

RI-ENERGYFLOW-3P-MODULAR



3 Phase Modular Inverter & Battery Solution for Solar and Energy Storage

Product Description

The RI-ENERGYFLOW-3P-MODULAR system is a family of modular inverters and battery storage units.

The three-phase inverter is available with a choice of 3 battery sizes from 5.12kWh to 15.36kWh:-

RI-ENERGYPACK-MODULAR-5.1

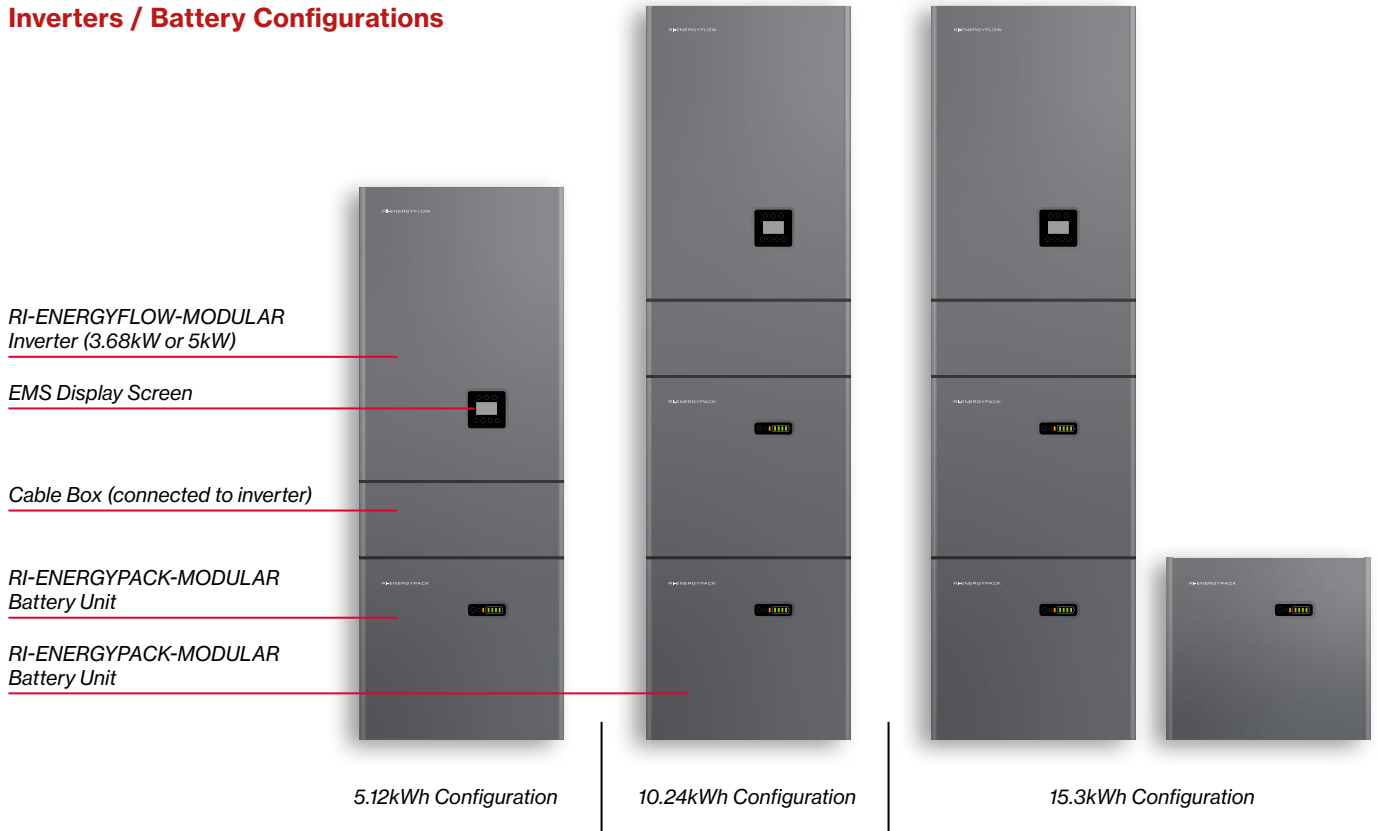
RI-ENERGYPACK-MODULAR-10.2

RI-ENERGYPACK-MODULAR-15.3

The units are supplied in an integrated modular housings that are easy to install and easy on the eye.

- 10kW power output modular three-phase storage solution
- Choice of 5.12kWh, 10.24kWh or 15.36kWh battery sizes
- Adjustable power in each phase
- Support for diesel generator control (DI/DO)
- Supporting 200% oversized PV power On & Off grid parallel system
- Back-up, self-use, off-grid and force time user modes
- Easy indoor or outdoor installation - IP65 rated
- Can be configured to operate as a back-up supply
- Short Circuit, AC Leakage, Grounding, Anti-islanding, Overload, Surge, Temperature and DC Polarity protection
- Simple operation - Programmable software, App control and remote cloud monitoring

Inverters / Battery Configurations



Technical Data - Inverters

RI-ENERGYFLOW-3P-MODULAR-10kW	
PV string input	
Max. Continuous PV Input Power	20kW
Max. DC Voltage	1100V
Nominal Voltage	720V
MPPT Voltage Range	140V-1000V
MPPT Range (Full Load)	420V-850V
Start Voltage	130V
MPPT Tracker / Strings	2/2
Max. Input Current Per MPPT	15A
Max. Short-circuit Current Per MPPT	20A
AC Output (Gird)	
Nominal AC Output Power	10kW
Max. AC Apparent Power	11kVA
Nominal AC Voltage	400Vac 3W+N+PE
AC Grid Frequency Range	50 / 60Hz
Max. Output Current	14.5A
Max. Input Current	16A
Power Factor (cos Φ)	0.8 leading - 0.8 lagging

RI-ENERGYFLOW-3P-MODULAR-10kW	
AC Output data (Back-up)	
Max. Output Apparent Power	10kVA
Rated Output Power	9.2kW
Rated/Max. Output Current	14.5A/16A
Nominal Output Voltage	400V
Nominal Output Frequency	50/60Hz (±2%)
Output THDv (@Linear Load)	<3% (Linear load)
Battery Input Data	
Battery Type	LFP (LiFePO4)
Nominal Battery Voltage	48V
Max. Charging Voltage	40...60V
Max. Charging/Discharging Current	200A / 200A
Communication interfaces	RS485 / CAN
Efficiency	
Max. efficiency	97.6%
Euro efficiency	97%
Max. Battery to Load Efficiency	94%
Battery charged by PV Max. Efficiency	98%
General data	
Dimension [W x H x D]	540 x 980 x 240 mm
Weight	42kg
Mounting	Wall fixing
User Interface	LCD/App
Communication	RS485 / CAN2.0 / WIFI / 4G
Operating Temperature Range	-25°C...+60°C (Derating >45°C)
Relative Humidity	0...95% (No condensation)
Max. Operating Altitude	3000m (Derating > 2000m)
Standby Self Consumption	2W per module
Topology	Battery Isolation
Cooling	Natural Convection
Protection Grades	IP65
Noise	<25db
Warranty	5year Product Warranty, 10 Year Performance Warranty*
Protection	DC Isolator Switch Anti-islanding Protection Output Overcurrent Protection DC Reverse Polarity Protection String Fault Detection AC/DC Surge Protection - DC Type II, AC Type III Insulation Detection AC Short-circuit Protection

Technical Data - Batteries

	RI-ENERGYPACK-MODULAR-5.1	RI-ENERGYPACK-MODULAR-10.2	RI-ENERGYPACK-MODULAR-15.3
Nominal Energy	5.12kWh	10.24kWh	15.36kWh
Voltage Range	44.8V...56.5V		
Nominal Voltage	51.2V		
Max. Charging Current	50A	100A	100A
Max. Discharging Current	80A	100A	100A
Battery Type	LFP (LiFePO4)		
Communication	CAN and RS485 compatible		
Max. Storage Period	6 months		
Humidity Range	0...95%		
Ambient Temperature	0°C...50°C (Charging) / -10°C...50°C (Discharging)		
Storage Temperature Range	-30°C...60°C		
IP Grade	IP65		
Battery dimensions (mm)	540 × 490 × 240	540 × 980 × 240	540 × 980 × 240 and 540 × 490 × 240
Battery weight	Approx. 54Kg	Approx. 108Kg	Approx. 162Kg
Nominal Energy(kWh)	5.1kWh	10.2kWh	15.3kWh
Max Power(kW)	3.84kW Charge / 2.4kW Discharge	4.8kW Charge & Discharge	4.8kW Charge & Discharge
Cycle Life	10,000		
3S Peak Power(kW)	6.9kW		
3S Peak Current(A)	30A		
Charging Current(A)	50A (3.6kW Inverter) / 100A (5kW Inverter)		
Discharge Current(A)	50A (3.6kW Inverter) / 100A (5kW Inverter)		
Ventilation type	Passive and Active Cooling		
Certifications	IEC/EN 62619;UN38.3		

Certification & Standards

Regulations	Pack: IEC/EN 62619;UN38.3 Cell: IEC/EN 62619;UN38.3;UL1973
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Model Selection Table

Inverter and Battery Size	Model
10kW AC output Inverter with 5.12kWh Battery Storage	RI-ENERGYFLOW-3P-MODULAR-10kW/5.12kWh
10kW AC output Inverter with 10.24kWh Battery Storage	RI-ENERGYFLOW-3P-MODULAR-10kW/10.2kWh
10kW AC output Inverter with 15.36kWh Battery Storage	RI-ENERGYFLOW-3P-MODULAR-10kW/15.3kWh