DVC75

40-77 WATTS DC/DC CONVERTER

FEATURES

- Designed for rugged environment
- Rugged construciton / potted device
- Protection against harsh conditions
- DC/DC wide range input
- Filtered against input transients
- Input-Output galvanic seperation 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 x131 x 50mm, 950g DVC500: 222 x 16 x 50mm, 2750g
OPTIONS	
Custom device	Individual cable loom, alternative input / output voltages Version with “E” mark (E1approval) for road vehicle Variants for railway applications

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SELECTION TABLE

TYPE	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT *)	CAT. NO.
DVC75-24-5	24VDC (17-40VDC)	5VDC	8A	105100
DVC75-24-12	24VDC (17-40VDC)	12.5VDC	4A	105101
DVC75-24-20	24VDC (17-40VDC)	20VDC	2.5A	105103
DVC75-24-24	24VDC (17-40VDC)	24VDC	2A	105102
DVC75-36-12	36VDC (25-70VDC)	12.5VDC	5A	105051
DVC75-36-24	36VDC (25-70VDC)	24VDC	2.8A	105053
DVC75-48-12	48VDC (33-90VDC)	12.5VDC	6A	105083
DVC75-48-15	48VDC (33-90VDC)	15VDC	5A	105049
DVC75-48-24	48VDC (33-90VDC)	24VDC	3.2A	105092
DVC75-80-12	72/80/96/110VDC	(56-154VDC) 12,5VDC	6A	105085
DVC75-80-24	72/80/96/110VDC	(56-154VDC) 24VDC	3.2A	105093

TECHNICAL ILLUSTRATION