

Specifications

Eaton 255905

Eaton Moeller® series P3 On-Off switch, P3, 100 A, surface mounting, 3 pole, Emergency switching off function, with red thumb grip and yellow front plate, UL/CSA

General specifications

PRODUCT NAME	Eaton Moeller® series P3 On-off switch
CATALOG NUMBER	255905
EAN	4015082559052
PRODUCT LENGTH/DEPTH	162 mm
PRODUCT HEIGHT	180 mm
PRODUCT WIDTH	200 mm
PRODUCT WEIGHT	1.46 kg
CERTIFICATIONS	CSA Class No.: 3211-05 UL 60947-4-1 CSA-C22.2 No. 94 UL File No.: E36332 CSA File No.: 012528 IEC/EN 60204 UL CSA-C22.2 No. 60947-4-1-14 IEC/EN 60947 UL Category Control No.: NLRV IEC/EN 60947-3 CE CSA VDE 0660
MODEL CODE	P3-100/I5-RT-NA

Features & Functions

FEATURES	Version as emergency stop installation
FITTED WITH:	Red thumb grip and yellow front plate
FUNCTIONS	Emergency switching off function
NUMBER OF POLES	Three-pole

General information

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

Terminal capacities

TERMINAL CAPACITY	2 x (2.5 - 10) mm ² , solid or stranded 2 x (1.5 - 6) mm ² , flexible with ferrules to DIN 46228 1 x (1.5 - 25) mm ² , flexible with ferrules to DIN 46228 14 - 2 AWG, solid or flexible with ferrule 1 x (2.5 - 35) mm ² , solid or stranded
SCREW SIZE	M5, Terminal screw
TIGHTENING TORQUE	26.5 lb-in, Screw terminals 3 Nm, 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

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

60 V	
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, 500 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	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	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)
	2 x I _e (with intermittent operation class 12, 25 % 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

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

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

Actuator

ACTUATOR COLOR Red

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	eaton-main-switch-declaration-of-conformity-uk251294en.pdf eaton-main-switch-declaration-of-conformity-eu250811en.pdf
DRAWINGS	eaton-rotary-switches-p3-on-off-switch-dimensions-005.eps eaton-rotary-switches-front-plate-t0-on-off-switch-symbol-003.eps eaton-general-rotary-switch-t0-step-switch-symbol.eps

	eaton-general-totally-insulated-t0-main-switch-symbol.eps
ECAD MODEL	DA-CE-ETN,P3-100 I5-RT-NA
INSTALLATION VIDEOS	Eaton's P Switch-disconnectors used in a factory
MCAD MODEL	DA-CD-bauform16 DA-CS-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.

