



## Solar Inverter / Charger / Controller / UPS\_OG SCC Modular Series \_30-300K Datasheet

Version 2.0

Model : Sunwins OG-30K /60K /90K /120K /150K /180K /210K /240K /270K /300K

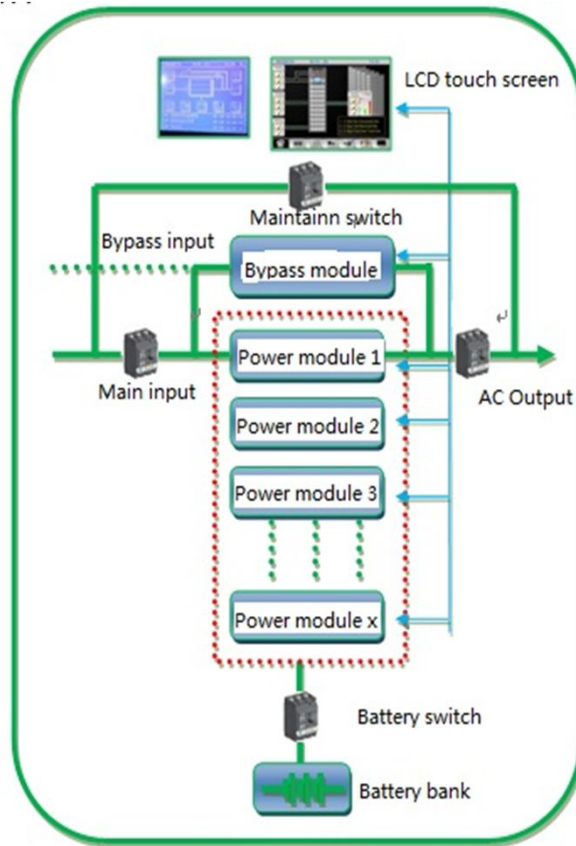
### Main Product Outlook



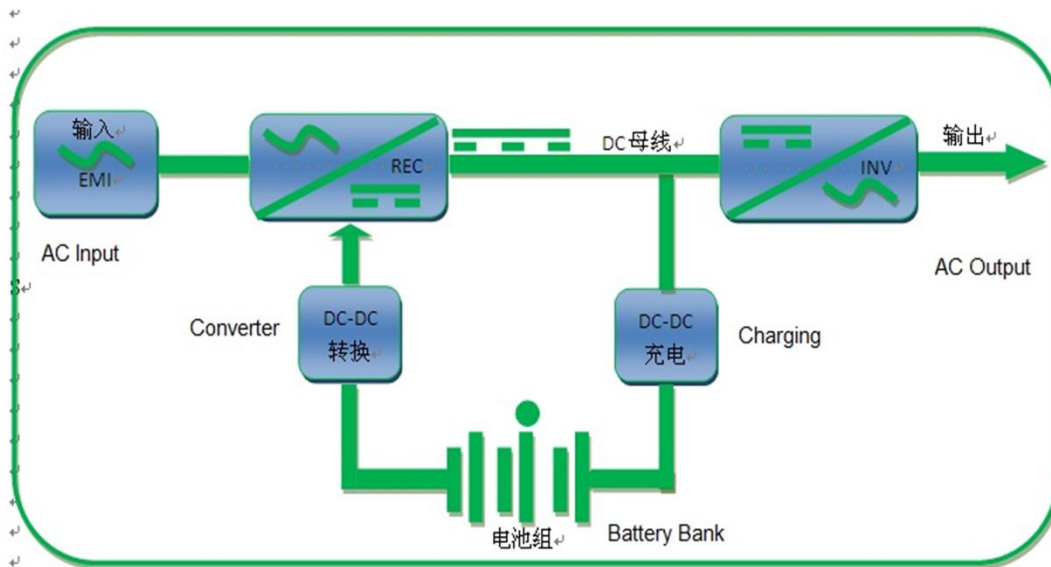
### Main Feature Advantages

- ◆ Intelligent modular design with every 30KVA power module
- ◆ Plug in plug out within 1 minute for fast simple maintenance
- ◆ 3 phase pure sine 380VAC/50Hz for high quality power
- ◆ Smart digital control with multi-function active protections
- ◆ Smart charging algorithm for optimized battery performance
- ◆ Configurable various parameters via LCD touch screen
- ◆ Various monitorings with local and remote globally
- ◆ Integrated off-grid solar PV system solutions
- ◆ Multi-source (PV/Bat/Grid/Genset) EMS energy management system
- ◆ Optional ATS integrated compatible with Genset power directly
- ◆ Support parallel mode up to 1200KVA max system

## System Topology Block Diagram



## Power Modular Topology Block Diagram



Model: OG-	OG-30K-150K	OG-180K-300K
Rated Power(KVA)	30K / 60K / 90K / 120K / 150K	180K / 210K / 240K / 270K / 300K
AC Output Waveform	Pure sine	
Norminal AC Voltage (VAC)	380 / 3-Phase	
Norminal AC Frequency (Hz)	50	
Norminal Battery Voltage ( VDC)	384 , optional 480	
Typical Overall Efficiency	≥ 95 %	≥ 96 %
Embedded LCD Display	12 Inch handset color touching screen display monitor, friendly and easy operation	
Priority Control Settings (Optional)	Solar > BAT > Grid > Genset ( Default )	
<b>AC GRID / BYPASS MODE</b>		
Static Bypass Input Voltage Range (VAC)	380 ( -15 / +15% )	
Output Frequency (Hz)	50 ±8% (Auto-tracking)	
Mains to INV Switching Time (ms)	0	
Frequency Tracking Speed (Hz/s)	0.5-2	
Manual Maintenance Bypass	Intergated, Anti Design	
<b>AC CHARGER MODE</b>		
AC Voltage (VAC)	3×380VAC+N+W	
AC Voltage Range (VAC)	380 ( -45~+25% ) AC ( Input voltage < 75% , Input power may degraded )	
Input Frequency Range (Hz)	40-70	
Input Power Factor	≥0.99	
AC Charging Current ( A )	10Amax for every 30KVA modular; 50Amax for 150KVA cabinet; 100Amax for 300KVA cabinet;	
Charging Algorithm	3-Step active charging algorithm	
Peak Efficiency	96%	97%
<b>SOLAR MPPT CHARGER CONTROLLER MODE ( Configuration as system design )</b>		
MPPT Charger Controller Type No. ( W )	20K / 40K / 60K / 80K / 100K / 120K / 140K / 160K / 180K / 200K	
Modular MPPT Charger Controller Power ( W )	20K	
Modular MPPT Charger Controller Current ( A )	50	
MPPT Charger Controller Cabinet Ratings ( Max )	10 Modulares, 200KW, 500A, 384Vdc	
Rated Battery System Voltage ( VDC )	384	
Floating Charge Voltage ( VDC )	440	
Over Charge Protection Voltage ( VDC )	480	
MPPT Tracking Efficiency ( Min )	99.9%	
Conversion Efficiency ( Max )	98.5%	
PV Open Circuit Voltage ( Max,VDC )	1000	
MPPT Operating Voltage Range ( VDC )	450-840	
MPPT Channel Number ( Stanndar )	4 Independent MPPTs for every 20K modular	
PV Low Loss Recovery Voltage ( VDC )	Actual voltage + 20	
PV Low Loss Voltage ( VDC )	Actual voltage + 10	
Over Load Condition Protection	Stop MPPT mode and limit at 5KW for each PV input channel	
Standby Power Consumption ( W,Stanndard )	<300 for every modular	
MPPT Solar PV Charger Power ( Max, KW )	2000 ( for 10 pcs in parallel )	
MPPT Solar PV Charger Current ( Max, A )	5000 ( for 10 pcs in parallel )	
<b>BATTERY / INVERTER MODE</b>		
Output Waveform	Pure sine wave / 3-Phase	
Output Voltage (VAC)	Line voltage 380× ( 1±1% ) ; Phase voltage 220× ( 1±1% )	
Output Frequency(Hz)	50 ±0.1%	
THD i (%)	< 1% ( Linear load ) , < 3% ( 100% Inductive load )	
3 Phase Load Unbalance	100% 3 Phase unbalanced load allowance	
Input/Output Phase Shift	≤1° ( Balanced load )	
Overload Capacity	1hrs @ 110% load; >10Mins @ 110% < Load ≤125% ; >1 Min @ 125% < Load ≤150%	
Crest Ratio	3:1	

Normal Battery Voltage (VDC)	Rated 384VDC; Optional up to 480VDC;	
Recommand Battery Type	Lead acid , GEL/AGM lead-acid , Li-ion with BMS	
<b>PARALLEL MODE</b>		
Can Be Paralleled	Yes	
Quantity@Three Phase ( pcs)	Recommand up to 4, totally 1200KVA	
Accessories for Parallel	Yes	
<b>MONITORING SYSTEM</b>		
Monitoring Parameters	Solar PV / BAT / Grid / Genset / AC Load	
Local Monitoring, LCD	Embeded into product, 12 inch handset color touching screen display monitor	
Remote Monitoring, Globally	RS485 / GPRS / WIFI / 4G (Optional)	
PC Monitoring Software	Yes, including Windows, Mac OS, Linux	
APP Monitoring Software	Yes, including Android and iOS (Optional)	
Dry Contact ( +/ - / GND )	3A / 250VAC	
EPO	YES	
Service Port	YES, RS232	
<b>ENVIRONMENT</b>		
Relative Humidity (Non-Condensing)	0 to 95%	
Altitude (m)	up to 2000	
Operating Temperature (°C)	-15 to 45	
Storage Temperature (°C)	-25 to 55	
<b>Safety &amp; EMC</b>		
Certification	CE,GB	
Safety Standards	LVD 2006/95/EC ; IEC/EN 62109-1/2 ; IEC/EN 60950 ; IEC/EN 62040 ; GB4943;YD/T1095;	
EMC Standards	EMC 2004/108/EC ; EN 55022 ; EN 55024 ; IEC 61000-6-2/4 ; IEC 61000-3-11/12 ;	
Priority Control Settings	Intergated	
Smart Battery Charger Design	Intergated	
Over/Under Voltage Protection	Intergated	
Over/Under Frequency Protection	Intergated	
Overload Protection	Intergated	
Over Temperature Protection	Intergated	
Short Circuit Protection	Intergated	
Auto Restart	Intergated	
Cold Start Function	Intergated	
Utility Power Fluctuation	Intergated	
Battery Voltage/Current Fluctuation	Intergated	
DC On Start	Intergated	
Generator Capability	Yes, Optional, Can be integrated with ATS	
<b>Packing Data</b>		
Solar Inverter / Charger / UPS		
Dimension, W x D x H ( max, mm)	Modular : 443x580x130	
	Cabinet: 600x840x1400	Cabinet: 600x1100x2000
Gross Weight (KG)	33 for Modular, 169 for Cabinet	33 for Modular, 305 for Cabinet
Solar MPPT Charger Controller		
Dimension, W x D x H ( max, mm)	Modular : 483*690*130	
	Cabinet: 600*960*2000	
Gross Weight (KG)	22 for Modular, 120 for Cabinet	

**Solar PV off-grid system solutions with multi-source EMS, including PV, Battery, Grid, Genset**

