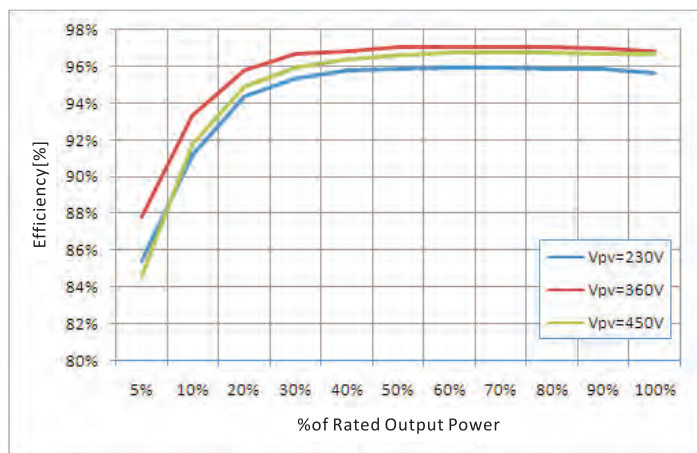


# 1-3KW Single Phase Inverter (Single MPPT)

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),IEC62109-1/2				
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*135 mm				
Weight	11kg		12kg		
Self-consumption at night	<1w				
Display	LCD display				
Warranty	5 years/7 years/10 years				

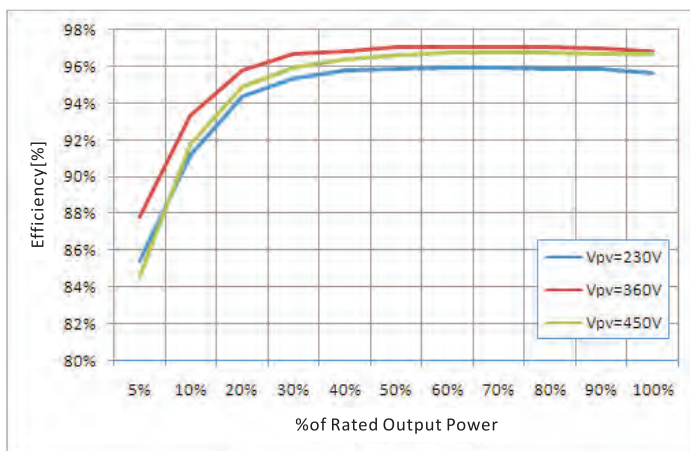


AS4777 G83/2 G59/3

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

# 1-3KW-G3 Single Phase Inverter (Single MPPT)

1100TL-G3/1600TL-G3/2200TL-G3/2700TL-G3/3300TL-G3



Efficiency Curve

## High-yield

- Max 97.7% 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
- 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-G3 / 1600TL-G3 / 2200TL-G3 / 2700TL-G3 / 3300TL-G3

## Datasheet

SOFAR  
1100TL-G3

SOFAR  
1600TL-G3

SOFAR  
2200TL-G3

SOFAR  
2700TL-G3

SOFAR  
3300TL-G3

### Input(DC)

	1100W	1600W	2200W	2700W	3300W
Max DC Power	1500W	2200W	3000W	3700W	4500W
Max input voltage	500V			550V	
Auxiliary open voltage	60V				
Start-up input voltage	70V				
Rate input voltage	360V				
MPPT voltage range	50-500V			50-550V	
Full load DC voltage range	110-450V	150-450V	200-450V	250-500V	300-500V
Max input current MPPT	12A				
Input short current	15A				
Number of MPPT/ String per MPPT	1/1				
Input terminal type	MC4/H4				

### Output(AC)

	1100W	1600W	2200W	2700W	3300W
Rated power	1100W	1600W	2200W	2700W	3300W
Max AC power	1100VA	1600VA	2200VA	2700VA	3300VA
Rated output current	4.8A	7A	9.6A	11.8A	13A
Max output current	5.3A	7.7A	10.6A	13A	16A
Nominal Grid Voltage	220Vac/230Vac(Single phase)				
Grid Voltage Range	180-276Vac(According to local standard)				
Nominal Frequency	50Hz/60Hz				
Grid Frequency range	45~55Hz/54~66Hz(According to local standard)				
Active power adjustable range THDi	< 3%				
Power factor	1(adjustable+/-0. 8)				

### Efficiency

Max. efficiency	97.7%
Weighted eff. (EU/CEC)	97.2%

### 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), IEC62109-1/2
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	Rs485, WiFi/GPRS/Ethernet(optional), USB
Operation Data Storage	25 years

### General Date

Topology	Transformerless
Ambient temperature range	-25...+60°C
Allowable relative humidity range	0~95% no condensing
Noise	<25dB
DC switch	optional
Cooling	Natural convection
Max. operating altitude	2000m
Dimension	297*260*118mm
Support bracket	Wall-mounted
Weight	5. 5kg
Display	LCD+LED
Degree of protection	IP65
Warranty	5 years/ 7 years/ 10 years



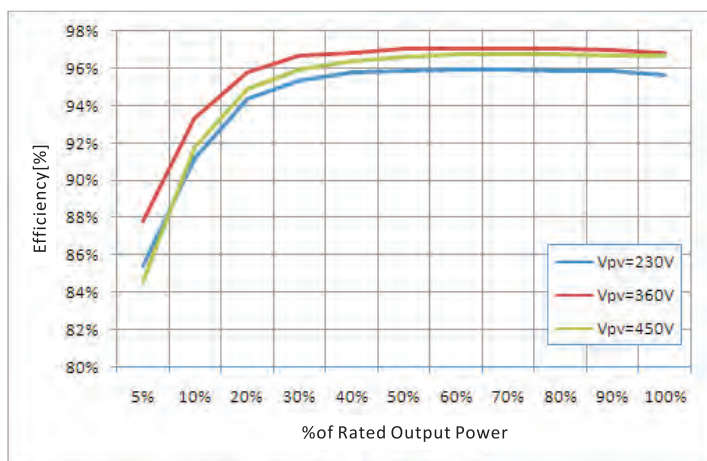
AS4777 G83/2 G59/3

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)

	3000W	4000W	4400W	5000W	5500W	6600W
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

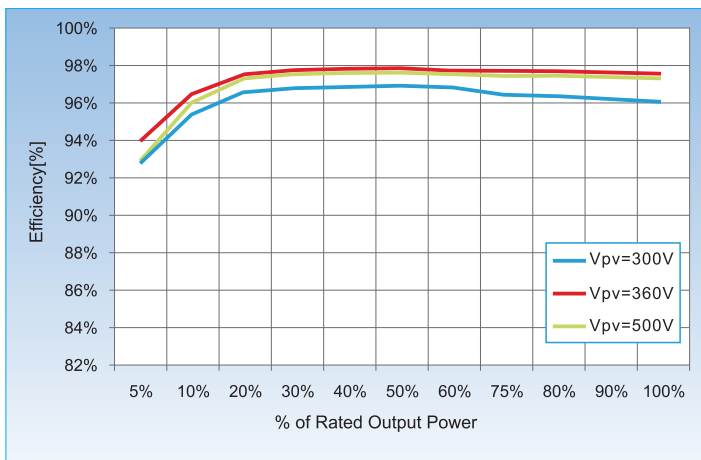
Power management unit	According to certification and request					
Standard Communication Mode	WiFi, RS485, GPRS, SD card(optional)					
Operation Data Storage	25 years					

### 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					

# 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	



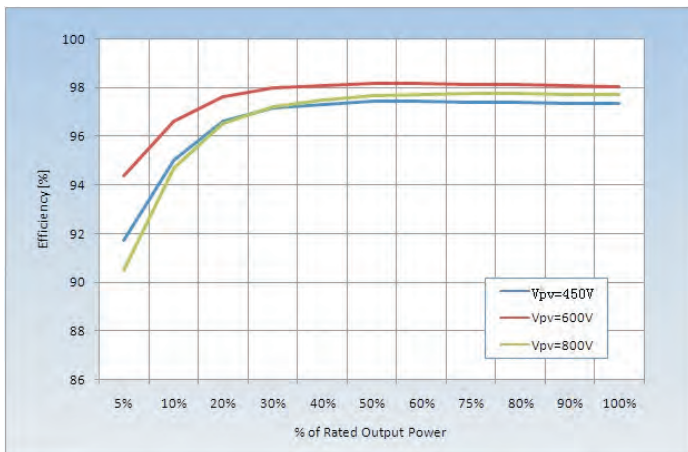
AS4777 G83/2 G59/3

CQC, IEC, VDE-AR-N4105 / VDE-0126, EMC, C10/11, EN50438, RD1669, CE1 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, VDE 4105, 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						

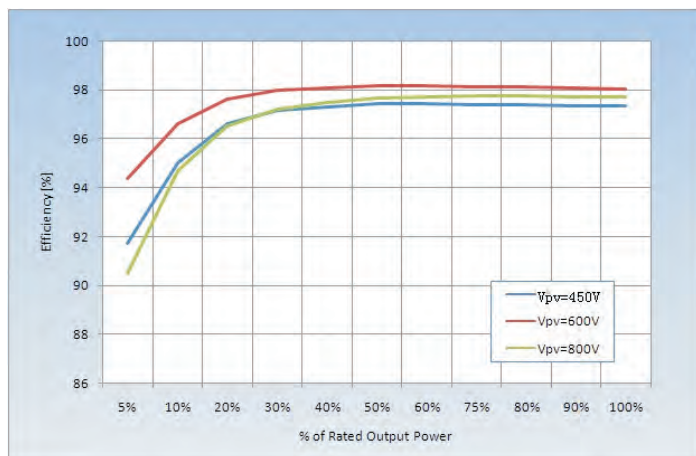


AS4777 G83/2 G59/3

CQC, IEC, VDE-AR-N4105 / VDE-0126, EMC, C10/11, EN50438, RD1669, CE1 0-21

# 10-20KW Three Phase Inverter (Dual MPPT)

SOFAR 10000TL/15000TL/17000TL/20000TL



Efficiency Curve

## High-yield

- Max 98.2% 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 (option)
- AC surge protection device (option)
- 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



10000TL / 15000TL / 17000TL / 20000TL

## Datasheet

SOFAR  
10000TL

SOFAR  
15000TL

SOFAR  
17000TL

SOFAR  
20000TL

### Input(DC)

	10000W	16500W	18700W	22000W
Max.Input power	11000W	16500W	18700W	22000W
Max DC power for single MPPT	6750(450V-850V)	10500(500V-850V)	10500(500V-850V)	12000(500V-850V)
Number of independent MPPT	2			
Number of DC inputs	2 for each MPPT			
Max. input voltage	1000V			
Start-up input voltage	250V			
Rated input voltage	600V			
MPPT voltage range	250V-960V			
Full load DC voltage range	350V-850V	370V-850V	420V-850V	430V-850V
Max. input current per MPPT	15A/15A	21A/21A	21A/21A	24A/24A
Input short circuit current for each MPPT	20A	27A	27A	30A

### Output(AC)

Rated power(@230V,50Hz)	10000W	15000W	17000W	20000W
Max. AC power	10000VA	15000VA	17000VA	20000VA
Max. output current	15A	22A	25A	29A
Nominal Grid Voltage	3/N/PE,220/380 or 3/N/PE,240/415 or 3/N/PE,230/400			
Grid Voltage Range	180V ~ 270V			
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	98.2%			
Weighted eff. (EU/CEC)	97.6%/97.8%	97.9%/98%	97.9%/98%	98%/98.1%
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)	Optional			
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, G59 (more available on request)			
SPD	MOV : Type III standard / Type II optional			
ARPC	Anti Reverse Power Controller(optional)			

### Communication

Power management unit	According to certification and request			
Standard Communication Mode	RS485, Wifi (optional), GPRS(optional), SD card, Multi-function relay			
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	<45dB			
Weight	45kg	45kg	48kg	48kg
Cooling	Natural	Natural	Natural	Natural
Dimension	707*492*240mm			
Display	LCD display			
Warranty	5 years/7 years/10 years			



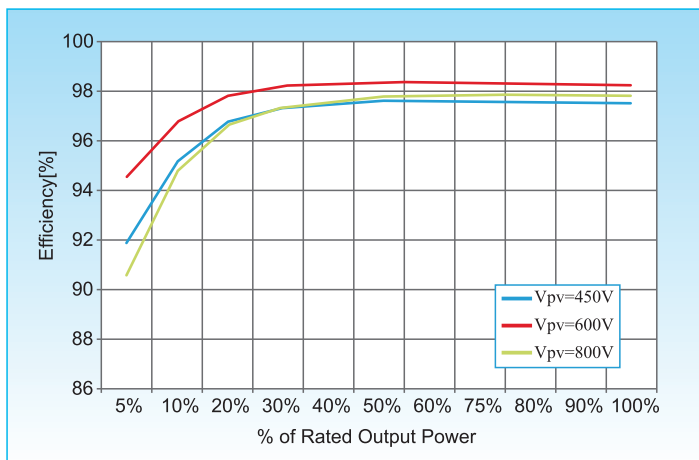
AS4777 G83/2 G59/3

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



# 20-33KW Three Phase Inverter (Dual MPPT)

SOFAR (20000TL/25000TL/30000TL/33000TL) -G2



Efficiency Curve

## High-yield

- Max 98.6% efficiency
- Real time precise MPPT algorithm for max harvest
- Wide input voltage operation range from 230V to 960V

## All in one, flexible and economical system solution

- DC switch
- Built-in PV Combiner
- Power management unit
- Optimum selection for big PV plants, commercial buildings...

## Low maintenance cost

- 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



20000TL-G2/ 25000TL-G2/ 30000TL-G2/ 33000TL-G2  
(New upgrade)

## Datasheet

SOFAR  
20000TL-G2

SOFAR  
25000TL-G2

SOFAR  
30000TL-G2

SOFAR  
33000TL-G2

### Input(DC)

	20000TL-G2	25000TL-G2	30000TL-G2	33000TL-G2
Max.Input power	26000W	32500W	39000W	42900W
Max DC power for single MPPT	13000W	16000W	18000W	20000W
Number of independent MPPT	2			
Number of DC inputs	2 for each MPPT		3 for each MPPT	
Max. input voltage	1100V			
Start-up input voltage	250V			
Rated input voltage	620V	620V	620V	620V
MPPT voltage range	230V-960V			
Full load DC voltage range	480V-850V	460V-850V	520V-850V	580V-850V
Max. input MPPT current	24A/24A	28A/28A	30A/30A	30A/30A

### Output(AC)

	20000TL-G2	25000TL-G2	30000TL-G2	33000TL-G2
Rated power(@230V,50Hz)	20000W	25000W	30000W	33000W
Max. AC power	22000VA	27500VA	33000VA	36300VA
Max. output current	32A	40A	48A	53A
Nominal Grid Voltage	3/N/PE, 230/400Vac			
Grid Voltage Range	310Vac - 480Vac			
Nominal Frequency	50/60Hz			
Grid frequency range	45~55Hz/ 55~65Hz (According to local standard)			
Active power adjustable range	0~100%			
THDi	<3%			
Power factor	1(Adjustable +/-0.8)			

### Performance

	20000TL-G2	25000TL-G2	30000TL-G2	33000TL-G2
Max efficiency	98.2%	98.4%	98.4%	98.6%
European weighted efficiency	98.0%	98.2%	98.2%	98.2%
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			
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, 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), GPRS (optional), SD card, Multi-function relay			
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	<30dB	<45dB	<45dB	<45dB
Weight	37kg			
Cooling	Natural	Fan	Fan	Fan
Dimension	666*512*254mm			
Display	LCD display			
Warranty	5 years/7 years/10 years			

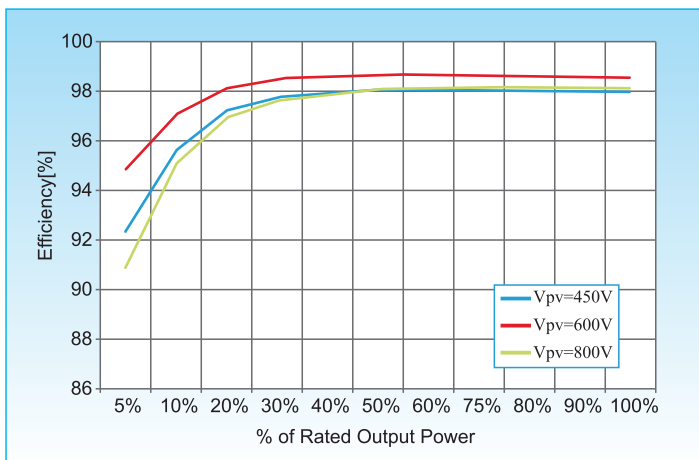


AS4777 G83/2 G59/3

CQC, IEC, VDE-AR-N4105 / VDE-0126, EMC, C10/11, EN50438, RD1669, CE1 0-21

# 30-40KW Three Phase Inverter (Dual MPPT)

SOFAR 30000TL/33000TL/36000TL/40000TL



Efficiency Curve

## High-yield

- Max 98.7% 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 (option)
- 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



30000TL/33000TL/36000TL/40000TL

## Datasheet

SOFAR  
30000TL

SOFAR  
33000TL

SOFAR  
36000TL

SOFAR  
40000TL

### Input(DC)

Max.Input power	30720W	34000W	40800W	40800W
Max DC power for single MPPT	15360W(480V-800V)	17000W(480V-800V)	20400W(500V-800V)	20400W(570V-800V)
Number of independent MPPT	2			
Number of DC inputs	4 for each MPPT			
Max. input voltage	1000V			
Start-up input voltage	250V			
Rated input voltage	600V	600V	600V	700V
MPPT voltage range	250V-960V			
Full load DC voltage range	480V-800V	480V-800V	500V-800V	570V-800V
Max. input MPPT current	64A(32A/32A)	70A(35A/35A)	76A(38A/38A)	70A(35A/35A)
Max. input current per string	12A			

### Output(AC)

Rated power(@230V,50Hz)	30000W	33000W	36000W	40000W
Max. AC power	30000VA	33000VA	36000VA	40000VA
Max. output current	43A	48A	54A	48A
Nominal Grid Voltage	3/N/PE or 3/PE, 230/400Vac			3/N/PE or 3/PE, 277/480Vac
Grid Voltage Range	310Vac - 480Vac			422Vac - 528Vac
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%	98.5%	98.5%	98.7%
European weighted efficiency	98.2%	98.2%	98.2%	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)	Optional
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,ZVRT,AS4777,AS3100,VDE4105,C10-C11,G59(more available on request)
SPD	MOV : Type III standard / Type II optional
ARPC	Anti Reverse Power Controller(optional)

### Communication

Power management unit	According to certification and request
Standard Communication Mode	RS485, Wifi (optional),GPRS(optional), SD card, Multi-function relay
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	3000m			
Noise	<30dB	<45dB	<45dB	<45dB
Weight	50kg			
Cooling	Natural	Fan	Fan	Fan
Dimension	767*564*290.5mm			
Display	LCD display			
Warranty	5 years/7 years/10 years			



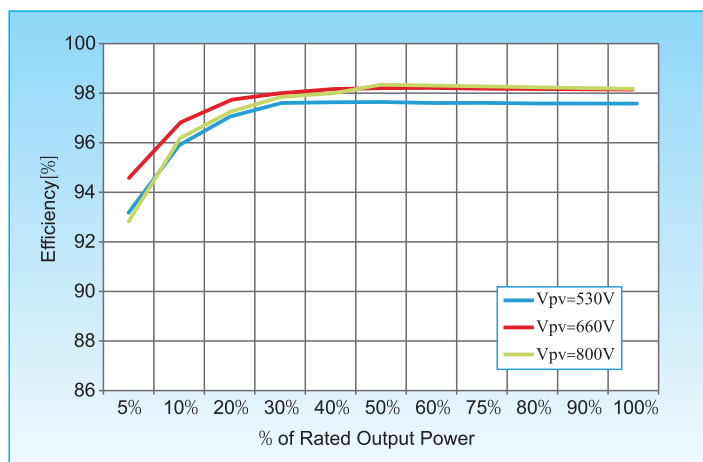
AS4777 G83/2 G59/3

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



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

SOFAR 50000TL/60000TL/70000TL-HV



Efficiency Curve

## 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 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	-25°C...+60°C
Topology	Transformerless
Degree of protection	IP65
Allowable relative humidity range	0...100% no condensing
Max.operating altitude	4000m
Noise	<60dB
Weight	68kg 70kg
Cooling	Fan
Dimension	737*713*297mm
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

# ME 3000SP

Designed For Storage System  
Uninterrupted Power Supply For Your Home



## Easy installation

- Compatible with existing grid-tied PV inverters.
- No need to upgrade distribution system.
- Uses a split-core CT, no need to disconnect the electrical grid at all .

## Simple and Reliable

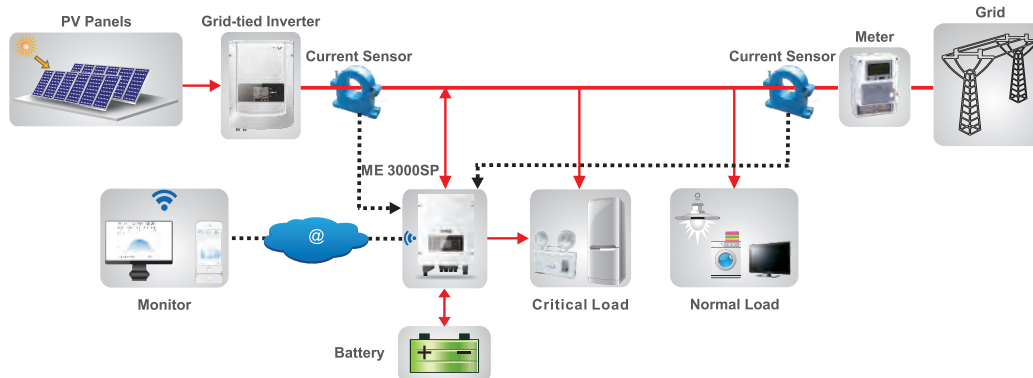
- Exchanges energy via the electrical grid, no coupling with PV inverter, mature technology, simple and reliable.
- Can integrate with all grid-tied renewable systems, including solar, wind, fuel cell etc.

## Flexible solution

- Provides a full solution for energy consumers to maximize the use of their generated solar energy.
- Increases self-consumption rate (from 20% to 70%).
- User-adjustable battery charging current suits different types of batteries.

## Multiple modes

- Supports stand alone mode (like UPS), Ensure the safe operation of critical load.
- Programmable multiple operations modes: Grid tie, Off grid, and grid-tie with backup.



# MASS ENERGY INVERTER



ME 3000SP

## Datasheet

## ME 3000SP

### Battery Parameters

Battery Type	Lead-acid,Lithium-ion
Nominal battery voltage	48V
Battery voltage range	42-58V
Recommended battery capacity	200Ah (100~500Ah optional)
Recommended Storage capacity	9.6kWh
Max.Charging Current	60A
Charging Current Range	0-60A(Programmable)
Charging curve	3-stage adaptive with maintenance
Max.Discharging Current	60A
Electronic protection	OCP OTP OVP
Short circuit protection	Fuse (100A)
Discharge times (Hour)	Po=1kVA9.6h
	Po=3kVA3.2h
Depth of discharge	Lithium : 0~80%DOD adjustable
	Lead-acid:0~50%DOD adjustable

### AC Parameters

Max.Output Power	3kVA
Rated Input/Output Voltage	230V
Max.Input/Output Current	13A
AC Input/Voltage Range	180V-270V
Grid Frequency Range	44~55Hz / 54~66Hz
THD	<3%
Power Factor	1(Adjustable +/-0.8)
Connection phase	single
Current(inrush)	0.8A/1us
Maximum output fault current	100A/1us
Maximum output overcurrent protection	13A

### System Parameters

Max.Charging Efficiency	94.1%
Max.Discharging Efficiency	94.3%
Standby Losses	<5W
Topology	High Frequency Isolated Transformer
Degree Of Protection	IP65
Safety Protection	Anti islanding, RCMU, Ground Fault Monitoring
Certification	IEC 62116,IEC 61727,IEC 61683,IEC 60068(1,2,14,30),IEC62109-1/2 AS4777,VDE0126-1-1,G83/2,C10/11,RD1699,UTEC15-712-1,EN50438,VDE-AR-N4105
Communication	WiFi,RS485,CAN2.0

### Environmental

Ambient temperature range	-25°C...+60°C (Above 45°Derating)
Allowable Relative Humidity Range	0... 100%, No Condensing
Protective Class	Class I
Max.Operating Altitude	2000m
Current Sensor Connection	external

### General Data

Noise	<25dB
Weight	16kg
Cooling	Natural
Dimension(W*H*D)	532*360*173mm
Display	LCD display
Warranty	5 Years (Optional: extension to 10 years)

### Emergency Power Supply

EPS rated power	3000VA
EPS rated voltage, Frequency	230V,50/60Hz
EPS rated current	13A
Total harmonic distortion	<3%
Switch time	<3s



# 3~6KW HYBRID INVERTER

HYD (3000/3600/4000/5000/6000) -ES



## High-yield

- Real time precise MPPT algorithm for max power generation
- Wide input voltage operation range
- Independent dual MPPT tracking, flexible solar roof system design

## Reliable and Safe

- High efficiency low energy loss, Low maintenance
- High frequency isolation between battery & PV/grid
- Advanced battery management technology to protect the battery life.

## Easier Operation

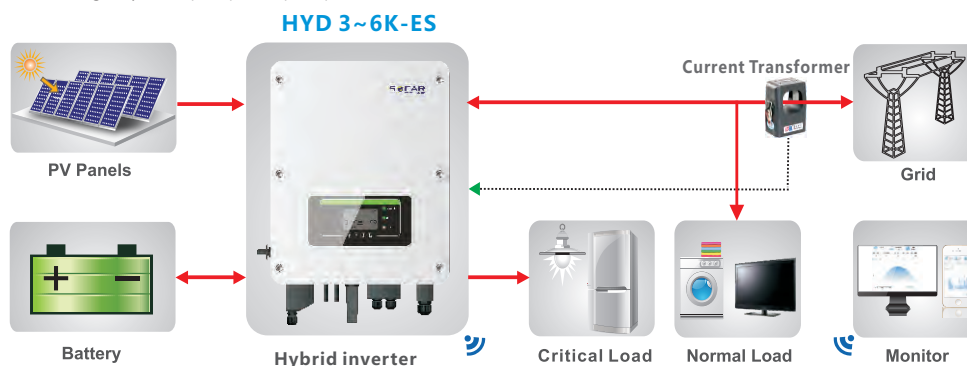
- Free site selection due to IP65
- 4" LCD clear, easy-to-read display
- Easy monitoring on phone (APP) & PC (web)

## Multiple working modes

- PV & storage all in one, increases self consumption to 80%+, decreases reliance on the electrical grid, decreases the electricity bill.
- Stand alone mode (like UPS) available, ensures safe operation of critical loads
- Multiple operation modes selection: auto mode, time-of-use mode, timing mode, passive mode etc.

## Intelligent grid management

- Reactive power capability
- Limits AC output when grid frequency is too high or to low
- Limits AC output when grid voltage is too high
- Built in zero export function (optional)



# HYBRID INVERTER



HYD 3000-ES / HYD 3600-ES / HYD 4000-ES / HYD 5000-ES / HYD 6000-ES

## Datasheet

HYD 3000-ES

HYD 3600-ES

HYD 4000-ES

HYD 5000-ES

HYD 6000-ES

### Battery Parameters

Battery Type	Lithium-ion,Lead-acid				
Nominal battery Voltage	48V				
Battery voltage range	42-58V				
Battery Capacity	50-2000AH				
Maximum Charging /Discharging Power	3000W				
Maximum Charging Current	60A (programmable)				
Maximum Discharging Current	60A (programmable)				
Charging curve(Lithium-ion)	BMS				
Charging curve(Lead-acid)	3-stage adaptive with maintenance				
Depth of discharge	Lithium-ion:0-90% DOD adjustable Lead-acid:0-50% DOD adjustable				

### Input DC(PV side)

The max input power	3500W	4000W	4400W	5500W	6600W
Max DC power for single MPPT	2000W(160V-520V)	2400W(180V-520V )	2600W(200V-520V )	3000W(250V-520V)	3500W(300V-520V)
The max DC input voltage	600V				
Start-up DC voltage	120V				
Nominal DC Voltage	360V				
MPPT operating voltage range	90-580V				
Full load DC voltage range	160V-520V	180V-520V	200V-520V	250V-520V	300V-520V
MPPT number	2				
The max DC input current	12A/12A				
The max DC input short current	15A/15A				

### Output AC(Grid side)

Rated Power	3000W	3680W	4000W	5000W	6000W
Max. Output Power	3000VA	3680VA	4000VA	5000VA	6000VA
Nominal Grid Voltage	L/N/PE,220,230,240				
Operation phase	Single(L-N-PE)				
Max. Input/Output current	13.7A	16A	18.2A	22.8A	27.3A
AC voltage Range	180V~276V(According to local standard)				
Grid Frequency range	44-55Hz/54-66Hz(According to local standard)				
THD	< 3%				
Power factor	1 default (+/-0.8 adjustable)				

### Output AC(Emergency Power Supply)

EPS rated power	3000VA				
Operation phase	Single(L-N-PE)				
EPS rated voltage, Frequency	230V,50/60Hz				
EPS rated current	13A				
Peak Output Apparent Power	4000VA , 10s				
THD	< 3%				
Switch time	10ms default				

### Efficiency

MPPT efficiency	99.9%				
Max efficiency of solar Inverter	97.6%	97.6%	97.6%	97.8%	98.0%
European efficiency of solar Inverter	97.2%	97.2%	97.2%	97.3%	97.5%
Max. Charging efficiency of battery	94.6%				
Max. DisCharging efficiency of battery	94.6%				

### Protection

PV reverse polarity protection	Yes				
PV insulation detection	Yes				
Ground fault monitoring	Yes				
Over current protection	Yes				
Over voltage protection	Yes				
Battery soft start protection	Yes				

### General Data

Ambient temperature range	-30°C...+60°C(Above 45°C Derating)				
Standby Losses	< 5W				
Topology	High frequency insolation(for bat)				
DC-Switch	Yes				
Degree Of Protection	IP65				
Allowable Relative Humidity Range	0-100%, No Condensing				
Certification	NB/T32004-2013,AS4777,IEC62116,VDE0126-1G83/2,G59/3,EN50438,VDE-AR-N4105				
Communication	RS485,Wi-Fi/GPRS,SD,CAN2.0				
Protective class	Class I				
Max. Operating Altitude	2000m				
Current Sensor Connection	External				
Noise	< 25dB				
Weight	20.5kg				
Cooling	Natural				
Dimension (W*H*D)	566*394*173				
Display	LCD dislay				
Warranty	5 Years or more				



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