

## Installation Guide

# Schrank Cabinet





## Description

### Technical specifications

Type: Sib0 SZB 24U

Dim (WxHxD): 600 mm x approx. 1311 mm x 800 mm

Model: with rear and front doors, on casters

AC input connection: L1+L2+L3+N+PE

AC input voltage: 230 V (L-N) / 400 V (L-L), AC, 96 A

Weight: 290 kg (fully equipped)

DC input: 750 V / 396 A / max. 63 kW

Standard(s): conform to EN 60204-1 (no TÜV approval)

### Feature overview

- Wheels (4 pieces of which 2 can be locked)
- Can be equipped with
  - » 6x ELR 9750-66 3U
- Automatic isolation unit (ENS2) installed
- Emergency off circuit with external contact clamp installed
- All units connected in parallel
- Master-slave connection cables included

### Installation

#### Cabinet

The cabinet is delivered with casters. The casters are only allowed to be used while transporting/moving of the empty cabinet, i. e. devices removed. During operation it is not allowed to keep the casters installed under the cabinet for safety reasons (rolling off, tipping over).

#### AC supply

##### Note

*It is recommended to install AC supply while the devices are not yet equipped, for easier access to the bottom plates and screw terminals.*

The AC connection is done using screw terminals which are accessible on the rear side in the bottom left corner and labelled L1, L2, L3, N and PE.

##### Note

*The conductor N and PE are absolutely required!*

The AC supply for the ELR units is fused with four 16A circuit breakers (3x per unit). The internal auxiliary power supply for the contactors has its own 3 A circuit breaker, as well as the ENS2.

All circuit breakers are located on the front for easy access.

The AC wiring has to meet standard specifications and regulations.

Recommended AC cable cross section: 25-35 mm<sup>2</sup>

Recommended external fusing: 125 A

Required torque: 3,2 Nm

#### Units

The ELR devices are delivered separately. They can be installed in the cabinet as desired, in positions 1-6 (see layout scheme of cabinet). AC connection is done by simply plugging the connector and fixing it with the mechanical fixture.

#### DC input

The electronic load units are intended to be operation in parallel connection via the supplied copper bars for DC plus and DC minus. The DC terminal must always be covered to protect against physical contact.

DC sources are connected via cables with proper cross section, which has to meet local standards. The cables are tightened with M8 nuts and bolts.

Recommendation for standard cables, up to 5m, up to 30°C:

- for max. 396 A: **2x 70 mm<sup>2</sup> per pole**



#### Attention!

Always connect only DC sources and only with correct polarity!

The electronic loads do not have protection against false polarity and can even be damaged in switched-off state.

#### Master-slave

The ELR units in the cabinet can be connected on their master-slave bus (see device manual). The required CAT5 Ethernet patch cables are included in the delivery of the cabinet (5x with 500 mm length). For master-slave configuration and use refer to the device manual.

#### External emergency off

If required, the internal emergency off circuit can be extended with an external contact of type switch. Required function here is breaker. On the AC connection panel (internal, access from rear) there are two clamps which are bridged in factory setting. When removing the bridge, the external contact can be connected instead of the bridge. The connectors with the bridge are accessible on the rear, in the bottom right corner.

### Operation

#### Handling of the devices

See separate manuals.

#### Remote control

For general information about remote control of the electronic loads via analog or digital interface please refer to various available documentation (device manual, interface manual, programming guide).



#### Note

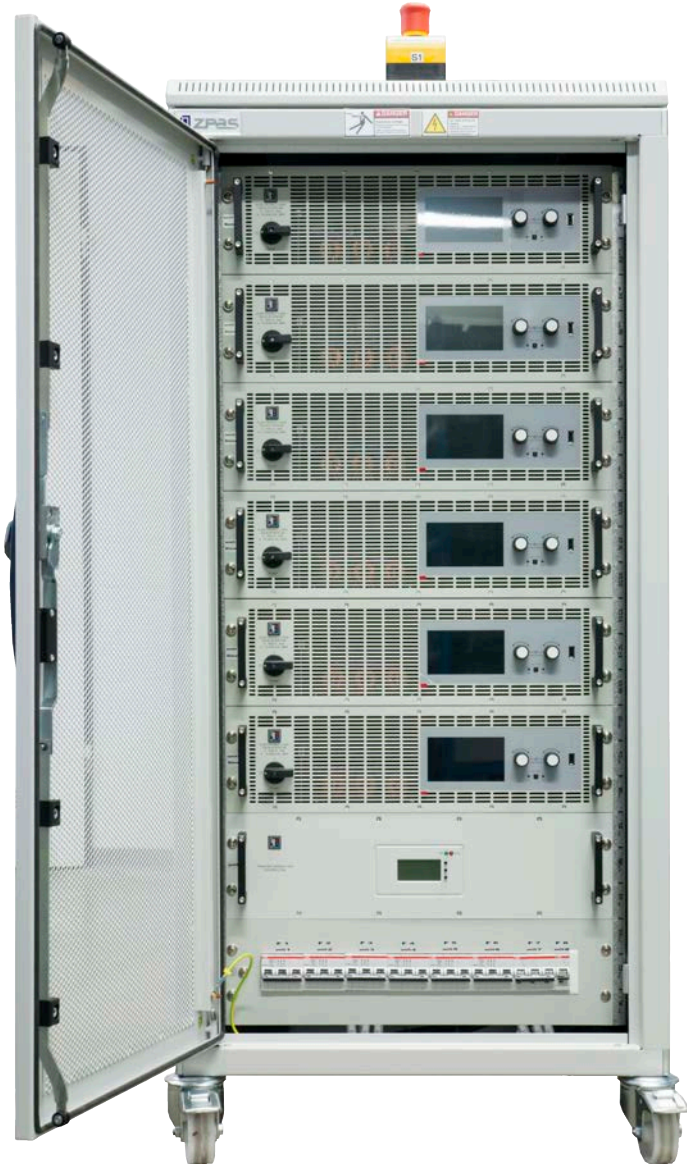
*In master-slave operation it is only possible to control and monitor the master unit, while slave units can only be monitored.*

In the given setup of the cabinet, remote control is not yet intended. This can be changed anytime by the user by installing a digital interface module of IF-AB series or using the built-in USB port.

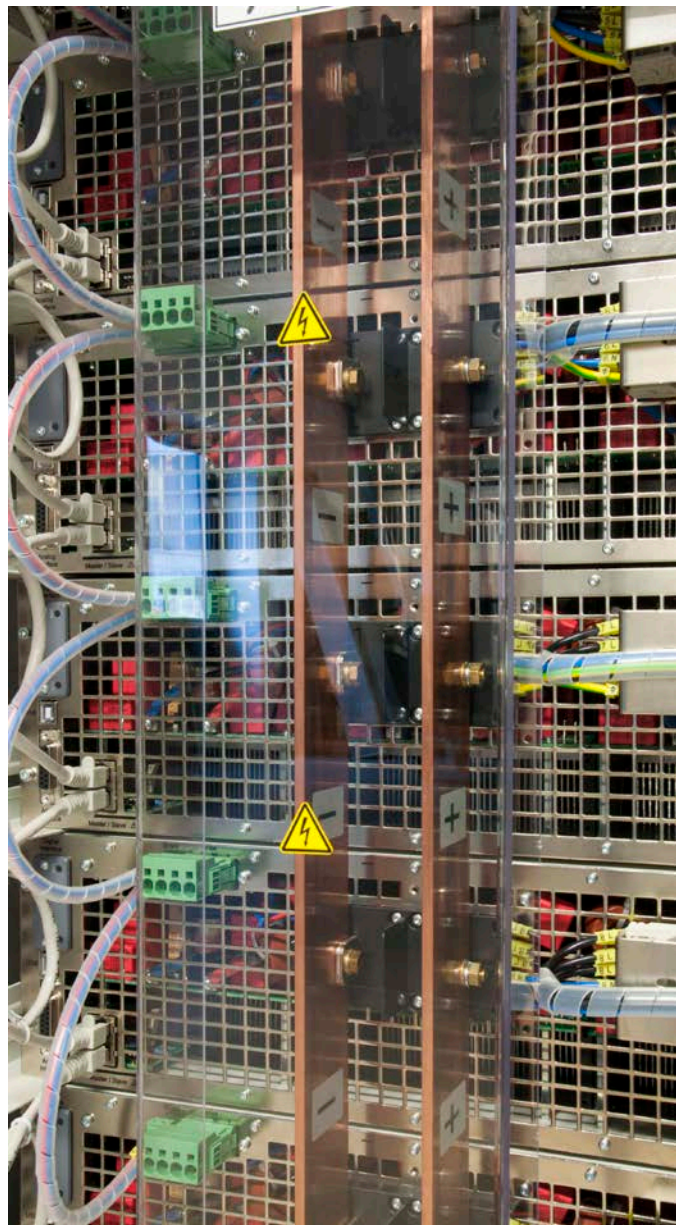
The USB stick, which is included with the ELR devices, contains programming documentation, as well as ready-to-use LabView VIs for an easy start of custom made applications.



Views

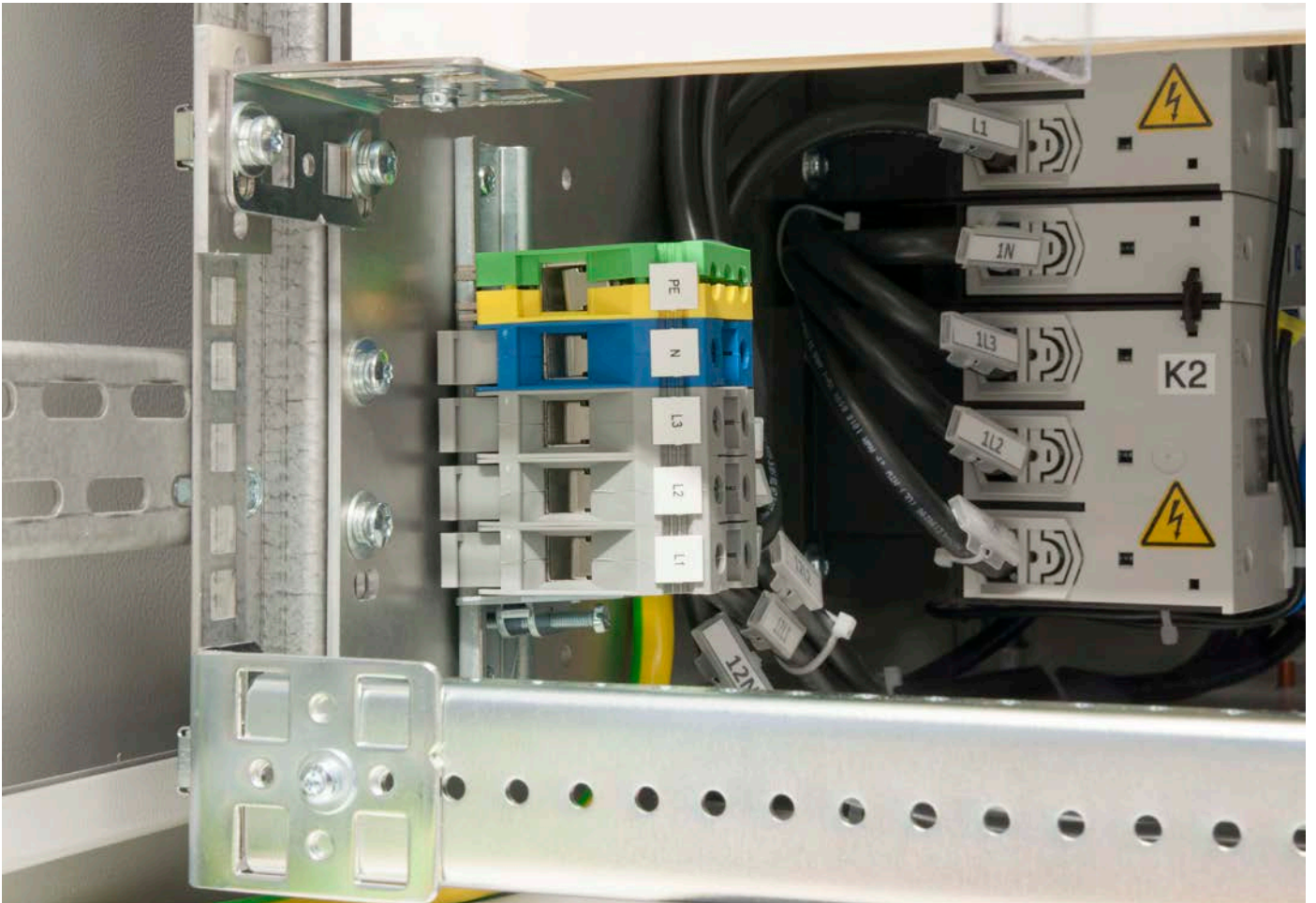


Front

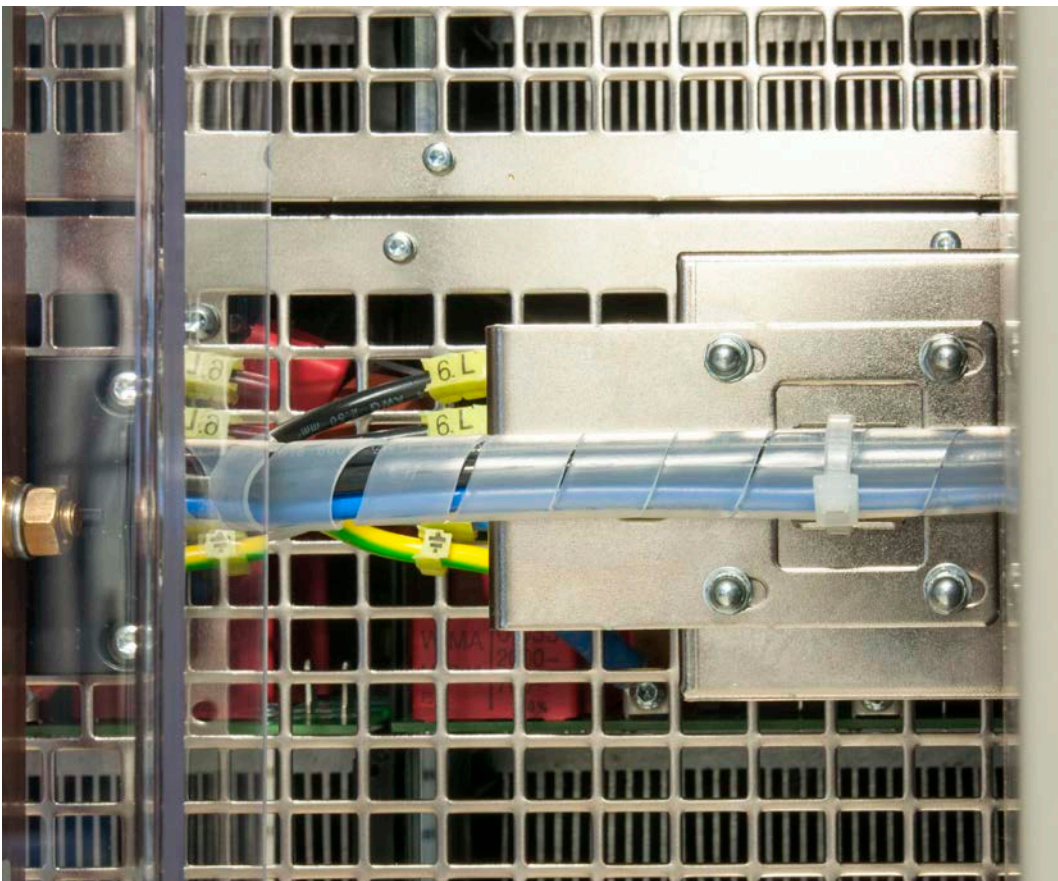


Rear, DC input with cover





AC supply connection



AC connection plug of the single units, with strain relief and fixing

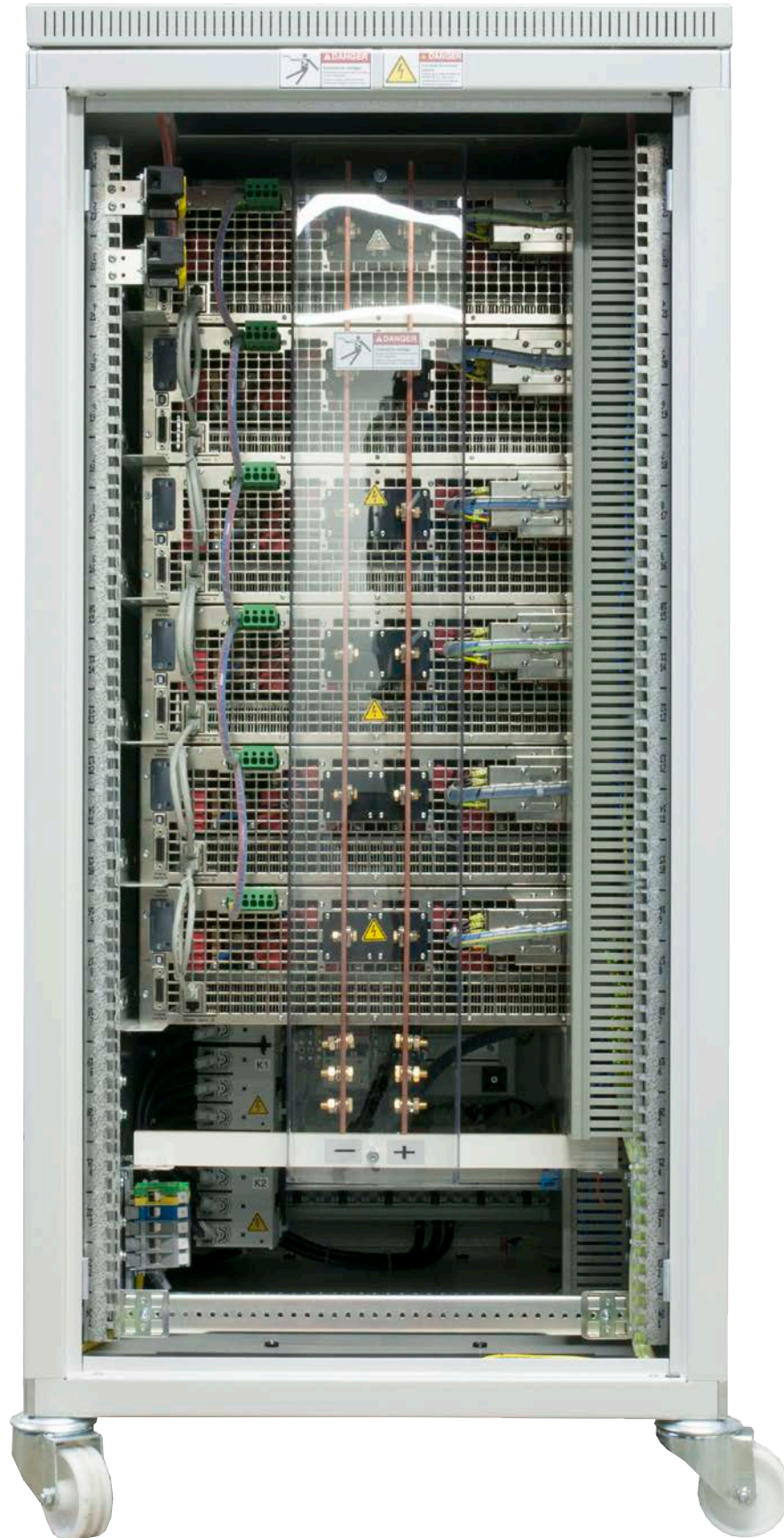


Twin safety contacts on rear door



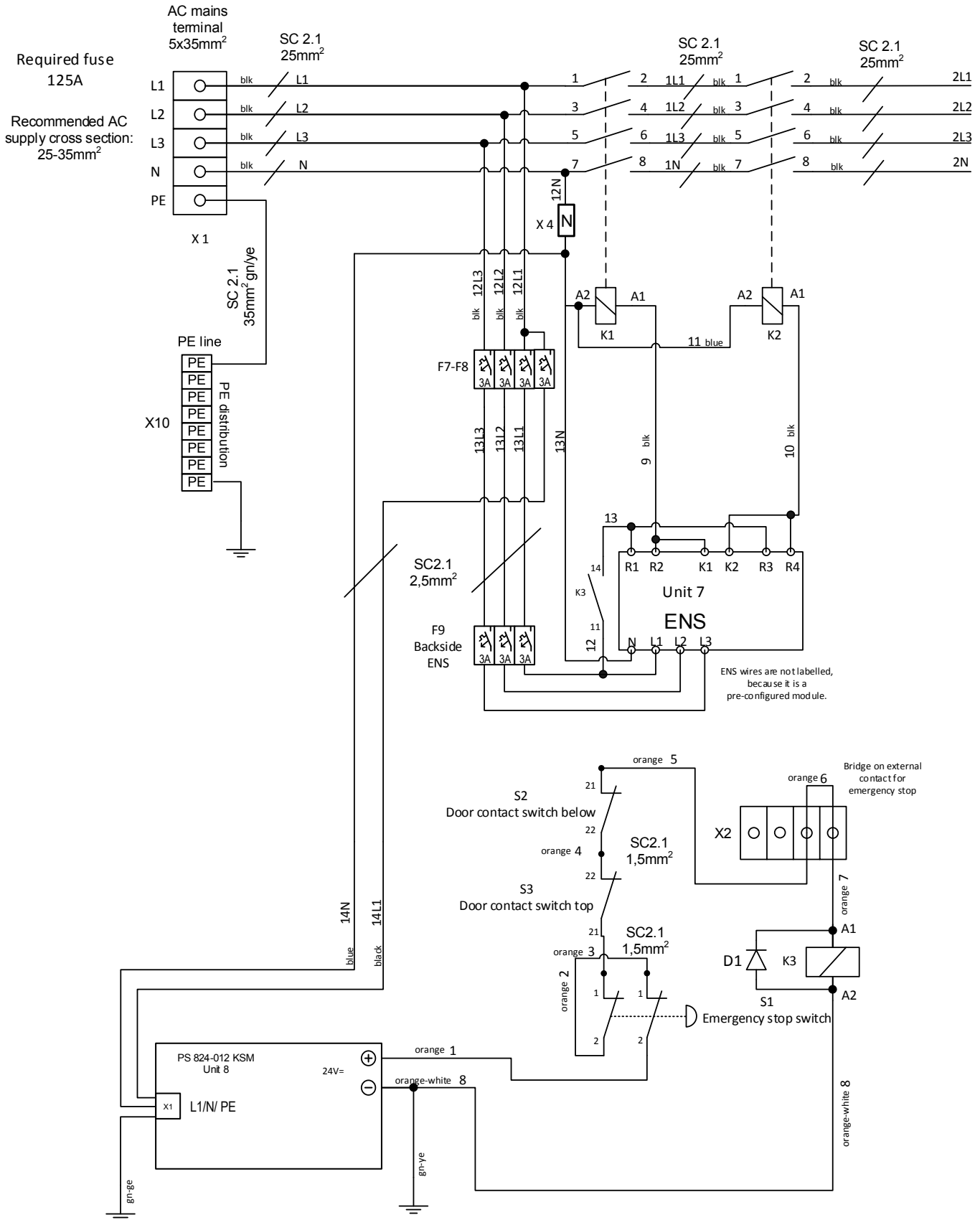
Emergency off switch (on top of cabinet, on the front side)



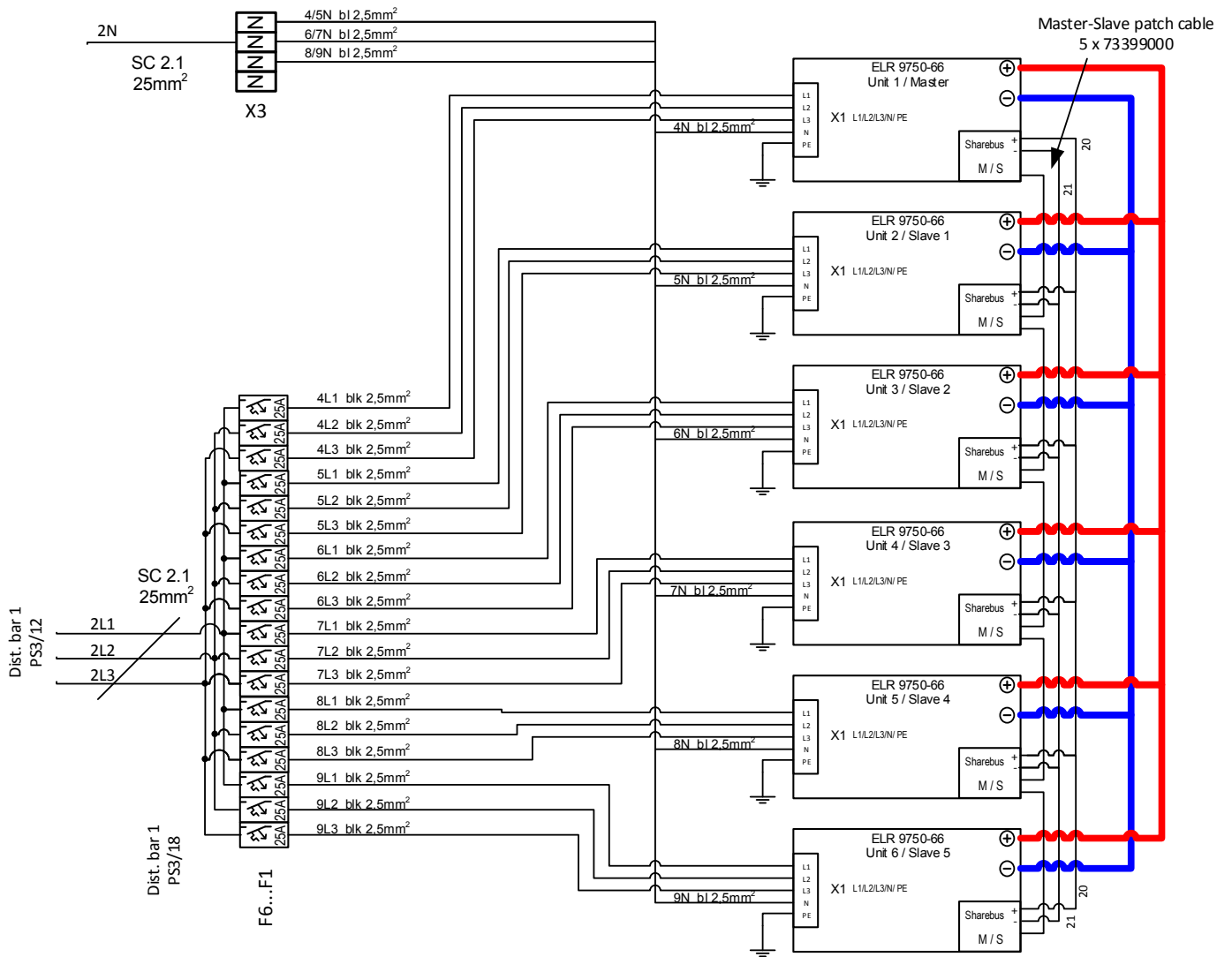


Rear view with DC copper bars and safety cover

# Wiring scheme of cabinet







## Layout

3 U

**Unit 1**  
**ELR 9750-66**

3 U

**Unit 2**  
**ELR 9750-66**

3 U

**Unit 3**  
**ELR 9750-66**

3 U

**Unit 4**  
**ELR 9750-66**

3 U

**Unit 5**  
**ELR 9750-66**

3 U

**Unit 6**  
**ELR 9750-66**

3 U

**Unit 7**  
**ENS**

3 U

**Circuit breakers**  
**F1...F8**







Elektro-Automatik

**EA-Elektro-Automatik GmbH & Co. KG**

Entwicklung - Produktion - Vertrieb

Helmholtzstraße 31-33

**41747 Viersen**

**Germany**

Telefon: 02162 / 37 85-0

Telefax: 02162 / 16 230

ea1974@elektroautomatik.de

www.elektroautomatik.de