



CONVERTERS / RECTIFIERS

- Compact design
- Galvanic separation
- Switch mode models

SMALL VOLTAGE CONVERTERS

Voltages in control systems often have to be converted. The DC/DC converters in the MDD series do this perfectly! It doesn't matter if you need 5, 10, 12 or 24 volts – Murrelektronik has the right product.

If there is only AC voltage available, the NG rectifier series can convert into DC voltage. All models can be conveniently mounted in the control cabinet on DIN rail.

AC/DC and DC/DC Converters



MDD, GLS, GSS, NG, NT

- Output current range: 0.5..4A

Page 1.5.1

Rectifiers



NG

- Output current range: 2.6..10A

Page 1.5.3

CONVERTERS / RECTIFIERS

Switched mode
– with galvanic isolation

MDD
OUTPUT: 24 V DC
Current: 0.3 A



MDD
OUTPUT: 12 V DC
Current: 0.7 A



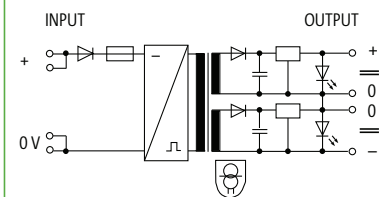
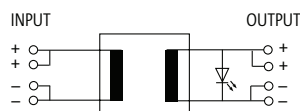
MDD
OUTPUT: 5 V DC
Current: 1.5 A



MDD
OUTPUT: ±10 V DC
Current: 2 × 0.25 A

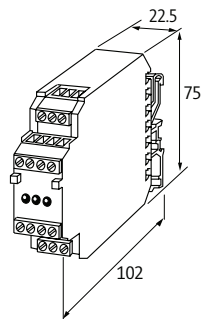
MDD
OUTPUT: ±15 V DC
Current: 2 × 0.25 A

Circuit diagram



| Order Data | Art-No. | Art-No. | Art-No. | Art-No. | Art-No. |
|---------------------|---------|---------|---------|---------|---------|
| 24 V DC/0.3 A | 85655 | | | | |
| 12 V DC/0.7 A | | 85656 | | | |
| 5 V DC/1.5 A | | | 85657 | | |
| ±10 V DC/2 × 250 mA | | | | 85658 | |
| ±15 V DC/2 × 250 mA | | | | | 85659 |

| Input | | | | | |
|------------------------|---|---------------------|--------------------|----------------------|----------------------|
| Input voltage | 24 V DC | | | | |
| Input current | 0.6 A | | 0.85 A | | |
| Input fuse (external) | 2 A (T) | | – | | |
| Input fuse (internal) | 1.5 A (T) | | | | |
| Output | | | | | |
| Output fuse | short-circuit and overload protected, restart after overload by removing power supply | | | | |
| Output voltage | 24 V DC (SELV), ±2% | 12 V DC (SELV), ±2% | 5 V DC (SELV), ±2% | ±10 V DC (SELV), ±5% | ±15 V DC (SELV), ±5% |
| Output current | max. 0.3 A | max. 0.7 A | max. 1.5 A | max. 2 × 250 mA | |
| Ripple | max. 0.2 %rms | | | | |
| General data | | | | | |
| Standards | EN 61204-3 | | | | |
| Test isolation voltage | 4 kV (input/output) | | | | |
| Mounting method | DIN-rail mountable TH35 or G32 (EN 60715) | | | | |
| Temperature range | 0...+50 °C, no condensation | | | | |
| Dimension drawing | | | | | |



| Notes |
|-------|
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CONVERTERS / RECTIFIERS

DC/DC converters

AC/DC converters

GLS

OUTPUT regulated: 5 V DC
Current: 1.2 A



GSS

OUTPUT switched mode: 5 V DC
Current: 4 A

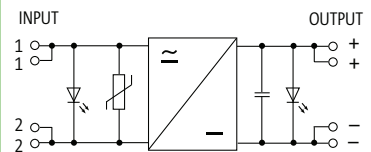
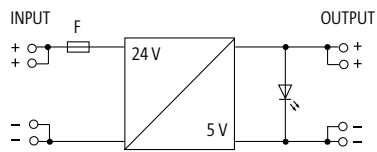


NT

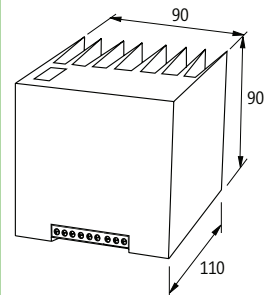
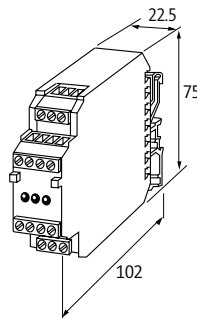
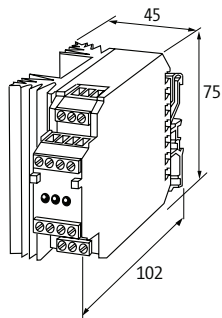
OUTPUT: 5...35 V DC
Current: 3.5 A



Circuit diagram



| Order Data | Art-No. | Art-No. | Art-No. |
|-----------------------|------------------------------------|------------------------------|---|
| 5 V DC/1.2 A | 85600 | | |
| 5 V DC/4 A | | 85650 | |
| 5...35 V DC/3.5 A | | | 85660 |
| Input | | | |
| Input voltage | 24 V DC (+10 -15%) | 15...40 V DC | 10...32 V AC/12...42 V DC |
| Input current | 1.2 A | 1.04 A (24 V DC); max. 1.7 A | max. 3 A |
| Input fuse (internal) | 2 A (T) | | 6.3 A (T) |
| Frequency | - | | 50...60 Hz |
| Output | | | |
| Output voltage | 5 V DC (SELV), ±5% | | 5...35 V DC (SELV), U _{out-max.} = U _{in} - 5 V |
| Output current | max. 1.2 A | max. 4 A | max. 3.5 A |
| Ripple | max. 0.2 %rms | | max. 300 mVrms |
| Output fuse | short-circuit protected | | |
| General data | | | |
| Mounting method | DIN-rail mountable TH35 (EN 60715) | | |
| Temperature range | -20...+60 °C, no condensation | | |
| Dimension drawing | | | |



Notes

CONVERTERS / RECTIFIERS

Rectifier modules

– Single-phase

– IP00

NG 2

INPUT: max. 41 V AC



NG 5

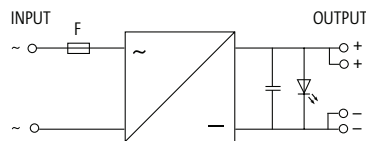
INPUT: max. 41 V AC

NG 10

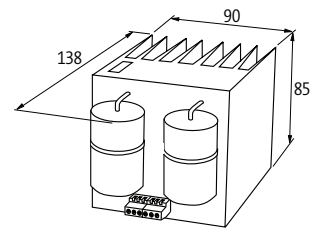
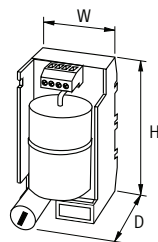
INPUT: 29 V AC



Circuit diagram



| Order Data | H×W×D | Art-No. | H×W×D | Art-No. | H×W×D | Art-No. |
|--------------------------|---|---------|------------------------|--|---------------------|---------|
| 24 V DC/2.6 A | 86×45×92 mm | 85700 | | | | |
| 24 V DC/5 A | | | 90×68×87 mm | 85710 | | |
| 24 V DC/10 A | | | | | | 85730 |
| Input | | | | | | |
| Input voltage | max. 5...44 V AC | | | 29 V AC | | |
| Input current | max. 2.6 A; 1.8 A (+60 °C) | | max. 5 A; 4 A (+60 °C) | | max. 10 A | |
| Frequency | 45...65 Hz | | | 50...60 Hz (or as additional smoothing for DC) | | |
| Input fuse (external) | – | | 8 A (T), 5 × 20 mm | | 16 A (T), 5 × 20 mm | |
| Input fuse (internal) | 3.15 A (T), 5 × 20 mm | | – | | | |
| Output | | | | | | |
| Output voltage | U-IN × 1.16/max. 60 V DC | | | U-IN × 1.16/39 V DC | | |
| Output current | max. 2.6 A; 1.8 A (+60 °C) | | max. 5 A; 4 A (+60 °C) | | max. 10 A | |
| Ripple | max. 5 %rms | | | | | |
| Output filter | smoothed with smoothing capacitor and LED | | | | | |
| General data | | | | | | |
| Mounting method | DIN-rail mountable TH35 (EN 60715) | | | | | |
| Temperature range | -20...+60 °C | | | | | |
| Dimension drawing | | | | | | |



Notes