



RSW750 RAILWAY SINEWAVE INVERTER

SERIES RSW750

The RSW750 consists of sinewave 120Vac or 230Vac output voltage DC/AC converters. The frequency can be set to 50Hz or 60Hz, and input and output are galvanically isolated.

The RSW750 inverters consist of two cascaded converters, one DC/DC generating an intermediate output voltage from the input voltage. That intermediate voltage is inverted to supply the output voltage and frequency by means of a second DC/AC converter.

The input is protected against reverse polarity by means of fuse and against under-voltage by unit shutdown.

The output has protection of maximum average power and maximum peak current. The unit shuts down when the operation curve limit is exceeded for more than one second. Every 2 seconds after shutdown, the unit tries to restart up to 3 times. If the overload persists, the unit remains shutdown until an input reconnection.

It also features a disable function for input undervoltage, which protects the batteries from harmful discharges.



Pure
Sinewave



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
- Selectable output frequency: 50/60Hz
- High input-output isolation 3000Vrms
- Remote inhibit
- Remote control via RS232
- Designed for rolling applications according to EN50155 and RIA12
- 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 Vdc	Input voltage range Vdc	Output voltage Vac	Output current A	Active Output power W	Appar. Output power VA	Output peak current (10ms)	Efficiency %	No load input current A
RSW750-12-230	12 ⁽¹⁾	9.5 - 15	230	2.0	450	750	10	85	0,80
RSW750-24-230	24	16.8 - 30	230	3.26	750	750	10	86	0,46
RSW750-36-230	36	25.2 - 45	230	3.26	750	750	10	87	0,36
RSW750-48-230	48	33.6 - 60	230	3.26	750	750	10	88	0,27
RSW750-72-230	72	50.4 - 90	230	3.26	750	750	10	88	0,17
RSW750-110-230	110	77 - 138	230	3.26	750	750	10	89	0,12
RSW750-12-120	12 ⁽¹⁾	9.5 - 15	120	3.75	450	750	16	84	0,80
RSW750-24-120	24	16.8 - 30	120	6.26	750	750	16	86	0,46
RSW750-36-120	36	25.2 - 45	120	6.26	750	750	16	87	0,36
RSW750-48-120	48	33.6 - 60	120	6.26	750	750	16	87	0,27
RSW750-72-120	72	50.4 - 90	120	6.26	750	750	16	87	0,17
RSW750-110-120	110	77 - 138	120	6.26	750	750	16	88	0,12

Input	
Input voltage range	See table
Maximum input ripple	5% Vin nom (Vrms, 100Hz)
Output	
Output voltage	120 / 230Vac sinusoidal
Load regulation	4%
Line regulation	0.4% @ ΔVin -20...+25%, 10% @ ΔVin -30...+25% (1% @ ΔVin -10...+25%, 10% @ ΔVin -20...+25%) ⁽¹⁾
Output frequency	50 / 60Hz ± 0.25Hz
Output wave distortion THD	< 2% (16 samples average)
Output voltage HF ripple	< 20Vpp
Environmental	
Storage temperature	-40 ... 85°C
Operating temperature full load	-25 ... 55°C (-40 ... 55°C) ⁽²⁾
Operating temperature 50% load	-25 ... 70°C (-40 ... 70°C) ⁽²⁾
Cooling	Variable speed internal fan
MTBF (MIL-HDBK-217-E; G _b , 25°C)	160.000 h
EMC	
Immunity according to	EN61000-6-2 / EN50121-3-2
Emissions according to	EN61000-6-3 / EN50121-3-2

Safety	
Safety according to	EN60950
Dielectric strength: Input / output	3000 Vrms / 50Hz / 1min
Dielectric strength: Output / ground	1500 Vrms / 50Hz / 1min
Dielectric strength: Input / ground	1500 Vrms / 50Hz / 1min
Fire and smoke	EN45545 approved
Mechanical	
Weight	1950 g
Dimensions	130 x 292.5 x 50mm
Connections	Input: M5 Screws Output: terminal block cable max. 2.5mm ² , solid wire max. 4mm ²
Protections	
Against input over-currents	Internal fuse for 36, 48, 72, and 110V input models
Against output overloads < 10A	Linear
Against output overloads > 10A	Triggered
Against over-temperature	Shutdown with automatic recovery
Control	
Remote inhibit input	OFF: applying 4...110 Vdc, Impedance >3k3Ω
Output failure alarm	Isolated contact relay open when alarm (< 0.1A at 150Vcc)

Note ⁽³⁾: The unit can start up and work at an ambient temperature of -40°C with the following restriction: Do not actuate over the connectors below -25°C.

