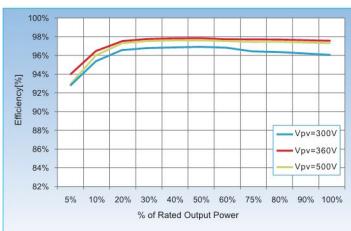


# MASS ENERGY INVERTER Single Phase Inverter

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



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## High-yield

- Max 97.8% efficiency
- Real time precise MPPT algorithm for max harvest
- Wide operating 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

## Datasheet

3KTLM-G2	3.6KTLM-G2	4KTLM-G2	4.6KTLM-G2	5KTLM-G2	6KTLM-G2	7.5KTLM
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### Input(DC)

Max Input power	3500W	4000W	4400W	5000W	5500W	6600W	8300W
Max DC power for single MPPT	2000W(180V-520V)	2400W(180V-520V)	2600W(200V-520V)	3000W(250V-520V)	3500W(300V-520V)		
Number of independent MPPT				2			2/1

### Number of DC inputs

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
Max. input current per MPPT	160V-520V
	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	180~276V(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	99.0%		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/AC short circuit polarity protection	Yes
DC switch	optional
Protection class category	I/III
Input / output MOV (III)	Yes
Safety protection	
Certification	Anti islanding,RCMU,Ground fault monitoring
	NB/T32004-2013,AS4777,VDE0126-1-1-G83/JG59-3,C10/11,RD1699/UTEC15-712-1EN50438,VDE-AR-N4105,IEC 62116,IEC 61727,IEC 61683,IEC 60068L1,2,14,30),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
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*139mm	467*352*157mm
Display	LCD display	
Warranty	5 years / 7 years / 10 years	

# MASS ENERGY INVERTER Three Phase Inverter



10000TL/15000TL/17000TL/20000TL



## 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

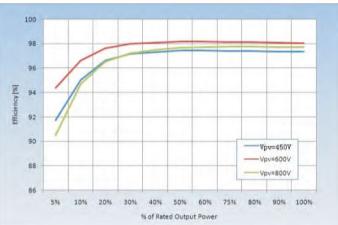
- DC switch
- DC surge protection device (option)
- AC surge protection device (option)
- Power management unit
- Optimum selection for big PV plants, commercial buildings...

## 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

- ZVS active support
- Active power adjustable
- Self power reducer when over frequency
- Remote active/reactive power limit control



Efficiency Curve

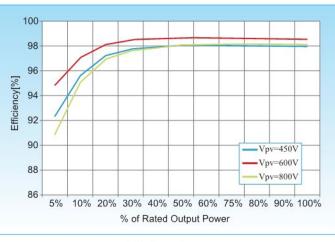
## Datasheet

	10000TL	15000TL	17000TL	20000TL
<b>Input(DC)</b>				
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				
Max. input voltage	1000V			
Start-up input voltage	350V			
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
<b>Output(AC)</b>				
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	3/N/PE,240/415	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)			
<b>Performance</b>				
Max efficiency	97.6%/97.8%	97.9%/98%	97.9%/98%	98%/98.1%
Weighted eff. (EU/CEC)				
Self-consumption at night	<1W			
Feed-in start power	45W			
MPPT efficiency	>99.9%			
<b>Protection</b>				
DC reverse polarity protection	Yes			
DC switch	Yes			
Protection class /overvoltage category	I/III			
Input/output SPD(II)	Optional			
Safety protection				
Certification	IEC 62116, IEC 61727, IEC 61683, IEC 60068(1,2,14,30), IEC62109-1/2 CE, CCC, AS4777, AS3100, VDE4105, C10-C11,G59(more available on request)			
SPD	MOV : Type III standard / Type II optional			
ARPC	Anti Reverse Power Controller(optional)			
<b>Communication</b>				
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			
<b>General data</b>				
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			

# MASS ENERGY INVERTER Three Phase Inverter



30000TL/33000TL/36000TL/40000TL



## 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
- Detachable front panel 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

## Datasheet

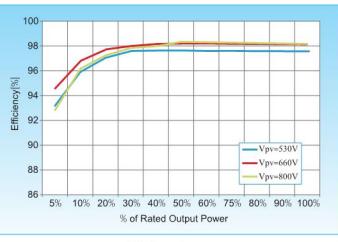
	30000TL	33000TL	36000TL	40000TL
<b>Input(DC)</b>				
Max Input power	33000W	36300W	40000W	44000W
Max DC power for single MPPT	15360W(480V-800V)	17000W(480V-800V)	20400W(500V-800V)	20400W(570V-800V)
Number of independent MPPT			2	
Number of DC inputs			4 for each MPPT	
Max. input voltage			1000V	
Start-up input voltage			350V	
Rated input voltage	600V	600V	600V	700V
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	
<b>Output(AC)</b>				
Rated power @230V,50Hz)	30000W	33000W	36000W	40000W
Max. AC power	30000VA	33000VA	36000VA	40000VA
Max. output current	43A	48A	54A	64A
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		47~53 / 57~63Hz (According to local standard)	
Grid frequency range	0~100%		<3%	
Active power adjustable range	0~100%		<3%	
THDI	<3%		1(Adjustable +/-0.8)	
Power factor	1(Adjustable +/-0.8)		1(Adjustable +/-0.8)	
<b>Performance</b>				
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%	
<b>Protection</b>				
DC reverse polarity protection			Yes	
DC switch			Yes	
Protection class /overvoltage category			I/II	
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,VD4105,C10-C11,LG59(more available on request)		MOV : Type III standard / Type II optional Anti Reverse Power Controller(optional)	
SPD				
ARPC				
<b>Communication</b>				
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	
<b>General data</b>				
Ambient temperature range	-25°C...+60°C		Transformerless	
Topology			IP65	
Degree of protection			0...100% no condensing	
Allowable relative humidity range			3000m	
Max operating altitude				
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			

## Save your energy

## Three Phase Inverter



50000TL / 60000TL / 70000TL

**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
- UV resistant sun 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

**Datasheet**

	50000TL	60000TL	70000TL
<b>Input(DC)</b>			
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	3	4/4/4
Number of DC inputs	4/3/3		
Max. input voltage			
Start-up input voltage	1000V		
Rated input voltage	350V		
MPPT voltage range	600V	600V	700V
Full load DC voltage range	250V-960V		
Max. input MPPT current	530V-800V	530V-800V	660V-800V
Max. input MPPT current	40A/30A/30A	40A/40A/40A	40A/40A/40A
Max. input current per string	12A		
<b>Output(AC)</b>			
Rated power(@230V,50Hz)	50000W	60000W	77000W
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)		
<b>Performance</b>			
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%		
<b>Protection</b>			
DC reverse polarity protection		Yes	
DC switch		Yes	
Protection class /overvoltage category	I/III		
Input/output SPD(II)		Optional	
Safety protection			
Certification			Anti islanding,RCMU,Ground fault monitoring
CE,CGC,ZVRT,AS4777,AS3100,VDE4105,C10-C11,NS99(more available on request)			IEC 62116,IEC 61277,IEC 61683,IEC 60068L(2,14,30),IEC 62109-1/2
SPD			MOV : Type III standard / Type II optional
ARPC			Anti Reverse Power Controller(optional)
<b>Communication</b>			
Power management Unit			According to certification and request
Standard Communication Mode			RS485, Wifi (optional), SD card, Multi-function relay
Operation Data Storage			25 years
<b>General data</b>			
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*132*297mm		
Display	LCD display		
Warranty	5 years		