

Eaton 172828

Eaton Moeller® series P3 Main switch, P3, 100 A, rear mounting, 3 pole + N, Emergency switching off function, Lockable in the 0 (Off) position, With metal shaft for a control panel depth of 400 mm

PRODUCT NAME	Eaton Moeller® series P3 Main switch
CATALOG NUMBER	172828
PRODUCT LENGTH/DEPTH	340 mm
PRODUCT HEIGHT	84 mm
PRODUCT WIDTH	100 mm
PRODUCT WEIGHT	0.605 kg
CERTIFICATIONS	IEC/EN 60947-3 IEC/EN 60204 IEC/EN 60947 VDE 0660
CATALOG NOTES	Rated Short-time Withstand Current (Icw) for a time of 1 second

PRODUCT CATEGORY	Main switch
FEATURES	Version as main switch Version as maintenance- /service switch Version as emergency stop installation
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	Does not apply, since the

	eaton-switch-disconnector-p3-metal-shaft-il008009zu.pdf
	eaton-rotary-switches-on-off-switch-p3-main-switch-wiring-diagram-002.eps
	eaton-rotary-switches-p3-main-switch-dimensions-004.eps
	eaton-rotary-switches-front-plate-t0-on-off-switch-symbol-002.eps

IMPACT	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:	Red rotary handle and yellow locking ring Metal shaft for a control panel depth of 400 mm
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
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	6000 V AC
RATED PERMANENT CURRENT AT AC-21, 400 V	100 A
RATED PERMANENT CURRENT AT AC-23, 400 V	100 A
RATED UNINTERRUPTED CURRENT (IU)	100 A
STATIC HEAT DISSIPATION, NON-	0 W

CURRENT-DEPENDENT PVS	
SWITCHING POWER AT 400 V	55 kW
VOLTAGE PER CONTACT PAIR IN SERIES	60 V
ACCESSORIES	Auxiliary contact fitted by user.
RATED OPERATIONAL POWER AT AC-3, 500 V, 50 HZ	45 kW
DEVICE CONSTRUCTION	Built-in device fixed built-in technique
RATED SHORT-TIME WITHSTAND CURRENT (ICW)	2 kA
ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT	Screw connection
MOUNTING POSITION	As required
ACTUATOR TYPE	Short thumb-grip
AMBIENT OPERATING TEMPERATURE - MAX	50 °C
AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX	40 °C
AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MIN	-25 °C
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	0 W
HEAT DISSIPATION CAPACITY PDISS	0 W
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	7.5 W
NUMBER OF AUXILIARY CONTACTS (CHANGE-OVER CONTACTS)	0
NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)	0
RATED CONDITIONAL SHORT-CIRCUIT CURRENT (IQ)	4 kA (Load side) 80 kA (Supply side)

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	Four-pole
MOUNTING METHOD	Rear mounting
DEGREE OF PROTECTION	NEMA 12
SUITABLE FOR	Ground mounting Intermediate mounting
LOCKING FACILITY	Lockable in the 0 (Off) position
FUNCTIONS	Emergency switching off function Interlockable
NUMBER OF SWITCHES	1
SAFE ISOLATION	440 V AC, Between the contacts, According to EN 61140
SHOCK RESISTANCE	15 g, Mechanical, According to IEC/EN 60068-2-27, Half-sinusoidal shock 20 ms
LIFESPAN, MECHANICAL	100,000 Operations
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)
TERMINAL CAPACITY	1 x (1.5 - 25) mm ² , flexible with ferrules to DIN 46228 2 x (1.5 - 6) mm ² , flexible with ferrules to DIN 46228 1 x (2.5 - 35) mm ² , solid or stranded 2 x (2.5 - 10) mm ² , solid or stranded
SAFETY PARAMETER (EN ISO 13849-1)	B10d values as per EN ISO 13849-1, table C.1
NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)	0
NUMBER OF CONTACTS	3

IN SERIES AT DC-23A, 120 V	
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)	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 MAKING CAPACITY UP TO 690 V (COS PHI TO IEC/EN 60947-3)	950 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 PROTECTION RATING	100 A gG/gL, Fuse, Contacts
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	71 A

CURRENT (IE) AT AC-3, 220 V, 230 V, 240 V	
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 DC-1, LOAD-BREAK SWITCHES L/R = 1 MS	100 A
RATED OPERATIONAL CURRENT (IE) AT DC-23A, 120 V	25 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, 60 V	50 A
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	100 A
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 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	37 kW

HZ	
TIGHTENING TORQUE	3 Nm, Screw terminals
UNINTERRUPTED CURRENT	Rated uninterrupted current I _u is specified for max. cross-section.
HOUSING MATERIAL	Plastic

PROJECT NAME:

PROJECT NUMBER:

PREPARED BY:

:



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