

Specifications

Eaton 255902

Eaton Moeller® series P3 On-Off switch, P3, 100 A, surface mounting, 3 pole, with black thumb grip and front plate, UL/CSA

General specifications

PRODUCT NAME	Eaton Moeller® series P3 On-off switch
CATALOG NUMBER	255902
EAN	4015082559021
PRODUCT LENGTH/DEPTH	162 mm
PRODUCT HEIGHT	280 mm
PRODUCT WIDTH	200 mm
PRODUCT WEIGHT	1.46 kg
CERTIFICATIONS	IEC/EN 60947-3 UL Category Control No.: NLRV CSA-C22.2 No. 94 CSA File No.: 012528 CSA-C22.2 No. 60947-4-1- 14 CSA UL File No.: E36332 CSA Class No.: 3211-05 CE IEC/EN 60204 IEC/EN 60947 UL 60947-4-1 VDE 0660 UL
MODEL CODE	P3-100/I5-NA



Powering Business Worldwide

Features & Functions

FITTED WITH: Black thumb grip and front plate

NUMBER OF POLES 3

General

ACCESSORIES Auxiliary contact or neutral conductor fitted by user.

DEGREE OF PROTECTION NEMA 12

DEGREE OF PROTECTION (FRONT SIDE) IP65

LIFESPAN, MECHANICAL 100,000 Operations

MOUNTING METHOD Surface mounting

MOUNTING POSITION As required

OPERATING FREQUENCY 1200 Operations/h

OVERVOLTAGE CATEGORY III

POLLUTION DEGREE 3

PRODUCT CATEGORY On-Off switch

RATED IMPULSE WITHSTAND VOLTAGE (UIMP) 6000 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

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

SUITABLE FOR Ground mounting
Branch circuits, suitable as motor disconnect, (UL/CSA)

Climatic environmental conditions

AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
--	--------

AMBIENT OPERATING TEMPERATURE - MAX	40 °C
--	-------

AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MIN	-25 °C
---	--------

AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX	40 °C
---	-------

CLIMATIC PROOFING	Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
--------------------------	--

Terminal capacities

TERMINAL CAPACITY	1 x (2.5 - 35) mm ² , solid or stranded 1 x (1.5 - 25) mm ² , flexible with ferrules to DIN 46228 14 - 2 AWG, solid or flexible with ferrule 2 x (1.5 - 6) mm ² , flexible with ferrules to DIN 46228 2 x (2.5 - 10) mm ² , solid or stranded
--------------------------	---

SCREW SIZE	M5, Terminal screw
-------------------	--------------------

TIGHTENING TORQUE	3 Nm, Screw terminals 26.5 lb-in, Screw terminals
--------------------------	--

Electrical rating

**RATED BREAKING
CAPACITY AT 220/230 V
(COS PHI TO IEC 60947-3)** 760 A

**RATED BREAKING
CAPACITY AT 400/415 V
(COS PHI TO IEC 60947-3)** 740 A

**RATED BREAKING
CAPACITY AT 500 V (COS
PHI TO IEC 60947-3)** 880 A

**RATED BREAKING
CAPACITY AT 660/690 V
(COS PHI TO IEC 60947-3)** 520 A

**RATED OPERATIONAL
CURRENT (IE) AT AC-3,
220 V, 230 V, 240 V** 71 A

**RATED OPERATIONAL
CURRENT (IE) AT AC-3,
380 V, 400 V, 415 V** 71 A

**RATED OPERATIONAL
CURRENT (IE) AT AC-3,
500 V** 65 A

**RATED OPERATIONAL
CURRENT (IE) AT AC-3,
660 V, 690 V** 23.8 A

**RATED OPERATIONAL
CURRENT (IE) AT AC-21,
440 V** 100 A

**RATED OPERATIONAL
CURRENT (IE) AT AC-23A,
230 V** 100 A

**RATED OPERATIONAL
CURRENT (IE) AT AC-23A,
400 V, 415 V** 100 A

**RATED OPERATIONAL
CURRENT (IE) AT AC-23A,
500 V** 96 A

**RATED OPERATIONAL
CURRENT (IE) AT AC-23A,
690 V** 68 A

**RATED OPERATIONAL
CURRENT (IE) AT DC-1,
LOAD-BREAK SWITCHES
L/R = 1 MS** 100 A

**RATED OPERATIONAL
CURRENT (IE) AT DC-23A,
24 V** 50 A

**RATED OPERATIONAL
CURRENT (IE) AT DC-23A,
48 V** 50 A

Short-circuit rating

**RATED CONDITIONAL
SHORT-CIRCUIT CURRENT
(IQ)** 4 kA (Load side)
80 kA (Supply side)

**RATED SHORT-TIME
WITHSTAND CURRENT
(ICW)** 2 kA

**SHORT-CIRCUIT CURRENT
RATING (BASIC RATING)** 10 kA, SCCR (UL/CSA)
150A, max. Fuse, SCCR
(UL/CSA)

**SHORT-CIRCUIT
PROTECTION RATING** 100 A gG/gL, Fuse,
Contacts

RATED OPERATIONAL CURRENT (IE) AT DC-23A, 60 V	50 A
RATED OPERATIONAL CURRENT (IE) AT DC-23A, 120 V	25 A
RATED OPERATIONAL POWER AT AC-3, 380/400 V, 50 HZ	37 kW
RATED OPERATIONAL POWER AT AC-3, 415 V, 50 HZ	37 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	55 kW
RATED OPERATIONAL POWER AT AC-23A, 690 V, 50 HZ	55 kW
RATED OPERATIONAL VOLTAGE (UE) AT AC - MAX	690 V
RATED UNINTERRUPTED CURRENT (IU)	100 A
UNINTERRUPTED CURRENT	Rated uninterrupted current I _u is specified for max. cross-section.

Switching capacity

LOAD RATING	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)
	1.3 x I _e (with intermittent operation class 12, 60 % duty factor)

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

NUMBER OF CONTACTS IN SERIES AT DC-23A, 120 V

3

SWITCHING CAPACITY (MAIN CONTACTS, GENERAL USE)

100 A, If used with neutral conductor IU = max. 90 A, Rated uninterrupted current max. (UL/CSA)

SWITCHING CAPACITY (AUXILIARY CONTACTS, GENERAL USE)

10A, IU, (UL/CSA)

SWITCHING CAPACITY (AUXILIARY CONTACTS, PILOT DUTY)

P600 (UL/CSA)
A600 (UL/CSA)

RATED MAKING CAPACITY UP TO 690 V (COS PHI TO IEC/EN 60947-3)

950 A

VOLTAGE PER CONTACT PAIR IN SERIES

60 V

Motor rating

ASSIGNED MOTOR

POWER AT 115/120 V, 60 HZ, 1-PHASE 5 HP

ASSIGNED MOTOR

POWER AT 200/208 V, 60 HZ, 1-PHASE 10 HP

ASSIGNED MOTOR

POWER AT 200/208 V, 60 HZ, 3-PHASE 20 HP

ASSIGNED MOTOR

POWER AT 230/240 V, 60 HZ, 1-PHASE 15 HP

ASSIGNED MOTOR

POWER AT 230/240 V, 60 HZ, 3-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 75 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
--	---

Actuator

ACTUATOR COLOR	Black
-----------------------	-------

ACTUATOR TYPE	Short thumb-grip
----------------------	------------------

Design verification

EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	7.5 W
---	-------

HEAT DISSIPATION CAPACITY PDISS	0 W
--	-----

HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	7.5 W
--	-------

RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	100 A
--	-------

STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS	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.
----------------------------	--

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.

Resources

BROCHURES

[Brochure - T Rotary Cam switch and P Switch-disconnector](#)

CATALOGUES

[P Switch-disconnectors and T Rotary cam switches catalogue CA042001EN](#)

DECLARATIONS OF CONFORMITY

[DA-DC-00004896.pdf](#) [DA-DC-00004924.pdf](#)

DRAWINGS

[eaton-rotary-switches-p3-on-off-switch-dimensions-005.eps](#)

	eaton-general-totally-insulated-t0-main-switch-symbol.eps eaton-general-rotary-switch-t0-step-switch-symbol.eps eaton-rotary-switches-front-plate-t0-on-off-switch-symbol-002.eps
ECAD MODEL	DA-CE-ETN.P3-100_I5-NA
INSTALLATION INSTRUCTIONS	eaton-rotary-switches-p3-63-p3-80-p3-100-cam-switch-disconnector-p3-instruction-leaflet-il03801010z.pdf
INSTALLATION VIDEOS	Eaton's P Switch-disconnectors used in a factory
MCAD MODEL	DA-CS-bauform16 DA-CD-bauform16
PRODUCT NOTIFICATIONS	MZ008006ZU Orderform Customized Switch.pdf MZ008005ZU Orderform Customized Switch.pdf
WIRING DIAGRAMS	eaton-rotary-switches-on-off-switch-p3-main-switch-wiring-diagram.eps

PROJECT NAME:
PROJECT NUMBER:
PREPARED BY:
DATE:



Eaton Corporation plc
Eaton House
30 Pembroke Road
Dublin 4, Ireland
Eaton.com

© 2025 Eaton. All Rights Reserved.

Follow us on social media to get the latest product and support information.

