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# TURCK

## IM82

# Switched-Mode Power Supplies



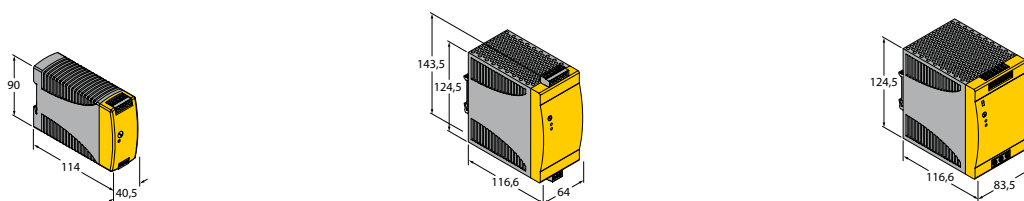
# 24 V Switched-Mode Supplies Modules for Industrial Applications

The IM82-24 modules provide safety extra low voltage (SELV) according to EN 60950. They supply related equipment as well as IM, IME, IMS and IMC interface modules with 24 V. Thanks to their universal voltage input, the IM82-24 can be used in many networks worldwide. Depending on the model, output voltages of 2.5, 5, 10 or 20 A are available, as well as 3-phase power

supplies with 5 and 10 amperes. The output voltages can be adjusted in a range between 22.5 and 28.5 VDC or 24 and 28 VDC via potentiometer.

The IM82-24 series in IP20 convinces through its high efficiency and is especially designed for reliable power supply in industrial environments. The devices

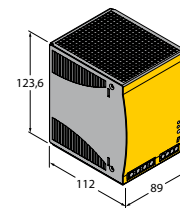
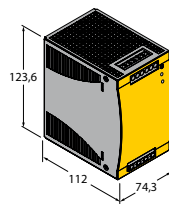
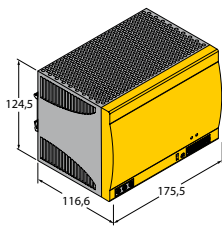
can be connected in parallel and are surge protected up to 150 %. A power-good relay provides for a reliable function control. Short-term power failures of about 20 to 30 ms are automatically buffered.



Type code	IM82-24-2,5	IM82-24-5,0	IM82-24-10
Ident.-no.	7545041	7545042	7545043
Operating voltage	85...264 VAC, 90...375 VDC	90...132 VAC, 186...264 VAC, 210...370 VDC	90...132 VAC, 186...264 VAC, 210...370 VDC
Frequency	47...63 Hz	47...73 Hz	47...73 Hz
Nominal voltage	24 V	24 V	24 V
Inrush current	40 A (230 VAC)	48 A (230 VAC)	60 A (230 VAC)
Mains buffering	U <sub>i</sub> = 115 VAC, 20 ms; U <sub>i</sub> = 230 VAC, 30 ms	U <sub>i</sub> = 115 VAC, 25 ms; U <sub>i</sub> = 230 VAC, 30 ms	U <sub>i</sub> = 115 VAC, 25 ms; U <sub>i</sub> = 230 VAC, 30 ms
Adjustment range	24...28 VDC	22.5...28.5 VDC	22.5...28.5 VDC
Nominal current	2.5 A	5.0 A	10 A
Output circuits (digital)	1 x transistor	1 x relay (NO)	1 x relay (NO)
Switching voltage	≤ 24 VDC	≤ 60 VDC	≤ 60 VDC
Switching current per output	≤ 35 mA	≤ 300 mA	≤ 300 mA
Surge protection	110...150 %	105...145 %	110...150 %
Parallel mode	Yes, via diodes	Yes, switch, max. 3 devices each with 90 % load current	Yes, switch, max. 3 devices each with 90 % load current
Ripple	50 mV	50 mV	100 mV
Short-circuit response	Hiccup mode	Current limiting	Current limiting
Limit frequency	≤ 80 kHz	≤ 80 kHz	≤ 40 kHz
Error message	–	Red LED	Red LED
Dimensions	90 x 40.5 x 115 mm	123.6 x 63.2 x 116.6 mm	125 x 83 x 116 mm
Terminal cross-section	0.2...2 mm <sup>2</sup>	0.2...2 mm <sup>2</sup> , removable terminals	0.2...2 mm <sup>2</sup>
Pollution degree	2	2	2
Surge category	II	II	II
Test voltage	3.0 kV	3.0 kV	3.0 kV
Operational readiness	Green LED	Green LED	Green LED
Mounting instructions	Mounting on a DIN rail	Mounting on a DIN rail	Mounting on a DIN rail
Protection Class	IP20	IP20	IP20
Ambient temperature	-25...+70 °C	-25...+70 °C	-25...+70 °C
Storage temperature	-25...+85 °C	-25...+85 °C	-25...+85 °C
Electrical connection	Screw terminals	Screw terminals	Screw terminals

## ations

- Universal voltage input
- Adjustable output voltage
- Power-good relay
- LED display
- Parallel operation
- Broad temperature range
- Surge protection
- Mains buffering up to 30 ms
- SELV IEC/EN60950, UL, cUL, Class 1 Div 2



	IM82-24-20	IM82-24-5,0-3P	IM82-24-10-3P
	7545044	7545045	7545046
0...370 VDC	90...264 VAC, 120...370 VDC	340...575 VAC, 480...820 VDC	340...575 VAC, 480...820 VDC
	47...63 Hz	47...63 Hz	47...63 Hz
	24 V	24 V	24 V
	50 A (230 VAC)	10 A	20 A
C, 30 ms	U <sub>i</sub> = 115 VAC, 30 ms; U <sub>i</sub> = 230 VAC, 30 ms	20 ms	20 ms
	22.5...28.5 VDC	22.5...28.5 VDC	22.5...28.5 VDC
	20 A	5 A	10 A
	1 x relay (NO)	1 x relay (NO)	1 x relay (NO)
	≤ 60 VDC	≤ 60 VDC	≤ 60 VDC
	≤ 300 mA	≤ 300 mA	≤ 300 mA
	120...140 %	155...135 %	Temperature: Disconnection at 100...110 °C
with	Yes, switch, max. 3 devices each with 90 % load current	Yes, via external diodes, max. 2 devices	Yes, changeover via switch, max. 3 devices each with 90 % load current
	100 mV	100 mV	100 mV
	Current limiting	Hiccup mode	Hiccup mode
	≤ 60 kHz	≤ 70 kHz	≤ 25 kHz
	Red LED	Red LED	Red LED
	125 x 175 x 110.7 mm	119 x 75 x 124 mm	118 x 89 x 124 mm
	0.2...6 mm <sup>2</sup>	0.2...2 mm <sup>2</sup>	0.2...2 mm <sup>2</sup>
	2	2	2
	II	II	II
	3.0 kV	3.0 kV	3.0 kV
	Green LED	Green LED	Green LED
	Mounting on a DIN rail	Mounting on a DIN rail	Mounting on a DIN rail
	IP20	IP20	IP20
	-25...+70 °C	-25...+70 °C	-25...+70 °C
	-25...+85 °C	-25...+85 °C	-25...+85 °C
	Screw terminals	Screw terminals	Screw terminals

# Types

## 1-phase



IM82-24-2,5

IM82-24-5,0

IM82-24-10

IM82-24-20

## 3-phase



IM82-24-5,0-3P

IM82-24-10-3P



28 subsidiaries and over  
60 representations worldwide!

