

Eaton 280927

Catalog Number: 280927

Eaton Moeller® series P5 Main switch, P5, 160 A, flush mounting, 3 pole + N, STOP function, With black rotary handle and locking ring, Lockable in the 0 (Off) position

General specifications



Foto je reprezentativní

Product Name

Eaton Moeller® series P5 Main switch

Catalog Number

280927

EAN

4015082809270

Product Length/Depth

150 mm

Product Height

150 mm

Product Width

130 mm

Product Weight

1.244 kg

Compliances

CE Marked

Certifications

EN 60947-3

UL 508

CSA Std. C22.2 No. 14-05

IEC 60947

VDE

UL Category Control No.: NLRV, NLRV7

CSA Class No.: 3211-05

CSA-C22.2 No. 14-05

IEC/EN 60947

IEC/EN 60947-3

UL File No.: E36332

VDE 0660

CSA File No.: 223805

CSA-C22.2 No. 94

CE

CSA

IEC/EN 60204

UL

Catalog Notes

Rated Short-time Withstand Current (Icw) for a time of 1 second

Model Code

P5-160/EA/SVB-SW/N

Features & Functions

Features

Version as maintenance-/service switch

Version as main switch

Fitted with:

Black rotary handle and locking ring

Functions

STOP function

Interlockable

Locking facility

Lockable in the 0 (Off) position

Number of poles

4

General

Accessories

Auxiliary contact fitted by user.

Degree of protection

NEMA 12

Degree of protection (front side)

IP65

Lifespan, mechanical

100,000 Operations

Mounting method

Flush mounting

Mounting position

As required

Operating frequency

50 Operations/h

Overvoltage category

III

Pollution degree

3

Product Category

Main switch

Rated impulse withstand voltage (Uimp)

8000 V AC

Safe isolation

440 V AC, Between the contacts, According to EN 61140

Safety parameter (EN ISO 13849-1)

B10d values as per EN ISO 13849-1, table C.1

Suitable for

Front mounting 4-hole

Branch circuits, suitable as motor disconnect, (UL/CSA)

Climatic environmental conditions

Ambient operating temperature - min

-25 °C

Ambient operating temperature - max

50 °C

Terminal capacities

Terminal capacity

2 x 13 x 1.5 mm Number of segments x width x thickness, copper strip

2 x 25 mm², flexible with ferrules to DIN 46228

1 x 13 x 3 mm Number of segments x width x thickness, copper

Ambient operating temperature (enclosed) - min

-25 °C

Ambient operating temperature (enclosed) - max

40 °C

Climatic proofing

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

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

strip

3/0 AWG, solid or flexible conductor with ferrule

2/0 AWG, flexible

1 x 95 mm², solid or stranded

2 x 35 mm², solid or stranded

1 x 70 mm², flexible with ferrules to DIN 46228

Screw size

5 mm AF, Hexagon socket-head spanner, Terminal screw

Tightening torque

14 Nm, Screw terminals

125 lb-in, Screw terminals

Electrical rating

Rated breaking capacity at 220/230 V (cos phi to IEC 60947-3)

900 A

Rated breaking capacity at 400/415 V (cos phi to IEC 60947-3)

850 A

Rated breaking capacity at 500 V (cos phi to IEC 60947-3)

850 A

Rated breaking capacity at 660/690 V (cos phi to IEC 60947-3)

340 A

Rated operational current (I_e) at AC-3, 220 V, 230 V, 240 V

103 A

Rated operational current (I_e) at AC-3, 380 V, 400 V, 415 V

85 A

Rated operational current (I_e) at AC-3, 500 V

80 A

Rated operational current (I_e) at AC-3, 660 V, 690 V

42 A

Rated operational current (I_e) at AC-21, 440 V

160 A

Rated operational current (I_e) at AC-23A, 230 V

103 A

Rated operational current (I_e) at AC-23A, 400 V, 415 V

105 A

Rated operational current (I_e) at AC-23A, 500 V

106 A

Rated operational current (I_e) at AC-23A, 690 V

Short-circuit rating

Rated conditional short-circuit current (I_q)

30 kA

Rated short-time withstand current (I_{cw})

3 kA, Contacts, 1 second

3 kA

Short-circuit current rating (basic rating)

10 kA, SCCR (UL/CSA)

400A Class RK1, max. Fuse, SCCR (UL/CSA)

Short-circuit current rating (high fault)

65 kA, SCCR (UL/CSA)

300 A, Class J, max. Fuse, SCCR (UL/CSA)

Short-circuit protection rating

160 A gG/gL, Fuse, Contacts

Switching capacity

Load rating

2 x I_e (with intermittent operation class 12, 25 % duty factor)

1.3 x I_e (with intermittent operation class 12, 60 % duty factor)

1.6 x I_e (with intermittent operation class 12, 40 % duty factor)

Number of contacts in series at DC-23A, 24 V

3

Number of contacts in series at DC-23A, 48 V

3

Number of contacts in series at DC-23A, 60 V

42 A

Rated operational current (Ie) at DC-1, load-break switches I/r = 1 ms

160 A

Rated operational current (Ie) at DC-23A, 24 V

160 A

Rated operational current (Ie) at DC-23A, 48 V

160 A

Rated operational current (Ie) at DC-23A, 60 V

160 A

Rated operational current (Ie) at DC-23A, 120 V

50 A

Rated operational power at AC-3, 380/400 V, 50 Hz

45 kW

Rated operational power at AC-3, 415 V, 50 Hz

45 kW

Rated operational power at AC-3, 690 V, 50 Hz

37 kW

Rated operational power at AC-23A, 220/230 V, 50 Hz

30 kW

Rated operational power at AC-23A, 400 V, 50 Hz

55 kW

Rated operational power at AC-23A, 500 V, 50 Hz

75 kW

Rated operational power at AC-23A, 690 V, 50 Hz

37 kW

Rated operational voltage (Ue) at AC - max

690 V

Rated uninterrupted current (Iu)

160 A

Uninterrupted current

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

3

Number of contacts in series at DC-23A, 120 V

3

Switching capacity (main contacts, general use)

200 A, Rated uninterrupted current max. (UL/CSA)

Switching capacity (auxiliary contacts, general use)

10A, IU, (UL/CSA)

Switching capacity (auxiliary contacts, pilot duty)

A600 (UL/CSA)

Rated making capacity up to 690 V (cos phi to IEC/EN 60947-3)

1050 A

Voltage per contact pair in series

42 V

Motor rating

Assigned motor power at 115/120 V, 60 Hz, 1-phase

10 HP

Assigned motor power at 115/120 V, 60 Hz, 3-phase

20 HP

Assigned motor power at 230/240 V, 60 Hz, 1-phase

25 HP

Assigned motor power at 230/240 V, 60 Hz, 3-phase

40 HP

Assigned motor power at 277 V, 60 Hz, 1-phase

25 HP

Assigned motor power at 460/480 V, 60 Hz, 3-phase

60 HP

Assigned motor power at 575/600 V, 60 Hz, 3-phase

60 HP

Contacts

Control circuit reliability

1 failure per 100,000 switching operations statistically determined, at 24 V DC, 10 mA)

Number of auxiliary contacts (change-over contacts)

0

Number of auxiliary contacts (normally closed contacts)

0

Number of auxiliary contacts (normally open contacts)

0

Design verification

Equipment heat dissipation, current-dependent P_{vid}

5 W

Heat dissipation capacity P_{diss}

0 W

Heat dissipation per pole, current-dependent P_{vid}

5 W

Rated operational current for specified heat dissipation (I_n)

160 A

Static heat dissipation, non-current-dependent P_{vs}

0 W

10.2.2 Corrosion resistance

Meets the product standard's requirements.

10.2.3.1 Verification of thermal stability of enclosures

Meets the product standard's requirements.

10.2.3.2 Verification of resistance of insulating materials to normal heat

Meets the product standard's requirements.

10.2.3.3 Resist. of insul. mat. to abnormal heat/fire by internal elect. effects

Meets the product standard's requirements.

10.2.4 Resistance to ultra-violet (UV) radiation

UV resistance only in connection with protective shield.

10.2.5 Lifting

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

10.2.6 Mechanical impact

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

10.2.7 Inscriptions

Meets the product standard's requirements.

Actuator

Actuator color

Black

Actuator type

Door coupling rotary drive

Zdroje

Declarations of conformity

[DA-DC-00004930.pdf](#)

[DA-DC-00004899.pdf](#)

eCAD model

[ETN.P5-160_EA_SVB-SW_N](#)

[ETN.280927.edz](#)

Instalační návody

[IL03802010Z](#)

mCAD model

[eaton-cadenas-front_view-p5_125_ea_svb_n_front.pra](#)

[p5_160_ea_svb_sw_n](#)

[eaton-cadenas-side_view-p5_125_ea_svb_n_side.pra](#)

[eaton-cadenas-path-lasttrennschalter-assemblies-](#)

[p5_125_ea_svb_n_asmtpl.prj](#)

[p5_160_ea_svb_sw_n.stp](#)

Schémata zapojení

[1150SWI-224-2](#)

[eaton-rotary-switches-p5-main-switch-wiring-diagram-002.eps](#)

Výkresy

[115X070](#)

[115X315](#)

[eaton-rotary-switches-mounting-p5-main-switch-dimensions-003.eps](#)

Výkresy

[000Z427](#)

[1150DRW-6](#)

[1150SPC-194](#)

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.

10.9.2 Power-frequency electric strength

Is the panel builder's responsibility.

10.9.3 Impulse withstand voltage

Is the panel builder's responsibility.

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.



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