



DESCRIPTION

Three phase sinusoidal inverter without neutral and with galvanic isolation input to output for railway rolling stock application according to EN50155.

INPUT

DC input voltage	110Vdc (Other inputs available, please consult factory)
DC input voltage range	77 ...137Vdc, ripple <15%Vpp
Maximum input current	9A
Efficiency	> 90%

OUTPUT

Output voltage	150	V 3~ (Other outputs available, please consult factory)
Voltage tolerance	5	±%
Frequency	25	± 1Hz
Harmonic distortion	< 3	%
Maximum continuous current (I _o)	2	A
Total Output power (P _o):	520	W
Apparent power:	520	VA

ENVIRONMENTAL

Storage temperature	-40...85°C
Operating temperature range	-25°C to +45°C according Class T1 -EN50155
Cooling	Natural convection
Relative humidity	5...95%
Operating altitude	0...1000m according to 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
Environmental regulations	RoHS according to directive 2002/95/EC

EMC

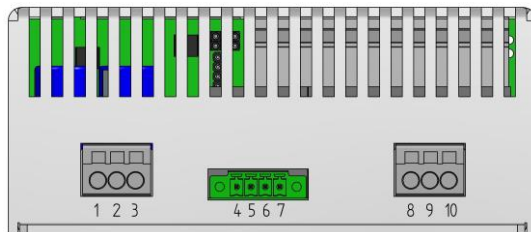
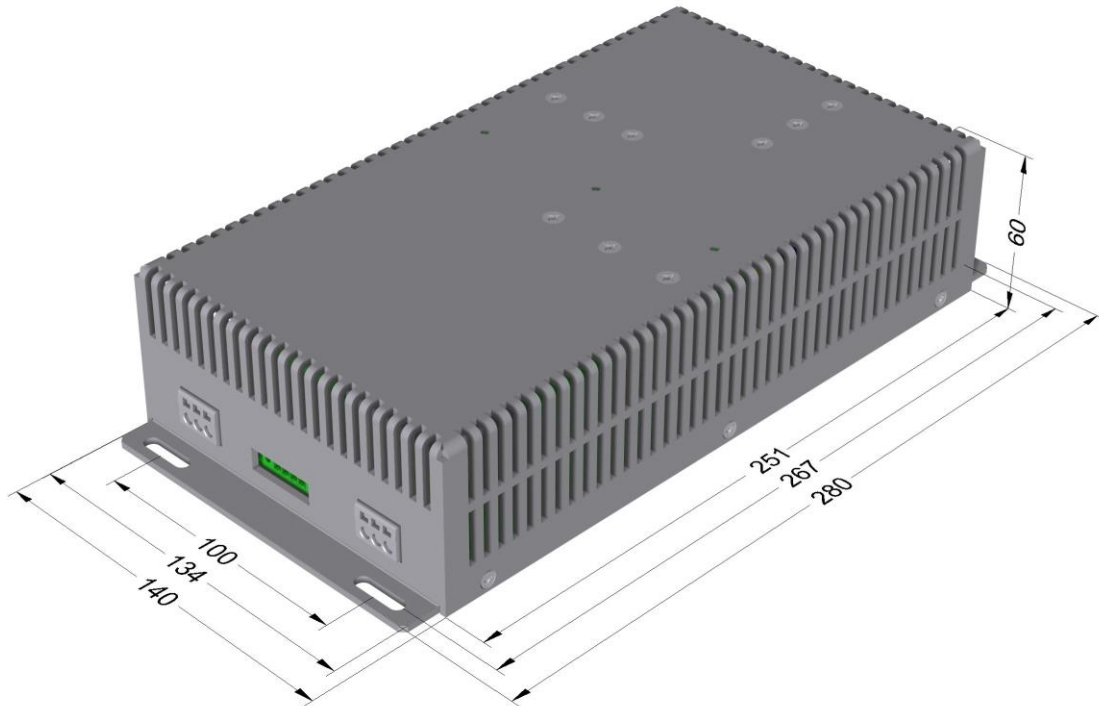
Page 4 of the document.

SAFETY

Dielectric strength Input/Output	3000Vac
Dielectric strength Input/Earth	1500Vac
Dielectric strength Output/Earth	1500Vac
Protection Degree	IP20

MECHANICAL

Mechanical shape	Chasis mounting case
Dimensions	140 x 280 x 60mm
Weight	2100 g
Connection type	Terminal blocks with fixing flanges



- 1 Earth
- 2 + Input
- 3 - Input
- 4 + Remote ON/OFF
- 5 - Remote ON/OFF
- 6 Alarm
- 7 Alarm
- 8 Output R
- 9 Output S
- 10 Output T

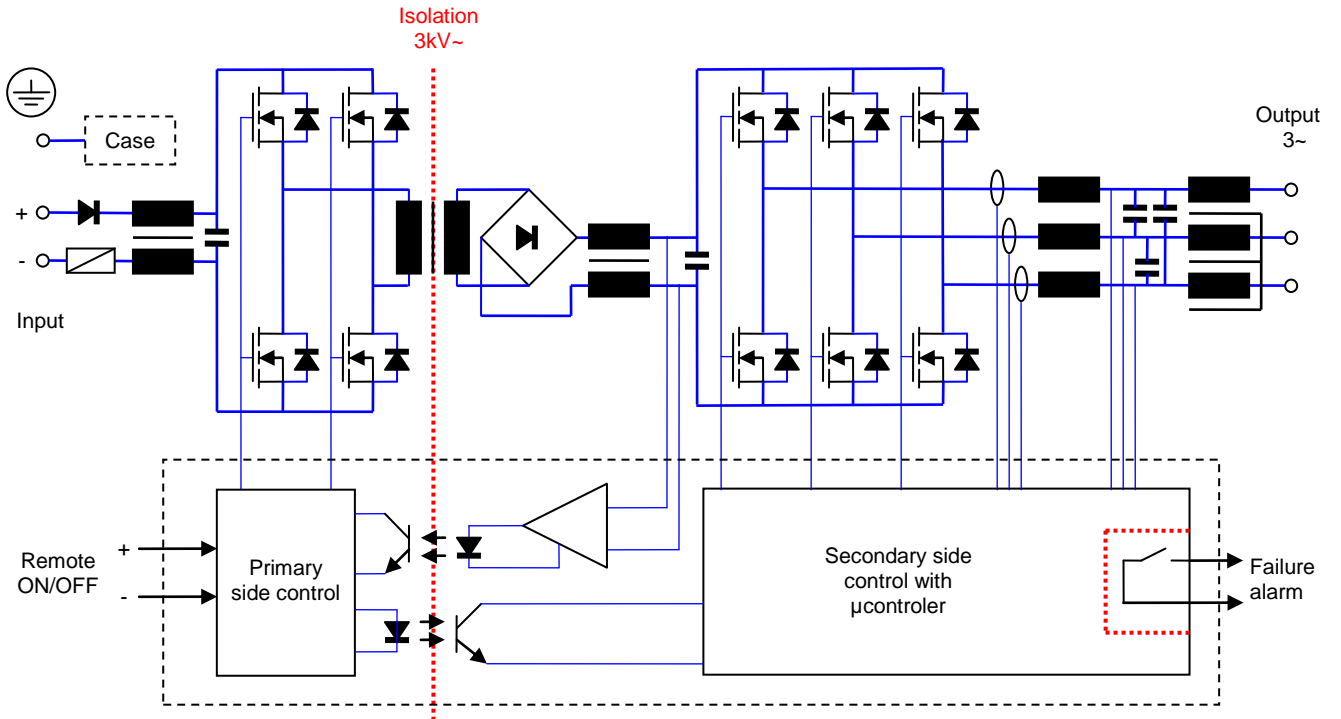
PROTECTIONS AND CONTROL

Input protected against overcurrents by fuse.
Output protected against overloads and shortcircuits.
Input protected against reverse polarity.
Print circuit board conformal coated.
Temperature protection.

Remote ON/OFF input:
ON: 50...160Vdc
OFF: Open circuit or <10Vdc
Isolation: 500Vdc from the primary side

Failure alarm output:
Isolated relay contacts
Maximum rating: 0.3A 160Vdc (110Vdc allows 0.5A)

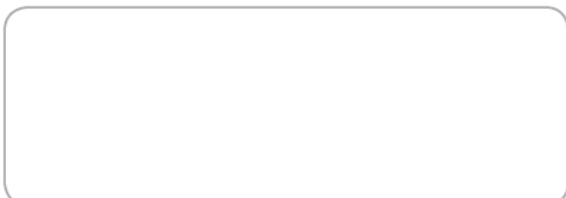
BLOCK DIAGRAM



SPECIFICATIONS
520VA 3-Phase Railway Inverter RSW520-3P

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	Class T1 column 2																																																
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) Pulse 1800V 5/50 μ s (impedance 5 ohm) Pulse 8400V 0.05/0.1 μ s (impedance 100 ohm)																																																
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Available from:



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