



Certificate of compliance

Certificate No.: 2188AP020105019
Equipment: AC-Coupled Storage Inverter
Brand Name: 
Model: ME 5KTL-3PH, ME 6KTL-3PH, ME 8KTL-3PH,
ME 10KTL-3PH, ME 15KTL-3PH, ME 20KTL-3PH.
Applicant: Shenzhen SOFARSOLAR Co., Ltd.
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XinAn Street, BaoAn District, Shenzhen, China
Report No.: PVSP2102WDG0105-4

Applied rules and standards

UNE 217001 IN:2015

Requirements and testing of systems to avoid energy emissions to distribution networks
Royal Decree No. 244 / 2019 of 5 April sets out the administrative, technical and economic conditions for
self generation. Annex I: systems to prevent energy emissions to the network.

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Technical Manager / New Energy Team
Date: 2021-03-31

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Bureau Veritas Shenzhen Co., Ltd. Dongguan Branch.
Information given in this document is related to the tested specimen of the described electrical sample.



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Ratings.....	ME 5KTL-3PH	ME 6KTL-3PH	ME 8KTL-3PH
Battery type.....	Li-ion & Lead-acid		
Full load battery voltage range [V] :	200-800	240-800	320-800
Battery voltage range[V].....	180-800		
Battery current [A].....	Max. 25,0A		
Output AC voltage [V].....	3/N/PE, 230/400,50Hz		
Output AC current [A]	8	10	13
Output power [VA]	Max. 5500	Max. 6600	Max. 8800
Ratings.....	ME 10KTL-3PH	ME 15KTL-3PH	ME 20KTL-3PH
Battery type.....	Li-ion & Lead-acid		
Full load battery voltage range [V] :	200-800	300-800	400-800
Battery voltage range[V].....	180-800		
Battery current [A].....	Max. 25,0 x 2		
Output AC voltage [V].....	3/N/PE, 230/400,50Hz		
Output AC current [A]	16	24	32
Output power [VA]	Max. 11000	Max. 16500	Max. 22000

The inverters listed above may be installed with the following batteries:

	PYLONTECH	Weco	General Lithium
Manufacturer	PYLONTECH	Weco	General Lithium
Battery Model	H48050	ESS-5K3-HV-LV	AMASS(GTX3000)
Capacity of each battery module (kWh)	2,4	5,3	2,5
Number(s) of battery modules recommended by the manufacturer:	4-28	4-26	4-20

Note:

The batteries are not integrated into the inverter and must be installed according to the local regulations.



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General information of external current transductor/ power meter		
Power meter		
Model	DTSU666	ACR10R-D24TE4
Electrical parameter		
Regulated working voltage range Phase to neutral [Vac]	0,9-1,1Un	85-265V
Support network Single Phase / three Phase.....	Three Phase	
self -consumption	≤1,5W / 6VA	≤10VA
communication		
Supported communication interfaces	RS485	
Communication protocol.....	ModBus-TRU	
Reaction time.....	1s	



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General information of external current transducer/ power meter	
Current transducer	
Model :	HY94C5-200
Rate Primary current,RMS,Ipr :	Ipn = 200 A
Rated secondary current,RMS,Isr. :	Iout = 5 A
Rate frequency :	50/60Hz
Working humidity :	≤90%RH
Max cable outer diameter(mm) :	Φ24
Weight :	90g
R.m.s.voltage for AC isolation test :	2kV(@50Hz,1min)
Altitude :	≤1000m
Accuracy class@RL≤20 Ω :	0,5%
Rate Overload..... :	1,2 x Ipr
Highest voltage for equipment..... :	720V
Connecting wires of secondary winding :	RVB 2*1,5mm ² Red & Black (UL2468-16A)
Working temperature..... :	-30°C ...+75°C
Storage temperature :	-40°C ...+85°C



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Description of the vector system to depict test results:

The regarded system of the voltage and current vectors is the generator reference system:

- If the inverter feeds to the grid the active power is measured with positive sign.
- If the load consumes from grid the active power is measured with negative sign.

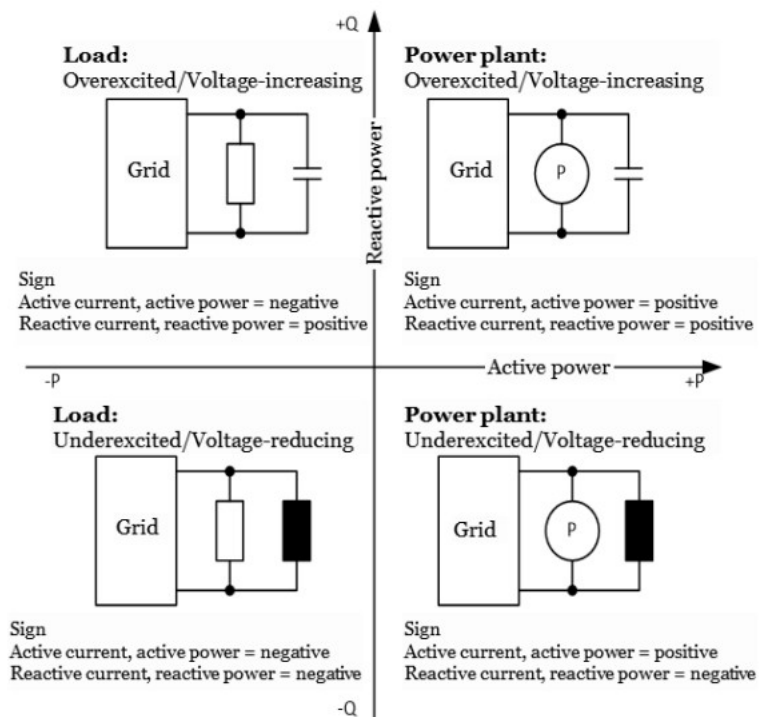


Figure 1 – Generator reference arrow system

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General product information:

The inverter converts DC voltage, generated by batteries, into AC voltage. Battery can also be charged from the AC grid.

The units are three-phases inverter.

Rate of change of frequency (RoCoF) detection was used for LOM protection.

The input and output are protected by varistors to Earth. The unit is providing EMC filtering at the batteries input and output toward mains. The unit does not provide galvanic separation from input to output (transformerless). The output is switched off redundantly by the high power switching bridge and two relays. This assures that the opening of the output circuit will also operate in case of a single error.

Description of the electrical circuit

The internal control is redundant built. It consists of Microcontroller Main DSP (U37) and slave DSP (U39). The Main DSP (U37) control the relays by switching signals; measures the battery voltage, battery current, Bus voltage, grid voltage, frequency, AC current with injected DC and the array insulation resistance to ground. In addition it tests the current sensors and the RCMU circuit before each start up.

The slave DSP (U39) is measures the grid voltage, grid frequency and residual current, also can switch off the relays independently, and communicate with Main DSP (U37) each other.

The current is measured by a current sensor. The AC current signal and the injected DC current signal are sent to the Main DSP(U37). The Main DSP(U37) tests and calibrates before each start up all current sensors.

The unit provides two relays in series in all output conductors. When single fault applied to one relay, alarm an error code in display panel, another redundant relay provides basic insulation maintained between the battery and the mains. All the relays are tested before each start up.

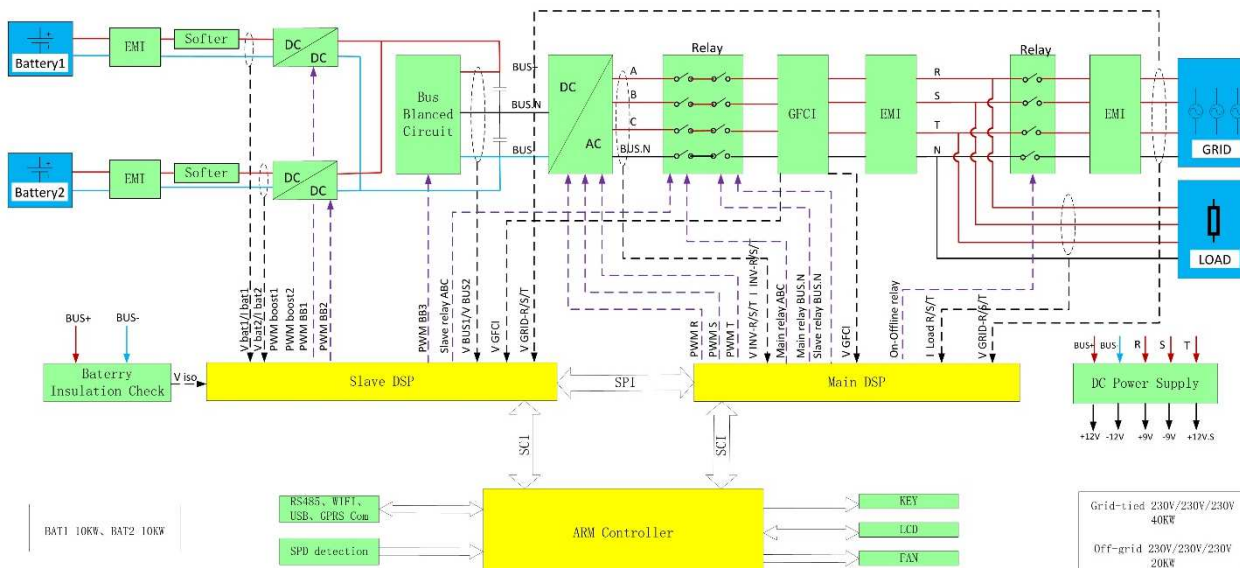


Figure 2 – Block diagram