

# PROTEMP 100 M - Silent



## FEATURES



Temperatures from  
-40°C to +70°C



Indoor, Outdoor &  
Offshore suitable  
Protection class IP55



Lowest noise emis-  
sion with high perfor-  
mance



Optimal for all  
common enclosure  
geometries

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# SWITCH CABINET COOLER

## Series PROTEMP

### PROTEMP 100 M | AA-100M-24-NN4-XXX-DNPT

## 1 TECHNICAL SPECIFICATION

### General data

|                                 |  |
|---------------------------------|--|
| Dimensions [HxWxD]              | 320 x 130 x 167 mm   |
| Weight                          | approx. 4.8 kg   |
| Material outer side (Warm-side) | 1.4404-V4A grounded or aluminium in RAL7035 (V4A optionally powder coated in RAL7035)              |
| Life expectancy                 | 40.000 h (L10 lifespan at +60°C operational temperature)   |
| Supply voltage                  | 24 V   |
| Input power                     | 119 W  |
| Noise emission                  | 53 dB (measuring distance 1 m, maximum fan performance when used as intended with nominal voltage) |
| Max. input current              | 7.5 A  |
| Rated current                   | 5.0 A  |
| Operating temperature range     | -40 °C to +70 °C   |
| Storage temperature range       | -40 °C to +70 °C   |
| Recommended pre-fuse            | 1x 8 A type B  |

### Cooling and tempering

|                              |               |
|------------------------------|---------------|
| Cooling capacity (L35 / L35) | 100 W         |
| Heating operation possible   | yes           |
| Heating capacity             | approx. 148 W |

### IP-protection and safety features

|   |   |
|---|---|
| Protection class outer side (warm-side) | IP55  |
| 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<br>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 100 M | Cabinet cooler

| Variant       | Art. Nr. | Device-Code             | Description                                |
|---------------|----------|-------------------------|--|
| COMPACT - RAL | 006907   | AA-100M-24-NN4-SCR-DNPT | Small footprint for optimal integration    |
| OUTDOOR - V4A | 006908   | AA-100M-24-NN4-SOV-DNPT | Robust V4A-outer hood                      |
| OUTDOOR - RAL | 006909   | AA-100M-24-NN4-SOR-DNPT | Robust outer hood powder-coated in RAL7035 |

**PROTEMP 100 M | AA-100M-24-NN4-XXX-DNPT**

**3 CONNECTOR ASSIGNMENT**

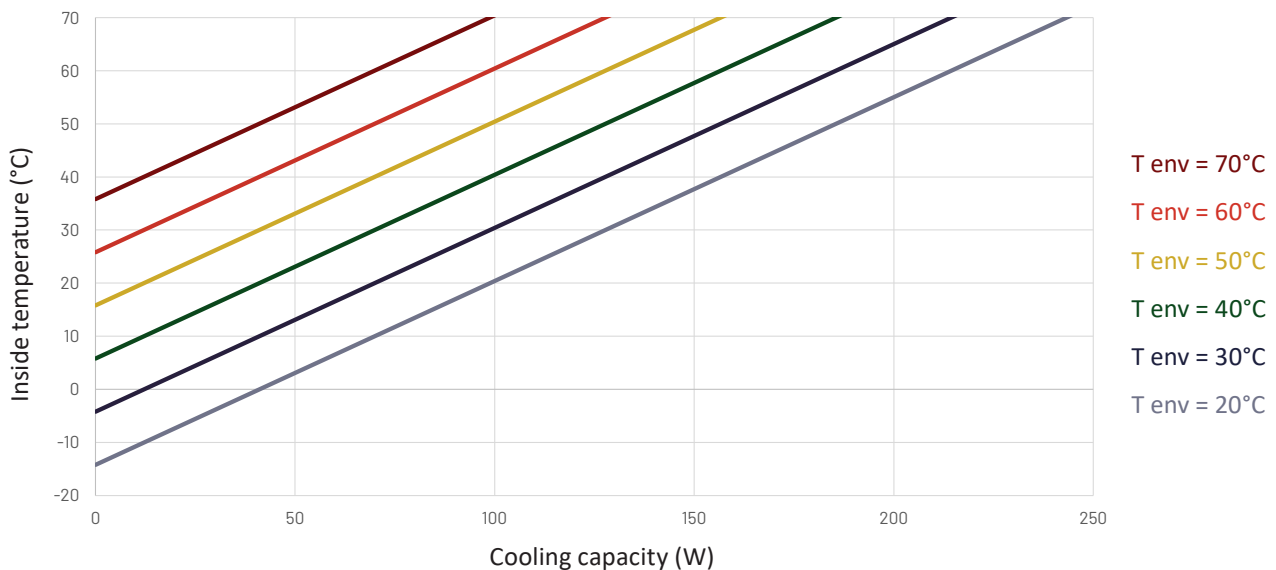
**OVERVIEW**

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

Connectors up to 1.5 mm<sup>2</sup> with Cage-Clamp technology

Note: The terminal features Cage-Clamp technology. Connectors can therefore be used without ferrules up to 1.5 mm<sup>2</sup>.

**4 PERFORMANCE DIAGRAM**



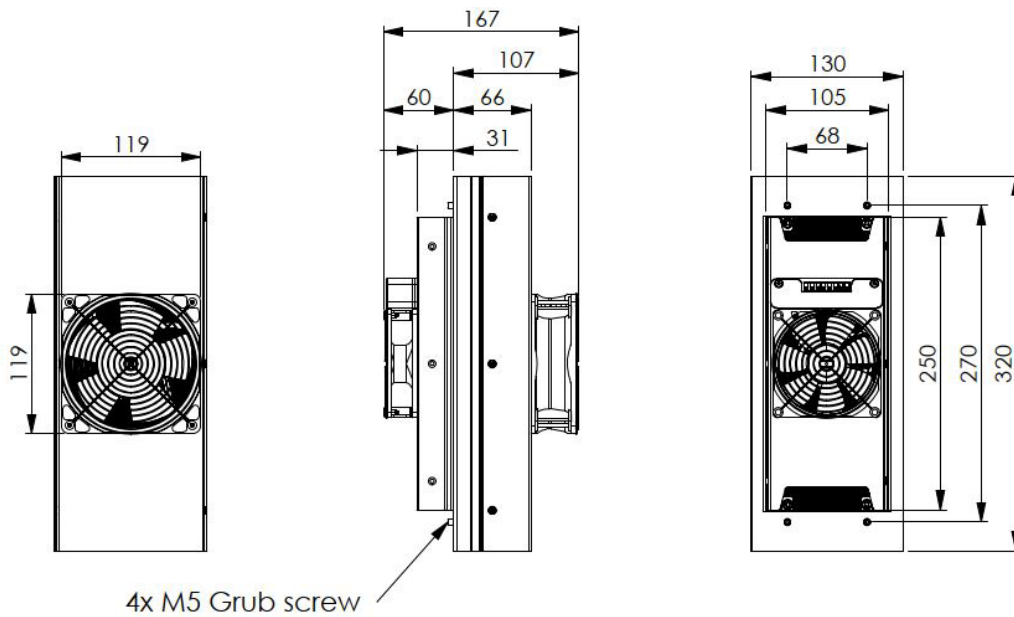
# SWITCH CABINET COOLER

Series PROTEMP

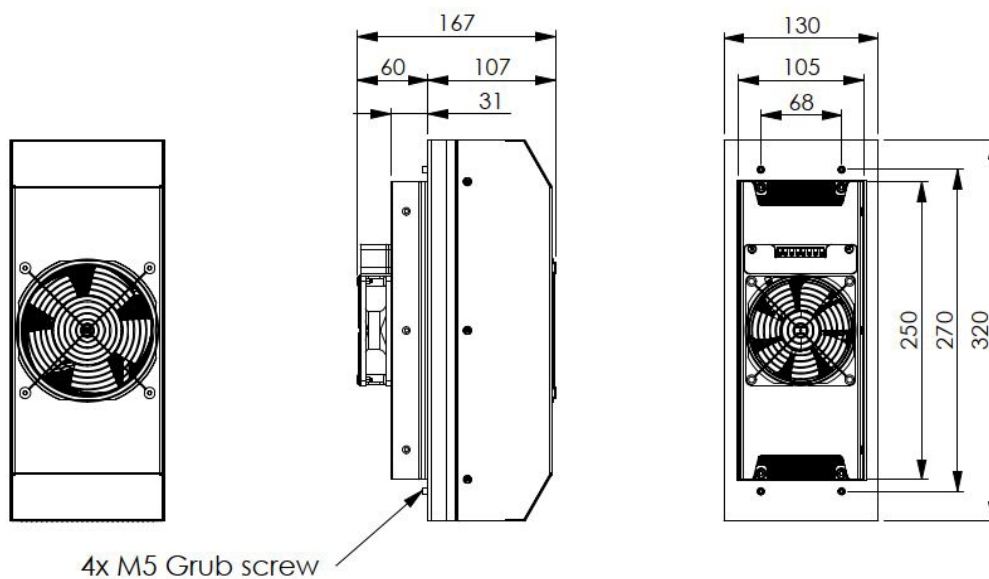
## PROTEMP 100 M | AA-100M-24-NN4-XXX-DNPT

### 5 DIMENSIONS

#### MAIN DIMENSIONS VARIANT COMPACT



#### MAIN DIMENSIONS VARIANT OUTDOOR



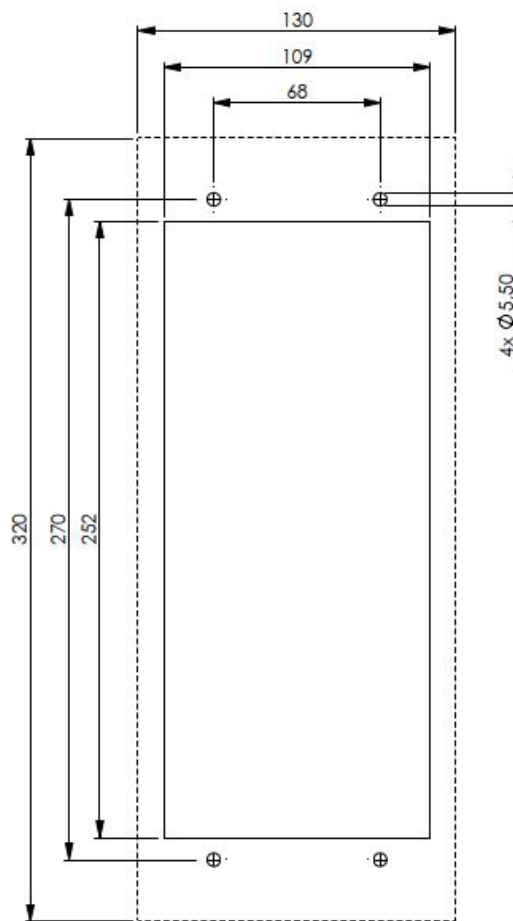
# SWITCH CABINET COOLER

## Series PROTEMP

### PROTEMP 100 M | AA-100M-24-NN4-XXX-DNPT

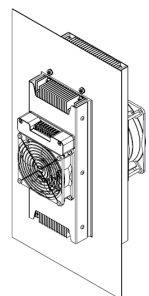
#### 5 DIMENSIONS

#### 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.



**PROTEMP 100 M | AA-100M-24-NN4-XXX-DNPT**

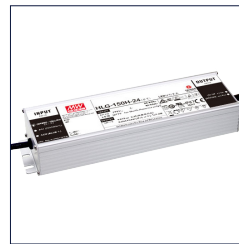
**6 ACCESSORIES**



**Power supply - 006047**

DIN rail power supply NDR-120-24  
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.



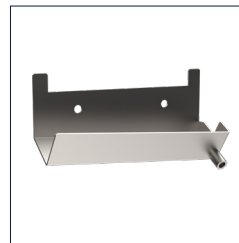
**Thermostat - 004815**

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.

SWITCH CABINET COOLER  
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## PROTEMP 100 M | AA-100M-24-NN4-XXX-DNPT

## 7 CERTIFICATES AND NOTES

## CERTIFICATES



## NOTES

For the product „DR.NEUMANN Peltier-switch cabinet cooler PROTEMP 100 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 100 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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