

INSOLA

Residential On-grid Inverters

R1 Moto Series

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

Model	R1-8K	R1-10k
PV Input		
Max. Recommended PV Power [Wp]	12000	15000
Max. PV Power for single MPPT [Wp]	6000	7500
Max. PV Input Voltage [V]	600	
MPPT Voltage Range [V]	80~550	
Rated PV Input Voltage [V]	360	
Start-up Voltage [V]	100	
No. of MPP Trackers	2	
No. of Input Strings per Tracker	2/2	
Max. PV Input Current [A]	32/32	
Max. Short-circuit Current [A]	40/40	
AC Output		
Rated AC Output Power [W]	8000	10000 ^[1]
Max. AC Output Apparent Power [VA]	8800	10000 ^[1]
Max. AC Output Current [A]	40	45.5 ^[1]
Rated AC Voltage [V]	L / N / PE, 220 / 230	
Grid Frequency [Hz]	50/60	
Adjustable Power Factor [cosφ]	0.8 leading ~ 0.8 lagging	
Output THDi (@Rated Output)	< 3%	
Efficiency		
Max. Efficiency	98.1%	98.1%
Euro Efficiency	97.5%	97.5%
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	
DC Switch	Optional	
General Data		
Dimensions (W * H * D) [mm]	428 * 385 * 185	
Weight [kg]	17	
Display	LED + OLED	
Communication	RS485, USB Update, 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]	< 35	
Certifications & Standards		
Grid Regulation	ORDINANCE No.140	
Safety Regulation	IEC 62109-1, IEC 62109-2, EN 62919-1, EN62619-2	
EMC	EN IEC 61000-6-1, EN IEC 61000-6-3	

[1] The Max. AC output apparent power & Max. AC output current of R1-10K5 is 10500VA & 45.5A.