



12-20K

Grid-Tied Inverters

S5-GR3P(12-20)K(21A)

2 MPPT | 21A/32A/42A per MPPT



- String current up to 21A
- > 150% DC/AC ratio
- IP66, C5 Anti-Corrosion Level
- 24-hour load consumption monitoring
- Dual independent RS485 ports, supporting communication with multiple devices
- Adaptive weak grid

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DATASHEET

Models	12K	15K	17K	20K
Input DC				
Recommended max. PV power	18 kW	22.5 kW	25.5 kW	30 kW
Max. input voltage	1100 V			
Rated voltage	600 V			
Start-up voltage	160 V			
MPPT voltage range	160 - 1000 V			
Max. input current	32 A / 21 A		42 A / 32 A	
Max. short circuit current	40 A / 26.3 A		52.5 A / 40 A	
MPPT number / Max. input strings number	2 / 3		2 / 4	
Output AC				
Rated output power	12 kW	15 kW	17 kW	20 kW
Max. apparent output power	12 kVA	15 kVA	17 kVA	20 kVA
Max. output power	12 kW	15 kW	17 kW	20 kW
Rated grid voltage	3/N/PE, 220 V / 380 V, 230 V / 400 V			
Rated grid frequency	50 Hz / 60 Hz			
Rated grid output current	18.2 A / 17.3 A	22.8 A / 21.7 A	25.8 A / 24.6 A	30.4 A / 28.9 A
Max. output current	18.2 A / 17.3 A	22.8 A / 21.7 A	25.8 A / 24.6 A	30.4 A / 28.9 A
Power factor	> 0.99 (0.8 leading - 0.8 lagging)			
THDi	< 3%			
Efficiency				
Max. efficiency	98.5%	98.6%		98.7%
EU efficiency	97.9%	98.0%		98.1%
Protection				
DC reverse-polarity protection				Yes
Short circuit protection				Yes
Output over current protection				Yes
Surge protection				Yes
Grid monitoring				Yes
Anti-islanding protection				Yes
Temperature protection				Yes
I/V Curve scanning				Yes
Multi peak scan				Yes
Integrated AFCI 2.0				Optional
Integrated DC switch				Yes
General Data				
Dimensions (W × H × D)	310 × 518 × 219 mm			
Weight	19 kg		20.7 kg	
Topology	Transformerless			
Self-consumption (night)	< 1 W			
Operating ambient temperature range	-25 ~ +60°C			
Relative humidity	0 - 100%			
Ingress protection	IP66			
Noise emission (typical)	< 40 dB(A)		< 50 dB(A)	
Cooling concept	Natural cooling with internal fan		Intelligent fan-cooling	
Max. operation altitude	4000 m			
Grid connection standard	G99, VDE-AR-N 4105/VDE V 0124, EN 50549-1, VDE 0126/UTE C 15/VFR:2019, RD 1699/RD 244/UNE 206006/UNE 206007-1, CEI 0-21, C10/11, NRS 097-2-1, TOR, EIFS 2018.2, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530			
Safety / EMC standard	IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-2/-3/-4			
Features				
DC connection	MC4 connector			
AC connection	Quick connection plug			
Display	LCD			
Communication	RS485, Optional: Wi-Fi, GPRS			