

X20(c)BM01

1 General information

1.1 Other applicable documents

For additional and supplementary information, see the following documents.

Other applicable documents

| Document name | Title |
|---------------|--|
| MAX20 | X20 System user's manual |
| MAEMV | Installation / EMC guide |

1.2 Coated modules

Coated modules are X20 modules with a protective coating for the electronics component. This coating protects X20c modules from condensation and corrosive gases.

The modules' electronics are fully compatible with the corresponding X20 modules.

For simplification purposes, only images and module IDs of uncoated modules are used in this data sheet.

The coating has been certified according to the following standards:

- Condensation: BMW GS 95011-4, 2x 1 cycle
- Corrosive gas: EN 60068-2-60, method 4, exposure 21 days



1.2.1 Starting temperature

The starting temperature describes the minimum permissible ambient temperature in a voltage-free state at the time the coated module is switched on. This is permitted to be as low as -40°C . During operation, the conditions as specified in the technical data continue to apply.

Information:

It is important to absolutely ensure that there is no forced cooling by air currents in the closed control cabinet, e.g. due to the use of a fan or ventilation slots.

1.3 Order data

| Order number | Short description | Figure |
|--------------|--|--------|
| | Bus modules | |
| X20BM01 | X20 power supply bus module, 24 VDC keyed, internal I/O power supply interrupted to the left | |
| X20cBM01 | X20 power supply bus module, coated, 24 VDC keyed, internal I/O power supply interrupted to the left | |

Table 1: X20BM01, X20cBM01 - Order data

1.4 Module description

The bus module is the base for all power supply modules.

- Basis for all power supply modules
- For creating potential groups
- The internal I/O power supply is interrupted to the left.

2 Technical description

2.1 Technical data

| Order number | X20BM01 | X20cBM01 |
|--|--|---|
| Short description | | |
| Bus module | Power supply bus module, 24 VDC keyed, internal I/O power supply interrupted to the left | |
| General information | | |
| Power consumption | | |
| Bus | | 0.13 W |
| Internal I/O | | - |
| Additional power dissipation caused by actuators (resistive) [W] | | - |
| Certifications | | |
| CE | | Yes |
| UKCA | | Yes |
| ATEX | | Zone 2, II 3G Ex nA nC IIA T5 Gc IP20, Ta (see X20 user's manual) FTZÚ 09 ATEX 0083X |
| UL | | cULus E115267 Industrial control equipment |
| HazLoc | | cCSAus 244665 Process control equipment for hazardous locations Class I, Division 2, Groups ABCD, T5 |
| DNV | | Temperature: B (0 to 55°C) Humidity: B (up to 100%) Vibration: B (4 g) EMC: B (bridge and open deck) |
| LR | | ENV1 |
| KR | | Yes |
| ABS | | Yes |
| BV | | EC33B Temperature: 5 - 55°C Vibration: 4 g EMC: Bridge and open deck |
| EAC | | Yes |
| KC | Yes | - |
| I/O power supply | | |
| Nominal voltage | | 24 VDC |
| Permissible contact load | | 10 A |
| Operating conditions | | |
| Mounting orientation | | |
| Horizontal | | Yes |
| Vertical | | Yes |
| Installation elevation above sea level | | |
| 0 to 2000 m | | No limitation |
| >2000 m | | Reduction of ambient temperature by 0.5°C per 100 m |
| Degree of protection per EN 60529 | | IP20 |
| Ambient conditions | | |
| Temperature | | |
| Operation | | |
| Horizontal mounting orientation | | -25 to 60°C |
| Vertical mounting orientation | | -25 to 50°C |
| Derating | | - |
| Starting temperature | - | Yes, -40°C |
| Storage | | -40 to 85°C |
| Transport | | -40 to 85°C |
| Relative humidity | | |
| Operation | 5 to 95%, non-condensing | Up to 100%, condensing |
| Storage | | 5 to 95%, non-condensing |
| Transport | | 5 to 95%, non-condensing |
| Mechanical properties | | |
| Pitch | | 12.5 ^{+0.2} mm |

Table 2: X20BM01, X20cBM01 - Technical data

2.2 Voltage routing

