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Railway DC-DC Converters Withstand High Input Surge

<u>ABSOPULSE Electronics'</u> RWR-350-P600 series fully encapsulated RIA12 railway-quality dc-dc converters have an input voltage surge withstand capacity 3.5 times the nominal input voltage for 20 milliseconds and meet the requirements of RIA12 with wide margins. RIA12 is the general specification for protection of traction and rolling stock equipment from transients and surges in dc control systems.

The RWR-350-P600 converters meet the requirements of EN50155. They are equipped with heavy filtering on the input and output and comply with EN50121-3-2. They also meet EN61000-4-2, EN61000-4-3, EN61000-4-4 and EN61000-4-6. Other protection features includes 3000-Vdc input-to-output isolation, overload protection, thermal protection and current limiting.

The 350-W railway converters provide a single, regulated dc output of 24 V, 36 V, 48 V or 110 V. They accept wide input ranges including 24 V (14.4–V to 34-V range), 36 V (22 V to 51 V), 48 V (29 V to 67 V), 72 V (43 to 101 V) or 110 V (66 to 154 V). Custom input and output voltages are available.

The converters are fully encapsulated with a thermally conductive MIL-grade silicon rubber compound that has a UL94V-0 flammability rating. Encapsulation ensures protection from high levels of shock and vibration, moisture, dust, salt fog and other contaminants.

Conduction cooling via base plate to customer heat sink or chassis allows for operation over a -40°C to +70°C temperature range for full specification without derating. The units are housed in a chassis measuring 155 x 72 x 269 mm (see the figure). Contact the company for pricing and delivery. Or, for more information call 1-613-836-3511 or see the <u>website</u>.



Figure. The RWR-350-P600 series fully encapsulated railway-quality dc-dc converters meet the requirements of RIA12 with wide margins, while also meeting EN50155, EN50121-3-2, EN61000-4-2, EN61000-4-3, EN61000-4-4 and EN61000-4-6. These 350-W rated converters generate a single, regulated dc output of 24 V, 36 V, 48 V or 110 V, while operating from wide input ranges including 14.4–V to 34-V range (24 V nom.), 22 V to 51 V (36 V nom.), 29 V to 67 V (48 V nom.), 43 to 101 V (72 V nom.) or 66 to 154 V (110 V nom.).