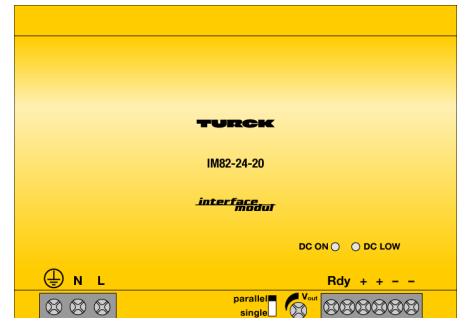
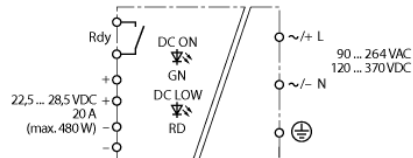


# Switching Power Supply Module IM82-24-20



The IM82-24-20 power supply unit is designed for DC consumers, in particular for the supply of switching and monitoring devices of the TURCK IM, IME, IMS and IMC series.

The power supply provides 24 VDC output voltage and 20 A output current. With the potentiometer  $V_{out}$  the output voltage can be adjusted in a range between 22.5...28.5 VDC. The device provides safety extra-low voltage (SELV) according to EN 60950.

The power supply can be set to single or parallel operating mode.

- Output voltage adjustable 22.5...28.5 VDC
- Nominal current 20 A
- Single/parallel operating mode
- Surge protection
- Universal operating voltage
- Mains failure bridging up to 30 ms
- High efficiency
- Parallel operation possible
- Natural air cooling
- Power-good relay
- cULus listed
- Safety extra-low voltage SELV IEC/EN 60950
- SEMI-F47

## Dimensions

|      |            |
|------|------------|
| Type | IM82-24-20 |
| ID   | 7545044    |

|                            |                                                |
|----------------------------|------------------------------------------------|
| Nominal voltage            | Universal voltage supply unit                  |
| Operating voltage          | 90...264 VAC                                   |
| Frequency                  | 47...63 Hz                                     |
| Operating voltage $U_o$    | 120...370 VDC                                  |
| Power consumption          | $\leq 564$ VA                                  |
| Power dissipation, typical | $\leq 63$ W                                    |
| PFC                        | 0.99                                           |
| Efficiency                 | 89 %                                           |
| External fuse              | B16A                                           |
| Internal fuse              | T 10 A/250 VAC                                 |
| Inrush current             | $U_i = 115$ VAC, 25 A; $U_i = 230$ VAC, 50 A   |
| Mains buffering            | $U_i = 115$ VAC, 30 ms; $U_i = 230$ VAC, 30 ms |

|                                |                                |
|--------------------------------|--------------------------------|
| Output circuits                |                                |
| Nominal output voltage         | 24 V                           |
| Adjustment range               | 22.5...28.5 V                  |
| Nominal current                | 20 A                           |
| Output circuits (digital)      | relay (NO), > 17.6 ... 19.4V   |
| Output switching voltage relay | $\leq 60$ VDC / $\leq 250$ VAC |
| Switching current per output   | $\leq 0.3$ A                   |

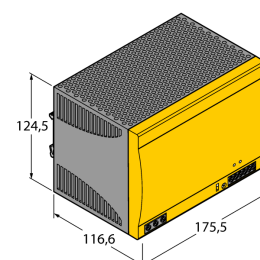
|                         |                                                                                   |
|-------------------------|-----------------------------------------------------------------------------------|
| Overload protection     | 120...140 %                                                                       |
| Surge limiting          | 125...137 %                                                                       |
| Parallel mode           | yes, switchover initiated by a switch, max. 3 devices each with 90 % load current |
| Ripple                  | 100 mV                                                                            |
| Pollution degree        | 2                                                                                 |
| Surge category          | II                                                                                |
| Short-circuit behaviour | Current limiting                                                                  |

|                         |                 |
|-------------------------|-----------------|
| Response characteristic |                 |
| Limit frequency         | $\leq 60000$ Hz |

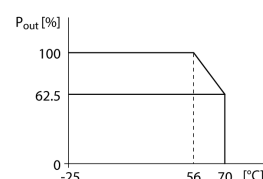
|                    |        |
|--------------------|--------|
| Galvanic isolation |        |
| Test voltage       | 3.0 kV |

|                             |       |
|-----------------------------|-------|
| Displays/Operating elements |       |
| Operational readiness       | Green |
| Error indication            | red   |

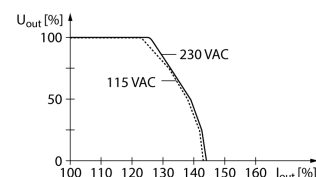
|                                  |                          |
|----------------------------------|--------------------------|
| Mechanical data                  |                          |
| Protection class                 | IP20                     |
| Flammability class acc. to UL 94 | V-0                      |
| Ambient temperature              | -25...+70 °C             |
| Storage temperature              | -25...+85 °C             |
| Derating                         | 4 %/°C from 61 °C        |
| Dimensions                       | 124.5 x 175.5 x 116.6 mm |
| Weight                           | 2304 g                   |
| Mounting instructions            | DIN rail (NS35)          |
| Housing material                 | Metal, Polycarbonate/ABS |
| Electrical connection            | Screw terminals          |
| Terminal cross-section           | 0.2...6.0 mm²            |
| Tightening torque                | 0.6 Nm                   |



## Derating



## Short-circuit behaviour



## Parallel operation

