

PAC-S String inverter series including boost converter for high flexibility

Quality

The design of the inverter series PAC-S, the use of high-quality components, the component-saving thermal management as well as the highest certified quality standards guarantee a long life time of the inverters.

OELMAIER Service

The display clearly informs about the status as well as the yield of the PV system and allows the installer a quick start up.

Performance

The inverter series PAC-S has an outstanding robustness against frequently occurring distortions in the electric mains and therefore guarantees a smooth power generation. The holistic MPP tracking procedure combines the advantages of several proven procedures. This enables optimal electricity generation and highest possible solar yields.

The transformerless inverters by OELMAIER Technology with performance of 2, 3, 4 or 5 kW are the result of long-term experience in power electronics and the innovative power of OELMAIER Technology.

The units of the S-series owns a boost converter, which will enlarge the input voltage range. This creates a high degree of flexibility in the combination of the PV modules to the various strings.

The above-average quality standard is shown in the fact that the 8-year guarantee can be extended to 12 or even 20 years.



PAC-S Technical Data

The string inverter series PAC-S has special kWh performance due to an intelligent mix of yield-relevant characteristics. The intuitive operation of the graphics display, the compact design as well as connection options enables simple installation. Protection type IP 44 as well as the optionally available cooling system coolPAC allow the use of the inverter even under most difficult environmental conditions. A comprehensive range of monitoring systems (logPAC), fast and exact software for systems dimensioning (PACdimension) as well as exceptional service complete the offer of OELMAIER Technology.

Inverter type	PAC 2 S	PAC 3 S	PAC 4 S	PAC 5 S
Input Data (DC)				
Nominal DC power (P_{DCnom})	2.200 W	3.200 W	4.300 W	5.400 W / 4.900 W ₁
Max. PV power (P_{PVmax})	2.400 W	3.600 W	4.800 W	6.000 W / 5.400 W ₁
Max. input voltage (U_{DCmax})	750 V DC			
MPP voltage range (U_{DCmpp})	200 - 600 V DC			
Max. input current (I_{DCmax})	12 A	18 A	24 A	30 A / 27 A
Output Data (AC)				
Nominal AC power (P_{ACnenn})	2.000 W	3.000 W	4.000 W	5.000 W / 4.600 W ₁
Max. AC power (P_{ACmax})	2.200 W	3.300 W	4.400 W	5.500 W / 5.060 W ₁
Max. output current (I_{ACmax})	12 A	18 A	24 A	30 A / 25 A
Mains voltage (U_{AC})	184 - 265 V			
Power factor ($\cos \varphi$)	1,0			
Distortion factor	< 3% across the whole range			
Efficiency				
Specifics	Robustness versus grid distortions, very exact MPP tracking			
Max. efficiency (η_{max})	96,75%	96,80%	96,85%	96,85%
European efficiency (η_{max})	95,42%	96,02%	95,94%	96,05%
Minimum feed-in performance	30 W			
Installation consumption	< 8 W			
Stand-by consumption	< 5 W			
General Data				
Warranty	8 years (extendable to 12 or 20 years)			
Dimensions (W x H x T)	[mm]	255 x 565 x 200	255 x 565 x 235	
Weight	[kg]	21 kg	26 kg	
Noise emissions	< 35 dB			
Ambient temperature	- 20 to + 50° C			
Nominal power up to an ambient temperature of	+ 35° C (+ 50° C optional with coolPAC ₂)			
Topology	Transformerless, 17 kHz IGBT full bridge technology + Boost converter			
Cooling concept	Convection (optional coolPAC ₂)			
Display	Graphics display			
Operation	5 touch buttons			
Connections				
Max. number of strings	2			
DC connection	MC IV connector			
AC connection	Screw clamp			
Fault signal contact	Screw clamp, potential-free, 250 VAC, 10 A			
Communication	RS 485 (15 pin SUB-D connector) and screw clamp			
S ₀ pulse output	Screw clamp			
Protectors				
DC-disconnector	integrated			
Overload protection	Varistors			
Temperature monitoring	✓			
Protection type	IP 44			
DC reverse polarity protection	✓			
AC short-circuit resistance	✓			
Ground leakage protection monitoring	✓			
Network monitoring	3-phase monitoring according to VDE 0126-1-1 / ENS			
Residual current monitoring	All-current sensitive residual current circuit-breaker			

1) Attention, please indicate the current EVU regulations. Power limit for unbalanced network loads. Delivery Status.
2) optional available cooling system for the PAC string inverter