

Low Frequency Solar Inverter

PV3000 LVHM Series (1KW-6KW AC120V)



Features

- Pure sine wave output
- Friendly user interface
- 3 Steps charging
- MFD (multi-function display)
- Overload and short-circuit protection
- Set charging voltage/charging current.
- Battery low voltage shutdown point can be set to 10\10.5\11V
- Power-save mode
- Set utility priority/ Battery priority
- Set utility input wide/narrow range
- Inverter voltage can be set to 120V:110V\115V\120V
- Inverter frequency can be set to 50/60Hz
- Set utility charging on/off switch
- 80A MPPT charger

Introduction

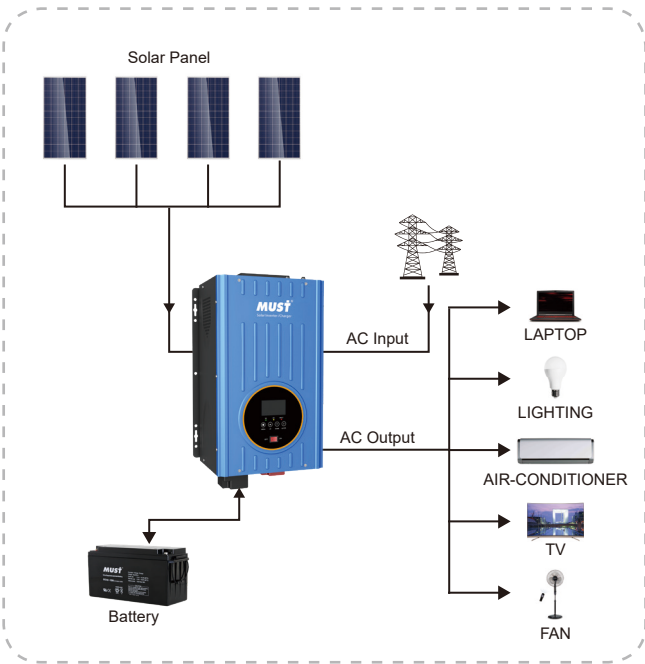
PV3000 LVHM series is very economical pure sine wave solar inverter, AC voltage 110V/120V, AC charger inbuilt, from 20A to 60A; MPPT solar charger 80A inbuilt; Solar/AC priority is configurable, when setting solar priority, solar will charge batteries as first priority, and AC can also charge batteries when solar charger current is not enough, it enables inverter to operate with all kinds of home appliances, widely selling to Latin America.

Back panel printing description

1. LCD display
2. AC LED
3. INV LED
4. Fault
5. Menu
6. UP
7. Down
8. Enter
9. Switch ON/OFF

1. BAT -
2. BAT +
3. USB
4. Remote port
5. FAN
6. Charger input protect
7. Inverter output protect
8. GND
9. AC input
- 10.AC output
- 11.AGS
- 12.BTS
- 13.AC Output 10A(MAX)
- 14.PV input

Solar system connection



Specification

| MODEL                          |                                       |      | PV30-1KW<br>LVHM                                                      |       | PV30-1.5KW<br>LVHM |       | PV30-2KW<br>LVHM |       | PV30-3KW<br>LVHM |                                  | PV30-4KW<br>LVHM |                     | PV30-5KW<br>LVHM |                | PV30-6KW<br>LVHM |  |      |  |      |  |
|--------------------------------|---------------------------------------|------|-----------------------------------------------------------------------|-------|--------------------|-------|------------------|-------|------------------|----------------------------------|------------------|---------------------|------------------|----------------|------------------|--|------|--|------|--|
| Nominal Battery System Voltage |                                       |      | 12VDC                                                                 | 24VDC | 12VDC              | 24VDC | 12VDC            | 24VDC | 24VDC            | 48VDC                            | 24VDC            | 48VDC               | 48VDC            |                | 48VDC            |  |      |  |      |  |
| INVERTER<br>OUTPUT             | Rated Power                           |      | 1 KW                                                                  |       | 1.5 KW             |       | 2 KW             |       | 3 KW             |                                  | 4 KW             |                     | 5 KW             |                | 6 KW             |  |      |  |      |  |
|                                | Surge Rating                          |      | 3000VA                                                                |       | 4500VA             |       | 6000VA           |       | 9000VA           |                                  | 12000VA          |                     | 15000VA          |                | 18000VA          |  |      |  |      |  |
|                                | Capable Of Starting Electric Motor    |      | 1HP                                                                   |       | 1HP                |       | 1.5HP            |       | 1.5HP            |                                  | 2HP              |                     | 3HP              |                |                  |  |      |  |      |  |
|                                | Waveform                              |      | Pure sine wave \ same as input (bypass mode)                          |       |                    |       |                  |       |                  |                                  |                  |                     |                  |                |                  |  |      |  |      |  |
|                                | Nominal Output Voltage RMS            |      | 110V \ 115V \ 120VAC(±10% RMS)                                        |       |                    |       |                  |       |                  |                                  |                  |                     |                  |                |                  |  |      |  |      |  |
|                                | Output Frequency                      |      | 50Hz \ 60Hz ±0.3Hz                                                    |       |                    |       |                  |       |                  |                                  |                  |                     |                  |                |                  |  |      |  |      |  |
|                                | Inverter Efficiency (Peak)            |      | >88%                                                                  |       |                    |       |                  |       |                  |                                  |                  |                     |                  |                |                  |  |      |  |      |  |
|                                | Line Mode Efficiency                  |      | >95%                                                                  |       |                    |       |                  |       |                  |                                  |                  |                     |                  |                |                  |  |      |  |      |  |
|                                | Power Factor                          |      | 1.0                                                                   |       |                    |       |                  |       |                  |                                  |                  |                     |                  |                |                  |  |      |  |      |  |
|                                | Typical Transfer Time                 |      | 10ms(max)                                                             |       |                    |       |                  |       |                  |                                  |                  |                     |                  |                |                  |  |      |  |      |  |
| AC<br>INPUT                    | Voltage                               |      | 110\120VAC                                                            |       |                    |       |                  |       |                  |                                  |                  |                     |                  |                |                  |  |      |  |      |  |
|                                | Selectable Voltage Range              |      | 95~135VAC (For personal computers)                                    |       |                    |       |                  |       |                  |                                  |                  |                     |                  |                |                  |  |      |  |      |  |
|                                | Frequency Range                       |      | 50Hz \ 60Hz(Auto sensing) 40~80Hz                                     |       |                    |       |                  |       |                  |                                  |                  |                     |                  |                |                  |  |      |  |      |  |
| BATTERY                        | Minimum Start Voltage                 |      | (10V \ 10.5V \ 11V )+0.5V for 12VDC mode (*2 for 24VDC, *4 for 48VDC) |       |                    |       |                  |       |                  |                                  |                  |                     |                  |                |                  |  |      |  |      |  |
|                                | Low Battery Alarm                     |      | (10V \ 10.5V \ 11V )+0.5V for 12VDC mode (*2 for 24VDC, *4 for 48VDC) |       |                    |       |                  |       |                  |                                  |                  |                     |                  |                |                  |  |      |  |      |  |
|                                | Low Battery Cut Off                   |      | 10V \ 10.5V \ 11V for 12VDC mode (*2 for 24VDC, *4 for 48VDC)         |       |                    |       |                  |       |                  |                                  |                  |                     |                  |                |                  |  |      |  |      |  |
|                                | High Voltage Alarm                    |      | (13.8-14.5V)+1V for 12VDC mode (*2 for 24VDC, *4 for 48VDC)           |       |                    |       |                  |       |                  |                                  |                  |                     |                  |                |                  |  |      |  |      |  |
|                                | High Battery Voltage Recover          |      | (13.8-14.5V)+0.5V for 12VDC mode (*2 for 24VDC, *4 for 48VDC)         |       |                    |       |                  |       |                  |                                  |                  |                     |                  |                |                  |  |      |  |      |  |
|                                | Idle Consumption-Search Mode          |      | Load ≤50±20W(120V)                                                    |       |                    |       |                  |       |                  |                                  |                  |                     |                  |                |                  |  |      |  |      |  |
| CHARGER                        | Output Voltage                        |      | Depends on battery type                                               |       |                    |       |                  |       |                  |                                  |                  |                     |                  |                |                  |  |      |  |      |  |
|                                | Charge AC Input Breaker Rating        | 120V | 1K\12A                                                                |       | 1.5K\16A           |       | 2K\30A           |       | 3K\40A           |                                  | 4-6K\63A         |                     |                  |                |                  |  |      |  |      |  |
|                                | Overcharge Protection S.D.            |      | 15.7VDC for 12VDC mode (*2 for 24VDC mode, *4 for 48VDC mode)         |       |                    |       |                  |       |                  |                                  |                  |                     |                  |                |                  |  |      |  |      |  |
|                                | Maximum Charge Current                |      | 30A                                                                   | 20A   | 45A                | 25A   | 60A              | 30A   | 40A              | 20A                              | 60A              | 30A                 | 35A              | 40A            |                  |  |      |  |      |  |
| BYPASS<br>&<br>PROTECTION      | Input Voltage Waveform                |      | Sine wave (grid or generator)                                         |       |                    |       |                  |       |                  |                                  |                  |                     |                  |                |                  |  |      |  |      |  |
|                                | Nominal Input Frequency               |      | 50Hz or 60Hz                                                          |       |                    |       |                  |       |                  |                                  |                  |                     |                  |                |                  |  |      |  |      |  |
|                                | Overload Protection (SMPS Load)       |      | Circuit breaker                                                       |       |                    |       |                  |       |                  |                                  |                  |                     |                  |                |                  |  |      |  |      |  |
|                                | Output Short Circuit Protection       |      | Circuit breaker                                                       |       |                    |       |                  |       |                  |                                  |                  |                     |                  |                |                  |  |      |  |      |  |
|                                | Bypass Breaker Rating                 | 120V | 1K\16A                                                                |       | 1.5K\20A           |       | 2K\30A           |       | 3K\40A           |                                  | 4-6K\63A         |                     |                  |                |                  |  |      |  |      |  |
|                                | Max Bypass Current                    |      | 30Amp                                                                 |       |                    |       |                  |       |                  |                                  |                  |                     |                  |                |                  |  |      |  |      |  |
| SOLAR<br>CHARGER               | Maximum PV Array Power                |      | 1250W                                                                 | 2500W | 1250W              | 2500W | 1250W            | 2500W | 2500W            | 5000W                            | 2500W            | 5000W               | 5000W            | 5000W          | 5000W            |  |      |  |      |  |
|                                | Maximum PV Charge Current             |      | 80A±4A                                                                |       |                    |       |                  |       |                  |                                  |                  |                     |                  |                |                  |  |      |  |      |  |
|                                | DC Voltage                            |      | 12V \ 24V auto work                                                   |       |                    |       |                  |       |                  |                                  |                  | 24V \ 48V auto work |                  |                |                  |  |      |  |      |  |
|                                | MPPT Range @ Operating Voltage        |      | 16~95VDC @ 12V \ 30~130VDC @ 24V                                      |       |                    |       |                  |       |                  | 30~130VDC @ 24V \ 60~130VDC @48V |                  |                     |                  | 60~130VDC @48V |                  |  |      |  |      |  |
|                                | Maximum PV Array Open Circuit Voltage |      | 145VDC                                                                |       |                    |       |                  |       |                  |                                  |                  |                     |                  |                |                  |  |      |  |      |  |
|                                | Standby Power Consumption             |      | <2W                                                                   |       |                    |       |                  |       |                  |                                  |                  |                     |                  |                |                  |  |      |  |      |  |
| MECHANICAL<br>SPECIFICATIONS   | Mounting                              |      | Wall Mount                                                            |       |                    |       |                  |       |                  |                                  |                  |                     |                  |                |                  |  |      |  |      |  |
|                                | Dimensions (W*H*D)                    |      | 423*247*197mm                                                         |       |                    |       |                  |       |                  |                                  |                  | 597*247*197mm       |                  |                |                  |  |      |  |      |  |
|                                | Net Weight (Solar CHG)(kg)            |      | 17.2                                                                  |       | 17.7               |       | 21.8             |       | 20.7             |                                  | 25.2             |                     | 25.5             |                | 38.9             |  | 36.5 |  | 42.5 |  |
|                                | Shipping Dimensions (W*H*D)           |      | 585*387*322mm                                                         |       |                    |       |                  |       |                  |                                  |                  | 758*387*322mm       |                  |                |                  |  |      |  |      |  |
|                                | Shipping Weight (Solar CHG)(kg)       |      | 20                                                                    |       | 20.7               |       | 24.8             |       | 23.5             |                                  | 28.2             |                     | 28.2             |                | 43               |  | 40.7 |  | 45   |  |
| OTHER                          | Operation Temperature Range           |      | 0℃ to 40℃                                                             |       |                    |       |                  |       |                  |                                  |                  |                     |                  |                |                  |  |      |  |      |  |
|                                | Storage Temperature                   |      | -15℃ to 60℃                                                           |       |                    |       |                  |       |                  |                                  |                  |                     |                  |                |                  |  |      |  |      |  |
|                                | Audible Noise                         |      | 60dB MAX                                                              |       |                    |       |                  |       |                  |                                  |                  |                     |                  |                |                  |  |      |  |      |  |
|                                | Display                               |      | LED+LCD                                                               |       |                    |       |                  |       |                  |                                  |                  |                     |                  |                |                  |  |      |  |      |  |
|                                | Standard Warranty                     |      | 1 year                                                                |       |                    |       |                  |       |                  |                                  |                  |                     |                  |                |                  |  |      |  |      |  |