



10000 (F+)

DATA SHEET

Article number : 09900018

switch-disconnectors DHS 4-125 FANA24DC

Compact switches to isolate the supply for system parts with EMERGENCY SHUT-OFF function and remote actuator

Function

Switch-disconnectors and main switches are able to separate electrical devices or even system parts from the mains completely at all poles for maintenance purposes, even under load or overload. For safe, reliable disconnection, the isolating distances run from pole to pole and also from input to output, importantly. Main switches are prescribed for these purposes in some areas by the technical connection conditions of the electrical supply company. Devices in the DHS 4 family are load isolators and main switches with a four-pole design, for which the N-contact is switched on in advanced mode and switched off in lagging mode. Their design makes them excellent for integration in the optics of the DFS residual current circuit-breakers. The FANA variant DHS 4 allows devices to be switched on and off remotely. Control elements, such as push-buttons for disconnecting the switch-disconnector in emergency situations, can also be connected via the compact, factory-installed additional module. It is even possible to parallel wire multiple DHS 4s. The LED integrated in the switch-disconnector not only indicates tripping by a control element but also any possible wire breakage. In this state, it is not possible to reclose the switch-disconnector.

Features

With emergency switching off function for tripping or disconnection by means of control elements, Monitoring of emergency switching off function for wire breakage and signalling by LED, In the event of a power failure, the EMERGENCY OFF function does not trigger, High short-circuit resistance and high switching capacity, Double-sided two-tier terminals for large conductor cross-section and busbars

Mounting

quick fastening to mounting rail , supply from top , any installation position

Applications

Particularly suitable for facilities such as training rooms and classrooms. The remote operator with emergency switching off function enables the power supply to be switched on again, e.g. using a key switch, without having to leave the room and/or open the electrical distribution board.

Notes

According to EN 60947-3, switch-disconnectors combine the function of a load-break switch that can switch on, conduct and switch off a current (including a specified operational overload) under operating conditions, as well as the function of a disconnecter that ensures safe disconnection by means of a sufficient contact gap when switched off. The DHS 4 provides FELV (functional extra-low voltage) to the emergency shut-off circuit. For this reason, the emergency shut-off circuit must be rated for a voltage of 230 VAC. The DHS 4 can also be locked with the light disc. The remote actuator must be supplied externally with 24 VDC.

Accessories

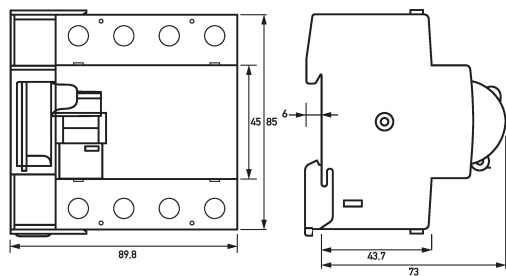
terminal caps KA

Technical data

| | |
|--|--|
| Series | DHS FANA auxiliary device (Emergency shut-off device) |
| Additional device AE1 operating voltage | 50 V ... 440 V (AC) |
| Auxiliary device AE1 Voltage of the monitoring circuit | 12 V (DC) |
| Auxiliary device AE1 Voltage of the monitoring circuit | max. 1 mA (DC) |
| max. Auxiliary device AE1 Cable length of the monitoring circuit | 500 m |
| Auxiliary device AE2 version | auxiliary device (Remote actuator) Motor drive |
| Additional device AE2 operating voltage | 24 V (21.6 V ... 26.4 V) (DC) |

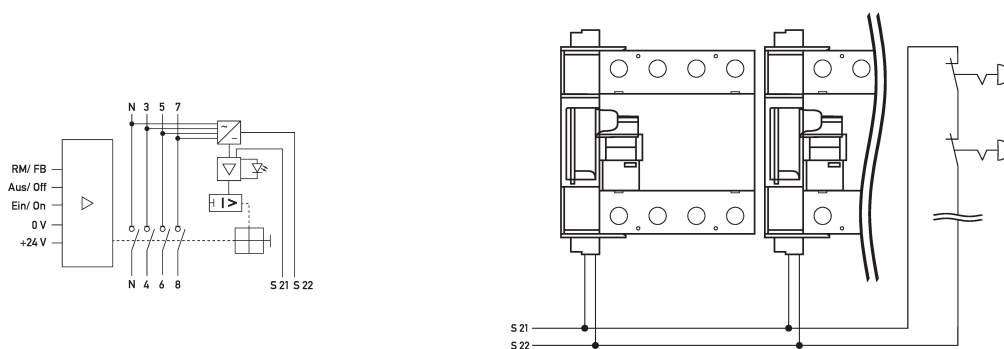
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|---|---|
| max. Additional device AE2 current consumption | 2 A |
| | Control input (remote actuator) |
| Rated voltage (DC) | 24 V (21.6 V ... 26.4 V) |
| Bounce time of push buttons | 10 ms |
| min. Pulse duration control input | 60 ms |
| | load circuit |
| Specification | load disconnect contact |
| Polzahl (gesamt) | 4 |
| min. Contact opening | 4 mm |
| Rated voltage (AC) | 230 V, 400 V |
| Rated current (AC) | 125 A |
| Rated short-circuit current | 10 kA |
| max. Total rated switching capacity | 10 kA |
| Rated insulation voltage | 400 V |
| Rated impulse withstand voltage | 4 kV |
| Rated frequency | 50 Hz, 60 Hz |
| Allowed utilization category | AC-22a |
| Current heat loss per current path | 11.2 W |
| Thermal Backup-fuse OCPD | 80 A |
| Short-circuit backup-fuse SCPD | 125 A |
| Back-up fuse type | gG |
| | Remote actuator feedback output |
| Specification | semiconductor |
| Rated voltage (DC) | 24 V (21.6 V ... 26.4 V) |
| Rated current (DC) | max. 0.2 A |
| Rated power | max. 4.8 VA |
| | screw-type terminal top and bottom (load circuit) |
| Neutral conductor position | left |
| Connection C1 Maximum number of conductors per terminal | 2 (conductors of same type and cross-section) |
| Cross section solid | 1-wire: 1.5 mm ² ... 50 mm ² ; 2-wire: 1.5 mm ² ... 16 mm ² |
| Connecting capacity flexible | 1-wire: 1.5 mm ² ... 35 mm ² ; 2-wire: 1.5 mm ² ... 16 mm ² |
| Cross section stranded | 1-wire: 1.5 mm ² ... 50 mm ² ; 2-wire: 1.5 mm ² ... 16 mm ² |
| Cross section AWG, solid | 15 ... 1 |
| Cross section AWG, stranded | 15 ... 1 |
| Cross section AWG, flexible | 15 ... 1 |
| Tightening torque | 2.5 Nm ... 3 Nm |
| | screw-type terminal (Emergency shut-off device, Remote actuator) |
| Clamping area | 0.3 mm ² ... 1.5 mm ² |
| Cross section AWG, solid | 22 ... 16 |
| Cross section AWG, stranded | 22 ... 16 |
| Cross section AWG, flexible with ferrule | 22 ... 16 |
| Tightening torque | max. 0.25 Nm |
| | General data |
| max. Operating altitude above MSL | 2000 m |
| Mechanical endurance | min. 5000 switching cycles |
| Electrical endurance | min. 2000 switching cycles |
| Storage temperature | -40 °C ... 70 °C |
| Ambient temperature | -5 °C ... 60 °C |
| Climate resistance | as per IEC 60068-2-30: damp/heat, cyclical (25°C/55°C; 93%/97% rel. humidity, 28 cycles) |
| Housing type | distribution board housing |
| Installation type | Mounting rail (35 mm) |
| Housing material | thermoplastic |
| Protection class | IP20 |
| sealable | true |
| Width | 89.8 mm |
| Height | 85 mm |
| Depth | 75 mm |
| Installation depth | 69 mm |
| Module widths | 5 |
| Weight | 0.549 kg |

Dimensions



Dimensioned drawing switch-disconnectors DHS 4-125 FANA24DC

Wiring example



Wiring example switch-disconnectors DHS 4-125 FANA24DC