

**PRO DM 20****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)

In many automation applications, power supply systems are required that function reliably even if a power supply unit fails. With our optimally coordinated supplementary modules, a permanent supply concept is created. Weidmüller's diodes and redundancy modules connect two power supplies to each other in order to compensate for the failure of one device. The diode modules allow with 20 A or 40 A output current to the construction of safe power supply systems

**General ordering data**

|            |                            |
|------------|----------------------------|
| Version    | Diode module, 24 V DC      |
| Order No.  | <a href="#">2486080000</a> |
| Type       | PRO DM 20                  |
| GTIN (EAN) | 4050118496819              |
| Qty.       | 1 pc(s).                   |

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## Technical data

## Dimensions and weights

|            |        |                 |            |
|------------|--------|-----------------|------------|
| Depth      | 125 mm | Depth (inches)  | 4.921 inch |
| Height     | 125 mm | Height (inches) | 4.921 inch |
| Width      | 32 mm  | Width (inches)  | 1.26 inch  |
| Net weight | 552 g  |                 |            |

## Temperatures

|                     |                                                                      |                       |                |
|---------------------|----------------------------------------------------------------------|-----------------------|----------------|
| Storage temperature | -40 °C...85 °C                                                       | Operating temperature | -40 °C...70 °C |
| Humidity            | 5-95% relative humidity, T <sub>u</sub> = 40°C, without condensation |                       |                |

## 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          |
| Nominal power consumption | 480 VA                                                                    | Rated input voltage    | 24 V DC     |

## Output

|                                    |                                      |                                                  |                                                                           |
|------------------------------------|--------------------------------------|--------------------------------------------------|---------------------------------------------------------------------------|
| Connection system                  | Screw connection                     | Continuous output current @ U <sub>Nominal</sub> | 1 × 48 A (-40 °C ~ +45 °C), 1 × 40 A (+45 °C ~ +60 °C), 1 × 30 A (+70 °C) |
| Output current, max.               | 40 A                                 | Output power                                     | 932 W                                                                     |
| Protection against inverse voltage | Yes                                  | Rated output voltage                             | V <sub>INPUT</sub> -typ. 0.7 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% relative humidity, T <sub>u</sub> = 40°C, without condensation |
| 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. | Protection degree      | IP20                                                                 |
| Short-circuit protection               | No                                                                                                                                  | Surge voltage category | III                                                                  |

## EMC / shock / vibration

|                                    |                                                                                                                                                                   |                                 |                        |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|------------------------|
| 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 |
| Vibration resistance IEC 60068-2-6 | 2.3 g (on DIN rail)                                                                                                                                               |                                 |                        |

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## Insulation coordination

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

## 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 <sup>2</sup> | Conductor cross-section, rigid , max.     | 6 mm <sup>2</sup> |
| Conductor cross-section, rigid , min.                 | 0.18 mm <sup>2</sup> | 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 <sup>2</sup>    |                                           |                   |

## Connection data (output)

|                                           |                    |                                           |                     |
|-------------------------------------------|--------------------|-------------------------------------------|---------------------|
| Conductor cross-section, AWG/kcmil , max. | 8                  | Conductor cross-section, AWG/kcmil , min. | 22                  |
| Conductor cross-section, flexible , max.  | 16 mm <sup>2</sup> | Conductor cross-section, flexible , min.  | 0.5 mm <sup>2</sup> |
| Conductor cross-section, rigid , max.     | 16 mm <sup>2</sup> | Conductor cross-section, rigid , min.     | 0.5 mm <sup>2</sup> |
| 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    | ETIM 7.0    | EC002540    |
| ETIM 8.0    | EC002540    | ETIM 9.0    | EC002540    |
| ETIM 10.0   | EC002540    | ECLASS 9.0  | 27-04-07-01 |
| ECLASS 9.1  | 27-04-07-01 | ECLASS 10.0 | 27-04-07-01 |
| ECLASS 11.0 | 27-04-07-90 | ECLASS 12.0 | 27-04-07-90 |
| ECLASS 13.0 | 27-04-07-90 | ECLASS 14.0 | 27-04-07-90 |
| ECLASS 15.0 | 27-04-07-90 |             |             |

## Environmental Product Compliance

|                                      |                                      |
|--------------------------------------|--------------------------------------|
| RoHS Compliance Status               | Compliant with exemption             |
| RoHS Exemption (if applicable/known) | 7a, 7cl                              |
| REACH SVHC                           | Lead 7439-92-1                       |
| SCIP                                 | cc374e6c-371c-484b-a36d-6c65c5030ae7 |

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Approvals



|                         |                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Approvals MAMID         | <a href="https://mdcop.weidmueller.com/mediadelivery/rendition/900_319228/-T1z1mm-S800/">https://mdcop.weidmueller.com/mediadelivery/rendition/900_319228/-T1z1mm-S800/</a> <a href="https://mdcop.weidmueller.com/mediadelivery/rendition/900_319258/-T1z1mm-S800/">https://mdcop.weidmueller.com/mediadelivery/rendition/900_319258/-T1z1mm-S800/</a> |
| ROHS                    | Conform                                                                                                                                                                                                                                                                                                                                                 |
| UL File Number Search   | UL Website                                                                                                                                                                                                                                                                                                                                              |
| Certificate no. (cULus) | E258476                                                                                                                                                                                                                                                                                                                                                 |

**Downloads**

|                                             |                                                                                                                   |
|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">DoP EN54.4</a><br><a href="#">Declaration of Conformity</a><br><a href="#">UK Conformity Assessed</a> |
| Engineering Data                            | <a href="#">CAD data – STEP</a>                                                                                   |
| User Documentation                          | <a href="#">Operating instructions</a>                                                                            |
| Catalogues                                  | <a href="#">Catalogues in PDF-format</a>                                                                          |