

# Eaton 255888

Catalog Number: 255888

Eaton Moeller® series P1 Main switch, P1, 25 A, surface mounting, 3 pole, 1 N/O, 1 N/C, Emergency switching off function, With red rotary handle and yellow locking ring, UL/CSA

## General specifications

Product Name	Catalog Number
Eaton Moeller® series P1 Main switch	255888
Product Length/Depth	Product Height
115 mm	180 mm
Product Width	Product Weight
100 mm	0.495 kg
Certifications	
CE	
UL Category Control No.: NLRV	
UL File No.: E36332	
VDE 0660	
CSA-C22.2 No. 60947-4-1-14	
CSA-C22.2 No. 94	
IEC/EN 60204	
UL	
CSA	
CSA Class No.: 3211-05	
CSA File No.: 012528	
UL 60947-4-1	
IEC/EN 60947-3	
IEC/EN 60947	



## Product specifications

### Product Category

Main switch

### Features

Version as emergency stop installation

Version as main switch

Version as maintenance-/service switch

### Actuator color

Red

### 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.

### 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

## Resources

### Brochures

Brochure - T Rotary Cam switch and P Switch-disconnector

### Catalogs

P Switch-disconnectors and T Rotary cam switches catalogue  
CA042001EN

### Declarations of conformity

DA-DC-00005061.pdf

DA-DC-00005059.pdf

### Drawings

eaton-rotary-switches-p1-main-switch-dimensions-002.eps

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

eaton-general-totally-insulated-t0-main-switch-symbol.eps

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

eaton-general-switch-t0-main-switch-symbol.eps

### eCAD model

ETN.255888.edz

### Installation instructions

IL03802001Z

### Installation videos

Eaton's P Switch-disconnectors used in a factory

### mCAD model

DA-CS-bauform5

DA-CD-bauform5

### Product notifications

MZ008006ZU\_Orderform\_Customized\_Switch.pdf

MZ008005ZU\_Orderform\_Customized\_Switch.pdf

### Wiring diagrams

eaton-rotary-switches-contact-p1-main-switch-wiring-diagram.eps

evaluated.

#### 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.

#### 10.9.2 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.

#### Fitted with:

Red rotary handle and yellow locking ring

#### Operating frequency

1200 Operations/h

#### Pollution degree

3

#### Climatic proofing

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

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

#### Rated impulse withstand voltage (Uimp)

6000 V AC

#### Rated permanent current at AC-21, 400 V

25 A

#### Rated permanent current at AC-23, 400 V

25 A

Rated uninterrupted current (I<sub>u</sub>)

25 A

Static heat dissipation, non-current-dependent P<sub>vs</sub>

0 W

Switching power at 400 V

13 kW

Voltage per contact pair in series

60 V

Accessories

Auxiliary contact or neutral conductor fitted by user.

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

7.5 kW

Device construction

Complete device in housing

Rated short-time withstand current (I<sub>cw</sub>)

0.64 kA

640 A, Contacts, 1 second

Electrical connection type of main circuit

Screw connection

Mounting position

As required

Actuator type

Door coupling rotary drive

Ambient operating temperature - max

40 °C

Ambient operating temperature - min

-25 °C

Ambient operating temperature (enclosed) - max

40 °C

Ambient operating temperature (enclosed) - min

-25 °C

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

1 HP

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

2 HP

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

3 HP

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

3 HP

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

5 HP

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

10 HP

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

15 HP

Equipment heat dissipation, current-dependent  $P_{vid}$

1.1 W

Heat dissipation capacity  $P_{diss}$

0 W

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

1.1 W

Number of auxiliary contacts (change-over contacts)

0

Number of auxiliary contacts (normally closed contacts)

1

Rated conditional short-circuit current ( $I_q$ )

50 kA

Overvoltage category

III

Control circuit reliability

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

Degree of protection (front side)

IP65

Number of poles

3

Mounting method

Surface mounting

Degree of protection

NEMA 12

Suitable for

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

Ground mounting

## Functions

Emergency switching off function

Interlockable

## Number of switches

1

## Safe isolation

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

## Screw size

M4, Terminal screw

## Shock resistance

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

## Lifespan, mechanical

300,000 Operations

## Load rating

1.6 x I<sub>e</sub> (with intermittent operation class 12, 40 % duty factor)

2 x I<sub>e</sub> (with intermittent operation class 12, 25 % duty factor)

1.3 x I<sub>e</sub> (with intermittent operation class 12, 60 % duty factor)

## Switching capacity (auxiliary contacts, general use)

10A, IU, (UL/CSA)

## Switching capacity (auxiliary contacts, pilot duty)

P600 (UL/CSA)

A600 (UL/CSA)

## Terminal capacity

1 x (1 - 4) mm<sup>2</sup>, flexible with ferrules to DIN 46228

2 x (1 - 4) mm<sup>2</sup>, flexible with ferrules to DIN 46228

1 x (1.5 - 6) mm<sup>2</sup>, solid or stranded

2 x (1.5 - 6) mm<sup>2</sup>, solid or stranded

14 - 8 AWG, solid or flexible with ferrule

## Switching capacity (main contacts, general use)

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

## Safety parameter (EN ISO 13849-1)

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

## Number of auxiliary contacts (normally open contacts)

1

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

3

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

1

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

2

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

2

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

190 A

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

150 A

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

170 A

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

150 A

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

240 A

Rated operating voltage (Ue) - max

690 V

Rated operating voltage (Ue) - min

690 V

Rated operational voltage (Ue) at AC - max

690 V

Short-circuit current rating (basic rating)

5 kA, SCCR (UL/CSA)

110A, max. Fuse, SCCR (UL/CSA)

Short-circuit current rating (high fault)

10 kA, SCCR (UL/CSA)

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

Short-circuit protection rating

25 A gG/gL, Fuse, Contacts

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

25 A

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

25 A

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

25 A

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

17.4 A

Rated operational current (I<sub>e</sub>) at AC-23A, 690 V

12.6 A

Rated operational current (I<sub>e</sub>) at AC-3, 220 V, 230 V, 240 V

19.6 A

Rated operational current (I<sub>e</sub>) at AC-3, 380 V, 400 V, 415 V

15.2 A

Rated operational current (I<sub>e</sub>) at AC-3, 500 V

12.1 A

Rated operational current (I<sub>e</sub>) at AC-3, 660 V, 690 V

8.8 A

Rated operational current (I<sub>e</sub>) at DC-1, load-break switches I/r = 1 ms

25 A

Rated operational current (I<sub>e</sub>) at DC-23A, 120 V

12 A

Rated operational current (I<sub>e</sub>) at DC-23A, 24 V

25 A

Rated operational current (I<sub>e</sub>) at DC-23A, 48 V

25 A

Rated operational current (I<sub>e</sub>) at DC-23A, 60 V

25 A

Rated operational current for specified heat dissipation (I<sub>n</sub>)

25 A

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

5.5 kW

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

13 kW

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

11 kW

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

11 kW

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

7.5 kW

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

7.5 kW

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

7.5 kW



#### Tightening torque

1.6 Nm, Screw terminals

14.1 lb-in, Screw terminals

#### Uninterrupted current

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

#### Rated Switching Capacity

1 HP at 120 V AC, single-phase

10 HP at 480 V AC, three-phase

15 HP at 600 V AC, three-phase

2 HP at 200 V AC, single-phase

3 HP at 200 V AC, three-phase

3 HP at 240 V AC, single-phase

5 HP at 240 V AC, three-phase



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