

RI-ENERGYFLOW-3P-SERIES-125-R3



Product Description

The RI-ENERGYFLOW-3P-SERIES-125 range forms part of an expanding **RENAC by RAYLEIGH** family of inverters from Rayleigh Instruments.

These high efficiency, high reliability, three-phase inverters are compatible with large capacity PV panels, distributed commercial PV systems and large solar centralised PV power plants.

Available as 100kW, 110kW and 125kW versions they are equipped with IP66 protection, reactive power controls, and have a 9 MPPT design with a 16A maximum input current on each string and an integrated Export control function.

3 Phase On-Grid Inverters

- Available as 100kW, 110kW and 125kW
- Three Phase, 9 MPPT versions
- Remote monitoring
- 16A Max. PV input current
- 150% PV input oversizing and 11% AC overloading
- Integrated Export control function
- DC & AC Type II SPD
- IP66 Rated
- String monitoring and shorter O&M time
- AFCI & Smart PID recovery Function (optional)
- Easy installation
- G98 and G99 compliant



DC Input Data (PV)

Model - RI-ENERGYFLOW-3P-SERIES-125-	100KW	110KW	125KW
Max. Recommended PV Power [Wp]	150000	165000	187500
Max. DC Input Voltage [V]	1100		
MPPT voltage Range [V]	200...1000		
Rated Input Voltage [V]	650		
Start-up Voltage [V]	200		
No. of MPP Trackers	9		
No. of Input Strings per Tracker	2		
Max. DC Input Current [A]	32		
Max. Short-circuit Current per MPPT [A]	48		

AC Output Data

Model - RI-ENERGYFLOW-3P-SERIES-125-	100KW	110KW	125KW
Rated AC Power [W]	100000	110000	125000
Max. output power [VA]	110000	121000	125000
Max. AC Current [A]	159.4	175.4	181.2
Rated AC Voltage / Range [V]	3 / N / PE, 220 / 380, 230 / 400		
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-3P-SERIES-125-	100KW	110KW	125KW
Max. Efficiency	98.70%		
Euro Efficiency	98.30%		

Protection

Model - RI-ENERGYFLOW-3P-SERIES-125-	100KW	110KW	125KW
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 Specifications

Model - RI-ENERGYFLOW-3P-SERIES-125-	100KW	110KW	125KW
Size (Width*Height*Depth) [mm]	965 x 700 x 355		
Weight [KG]	88		
Display	LED		
Communication	RS485 (Standard), Wifi		
Ambient Temperature Range [°C]	-30...+60		
Relative Humidity	0...100%		
Operating Altitude [m]	≤ 4000		
Standby Self Consumption [W]	< 1		
Topology	Transformerless		
Cooling	Fan		
Protection Grades	IP66		
Warranty (conditions apply)	10 years		

Certification & Standards

Grid Regulation	IEC 61727, IEC 62116, Ordinance No. 140, G98, G99
Safety Regulation	IEC 62109-1, IEC 62109-2
EMC	EN 61000-6-2, EN 61000-6-4

Model Selection Table

Description	Model
100kW AC Output On-grid Inverter	RI-ENERGYFLOW-3P-SERIES-125-100KW-R3
110kW AC Output On-Grid Inverter	RI-ENERGYFLOW-3P-SERIES-125-110KW-R3
125kW AC Output On-Grid Inverter	RI-ENERGYFLOW-3P-SERIES-125-125KW-R3