

20/25/30/36kW Three Phase Grid-tied PV Inverters

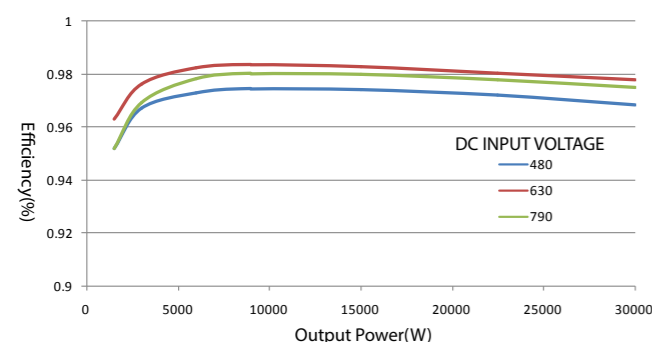
CPS SCA20/25/30KTL-DO and SCA36KTL-DO grid-tied PV inverters are transformerless, three phase products. The maximum input voltage is 1000V which makes the configuration more flexible. Patented 3-level control algorithm and thermal design provide 98.6% maximum efficiency and 98.1% Euro efficiency. This type three phase string inverters are designed with the DC switch integrated. And provide a standard for fuse which designed in the wiring box. Integrated PV input string fault detection circuit and PV input arcing fault detection circuit to ensure the safety.



CPS SCA20KTL-DO CPS SCA30KTL-DO
CPS SCA25KTL-DO CPS SCA36KTL-DO

Efficiency Curve

CPS SCA30KTL-DO @400Vac



High Efficiency

- Maximum efficiency of 98.6%, Euro efficiency of 98.1%
- 3-level technology and enhanced control mechanism to achieve high efficiency over wide load range
- 2 MPP trackers to achieve higher system efficiency
- Transformerless design

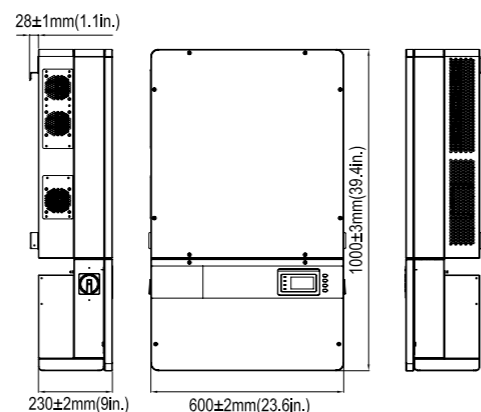
High Reliability

- Comprehensive protection functions
- Enhanced DSP system
- Integrated PV input string fault detection
- Integrated PV input arcing fault detection and interruption circuit
- Advanced thermal design, with variable speed fans
- Anti-Islanding protection
- Ground-fault detection and interruption circuit
- Optional DC SPD
- Electrolyte-free design for improved long-term reliability
- 5 years standard warranty, optional extension up to 20 years

Broad Adaptability

- Integrated String Current and Arc Fault Detecting
- Advanced PID Solutions
- Separate wiring box design
- Low voltage ride through, and provide reactive power to support the grid
- IP65, outdoor application
- Active power derating and Reactive power adjustable
- BDEW compatible
- 1000V maximum input voltage enable flexible configuration
- Broad MPPT range enable flexible PV string configuration
- Suitable for multi-inverter parallel application

Dimensions



Model Name	CPS SCA20KTL-DO	CPS SCA25KTL-DO	CPS SCA30KTL-DO	CPS SCA36KTL-DO-480
DC Input				
Nominal DC Input Power	21kW	26kW	31kW	37kW
Max. DC Input Power for each MPPT	12kW	14kW	16kW	19kW
Max. DC Input Voltage	1000Vdc	1000Vdc	1000Vdc	1000Vdc
Operating DC Input Voltage Range	300-900Vdc			
Start-up DC Input Voltage / Power	330V/300W			
Nominal DC Input Voltage	635Vdc			710Vdc
Number of MPP Trackers	2			
MPPT Voltage Range	400-800Vdc		480-800Vdc	540-800Vdc
Max. Input Current	2x27A	2x33A	2x33A	2x34A
Number of DC Inputs	4 strings x 2			
DC Disconnection Type	Integrated DC switch			
AC Output				
Rated AC Output Power	20kW	25kW	30kW	36kW
Max. AC Output Power	20kW	25kW	30kW	36kW
Rated Output Voltage	230/400Vac		277/480Vac	
Output Voltage Range*	320-460Vac		422-528Vac	
Grid Connection Type	3Φ/N/PE	3Φ/N/PE	3Φ/PE	3Φ/PE
Max AC Output Current	29A	36A	43.5A	43.5A
Rated Output Frequency	50Hz/60Hz			
Output Frequency Range*	47-53Hz/57-63Hz			
Power Factor	>0.99 (±0.8 adjustable)			
Current THD	<3%			
AC Inrush Current	99A Peak/203us		149A Peak/211us	
Maximum Output Fault Current	L-N/PE:100A Peak@320ms;56.6A RMS@20ms; L1/L2/L3 158A Peak@992ms; 70.4A RMS@20ms			
System				
Topology	Transformerless			
Max. Efficiency	98.4%			98.6%
Euro Efficiency	98.0%			98.1%
Stand-by / Night Consumption	<20W/<2W			
Protective Class	I			
Overvoltage Category	PV(II), Mains(III)			
Environment				
Protection Degree	IP65			
Cooling	Variable speed cooling fans			
Operating Temperature Range	- 25°C to +60°C (derating from +45°C)			
Operating Humidity	0-100%, non-condensing			
Operating Altitude	4000m (derating from 2000m)			
Display and Communication				
Display	LCD+LED			
Communication	Standard: RS485, USB, Multit-function Relay Option: Ethernet, 3G			
Mechanical Data				
Dimensions (WxHxD) (mm)	600x1000x230			
Weight (kg)	46 (Inverter)+8 (Wiring Box)			
Safety				
Safety and EMC Standard	LVD: 2006/95/EC EMC: 2004/108/EC, IEC/EN 62109-1: 2010, IEC/EN 62109-2: 2011; IEC/EN61000-6-2: 2005, IEC/EN61000-6-4: 2007			
Grid Standard	IEC61727;IEC61683;IEC600683;IEC62116;EN50438,BDEW;VDEAR-N-4105;VDE0126-1-1/A1; G59/3;C10/11;NB/T32004;GB/T19964;NRS097			

* The "Output Voltage Range" and "Output Frequency Range" may differ according to specific grid codes.

* MAX recommended PV array power ≤ 1.3P (P for Rated AC output power), PV array power range depend on the type of installation and geographical location.