RIPEENERGY
The Power Conversion Company

RSW1300 3-PHASE RAILWAY SINEWAVE INVERTER

SERIES RSW1300-3P

The RSW1300-3P consists of three phase sine-wave DC-AC inverters with galvanic isolation between input and output.

Start-up motors by means of a soft start. In the start-up, the ouput voltage and frequency rise linearly from 0V to set voltage and form 5Hz to set frequency.

The start-up ramp slope may be changed via RS-232 port
Set the rotation speed of a motor according to the appropriate Voltage/Frequency ratio.

Monitoring the status of the input and output.
Set and monitor parameters via RS-232.

The RSW1300-3P has a maximum output current protection. This protects the semiconductors even when an output short-circuit occurs.

It also features a disable function for input under-voltage.

Pure Sinewave

3-Phase Output

High frequency technology

Light weight, compact size

Full electronic protection

Extended temperature range

Remote inhibit (Standby)

Output fail alarm (Form B)

APPLICATIONS

- Railway Applications
- Industrial Controls
- Telecom Power Plants
- Marine & other rugged environments
- Electric Utilities and Substations
- Base Station Power

FEATURES

- Sine wave output voltage
- Suitable for motors control
- Adjustable output voltage
- High input-output isolation 3000Vrms
- Remote ON/OFF opto-coupled
- Remote control via RS232
- Designed for rolling applications according to EN50155
- Fire and smoke EN45545-2 approved
- Protection against overloads and short-circuits
- Protection against input undervoltage
- Output fail alarm by isolated relay contacts (Form B)

SPECIFICATIONS

Model	Input voltage		No load input current	Output voltage		Output Power	Output current	Output peak current 10ms (Iopk)	Effici-ency	Size
	nominal	range		nominal	range					
RSW1300 3-P 24-250	24Vdc	16.8 ... 30V	1.58A	250Vac	150...250V	1,1kW 1.3kVA	3.1A	6.6A	89 %	2
RSW1300 3-P 72-250	72Vdc	50.4 ... 90V	0.52A	250Vac	150...250V	1,1kW 1.3kVA	3.1A	6.6A	90 %	1
RSW1300 3-P 110-250	110Vdc	77 ... 138V	0.34A	250Vac	150...250V	1,1kW 1.3kVA	3.1A	6.6A	90 %	1
RSW1300 3-P 24-400	24Vdc	16.8 ... 30V	1.58A	400Vac	200...400V	1,1kW 1.3kVA	1.88A	3.4A	89 %	2
RSW1300 3-P 72-400	72Vdc	50.4 ... 90V	0.52A	400Vac	200...400V	1,1kW 1.3kVA	1.88A	3.4A	90 %	1
RSW1300 3-P 110-400	110Vdc	77 ... 138V	0.34A	400Vac	200...400V	1,1kW 1.3kVA	1.88A	3.4A	91 %	1

Input	
Input voltage range	-30, +25% Vin nom
Maximum input ripple	5% Vin nom (Vrms, 100Hz)
Inrush current	<25A
Polarity protection	By diode
Output	
Output voltage	250 or 400 Vac sinusoidal
Output voltage range	See table (adjust via RS-232)
Output frequency	50Hz, 5...60Hz via RS-232
Load regulation	< 4%
Line regulation	< 2 % Vin -25% ... +25% < 10% Vin -30% ... +30%
Output wave distortion THD	< 3% (average of 16 samples)
Output HF ripple	< 2.5%
Environmental	
Storage temperature	-25 ... 85°C
Operating temperature full load	-25 ... 55°C (EN50155 OT1)
Operating temperature 62.5% load	-25 ... 70°C (EN50155 OT3)
Operating temperature 25% load	-25 ... 85°C (EN50155 OT5)
Relative humidity without condensation	5 ... 95%
Cooling	Controlled internal fan
MTBF (MIL-HDBK-217-E; G_b, 25°C)	100.000 h
EMC	
Immunity according	EN61000-6-2, EN50121-3-2
Emissions according	EN61000-6-4, EN50121-3-2

Safety	
Dielectric strength: Input /output	3000 Vrms / 50Hz / 1min
Dielectric strength: Output / ground	1500 Vrms / 50Hz / 1min
Dielectric strength: Input / ground	1500 Vrms / 50Hz / 1min
Dielectric strength: Remote ON/OFF / Input	500 Vrms / 50Hz / 1min
Safety according to	EN60950-1, EN62368-1
Fire and smoke	EN45545-2
Mechanical	
Dimension	Size 1: 315x 180x 66.5 mm Size 2: 315x 200x 66.5 mm
Weight	<3200 g
Connections	Input wire 1.5mm² to 16mm² Output wire 0.75mm² to 4mm²
Protections	
Against overloads	Current limited
Against overtemperature	Shutdown with auto-recovery
Control	
Output failure alarm	Isolated contact relay open when alarm (0.16A at 160Vdc)
Remote ON/OFF input	ON: applying a voltage within the input voltage range OFF: open circuit or < 5V
Monitoring and programming	RS232 port

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Specifications Subject to Change Without Notice

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