

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] | 1100 | | | | |
| MPPT voltage Range [V] | 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] | 44/44/44 | 44/44/44 | 35/35/35/35 | 44/44/35/35 | 44/44/35/35 |
| Max. short-circuit Current per MPPT [A] | 46/46/46 | 46/46/46 | 46/46/46/46 | 60/60/46/46 | 60/60/46/46 |
| 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] | 74.4 | 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 | 99.00% | 99.00% | 99.00% | 99.00% | 99.00% |
| Euro Efficiency | 98.37% | 98.37% | 98.50% | 98.50% | 98.50% |

General Specifications

| Model - RI-ENERGYFLOW-3P-SERIES-80- | 50KW | 60KW | 70KW | 75KW | 80KW |
|-------------------------------------|-----------------------|-----------------|-----------------|-----------------|-----------------|
| Size (Width*Height*Depth) [mm] | 630 × 815 × 260 | 630 × 815 × 260 | 640 × 841 × 285 | 640 × 841 × 285 | 640 × 841 × 285 |
| Weight [KG] | 62 | 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, G98, G99 |
| 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 |