

RI-ENERGYFLOW-3P-SERIES-250



Product Description

The RI-ENERGYFLOW-3P-SERIES-250 range forms part of an expanding family of inverters from Rayleigh Instruments.

The inverters adopt a 12 MPPT design to provide a more flexible configuration. A 30A maximum input current on each string is suitable for high power modules for increased power generation.

3 Phase On-Grid Inverters

- Available as 200kW and 250kW
- Three-Phase, 12 MPPT versions
- 1500Vdc, 800Vac
- Remote monitoring
- Max. DC/AC ratio > 1.5
- Smart I-V curve function
- DC & AC Type II SPD
- AFCI Function (optional)
- Night SVG Function (Optional)
- PLC communication
- IP66 Rated
- Easy installation
- G98 and G99 compliant

DC Input Data

Model - RI-ENERGYFLOW-3P-SERIES-250-	200KW	250KW
Max. DC voltage	1500V	
Nominal voltage	1080V	
Min./Startup voltage	600V	
MPPT voltage range	600V-1500V	
MPPT voltage range at full load	880V-1300V	
Number of MPPT	12	
Number of Strings per MPPT	2	
Number of strings input	24	
Max. input current per MPPT	30A	
Max. short-circuit current per MPPT	50A	

AC Output Data

Model - RI-ENERGYFLOW-3P-SERIES-150-	120KW	150KW
Nominal AC output power	200kW@40°C / 175kW@50°C	250KW 30°C / 225KW 40°C / 200KW 50°C
Max. AC apparent power	200kVA	250kVA
Max. AC output power	200kW	250kW
Nominal AC voltage	800V,640...920Vac / 3W+PE	
AC grid frequency range	50/60Hz ±5Hz (adjustable)	
Rated output current	126.3A	162.4A
Max. output current	144.3A	178.6A
Power factor (cos Φ)	0.8 leading - 0.8 lagging	
THDi	<3%	

Efficiency

Model - RI-ENERGYFLOW-3P-SERIES-150-	120KW	150KW
Max. Efficiency	>99.01%	
Euro Efficiency	>98.52%	

General Specifications

Model - RI-ENERGYFLOW-3P-SERIES-150-	120KW	150KW
Dimensions W x H x D (mm)	1055 x 700 x 336	
Weight (KG)	110	
Operating temperature range	-25°C...+60°C (>50° derating)	
Cooling type	Fan cooling	
Max. operation altitude	4000m (>3000m derating)	
Max. operation humidity	0...100%	
Night power consumption	<10W	
IP class	IP66	
Topology	Transformerless	
Communication	RS485 /Bluetooth+APP	
Display	LED	
Protection	DC Isolator Switch Anti-island Protection Output over current DC reverse polarity protection String fault Detection AC/DC surge protection Insulation detection AC leakage current fault protection I/V Curve scanning *PID recovery (*Optional)	

Certification & Standards

Certification	EN/IEC62109-1; EN/IEC62109-2; IEC/EN61000-6-2; IEC/EN61000-6-4; IEC/EN61000-3-11; IEC/EN61000-3-12; IEC61683; IEC60068; IEC60529; IEC62116; IEC61727; EN50549-1; EN50549-2; NB/T32004-2018; GB/T19964-2012
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Model Selection Table

Description	Model
200kW AC Output On-grid Inverter	RI-ENERGYFLOW-3P-SERIES-250-200KW
250kW AC Output On-Grid Inverter	RI-ENERGYFLOW-3P-SERIES-250-250KW