

PRO DC BUFFER 24V 20A

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
 D-32758 Detmold
 Germany

www.weidmueller.com



Weidmüller's maintenance-free maxSHIELD DC buffer modules guarantee an uninterrupted power supply and are therefore an important basis for 24 V systems. They supply the required voltage to the electronic load to bridge outages. The maintenance-free electrolytic capacitors enable continuous operation at ambient temperatures of up to +70°C. Optionally, a parallel connection is possible to bridge longer failures or to increase the output power.

General ordering data

Version	Buffer module, 24 V
Order No.	2786240000
Type	PRO DC BUFFER 24V 20A
GTIN (EAN)	4064675063469
Qty.	1 items

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Technical data

Approvals

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ROHS	Conform
UL File Number Search	UL Website
Certificate no. (cULus)	E258476

Dimensions and weights

Depth	130 mm	Depth (inches)	5.1181 inch
Height	125 mm	Height (inches)	4.9212 inch
Width	55 mm	Width (inches)	2.1654 inch
Net weight	1043 g		

Temperatures

Storage temperature	-40 °C...85 °C	Operating temperature	-25 °C...70 °C
Humidity	5...95 %, no condensation		

Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	7a, 7cI
REACH SVHC	Lead 7439-92-1
SCIP	Offa7f6e-dcfd-414c-a39f-eb67653cea98

Input

Connection system	Screw connection	Rated input voltage	24 V DC
Input fuse (internal)	Yes	DC current consumption	<0.2 A @ no load, <1 A @ charging process for typ. 10s
DC input voltage range	22.5 - 30 V DC	Input current	0...21 A

Output

Connection system	Screw connection		
Parallel connection option	Yes		
Overload protection	Yes		
Surge protection	33 V...35 V		
Output voltage, note	Corresponds to the input voltage		
Output current at 40 °C	25 A		
Mains failure bridge-over time	Mains failure bridge-over time, min.	200 ms	
	Input voltage type	DC	
	Input voltage	24 V	
	Output current	20 A	
	Output voltage	22.2 V	
Rated current	20 A		
Output voltage	22.2 ± 0.4 V DC / Vin-1 V(± 0.4 V)		
Protection against inverse voltage	Yes		
Overload and short circuit protection	Yes		

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General data

Degree of efficiency	≥ 98% buffer mode	Weight	1043 g
Humidity	5...95 %, no condensation	Protection degree	IP20
Mounting position, installation notice	Horizontal on DIN rail TS 35, top and bottom 50 mm clearance for free air flow, 10 mm clearance to neighbouring subassemblies.	Housing version	Metal, corrosion resistant
Storage medium	Internal condenser	Short-circuit protection	Yes, internal

EMC / shock / vibration

Shock resistance IEC 60068-2-27	30 g in all directions	Noise emission in accordance with EN55032	Class B
Interference immunity test acc. to	EN 61000-4-2, -3, -4, -5, -6	Vibration resistance IEC 60068-2-6	2.3 g (on DIN rail)

Insulation coordination

Pollution severity	2	Protection class	III, with no ground connection, for SELV
Insulation voltage input / earth	0.5 kV	Insulation voltage output / earth	0.5 kV

Electrical safety (applied standards)

Electrical machine equipment	Acc. to EN60204	Safety extra-low voltage	SELV acc. to IEC 60950-1, PELV according to EN 60204-1
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Connection data (input)

Connection system	Screw connection	Number of terminals	4 (++-)
Reverse polarity protection	Yes, ≤31 V DC	Conductor cross-section, AWG/kcmil , max.	10 AWG
Conductor cross-section, AWG/kcmil , min.	26 AWG	Wire connection cross section, flexible (input), max.	4 mm ²
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	Tightening torque, min.	0.5 Nm
Tightening torque, max.	0.6 Nm		

Connection data (output)

Connection system	Screw connection	Number of terminals	4 (++ / -)
Reverse polarity protection	Yes, ≤31 V DC	Conductor cross-section, AWG/kcmil , max.	10 AWG
Conductor cross-section, AWG/kcmil , min.	26 AWG	Conductor cross-section, flexible , max.	4 mm ²
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	Tightening torque, min.	0.5 Nm
Tightening torque, max.	0.6 Nm		

Connection data (signal)

Wire connection cross-section, flexible (signal), max.	1.5 mm ²	Wire connection method	PUSH IN
Wire cross-section, AWG/kcmil , max.	14	Wire cross-section, solid , min.	0.2 mm ²

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Wire cross-section, solid , max.	1.5 mm ²	Wire connection cross-section, flexible (signal), min.	0.2 mm ²
Number of terminals	4 (Uin OK, Ready, Active, Sgnd)	Wire cross-section, AWG/kcmil , min.	28 mm ²

Signalling

Status indicator	Green LED
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Classifications

ETIM 6.0	EC002850	ETIM 7.0	EC002850
ETIM 8.0	EC002850	ETIM 9.0	EC002850
ETIM 10.0	EC002850	ECLASS 9.0	27-04-06-92
ECLASS 9.1	27-04-92-01	ECLASS 10.0	27-04-06-92
ECLASS 11.0	27-04-06-92	ECLASS 12.0	27-04-06-92
ECLASS 13.0	27-04-06-92	ECLASS 14.0	27-04-06-92
ECLASS 15.0	27-04-06-92		

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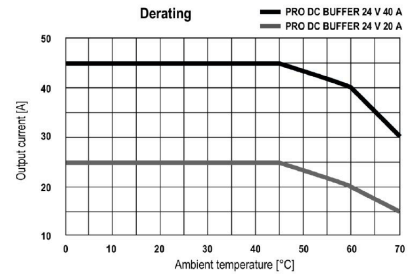
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Drawings

Graph

Derating curve

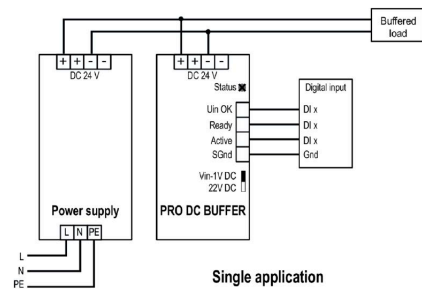
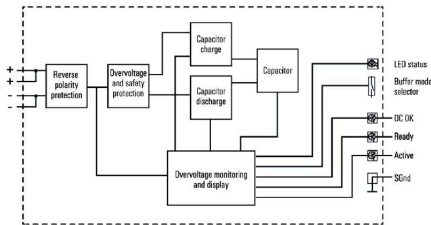


Buffer Time

Temperature Derating

Block diagram

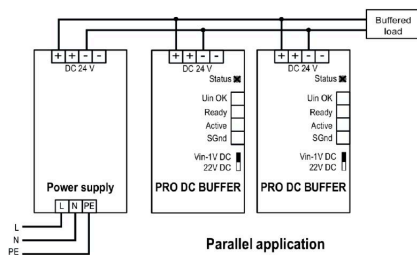
Block diagram



Block Diagram

Single Operation

Block diagram



Parallel Operation