

RI-ENERGYFLOW-MINI-R1



Product Description

The RI-ENERGYFLOW-MINI Series forms part of an expanding **RENAC by RAYLEIGH** family of inverters from Rayleigh Instruments.

These compact inverters are an ideal choice for residential projects with higher power density. Wider input voltage ranges offer more flexible installation and are a perfect match for high power PV panels.

On-Grid Inverters

- Available as 1.6kW, 2.7kW and 3.3kW
- Single Phase, 1 MPPT versions
- Max. PV input current 16A
- Natural cooling quiet operation
- Remote monitoring
- Compact Size
- 150% PV input oversizing
- Type II SDP for both DC and AC
- Over-temperature protection
- Integrated Export Control function
- IP65 Rated
- Easy installation
- G98 compliant
- Remote firmware upgrade and setting
- Optional AFCI protection function



DC Input Data (PV)

Model - RI-ENERGYFLOW-MINI-R1-	1K6	2K7	3K3
Max. Recommended PV Power [Wp]	2400	4050	4950
Rated Input Voltage [V]	360		
Max. DC Input Voltage [V]	500	550	550
MPPT voltage Range [V]	45...500	50...550	50...550
Start-up Voltage [V]	70		
No. of MPP Trackers	1		
No. of Input Strings per Tracker	1		
Max. DC Input Current [A]	16		
Max. Short-circuit Current [A]	20		

AC Output Data

Model - RI-ENERGYFLOW-MINI-R1-	1K6	2K7	3K3
Rated AC Power [W]	1600	2700	3300
Max. output power [VA]	1600	2700	3300
Max. AC Current [A]	7.3	12.3	15
Rated AC Voltage / Range [V]	L / N / PE, 220 / 230		
Grid frequency / range [Hz]	50 / 60Hz		
Adjustable Power Factor [cos Φ]	0.8 leading ~ 0.8 lagging		
Output THDi (@Rated Output)	<3%		

Efficiency

Model - RI-ENERGYFLOW-MINI-R1-	1K6	2K7	3K3
Max. Efficiency	97.5%	97.6%	97.6%
Euro Efficiency	96.9%	97.2%	97.2%

General Specifications

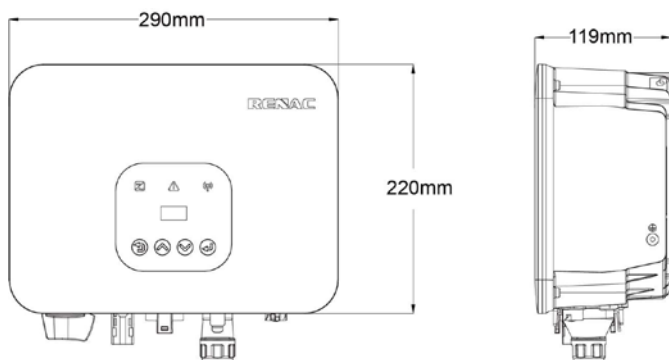
Model - RI-ENERGYFLOW-MINI-R1-	1K6	2K7	3K3
Size (Width*Height*Depth) [mm]	290 x 220 x 119		
Weight [KG]	5.5		
User Interface	LED + OLED		
Communication	RS485, USB Update, Optional WIFI, G4, Ethernet		
Ambient Temperature Range	-25...+60°C		
Relative Humidity	0 - 100%		
Operating Altitude [m]	≤ 2000		
Standby Self Consumption [W]	< 1		
Topology	Transformerless		
Cooling	Natural Convection		
Protection Grades	IP65		
Noise [dB]	< 25		
Warranty [years]	10 years		

Protection	DC Insulation Monitoring Input Reverse Polarity Protection Anti-island Protection Residual Current Monitoring Over-temperature Protection AC Overcurrent Protection AC Short-circuit Protection DC Surge Protection (Type II) AC Surge Protection (Type II) Optional AFCI Protection Optional DC Switch
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Certification & Standards

Grid Regulation	VDE 0126-1-1, G98, Ordinance No. 140
Safety Regulation	IEC 62109-1, IEC 62109-2, EN 62919-1, EN 62619-2
EMC	EN IEC 61000-6-1, EN IEC 61000-6-3

Dimensions (mm)



Model Selection Table

Description	Model
1600W AC Output Inverter	RI-ENERGYFLOW-MINI-R1-1K6
2700W AC Output Inverter	RI-ENERGYFLOW-MINI-R1-2K7
3300W AC Output Inverter	RI-ENERGYFLOW-MINI-R1-3K3