

INSOLA

Residential On-grid Inverters

R3 Pre Series



Compatible with 600W+ PV modules



150% PV input oversizing &
110% AC overloading



Remote firmware upgrade



Optional AFCI & Smart PID
recovery function



Type II SPD for both DC and AC



Wider MPPT voltage range
(180 ~ 1000V)

Model	R3-15K	R3-20k	R3-25k
PV Input			
Max. Recommended PV Power [Wp]	22500	30000	37500
Max. PV Power for single MPPT [Wp]	8000	12000	15000
Max. PV Input Voltage [V]	1100		
MPPT Voltage Range [V]	180~1000		
Rated PV Input Voltage [V]	600		
Start–up Voltage [V]	200		
No. of MPP Trackers	2		
No. of Input Strings per Tracker	2/2		
Max. PV Input Current [A]	40/40		
Max. Short–circuit Current [A]	50/50		
AC Output			
Rated AC Output Power [W]	15000	20000	25000
Max. AC Output Apparent Power [VA]	16500	22000	27500
Max. AC Output Current [A]	25	33.4	41.7
Rated AC Voltage [V]	3 / N / PE, 220 / 380, 230 / 400		
Grid Frequency [Hz]	50/60		
Adjustable Power Factor [cosφ]	0.8 leading ~ 0.8 lagging		
Output THDi (@Rated Output)	< 3%		
Efficiency			
Max. Efficiency	98.6%	98.6%	98.6%
Euro Efficiency	98.2%	98.2%	98.2%
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 Recovery Function	Optional		
DC Switch	Integrated		
General Data			
Dimensions (W * H * D) [mm]	520 * 412 * 200		
Weight [kg]	22		
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	Fan		
Ingress Protection	IP65		
Certifications & Standards			
Grid Regulation	NB/T 32004, ORDINANCE No.140, EN50549–1, EN50549–PL, IEC61727/IEC62116		
Safety Regulation	EN 62919–1, EN 62619–2		
EMC	EN IEC 61000–6–1, EN IEC 61000–6–3, EN 62920, EN IEC61000–3–11, EN IEC61000–3–12		