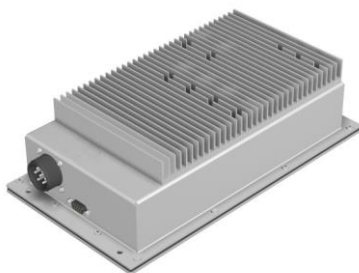


SPECIFICATIONS
750VA 3-Phase Railway Inverter RSW750-3P

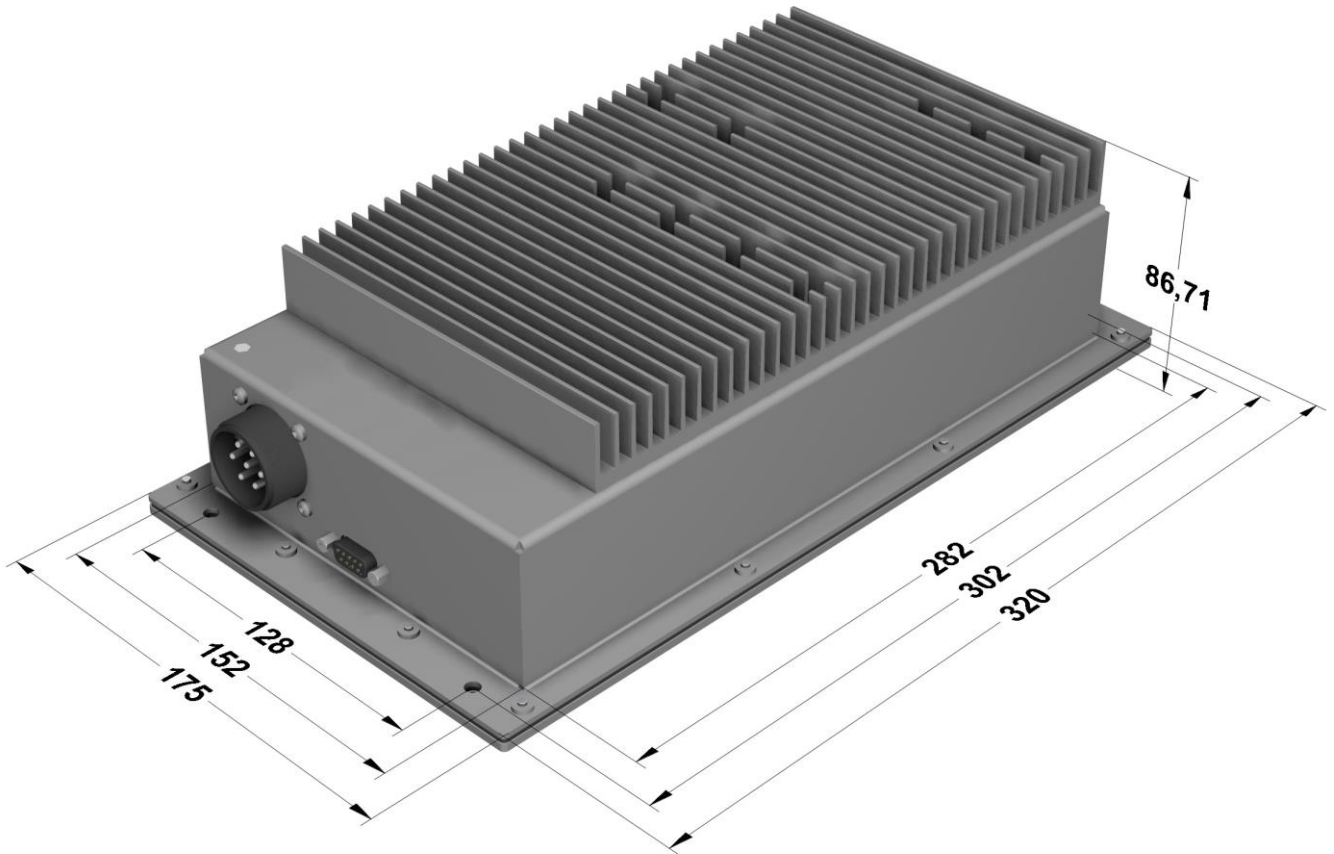
DESCRIPTION



- Three phase sinusoidal inverter without neutral
- 2700 V_{ac} isolation
- Railway application (EN50155)
- Remote ON/OFF
- Output alarm

INPUT	Input voltage	110 V _{dc} (77 V _{dc} ÷ 137.5 V _{dc})	
	Max. input ripple	< 15% V _{pp}	
	Max. input current	12 A	
	Efficiency	> 90%	
OUTPUT	Output voltage	180 V _{ac} 3~	
	Voltage tolerance	5 %	
	Frequency	50 Hz (±1Hz)	
	THD	< 3%	
	Max. continuous current	2.4 A	
	Output power (P _o)	750 W	
	Apparent power (S _o)	750 VA	
ENVIRONMENTAL	Storage temperature	- 40 ÷ 85°C	
	Operating temperature	- 25 ÷ 60°C	
	Cooling	Natural convection	
	Relative humidity	5 ÷ 95%	
	Operating altitude	0 ÷ 1000m (EN50125-1 class 2)	
	Shock	EN61373 Category 1 class B body mounted	
	Vibration	EN61373 Category 1 class B body mounted	
	M.T.B.F.	> 50.000 h	
EMC	Immunity according to	EN50121-3-2	
	Emissions according to	EN50121-3-2	
SAFETY	Dielectric strength	Input/Output	2700 V _{ac}
		Input/Earth	1500 V _{ac}
		Output/Earth	1500 V _{ac}
Protection degree	IP65 (with aerial connectors attached)		
MECHANICAL	Weight	3700 g	
	Dimensions	175 x 320 x 87 mm	
PROTECTIONS	Input undervoltage lock-out	< 77 V	
	Input overvoltage lock-out	> 137.5 V	
	Input fuse	15 A	
	Input reverse polarity	By relay	
	Output under/overvoltage shutdown	± 15% V _{out} after 3 cycles	
	Output overcurrent limit	> 3.6 A	
	Shortcircuits	-	
	PCB conformal coated	-	
Temperature shutdown	> 110°C at heatsink		
CONTROL	Input	ON/OFF	ON: Short-circuit ↔ OFF: Open circuit
		Reset Error	
	Output	Alarm	Max. Values: 160mA / 160V _{dc}
		Answer Back	

MECHANICAL



* All dimensions in millimeters (mm).

POWER CONNECTOR	PINOUT	POWER	
	A	Output	R
	B		S
	C		T
	D	Input	-
	E		+
	F		PE
Base male connector:		Amphenol:	MS4102E20-15P-622-VSQ
Aerial female connector (attached as accessories):			MS4106PHM2120-15S-622

SIGNAL CONNECTOR	PINOUT	SIGNAL	
	1	Input	Error Reset
	2		GND1
	3		ON/OFF
	4	Output	GND2
	5		Answer back
	6	Input	GND1
	7		GND1
	8	Output	GND2
	9		Alarm
Base female connector:		Amphenol:	MDBE09SA700
Aerial male connector (attached as accessories):		Norcomp:	170-009-173L000 (1 plug) 967-009-010R011 (1 hood) 170-201-170L002 (9 pins)

CONTROL

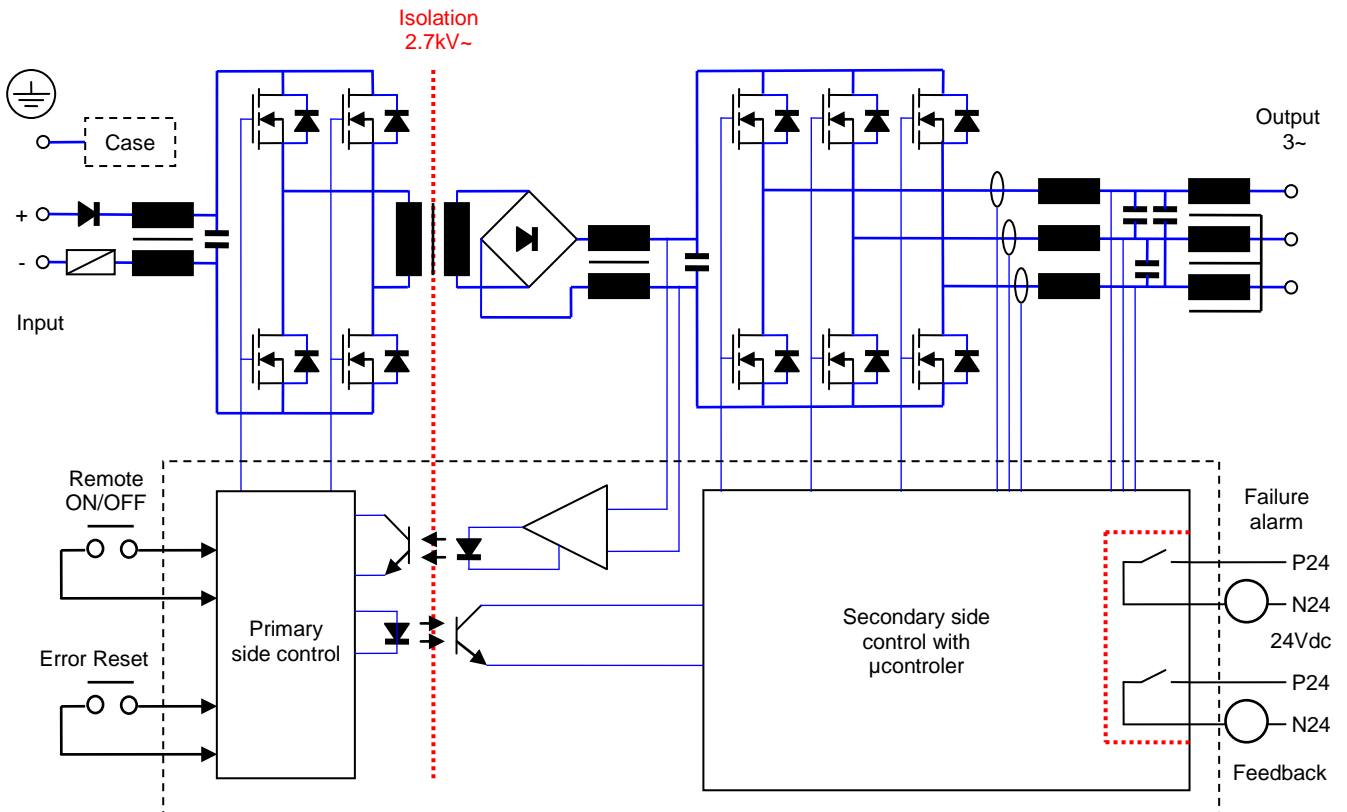
- *Failure alarm output:* Closed circuit when alarm*.
- *Feedback output:* Closed circuit when in normal operation.
- *Error Reset input:* If an output failure occurs, the inverter enters the alarm mode and remains stuck in it. To unlock it, a 1ms pulse is needed.
- *Remote ON/OFF input.*

	CASE 1	CASE 2	CASE 3	CASE 4
INPUT voltage	NOT OK	OK	OK	OK
Remote (input)	X	OFF	ON	ON
OUTPUT voltage	X	0V	OK	NOT OK
Alarm contacts (output)	OPEN	OPEN	OPEN	CLOSED
Feedback (output)	OPEN	OPEN	CLOSED	OPEN
	<i>Power supply off</i>	<i>Wait</i>	<i>Normal operation</i>	<i>Abnormal</i>

*Note: A failure condition (e.g. output short-circuit) must take >3 seconds in order to close the alarm contacts.

- Electrical characteristics:
 - Inputs: ON → 50...160V_{dc} / OFF → Open circuit or < 10V_{dc}
 - Outputs: Contacts maximum rating 160mA / 160V_{dc}.

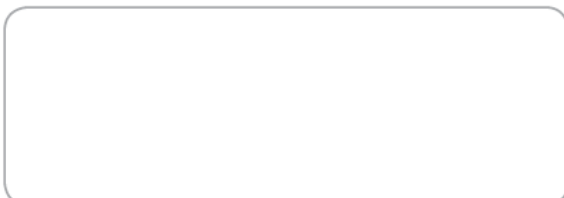
BLOCK DIAGRAM



SPECIFICATIONS
750VA 3-Phase Railway Inverter RSW750-3P

Applicable values for the different sections of the norm EN50155: 2007																																																		
4.1.1	Working altitude	According EN50125-1:2003 Class A2 (up to 1000m)																																																
4.1.2	Ambient temperature	- 25 ÷ 60°C																																																
4.1.3	Shocks and vibrations	According EN61373:2010 Category 1 class B																																																
4.1.4	Relative humidity	Up to 95%																																																
5.1.1.1	Power supply voltage variations	From 0.70 to 1.25 U_n continuous From 0.60 to 1.40 U_n 0.1s From 1.25 to 1.40 U_n 1s without damage																																																
5.1.1.2	Power supply interruptions	Class S1 (without interruptions)																																																
5.1.1.4	Input ripple factor	Up to 15% of $V_{in\ nom}$																																																
5.1.3	Power supply switching	Class C1 (0.6 U_n during 100ms without interruptions)																																																
5.2	Power supply over-voltages	1.40 U_n 1s (impedance 1 ohm)																																																
5.5	EMC Electromagnetic Compatibility EN50121-3-2:2006 EN50121-4:2006	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Test</th> <th>Norm</th> <th>Port</th> <th>Frequency</th> <th>Limits</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Radiated emissions</td> <td rowspan="2">IEC55011</td> <td rowspan="2">Case</td> <td>30MHz...230MHz</td> <td>40dB(µV/m) Qpk at 10m</td> </tr> <tr> <td>230MHz...1GHz</td> <td>47dB(µV/m) Qpk at 10m</td> </tr> <tr> <td rowspan="2">Conducted emissions</td> <td rowspan="2">IEC55011</td> <td rowspan="2">Input</td> <td>150kHz...500kHz</td> <td>99dB(µV) Qpk</td> </tr> <tr> <td>500kHz...30MHz</td> <td>93dB(µV) Qpk</td> </tr> </tbody> </table>	Test	Norm	Port	Frequency	Limits	Radiated emissions	IEC55011	Case	30MHz...230MHz	40dB(µV/m) Qpk at 10m	230MHz...1GHz	47dB(µV/m) Qpk at 10m	Conducted emissions	IEC55011	Input	150kHz...500kHz	99dB(µV) Qpk	500kHz...30MHz	93dB(µV) Qpk																													
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