

R3 Note Series

RENAC

On-grid Inverter

R3-6K-12K, Three Phase



Remote Firmware
Update



Optional AFCI
protection function



Export control
function integrated



- ▶ 150% PV input oversizing & 110% AC overloading
- ▶ Wider MPPT voltage range (140 ~ 1000V)
- ▶ Type II SPD for both DC and AC
- ▶ Remote firmware upgrade & setting

Model	R3-6K	R3-8K	R3-10K	R3-12K
PV Input				
Max. Recommended PV Power [Wp]	9000	12000	15000	18000
Max. PV Power for Single MPPT [Wp]	4500	6000	7500	9000
Max. PV Input Voltage [V]	1100			
MPPT Voltage Range [V]	140 ~ 1000			
Rated PV Input Voltage [V]	600			
Start-up Voltage [V]	160			
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				
Rated AC Output Power [W]	6000	8000	10000	12000
Max. AC Output Apparent Power [VA]	6600	8800	11000	13200
Max. AC Output Current [A]	10	13.4	16.7	20
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	98.4%	98.5%	98.5%	98.5%
Euro Efficiency	97.5%	98.0%	98.0%	98.0%
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			
String Current Monitoring	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]	428 * 385 * 185			
Weight [kg]	15			
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	EN 50549-1, EN 50549-PL, IEC 61727, IEC 62116, IEC 60068, IEC 61683			
Safety Regulation	IEC 62109-1, IEC 62109-2			
EMC	EN IEC 61000-6-1, EN IEC 61000-6-2, EN IEC 61000-6-3, EN IEC 61000-6-4, EN 62920			