

RSW 4500 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 RSW4500-3P

Description

The RSW4500 3-Phase supplies a 400VAC output voltage either from a 72V, 100V 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 RSW4500 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

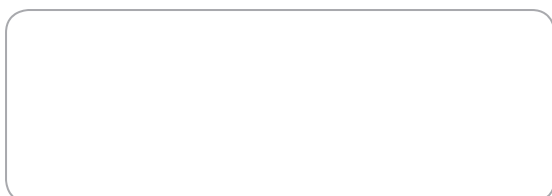
- Sine wave output voltage
- Suitable for motors
- Selectable output frequency: 50/60Hz
- High input-output isolation 3000Vrms
- Remote inhibit
- Reverse phase
- Remote control via RS232
- Adjustable output voltage
- Alarm by isolated relay contacts
- Remote off opto-coupled
- Designed for rolling applications 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 nominal	Max. input current		Output voltage		Power	Output current	Output peak current		Efficiency
		No load	Full load	Nom	range			Arms 10s	10ms (lopk)	
RSW4500 3-P 72-400	72 Vdc	0.76A	88 A	400Vac	50...400V	4500VA	6.50A	9.5A	15A	92 %
RSW4500 3-P 100-400	100 Vdc	0.49A	62 A	400Vac	50...400V	4500VA	6.50A	9.5A	15A	93 %
RSW4500 3-P 110-400	110 Vdc	0.44A	57 A	400Vac	50...400V	4500VA	6.50A	9.5A	15A	93 %

INPUT	
Input voltage range	-30, +25% Vin nom
Maximum input ripple	5% Vin nom (Vrms, 100Hz)
OUTPUT	
Output voltage	400Vac, 500...400Vac via RS-232
Output frequency	50 / 60Hz via DIPswitch, 5...75Hz 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%
ENVIRONMENTAL	
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 _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	500 Vrms / 50Hz / 1min
Safety according to	EN60950-1
Fire and Smoke	EN455545-2
MECHANICAL	
Weight	<7150 g
Dimensions	401 x 220 x 80.5 mm
Connections	Input: M6 Screws Output: terminal block cable or solid wire max. 6mm ² or AWG10
PROTECTIONS	
Protection against overloads	Current and I ² T limited
Against overtemperature	Shutdown with auto-revovery
CONTROL	
Output OK LED	Green
Input OK LED	Green
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	Off applying 15...143 Vdc, Impedance >35kOhm
Rotation inversion	Inversion applying 15...143 Vdc, Impedance >35kOhm

Available from:



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The power conversion company



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