



On-grid Inverters

R1 Macro Series

4kW / 5kW / 6kW
Single Phase, 2 MPPT

RENAC R1 Macro Series is a single-phase on-grid inverter with excellent compact size, comprehensive software and hardware technology. The R1 Macro Series offers high efficiency and class-leading functional fan-less, low-noise design.



NATURAL COOLING,
MUTE OPERATION



REMOTE MONITORING



30% DC OVERSIZING



IP65 RATED



EASY INSTALLATION



BUILT-IN ZERO
EXPORT FUNCTION
(OPTIONAL)



R1 Macro Series

Model	NAC4K-DS	NAC5K-DS	NAC6K-DS
DC Input Data			
Max. Recommended PV Power [Wp]	5200	6500	7800
Max. DC Power for Single MPPT [Wp]	4000	4000	4000
Max. DC Input Voltage [V]		600	
MPPT Voltage Range [V]		100 ~ 550	
Rated Input Voltage [V]		360	
Start-up Voltage [V]		120	
No. of MPP Trackers		2	
No. of Input Strings per Tracker	1/1	1/1	1/1
Max. DC Input Current [A]	16 / 16	16 / 16	16 / 16
Max. Short-circuit Current per MPPT [A]	20 / 20	20 / 20	20 / 20
DC Switch		Optional	
AC Output Data			
Rated AC Power [W]	4000	5000	6000
Max. Output Power [VA]	4400	5500	6600
Max. AC Current [A]	19.2	24	28.7
Rated AC Voltage / Range [V]		220 / 230; 160 ~ 290	
Grid Frequency / Range [Hz]		50 / 60; ±5	
Adjustable Power Factor [cosφ]		0.8 leading ~ 0.8 lagging	
Output THDi (@Rated Output)		≤2%	
Efficiency			
Max. Efficiency	97.80%	97.80%	97.80%
Euro Efficiency	97.20%	97.20%	97.20%
General Data			
Size (Width*Height*Depth) [mm]		395 x 330 x 185	
Weight [kg]		12	
User Interface		LCD	
Communication		RS485(Standard), Wifi or GPRS	
Ambient Temperature Range [°C]		-25 ~ 60	
Relative Humidity		0 ~ 100%	
Operating Altitude [m]		≤4000	
Standby Self Consumption [W]		< 0.2	
Topology		Transformerless	
Cooling		Natural Convection	
Protection Grades		IP65	
Noise [dB]		< 30	
Warranty [years]		5 / 7 / 10	
Certifications & Standards			
Grid Regulation	VDE 0126-1-1, C10/11, G99, PEA, MEA, AS 4777, EN 50549, CEI 0-21, IEC 61727, IEC 62116, IEC 60068, IEC 61683, ABNT NBR 16150		
Safety Regulation	IEC 62109-1, IEC 62109-2		
EMC	EN 61000-3-2, EN 61000-3-3, EN 61000-3-11, EN 61000-3-12, EN 61000-6-2, EN 61000-6-3, IEC 61000-4-16, IEC 61000-4-18, IEC 61000-4-29		
Protection			
	<ul style="list-style-type: none"> • DC Insulation Monitoring • Input Reverse Polarity Protection • Anti-island Protection • Residual Current Monitoring 	<ul style="list-style-type: none"> • Over-heat Protection • AC Overcurrent Protection • AC Short-circuit Protection • AC Overvoltage Protection 	<ul style="list-style-type: none"> • DC Surge Protection • AC Surge Protection