

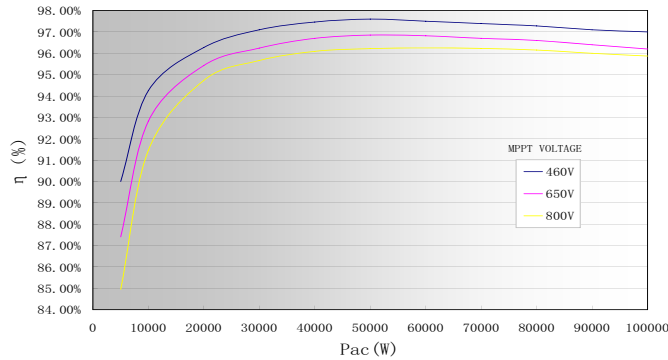
# 100kW Grid-tied PV Inverter

The CPS SC100KT grid-tied PV inverter is designed for flexible use in different types of commercial rooftops and utility. It features isolation output transformer, low loss magnetic materials, advanced MPPT control and variable structure SVPWM control to minimize power loss and achieve high efficiency at all load levels. Enhanced DSP control, comprehensive protection functions and advanced thermal design enable the whole system with high reliability.



CPS SC100KT

## Efficiency Curve



### High Efficiency

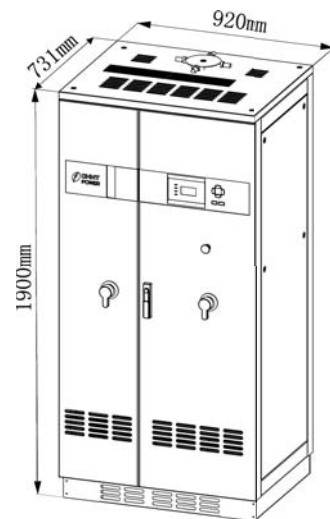
- Max. efficiency of 97.6%, Euro efficiency of 97.0%.
- ≥99.9% MPPT efficiency
- Sliding mode variable structure SVPWM control to achieve full load efficiency

### Broad Adaptability

- Multi-language display
- High altitude application
- Reactive power adjusting, active power derating (Optional)
- Negative grounded mode (Optional)

### High Reliability

- Designed for reliability
- Comprehensive protection functions
- Enhanced DSP control system
- Advanced thermal design, fan speed control
- Anti-islanding protection
- Embedded ground-fault circuit & interrupter
- Low frequency transformer
- Double MCU ensures multiple protection
- 3rd Party Monitoring
- 5 years standard warranty; optional additional 15 years



Dimensions (mm)



RD1663 ENEL

Model Name	CPS SC100KT
<b>DC Input</b>	
Nominal DC Input Power	103kW
Max. DC Input Power	110kW
Max. DC Input Voltage	880Vdc
Operating DC Input Voltage Range	430-820Vdc
Start-up DC Input Voltage / Power	470V/700W
Nominal DC Input Voltage	600V
Number of MPP Trackers	1
MPPT Voltage Range	450-820Vdc
Number of DC Inputs (strings)	4
Max. Input Current	250A
DC Disconnection Type	Integrated Breaker
PV Array Configuration	Standard: Floating; Optional: Negative grounded
<b>AC Output</b>	
Rated AC Output Power	100kW
Max. AC Output Power	100kW
Rated Output Voltage	400Vac
Output Frequency Range	-
Output Voltage Range	320-460Vac
Grid Connection Type	3 $\Phi$ /PE
Max AC Output Current	152A
Rated Output Frequency	50Hz/60Hz
Power Factor	>0.99 ( $\pm$ 0.9 adjustable)
Current THD	<3%
AC Disconnection Type	Breaker
<b>System</b>	
Topology	Transformer
Max. Efficiency	97.6%*
Euro Efficiency	97.0%
Stand-by / Night Consumption	<50W
<b>Environment</b>	
Protection Degree	IP20
Cooling	Variable speed cooling fans
Operating Temperature Range	-20°C to +60°C
Operating Humidity	0-95%, non-condensing
Operating Altitude	4000m
<b>Display and Communication</b>	
Display	LCD+LED
Communication	RS485
<b>Mechanical Data</b>	
Dimensions (WxHxD) (mm)	920x1900x736
Weight (kg)	880
<b>Safety</b>	
Safety and EMC Standards	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 Standards	VDE-AR-N_4105: 2011, VDE 0126-1-1/A1

\* Efficiency measured without an internal power supply at  $U_{DC} = 450 V$

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