





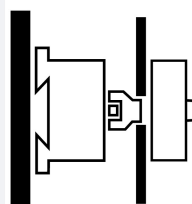
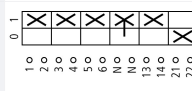
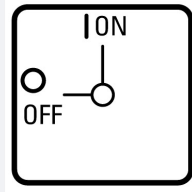
Main switch, 3 pole + N + 1 N/O + 1 N/C, 100 A, Emergency-Stop function, Lockable in the 0 (Off) position, rear mounting, with 400 mm metal shaft

EATON

Powering Business Worldwide™

Part no. P3-100/M4/K2-PR/N/HI11
Article no. 172832

Delivery program

Product range			Main switch maintenance switch Repair switch
Part group reference			P3
Stop Function			Emergency switching off function With red rotary handle and yellow locking ring
Notes			With metal shaft for a control panel depth of 400 mm
Number of poles			3 pole + N
Auxiliary contacts			
		N/O	1
		N/C	1
Locking facility			Lockable in the 0 (Off) position
Degree of Protection			Front IP65
Design			rear mounting 
Contact sequence			
Front plate no.			 FS 908
Motor rating AC-23A, 50 - 60 Hz			
400 V	P	kW	55
Rated uninterrupted current	I _u	A	100

Technical data

General			
Standards			IEC/EN 60947, VDE 0660, IEC/EN 60204 Switch-disconnector according to IEC/EN 60947-3
Climatic proofing			Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Ambient temperature			
Open		°C	-25 - +50
Enclosed		°C	-25 - +40
Overvoltage category/pollution degree			III/3
Rated impulse withstand voltage	U _{imp}	V AC	6000

Mechanical shock resistance		g	15
Mounting position			As required
Protection against direct contact when actuated from front (EN 50274)			Finger and back-of-hand proof

Contacts

Mechanical variables			
Number of poles			3 pole + N
Auxiliary contacts			
		N/O	1
		N/C	1
Electrical characteristics			
Rated operational voltage	U_e	V AC	690
Rated uninterrupted current	I_u	A	100
Note on rated uninterrupted current I_u			Rated uninterrupted current I_u is specified for max. cross-section.
Load rating with intermittent operation, class 12			
AB 25 % DF		$x I_e$	2
AB 40 % DF		$x I_e$	1.6
AB 60 % DF		$x I_e$	1.3
Short-circuit rating			
Fuse		A gG/gL	100
Rated short-time withstand current (1 s current)	I_{cw}	A_{rms}	2000
Note on rated short-time withstand current I_{cw}			Current for a time of 1 second
Rated conditional short-circuit current	I_q	kA	4

Switching capacity

cos ϕ rated making capacity as per IEC 60947-3		A	950
Rated breaking capacity cos ϕ to IEC 60947-3		A	
230 V		A	760
400/415 V		A	740
500 V		A	880
690 V		A	520
Safe isolation to EN 61140			
between the contacts		V AC	440
Current heat loss per contact at I_e		W	7.5
Current heat loss per auxiliary circuit at I_e (AC-15/230 V)		CO	0.2
Lifespan, mechanical	Operations	$x 10^6$	> 0.1
Maximum operating frequency	Operations/h		1200
AC			
AC-3			
Rating, motor load switch	P	kW	
220 V 230 V	P	kW	22
400 V 415 V	P	kW	37
500 V	P	kW	45
690 V	P	kW	37
Rated operational current motor load switch			
230 V	I_e	A	71
400V 415 V	I_e	A	71
500 V	I_e	A	65
690 V	I_e	A	23.8
AC-21A			
Rated operational current switch			
440 V	I_e	A	100
AC-23A			
Motor rating AC-23A, 50 - 60 Hz	P	kW	
230 V	P	kW	30
400 V 415 V	P	kW	55

500 V	P	kW	55
690 V	P	kW	55
Rated operational current motor load switch			
230 V	I _e	A	100
400 V 415 V	I _e	A	100
500 V	I _e	A	96
690 V	I _e	A	68
DC			
DC-1, Load-break switches L/R = 1 ms			
Rated operational current	I _e	A	100
Voltage per contact pair in series		V	60
DC-23A, motor load switch L/R = 15 ms			
24 V			
Rated operational current	I _e	A	50
Contacts		Quantity	1
48 V			
Rated operational current	I _e	A	50
Contacts		Quantity	2
60 V			
Rated operational current	I _e	A	50
Contacts		Quantity	2
120 V			
Rated operational current	I _e	A	25
Contacts		Quantity	3
Control circuit reliability at 24 V DC, 10 mA	Fault probability	H _F	< 10 ⁻⁵ , < 1 fault in 100000 operations

Terminal capacities

Solid or stranded		mm ²	1 x (2,5 - 35) 2 x (2,5 - 10)
Flexible with ferrules to DIN 46228		mm ²	1 x (1,5 - 25) 2 x (1,5 - 6)
Terminal screw			M5
Max. tightening torque		Nm	3

Technical safety parameters:

Notes			B10 _d values as per EN ISO 13849-1, table C1
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Rating data for approved types

Contacts			
Rated operational voltage	U _e	V AC	600
Rated uninterrupted current max.			
Main conducting paths			
General use	I _U	A	90
Auxiliary contacts			
General Use	I _U	A	10
Pilot Duty			A 600 P 600
Switching capacity			
Maximum motor rating			
Single-phase			
120 V AC		HP	5
200 V AC		HP	10
240 V AC		HP	15
Three-phase			
200 V AC		HP	20
240 V AC		HP	25
480 V AC		HP	60
600 V AC		HP	75
Short Circuit Current Rating		SCCR	

Basic Rating	kA	10
max. Fuse	A	150
Terminal capacity		
Solid or flexible conductor with ferrule	AWG	14 - 2
Terminal screw		M5
Tightening torque	lb-in	26.5

Design verification as per IEC/EN 61439

Technical data for design verification		
Operating ambient temperature min.	°C	-25
Operating ambient temperature max.	°C	50

Technical data ETIM 6.0

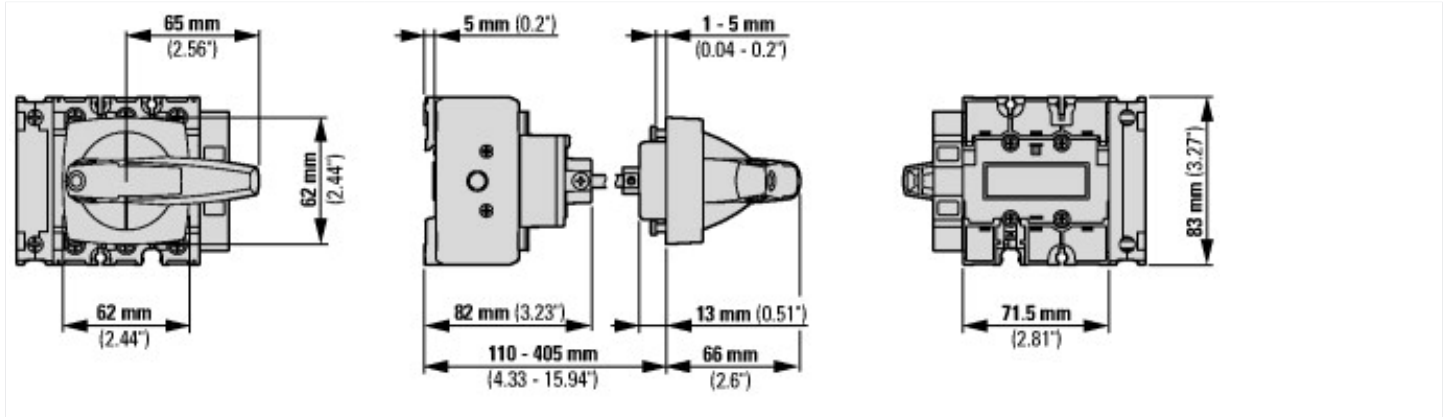
Low-voltage industrial components (EG000017) / Switch disconnecter (EC000216)		
Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnecter (ecl@ss8.1-27-37-14-03 [AKF060010])		
Version as main switch		Yes
Version as maintenance-/service switch		Yes
Version as safety switch		No
Version as emergency stop installation		No
Version as reversing switch		No
Max. rated operation voltage Ue AC	V	690
Rated operating voltage	V	690 - 690
Rated permanent current Iu	A	100
Rated permanent current at AC-21, 400 V	A	100
Rated operation power at AC-3, 400 V	kW	37
Rated short-time withstand current Icw	kA	2
Rated operation power at AC-23, 400 V	kW	55
Switching power at 400 V	kW	55
Conditioned rated short-circuit current Iq	kA	4
Number of poles		4
Number of auxiliary contacts as normally closed contact		1
Number of auxiliary contacts as normally open contact		1
Number of auxiliary contacts as change-over contact		0
Motor drive optional		No
Motor drive integrated		No
Voltage release optional		No
Device construction		Built-in device fixed built-in technique
Suitable for ground mounting		Yes
Suitable for front mounting 4-hole		No
Suitable for front mounting center		No
Suitable for distribution board installation		No
Suitable for intermediate mounting		Yes
Colour control element		Red
Type of control element		Toggle
Interlockable		Yes
Type of electrical connection of main circuit		Screw connection
Degree of protection (IP), front side		IP65

Approvals

Product Standards		UL 508; CSA-C22.2 No. 14-05; CSA-C22.2 No. 94; IEC/EN 60947-3; CE marking
UL File No.		E36332
UL Category Control No.		NLRV
CSA File No.		12528
CSA Class No.		3211-05

North America Certification		UL listed, CSA certified
Suitable for		Branch circuits, suitable as motor disconnect
Degree of Protection		IEC: IP65; UL/CSA Type 1, 12

Dimensions



Additional product information (links)

IL008009ZU Switch-disconnector P3: Metal shaft	
IL008009ZU Switch-disconnector P3: Metal shaft	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL008009ZU2016_07.pdf
Form for ordering non-standard front plates	http://ecat.moeller.net/flip-cat/?edition=HPLEN&startpage=4.87
Technical overview cam switch, switch-disconnector	http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&startpage=4.2
System overview cam switch T	http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&startpage=4.4
System overview switch-disconnector P	http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&startpage=4.6
Key to part numbers Cam switch	http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&startpage=4.8
Key to part numbers Switch-disconnector	http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&startpage=4.8
Switches for ATEX	http://www.coopercrouse-hinds.eu/en/products/25-ex-safety-and-main-current-switches.html