Varistar LHX 3
Air/Water Heat Exchangers
OVERVIEW

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Top cover with fan
- Fan unit in top cover
- Airflow through channels in side panel
- Easy maintenance and exchange

Air/water heat exchanger in base/plinth
- Extractable
- Water connection from rear, optionally from front
- Cable ducting to rear, can be sealed with slide covers

ADVANTAGES
By separating the heat exchanger (in the base/plinth) from the fan (in the top cover), the cold air flows evenly through the cabinet. Reflowing of the warm air to the heat exchanger through channels in the side panels.

APPLICATIONS
Measuring and test devices in industrial areas, e.g.:
- Temperature sensitive precision measurements
- Engine and transmission test bench
Cabinets – VARISTAR LHX 3

OVERVIEW

AIR/WATER HEAT EXCHANGER FOR MEASURING AND TEST EQUIPMENT

• Complete cabinet to protection class IP 55 with heat exchanger in base/plinth and fan tray in top cover
• Even circulation of cold air within the cabinet, no air short circuits as with side-by-side mounted units
• Cooling capacity up to 3 kW
• Very low noise level of 45 dB(A)

VARISTAR LHX 3
• Air/water heat exchanger in base/plinth
• Airflow through channels in side panel
• Leakage safety

VARISTAR LHX 19" CHASSIS, AVAILABLE ON REQUEST
• Air/water heat exchanger as 19" chassis
• Airflow through channels in rear door (cabinets may be mounted side-by-side)
• Devices with different airflows may be used (e.g. from left to right or from front to rear)
• Variable air outlet in 19" chassis, thus selective direction of cold air

SERVICEPLUS
• e.g. climate control, complete assembly, cabling (power supply), function test
• e.g. delivery to point of use, erection service, commissioning, replacement service, maintenance, repairs, replacement parts
• e.g. custom solutions (special sizes)
Cabinets – VARISTAR LHX 3

VARISTAR LHX 3

- Cabinet in accordance with protection class IP 55, RAL 7021, with glass front door
- Air/water heat exchanger (3 kW) in base/plinth (extractable)
- Very low noise level of 45 dB(A)
- Static load-carrying capacity 800 kg (Heavy-Duty frame)

DELIVERY COMPRIS (completely assembled and earthed)

<table>
<thead>
<tr>
<th>Item</th>
<th>Qty</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>Welded basic frame, Heavy-Duty, St profile, zinc-plated, RAL 7021, IP 55, with all-round gasket</td>
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<tr>
<td>2</td>
<td>1</td>
<td>Flat top cover, St, RAL 7021</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>Radial fan, 230 V AC, assembled on cross member, SCHUKO/UTE connector, cable length 1.5 m</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>Front door, glass, frame RAL 7021, 180° hinge, multi-point locking, lever handle for optional DIN profile half cylinder</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>Rear door, St, RAL 7021, 180° hinge, multi-point interlocking, lever handle for optional DIN profile half cylinder</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
<td>Side panel, screwed, St, RAL 7021, with ventilation duct</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>Base/plinth with base plate, St, RAL 7021, height 200 mm, removable covers at front and rear, integrated feet; cable ducting to rear, can be sealed with slide covers</td>
</tr>
<tr>
<td>8</td>
<td>4</td>
<td>19&quot; panel/slide mount with EIA cut-outs, St, RAL 7021, 175 mm recessed at front, 500 mm distance between front and rear 19&quot; plane</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>Air/water heat exchanger, 3 kW, RAL 7021; integrated in base/plinth, extractable</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>User manual</td>
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ORDER INFORMATION

<table>
<thead>
<tr>
<th>Height</th>
<th>Usable height</th>
<th>Width</th>
<th>Depth</th>
<th>Part no.</th>
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<tr>
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<td>34</td>
<td>600</td>
<td>800</td>
<td>10130-193</td>
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<tr>
<td>2200</td>
<td>38</td>
<td>600</td>
<td>800</td>
<td>10130-194</td>
</tr>
</tbody>
</table>

DIN profile half cylinder, common locking for lever handle (1 key fits all locks) incl. 2 keys 25127-995

Thermostat with mains/line connector, 230 V AC, SCHUKO/UTE connector, IEC-320 female connector, 1 piece 20118-750

NOTE
- Further dimensions and versions available on request (e.g. with heat exchanger as 19" chassis or with airflow in the rear panel)
- Technical data see page 1.239
A fan sucks in the warm air at the top and leads it downwards through the lateral air channels in the side panels to the air/water heat exchanger. The cold air is let into the cabinet at the bottom.

Diagram of LHX 3 characteristics

Usable cooling capacity in kW

![Diagram of LHX 3 characteristics](image)

**Technical data LHX 3**

**Usable cooling capacity**
(cooling water inlet temperature 10°C, air exit temperature 20°C) 3 kW

**Water circuit**

- Cooling medium: Water
- Water inlet temperature: 6 ... 16 °C
- Water flow volume: up to 2.0 m³/h
- Max. water pressure: 6 bar
- Static pressure loss in device at 0.5 m³/h: 0.1 bar
- Water conduit: Copper
- Water connection inlet/outlet: Rp 1/2"
- Connection condensat drain: Ø 10 mm

**Air circuit**

- Airflow volume: 900 m³/h

**Electrical data**

- Supply voltage, single phase: 230 V AC, 50/60 Hz
- Current consumption: 0.38 A
- Power consumption: 85 W
- Apparent power at full load: 120 VA
- Protection fuse: 2 A

**General Data**

- Cabinet type of protection: IP 55
- Ambient temperature during transport: -25 ... 70 °C
- Ambient temperature outside of cabinet (during operation): 5 ... 70 °C
- Relative humidity level: 5 ... 95 %
- Noise level at 100 % fan performance: 45.2 dB(A)
- Weight: cabinet/heat exchanger: approx. 115 kg/35 kg

**Dimensions of air/water heat exchanger**

- Height: 199 mm
- Width: 464 mm
- Depth: 425 mm (465 mm with handles)

1) For an optimal operation of the air/water heat exchanger the demands on the water quality have to be fulfilled (VDE 3803, please see user manual)

2) If the water inlet temperature falls short of 16 °C the formation of condensation should be anticipated

Incoming water temperature
North America
Warwick, RI, USA
Tel +1.800.525.4682
San Diego, CA, USA
Tel +1.800.854.7086

Europe, Middle East & India
Straubenhardt, Germany
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Betschdorf, France
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