Solar inverter

KS 5 series 3–5kW

As part of your photovoltaic system, EFFEKTA KS 5 solar inverters convert DC current directly from solar modules into AC current and feed it into the power grid. On the input side there is usually a DC/DC converter with a maximum power point tracker (MPPT) that feeds the intermediate circuit. On the output side there is a single-phase inverter, which feeds into the power grid and is automatically synchronized with the grid. The KS 5 series solar inverters with an output power of 3,000 to 5,000 watts are ideal for private use. The inverters are available as models with 1 MPP tracker (ST) or 2 MPP trackers (DT).

Special Features

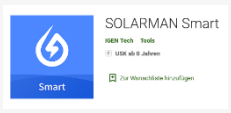
Features and options:

- Outstanding efficiency (up to 98.3%)
- Innovative, lightweight and compact design
- Extended input voltage range
- up to max. 600 VDC
- Simple operation via panel with intuitive 4 buttons and LCD display
- SOLARMAN connection for easy operation, monitoring or yield evaluation

- Extensive options:
  - WLAN-Plug
  - (external) DC disconnect switch
  - (external) current sensor

Outstanding usability thanks to the high-quality control panel with LCD display. Intuitive operation with 4 buttons.

Optional operation and evaluation via SOLARMAN app(1)



Control panel with LCD display / SOLARMAN app

(1) To operate the SOLARMAN app, the mobile device must be connected to the solar inverter via WiFi (optional WiFi plug).

Characteristics

- Outstanding Euro efficiency up to 97.9%
- Innovative lightweight and compact design
- Extended input voltage range up to max. 600 VDC
- High MPPT accuracy
- Extremely low night power loss
- Perfect cooling concept without any fans
- Easy to install
- Easy handling
- SOLARMAN connection
- Extensive electronic protection measures
- Insulation resistance monitoring
- LCD panel (monitoring / operation)
- RS485 for optional Wi-Fi plug
- Optional (external) DC disconnect switch
- Optional (external) current sensor

Specifications

KS 5		3000ST	5000DT
Input (DC)	Nominal DC power [W]	3000	6000*
	Max. DC voltage [V]	600VDC**	
	Max. input current per tracker [A]	15	15
	Number of MPP tracker	1	2
	MPPT voltage range [V]	80 - 560VDC**	
Output (AC)	Nominal AC power [W]	3000	4600*
	Max. AC power [W]	3300	4600*
	Max. output current [A]	14.5	20
	Wire / Nominal AC voltage	1 / N / PE, 230VAC	
	AC voltage window [V]	184VAC – 262VAC (Base 230VAC)	
	Frequency	50Hz, auto detect	
	Power factor (cosφ)	1	
	Total harmonic distortion (THDi) (%)	<3	
Efficiency	Max. efficiency	98.1%	98.3%
	Euro-efficiency	97.7%	97.9%
General / mechanical data	Dimensions (H x W x D) in mm	380x380x150	380x380x150
	Weight in kg	10	11
	Operating temperature range	-25°C ~ +60°C	
	Ingress protection	IP65 (not intended for outdoor use)	
	Cooling concept	convection cooling	
	LCD-Display	yes	
	Interface	RS485/external WIFI (Option)	
Terminals	Input (AC)	terminal connections	
	Output (DC)	MC-4	
Protection	Utility grid	Over/under voltage, over/under frequency, ground fault monitoring, DC isolation fault	
	Short circuit	DC input: reverse polarity protection / electronic circuit AC output: output relay / electronic circuit	
Regulations / standards	Safety	IEC 62109-1:2010 EN 62109-1:2010 IEC 62109-1:2011 EN 62109-2:2011 VDE V 0126-1-1:2013 VDE-AR-N 4105:2018 VDE V 0124-100:2020	
	EMC	EN 61000-6-1:2019 EN 61000-6-3:2007+A1:2011	
	Certifications	CE	

* Power reduction in the corresponding country specification "Germany" according to VDE-AR-N-4105

** Exceeding or outside of MPPT voltage range: Error message, no power feeding.