

DC/DC-Converter Module 40W

Double Output MDCDS 15.1,2/24

Vin = 18-36 Vdc



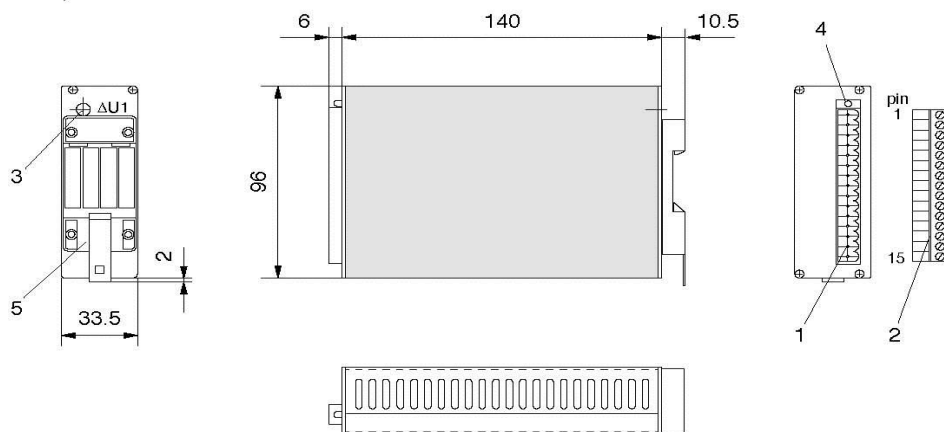
Ordering Information

Type	Output () Power Boost	Input Voltage	Housing Dimensions see drawing	Article No. *
MDCDS 15.1,2/24	O1 = 15V ; 2.5A O2 = 15V ; 1.25A	24 Vdc	140x33.5x96mm	251-601-00

* Housing inside chromate, outside green lacquer

Dimensions in mm without accessories

- 1 = connector
- 2 = female connector with screw terminal strip (accessory)
- 3 = potentiometer
- 4 = LED, green
- 5 = mounting device (according to EN 50022)



Terminal Strip

Free pins may not be connected external!

	Pin
+ Output 1	1
+ Sense Lead 1	2
- Output 1	3
- Sense Lead 1	4
+ Output 2	9
- Output 2	10
I/O External ON/OFF	12
- Input	13
+ Input	14
Earth PE	15

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Technical Data

Guaranteed values after a warm-up period of approx. 15 min. at nominal load, measured at the unit's output.

Output		O1	O2
Output Voltage	[Vdc]	15	15
Adjustment Range (+)	[V]	1	fixed
Output Current			
up to Tamb=50°C cont. current (max. 40W)	[A]	2.5	1.25
up to Tamb=70°C cont. current (max. 30W)	[A]	2.2	1.1
Current Limiting	[A]	3	2
Characteristic Curve		approx. V-I	fold back
Type of Regulation		primary switched	linearly regulated
Efficiency	[%]	≥ 75	
Voltage Deviation for			
Load Change 0... 100% (static)	[mV]	≤ 10 (20)*	≤ 20 (40)*
Mains Voltage Change Vin min-Vin max	[mV]	≤ 10 (20)*	≤ 20 (40)*
Operating Frequency Ripple (70kHz)	[mVpp]	≤ 10 (20)*	≤ 20 (40)*
Superimposed Switching Spikes	[mVpp]	≤ 80 (150)*	≤ 80 (150)*
Dynamic Voltage Deviation for ΔIo = 65...100% Inom	[mV]	≤ 200 (300)*	≤ 100 (200)*
Regulation Time for ΔIo = 65...100% Inom	[μs]	≤ 300	≤ 150
Starting Delay	[ms]	≤ 100	
Overvoltage Protection Output			
Factory Setting (tol. +0.5V)	[V]	17	-
Residual Voltage after Tripping	[V]	0	
Sense Lead Operation for O1 (load line compensation)	[V]	max. 0.25 per load line	
Overload Protection		continuous short-circuit-proof	
Temperature Coefficient	[ppm/K]	200	
Input Voltage	Nominal [Vdc]	24	
Operating Range	[Vdc]	-25%/+50% 18-36	
in the Event of Mains Failure with series-connected decoupling diode at Nominal Load: Buffer Time	tBuff [ms]	≥ 15	
Max. Input Current (nominal range)	[A]	3	
Starting Inrush Current			
Worst Case $\int i^2 dt ; I_p$	[A ² s] ; [A]	≤ 60 ; ≤ 200	
Unit Fuse (primary, internal)	[A]	T 5	
Overvoltage Protection Input		transient protection	
Operating Temperature Range (measured 5mm from the side wall)	[°C]	- 25... 0... + 70	
Max. allowed Case-/Radiator-Temperature	[°C]	+ 85	
Storage Temperature Range	[°C]	- 40... + 85	
Weight approx.	[kg]	0.6	

For definitions, informations about electrical safety, EMC and mechanical stressability see description.

* Specifications in brackets are output data at Tamb = -25°C.