

# Main switch, 3 pole + 2 N/O + 2 N/C, 63 A, Emergency-Stop function, flush mounting



Part no. P3-63/EA/SVB/2HI11 Article no. 013198

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
Number of poles		3 pole
Auxiliary contacts		
\	N/0	2
<b>7</b>	N/C	2
Degree of Protection		Front IP65
Design		flush mounting
Function		LON

## Technical data

Rated uninterrupted current

400 V

Motor rating AC-23A, 50 - 60 Hz

General			
Standards			IEC/EN 60947, VDE 0660, IEC/EN 60204, CSA, UL Switch-disconnector according to IEC/EN 60947-3 NEMA12
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 <sub>imp</sub>	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			

kW

Α

30

63

P

Number of poles			2 note
Number of poles			3 pole
Auxiliary contacts		N/O	2
		N/O	2
Floatical abaycataristics		N/C	2
Electrical characteristics		V A C	200
Rated operational voltage	Ue	V AC	690
Rated uninterrupted current	l <sub>u</sub>	Α	63
Note on rated uninterrupted current !u			Rated uninterrupted current lu is specified for max. cross-section.
Load rating with intermittent operation, class 12			
AB 25 % DF		x I <sub>e</sub>	2
AB 40 % DF		x I <sub>e</sub>	1.6
AB 60 % DF		x I <sub>e</sub>	1.3
Short-circuit rating			
Fuse		A gG/gL	80
Rated short-time withstand current (1 s current)	I <sub>cw</sub>	A <sub>rms</sub>	1260
Note on rated short-time withstand current lcw			Current for a time of 1 second
Rated conditional short-circuit current	Iq	kA	4
Switching capacity			
cos φ rated making capacity as per IEC 60947-3		A	800
Rated breaking capacity cos φ to IEC 60947-3		A	
230 V		Α	640
400/415 V		Α	600
500 V		Α	590
690 V		Α	340
Safe isolation to EN 61140			
between the contacts		V AC	440
Current heat loss per contact at I <sub>e</sub>		W	4.5
Current heat loss per auxiliary circuit at I <sub>e</sub> (AC-15/230 V)		CO	0.2
Lifespan, mechanical	Operations	x 10 <sup>6</sup>	> 0.1
Maximum operating frequency	Operations/h		1200
AC			
AC-3			
Rating, motor load switch	Р	kW	
220 V 230 V	Р	kW	15
400 V 415 V	Р	kW	30
500 V	Р	kW	30
690 V	Р	kW	30
Rated operational current motor load switch			
230 V	l <sub>e</sub>	Α	51
400V 415 V	I <sub>e</sub>	Α	55
500 V	l <sub>e</sub>	Α	44
690 V	I <sub>e</sub>	Α	22.1
AC-21A			
Rated operational current switch			
440 V	I <sub>e</sub>	Α	63
AC-23A			
Motor rating AC-23A, 50 - 60 Hz	Р	kW	
230 V	Р	kW	18.5
400 V 415 V	Р	kW	30
500 V	Р	kW	45
690 V	Р	kW	55
Rated operational current motor load switch			
230 V	I <sub>e</sub>	Α	63
400 V 415 V	I <sub>e</sub>	Α	63

500 V	I <sub>e</sub>	Α	63
690 V	I <sub>e</sub>	Α	63
DC			
DC-1, Load-break switches L/R = 1 ms			
Rated operational current	I <sub>e</sub>	Α	63
Voltage per contact pair in series		V	60
DC-23A, motor load switch L/R = 15 ms		•	
24 V			
Rated operational current	I <sub>e</sub>	Α	50
Contacts	6	Quantity	
48 V		Quantity	
Rated operational current	l <sub>e</sub>	Α	50
Contacts	·e	Quantity	
60 V		Quantity	
Rated operational current	I <sub>e</sub>	Α	50
Contacts	·e	Quantity	
120 V		Quantity	
Rated operational current	l <sub>e</sub>	Α	25
	'e		
Control objectivity of 24 V DC 10 mA	Foult	Quantity	
Control circuit reliability at 24 V DC, 10 mA	Fault probability	H <sub>F</sub>	< 10 <sup>-5</sup> , < 1 fault in 100000 operations
Terminal capacities			
Solid or stranded		$\text{mm}^2$	1 x (2,5 - 35) 2 x (2,5 - 10)
Flexible with ferrules to DIN 46228		2	1 x (1.5 - 25)
TIEADIE WITH TEN LIES TO DITY 40220		mm <sup>2</sup>	2 x (1.5 - 6)
Terminal screw			M5
Max. tightening torque		Nm	3
Technical safety parameters:			
Notes			B10 <sub>d</sub> values as per EN ISO 13849-1, table C1
Rating data for approved types Contacts			
Rated operational voltage	U <sub>e</sub>	V AC	600
Rated uninterrupted current max.			
Main conducting paths			
General use	I <sub>U</sub>	Α	60
Auxiliary contacts			
General Use	I <sub>U</sub>	Α	10
Pilot Duty			A 600 P 600
Switching capacity			
Maximum motor rating			
Single-phase			
Single-phase 120 V AC		НР	3
		HP HP	3 7.5
120 V AC			
120 V AC 200 V AC		НР	7.5
120 V AC 200 V AC 240 V AC		НР	7.5
120 V AC 200 V AC 240 V AC Three-phase		HP HP	7.5
120 V AC 200 V AC 240 V AC Three-phase 200 V AC		HP HP	7.5 10 15
120 V AC 200 V AC 240 V AC Three-phase 200 V AC 240 V AC		HP HP HP	7.5 10 15 15
120 V AC 200 V AC 240 V AC Three-phase 200 V AC 240 V AC 480 V AC		HP HP HP	7.5 10 15 15 40
120 V AC 200 V AC 240 V AC Three-phase 200 V AC 240 V AC 480 V AC 600 V AC		HP HP HP HP	7.5 10 15 15 40
120 V AC 200 V AC 240 V AC Three-phase 200 V AC 240 V AC 480 V AC 600 V AC Short Circuit Current Rating		HP HP HP HP HP SCCR	7.5 10 15 15 40 50
120 V AC 200 V AC 240 V AC Three-phase 200 V AC 240 V AC 480 V AC 480 V AC 600 V AC Short Circuit Current Rating Basic Rating		HP HP HP HP KP HP KA	7.5 10 15 15 40 50
120 V AC 200 V AC 240 V AC Three-phase 200 V AC 240 V AC 480 V AC 600 V AC Short Circuit Current Rating Basic Rating max. Fuse		HP HP HP HP KP HP KA	7.5 10 15 15 40 50
120 V AC 200 V AC 240 V AC Three-phase 200 V AC 240 V AC 480 V AC 480 V AC 600 V AC Short Circuit Current Rating Basic Rating max. Fuse Terminal capacity		HP HP HP HP SCCR KA A	7.5 10 15 15 16 40 50 10

Tightening torque Ib-in 26.5
------------------------------

#### **Design verification as per IEC/EN 61439**

Design Verification as per IEG/EN 61439			
Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	63
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	4.5
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	0
Static heat dissipation, non-current-dependent	P <sub>vs</sub>	W	0
Heat dissipation capacity	P <sub>diss</sub>	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	50
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
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 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects			Meets the product standard's requirements.
10.2.4 Resistance to ultra-violet (UV) radiation			Please enquire
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 Insulation properties			
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.

#### **Technical data ETIM 6.0**

Low-voltage industrial components (EG000017) / Switch disconnector (EC000216)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnector (ecl@ss8.1-27-37-14-03 [AKF060010])

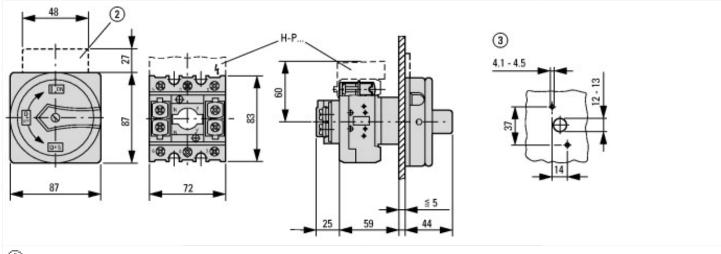
Version as main switch		Yes
Version as maintenance-/service switch		Yes
Version as safety switch		No
Version as emergency stop installation		Yes
Version as reversing switch		No
Max. rated operation voltage Ue AC	V	690
Rated operating voltage	V	690 - 690
Rated permanent current lu	А	63
Rated permanent current at AC-21, 400 V	А	63
Rated operation power at AC-3, 400 V	kW	30
Rated short-time withstand current lcw	kA	1.26
Rated operation power at AC-23, 400 V	kW	30

Switching power at 400 V	kW	30
Conditioned rated short-circuit current Iq	kA	4
Number of poles		3
Number of auxiliary contacts as normally closed contact		2
Number of auxiliary contacts as normally open contact		2
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		No
Suitable for front mounting 4-hole		Yes
Suitable for front mounting center		No
Suitable for distribution board installation		No
Suitable for intermediate mounting		No
Colour control element		Red
Type of control element		Door coupling rotary drive
Interlockable		Yes
Type of electrical connection of main circuit		Screw connection
Degree of protection (IP), front side		IP65

## Approvals

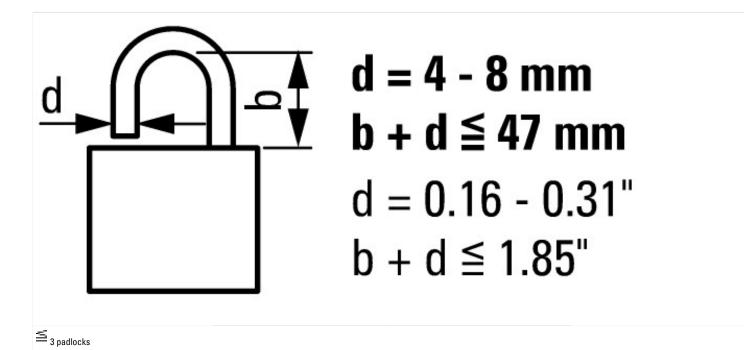
Product Standards	UL 508; CSA-C22.2 No. 14-05; CSA-C22.2 No. 94; IEC/EN 60947-3; CE marking
UL File No.	E36332
UL Category Control No.	NLRV
CSA File No.	12528
CSA Class No.	3211-05
North America Certification	UL listed, CSA certified
Suitable for	Branch circuits, suitable as motor disconnect
Degree of Protection	IEC: IP65; UL/CSA Type 1, 12

### **Dimensions**



ZFS-... Label mount not included as standard

Drilling dimensions door



#### **Additional product information (links)**

IL03802002Z (AWA1150-1690) Switch-disconnectors for flush mounting		
IL03802002Z (AWA1150-1690) Switch- disconnectors for flush mounting	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03802002Z2016_07.pdf	
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	