

On-Grid Inverters

R1 Macro Series

3.68kW / 4kW / 5kW / 6kW
Single Phase, 2 MPPTs



-  Compatible with 500W+ PV modules
-  Optional AFCI protection function
-  150% DC input oversizing
-  Remote firmware upgrade
-  Type II SPD for both DC and AC
-  Build-in zero export function



Model	R1-3.68K	R1-4K	R1-5K-A	R1-5K	R1-6K
PV Input Data					
Max. Recommended PV Power [Wp]	5500	6000	7500	7500	9000
Max.PV power for single MPPT [W]	2800	3000	3750	3750	4500
Max.PV Input Voltage [V]	600				
MPPT Voltage Range [V]	80 ~ 550				
Full-load MPPT Voltage Range [V]	120 ~ 500	130 ~ 500	160 ~ 500	160 ~ 500	195 ~ 500
Rated Input Voltage [V]	360				
Start-up Voltage [V]	100				
No. of MPP Trackers	2				
No. of Input Strings per Tracker	1 / 1				
Max. PV Input Current [A]	16 / 16				
Max. Short-circuit Current [A]	20 / 20				
AC Output Data					
Rated AC Power [W]	3680	4000	5000	5000	6000
Max. Output Power [VA]	3680	4400	5000	5500	6000
Max. AC Current [A]	16	20	21.7	25	27.3
Rated AC Voltage / Range [V]	L / N / PE, 220 / 230				
Grid Frequency / Range [Hz]	50 / 60; ± 5				
Adjustable Power Factor [cosφ]	0.8 leading ~ 0.8 lagging				
Output THDi (@Rated Output)	< 3%				
Efficiency					
Max. Efficiency	97.9%	97.9%	97.9%	97.9%	97.9%
Euro Efficiency	97.2%	97.2%	97.2%	97.2%	97.2%
Protection					
DC Insulation Monitoring	Integrated				
Input Reverse Polarity Protection	Integrated				
Anti-island Protection	Integrated				
Residual Current Monitoring	Integrated				
AC Overcurrent Protection	Integrated				
AC Short-circuit Protection	Integrated				
DC Surge Protection	Integrated(Type II)				
AC Surge Protection	Integrated(Type II)				
AFCI Protection	Optional				
PID function	Optional				
DC Switch	Optional				
General Data					
Dimensions (W * H * D) [mm]	353 * 320 * 150				
Weight [kg]	10				
Display	LED + OLED				
Communication	RS485, USB Upgrade, Optional: WiFi, 4G, Ethernet				
Ambient Temperature Range [°C]	-25 ~ +60				
Relative Humidity	0 ~ 100%				
Operating Altitude [m]	≤ 2000				
Night Self-consumption [W]	< 1				
Topology	Transformerless				
Cooling	Natural				
Ingress Protection	IP65				
Noise [dB]	< 25				
Certifications & Standards					
Grid Regulation	VDE 0126-1-1, ORDINANCE No.140, G99				
Safety Regulation	EN IEC62109-1, EN IEC62109-2				
EMC	EN IEC 61000-6-1, EN IEC 61000-6-3				