DVC251 Series

DC/DC AUTOMOTIVE CONVERTER

FEATURES

- 137W - 252W Automotive Converter
- Designed for use in rough environment
- Rugged construction / potted device
- Protection against unfavourable environmental conditions
- DC/DC wide range input
- Filtered against vehicle on-board disturbances
- Galvanic separation 1.5kV
- Design acc. to EN60950. EN50155. EN1175. ISO20898
- Regulated output
- very high efficiency
- Short-circuit / No-load protection
- Over Temperature protection
- Parallel connectable (Option: Smart output characteristics)



SPECIFICATIONS

INPUT	
Input Voltage	12Vdc, 24Vdc, 48Vdc, 110Vdc
Input range	See selection table, model dependent
OUTPUT	
Output voltage	See Selection Table.
Output current	See Selection 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
Efficiency	85-92% model dependant/td>
Parallel Operation	For increased output power - Unlimited connectable in parallel, no additional control cable needed - Smart output regulation for optimized DC current distribution - For a 100% redundancy, an external diode is required
Serial Connection	For higher output voltages - Serial connectable (of up to max 4 units)
STANDARDS & APPROVALS	
Safety	Designed to meet EN60950, EN1175
EMC	Designed to meet EN55011 Class B, EN61000-6-2

PROTECTION	
Over voltage protection	Protective shut down, self reset after cool down.
Protective degree	IP67 (not connector)
Insulation	Input to case: 1.5kV, 500V for 12/24 models Output to case: 500V.
Transient over voltage	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.
Over temperature Protection	Protective shut down, self reset after cool down.
ENVIRONMENT	
Ambient temperature	-40°C - 75°C without power derating, Max baseplate temperature 100°C
Storage temperature	-40°C - 85°C
Humidity	100% relative humidity, dewing permitted.
Cooling	Natural convection / cooling via contact to mounting surface.
MECHANICAL	
Connectors	10cm cable with 6-pole AP connector MATE-N-LOK. (Different cable/connector possible on customer request).
Dimensions	153 x131 x 50mm
Weight	1500g
Case Material	Aluminium

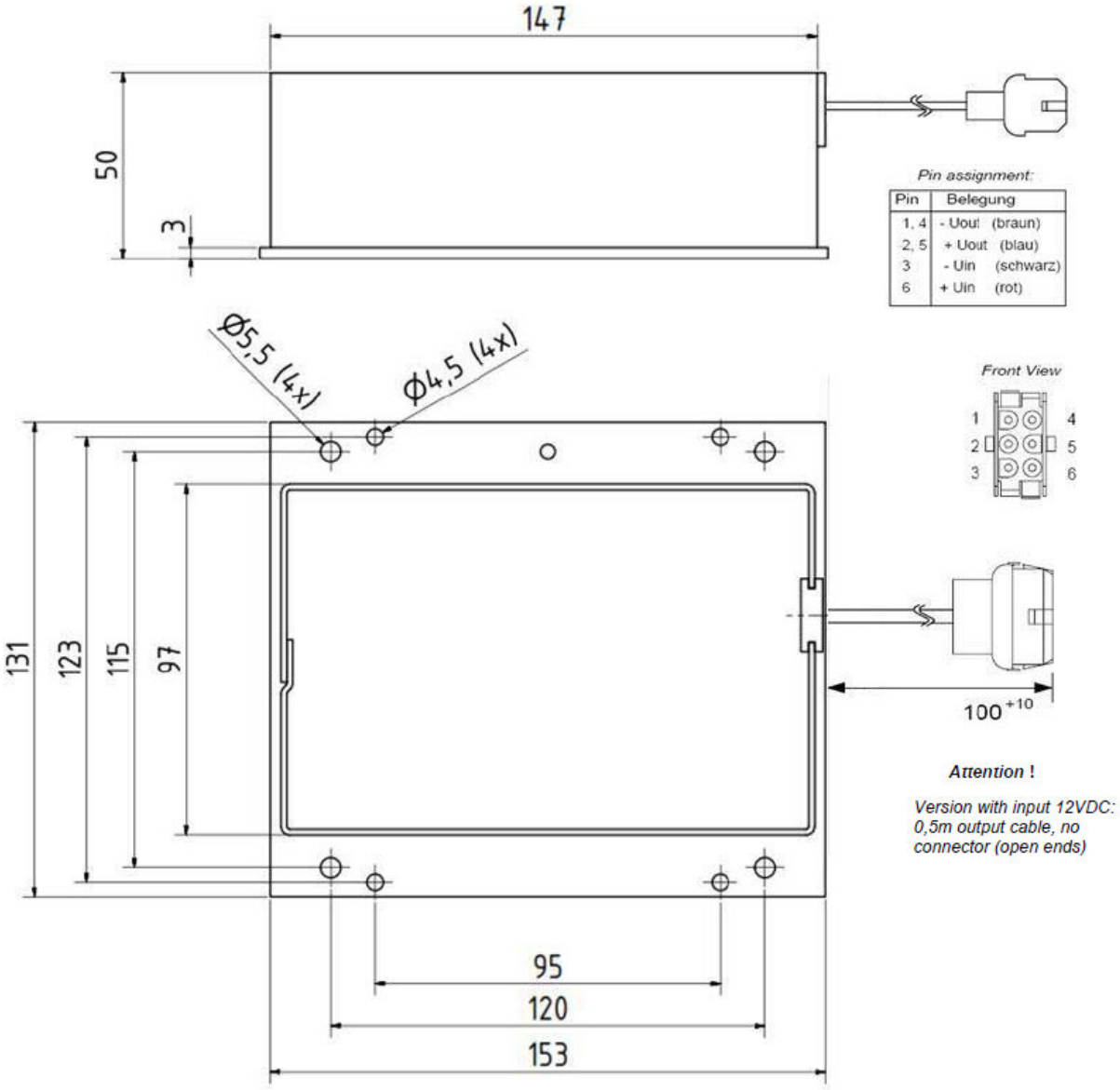
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SELECTION TABLE

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	POWER
DVC251-12-12	12VDC (10-20V)	12.5V	11A	137W
DVC251-12-24	12VDC (10-20V)	24V	7A	168W
DVC251-24-12	24VDC (19-45V)	12.5V	18A	225W
DVC251-24-24	24VDC (19-45V)	24V	9.5A	228W
DVC251-36-12	36VDC (25-80V)	12.5V	20A	250W
DVC251-36-24	36VDC (25-80V)	24V	10.5A	252W
DVC251-48-12	48VDC (34-100V)	12.5V	20A	250W
DVC251-48-24	48VDC (32-100V)	24V	10.5A	252W
DVC251-80-12	72/80/96/110VDC (56-154V)	12.5V	20A	250W
DVC251-80-13.8	72/80/96/110VDC (56-154V)	13.8V	18A	248W
DVC251-80-24	72/80/96/110VDC (56-154V)	24V	10.5A	252W

TECHNICAL ILLUSTRATIONS



Note: DVC251 is mounting compatible to DVC250 series