Specifications

Eaton 221642

Catalog Number: 221642

Eaton Moeller® series T3 Star-delta switches, T3, 32 A, surface mounting, 5 contact unit(s), Contacts: 10, 60 °, maintained, With 0 (Off) position, With spring-return to 0, B>0-Y-D, Design number 15892

General specifications

Product Name
Eaton Moeller® series T3 Star-delta switch

Catalog Number
221642

EAN
4015082216429

Product Length/Depth
181 mm

Product Height
180 mm

Product Width
100 mm

Product Weight
0.658 kg

Compliances
CE Marked

Certifications
EN 60947-3
UL 508
CSA Std. C22.2 No. 14-05
IEC 60947
VDE
UL
CSA
CSA File No.: 012528
UL Category Control No.: NLRV
UL File No.: E36332
CSA-C22.2 No. 60947-4-1-14
CSA Class No.: 3211-07
VDE 0660
CSA-C22.2 No. 94

IEC/EN 60204

CE

47

47-

UL 60947-4-1

Catalog Notes

Rated Short-time Withstand Current

Product specifications

Type

Star-delta switch

Accessories

Black thumb grip and front plate

Amperage Rating

32A

Product Category

Control switches

Voltage rating

690 V

Features

Complete device in housing

Actuator function

Spring-return to 0

Maintained

With 0 (Off) position

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.

Resources

Brochures

Brochure - T Rotary Cam switch and P Switch-disconnector

Catalogs

P1-40 Switch-disconnectors

P Switch-disconnectors and T Rotary cam switches catalogue

CA042001EN

Declarations of conformity

DA-DC-00004894.pdf

DA-DC-00004923.pdf

Drawings

eaton-rotary-switches-dimensions-t3-main-switch-dimensions.eps

eaton-rotary-switches-t3-changeover-switch-dimensions-003.eps

eaton-general-rotary-switch-t0-step-switch-symbol.eps

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

eaton-rotary-switches-front-plate-t0-star-delta-switch-symbol-002.eps

eCAD model

ETN.221642.edz

Installation instructions

IL03801008Z2021_06.pdf

Installation videos

Eaton's P Switch-disconnectors used in a factory

mCAD model

DA-CS-bauform10

DA-CD-bauform10

Product notifications

MZ008006ZU_Orderform_Customized_Switch.pdf

MZ008005ZU_Orderform_Customized_Switch.pdf

Specifications and datasheets

Eaton Specification Sheet - 221642

Wiring diagrams

eaton-rotary-switches-t0-star-delta-switch-wiring-diagram-017.eps

eaton-rotary-switches-t0-star-delta-switch-wiring-diagram-018.eps

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.

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:

Black thumb grip and front plate
Retraction in 0-position
0 (off) position

Operating frequency

1200 Operations/h

Pollution degree

3

Climatic proofing

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

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

Enclosure material

Plastic

Rated impulse withstand voltage (Uimp)

6000 V AC

Actuator type

Short thumb-grip

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

1.5 HP

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

3 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

3 HP

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

7.5 HP

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

10 HP

Equipment heat dissipation, current-dependent Pvid

0 W

Heat dissipation capacity Pdiss

0 W

Heat dissipation per pole, current-dependent Pvid

1.1 W

Number of auxiliary contacts (change-over contacts)

0

Number of auxiliary contacts (normally closed contacts)

0

Number of auxiliary contacts (normally open contacts)

0

Number of contact units

5

Rated short-time withstand current (Icw)

650 A, Contacts, 1 second

Electrical connection type of main circuit

Screw connection

Mounting position

As required

Rated conditional short-circuit current (Iq)

1 kA

Mounting method

Surface

Surface mounting

Overvoltage category

III

Control circuit reliability

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

Number of poles

3

Degree of protection

NEMA 1

NEMA 12

IP65

Number of contacts

10

Model

Star-delta switch

Degree of protection (front side)

IP65

NEMA 12

Inscription

" B>0-Y-D "

Lifespan, mechanical

500,000 Operations

Safe isolation

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

Rated operational current (Ie)

32 A at AC-3, 230 V star-delta

32 A at AC-3, 400 V star-delta

25.5 A at AC-3, 690 V star-delta

32 A at AC-3, 500 V star-delta

Screw size

M4, Terminal screw

Shock resistance

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

Load rating

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

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

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

Switching capacity (auxiliary contacts, general use)

10A, IU, (UL/CSA)

Tightening torque

1.6 Nm, Screw terminals

17.7 lb-in, Screw terminals

Switching capacity (auxiliary contacts, pilot duty)

A600 (UL/CSA)

P600 (UL/CSA)

Number of contacts in series at DC-21A, 240 V

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, 240 V

5

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

2

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

3

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

260 A

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

260 A

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

240 A

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

170 A

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

320 A

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

32 A

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

32 A

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

32 A

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

26.4 A

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

17 A

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

23.7 A

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

23.7 A

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

23.7 A

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

14.7 A

Switching capacity (main contacts, general use)

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

Safety parameter (EN ISO 13849-1)

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

Short-circuit protection rating

35 A gG/gL, Fuse, Contacts

Terminal capacity (flexible with ferrule)

1 x (0.75 - 4) mm², ferrules to DIN 46228

2 x (0.75 - 4) mm², ferrules to DIN 46228

Suitable for

Ground mounting

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

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

25 A

Rated operational current (Ie) at DC-13, control switches L/R = 50 ms

20 A

Rated operational current (Ie) at DC-21, 240 V

1 A

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

12 A

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

25 A

Rated operational current (Ie) at DC-23A, 240 V

5 A

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

25 A

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

25 A

Rated operational current for specified heat dissipation (In)

32 A

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

7.5 kW

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

15 kW

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

15 kW

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

15 kW

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

18.5 kW

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

11 kW

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

11 kW

Rated operational power star-delta at 220/230 V, 50 Hz

7.5 kW

Rated operational power star-delta at 380/400 V, 50 Hz

15 kW

Rated operational power star-delta at 500 V, 50 Hz

18.5 kW

Rated operational power star-delta at 690 V, 50 Hz

22 kW

Rated operational voltage (Ue) at AC - max

690 V

Rated uninterrupted current (Iu)

32 A

Static heat dissipation, non-current-dependent Pvs

0 W

Switching angle

60 °

Voltage per contact pair in series

60 V

Short-circuit current rating (high fault)

10 kA, SCCR (UL/CSA)

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

Short-circuit current rating (basic rating)

5 kA, SCCR (UL/CSA)

40A, max. Fuse, SCCR (UL/CSA)

Terminal capacity (solid/flexible with ferrule AWG)

14 - 10

Terminal capacity (solid/stranded)

2 x (1 - 6) mm²

1 x (1 - 6) mm²

Uninterrupted current

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

Design

15892

Switching capacity

1.5 HP at 120 V AC, single-phase

10 HP at 600 V AC, three-phase

3 HP at 200 V AC, single-phase

3 HP at 200 V AC, three-phase

3 HP at 240 V AC, single-phase

3 HP at 240 V AC, three-phase

7.5 HP at 480 V AC, three-phase

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