

# Product data sheet

Specifications



## power supply module X80 - 24..48 V isolated DC - for severe environments

BMXCPS3020H

### Main

Range of product	Modicon X80
Product or component type	Power supply module
Backplane compatibility	Not compatible with BMEXBP..02
Product specific application	For severe environments
Primary voltage	24...48 V isolated
Supply circuit type	DC
Secondary power	15 W 3.3 V DC at 0...60 °C I/O module logic power supply 31.2 W 24 V DC at 0...60 °C I/O module power supply and processor 11.3 W 3.3 V DC at -25...70 °C I/O module logic power supply 23.4 W 24 V DC at -25...70 °C I/O module power supply and processor

### Complementary

Primary voltage limit	18...62.4 V
Input current	0.83 A 48 V 1.65 A 24 V
Inrush current	30 A 24 V 60 A 48 V
I <sup>2</sup> t on activation	1 A <sup>2</sup> .s 24 V 3 A <sup>2</sup> .s 48 V
It on activation	0.2 A.s 24 V 0.3 A.s 48 V
MTBF reliability	4600000 H
Protection type	Internal fuse not accessible for primary circuit Overload protection for secondary circuit, 24 V sensor power supply Overvoltage protection for secondary circuit, 24 V sensor power supply Short-circuit protection for secondary circuit, 24 V sensor power supply
Current at secondary voltage	1.3 A 24 V DC I/O module power supply and processor 4.5 A 3.3 V DC I/O module logic power supply
Maximum power dissipation in W	8.5 W
Status LED	1 LED (green) rack voltage OK
Control type	RESET push-button cold restart
Electrical connection	1 connector 2 pin(s) alarm relay 1 connector 5 pin(s) line supply, protective earth
Maximum cable distance between devices	10 m power supply cable copper 1.5 mm <sup>2</sup> 15 m power supply cable copper 2.5 mm <sup>2</sup>
Insulation resistance	>= 10 MOhm primary/ground

>= 10 MOhm primary/secondary

**Net weight** 0.34 kg

## Environment

**Immunity to microbreaks** 1 ms

**Dielectric strength** 1500 V primary/ground  
1500 V primary/secondary

**Vibration resistance** 3 gn

**Shock resistance** 30 gn

**IP degree of protection** IP20

**Directives** 2014/35/EU - low voltage directive  
2014/30/EU - electromagnetic compatibility  
2014/34/EU - ATEX directive

**Product certifications** CE  
UL  
CSA  
RCM  
EAC  
Merchant Navy  
ATEX zone 2/22  
IECEx zone 2/22

**Standards** EN/IEC 61131-2  
EN/IEC 61010-2-201  
UL 61010-2-201  
CSA C22.2 No 61010-2-201  
IACS E10  
EN/IEC 61000-6-5, interface type 1 and type 2  
EN/IEC 61850-3, location G  
EN/IEC 60079-0

**Environmental characteristic** Gas resistant class Gx conforming to ISA S71.04  
Gas resistant class 3C4 conforming to IEC 60721-3-3  
Dust resistant class 3S4 conforming to IEC 60721-3-3  
Sand resistant class 3S4 conforming to IEC 60721-3-3  
Salt resistant level 2 conforming to IEC 68252  
Mold growth resistant class 3B2 conforming to IEC 60721-3-3  
Fungal spore resistant class 3B2 conforming to IEC 60721-3-3  
Hazardous location class I division 2

**Ambient air temperature for storage** -40...85 °C

**Ambient air temperature for operation** -25...70 °C

**Relative humidity** 5...95 % at 55 °C without condensation

**Protective treatment** Conformal coating

**Operating altitude** 0...2000 m  
2000...5000 m with derating factor

## Packing Units

**Unit Type of Package 1** PCE

**Number of Units in Package 1** 1

**Package 1 Height** 13.8 cm

**Package 1 Width** 15.7 cm

**Package 1 Length** 15.9 cm

**Package 1 Weight** 485.0 g

**Unit Type of Package 2** S04

**Number of Units in Package 2** 12

**Package 2 Height** 30.0 cm

**Package 2 Width** 40.0 cm

**Package 2 Length** 60.0 cm

Package 2 Weight	6.767 kg
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## Offer Sustainability

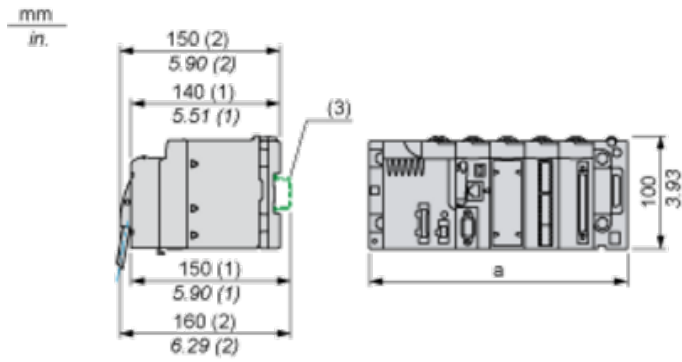
Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
China RoHS Regulation	<a href="#">China RoHS declaration</a>
RoHS exemption information	Yes
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End of Life Information</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>

## Contractual warranty

Warranty	18 months
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**Modules Mounted on Racks**

**Dimensions**



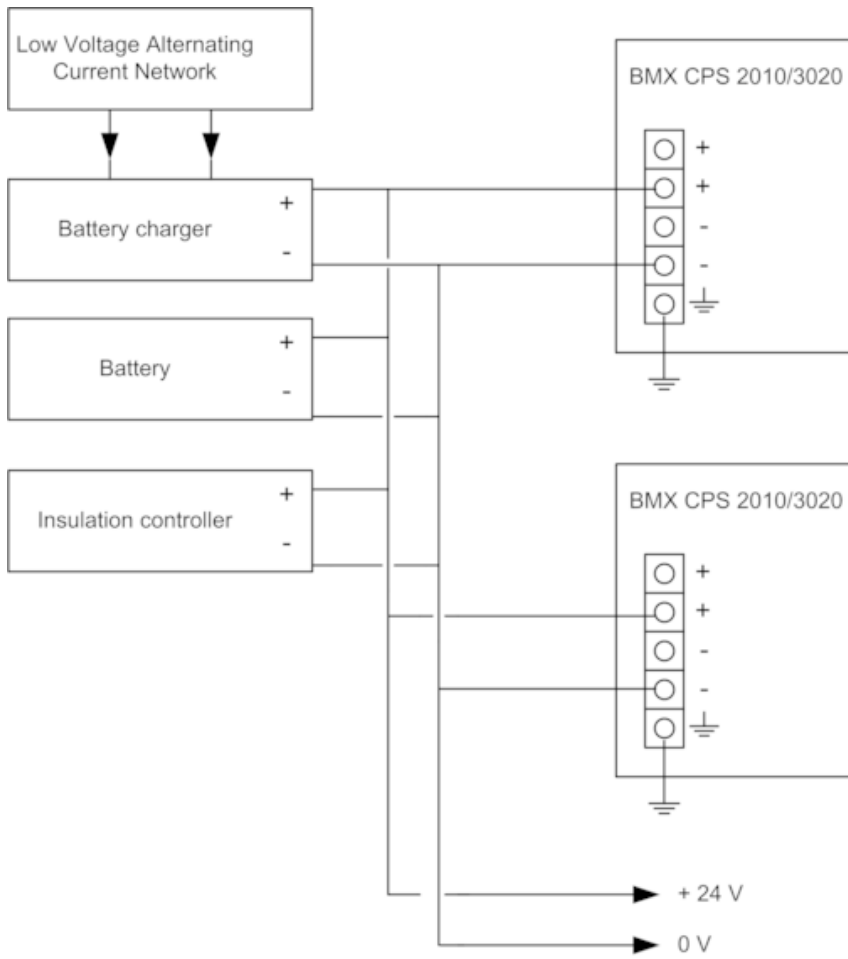
(1) With removable terminal block (cage, screw or spring).

(2) With FCN connector.

(3) On AM1 ED rail: 35 mm wide, 15 mm deep. Only possible with BMXXBP0400/0400H/0600/0600H/0800/0800H rack.

Rack references	a in mm	a in in.
BMXXBP0400 and BMXXBP0400H	242.4	09.54
BMXXBP0600 and BMXXBP0600H	307.6	12.11
BMXXBP0800 and BMXXBP0800H	372.8	14.68
BMXXBP1200 and BMXXBP1200H	503.2	19.81

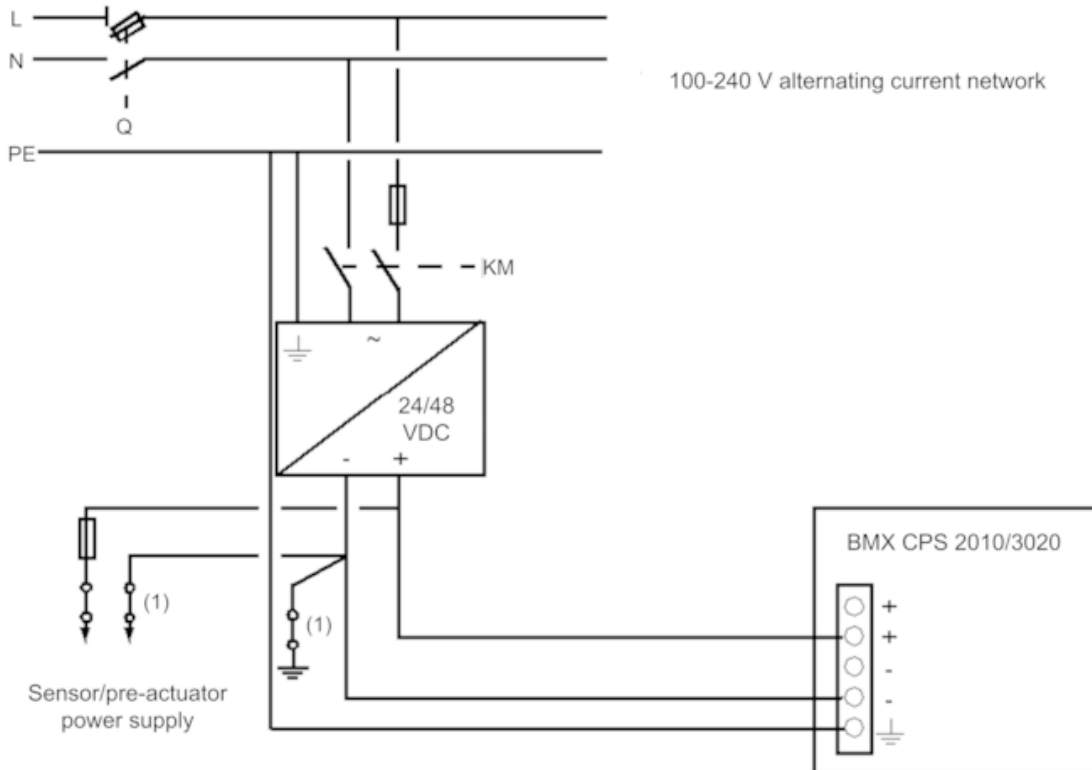
## Connection of Direct Current Power Supply Modules to a 24 Vdc or 48 Vdc Floating Direct Current Network



24 VDC floating network for the power supply of sensors, actuators and input/out modules.

## Connection of Direct Current Power Supply Modules to an Alternating Current Network

### Connection of a Single Rack PLC Station

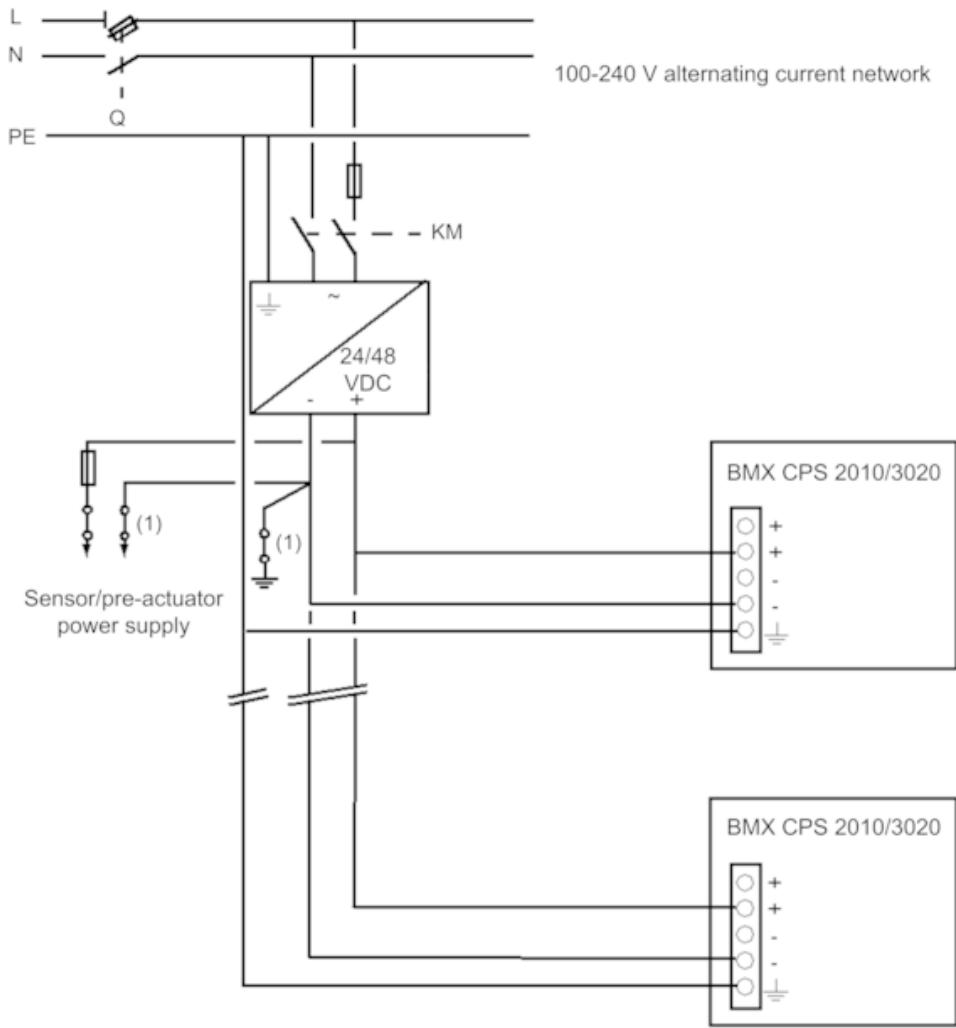


**Q** General isolator

**KM** Line contactor or circuit breaker

**(1)** Insulation connector bar for locating grounding errors

## Connection of a Multi-Rack PLC Station



**Q** General isolator

**KM** Line contactor or circuit breaker

**(1)** Insulation connector bar for locating grounding errors

## Recommended replacement(s)