

Contactor Combination with NOLTAnet



Manual and Safety Instructions

General Information



Read this manual before installing and activating this product. Respect all safety instructions and local laws and regulations.



The installation may only be executed by qualified electricians. This product may only be used according to its intended use set forth in this manual.

The following Symbols and hazard statements are used in this operating and assembly instructions:

Hazard statements



Danger

Indicates a hazardous situation which, if not avoided, will result in death or serious personal injury.



Warning

Indicates a hazardous situation which, if not avoided, could result in death or serious personal injury.



Caution

Indicates a hazardous situation which, if not avoided, could result in minor or moderate personal injury.

Notes



A blue or grey circle with a white graphical symbol indicates that an action must be taken.



A red or grey circle with a diagonal bar, possibly with a black graphical symbol, indicates that an action must not be taken or must be stopped.



If these instructions are not observed, it may result in malfunction or damage to the equipment.

The hazard statements are structured in the following way:

Signal Word

Description of Hazard

Consequence of ignoring the warning.

Action to avoid the hazard.

Technical Data

Switch cycles	Max. 30 starts/h
Mech. Life span	10 ⁷ switching cycles
Operating voltage	400 V AC
Nominal operating current	0,1A - 32A
Rated power AC3/400V	Max. 15 kW
Supply frequency	50 - 60 Hz
Temperature range	-25 - +50°C
Magn. Tripping	No
Therm. Tripping	Yes
Motor protection tripping	See tripping chart
Protection class	IP44
Supply	CEE-plug 16A / 32A
Cable entry	Motor: M 32 (11-21 mm) Control: M 16 (4,5 - 10 mm)
Connection cross-sections of the main conductors up to 12A nominal operating current	1 cable 1,5...4 mm ² rigid 2 cable 1,5...4 mm ² rigid 1 cable 0,75...4 mm ² flexible without end sleeve 2 cable 0,75...4 mm ² flexible without end sleeve 1 cable 0,34...2,5 mm ² flexible with end sleeve 2 cable 0,34...1,5 mm ² flexible with end sleeve
Connection cross-sections of the main conductors from 12A nominal operating current	1 - 10 mm ² rigid/ 1 - 6 mm ² flexible / 16 - 10 AWG
Housing	Polycarbonate (PC)
Dimensions up to 14A nominal operating current	16A: 275 x 110 x 80 mm (L x W x H) 32A: 290 x 110 x 80 mm (L x W x H)
Dimensions from 14A nominal operating current	16A: 325 x 145 x 140 mm (L x W x H) 32A: 325 x 145 x 140 mm (L x W x H)
Weight up to 14A nominal operating current	1.1 kg
Weight from 14A nominal operating current	2.5 kg

Table 1

Warnings

DANGER

Death or serious personal injury



- The device may only be installed, serviced and commissioned by a suitably trained specialist taking into account the local regulations and technical provisions. The „5 safety rules“ must be observed
- Before any intervention or opening of the device, it must be switched off with the on / off switch, the power supply interrupted by pulling the mains plug and secured against being switched on again
- The maximum power specification must not be exceeded

Attention



- Set the tripping current of the motor protection switch to the rated motor current
- Overcurrent and residual current protective devices must be provided by the customer in order to guarantee operation in accordance with standards, the cable length between the protective devices and the motor protection plug must not exceed 3m
- In automatic mode, the connected consumer can start up at any time

Notes



- If a thermal contact is connected, the bridge at connections T1 and T2 must be removed
- If a level controller or an external switching contact is connected, the bridge at connections S1 and S2 must be removed



- Only connect suitable cables and level controllers and observe the maximum cable length
- Do not use oils, fats or solvents, these substances impair the stability of the plastic
- To use the NOLTAnet module and the NOLTAnet service, the availability of the GSM network is necessary
- An exact location can only be guaranteed with available GPS reception
- Location and monitoring only possible using the NOLTAnet app
- To use the NOLTAnet app, a smartphone, tablet or PC with an active Internet connection is required



EU Declaration of Conformity

We hereby declare that the Nolta – Schützkombination specified below will, due to its design and construction, comply with the relevant regulations listed.

Product Designation

Nolta - Schützkombination

Manufacturer

Nolta GmbH
Industriestr. 8
35091 Cölbe

EU directives / Harmonized standards /
national techn. Standards - Specifications

Low Voltage Directive 2014/35/EU

Restriction of use of certain hazardous substances in electrical and
electronic equipment (RoHS) – Directive 2011/65/EU & 2015/863/EU

Electromagnetic Compatibility Directive – Directive 2014/30/EU

EN 60204-1:2018

Safety of machinery – Electrical equipment of machines – Part 1:
General requirements

Authorized representative
Name and address

David Loechelt
Nolta GmbH
Industriestr. 8
35091 Cölbe

We confirm that a CE mark according to the European directives is affixed to the above mentioned
Nolta - Schützkombination.

24.06.2020

Date


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CEO
Dr. Ing J. Knake


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Head of Quality Management
D. Loechelt

Operation

Rocker switch On/Off

On = contactor combination in operation

Off = contactor combination out of operation

Rocker switch manual/ automatic

In manual mode the connected consumer is switched on or off according to the selector switch on / off.

In automatic mode, the connected consumer is switched on or off according to the connected level controller (rocker switch on / off must be on).

Reset-button

If the over-current relay trips, two options can be selected to switch it on again (setting is made using a switch on the motor protection relay):

Automatik (A): The motor protection relay switches on automatically after the bimetal has cooled down.

Hand (H): The motor protection relay must be reset by hand after the bimetal has cooled down.

For integrated phase-sequence test and phase inverter

Red LED lights up = phase angle incorrect.

The direction of rotation is changed by lightly pressing and turning the pole pins in the plug.

For integrated operation display

Bright LED lights up = device is operating

NOLTAnet service

All NOLTAnet motor protection plugs are factory-fitted with a SIM chip, which enables data transmission. In the standard version, the SIM chip is activated for use within Europe *. Use in other countries is also possible on request and can be activated accordingly **.

Each NOLTAnet device requires a license for data transmission, for which monthly fees apply. All NOLTAnet devices are delivered from the factory with a 3-month license, which is activated upon initial start-up. Additional licenses can be purchased via the NOLTAnet web portal. The licenses are not device-specific and can be assigned to the available devices by the user. The NOLTAnet motor protection plug is operated via the NOLTAnet app. This is available for Android, iOS and Windows and can be downloaded from the corresponding app stores.

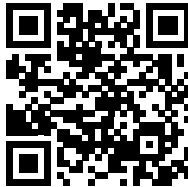
* For a detailed list of all countries in which use with the standard variant is possible, see: www.noltanet.com

** Availability of the required network infrastructure in the respective countries required

NOLTAnet App

Download and install the NOLTAnet app

- The NOLTAnet app is available for download in the app stores of the respective end devices, the web version of the app can be accessed by using the login on www.noltanet.com.
- To download the app, please proceed as follows: Call up the app store on your smartphone and search for „NOLTAnet“ - the NOLTAnet app is displayed and can be downloaded
- You can optionally download the app using the following QR code:



- Install the NOLTAnet app. After the app has been successfully installed, the NOLTAnet icon appears on your smartphone. The app is now ready for use
- The web version of the app can be called up by logging in to www.noltanet.com

Create user account

- Click on the NOLTAnet icon
- Enter contact details and set your password and then click on „Register“
- You will now receive a confirmation email to the specified email address
- As soon as you have confirmed the received email, your account will be activated

Log In

- Click on the NOLTAnet icon
- The app's login screen appears. Please enter your email address and your password and then click on „Sign in“
- View „Dashboard“ appears

Add the NOLTAnet device to your user account

- Select „Add device“ in the menu (top left on the dashboard)
- Type in the serial number of the device or scan it in using the QR code on the cover of the NOLTAnet device
- Assign device names
- The device now appears on the dashboard and can be monitored using the NOLTAnet app

Detailed instructions on the use and functions of the NOLTAnet app are available at www.noltanet.com.

Installation

Connection of the consumer according to the circuit diagram, depending on the device type, directly to the terminals of the motor protection relay 2T1 (U), 4T2 (V) 6T3 (W) respectively to the terminals L1 (U), L2 (V), L3 (W) and to the terminals N and PE.

The thermal contact of the connected consumer must be installed to terminals T1 and T2; the factory-installed bridge must be removed for this.

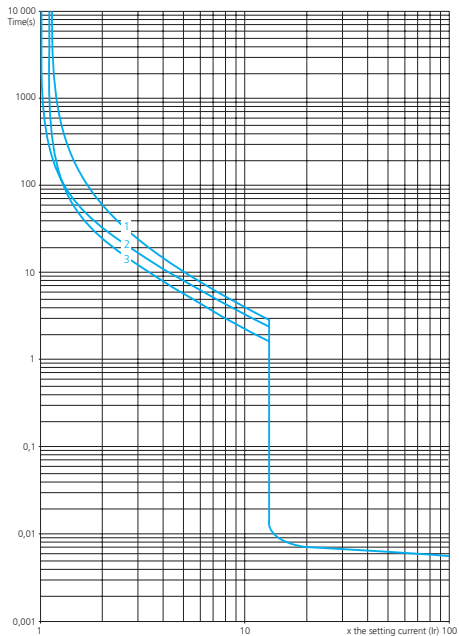
Device type with connection option for a float switch:

In automatic mode, the contactor combination can be controlled via a level controller. To do this, the normally open contact of the float switch must be installed on terminals S1 and S2; the factory-fitted bridge must be removed for this.

Device type with connection option for two float switches:

In automatic mode, the contactor combination can be controlled via two level controllers. To do this, the normally open contacts of the float switches must be installed on terminals S1min and S2min as well as S1max and S2max; the bridges installed at the factory must be removed for this.

Tripping Chart



- 1 3 poles from cold state
- 2 2 poles from cold state
- 3 3 poles from hot state

Backup fuse

Up to 12 A rated operating current

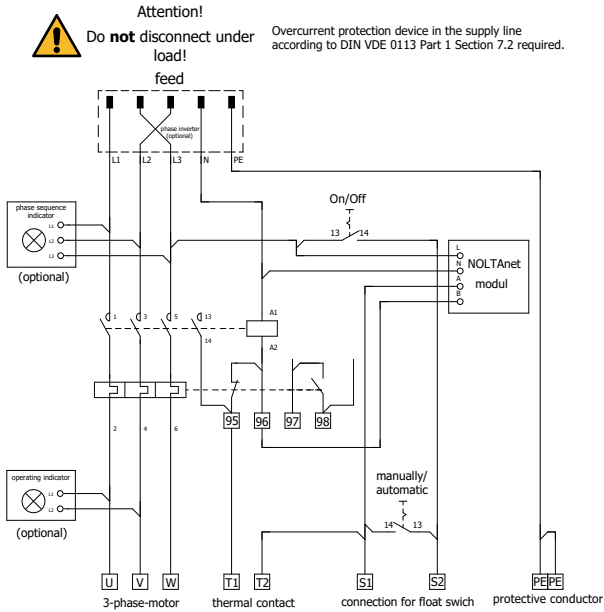
Adjustment range motor protection	Fuse mapping (maximum size)		
	Type aM	Type gG	Type BS88
0,16 A - 0,23 A	0,25 A	0,5A	-
0,23 A - 0,36 A	0,5 A	1 A	-
0,36 A - 0,54 A	1 A	1,6 A	-
0,54 A - 0,8 A	1 A	2 A	-
0,8 A - 1,2 A	2 A	4 A	6 A
1,2 A - 1,8 A	2 A	6 A	6A
1,8 A - 2,6 A	4 A	8 A	10 A
2,6 A - 3,7 A	4 A	6 A	10 A
3,7 A - 5,5 A	6 A	16 A	16 A
5,5 A - 8 A	8 A	20 A	20 A
8 A - 11,5 A	10 A	25 A	20 A
10 A - 14 A	16 A	32 A	25 A
12 A - 16 A	20 A	40 A	32 A

From 12 A nominal operating current

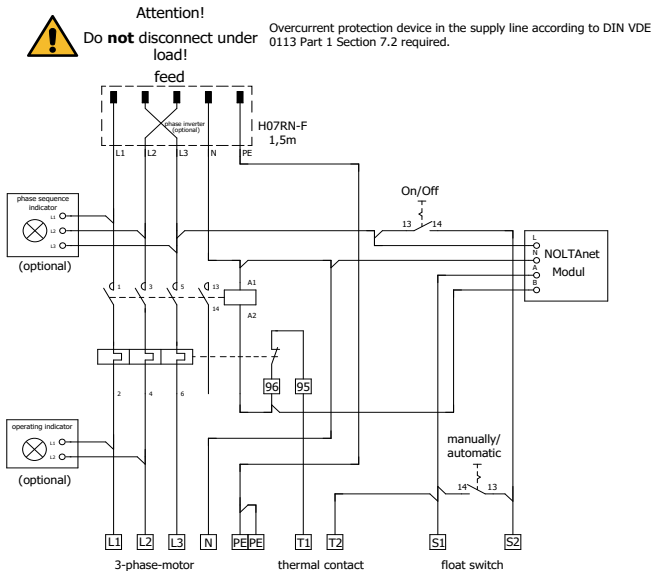
Adjustment range motor protection	Fuse mapping (maximum size)		
	Type aM	Type gG	Type BS88
12 A - 18 A	20 A	35 A	32 A
16 A - 24 A	25 A	50 A	50 A
23 A - 32 A	40 A	63 A	63 A

Circuit diagram device type for the connection of one float switch

Up to 14 A rated operating current

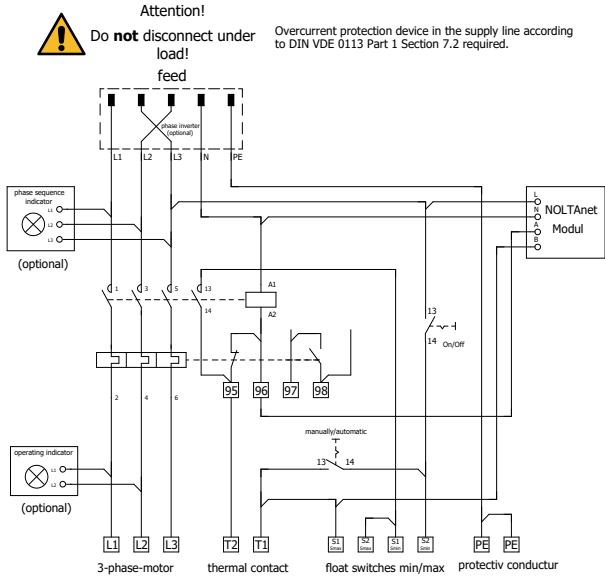


From 14 A nominal operating current

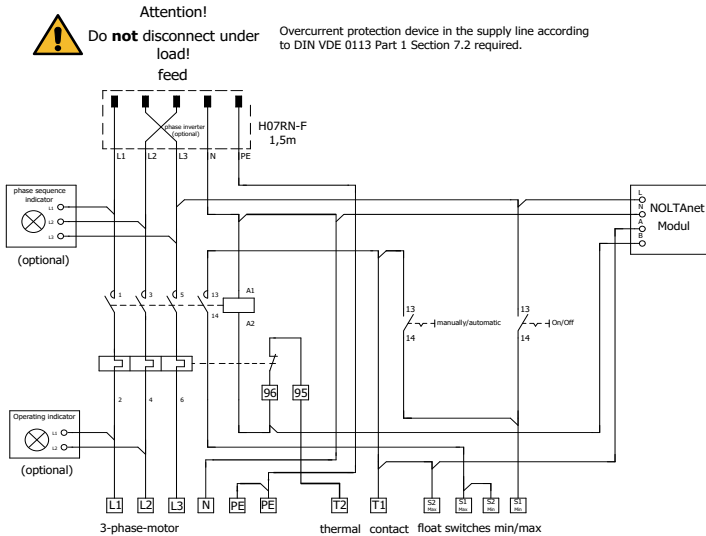


Circuit diagram device type for the connection of two float switches

Up to 14 A rated operating current



From 14 A nominal operating current



Intended use

The NOLTA contactor combination is intended for use in industrial and commercial areas in accordance with the EMC guideline and taking interference emissions into account. When using the device, the permissible ambient conditions according to the specified IP protection class and the permissible temperature range must be observed. Special provisions apply to EX zones, areas with an increased risk of fire and underground. Mechanical and electrical changes may only be carried out after consulting the manufacturer and only by certified specialists. All changes to the device must meet the safety requirements. The manufacturer assumes no liability for damage resulting from improper use.

Disposal

This product or parts of it must be disposed of in an environmentally sound way: Use the public or private waste collection service. If this is not possible, please contact your NOLTA dealer.

Notes