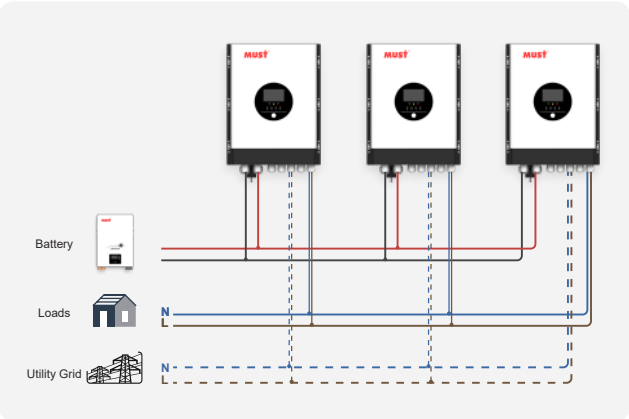
10. Lighting protection

11. PV2 Switch

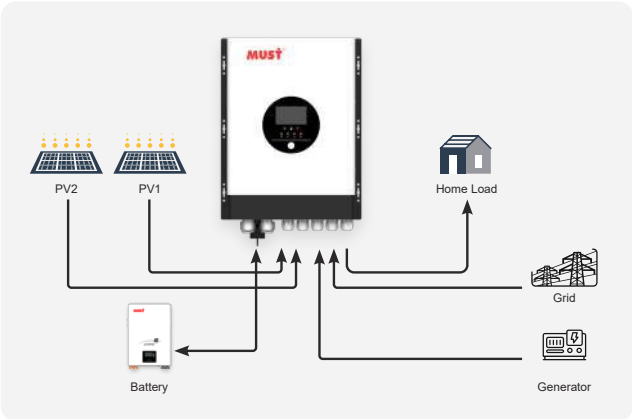
12. PV1 Switch

13. WiFi port

Parallel operation



Solar system connection



MODEL	PV3900-12048TLV
Nominal Battery System Voltage	48VDC
Stand-alone mode	Yes
Parallel operation	3 units
INVERTER OUTPUT	
Rated power	12.0KW
Surge rating	36000VA
Capable of starting electric motor	6HP
Waveform	Pure sine wave / same as input (bypass mode)
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	20ms(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
Idle consumption-search mode	<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	10-140A (setting) battery terminal
BTS	
Continuous output power	Yes Variances in charging voltage & S.D. voltage base on the battery temperature
BYPASS & PROTECTION	
Input voltage waveform	Sine wave (grid or generator)
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
MPPT range @ operating voltage(VDC)	64~235VDC
Maximum PV array open circuit voltage	250VDC
Maximum efficiency	>98%
Standby power consumption	<2W
MECHANICAL SPECIFICATIONS	
Mounting	Wall mount
Packing	Wooden box
Dimensions (W*H*D)	439*570*233mm
Package Dimensions (W*H*D)	690*214*520mm
N.W	42kg
G.W	47kg
Warranty	1years
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
CERTIFICATION & STANDARDS	
CE-LVD (IEC62109-1:2010, EN IEC62109-2:2011); UL1741	