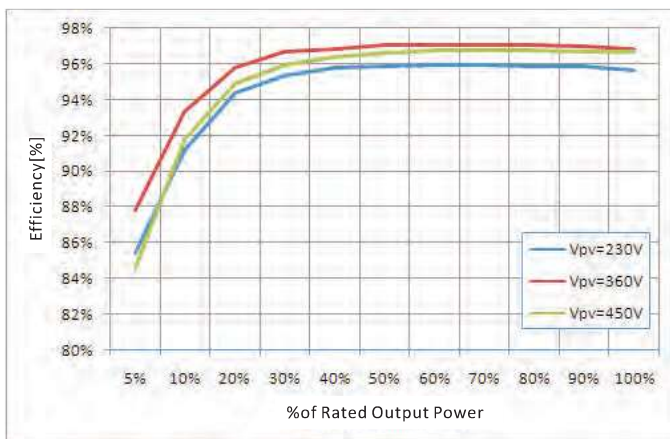


# 1-3KW Single Phase Inverter (Single MPPT)

SOFAR 1100TL/1600TL/2200TL/2700TL/3000TL



Efficiency Curve

## High-yield

- Max 97.2% efficiency
- Real time precise MPPT algorithm for max harvest
- Wide input voltage operation range

## All in one, flexible and economical system solution

- Free site selection due to IP65
- Easy installation and maintenance due to "Plug & Play" connection
- Interface selection – Wi-Fi / RS485 / GPRS
- 4" LCD display
- Built in zero export function (optional)

## Low maintenance cost

- Detachable cover for easy installation
- Rust-free Aluminum covers
- Flexible monitoring solution

## Intelligent grid management

- Reactive power capability
- Self power reducer when over frequency
- Remote active/reactive power limit control

# MASS ENERGY INVERTER Single Phase Inverter



1100TL/1600TL/2200TL/2700TL/3000TL

## Datasheet

SOFAR  
1100TL

SOFAR  
1600TL

SOFAR  
2200TL

SOFAR  
2700TL

SOFAR  
3000TL

### Input(DC)

Max.Input Power	1200W	1800W	2400W	2900W	3300W
Number of MPPT/String per MPPT	1/1				
Max. input voltage	450V		500V		
Start-up input voltage	100V		120V		
Rated input voltage	360V				
MPPT voltage range	80-450 V		100-500 V		
Full load DC voltage range	110-450 V	165-450 V	170-500 V	200-500 V	
Max. input current	10A		13A	13.5A	15A

### Output(AC)

Rated Power	1000W	1550W	2100W	2600W	3100W
Max.AC Power	1000VA	1550VA	2100VA	2600VA	3100VA
Max.AC Output Current	4.5A	7A	9.5A	11.5A	13A
Nominal Grid Voltage	230V				
Grid Voltage Range	180~270 V(According to local standard)				
Nominal Frequency	50/60Hz				
Grid frequency Range	47~53 / 57~63Hz (According to local standard)				
THDi	<3%				
Power factor	1 ( adjustable +/-0.8)				
Grid connection	Single phase				
Power Limit export	Zero export or adjustable power limit export				

### Efficiency

Max. efficiency	97%		97.1%		97.2%
Euro efficiency	95.2%	95.9%	96.1%	96.4%	96.5%
MPPT adaptation efficiency	>99.9%				

### Standard

EMC	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4				
Safety standards	IEC 62116, IEC 61727, IEC 61683, IEC 60068(1,2,14,30), IEC 62109-1/2				
Grid standards	AS 4777, VDE V 0124-100, VDE V 0126-1-1, VDE-AR-N 4105, EN50438, G83/2, C10/11, RD1699				

### Protection

Anti-Islanding Protection	Yes				
DC Reverse Polarity Protection	Yes				
Over Temp Protection	Yes				
Leakage Current Protection	Yes				
Over Voltage Protection	Yes				
Over Current Protection	Yes				
Earth Fault Protection	Yes				
SPD	MOV : Type III standard				

### Communication

Standard Communication Mode	WiFi, RS485, GPRS(optional), SD card (optional)				
Operation Data Storage	25 years				
I/O	Yes				

### General Date

DC Switch	optional				
Ambient temperature range	-25°C...+60°C				
Topology	Transformerless				
Cooling	Natural				
Allowable relative humidity range	0...100% no condensing				
Max.operating altitude	2000m				
Noise	<25db@1m				
Degree of Protection(per IEC 60529)	IP65				
Dimension	405*314*135mm				
Weight	11kg		12kg		
Self-consumption at night	<1w				
Display	LCD display				
Warranty	5 years/7 years/10 years				

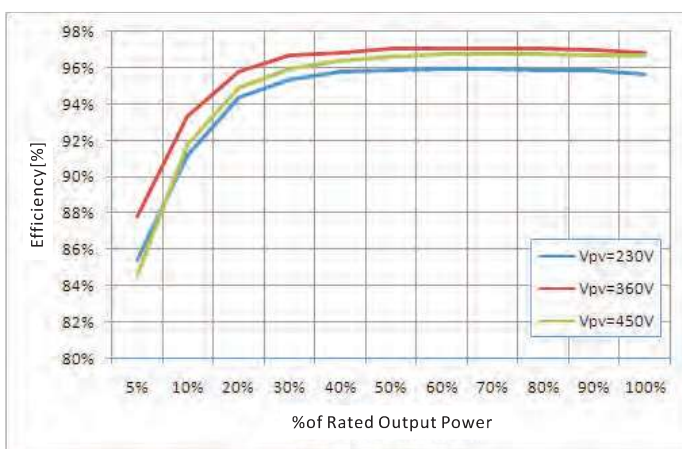


AS4777 G83/2 G59/3

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

# 3-6KW Single Phase Inverter (Dual MPPT)

3000TLM/3680TLM/4000TLM/4600TLM/5000TLM/6000TLM



Efficiency Curve

## High-yield

- Max 97.6% efficiency
- Real time precise MPPT algorithm for max harvest
- Wide input voltage operation range

## All in one, flexible and economical system solution

- Free site selection due to IP65
- Easy installation and maintenance due to "Plug & Play" connection
- Interface selection – Wi-Fi / RS485 / GPRS
- 4" LCD display
- Built in zero export function (optional)

## Low maintenance cost

- Detachable cover for easy installation
- Rust-free Aluminum covers
- Flexible monitoring solution

## Intelligent grid management

- Reactive power capability
- Self power reducer when over frequency
- Remote active/reactive power limit control

# MASS ENERGY INVERTER Single Phase Inverter



3000TLM/3680TLM/4000TLM/4600TLM/5000TLM/6000TLM

## Datasheet

SOFAR  
3000TLM

SOFAR  
3680TLM

SOFAR  
4000TLM

SOFAR  
4600TLM

SOFAR  
5000TLM

SOFAR  
6000TLM

### Input(DC)

Max.Input power	3300W	4000W	4400W	5000W	5500W	6600W
Max DC power for single MPPT	2000(200V-500V)	2400(200V-500V)	2600(200V-500V)	3000(200V-500V)		3150(250V-520V)
Number of independent MPPT	2					
Number of DC inputs	1 for each MPPT					
Max. input voltage	600V					
Start-up input voltage	100V	120V				
Rated input voltage	360V					
MPPT voltage range	80V-580V	100V-580V				
Full load DC voltage range	160V-520V	165V-520V			175V-520V	250V-520V
Max. input current per MPPT	10A/10A	12A/12A	13A/13A	15A/15A		
Input short circuit current for each MPPT	12A	14A	16A	18A		

### Output(AC)

Rated power	3000W	3680W	4000W	4600W	5000W	6000W
Max. AC power	3000VA	3680VA	4000VA	4600VA	5000VA	6000VA
Max. output current	13A	16A	17.5A	20A	22A	26A
Nominal Grid Voltage	230V					
Grid Voltage Range	180~270 V(According to local standard)					
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)					
Power Limit export	Zero export or adjustable power limit export					

### Performance

Max. efficiency	97.6%
Weighted eff. (EU/CEC)	97.1%/97.3%
Self-consumption at night	<1W
Feed-in start power	20W
MPPT efficiency	>99.9%

### Protection

DC reverse polarity protection	Yes
DC switch	optional
Protection class /overvoltage category	I/III
Input / output MOV (III)	Yes
Safety protection	Anti islanding, RCMU, Ground fault monitoring
Certification	IEC 62116, IEC 61727, IEC 61683, IEC 60068(1,2,14,30), IEC62109-1/2 CE, CGC, AS4777, AS3100, VDE 4105, C10-C11, G83/G59 (more available on request)
SPD	MOV : Type III standard

### Communication

Power management unit	According to certification and request
Standard Communication Mode	WiFi , RS485 , GPRS , SD card (optional)
Operation Data Storage	25 years

### General data

Ambient temperature range	-25°C...+60°C
Topology	Transformerless
Degree of protection	IP65
Allowable relative humidity range	0...100% no condensing
Max.operating altitude	2000m
Noise	<25dB
Weight	18kg   19kg
Cooling	Natural
Dimension	344*478*170mm
Display	LCD display
Warranty	5 years/7 years/10 years



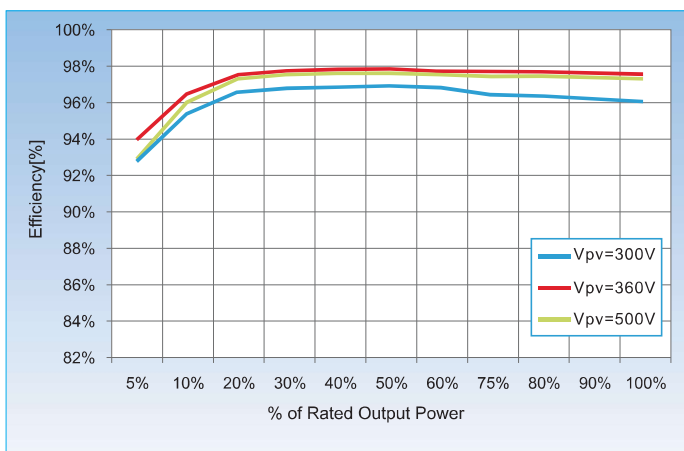
AS4777 G83/2 G59/3

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



# 3-7.5KW Single Phase Inverter (Dual MPPT)

3KTLM-G2/3.6KTLM-G2/4KTLM-G2/4.6KTLM-G2/  
5KTLM-G2/6KTLM-G2/7.5KTLM



Efficiency Curve

## High-yield

- Max 97.8% efficiency
- Real time precise MPPT algorithm for max harvest
- Wide input voltage operation range
- Independent dual MPPT tracking, better to adapt to the various roof power plant designs

## All in one, flexible and economical system solution

- Real-time monitoring using mobile phone APP
- Easy installation and maintenance due to "Plug & Play" connection
- RS485 and External WiFi/GPRS(Optional)
- Built-in sound and light alarm function
- Free site selection due to IP65

## Low maintenance cost

- Small size, lightweight
- Detachable cover for easy installation
- Rust-free Aluminum covers
- Flexible monitoring solution

## Intelligent grid management

- Reactive power capability
- Self power reducer when over frequency
- Remote active/reactive power limit control

# MASS ENERGY INVERTER Single Phase Inverter



3KTLM-G2/3.6KTLM-G2/4KTLM-G2/4.6KTLM-G2/5KTLM-G2/6KTLM-G2/7.5KTLM  
(New upgrade)

## Datasheet

SOFAR  
3KTLM-G2

SOFAR  
3.6KTLM-G2

SOFAR  
4KTLM-G2

SOFAR  
4.6KTLM-G2

SOFAR  
5KTLM-G2

SOFAR  
6KTLM-G2

SOFAR  
7.5KTLM

### Input(DC)

Max. Input power	3500W	4000W	4400W	5000W	5500W	6600W	8300W
Max DC power for single MPPT	2000W(160V-520V)	2400W(180V-520V)	2600W(200V-520V)	3000W(250V-520V)		3500W(300V-520V)	
Number of independent MPPT	2						
Number of DC inputs	1/1						2/1
Max. input voltage	600V						
Start-up input voltage	120V						
Rated input voltage	360V						
MPPT voltage range	90V-580V						
Full load DC voltage range	160V-520V	180V-520V	200V-520V	230V-520V	250V-520V	300V-520V	250V-520V
Max. input current per MPPT	11A/11A						2*11A/11A

### Output(AC)

Rated power	3000W	3680W	4000W	4600W	5000W	6000W	7500W
Max. AC power	3000VA	3680VA	4000VA	4600VA	5000VA	6000VA	7500VA
Max. output current	13.7A	16.8A	18.2A	21A	22.8A	27.3A	32.6A
Nominal Grid Voltage	L/N/PE, 220, 230, 240						
Grid Voltage Range	180~276 V(According to local standard)						
Nominal Frequency	50/60Hz						
Grid frequency range	47~55 / 54~66Hz (According to local standard)						
Active power adjustable range	0~100%						
THDi	<3%						
Power factor	1 (adjustable +/-0.8)						
Power Limit export	Zero export or adjustable power limit export						

### Performance

Max. efficiency	98.0%	98.2%
Weighted eff. (EU/CEC)	97.5%	97.6%
Self-consumption at night	<1W	
Feed-in start power	50W	
MPPT efficiency	>99.9%	

### Protection

DC reverse polarity protection	Yes
DC switch	optional
Protection class /overvoltage category	I/III
Input / output MOV (III)	Yes
Safety protection	Anti islanding, RCMU, Ground fault monitoring
Certification	NB/T32004-2013, AS4777, VDE0126-1-1, G83/2, G59/3, C10/11, RD1699/UTE15-712-1, EN50438, VDE-AR-N4105 IEC 62116, IEC 61727, IEC 61683, IEC 60068(1,2,14,30), IEC 62109-1/2
SPD	MOV : Type III standard

### Communication

Power management unit	According to certification and request
Standard Communication Mode	RS485 , WiFi/GPRS(optional) , SD card(optional)
Operation Data Storage	25 years

### General data

Ambient temperature range	-25°C~+60°C	-30°C~+60°C
Topology	Transformerless	
Degree of protection	IP65	
Allowable relative humidity range	0...100% no condensing	
Max. operating altitude	4000m	
Noise	<25dB	
Weight	11.5kg	18kg
Cooling	Natural convection	
Dimension	405*315*135mm	467*352*157mm
Display	LCD display	
Warranty	5 years / 7 years / 10 years	

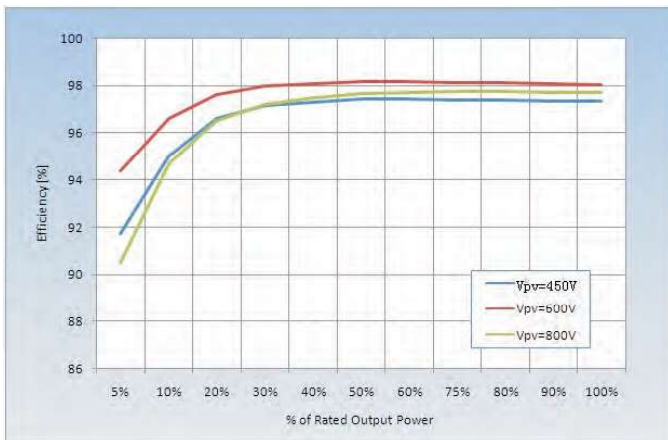


AS4777 G83/2 G59/3

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

# 3.3-12KW Three Phase Inverter (Dual MPPT)

SOFAR (3.3K/4.4K/5.5K/6.6K/8.8K/11K/12K) TL-X



Efficiency Curve

### High-yield

- Max 98.3% efficiency
- Real time precise MPPT algorithm for max harvest
- Wide input voltage operation range from 160V to 960V

### All in one, flexible and economical system solution

- DC switch
- 4 inch screen, English display
- Optimum selection for big PV plants, commercial buildings...

### Low maintenance cost

- High powered density
- Rust-free aluminum covers
- Flexible monitoring solution
- Small size, lightweight

### Intelligent grid management

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

# MASS ENERGY INVERTER Three Phase Inverter



3.3KTL-X/4.4KTL-X/5.5KTL-X/6.6KTL-X/8.8KTL-X/11KTL-X/12KTL-X

## Datasheet

SOFAR  
3.3KTL-X

SOFAR  
4.4KTL-X

SOFAR  
5.5KTL-X

SOFAR  
6.6KTL-X

SOFAR  
8.8KTL-X

SOFAR  
11KTL-X

SOFAR  
12KTL-X

### Input(DC)

Typical PV Power	3600W	4800W	6000W	7200W	9600W	12000W	14400W
Max DC power per MPPT	3600W(300V-850V)	4800W(440V-850V)	6000W(545V-850V)	7200W(660V-850V)	8800W(800V-850V)	8800W(800V-850V)	8800W(800V-850V)
Number of independent MPPT	2						
Number of DC inputs	1 for each MPPT						
Max. input voltage	1000V						
Start-up input voltage	180V						
Rated input voltage	600V						
MPPT voltage range	160V-960V						
Full load DC voltage range	190V-850V	190V-850V	240V-850V	290V-850V	380V-850V	480V-850V	575V-850V
Max. input current per MPPT	11A/11A						
Input short circuit current for each MPPT	14A						

### Output(AC)

Rated power	3000W	4000W	5000W	6000W	8000W	10000W	12000W
Max. AC power	3300VA	4400VA	5500VA	6600VA	8800VA	11000VA	13200VA
Max. output current	4.8A	6.4A	8.0A	9.6A	12.8A	15.9A	19.1A
Nominal Grid Voltage	3/N/PE,220/380		3/N/PE,230/400		3/N/PE,240/415		
Grid Voltage Range	184V-276V(According to local standard)						
Nominal Frequency	50/60Hz						
Grid frequency range	50Hz, +/-5Hz (According to local standard)						
Active power adjustable range	0~100%						
THDi	<3%						
Power factor	1 (adjustable +/-0.8)						

### Performance

Max. efficiency	98%	98.3%
Weighted eff. (EU/CEC)	97.5%	98%
Self-consumption at night	<1W	
Feed-in start power	45W	
MPPT efficiency	>99.9%	

### Protection

DC reverse polarity protection	Yes
DC switch	Yes
Safety protection	Anti islanding, RCMU, Ground fault monitoring
Certification	IEC 62116, IEC 61727, IEC 61683, IEC 60068(1,2,14,30), IEC 62109-1/2 CE, CGC, AS4777, AS3100, VDE4105, C10-C11, G83/G59 (more available on request)
ARPC	Anti Reverse Power Controller(optional)

### Communication

Power management unit	According to certification and request
Standard Communication Mode	wifi (optional), GPRS(optional), SD card, RS485
Operation Data Storage	25 years

### General data

Ambient temperature range	-25°C...+60°C	
Topology	Transformerless	
Degree of protection	IP65	
Allowable relative humidity range	0...100% no condensing	
Max. operating altitude	2000m	
Noise	<29dB	
Weight	21kg	22kg
Cooling	Natural	
Dimension	483*452*200mm	
Display	LCD display	
Warranty	5 years / 7 years / 10 years	



AS4777 G83/2 G59/3

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