

Manual

DIN Rail Mount Power Supplies 24V



Release	1.0
Type	11084
	11085
	11077

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Subject to error and alteration:

Since it is possible that we make mistakes, you mustn't use any of our statements without verification. Please, inform us of any error or misunderstanding you come about, so we can identify and eliminate it as soon as possible.

Carry out your work on or with W&T products only to the extent that they are described here and after you have completely read and understood the manual or guide. We are not liable for unauthorized repairs or tampering. When in doubt, check first with us or with your dealer.

W&T Interfaces or Com-Servers are frequently used with a 24V power supply in large numbers at a central location. In such cases a common supply for the interfaces makes the application significantly clearer than would be the case when powering the devices with individual dedicated power supplies.

If there is no large 24V power supply in the installation, this problem can be solved elegantly and cost-effectively using the W&T DIN rail power supplies, which are capable of powering multiple interfaces or Com-Servers.

The power supply can of course also be used where in addition to the 24V supply for the W&T Interface you also need power for the rest of the installation. In this case you simply need to ensure that the power consumed does not exceed the rated power of the DIN rail power supply.

Thanks to the generous operating temperature range, the DIN rail mount power supply is also ideal for applications where the standard plug-in power supplies cannot be used due to the expected high ambient temperatures.

Current information can be found in the Internet at <http://www.wut.de> or in the e-mail updates provided to members of the W&T Interface Club. Subscriptions to the Interface Club can requested from the W&T homepage.

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Power supply for DIN rail mount, #11084

The 11084 is a 24V / 24W switching type universal power supply suitable for DIN rail mounting. It carries a CE Mark and UL approval and meets industrial EMC requirements, so that the power supply is also usable in worldwide industrial applications.

The power supply can power various W&T DIN rail devices from a central power source and, with an ambient temperature rating of -20..+70 °C covers the entire working temperature range of industrial equipment.

Safety Advisory: HAZARDOUS VOLTAGE

The following advisory must be read and understood before installing the power supply. Non-observance of this advisory may have serious or fatal consequences.



This power supply is to be installed and placed in operation only by an electrical specialist. Before beginning any work on the power supply, make sure the mains supply is completely disconnected.

When installing, make sure no loose wires extend into the housing of the power supply through the ventilation holes.

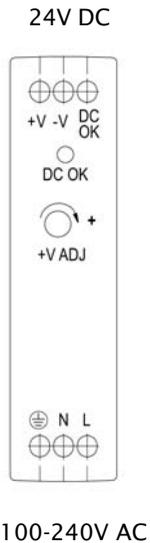
Protection for operating personnel and the equipment is only ensured if the power supply is used as specified. Any use other than described in this Manual will compromise the safety and function of the power supply and any connected systems.

If faults cannot be remedied, take the power supply out of service and guard it against unintentional startup. Tampering with and modifying the power supplies is hazardous and is therefore not permitted.

The operator is responsible for observing local safety regulations.

Connection

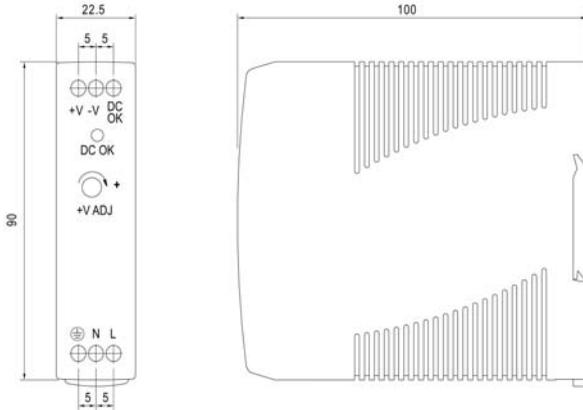
Input and output voltages will be connected to the power supply using screw terminals, which are assigned as follows:



When the output voltage is correct, „DC OK“ provides a level of 24V with a load capacity of 20mA

Housing and dimensions

The dimensions of the 11084 DIN rail power supply can be seen in the following drawing:

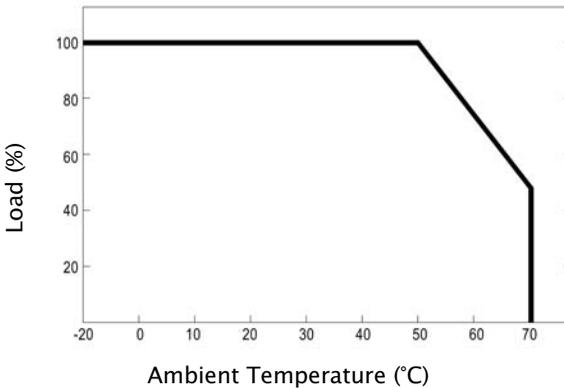


Derating

As with all switching power supplies, the 11084 DIN rail mount power supply is subject to a reduction of the available power at elevated temperatures. Up to a temperature of 50°C a rated load of 24 watts is possible, and above this temperature the permissible power draw is reduced by 2.5% per degree Celsius.



Derating diagram (vertical installation of the power supply):



Technical Specifications

Output power:	max. 24W
Efficiency (typ):	84%
No load power:	< 0,75W
Input voltage:	88 .. 264VAC
Frequency:	47 .. 63 Hz
Input current:	0.35A at 230V AC
Inrush current:	max. 40A at 230V AC
Output voltage:	24V DC (adjustable 21.6 .. 26.4V)
Tolerance:	±1%
Ripple:	max. 0.15V peak-to-peak
Rated current:	1.0A
Minimum load:	none
Power Good indicator:	24V DC output, I _{max} = 0.02A
Overcurrent protection:	105% .. 160% I _{rated}
Short circuit protected:	Yes
Overvoltage protection:	27.6 .. 32.4V (Shutdown at 115% .. 135% of rated voltage, Reset via „power on“)
Start time:	500ms at rated load and 230V AC
Rise time:	30ms at rated load and 230V AC
Hold time:	50ms at rated load and 230V AC
Cooling:	Convection
Withstand voltage:	In-Out: 3KV AC
Leakage resistance:	In-Out: 100 MOhm @500VDC
Operating temperature:	-20 .. 70°C, power reduction between 50 .. 70°C: 2.5%/°C
Storage temperature:	-40 .. 85°C
Relative humidity:	Operating: 20 .. 90% r.F. Storage: 10 .. 95% r.F. (non-condensing)
Terminals:	3-pole input, 2-pole output with screw terminals

MTBF:	236.900 hours (per MIL-HDBK-217F at 25°C)
Weight:	190 g
Dimensions:	22.5 x 90 x 100 mm
Approvals:	UL, c-UL, TÜV, CB, CE
Safety:	Meets UL 60950-1 / EN60950-1
EMC:	Meets EN 55022 B EN 61000-3-2, EN 61000-3-3 EN 61000-4-2, EN 61000-4-3 EN 61000-4-4, EN 61000-4-5 EN 61000-4-6, EN 61000-4-8 EN 61000-4-11, ENV 50204 EN 61204-3, EN 61000-6-2

Power supply for DIN rail mount, #11085

The 11085 is a 24V / 40W switching type universal power supply suitable for DIN rail mounting. It carries a CE Mark and UL approval and meets industrial EMC requirements, so that the power supply is also usable in worldwide industrial applications.

The power supply can power various W&T DIN rail devices from a central power source and, with an ambient temperature rating of -20..+70 °C covers the entire working temperature range of industrial equipment.

Safety Advisory: HAZARDOUS VOLTAGE

The following advisory must be read and understood before installing the power supply. Non-observance of this advisory may have serious or fatal consequences.



This power supply is to be installed and placed in operation only by an electrical specialist. Before beginning any work on the power supply, make sure the mains supply is completely disconnected.

When installing, make sure no loose wires extend into the housing of the power supply through the ventilation holes.

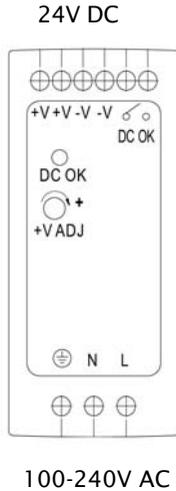
Protection for operating personnel and the equipment is only ensured if the power supply is used as specified. Any use other than described in this Manual will compromise the safety and function of the power supply and any connected systems.

If faults cannot be remedied, take the power supply out of service and guard it against unintentional startup. Tampering with and modifying the power supplies is hazardous and is therefore not permitted.

The operator is responsible for observing local safety regulations.

Connection

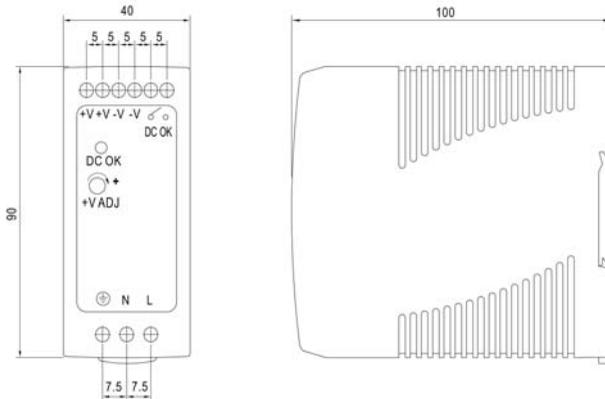
Input and output voltages will be connected to the power supply using screw terminals, which are assigned as follows:



„DC OK“ indicates a potential-free contact which is closed when the output voltage is correct.

Housing and dimensions

The dimensions of the 11085 DIN rail power supply can be seen in the following drawing:

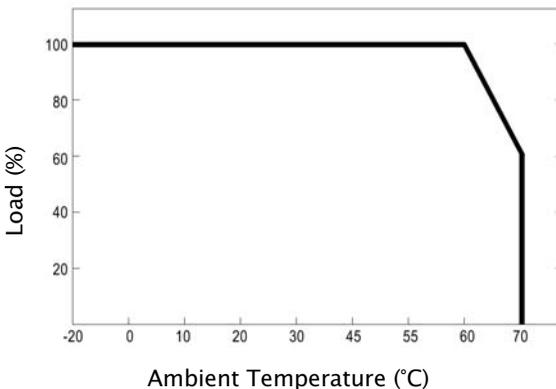


Derating

As with all switching power supplies, the 11085 DIN rail mount power supply is subject to a reduction of the available power at elevated temperatures. Up to a temperature of 60°C a rated load of 40 watts is possible, and above this temperature the permissible power draw is reduced by 4% per degree Celsius.



Derating diagram (vertical installation of the power supply):



Technical Specifications

Output power:	max. 40W
Efficiency (typ):	88%
No load power:	< 0,75W
Input voltage:	88 .. 264VAC
Frequency:	47 .. 63 Hz
Input current:	0.7A at 230V AC
Inrush current:	max. 60A at 230V AC
Output voltage:	24V DC (adjustable 24 .. 30V)
Tolerance:	±1%
Ripple:	max. 0.15V <small>peak-to-peak</small>
Rated current:	1.7A
Minimum load:	none
Power Good indicator:	potential-free switch
Overcurrent protection:	105% .. 150% I_{rated}
Short circuit protected:	Yes
Overvoltage protection:	31.2 .. 36V (Shutdown at 130% .. 150% of rated voltage, Reset via „power on“)
Start time:	500ms at rated load and 230V AC
Rise time:	30ms at rated load and 230V AC
Hold time:	50ms at rated load and 230V AC
Cooling:	Convection
Withstand voltage:	In-Out: 3KV AC
Leakage resistance:	In-Out: 100 MOhm @500VDC
Operating temperature:	-20 .. 70°C, power reduction between 60 .. 70°C: 4%/°C
Storage temperature:	-40 .. 85°C
Relative humidity:	Operating: 20 .. 90% r.F. Storage: 10 .. 95% r.F. (non-condensing)
Terminals:	3-pole input, 4-pole output with screw terminals

MTBF:	301.700 hours (per MIL-HDBK-217F at 25°C)
Weight:	300 g
Dimensions:	40 x 90 x 100 mm
Approvals:	UL, c-UL, TÜV, CB, CE
Safety:	Meets UL 60950-1 / EN60950-1
EMC:	Meets EN 55022 B EN 61000-3-2, EN 61000-3-3 EN 61000-4-2, EN 61000-4-3 EN 61000-4-4, EN 61000-4-5 EN 61000-4-6, EN 61000-4-8 EN 61000-4-11, ENV 50204 EN 61204-3, EN 61000-6-2

Power supply for DIN rail mount, #11077

The 11077 is a 24V / 100W switching type universal power supply suitable for DIN rail mounting. It carries a CE Mark and UL approval and meets industrial EMC requirements, so that the power supply is also usable in worldwide industrial applications.

The power supply can power various W&T DIN rail devices from a central power source and, with an ambient temperature rating of -20..+60 °C covers the entire working temperature range of the W&T interfaces.

Safety Advisory: HAZARDOUS VOLTAGE

The following advisory must be read and understood before installing the power supply. Non-observance of this advisory may have serious or fatal consequences.



This power supply is to be installed and placed in operation only by an electrical specialist. Before beginning any work on the power supply, make sure the mains supply is completely disconnected.

When installing, make sure no loose wires extend into the housing of the power supply through the ventilation holes.

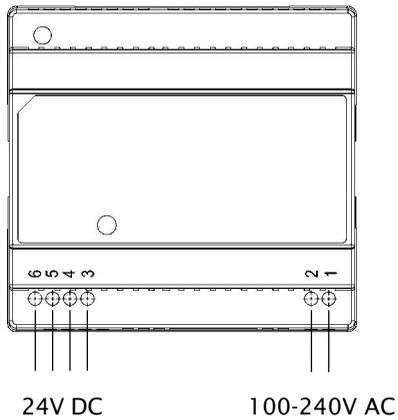
Protection for operating personnel and the equipment is only ensured if the power supply is used as specified. Any use other than described in this Manual will compromise the safety and function of the power supply and any connected systems.

If faults cannot be remedied, take the power supply out of service and guard it against unintentional startup. Tampering with and modifying the power supplies is hazardous and is therefore not permitted.

The operator is responsible for observing local safety regulations.

Connection

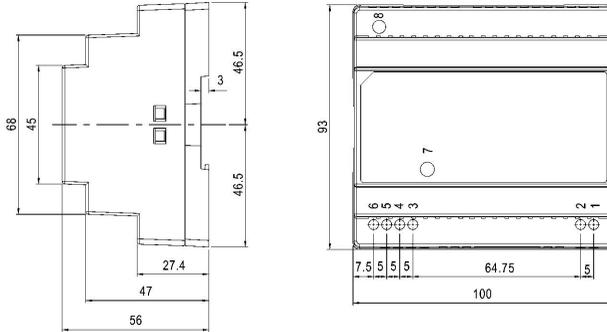
Input and output voltages will be connected to the power supply using screw terminals, which are assigned as follows:



- 1** - AC (L)
- 2** - AC (N)
- 3,4** - +24 V
- 5, 6** - GND

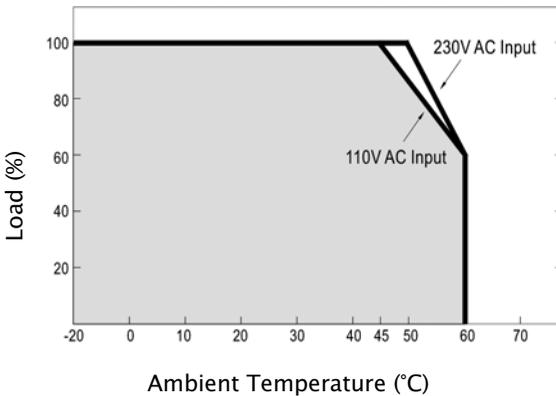
Housing and dimensions

The dimensions of the 11077 DIN rail power supply can be seen in the following drawing:



Derating

As with all switching power supplies, the 11077 DIN rail mount power supply is subject to a reduction of the available power at elevated temperatures. Up to a temperature of 45°C a rated load of 100 watts is possible, and above this temperature the permissible power draw is reduced by 2.6% per degree Celsius.



Technical Specifications

Output power:	max. 100W
Efficiency (typ):	89%
No load power:	< 1W
Input voltage:	88 .. 264VAC
Frequency:	47 .. 63 Hz
Input current:	1.6A at 230V AC
Inrush current:	max. 45A at 230V AC
Output voltage:	24V DC (adjustable 24 .. 29V)
Tolerance:	±1%
Ripple:	max. 0.15V <small>peak-to-peak</small>
Rated current:	4.2A
Minimum load:	none
Overcurrent protection:	105% .. 135% <small>I_{rated}</small>
Short circuit protected:	Yes
Overvoltage protection:	30 .. 35V (Shutdown at 125% .. 145% of rated voltage, Reset via „power on“)
Start time:	2700ms at rated load and 230V AC
Rise time:	80ms at rated load and 230V AC
Hold time:	50ms at rated load and 230V AC
Cooling:	Convection
Withstand voltage:	In-Out: 3KV AC
Leakage resistance:	In-Out: 100 MOhm @500VDC
Operating temperature:	-20 .. 60°C, power reduction between 45 .. 60°C: 2.6%/°C
Storage temperature:	-40 .. 85°C
Relative humidity:	Operating: 20 .. 90% r.F. Storage: 10 .. 95% r.F. (non-condensing)
Terminals:	2-pole input, 4-pole output with screw terminals
MTBF:	486.000 hours (per MIL-HDBK- 217F at 25°C)

Weight:	300 g
Dimensions:	100 x 93 x 56 mm
Approvals:	UL, c-UL, TÜV, CB, CE
Safety:	Meets UL 60950-1 / EN60950-1
EMC:	Meets EN 55022 B EN 61000-3-2, EN 61000-3-3 EN 61000-4-2, EN 61000-4-3 EN 61000-4-4, EN 61000-4-5 EN 61000-4-6, EN 61000-4-8 EN 61000-4-11, ENV 50204 EN 61204-3, EN 61000-6-2

