

AC/DC Power Inverter

GRUNDFOS RSI

The intelligent NEMA 4X, off-grid Solar Inverter (RSI) is designed to run traditional submersible or above-ground pumps, from DC or AC power sources. Capable of powering 3p pumps up to 50 hp, 440V, the RSI greatly expands possibilities for solar water solutions offering low (or nearly no) operating costs to end users.

KEY FEATURES AND BENEFITS

Weatherproof for outdoor installation

With a NEMA 4X enclosure class rating, the RSI is resistant to rain, dust and sand, meaning there is no requirement for a weatherproof cabinet. The RSI can handle ambient temperatures up to 140 °F (60 °C), and can be placed directly beneath the solar panel array - reducing the DC cable length and installation costs.

Continuous system optimization

Advanced MPPT software improves power and water output by up to 30 % by continuously optimizing for changes in temperature, multiple local power points due to partial shading and power oscillation due to rapid cloud movement

Quick setup with Grundfos pump motors

The RSI's quick setup wizard includes a built-in Grundfos motor library. Simply select your motor type and pre-set value; no parameter input is necessary. This means that wizard setup can take place in shop and field installation can be completed in less than 5 minutes.

AC/DC Compatible Drive

The RSI can be connected to both DC and AC power sources – enabling users to utilize different between power sources based on needs, weather or time of day.



APPLICATIONS

- Water Intake
- Pivot Pressure
- Drip & Micro Spray
- Water Transfer
- Boosting

AN INVESTMENT THAT PAYS FOR ITSELF

Installing an RSI with a new or existing pump system can save a substantial amount of money. Find out how much your customers can save with our return on investment (ROI) calculator: grundfos.us/renewables

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TECHNICAL DATA

Power (P2)	DC (input to drive)	AC (input to motor)
3 HP to 50 HP	Max. 800 VDC	3 x 380-440 V
2 HP to 20 HP	Max. 300 VDC	3 x 208-240 V

Category	Parameter	3 x 380 - 440V	3 x 208 - 240V
Installation Environment	Min. Ambient Temperature	14 °F (-10 °C)	14 °F (-10 °C)
	Max. Ambient Temperature	140 °F (60 °C)	140 °F (60 °C)
	Max. Relative Humidity	100 %	100 %
Electrical Data	Min. MPPT Voltage	400 VDC	230 VDC
	Max. Input Voltage	800 VDC	380 VDC
	Min Frequency	5 Hz	5 Hz
	Max. Frequency	60 Hz	60 Hz
	Output, Phase	3 Phase	3 Phase
	Output, Rated Voltage	440 VAC	220 VAC
Enclosure class	Enclosure class	IP66	IP66

Power Size, HP	Product Number		Electrical Data	
	3 x 380 - 440 V	3 x 208 - 240V	Rated Output Current, Amp	
			3 x 380 - 440 V	3 x 208 - 240 V
2	-	99090622	-	8
3	99044348	99090633	5.6	11
4	99044349	99090634	8	12.5
5	99044350	99090635	9.6	18
7.5	99044351	99090636	12	24.2
10	99044352	99090637	16	31
15	99044363	99090638	23	48
20	99044364	99090639	31	62
25	99044365	-	38	-
30	99044366	-	46	-
40	99044367	-	61	-
50	99044368	-	72	-

ENSURE EFFICIENCY WITH CORRECT SIZING

Correct sizing of your solar energy water supply system is essential to ensure maximum ROI. Ensure that you select the right RSI for your application with our simple selection tool: product-selection.grundfos.com

Visit grundfos.us/pei to learn more about Department of Energy (DOE) pump energy index (PEI) requirements and PEI ratings on specific Grundfos models.