Product specifications

Eaton 031607

Catalog Number: 031607

Eaton Moeller® series P3 Main switch, P3, 63 A, flush mounting, 3 pole, Emergency switching off function, With red rotary handle and yellow locking ring, Lockable in the 0 (Off) position

General specifications

Product Name
Eaton Moeller® series P3 Main switch

Catalog Number
031607

Model Code
P3-63/EA/SVB

EAN
4015080316077

Product Length/Depth
128 mm

Product Height
102 mm

Product Width
87 mm

Product Weight
.426 kg

Certifications
UL
UL Category Control No.: NLRV
IEC/EN 60947
CSA Class No.: 3211-05
CSA-C22.2 No. 60947-4-1-14
CSA File No.: 012528
UL 60947-4-1
CE
UL File No.: E36332
VDE 0660
IEC/EN 60204
CSA-C22.2 No. 94
CSA
IEC/EN 60947-3

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

Product specifications

Rated operational current for specified heat dissipation (In)

63 A

10.11 Short-circuit rating

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

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

50 A

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

30 kW

10.4 Clearances and creepage distances

Meets the product standard's requirements.

Mounting method

Flush mounting

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

640 A

10.2.3.1 Verification of thermal stability of enclosures

Meets the product standard's requirements.

Number of switches

1

Fitted with:

Red rotary handle and yellow locking ring

Degree of protection (front side)

IP65

Short-circuit current rating (basic rating)

10 kA, SCCR (UL/CSA)
150A, max. Fuse, SCCR (UL/CSA)

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

25 A

Rated conditional short-circuit current (Iq)

4 kA (Load side)
100 kA (Supply side)

Actuator type

Door coupling rotary drive

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

800 A

Ambient operating temperature - max

Resources

Brochures

Brochure - T Rotary Cam switch and P Switch-disconnector

Catalogs

P Switch-disconnectors and T Rotary cam switches catalogue
CA042001EN

P1-40 Switch-disconnectors

Compliance information

UKCA P3 switch disconnectors and accessories

CE P3 switch disconnectors and accessories

Drawings

eaton-rotary-switches-padlock-t0-main-switch-dimensions.eps

eaton-rotary-switches-mounting-p3-main-switch-dimensions-005.eps

115X070

115X127

1150DRW-6

eaton-rotary-switches-mounting-p1-main-switch-3d-drawing.eps

1150SPC-194

eaton-general-mounting-p1-main-switch-symbol.eps

eaton-rotary-switches-t0-main-switch-symbol.eps

000Z427

eCAD model

DA-CE-ETN.P3-63_EA_SVB

Installation instructions

IL03802002Z

mCAD model

DA-CS-p3_zz05

DA-CD-p3_zz05

Wiring diagrams

115S009-2

eaton-rotary-switches-on-off-switch-p3-main-switch-wiring-diagram.eps

50 °C

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

3 HP

Features

Version as emergency stop installation
Version as maintenance-/service switch
Version as main switch

Electrical connection type of main circuit

Screw connection

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

590 A

Number of poles

3

Ambient operating temperature - min

-25 °C

10.6 Incorporation of switching devices and components

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

Rated uninterrupted current (Iu)

63 A

10.2.6 Mechanical impact

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

10.3 Degree of protection of assemblies

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

Operating frequency

1200 Operations/h

Product Category

Main switch

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

2

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

50 A

Terminal capacity

1 x (2.5 - 35) mm², solid or stranded
2 x (2.5 - 10) mm², solid or stranded
14 - 2 AWG, solid or flexible with ferrule
1 x (1.5 - 25) mm², flexible with ferrules to DIN 46228

2 x (1.5 - 6) mm², flexible with ferrules to DIN 46228

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

1

Heat dissipation capacity Pdiss

0 W

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

40 HP

Assigned motor power at 200/208 V, 60 Hz, 1-phase

7.5 HP

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

63 A

10.9.2 Power-frequency electric strength

Is the panel builder's responsibility.

Overvoltage category

III

Degree of protection

NEMA 12

Actuator color

Red

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

63 A

Pollution degree

3

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

45 kW

Rated impulse withstand voltage (Uimp)

6000 V AC

Switching power at 400 V

30 kW

Voltage per contact pair in series

60 V

Functions

Emergency switching off function

Interlockable

Tightening torque

3 Nm, Screw terminals

26.5 lb-in, Screw terminals

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

30 kW

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

22.1 A

10.2.2 Corrosion resistance

Meets the product standard's requirements.

10.2.4 Resistance to ultra-violet (UV) radiation

UV resistance only in connection with protective shield.

10.2.7 Inscriptions

Meets the product standard's requirements.

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

55 A

Number of auxiliary contacts (normally open contacts)

0

Rated operational power at AC-3, 500 V, 50 Hz

30 kW

Shock resistance

15 g, Mechanical, According to IEC/EN 60068-2-27, Half-sinusoidal shock 20 ms

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

15 HP

Ambient operating temperature (enclosed) - min

-25 °C

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

30 kW

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

63 A

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

50 A

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

18.5 kW

10.12 Electromagnetic compatibility

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

10.2.5 Lifting

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

Locking facility

Lockable in the 0 (Off) position

Ambient operating temperature (enclosed) - max

40 °C

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

63 A

Rated operational voltage (Ue) at AC - min

690 V

10.8 Connections for external conductors

Is the panel builder's responsibility.

Screw size

M5, Terminal screw

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

50 HP

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)

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

63 A

Rated permanent current at AC-21, 400 V

63 A

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

30 kW

Climatic proofing

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

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

Device construction

Built-in device fixed built-in technique

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

600 A

Static heat dissipation, non-current-dependent Pvs

0 W

10.9.3 Impulse withstand voltage

Is the panel builder's responsibility.

10.5 Protection against electric shock

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

Safe isolation

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

Mounting position

As required

Safety parameter (EN ISO 13849-1)

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

10.13 Mechanical function

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

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

55 kW

10.9.4 Testing of enclosures made of insulating material

Is the panel builder's responsibility.

Heat dissipation per pole, current-dependent Pvid

4.5 W

Switching capacity (auxiliary contacts, general use)

10A, IU, (UL/CSA)

Rated operating voltage (Ue) - min

690 V

Uninterrupted current

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

Equipment heat dissipation, current-dependent Pvid

0 W

Assigned motor power at 200/208 V, 60 Hz, 3-phase

15 HP

Suitable for

Branch circuits, suitable as motor disconnect, (UL/CSA)
Front mounting 4-hole

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

340 A

Accessories

Auxiliary contact or neutral conductor fitted by user.

Number of auxiliary contacts (normally closed contacts)

0

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

ms

63 A

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.

Lifespan, mechanical

100,000 Operations

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

2

Control circuit reliability

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

Rated short-time withstand current (Icw)

1.26 kA

Number of auxiliary contacts (change-over contacts)

0

Rated operational voltage (Ue) at AC - max

690 V

10.7 Internal electrical circuits and connections

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.

Switching capacity (main contacts, general use)

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

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

3

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

44 A

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

10 HP

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

51 A

Rated permanent current at AC-23, 400 V

63 A

Short-circuit protection rating

80 A gG/gL, Fuse, Contacts

Switching capacity (auxiliary contacts, pilot duty)

A600 (UL/CSA)

P600 (UL/CSA)

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