

# SWITCH CABINET COOLER

Series PROTEMP

## PROTEMP 120 M



### FEATURES



**Temperatures from  
-40°C bis +70°C**



**Indoor, Outdoor &  
Offshore- suitable  
Protection class IP67**



**Highest power den-  
sity with minimal  
device-footprint**



**Optimal for all  
common enclosure  
geometries**

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# SWITCH CABINET COOLER

## Series PROTEMP

### PROTEMP 120 M | AA-120M-24-NN4-XXX-DNPT

## 1 TECHNICAL SPECIFICATION

### General data

Dimensions [HxWxD]	320 x 130 x 167 mm
Weight	ca. 4.8 kg
Material outer side (Warm-side)	1.4404 -V4A, optionally powder coated in RAL7035
Life expectancy	40.000 h (L10 lifespan at +60°C operational temperature)
Supply voltage	24 V
Input power	128 W
Noise emission	53 dB
Max. input current	7.5 A
Rated current	5.3 A
Operating temperature range	-40 °C bis +70 °C
Storage temperature range	-40 °C bis +70 °C
Recommended pre-fuse	1x 8 A Typ B

### Cooling and tempering

Cooling capacity (L35 / L35)	121 W
Heating operation possible	yes
Heating capacity	approx. 251 W

### IP-protection and safety features

Protection class outer side (warm-side)	IP67
Protection class inner side (cold-side)	IP20 (inner fans with protection class IP55)
Temperature switch, warm-side	Bimetal switch NC, 250 V-AC 5A, 24V-DC 10A The Alarm can be configured as safety shut-off or as fault message
Switch-point temperature switch	+90°C

## 2 VARIANTS AND ORDER CODES

### PROTEMP 120 M | Cabinet cooler

Variant	Art. Nr.	Device-Code	Description
COMPACT - RAL	005963	AA-120M-24-NN4-SCR-DNPT	Small footprint for optimal integration
OUTDOOR - V4A	005964	AA-120M-24-NN4-SOV-DNPT	Robust V4A-outer hood
OUTDOOR - RAL	005965	AA-120M-24-NN4-SOR-DNPT	Robust outer hood powder-coated in RAL7035
OUTDOOR - V4A	006643	AA-120M-24-NN4-SSV-DNPT	Robust V4A-outer hood, resistant to salt spray

# SWITCH CABINET COOLER

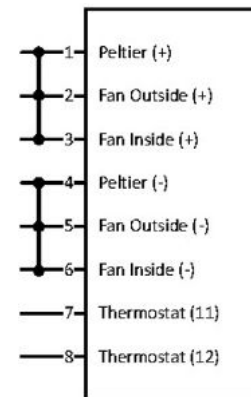
## Series PROTEMP

### PROTEMP 120 M | AA-120M-24-NN4-XXX-DNPT

#### 3 CONNECTOR ASSIGNMENT

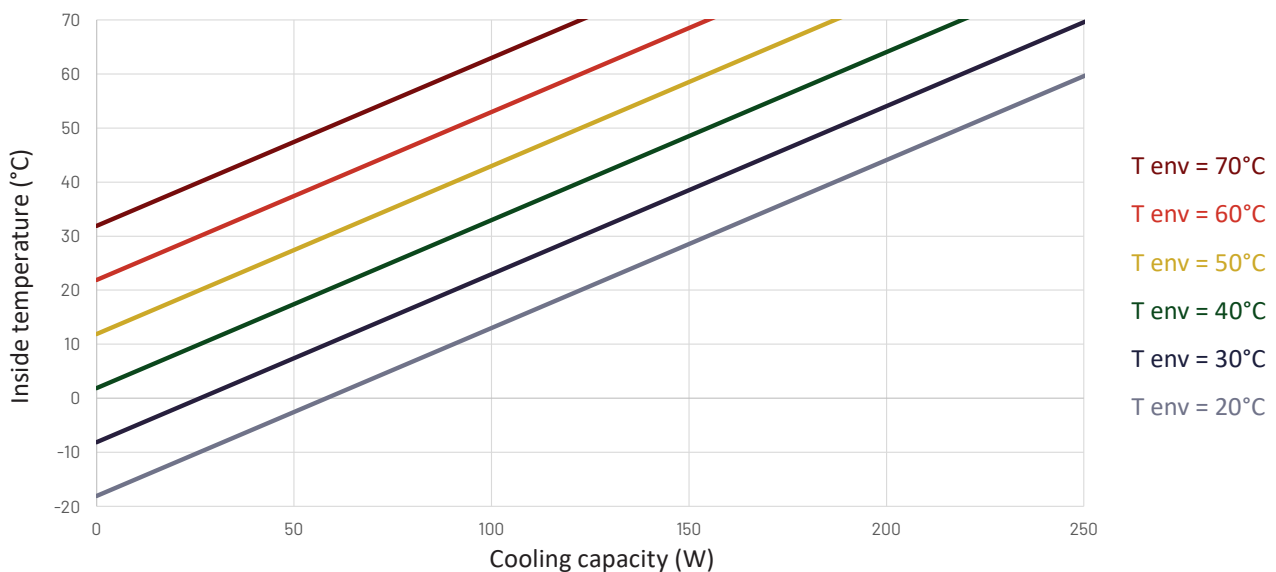
##### OVERVIEW

Terminal	Terminal assignment
1	Peltier +
2	Outer fans +
3	Inner fans +
4	Peltier -
5	Outer fans -
6	Inner fans -
7	Alarm
8	Alarm



Bridged terminals are equipped with Wago 231-902 bridges from the factory & must be customized by the customer. The maximum wire diameter is 1,5 mm<sup>2</sup> when bridged and 2.5 mm<sup>2</sup> without bridge.

#### 4 PERFORMANCE DIAGRAM



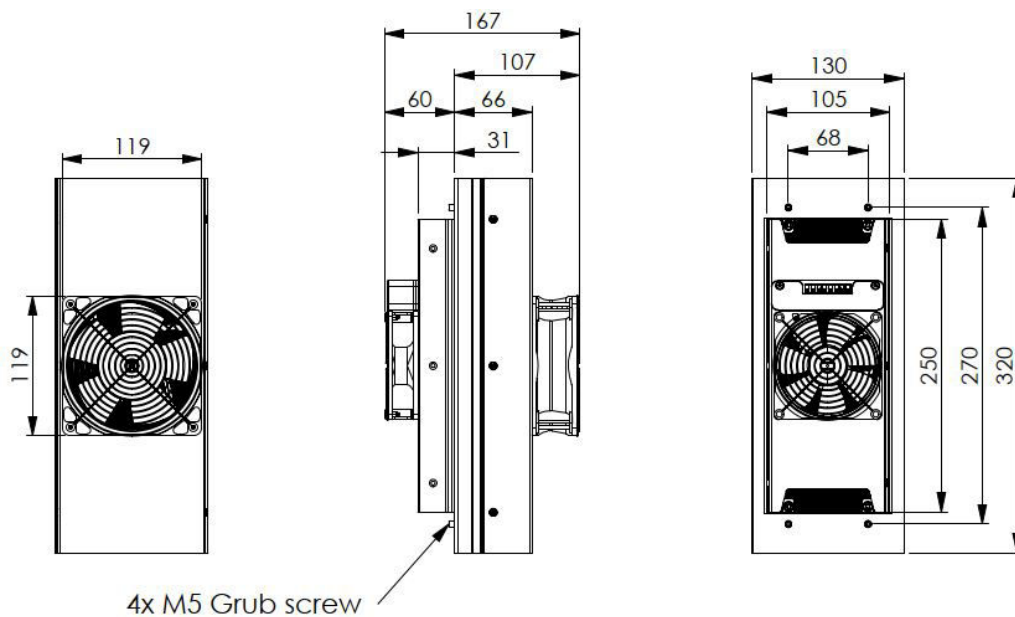
# SWITCH CABINET COOLER

Series PROTEMP

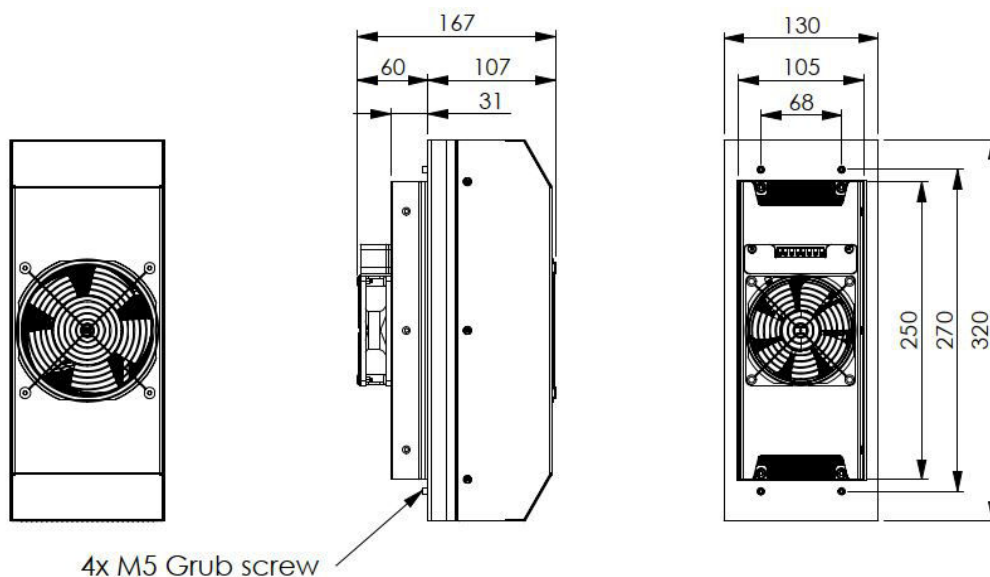
## PROTEMP 120 M | AA-120M-24-NN4-XXX-DNPT

### 5 DIMENSIONS

#### MAIN DIMENSIONS VARIANT COMPACT



#### MAIN DIMENSIONS VARIANT OUTDOOR



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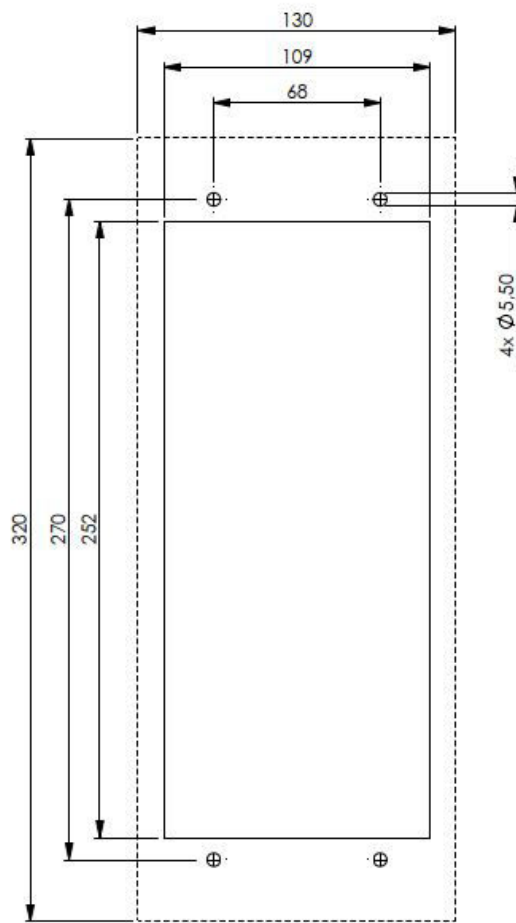
# SWITCH CABINET COOLER

## Series PROTEMP

### PROTEMP 120 M | AA-120M-24-NN4-XXX-DNPT

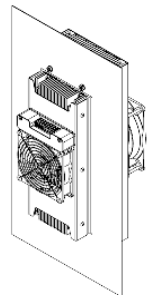
#### 5 DIMENSIONS

#### CUT-OUT



#### NOTES ON INSTALLATION

In principle, the position and mounting orientation of the device are freely selectable. However, when installing the device in a side or rear wall or in the door of the switch cabinet, it is recommended to align the device in such a way that the connection terminals are located at the top. Please also refer to the installation instructions in the operating manual.



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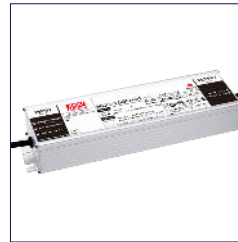
#### 6 ACCESSORIES



##### Power supply - 006038

DIN rail power supply NDR-240-24  
Manufacturer: MeanWell

Compact DIN rail power supply unit  
for a reliable power supply to the  
Peltier housing cooler



##### Power supply - 003938

Screw mount power supply HLG-150H-24  
Hersteller: MeanWell

Sealed LED power supply unit with  
high IP protection, which is also  
suitable for outdoor installation.



##### Peltier control - 11

Compact Peltier controller SCC-003-A for top-hat rail mounting.  
Enables heating and cooling operation of the devices via an integrated H-bridge.



##### Thermostat - 004815

Compact top-hat rail thermostat for  
simple control of the Peltier cooler  
for use in cooling mode.



##### Stacking frame - 006095

The stacking frame prevents the  
device from protruding into the  
housing.  
Ideal for applications where space is  
particularly limited.



##### Condensate drainage - 005920

The condensate drainage channel  
reliably collects condensate on the  
cold side and prevents corrosion  
and damage to the housing.



##### Condensate drainage - 005795

KAE-36 drainage element for the  
safe removal of condensate from  
the housing.  
IP68 protected and therefore suitable  
for outdoor areas.  
Mounted on the base of the enclosure.



##### Condensate drainage - 005806

KAE-36-VENT Drainage element with  
integrated pressure equalization for  
safe drainage of condensate from  
the enclosure - IP68 protected.  
Mounted on the base of the enclosure.



##### Condensate drainage - 005570

KAE-4 drainage element for the safe  
removal of condensate from the  
housing.  
IP68 protected.  
Space-saving installation from the  
inside.  
Drainage via side housing wall.



##### Condensate drainage - 005822

KAE-4-VENT drainage element for  
safe drainage of condensate from  
the housing with integrated pressure  
equalization & IP68 protection  
Space-saving installation from the  
inside.  
Drainage via side housing wall.

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#### 7 CERTIFICATES AND NOTES

##### CERTIFICATES



##### NOTES

For the product „DR.NEUMANN Peltier-switch cabinet cooler PROTEMP 120 M“ the CE label is issued on the basis of the Directive 2014/30/EU of the Council of the European Community of 26 February 2014 on the approximation of the laws of the Member States relating to communication equipment, including the mutual recognition of their conformity.

The product „DR.NEUMANN Peltier-switch cabinet cooler PROTEMP 120 M“ as described here meets the requirements for CE labeling:

**Interference immunity according to EN 50082-2**

Electromagnetic compatibility generic standards interference immunity

**Radio interference suppression according to EN 55022 Class A**

Electromagnetic compatibility of information processing and telecommunications equipment

**Electrical safety according to EN 60950**

Safety of information technology equipment including electrical office machines

This device is intended for use in industrial environments. The interference immunity and interference emission comply with the guidelines for industrial equipment. When used in residential and business areas, interference with other devices (e.g. radio) may occur under certain circumstances. The operator must independently ensure that no third party is affected by possible interference.

This declaration is made responsibly for the manufacturer

**DR. NEUMANN Peltier-Technik GmbH**

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