

# Optional Accessories NSBon-xx

## NSBox Cooling

### THERMOELECTRIC COOLERS

- ✓ Installation in any position
- ✓ 24/48VDC or 220VAC Power supply
- ✓ High reliability
- ✓ Ecological cleanliness



Thermoelectric Coolers or Thermoelectric Assemblies are designed to remove heat around critical components within an electrical enclosure with IP66 / NEMA4 protection category. These is a thermoelectric module (thermoelectric air conditioner) using the Peltier effect. The thermoelectric modules create a temperature difference between the internal and ambient heat sinks. It makes internal air colder while heat is dissipating into the external environment. Fans help the transfer of heating from the heat sinks.

The main advantages of Thermoelectric Coolers over conventional compressor are:

- it can be controlled electronically;
- it is easily reversible when the current is reversed;
- it can work in harsh environments:
  - in high ambient temperatures or heavily polluted ambient air;
  - in application with vibrations or strong accelerations.

Thermoelectric Coolers must be used in regions with hot climates, to extend the service life of UPS batteries, when specific customer equipment is installed inside the cabinet.

#### Technical Data

Operating voltage:	24/ 48VDC; 220VAC	Protection category:	IP67
Cooling Capacity:	50-900W	Fitting position:	Variable
Operating Temp.:	-40 to +70°C	Connection:	Terminal
Dimensions:	depends on the model	Axial Fan:	Ball bearing
Weight:	depends on the model	Fan Air flow:	110 CFM

#### Ordering Information

NSBon-37	Thermoelectric Coolers. Series Standard_DC, 24/48VDC. NSBox Cooling
NSBon-38	Thermoelectric Coolers. Series Standard_AC, 220VAC. NSBox Cooling
NSBon-39	Thermoelectric Coolers. Series Cover_DC, 24/48VDC. NSBox Cooling
NSBon-40	Thermoelectric Coolers. Series Cover_AC, 220VAC. NSBox Cooling
NSBon-42	Thermoelectric Coolers. Series SandStorm_DC, 24VDC. NSBox Cooling

# Optional Accessories NSBon-xx

## NSBox Cooling

### Thermoelectric Coolers, Standard\_DC Series, NSBon-37

- Power supply 24/48 VDC, Cooling/Heating Function;
- IP67 protection category, Operating Temp. -40 ... +70°C



Model	Part No./ vendor code	Size	Weight	Nominal Power	Supply voltage	Height H mm	Width W mm	Depth D mm
NSBon-37-1	FR-104-C	1	2,5 kg	100 W	24(48) VDC	195	132	155
NSBon-37-2	FR-208-C	2	5 kg	200 W	24(48) VDC	268	195	155
NSBon-37-3	FR-316-C	3	10 kg	400 W	24(48) VDC	390	269	155

### Thermoelectric Coolers, Standard\_AC Series, NSBon-38

- Power supply 90... 305 VAC, Cooling/Heating Function;
- IP67 protection category, Operating Temp. -40 ... +70°C

For Standard\_AC Series, no additional power supply located inside the cabinet is required.

This is one of the main advantages of this series, since the power supply takes up a lot of space and emits heat, which must eventually be compensated by the thermoelectric cooler itself.



Model	Part No./ vendor code	Size	Weight	Nominal Power	Supply voltage	Height H mm	Width W mm	Depth D mm
NSBon-38-2	FR-208-AC	2	6 kg	200W	90...305 VAC	268	195	155
NSBon-38-4	FR-416-AC	4	14,5 kg	400W	90...305 VAC	480	264	159
NSBon-38-5	FR-536-AC	5	25 kg	900W	90...305 VAC	550	394	159

### Thermoelectric Coolers, Series Cover

#### NSBon-39

#### NSBon-40



Model	Part No./ vendor code	Size	Weight	Nominal Power	Supply voltage	Height H mm	Width W mm	Depth D mm
NSBon-39	TC-100-DC	0	2,5 kg	100W	24(48) VDC	210	125	142
NSBon-40	TC-100-AC	0	3,5 kg	100W	90...305 VAC	210	135	142