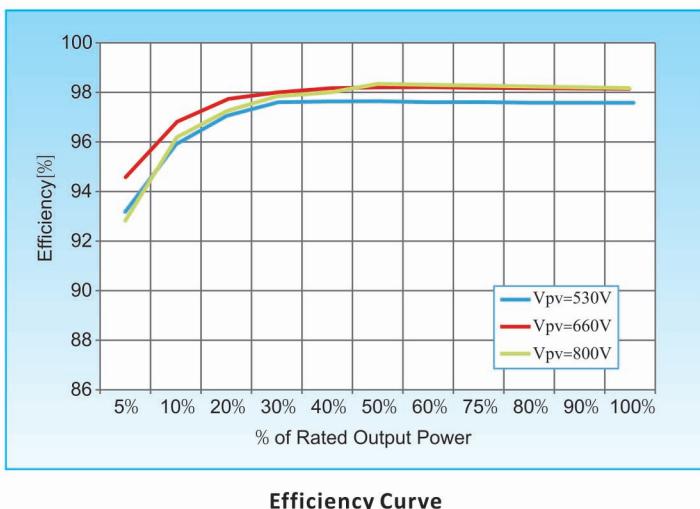


# 50-70KW Three Phase Inverter (Three MPPT)

SOFAR 50000TL/60000TL/70000TL-HV



## High-yield

- Max 98.6% efficiency
- Real time precise MPPT algorithm for max harvest
- Wide input voltage operation range from 250V to 960V

## All in one, flexible and economical system solution

- DC switch
- DC surge protection device
- AC surge protection device (option)
- Built-in PV Combiner
- Power management unit
- Optimum selection for big PV plants, commercial buildings...

## Low maintenance cost

- Detachable cover for easy installation
- Rust-free aluminum covers
- Flexible monitoring solution
- Multi function relay can be configured to show various inverter information

## Intelligent grid management

- ZVRT support
- Reactive power adjustable
- Self power reducer when over frequency
- Remote active/reactive power limit control

# Mass Energy Inverter

## Three Phase Inverter

50000TL/60000TL/70000TL-HV



### Datasheet

SOFAR  
50000TL

SOFAR  
60000TL

SOFAR  
70000TL-HV

#### Input(DC)

|                               |                   |                   |                   |
|-------------------------------|-------------------|-------------------|-------------------|
| Max.Input power               | 55000W            | 66000W            | 77000W            |
| Max DC power for single MPPT  | 22000W(500V-800V) | 22000W(530V-800V) | 26000W(660V-800V) |
| Number of independent MPPT    |                   | 3                 |                   |
| Number of DC inputs           | 4/3/3             |                   | 4/4/4             |
| Max. input voltage            |                   | 1000V             |                   |
| Start-up input voltage        |                   | 250V              |                   |
| Rated input voltage           | 600V              | 600V              | 700V              |
| MPPT voltage range            |                   | 250V-960V         |                   |
| Full load DC voltage range    | 500V-800V         | 530V-800V         | 660V-800V         |
| Max. input MPPT current       | 40A/30A/30A       | 40A/40A/40A       | 40A/40A/40A       |
| Max. input current per string |                   | 12A               |                   |

#### Output(AC)

|                               |                        |   |   |
|-------------------------------|------------------------|---|---|
| Rated power(@230V,50Hz)       | 50000W                 | 60000W  | 70000W                                    |
| Max. AC power                 | 50000VA                | 60000VA                                       | 70000VA                                   |
| Max. output current           | 80A                    | 90A   | 90A                                       |
| Nominal Grid Voltage          | 3/N/PE,3/PE,230/400Vac | 3/N/PE,3/PE,230/400Vac                        | 3/N/PE, 277/480Vac<br>OR 3/PE, 277/480Vac |
| Grid Voltage Range            | 180Vac-270Vac          | 180Vac-270Vac                                 | 245Vac-305Vac                             |
| Nominal Frequency             |                        | 50/60Hz                                       |   |
| Grid frequency range          |                        | 47~53 / 57~63Hz (According to local standard) |   |
| Active power adjustable range |                        | 0~100%  |   |
| THDi                          |                        | <3%   |   |
| Power factor                  |                        | 1(Adjustable +/-0.8)                          |   |

#### Performance

|                              |       |        |       |
|------------------------------|-------|--------|-------|
| Max efficiency               | 98.5% | 98.6%  | 98.6% |
| European weighted efficiency | 98.3% | 98.4%  | 98.4% |
| Self-consumption at night    |       | <1W    |       |
| Feed-in start power          |       | 45W    |       |
| MPPT efficiency              |       | >99.9% |       |

#### Protection

|  |  |
|--|--|
| DC reverse polarity protection         | Yes  |
| DC switch                              | Yes  |
| Protection class /overvoltage category | I/III  |
| Input/output SPD(II)                   | PV: type II standard, AC: type II optional   |
| Safety protection                      | Anti islanding, RCMU, Ground fault monitoring  |
| Certification                          | IEC 62116, IEC 61727, IEC 61683, IEC 61000, IEC 60068(1,2,14,30), IEC 62109-1/2 CE, CGC, ZVRT, AS4777, AS3100, VDE4105, C10-C11, G59 (more available on request) |
| ARPC                                   | Anti Reverse Power Controller(optional)  |

#### Communication

|                             |   |
|-----------------------------|---|
| Power management unit       | According to certification and request                |
| Standard Communication Mode | RS485, Wifi (optional), SD card, Multi-function relay |
| Operation Data Storage      | 25 years  |

#### General data

|                                   |                                    |
|-----------------------------------|------------------------------------|
| Ambient temperature range         | -30°C...+60°C(Above 45°C Derating) |
| Topology                          | Transformerless                    |
| Degree of protection              | IP65                               |
| Allowable relative humidity range | 0...100% no condensing             |
| Max.operating altitude            | 4000m                              |
| Noise                             | <60dB                              |
| Weight                            | 68kg                               |
| Cooling                           | Fan                                |
| Dimension                         | 737*713*297mm                      |
| Display                           | LCD display                        |
| Warranty                          | 10 years                           |



AS4777 G83/2 G59/3

CQC, IEC, VDE-AR-N4105 / VDE-0126, EMC, C10/11, EN50438, RD1669, CEI 0-21