

# RSW 3000 3-Phase Railway Sinewave Inverter

RoHS Compliant  
Directive 2002/95/EC



Pure sinewave



3-Phase 400VAC output



High frequency technology



Light weight, compact size



Full electronic protection



Extended temperature range



Designed for rolling applications according to EN50155



Input / output fail alarm (Form B)



Remote inhibit (Standby)

## Applications

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

## Sinewave Inverter

Series RSW3000-3P

### Description

The RSW3000 3-Phase supplies a 400VAC output voltage either from a 24V, 36V, 48V, 72V or 110VDC power source. The shape of the output voltage is pure sinewave - as from the grid.

The frequency can be set to 50Hz or 60Hz, and input and output are galvanically isolated.

The RSW3000 3-Phase is equipped with a maximum average power protection as well as maximum output peak current protection. This protects the semiconductors even when an output short-circuit occurs.

It also features a disable function for input under-voltage, which allows protecting the batteries from harmful discharges.

### Features

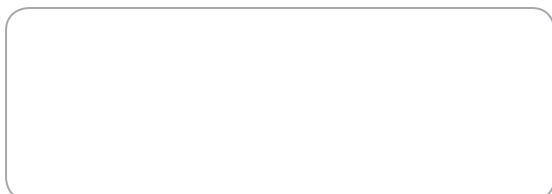
- Sine wave output voltage
- Suitable for motors
- Selectable output frequency: 50/60Hz
- High input-output isolation 3000Vrms
- Remote inhibit
- Reverse phase
- Remote control via RS232
- Adjustable output voltage
- Alarm by isolated relay contacts
- Remote off opto-coupled
- Designed for rolling applications according to EN50155
- Fire and smoke EN45545-2 approved
- Protection against overloads and short-circuits
- Protection against input undervoltage

## Specifications (Specifications Subject to Change Without Notice)

Model	Input	Output	Power	Output peak current		Efficiency	No load input current
				Arms 5s	Apk 10ms (I <sub>opk</sub> )		
<b>RSW3000 3-P 24-400</b>	24 Vdc	400 Vac	2400 VA	5.25A	11A	89 %	< 1.58 A
<b>RSW3000 3-P 36-400</b>	36 Vdc	400 Vac	3000 VA	6.6A	11A	90 %	< 1.05 A
<b>RSW3000 3-P 48-400</b>	48 Vdc	400 Vac	3000 VA	6.6A	11A	91 %	< 0.79 A
<b>RSW3000 3-P 72-400</b>	72 Vdc	400 Vac	3000 VA	6.6A	11A	91 %	< 0.52 A
<b>RSW3000 3-P 110-400</b>	110 Vdc	400 Vac	3000 VA	6.6A	11A	92 %	< 0.34 A

<b>INPUT</b>	
Input voltage range	-30, +25% Vin nom
Maximum input ripple	5% Vin nom (V <sub>rms</sub> , 100Hz)
<b>OUTPUT</b>	
Output voltage	400Vac, 200...400Vac via RS-232
Output frequency	50 / 60Hz via DIPswitch, 16...60Hz via RS-232
Load regulation	< 4%
Line regulation	< 2% Vin -25% ... +25%, < 10% Vin -30% ... +30%
Output wave distortion THD	< 2% (average of 16 samples)
Output HF ripple	< 2.5%
<b>ENVIRONMENTAL</b>	
Storage temperature	-25 ... 80°C
Operating temperature:	
Full load	-25 ... 55°C (EN50155 T1)
50% load	-25 ... 70°C (EN50155 T3)
Relative humidity without condensation	5 ... 95%
Cooling	Controlled internal fan
MTBF (MIL-HDBK-217-E; G <sub>b</sub> , 25°C)	100.000 h
<b>EMC</b>	
Immunity according	EN61000-6-2 (EN50121-3-2)
Emissions according	EN61000-6-4 (EN50121-3-2)
<b>SAFETY</b>	
Dielectric strength: Input / output	3000 Vrms / 50Hz / 1min
Dielectric strength: Output / ground	1500 Vrms / 50Hz / 1min
Dielectric strength: Input / ground	500 Vrms / 50Hz / 1min
Safety according to	EN60950-1
Fire and Smoke	EN455545-2
<b>MECHANICAL</b>	
Weight	<7150 g
Dimensions	401 x 220 x 80.5 mm
Connections	Input: M6 Screws Output: terminal block cable or solid wire max. 6mm <sup>2</sup> or AWG10
<b>PROTECTIONS</b>	
Protection against overloads < 10ms	Current limited at I <sub>opk</sub>
Protection against overloads > 10ms	I <sup>2</sup> T limited by shutdown
Against overtemperature	By shutdown
<b>CONTROL</b>	
Output OK LED	Green
Alarm LED	Red
Input alarm	Open when alarm. Maximum rating: 0.16A at 160Vdc
Output alarm	Open when alarm. Maximum rating: 0.16A at 160Vdc
Remote OFF input	15 ... 143 Vdc
Rotation inversion	15 ... 143 Vdc

Available from:



# RIPEnergy®

The power conversion company



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