

# DC-DC converter type DCC90-1

## Technical Datas



- Output voltage adjustable:  
-4% to +33% for DCC9012-1  
-6% to +25% for DCC9024(48)-1
- Extra low safety potential  
PELV (EN 50178) SELV (EN 60950)
- Overload- and open circuit protected
- Short circuit proof
- Suitable for the tropics - Epoxy resin casted
- Operating status shown by LED
- Safety acc. to VDE, EN, UL, CSA

Input data	
Min. input voltage DC	18Volt
Max. input voltage DC	40Volt
Max. input current	8,0Amp.
Output data	
Output voltage $U_{Nominal}$	see table below
Output current $I_{Nominal}$	see table below
Current limiting	1,5 x $I_{Nominal}$
Residual ripple (10-500kHz)	< 200 mV
Control data	
Control deviation load	< 200mV with load variation 0...100%
Control deviation supply	< 10mV
Control time	< 1 msec. with load variation 10...90%
Operating data	
Duty circle	100%
Operating temperature	-30°C to +70°C
Derating	from +40°C
Storage temperature range	-30°C...+105°C
Cooling	selfcooling
	recommended respective distances 15mm each
Safety devices	
Fuse recommended for input	16,0 Amp. delayed
Output fuse	not necessary - cont. short-circuit proof
Overload protection	integrated into device
Hold-up time	20 msec. typical
MTBF	> 380.000 h
Safety data	
Test voltage transformer	5 kVAc in accordance to VDE 0551
High-voltage resistance	Primary circuit - secondary circuit 2,5 kVAc acc. to VDE 0806 / IEC 380
Degree of EMI suppression protection class	in acc. to VDE 0871 B and EN 55022/B class 1, with PE connection (EN 60950)
Ambient humidity	95% rel. humidity, yearly average dewing allowed for use in tropical ambient
Protective class enclosure	IP 65
Protective class terminals	IP 20 (VGB4)
Vibration proof	>30g at 33Hz in X, Y and Z, acc. to IEC 68 and DIN 41640
Applied construction regulations	
according to VDE	VDE 0100, 0110, 0113, 0551, 0160/W2
IEC	IEC 60950, IEC61000-6-3, IEC61000-6-2
EN	EN60950, EN50081-1, EN50295, EN61000-6-3 EN61000-6-2, EN50178, EN55024, EN60204-1
CSA / UL	CSA-C 22.2 / UL60950, UL508
Mechanics	
Mounting	on rails acc. to DIN 46277 and with screws

Output voltage	12,0Vdc	24,0Vdc	48,0Vdc
Type	DCC9012-1	DCC9024-1	DCC9048-1
Output current	8,0Amp.	5,0Amp.	2,5Amp.
Power	96Watt	120Watt	120Watt
Efficiency	86%	88%	89%
Dimensions (W x H x D)	64x100x120	64x100x120	64x100x120
Weight	approx. 1,25kg	approx. 1,25kg	approx. 1,25kg
Order-No.	609012	609024	609048

