

RI-ENERGYFLOW-MIDI Series

String Grid-Tied PV Inverters



- Available as 3.0kW, 3.6kW, 4.0kW, 4.6kW, 5.0kW and 6.0kW - Single Phase versions
- Max. PV voltage up to 600V
- DC power up to 1.35 ratio
- High efficiency operation - up to 97.8%
- DC/AC surge protection
- Reactive power controller
- Natural cooling
- Remote monitoring
- Compact and lightweight and IP65 Rated
- Easy installation
- Optional Wi-Fi/GPRS plug
- G98, G99 and G100 compliant

Product Description

The RI-ENERGYFLOW-MIDI Series forms part of an expanding family of inverters from Rayleigh Instruments.

These inverters are an ideal choice for residential projects with higher power density. Wider input voltage ranges offer more flexible installation and are a perfect match for high power PV panels.

DC Input

Model - RI-ENERGYFLOW-MIDI-	3.0D	3.6D	4.0D	4.6D	5.0D	6.0D
Max. DC power	4050W	4860W	5400W	6210W	6750W	8100W
Max./Rated DC voltage	600V / 380V					
Min. / Start DC voltage	120V / 100V					
MPPT voltage range	80V-550V					
Number of MPPT	2					
Strings per MPPT	1					
Max. input current per MPPT	15A					

AC Output

Model - RI-ENERGYFLOW-MIDI-	3.0D	3.6D	4.0D	4.6D	5.0D	6.0D
Rated AC output power	3000W	3600W	4000W	4600W	5000W	6000W
Max. AC output power	3300VA	3960VA	4400VA	5060VA	5500VA	6600VA
Rated AC voltage	230Vac					
AC voltage range	230Vac±20%					
Rated AC grid frequency	50 / 60Hz					
AC grid frequency range	50 / 60Hz(±5Hz)					
Max. output current	14.4A	17A	19A	22A	24A	26A
Power Factor (cos ϕ)	0.8 leading - 0.8 lagging					
THDi	<3%					

Efficiency

Model - RI-ENERGYFLOW-MIDI-	3.0D	3.6D	4.0D	4.6D	5.0D	6.0D
Max. efficiency	98.1%	98.1%	98.3%	98.3%	98.3%	98.3%
Euro efficiency	97.7%	97.7%	97.9%	97.9%	97.9%	97.9%

Protection Devices

Model - RI-ENERGYFLOW-MIDI-	3.0D	3.6D	4.0D	4.6D	5.0D	6.0D
Anti-islanding protection	Yes					
Output over current protection	Yes					
Output short protection	Yes					
DC reverse-polarity protection	Yes					
DC Isolator Switch	Yes					

Mechanical

Model - RI-ENERGYFLOW-MIDI-	3.0D	3.6D	4.0D	4.6D	5.0D	6.0D
Dimensions W x H x D (mm)	380 x 380 x 150					
Weight	11Kg					

Environmental

Model - RI-ENERGYFLOW-MIDI-	3.0D	3.6D	4.0D	4.6D	5.0D	6.0D
Operating temperature range	-25°C...+60°C					
Noise emission (typical)	<25dB					
Cooling type	Natural cooling					
Protection rating	IP65					
Max. operation altitude	4000m					
Max. operation humidity	0...100%					

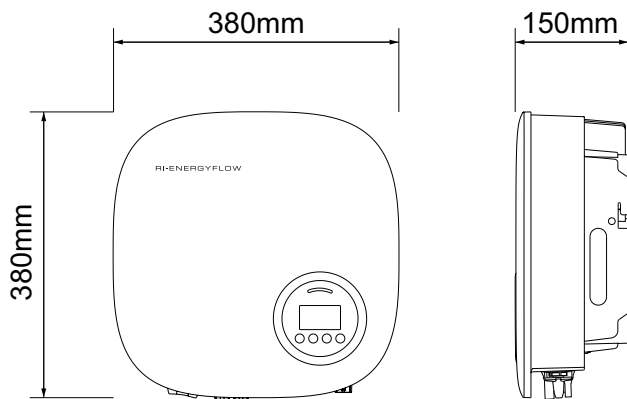
Additional Features

Model - RI-ENERGYFLOW-MIDI-	3.0D	3.6D	4.0D	4.6D	5.0D	6.0D
Display	LED & LCD					
Interfaces	RS485 / Wi-Fi / 4G					
Optional	DC Switch / WiFi Plug / GPRS Plug					
Topology	Transformerless					
AC Output terminal type	Quick connector					

Certification & Standards

Grid Regulation	IEC61683, IEC60068, IEC62116, IEC61727, EN50549-1, AS4777, NRS 097, VDE-AR-N-4105, VDE 0126-1-1, CEIO-21, G98, G99, C10/C11, TED749, UNE217001, UNE217002, NB/T32004-2018, GB/T19964-2012, INMETRO
Safety Regulation	IEC60529, IEC 62109-1, IEC 62109-2
EMC	IEC/EN61000-6-2, IEC/EN6100-6-4

Dimensions (mm)



Model Selection Table

Description	Model
3000W AC Output Inverter Dual MPPT	RI-ENERGYFLOW-MIDI-3.0D
3600W AC Output Inverter Dual MPPT	RI-ENERGYFLOW-MIDI-3.6D
4000W AC Output Inverter Dual MPPT	RI-ENERGYFLOW-MIDI-4.0D
4600W AC Output Inverter Dual MPPT	RI-ENERGYFLOW-MIDI-4.6D
5000W AC Output Inverter Dual MPPT	RI-ENERGYFLOW-MIDI-5.0D
6000W AC Output Inverter Dual MPPT	RI-ENERGYFLOW-MIDI-6.0D