

PRO DM
PRO DM 20

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Diode module for decoupling outputs of switched-mode power units. Switched-mode power units have a disadvantage - when multiple secondary circuits are switched in parallel, an opposite negative influence can effect the individual circuit. This can damage the devices. The CP DM diode modules can help here. They are used for doubling the output, redundancy operation, supplying critical loads and protecting against energy recovery.

General ordering data

Type	PRO DM 20
Order No.	2486080000
Version	Diode module, 24 V DC
GTIN (EAN)	4050118496819
Qty.	1 pc(s).

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Technical data
Dimensions and weights

Width	32 mm	Width (inches)	1.26 inch
Height	125 mm	Height (inches)	4.921 inch
Depth	125 mm	Depth (inches)	4.921 inch
Net weight	568 g		

Temperatures

Humidity	5–95% rel. humidity, $T_u = 40^\circ\text{C}$, no condensation	Operating temperature, max.	70 °C
Operating temperature, min.	-40 °C	Storage temperature, max.	85 °C
Storage temperature, min.	-40 °C	Operating temperature	-40 °C...70 °C
Storage temperature	-40 °C...85 °C		

Input

Connection system	Screw connection	DC input voltage range	0...60 V DC
Input current	2 × 24 A (-40 °C ~ +45 °C), 2 × 20 A (+45 °C ~ +60 °C), 2 × 15 A (+70 °C)	Input fuse (internal)	No
Rated input voltage	24 V DC		

output

Connection system	Screw connection	Continuous output current @ U_{Rated}	1 × 48 A (-40 °C ~ +45 °C), 1 × 40 A (+45 °C ~ +60 °C), 1 × 30 A (+70 °C)
Parallel connection option	yes, max 2.	Protection against inverse voltage	Yes
Rated output voltage	$V_{\text{IN-typ.}} 0.7 \text{ V}$	Residual ripple, breaking spikes	Dependent on the power supplies used

General data

Degree of efficiency	> 97% @ 24 V input voltage	Derating	> 60°C / 75% load @ 70°C
Housing version	Metal, corrosion resistant	Humidity	5–95% rel. humidity, $T_u = 40^\circ\text{C}$, no condensation
MTBF	> 150,000 h in accordance with MIL-HDBK-217 (40°C, Bellcore), > 750,000 h in accordance with IEC 1709 (40°C, EN29500)	Mounting position, installation notice	Horizontal on TS35 mounting rail. 50 mm of clearance at top & bottom for air circ. Can mount side by side with no space in between.
Operating temperature	-40 °C...70 °C	Protection degree	IP20
Surge voltage category	III		

EMC / shock / vibration

Vibration resistance IEC 60068-2-6	2.3 g (on DIN rail)	Interference immunity test acc. to	EN 55022, EN 55024, EN 61000-3-2,-3, EN 61000-4-2 (ESD) EN 61000-4-3 and EN 61000-4-8 (fields) EN 61000-4-4 (burst) EN 61000-4-5 (surge) EN 61000-4-6 (conducted)
Shock resistance IEC 60068-2-27	30 g in all directions		

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Technical data
Insulation coordination

Class of protection	III, with no ground connection, for SELV	Insulation voltage input / earth	0.5 kV
Insulation voltage output / earth	0.5 kV	Pollution severity	2
Surge voltage category	III		

Electrical safety (applied standards)

Electrical machine equipment	Acc. to EN60204	For use with electronic equipment	Acc. to EN50178 / VDE0160
Protective separation / protection against electrical shock	VDE0100-410 / acc. to DIN57100-410	Safety extra-low voltage	SELV acc. to EN60950, PELV acc. to EN60204

Connection data (input)

Conductor cross-section, AWG/kcmil , max.	10	Conductor cross-section, AWG/kcmil , min.	26
Conductor cross-section, flexible , min.	0.22 mm ²	Conductor cross-section, rigid , max.	6 mm ²
Conductor cross-section, rigid , min.	0.18 mm ²	Connection system	Screw connection
Number of terminals	4 (1+, 2+, 1-, 2-)	Screwdriver blade	0.8 x 4.0, PZ 1
Tightening torque, max.	0.6 Nm	Tightening torque, min.	0.5 Nm
Wire connection cross section, flexible (input), max.	4 mm ²		

Connection data (output)

Conductor cross-section, AWG/kcmil , max.	8	Conductor cross-section, AWG/kcmil , min.	22
Conductor cross-section, flexible , max.	16 mm ²	Conductor cross-section, flexible , min.	0.5 mm ²
Conductor cross-section, rigid , max.	16 mm ²	Conductor cross-section, rigid , min.	0.5 mm ²
Connection system	Screw connection	Number of terminals	4 (++ / -)
Screwdriver blade	1.0 x 5.5	Tightening torque, max.	1.5 Nm
Tightening torque, min.	1.2 Nm		

Classifications

ETIM 6.0	EC002540	eClass 6.2	27-04-90-04
eClass 9.1	27-04-07-01		

Approvals

ROHS	Conform
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Downloads

Engineering Data	STEP
User Documentation	Operating instructions