

DVC Series

75-500 WATTS DC/DC CONVERTER

FEATURES

- Designed for rugged environment
- Rugged construction / potted device
- Protection against harsh conditions
- DC/DC wide range input
- Filtered against input transients
- Input-Output galvanic separation 1.5kV
- Designed to EN60950, EN1175
- High efficiency
- Regulated output
- Short-circuit / No-load protection
- Over temperature protection



SPECIFICATIONS

INPUT	
Input range	12VDC 10-20VDC 24VDC 17-40VDC model dependant 36VDC 25-70VDC model dependant 48VDC 33-90VDC 110VDC 56-154VDC
Transient over voltage (20ms, one time)	25-35V @ 12VDC 50-52V @ 24VDC model dependant 80-90V @ 36VDC model dependant 100-110V @ 48VDC model dependant 220V @ 110VDC
Reverse polarity protection	External input fuse is blown
OUTPUT	
Output voltage	See table
Output current	See table
Output voltage tolerance	±3% @ 5VDC model ±1% @ 12-24VDC models
Load regulation static	±1.5% typical model dependant 0-100% load
Regulation time	≤0.5ms, ≤1ms for DVC251
Line regulation	±0.1%
Temperature drift	0.2% typ 0 - 60°C 0.5% typ -25 - 60°C
Ripple & noise	100mVp-p
Over voltage protection	Protective shut down, self reset after cool down
Efficiency	85-92% model dependant

ENVIRONMENT	
Ambient temperature	-40°C - 75°C with derating, Max baseplate temperature 100°C
Storage temperature	-40°C - 85°C
Over temperature protection	Protective shut down, self reset after cool down
Humidity	100% relative humidity, dewing permitted
Cooling	Natural convection / cooling via contact to mounting surface
STANDARDS	
Safety	Designed to meet EN60950, EN1175
Protective degree	IP67 (not connector)
Insulation	Input to output: 1.5kV, 500V for 12/24 models Input to case: 1.5kV, 500V for 12/24 models Output to case: 500V
EMC	Designed to meet EN55011 Class B, EN61000-6-2
MECHANICAL	
Case size & weight	DVC75: 110 x 68 x 38mm, 450g DVC125/150: 156 x 85 x 40mm, 1000g DVC251: 153 x 131 x 50mm, 950g DVC500: 222 x 16 x 50mm, 2750g
OPTIONS	
Custom device	Individual cable loom, alternative input / output voltages Version with "E" mark (E1 approval) for road vehicle Variants for railway applications