



**CONNECT AND PROTECT**

# Varistar LHX 3 Air/Water Heat Exchangers

  
nvent

**SCHROFF**

# Cabinets – VARISTAR LHX 3

## OVERVIEW

### MAIN KATALOG

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- Wall mounted cases . . . . . 2
- Accessories for cabinets and wall mounted cases . . . 3
- Climate control . . . 4
- Electronics cases . . . . . 5
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- Top cover with fan**
- Fan unit in top cover
  - Airflow through channels in side panel
  - Easy maintenance and exchange



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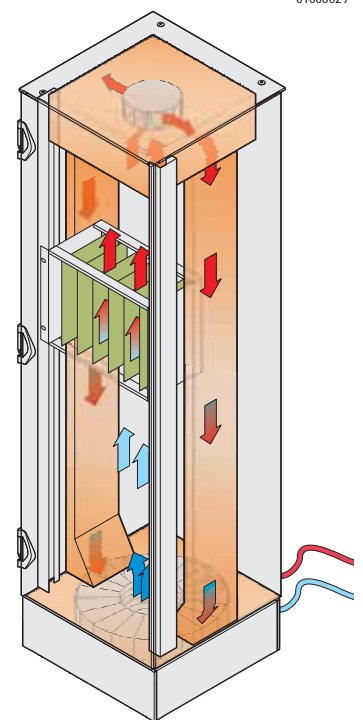
- Air/water heat exchanger in base/plinth**
- Extractable
  - Water connection from rear, optionally from front
  - Cable ducting to rear, can be sealed with slide covers

### 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



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# 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)



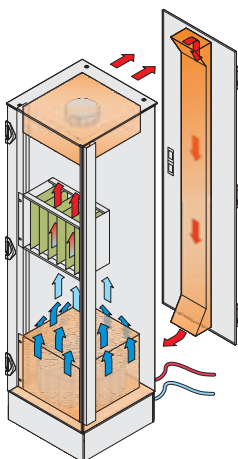
#### VARISTAR LHX 3

- Air/water heat exchanger in base/plinth
- Airflow through channels in side panel
- Leakage safety

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#### 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



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#### 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)

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VARISTAR Platform 1.4  
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# 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 COMPRISES (completely assembled and earthed)

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

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### ORDER INFORMATION

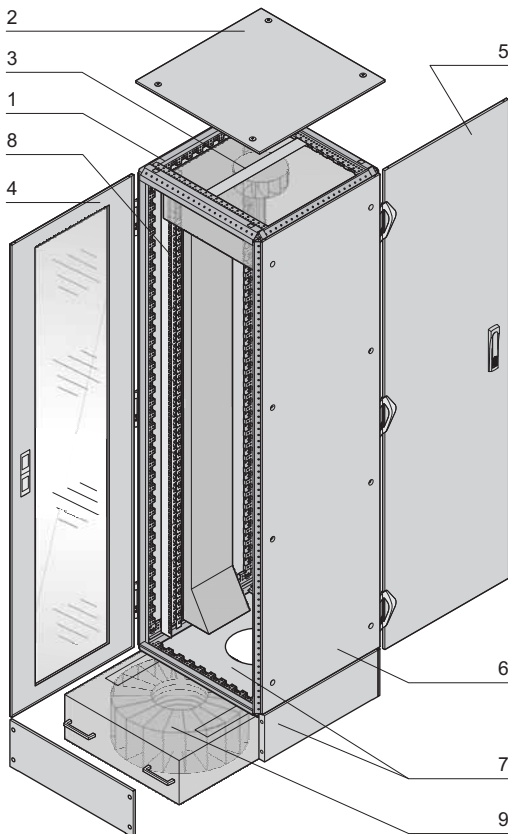
| Height<br>mm | Usable height<br>U | Width<br>mm | Depth<br>mm | Part no.  |
|--------------|--------------------|-------------|-------------|-----------|
| 2000         | 34                 | 600         | 800         | 10130-193 |
| 2200         | 38                 | 600         | 800         | 10130-194 |

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<sub>AC</sub>, SCHUKO/UTE connector, IEC-320 female connector, 1 piece **20118-750**

### NOTE

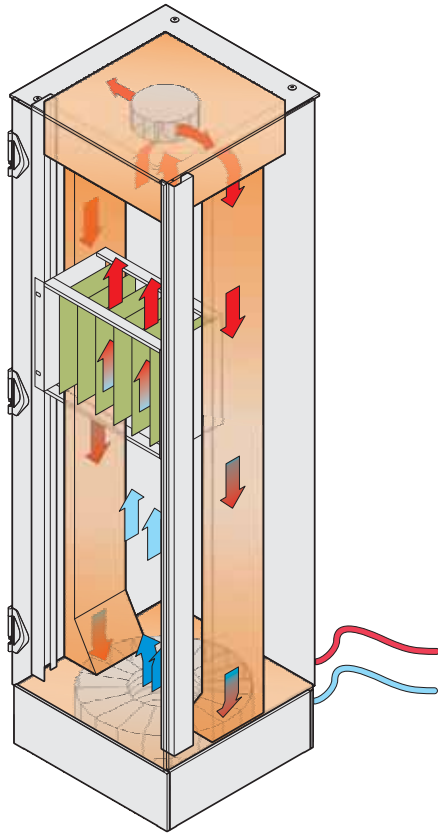
- Further dimensions and versions available on request (e.g. with heat exchanger as 19" chassis or with airflow in the rear panel)
- Technical data see page 1.239



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# Cabinets – VARISTAR LHX 3

## TECHNICAL DATA LHX 3

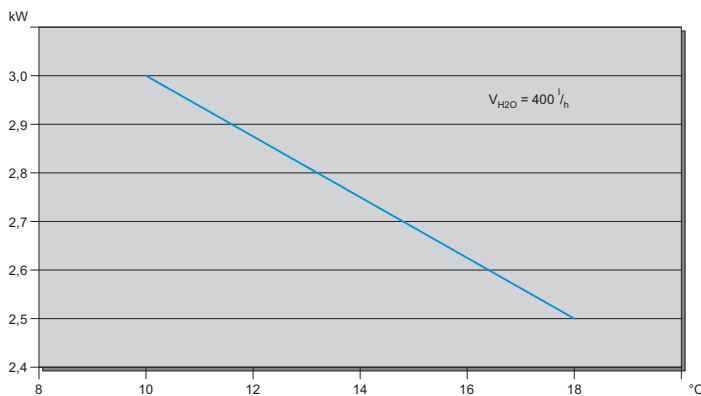


A fan sucks in the warm air at the top and leads it downwards through the lateral air channels in the side panels to the air/water heat exchanger. The cold air is let into the cabinet at the bottom.

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### Diagram of LHX 3 characteristics

Usable cooling capacity in kW



Incoming water temperature

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### Technical data LHX 3

#### Cooling capacity

|   |             |
|---|-------------|
| Usable cooling capacity<br>(cooling water inlet temperature 10° C,<br>air exit temperature 20° C) | <b>3 KW</b> |
|---|-------------|

#### Water circuit

|  |                |
|--|----------------|
| Cooling medium <sup>1)</sup>               | Water          |
| Water inlet temperature <sup>2)</sup>      | 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 m <sup>3</sup> /h |
|----------------|-----------------------|

#### Electrical data

|                              |                                |
|------------------------------|--------------------------------|
| Supply voltage, single phase | 230 V <sub>AC</sub> , 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<br>(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

## **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**

Tel +49 7082 794 0

**Betschdorf, France**

Tel +33 3 88 90 64 90

**Warsaw, Poland**

Tel +48 22 209 98 35

**Hemel Hempstead,**

**Great Britain**

Tel +44 1442 24 04 71

**Lainate, Italy**

Tel +39 02 932 714 1

**Dubai, United Arab Emirates**

Tel +971 4 37 81 700

**Bangalore, India**

Tel +91 80 67152000

**Istanbul, Turkey**

Tel +90 216 250 7374

## **Asia Pacific**

**Shanghai, China**

Tel +86 21 2412 6943

**Singapore**

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