



RM300 PROPULSION INVERTER



FEATURES

- 5 (0-5V) Analog Inputs
- 2 RTD inputs PT100/1000
- 8 Digital Inputs 6-STB / 2-STG
- 2 High Side Driver Outputs
- 1 Resolver Interface
- Sin-Cos Encoder Interface (-SP option)
- 2 CAN 2.0A/B Ports 0.25-1MB adjustable rate and offset
- RS232 Programming Port
- Amphenol 500 Powerlok™ power connectors
- Internal DC-Link EMI Filter
- Designed to ISO16750 heavy vehicle climatic, mechanical, and environmental requirements
- ISO20653 high pressure wash rated IP6K9K / IP67
- Easy to use CAN-based control and feedback
- CAN Database (DBC) Available
- J1939 compatible CAN messages available
- Comprehensive fault logging and diagnostics
- PC-based setup and programming tools available for free
- Multiple Coolant port options
- Robust, fault-tolerant IGBT power stage
- 100% automotive-qualified components
- IPC Class 3 fab and assembly
- HVIL Interlock on connectors
- Command Safety Watchdog
- ISO6469 High Voltage Safety

The RM300 is a higher peak and average power propulsion inverter optimized for size and weight. Perfect for use in high power performance vehicles and in heavy duty applications that benefit from pluggable connectors and an EMI filter.

RM300	DZ	Units
DC Voltage – operating	200-820	VDC
DC Overvoltage Trip	850	VDC
Maximum DC Voltage – non-operating	900	VDC
Motor Current Continuous**	450	Arms
Motor Current Peak *	650	Arms
Output Power Peak (elect)	440	kW
DC Bus Capacitance	750	µF
Size and Volume	632 x 332 x 89 / 18.7	mm / L
Weight	20	kg
Active Discharge via motor winding to <50V	< 1	sec
Passive Discharge (internal resistor) to <50V	< 120	sec
Vehicle System Power	9 .. 32 (12V & 24V Systems)	VDC
Inverter PWM Frequency	12	kHz
Operating Temperature Range – coolant water	- 40 .. +80, (derate to zero 80 .. 100)	°C
Coolant Flow Rate	24 .. 30 (6 GPM min)	LPM
Coolant Pressure Drop (60°C coolant / 30 LPM)	0.35 (35kPa / 5psi)	bar
Maximum Coolant Pressure (absolute)	2 (200kPa / 30psia)	bar
Operating Shock (ISO 16750-3, Test 4.2.2.2)	100 (10g), pending	m/s ²
Operating Vibration (ISO 16750-3, 4.1.2.4 Test IV)	27.8 (3grms), pending	m/s ²
EMC compatibility	IEC61000 / CISPR-25 pending	
Conductor Size min .. max recommended	125, 135, and 150mm ²	AWG/mm ²

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Ratings subject to change without notice—consult factory

* Peak current is defined as a maximum of 30 seconds.

** Limited to 300 Arms on units built before April 2021

Point Camera Here



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