

Copernico TL

Photovoltaic inverter
20 to 500 kVA
transformerless



Copernico TL da 500 kVA

Copernico TL technical data

Rating (kVA)	20	30	50	100	150	200	250	350	500
Nominal power (kW)	20	30	50	100	150	200	250	350	500
Max PV power (kWp)	24	35	60	120	180	240	295	410	580
Dimensions WxDxH (mm)	690x895x1345			800x800x1900		1000x800x2100		1600x1000x2100	
Weight (kg)	260	271	320	415	500	635	686	1150	1372

Input

Maximum voltage	1000 V								
MPPT range voltage	450 ÷ 820 V								
Maximum current (A)	46	69	115	230	345	460	570	795	1140
Input protection	Isolator PV switch + fuses			Isolator PV switch					

Output

Nominal voltage	300 V 3-phase								
Frequency	50 ÷ 60 Hz								
Power factor	0.99 Cos Ø depending on grid regulation								
Current harmonics (THD)	< 2 % @ nominal power and sinusoidal voltage								
Output protection	Electronic short-circuit protection - fuses - contactor								
Maximum efficiency (%)	>96.76	>97.21	>96.97	>97.37	>97.67	>97.73	>97.79	>97.95	>98.08
European maximum efficiency (%)	>94.77	>95.86	>96.01	>96.60	>97.03	>97.18	>97.17	>97.45	>97.69
Losses under normal operation at rated power	Wh	650	850	1500	2600	3500	4500	5500	12000
	BTU	2200	2900	5100	8800	12000	15300	18700	40900
Max PV power recommended (kWp)	24	35	60	120	180	240	295	410	580

Connectivity and function extensions

Front panel	LCD display, mimic LED panel and keyboard
Remote communication	Modbus RS485

System

Protection degree	IP 20
Colour	RAL 7035
Accessibility	Front access

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Environmental

Operating temperature range	-10 °C ÷ +50 °C
Storage temperature range	-10 °C ÷ +70 °C
Non-condensing relative humidity	<95%
Altitude	< 2000 m above sea level
Audible noise at 1 m (dBA)	<68

Standards and certifications

Quality assurance, environment, health and safety	ISO 9001:2008, ISO 14001:2004, BS OHSAS 18001:2007
Safety	IEC 62103 - EN 50178 - IEC 62109-1
EMC	IEC EN 61000-6-2, IEC EN 61000-6-4
Protection degree	IEC EN 60529
Marking	CE