

RI-ENERGYFLOW-3P-SERIES-80



3 Phase On-Grid Inverters

- Available as 50kW, 60kW, 70kW, 75kW and 80kW
- Three Phase, 3-4 MPPT versions
- Fan cooling
- Remote monitoring
- Compact Size
- IP65 Rated
- Easy installation
- Optional built-in Zero Export function
- G98, G99 and G100 compliant

Product Description

The RI-ENERGYFLOW-3P-SERIES-80 Range forms part of an expanding family of inverters from Rayleigh Instruments.

These inverters are ideal for medium to large sized commercial projects, especially for large-scale commercial roofs and farm plants.

The range applies advanced topology and innovative control technology to achieve a maximum efficiency of 99.0% and maximum long-term returns and profitability for project owners.

DC Input Data

Model - RI-ENERGYFLOW-3P-SERIES-80-	50KW	60KW	70KW	75KW	80KW
Max. Recommended PV Power [Wp]	75000	90000	10500	112500	120000
Max. DC Input Voltage [V]	1000	1100	1100	1100	1100
MPPT voltage Range [V]	200...950	200...1000	200...1000	200...1000	200...1000
Rated Input Voltage [V]	620				
Start-up Voltage [V]	250				
No. of MPP Trackers	3	3	4	4	4
No. of Input Strings per Tracker	4/4/4	4/4/4	3/3/3/3	4/4/3/3	4/4/3/3
Max. DC Input Current [A]	36/36/36	44/44/44	33/33/33/33	44/44/33/33	44/44/33/33
DC Switch	Integrated				

AC Output Data

Model - RI-ENERGYFLOW-3P-SERIES-80-	50KW	60KW	70KW	75KW	80KW
Rated AC Power [W]	50000	60000	70000	75000	80000
Max. output power [VA]	55000	66000	77000	75000	88000
Max. AC Current [A]	72	95.3	111.1	109	127
Rated AC Voltage / Range [V]	3/PE 380 ,400 ;+/-20% ;3/N/PE 380 ,400 ;+/-20%				
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-80-	50KW	60KW	70KW	75KW	80KW
Max. Efficiency	98.60%	99.00%	99.00%	99.00%	97.30%
Euro Efficiency	98.20%	98.37%	98.50%	98.50%	96.80%
MPPT Efficiency	99.90%	99.90%	99.90%	99.90%	99.90%

General Specifications

Model - RI-ENERGYFLOW-3P-SERIES-80-	50KW	60KW	70KW	75KW	80KW
Size (Width*Height*Depth) [mm]	636 × 958 × 260	630 × 815 × 280	640 × 841 × 285	640 × 841 × 285	640 × 841 × 285
Weight [KG]	68	63	76	79	79
User Interface	LCD				
Communication	RS485 or WIFI or GPRS				
Ambient Temperature Range	-25...60°C				
Relative Humidity	0 - 100%				
Operating Altitude [m]	≤ 4000				
Standby Self Consumption [W]	< 1				
Topology	Transformerless				
Cooling	Fan Cooling				
Protection Grades	IP65				

Noise [dB]	< 60
Warranty [years]	5 years (Optional 7 or 10 years)
Protection	DC Insulation Monitoring 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	PEA, MEA, IEC61727, IEC62116
Safety Regulation	IEC 62109-1, IEC 62109-2
EMC	EN 61000-6-2, EN 61000-6-4

Model Selection Table

Description	Model
50kW AC Output Inverter	RI-ENERGYFLOW-3P-SERIES-80-50KW
60kW AC Output Inverter	RI-ENERGYFLOW-3P-SERIES-80-60KW
70kW AC Output Inverter	RI-ENERGYFLOW-3P-SERIES-80-70KW
75kW AC Output Inverter	RI-ENERGYFLOW-3P-SERIES-80-75KW
80kW AC Output Inverter	RI-ENERGYFLOW-3P-SERIES-80-80KW