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Worldwide English



P5-125/V/SVB/N - Main switch, P5, 125 A, rear mounting, 3 pole + N, Emergency switching off function, With red rotary handle and yellow locking ring, Lockable in the 0 (Off) position



280916 P5-125/V/SVB/N

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280916 P5-125/V/SVB/N

Main switch, P5, 125 A, rear mounting, 3 pole + N, Emergency switching off function, With red rotary handle and yellow locking ring, Lockable in the 0 (Off) position

EL-Nummer (Norway)

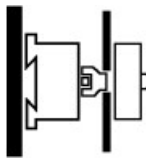
1417178

Main switch, Product range: Main switch, maintenance switch, Repair switch, Part group reference: P5, Stop Function: Emergency switching off function, With red rotary handle and yellow locking ring, Information about equipment supplied: auxiliary contact fitted by user., 3 pole + N, Locking facility: Lockable in the 0 (Off) position, Degree of Protection: Front IP65, Design: rear mounting, Motor rating AC-23A, 50 - 60 Hz 400 V: P = 45 kW, Rated uninterrupted current: $I_u = 125$ A, Standards: IEC/EN 60947, VDE 0660, IEC/EN 60204, CSA, UL, Switch-disconnector according to IEC/EN 60947-3

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Delivery program

Product range
Main switch
maintenance switch
Repair switch
Part group reference
P5
Stop Function
Emergency switching off function
With red rotary handle and yellow locking ring
Information about equipment supplied
auxiliary contact fitted by user.
Number of poles
3 pole + N
Auxiliary contacts
1
0 NO
1
0 NC
Locking facility
Lockable in the 0 (Off) position
Degree of Protection
Front IP65
Design
rear mounting



Contact sequence



Function

Motor rating AC-23A, 50 - 60 Hz [P]

400 V [P]

45 kW

Rated uninterrupted current [I_u]

125 A

Note on rated uninterrupted current I_u

Rated uninterrupted current I_u is specified for max. cross-section.

Technical data

General

Standards

IEC/EN 60947, VDE 0660, IEC/EN 60204, CSA, UL

Switch-disconnector according to IEC/EN 60947-3

Climatic proofing

Damp heat, constant, to IEC 60068-2-78

Damp heat, cyclic, to IEC 60068-2-30

Ambient temperatureOpen

-25 - +50 °C

Ambient temperatureEnclosed

-25 - +40 °C

Overvoltage category/pollution degree

III/3

Rated impulse withstand voltage [U_{imp}]

8000 V AC

Mounting position

As required

Contacts

Mechanical variablesNumber of poles

3 pole + N

Mechanical variablesAuxiliary contacts¹

0 NO

Mechanical variablesAuxiliary contacts¹

0 NC

Electrical characteristicsRated operational voltage [U_e]

690 V AC

Electrical characteristicsRated uninterrupted current [I_u]

125 A

Electrical characteristicsNote on rated uninterrupted current I_u

Rated uninterrupted current I_u is specified for max. cross-section.

Load rating with intermittent operation, class 12AB 25 % DF

$2 \times I_e$

Load rating with intermittent operation, class 12AB 40 % DF

$1.6 \times I_e$

Load rating with intermittent operation, class 12AB 60 % DF

$1.3 \times I_e$

Short-circuit ratingFuse

125 A gG/gL

Rated short-time withstand current (1 s current) [I_{cw}]

2500 A_{rms}

Note on rated short-time withstand current I_{cw}

Current for a time of 1 second

Rated conditional short-circuit current [I_k]

30 kA

Switching capacity

$\cos \phi$ rated making capacity as per IEC 60947-3

850 A

Rated breaking capacity $\cos \phi$ to IEC 60947-3230 V

800 A
 Rated breaking capacity $\cos \phi$ to IEC 60947-3400/415 V
 750 A
 Rated breaking capacity $\cos \phi$ to IEC 60947-3500 V
 650 A
 Rated breaking capacity $\cos \phi$ to IEC 60947-3690 V
 340 A
 Safe isolation to EN 61140 between the contacts
 440 V AC
 Safe isolation to EN 61140 Current heat loss per contact at I_e
 8 W
 Lifespan, mechanical [Operations]
 $> 0.1 \times 10^6$
 Maximum operating frequency [Operations/h]
 50
 AC AC-3 Rating, motor load switch [P] 220 V 230 V [P]
 22 kW
 AC AC-3 Rating, motor load switch [P] 400 V 415 V [P]
 37 kW
 AC AC-3 Rating, motor load switch [P] 500 V [P]
 45 kW
 AC AC-3 Rating, motor load switch [P] 690 V [P]
 30 kW
 AC AC-3 Rated operational current motor load switch 230 V [I_e]
 72 A
 AC AC-3 Rated operational current motor load switch 400 V 415 V [I_e]
 66 A
 AC AC-3 Rated operational current motor load switch 500 V [I_e]
 58 A
 AC AC-3 Rated operational current motor load switch 690 V [I_e]
 32 A
 AC AC-23A Motor rating AC-23A, 50 - 60 Hz [P] 230 V [P]
 30 kW
 AC AC-23A Motor rating AC-23A, 50 - 60 Hz [P] 400 V 415 V [P]
 45 kW
 AC AC-23A Motor rating AC-23A, 50 - 60 Hz [P] 500 V [P]
 55 kW
 AC AC-23A Motor rating AC-23A, 50 - 60 Hz [P] 690 V [P]
 37 kW
 AC AC-23A Rated operational current motor load switch 230 V [I_e]
 96 A
 AC AC-23A Rated operational current motor load switch 400 V 415 V [I_e]
 80 A
 AC AC-23A Rated operational current motor load switch 500 V [I_e]
 78 A
 AC AC-23A Rated operational current motor load switch 690 V [I_e]
 39 A
 DDC-1, Load-break switches L/R = 1 ms Rated operational current [I_e]
 125 A
 DDC-1, Load-break switches L/R = 1 ms Voltage per contact pair in series
 42 V
 DDC-23A, motor load switch L/R = 15 ms 24 V Rated operational current [I_e]
 125 A
 DDC-23A, motor load switch L/R = 15 ms 24 V Contacts
 3 Quantity
 DDC-23A, motor load switch L/R = 15 ms 48 V Rated operational current [I_e]
 125 A
 DDC-23A, motor load switch L/R = 15 ms 48 V Contacts
 3 Quantity
 DDC-23A, motor load switch L/R = 15 ms 60 V Rated operational current [I_e]
 125 A
 DDC-23A, motor load switch L/R = 15 ms 60 V Contacts
 3 Quantity
 DDC-23A, motor load switch L/R = 15 ms 120 V Rated operational current [I_e]
 40 A
 DDC-23A, motor load switch L/R = 15 ms 120 V Contacts
 3 Quantity
 Control circuit reliability at 24 V DC, 10 mA [Fault probability]
 $< 10^{-5}$, < 1 failure in 100,000 switching operations H_f

Terminal capacities
 Solid or stranded
 1 x 95
 2 x 35 mm²
 Flexible with ferrules to DIN 46228
 1 x 70
 2 x 25 mm²
 Copper strip [Number of segments x width x thickness]
 1 x 13 x 3
 2 x 13 x 1.5 mm
 Terminal screw
 Allen screw 5
 Tightening torque for terminal screw
 14 Nm
 Technical safety parameters:
Notes
 B10_d values as per EN ISO 13849-1, table C1
 Rating data for approved types
 Contacts Rated operational voltage [U_b]
 600 V AC
 Contacts Rated uninterrupted current max. Main conducting paths General use
 150 A
 Contacts Rated uninterrupted current max. Auxiliary contacts General Use [I_u]
 10 A
 Contacts Rated uninterrupted current max. Auxiliary contacts Pilot Duty
 A 600
 Switching capacity Maximum motor rating Single-phase 120 V AC
 7.5 HP
 Switching capacity Maximum motor rating Single-phase 240 V AC
 20 HP
 Switching capacity Maximum motor rating Single-phase 277 V AC
 20 HP
 Switching capacity Maximum motor rating Three-phase 120 V AC
 15 HP
 Switching capacity Maximum motor rating Three-phase 240 V AC
 30 HP
 Switching capacity Maximum motor rating Three-phase 480 V AC
 60 HP
 Switching capacity Maximum motor rating Three-phase 600 V AC
 60 HP
 Short Circuit Current Rating Basic Rating
 10 kA
 Short Circuit Current Rating max. Fuse
 350 Class RK1 A
 Short Circuit Current Rating High fault rating
 65 kA
 Short Circuit Current Rating max. Fuse
 300, Class J A
 Terminal capacity Solid or flexible conductor with ferrule
 3/0 AWG
 Terminal capacity Flexible
 2/0 AWG
 Terminal capacity Terminal screw
 Allen screw 5
 Terminal capacity Tightening torque
 125 lb-in

Design verification as per IEC/EN 61439

Technical data for design verification
 Rated operational current for specified heat dissipation [I_r]
 125 A
 Heat dissipation per pole, current-dependent [P_{vd}]
 3.1 W
 Equipment heat dissipation, current-dependent [P_{vd}]
 0 W
 Static heat dissipation, non-current-dependent [P_{vs}]
 0 W
 Heat dissipation capacity [P_{diss}]

0 W

Operating ambient temperature min.

-25 °C

Operating ambient temperature max.

+50 °C

IEC/EN 61439 design verification

10.2 Strength of materials and parts 10.2.2 Corrosion resistance

Meets the product standard's requirements.

10.2 Strength of materials and parts 10.2.3.1 Verification of thermal stability of enclosures

Meets the product standard's requirements.

10.2 Strength of materials and parts 10.2.3.2 Verification of resistance of insulating materials to normal heat

Meets the product standard's requirements.

10.2 Strength of materials and parts 10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects

Meets the product standard's requirements.

10.2 Strength of materials and parts 10.2.4 Resistance to ultra-violet (UV) radiation

UV resistance only in connection with protective shield.

10.2 Strength of materials and parts 10.2.5 Lifting

Does not apply, since the entire switchgear needs to be evaluated.

10.2 Strength of materials and parts 10.2.6 Mechanical impact

Does not apply, since the entire switchgear needs to be evaluated.

10.2 Strength of materials and parts 10.2.7 Inscriptions

Meets the product standard's requirements.

10.3 Degree of protection of ASSEMBLIES

Does not apply, since the entire switchgear needs to be evaluated.

10.4 Clearances and creepage distances

Meets the product standard's requirements.

10.5 Protection against electric shock

Does not apply, since the entire switchgear needs to be evaluated.

10.6 Incorporation of switching devices and components

Does not apply, since the entire switchgear needs to be evaluated.

10.7 Internal electrical circuits and connections

Is the panel builder's responsibility.

10.8 Connections for external conductors

Is the panel builder's responsibility.

10.9 Insulation properties 10.9.2 Power-frequency electric strength

Is the panel builder's responsibility.

10.9 Insulation properties 10.9.3 Impulse withstand voltage

Is the panel builder's responsibility.

10.9 Insulation properties 10.9.4 Testing of enclosures made of insulating material

Is the panel builder's responsibility.

10.10 Temperature rise

The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.

10.11 Short-circuit rating

Is the panel builder's responsibility. The specifications for the switchgear must be observed.

10.12 Electromagnetic compatibility

Is the panel builder's responsibility. The specifications for the switchgear must be observed.

10.13 Mechanical function

The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

Technical data ETIM 7.0

Low-voltage industrial components (EG000017) / Switch disconnecter (EC000216)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnecter (ecl@ss10.0.1-27-37-14-03 [AKF060013])

Version as main switch

Yes

Version as maintenance-/service switch

Yes

Version as safety switch

No

Version as emergency stop installation

Yes

Version as reversing switch

No

Number of switches

1

Max. rated operation voltage U_e AC

690 V
Rated operating voltage
690 - 690 V
Rated permanent current I_u
125 A
Rated permanent current at AC-23, 400 V
80 A
Rated permanent current at AC-21, 400 V
125 A
Rated operation power at AC-3, 400 V
37 kW
Rated short-time withstand current I_{cw}
2.5 kA
Rated operation power at AC-23, 400 V
45 kW
Switching power at 400 V
45 kW
Conditioned rated short-circuit current I_q
30 kA
Number of poles
4
Number of auxiliary contacts as normally closed contact
0
Number of auxiliary contacts as normally open contact
0
Number of auxiliary contacts as change-over contact
0
Motor drive optional
No
Motor drive integrated
No
Voltage release optional
No
Device construction
Built-in device fixed built-in technique
Suitable for ground mounting
No
Suitable for front mounting 4-hole
No
Suitable for front mounting centre
No
Suitable for distribution board installation
No
Suitable for intermediate mounting
Yes
Colour control element
Red
Type of control element
Door coupling rotary drive
Interlockable
Yes
Type of electrical connection of main circuit
Frame clamp
Degree of protection (IP), front side
IP65
Degree of protection (NEMA)
12

Approvals

Product Standards
UL 508; CSA-C22.2 No. 14-05; CSA-C22.2 No. 94; IEC/EN 60947-3; CE marking
UL File No.
E36332
UL Category Control No.
NLRV, NLRV7
CSA File No.
223805
CSA Class No.

3211-05
North America Certification
UL listed, CSA certified
Suitable for
Branch circuits, suitable as motor disconnect
Degree of Protection
IEC: IP65; UL/CSA Type 1, 12

Dimensions

☐ Drilling dimensions door

Distance from mounting plate to front with complete axis.

☐ 3 padlocks

CAD data

- [Product-specific CAD data](#)
(Web)
- [3D Preview](#)
(Web)

DWG files

- [DA-CD-p5_125_v_svb_n](#)
File
(Web)

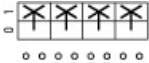
edz files

- [DA-CE-ETNP5-125_V_SVB_N](#)
File
(Web)

Step files

- [DA-CS-p5_125_v_svb_n](#)
File
(Web)

Wiring diagram

- 
[1150SW-224-2](#)
Line drawing

Dimensions single product

- ☐ [115X070](#)
Line drawing
Padlock
- ☐ [115X316](#)
Line drawing
Rear mounting main switches
☐ Drilling dimensions door

Product photo

- 
[1150PIC-115](#)

Photo

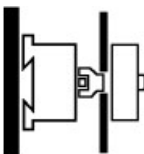
3D drawing

- [1150DRAW-9](#)
Line drawing
Rear mounting main switch construction type

Instruction Leaflet

- [Cam Switch: Main switch, On-Off-switch \(IL03802011Z\)](#)
Asset
(PDF, multilingual)

Symbol

- 
[000Z429](#)
Graphic
Load current switches centre mounting
- [1150SPC-194](#)
Graphic

Declaration of Conformity

EU

- [P5 Switch-Disconnecter \(DA-DC-00003682\)](#)
Asset
(PDF)

UK

- [P5 Switch-Disconnecter \(DA-DC-00003994\)](#)
Asset
(PDF)

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