Regulatory Standards and Requirements

EMC:
EN61000-6-3:2001
EN61000-6-1:2001
Grid interference:
EN 61000-3-2
Grid monitoring:
Independent disconnection device (MSD, *Mains monitoring with allocated Switching Devices*) according to VDEW;
DK5940 approved.
Low voltage regulation:
IEC62103 approved by VDE test and certificate institute.

2. Electrical Specifications

Input data

Model	SOLEIL 2000	SOLEIL 3000	SOLEIL 4000	SOLEIL 6000
Maximum Input power	2340 W	3510 W	4700 W	6500 W
Max. input voltage Maximum PV open voltage	500 V	500 V	500 V	600 V
Nominal DC voltage	400 VDC			
MPPT voltage range	150V to 500V ±5%			150V to 600V ±5%
System start-up voltage	100 V			
Working voltage range	100±5% ~ 500-5%+0%V			100±5% ~ 600-5%+0%V
Initial feeding voltage	150V±5%			
Full rating working range	250V to 500V	200V to 500V	250V to 500V	250V to 600V
Shutdown voltage	80V typical			
Max. input current	10ADC	15.2ADC	20ADC	30ADC
DC voltage ripple	< 10%			
DC insulation resistance	>8M ohm			
DC switch	ON/OFF 20A			
DC connector	Tyco-contact (1 pair)			
Attached DC connector	Tyco-contact (1 pair)-cable type		Tyco-contact (3 pair)	

Output data

Model	SOLEIL 2000	SOLEIL 3000	SOLEIL 4000	SOLEIL 6000
Nominal output power	2000 W	3000 W	4000 W	6000 W
Maximum output power	2200 W	3300 W	4400 W	6000 W
Operational voltage range1	190V,minimum 270V, maximum			
Operational normal voltage	230Vac			
Operational frequency range	49.8≤f50≤50.2 for 50Hz2			
Nominal output current	8.7 A	13 A	17.4 A	26.1 A
O/P current distortion3	THD<5%, each harmonics<3%			
Power Factor	>0.99			
DC current injection	<0.5% of rated inverter output current			

Once input V is less than 250V, the relation of I/P V and load % is

Load% = 0.4 XV_i

1 Based on the limit of DK5940
2 Based on the limit of DK5940
7 Based on the output voltage is higher than 200Vac
8 Based on the output voltage is higher than 220Vac
4 Under input voltage>= 400V, full rated output power, 25ºC ambient
5 According to DK5940 requirement

General data

Model	SOLEIL 2000	SOLEIL 3000	SOLEIL- 4000	SOLEIL 6000
Internal Power Consumption	<7W			
Standby power (at night)	<0.1W			
Minimum Conversion efficiency (DC/AC)	>90% Under input voltage>210V, load >20%			
Maximum Conversion efficiency (DC/AC)	>95%		>96%	
European Efficiency	>94%		>95%	
GFCI threshold	See ground fault current detection			
Ground Current Detection range	0~500mA			
Ground Current Detection frequency	0~700Hz			
Protection Degree	IP 65			
Operation Temperature	-25 to 55 ºC			
Humidity	0 to 95%, non-condensing			
Heat Dissipation	Convection			
Acoustic Noise Level	<40dB, A-weighted, frequency up to 20kHz			
Altitude	Up to 3000m without power de-rating, 5ºC de-rated for each additional 500m			

3.Mechanical Specifications

Dimension & Weight

Model	SOLEIL 2000	SOLEIL 3000	SOLEIL 4000	SOLEIL 6000
Physical: WxDxH (mm)	380x300x133	380x300x143	550x300x133	550x420x143
Physical: Weight (kg)	14	14	21	24
Shipping: WxDxH (mm)	495x465x285	495x465x285	665x465x285	660x580x265
Shipping: Weight (kg)	16	16	23	26

The dimension and weight here could be changed due to product modification

Mounting method:
It is a wall-mounting unit. A mounting frame or mounting holes on the unit is necessary. To mount the unit on the wall, there is no need to disassembly the unit itself.

4.Overall Characteristics

Transportation
Packing material must be capable of withstanding multiple shipments without internal damage. The test standard follows ISTA procedure 2A.

Reliability and maintenance
MTBF: Basically, the lifetime must be larger than 10 years.
MTBS: No servicing at all during operation. The time is same as MTBF.
MTTR: Mean Time to Repair, 30 minutes

Communication capability
Communication interface
A female 9-pin RS232 communication port is on the unit. In addition, an extension slot that can accommodate RS485 and USB is on the unit.
RS485: An option module can be added to inverter providing RS485 communication capability Extension slot
This extension slot is used to accept optional card or module for communication and other future functions. The pin assignment is same as PCM Standard.
The Customer can download the information of "Vdc ,Adc,Vac,Aac,kWac,kWHac and output frequency " of each inverter for series of multi string inverters. The protocol will be provided together with the inverter for use of the customer system
integration.