

RI-ENERGYFLOW-3P-SERIES-150

3 Phase On-Grid Inverters



- Available as 120kW and 150kW
 - Three Phase, 10/12 MPPT versions
- Remote monitoring
- Max. DC/AC ratio up to 1.5
- 10 or 12 MPPTS versions
- Smart I-V curve function
- DC & AC Type II SPD
- AFCI Function (optional)
- IP66 Rated
- Easy installation
- G98 and G99 compliant

Product Description

The RI-ENERGYFLOW-3P-SERIES-150 range forms part of an expanding family of inverters from Rayleigh Instruments.

The inverters adopt a 10 or 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.

DC Input Data

Model - RI-ENERGYFLOW-3P-SERIES-150-	120KW	150KW
Max. Recommended PV Power [Wp]	180000	225000
Max. DC Input Voltage [V]	1100	
MPPT voltage Range [V]	200...1000	
Rated Input Voltage [V]	620	780
Start-up Voltage [V]	250	
No. of MPP Trackers	10	12
No. of Input Strings per Tracker	2	
Max. DC Input Current [A]	30 [2024 edition]	
Max. Short-circuit Current per MPPT [A]	40	
DC Switch	Integrated	

AC Output Data

Model - RI-ENERGYFLOW-3P-SERIES-150-	120KW	150KW
Rated AC Power [kW]	120@25°C, 110@40°C, 100@50°C	150@25°C, 136@40°C, 120@50°C
Max. output power [VA]	121000	150000
Max. AC Current [A]	176.4	174.5
Rated AC Voltage / Range [V]	3W+N+PE, 230 / 400Vac; 320...480V	3W+PE, 500Vac; 400...621V
Grid frequency / range [Hz]	50 / 60Hz ±5	
Adjustable Power Factor [cos Φ]	0.8 leading ~ 0.8 lagging	
Output THDi (@Rated Output)	<3%	

Efficiency

Model - RI-ENERGYFLOW-3P-SERIES-150-	120KW	150KW
Max. Efficiency	98.70%	99.00%
Euro Efficiency	98.30%	98.50%

General Specifications

Model - RI-ENERGYFLOW-3P-SERIES-150-	120KW	150KW
Size (Width*Height*Depth) [mm]	1055 x 700 x 336	
Weight [KG]	98	110
User Interface	LED Indicator, Blue tooth + APP	
Communication	RS485 (Standard), Wifi or GPRS	
Ambient Temperature Range [°C]	-25...+60	
Relative Humidity	0...100%	
Operating Altitude [m]	≤ 4000	
Standby Self Consumption [W]	< 1	
Topology	Transformerless	
Cooling	Fan Cooling	
Protection Grades	IP66	
Noise [dB]	< 60	≤ 70
Warranty (conditions apply)	10 years	
Protection	DC Insulation Monitoring DC Isolator Switch Input Reverse Polarity Protection Anti-island Protection Residual Current Monitoring Over-heat Protection AC Overcurrent Protection AC Short-circuit Protection AC Overvoltage Protection DC Surge Protection AC Surge Protection	

Certification & Standards

Grid Regulation	IEC 61727, IEC 62116, G98, G99
Safety Regulation	IEC 62109-1, IEC 62109-2
EMC	EN 61000-6-2, EN 61000-6-4

Model Selection Table

Description	Model
120kW AC Output On-grid Inverter	RI-ENERGYFLOW-3P-SERIES-150-120KW
150kW AC Output On-Grid Inverter	RI-ENERGYFLOW-3P-SERIES-150-150KW