300W POWERTRON® ATG SERIES

DC/DC CONVERTER FOR RAILWAY APPLICATIONS

> Description

The ATG series is a range of cost effective, medium power single output converters that comply fully with the latest rail specifications and norms for protection and EMC. Although simple in construction, the mounting arrangement ensures compliance with vibration and shock requirements of EN50155.

Special features include:

- Wide choice of input and output voltages
- High efficiency
- Fully compliant with rail standards, including EN50155 & EN50121.3.2

> Input Specifications

The following input voltages versions are available as standard:

110V	(66.0 -137.5V)	dc	(Suffix A)
72V	(43.2 - 90.0V)	dc	(Suffix D)
52V	(31.2 - 65.0V)	dc	(Suffix C)
36V	(21.0 - 50.4V)	dc	(Suffix F)
24V	(16.8 - 33.6V)	dc	(Suffix B)

Other ranges are available to order

Parameter	Detail
Input Ripple	To EN50155
Input Protection	Reverse polarity protection (some input version require external fuse or circuit breaker). Surges and transients EN50155 (direct and indirect)
Inrush Current	Limited to typically 6 x nominal current *(after 0.1ms)*
Efficiency	90% typical
Hold up time (110Vdc input version only)	10ms to EN50155 Class S2

> Output Specifications

Parameter	Detail
Maximum Output Power	300W (except 12V output version which is rated at 240W continuous, 300W for 5 seconds)
Output Versions	Single output only
Output Voltage	Can be specified from 12V to 110V
Setting Tolerance	±1.0% at 50% load, 15°C to 25°C
Minimum Load	Zero
Line Regulation	±0.5%
Load Regulation	±0.5%
Temperature Coefficient	<0.02% / °C
Output Ripple	<1% Pk-Pk of Output Voltage
Output Noise	<75mV Pk-Pk superimposed (up to 20MHz)
Response Time	0.5ms to within 1% (for a 10% - 100% load change)
Current limit	Operates at approximately 110% of rated output power
Thermal Protection	Shuts down PSU if safe internal temperature is exceeded. Auto recovery.
Isolation	Input to Output 2.0kV ac (tested at 3.0kV dc) Input to Case 1.0kV ac (tested at 1.4kV dc) Output to Case 1.0kV ac (tested at 1.4kV dc)

Option	Detail	Code
Output status	Output fail relay	L
Current share	Droop current share plus series diode	S
Current share	Droop current share	S2

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> Environmental Details

Option	Detail	Code
Extended temperature range	-40°C to +70°C	T

Parameter	Detail
Operating Temperature	-25°C to +70°C (no derating). Base plate is suitable for cold wall mounting and must not exceed 85°C for full power operation.
Output power de-rating	Above 70°C: 2% / °C; 100°C absolute maximum
Storage Temperature	-40°C to +80°C
Cooling	Convection / Conduction
Relative Humidity	95% max.
Shock & Vibration	EN50155 (EN61373)
Environmental Protection	IP20

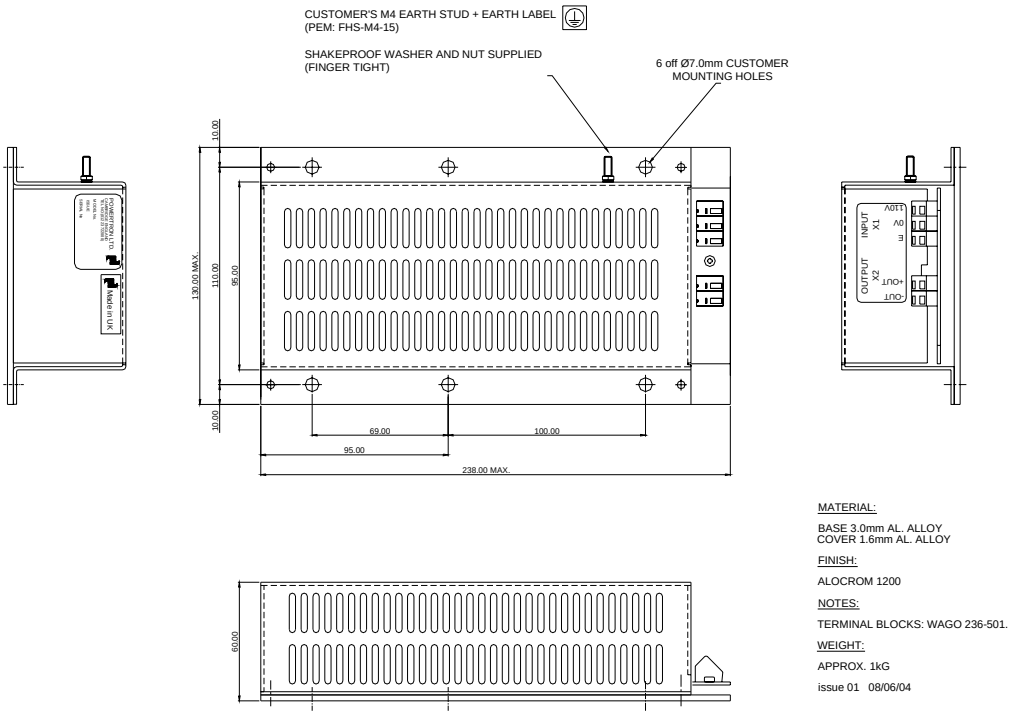
> Applicable Norms

Parameter	Detail
EMC	EN50155 (2007), EN50121-3-2 (2006)
Other	EN50155 (2007)

> Mechanical Characteristics

Option	Detail	Code
Mounting	DIN rail fixing	D
Connections	Power D types	Q1
RIA version	Upon request consult factory	SAV

Parameter	Detail
Construction	Simple aluminium chassis
Dimensions (Length x Width x Height)	238x130x60mm
Weight	<1.0kg
Connections	Wago 236-501 terminal blocks and an M4 earth stud Power D-type connectors also available.
Fixings	Six ø 7mm fixing holes on base plate.



MATERIAL:

BASE 3.0mm AL. ALLOY
COVER 1.6mm AL. ALLOY

FINISH:

ALOCROM 1200

NOTES:

TERMINAL BLOCKS: WAGO 236-501.

WEIGHT:

APPROX. 1kG

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