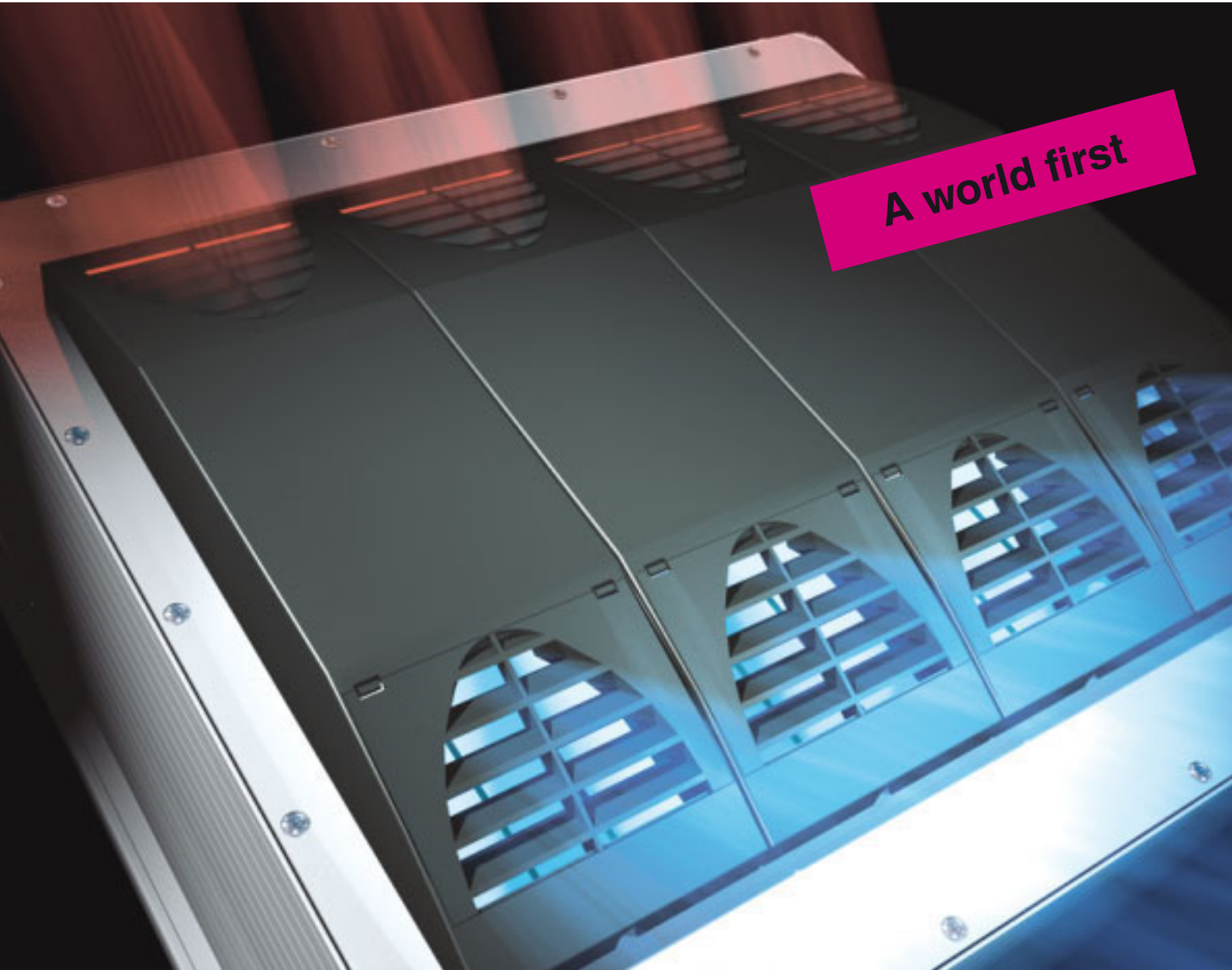




# Rittal – Thermoelectric cooler



**A world first**

Compact, lightweight, efficient

# So that your command panel stays cool, too



**A world first**

**Higher efficiency** thanks to a novel air routing system, and optimum activation of the Peltier elements and fans through pulse width modulation (PWM). This way, a COP (coefficient of performance)  $> 1$  is achieved – the highest refrigeration factor in the business.



Peltier technology also permits assembly and problem-free operation on command panels.



Little vibration during use, so ideal for precision processes.

## Compact, lightweight and efficient.

The powerful thermoelectric cooling unit in a lightweight design. The eco-friendly climate-control solution for command panels and small enclosures – an **energy saving of more than 60 %** compared with conventional industry systems.



### Installation

When installed in the enclosure, the unit only protrudes by a few millimetres, and therefore does not interrupt either the aesthetic appearance or freedom of movement on support arm systems.



### External mounting

Its low weight also allows it to be externally mounted on simple aluminium rear panels or blanking panels.



### Support arm systems

Thanks to its low-vibration operation and minimal weight, the thermoelectric cooler from Rittal is the ideal partner on support arm systems.

### Scalable output

The modular design allows simple scaling of the cooling output depending on your requirements, both horizontally ...

... and vertically.

### Controller

Energy-efficient control with pulse width modulation and innovative soft start function ensures a constant enclosure temperature and a long service life of the Peltier elements.

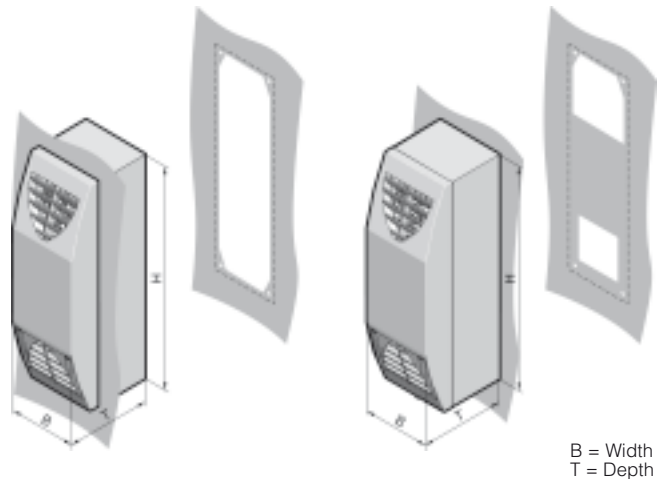


## Benefits:

- Cooling output 100 watts, thanks to state-of-the-art Peltier technology.
- Low-maintenance thanks to an elementary unit layout.
- High operating ratio (COP >1) thanks to optimum interplay between all components.
- Maximum possible protection for your electronics, floating change-over fault signal contact.
- USB interface to unit programming.
- Minimal build volume and minimal weight compared with other industry systems.
- Large voltage range from 100 – 240 V (AC) and 24 V (DC).
- RJ45 interface for linking to the Rittal CMC-TC monitoring system.

# Thermoelectric cooler

## Useful cooling output 100 W



B = Width  
T = Depth

### Application:

- Ideal for cooling small enclosures and command panels.
- Especially suitable for use on support arm systems as well.
- Optimum space utilisation.
- Targeted cooling of hotspots.

### Supply includes:

Thermoelectric cooling unit, wired ready for connection, with multilingual documentation and mounting accessories.

Model No. SK	3201.200		3201.300	
Dimensions mm	W	125		
	H	400		
	D	155		
Rated operating voltage V, Hz	100 – 240 V (AC)		24 V DC	
Refrigeration factor/COP	L 35 L 35	1.0	1.2	
<b>Useful cooling output <math>\dot{Q}_k</math> to DIN 3168</b>	<b>L 35 L 35</b>	<b>100 W</b>	<b>100 W</b>	
Power pack integrated	■		–	
Colour of cover/unit	RAL 7024/Anodised aluminium			
Protection rating	IP 54			
Weight	3.5 kg		3.0 kg	
Temperature range	0°C to +55°C		0°C to +65°C	
Air throughput, unimpeded air flow	50 m <sup>3</sup> /h			
Type of connection	Plug-in spring connection terminal			
Pre-fuse gG	2 A		10 A	
<b>Accessories</b>	<b>Packs of</b>			<b>Page</b>
Power pack 150 watts for 35 mm top-hat rail	1	–	3201.030	5
Filter mat	1	3201.050		5
Door-operated switch	1	4127.010		5
Digital temperature indicator	1	3114.100/3114.115	3114.024	Cat. 32, p. 714

We reserve the right to make technical modifications. Special voltages available on request.



### Wide-range power pack 24 V (DC) for SK 3201.300

To supply voltage to the thermoelectric cooler with primary 100 – 240 V (AC) voltage supply input. Power packs for other outputs available on request.

Power pack 24 V (DC) for SK 3201.300	<b>Model No. SK</b>
150 W for snap-mounting onto top-hat rail 35 mm	<b>3201.030</b>



### Filter mat

Rittal thermoelectric coolers are low-maintenance. Filter mats may be used if operating under extreme conditions.

#### Material:

Fibre fleece,  
self-extinguishing F1 to DIN 53 438.  
Temperature-resistant to 100°C.

For	W x H x D mm	Packs of	Model No. SK
SK 3201.200/ SK 3201.300	115 x 85 x 10	5	<b>3201.050</b>



### Door-operated switch

For deactivation of cooling units whilst the door is open (to prevent condensation).

#### Supply includes:

Mounting accessories, without connection cable.

For thermoelectric cooler	Packs of	Model No. SK
SK 3201.200/300	1	<b>4127.010</b>



### Digital enclosure interior temperature display

For installing on the enclosure door or wall and in a cooling unit or heat exchanger.

#### Technical specifications:

- Small dimensions.
- Depth: 100 mm.
- The 3-digit 7-segment display is 13 mm high and clearly legible.
- Can be switched from °C/°F.
- The display can be used in a temperature range from +5°C to +70°C.
- Includes 1500 mm long NTC sensor.
- Two relay outputs as change-over contact and normally open contact (maximum contact load 230 V, 6 A).
- Freely selectable switching difference.
- The freely adjustable setpoint values can be adjusted via the membrane keyboard at the front.  
Setting range: +5°C to +55°C.
- Display and switching accuracy +/- 2 K.
- Mounting cut-out 68 x 33 mm.
- The minimum and maximum recorded temperatures are stored until it is next reset.

Rated operating voltage	Model No. SK
230 V (AC)	<b>3114.100</b>
115 V (AC)	<b>3114.115</b>
24 V (DC)	<b>3114.024<sup>1)</sup></b>

<sup>1)</sup> Delivery times available on request.  
Special requirements accommodated on request.

## All in all – solutions from Rittal

Rittal has one of the largest ranges of enclosures available for immediate delivery. However, Rittal also supplies integrated solutions – up to Level 4. This comprises mechanical installation, power supply, electronic components, climate control and central monitoring. For all of your requirements. Fully assembled and functional.

Wherever in the world you develop and implement solutions for yourself and your customers, we are close at hand. The global alliance between production, distribution and service guarantees closeness to the customer. Worldwide!



## Queries and information

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We will be happy to send you further information or advise you in person.

### Please send me the following brochure(s):

- Catalogue 32
- Innovations 2008
- System climate control

From:

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