DATASHEET - T0-3-15680/I1/SVB



Main switch, T0, 20 A, surface mounting, 3 contact unit(s), 3 pole + N, 1 N/ 0, 1 N/C, Emergency switching off function, With red rotary handle and yellow locking ring, Lockable in the 0 (Off) position



T0-3-15680/I1/SVB Part no.

Catalog No. 207153

EL-Nummer (Norway)

1417156

Delivery program

Interest sequence and proup reference top Function are group reference top Function And the startly handle and yellow locking ring booking facility booking facil	Delivery program			
Top Function Emergency switching off function With red county handle and yellow locking ring Sole+ N	Product range			maintenance switch
With red rotary handle and yellow locking ring Jumber of poles Auxiliary contacts N/C N/C Lockable in the 0 (0ff) position pgse of Protection Pgs Totally insulated Surface mounting antiact sequence witching angle sesign another witching angle witching angl	Part group reference			TO
Tumber of poles Tumber of poles Tumber of poles N/O N/C Tumber of poles N/O Tumber of poles	Stop Function			Emergency switching off function
Auxiliary contacts N/C N/C Lockable in the 0 (0ff) position Lockable i				With red rotary handle and yellow locking ring
N/C N/C N/C Lockable in the I (I/H) position lessign Itotally insulated surface mounting Implication Insulated Surface mounting Implication Implicati	Number of poles			3 pole + N
N/C Lockable in the 0 (0ff) position L	Auxiliary contacts			
N/C pocking facility legree of Protection Lockable in the 0 (0ff) position PRS Lotally Insulated surface mounting su			N/0	1
legree of Protection lesign contact sequence	-		N/C	1
tesign intact sequence	Locking facility			Lockable in the 0 (Off) position
surface mounting surface moun	Degree of Protection			IP65
Intercrupted current I _u Intercrupted current				totally insulated
witching angle lesign number 15680 10N OFF Alotor rating AC-23A, 50 - 60 Hz 400 V P kW 5.5 lated uninterrupted current lu A 20 Rated uninterrupted current lu lumber of contact units a 20 Rated uninterrupted current lu lumber of contact units a 20 Rated uninterrupted current lu specified for max. cross-section.	Design			surface mounting
witching angle lesign number 15680 10N OFF Alotor rating AC-23A, 50 - 60 Hz 400 V P kW 5.5 lated uninterrupted current lu A 20 Rated uninterrupted current lu lumber of contact units a 20 Rated uninterrupted current lu lumber of contact units a 20 Rated uninterrupted current lu specified for max. cross-section.				
lesign number 15680	Contact sequence			
And tor rating AC-23A, 50 - 60 Hz 400 V P kW 5.5 Anted uninterrupted current Iu A 20 Rated uninterrupted current Iu is specified for max. cross-section. Jumber of contact units contact 3	Switching angle		0	90
Motor rating AC-23A, 50 - 60 Hz 400 V P kW 5.5 lated uninterrupted current lu A 20 lote on rated uninterrupted current lu Rated uninterrupted current lu is specified for max. cross-section.	Design number			15680
400 V Add the duninterrupted current In the duninterrupted current In the duninterrupted curre	Function			
lated uninterrupted current I u A 20 I dote on rated uninterrupted current I u is specified for max. cross-section. I u A 30 Rated uninterrupted current I u is specified for max. cross-section. 3	Motor rating AC-23A, 50 - 60 Hz			
lote on rated uninterrupted current l _u is specified for max. cross-section. lumber of contact units contact	400 V	P	kW	5.5
lumber of contact units contact 3	Rated uninterrupted current	l _u	Α	20
	Note on rated uninterrupted current $!_{u}$			Rated uninterrupted current $\mathbf{I}_{\mathbf{U}}$ is specified for max. cross-section.
	Number of contact units			3

Technical data

Standards	IEC/EN 60947, VDE 0660, IEC/EN 60204 Switch-disconnector according to IEC/EN 60947-3	
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Climatic proofing			Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Ambient temperature			
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
Contacts			
Mechanical variables			
Number of poles			3 pole + N
Auxiliary contacts			
		N/0	1
		N/C	1
Electrical characteristics			
Rated operational voltage	U _e	V AC	690
Rated uninterrupted current	l _u	Α	20
Note on rated uninterrupted current !u			Rated uninterrupted current $\mathbf{I}_{\mathbf{u}}$ 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	20
Rated short-time withstand current (1 s current)	I _{cw}	A _{rms}	320
Note on rated short-time withstand current lcw			Current for a time of 1 second
Rated conditional short-circuit current	Iq	kA	6
Switching capacity			
cos φ rated making capacity as per IEC 60947-3		Α	130
Rated breaking capacity cos φ to IEC 60947-3		Α	
230 V		Α	100
400/415 V		Α	110
500 V		Α	80
690 V		Α	60
Safe isolation to EN 61140			
between the contacts		V AC	440
Current heat loss per contact at l _e		W	0.6
Current heat loss per auxiliary circuit at l _e (AC-15/230 V)		CO	0.6
Lifespan, mechanical	Operations	x 10 ⁶	> 0.4
Maximum operating frequency	Operations/h		1200
AC			
AC-3			
Rating, motor load switch	Р	kW	
220 V 230 V	P	kW	3
230 V Star-delta	P	kW	5.5
400 V 415 V	P	kW	5.5
400 V Star-delta	P	kW	7.5
500 V	P	kW	5.5
500 V Star-delta	P	kW	7.5
690 V	P	kW	4
690 V Star-delta	P	kW	5.5
Rated operational current motor load switch		^	115
230 V	l _e	A	11.5
230 V star-delta	l _e	A	20
400V 415 V	l _e	Α	11.5

400 V star-delta	I _e	Α	20
500 V	l _e	Α	9
500 V star-delta	l _e	Α	15.6
690 V	I _e	Α	4.9
690 V star-delta	l _e	Α	8.5
AC-23A			
Motor rating AC-23A, 50 - 60 Hz	P	kW	
230 V	P	kW	3
	P P	kW	
400 V 415 V			5.5
500 V	P	kW	7.5
690 V	Р	kW	5.5
Rated operational current motor load switch			
230 V	le	Α	13.3
400 V 415 V	l _e	Α	13.3
500 V	l _e	Α	13.3
690 V	I _e	Α	7.6
DC			
DC-1, Load-break switches L/R = 1 ms			
Rated operational current	I _e	Α	10
	-6	V	60
Voltage per contact pair in series DC-21A		V A	uu
	l _e		
Rated operational current	l _e	Α	1
Contacts		Quantity	1
DC-23A, motor load switch L/R = 15 ms			
24 V			
Rated operational current	l _e	Α	10
Contacts		Quantity	1
48 V			
Rated operational current	I _e	Α	10
Contacts		Quantity	2
60 V			
Rated operational current	l _e	A	10
Contacts	C	Quantity	
120 V		Quantity	
		^	E
Rated operational current	l _e	Α	5
Contacts		Quantity	3
240 V			
Rated operational current	l _e		5
Contacts		Quantity	5
DC-13, Control switches L/R = 50 ms			
Rated operational current	Ie	Α	10
Voltage per contact pair in series		V	32
Control circuit reliability at 24 V DC, 10 mA	Fault	H _F	< 10 ⁻⁵ ,< 1 failure in 100,000 switching operations
	probability		. • • • • • • • • • • • • • • • • • • •
Terminal capacities		2	1 v /1 25)
Solid or stranded		mm ²	1 x (1 - 2,5) 2 x (1 - 2,5)
Flexible with ferrules to DIN 46228		mm ²	1 x (0.75 - 2.5)
			2 x (0.75 - 2.5)
Terminal screw			M3.5
Tightening torque for terminal screw		Nm	1
Technical safety parameters:			
Notes			$\mathrm{B10_{d}}$ values as per EN ISO 13849-1, table C1
Rating data for approved types			
Terminal capacity			
Terminal screw			M3.5
Terminal capacity			M3.5

Tightening torque Ib-in 8.83

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	20
Heat dissipation per pole, current-dependent	P _{vid}	W	0.6
Equipment heat dissipation, current-dependent	P _{vid}	W	0
Static heat dissipation, non-current-dependent	P _{vs}	W	0
Heat dissipation capacity	P _{diss}	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	40
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			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 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 7.0

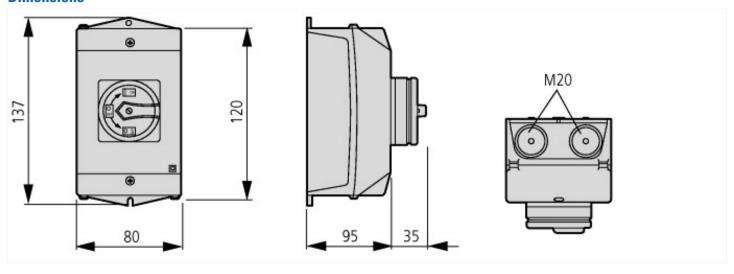
Low-voltage industrial components (EG000017) / Switch disconnector (EC000216)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnector (ecl@ss10.0.1-27-37-14-03 [AKF060013])

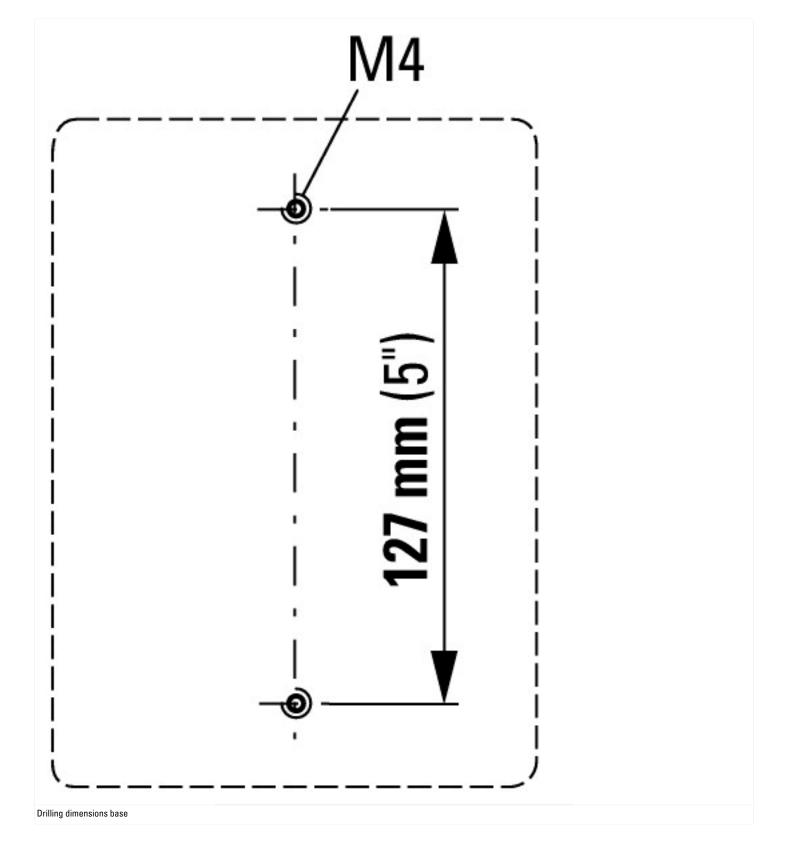
Version as main switch			Yes
Version as maintenance-/service switch			Yes
Version as safety switch			Yes
Version as emergency stop installation			Yes
Version as reversing switch			No
Number of switches			1
Max. rated operation voltage Ue AC	V	/	690
Rated operating voltage	V	/	690 - 690
Rated permanent current lu	Δ	4	20
Rated permanent current at AC-23, 400 V	Δ	4	13.3
Rated permanent current at AC-21, 400 V	A	4	20
Rated operation power at AC-3, 400 V	k	(W	5.5

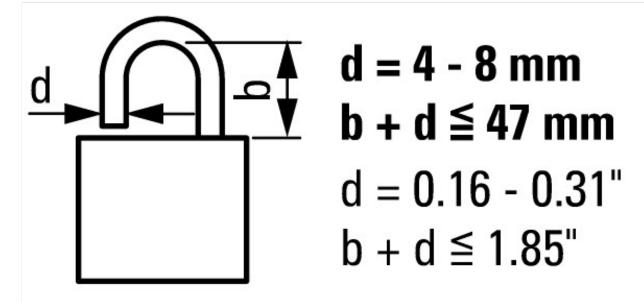
Rated operation power at AC-23, 400 V			
Switching power at 400 V Conditioned rated short-circuit current Iq Number of poles Number of poles Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact Notor drive optional Notor drive integrated Notor drive integrated Notor drive integrated Notage release optional Device construction Suitable for ground mounting Suitable for front mounting 4-hole Suitable for front mounting 4-hole Suitable for front mounting centre Suitable for distribution board installation Suitable for intermediate mounting Colour control element Type of control element Interlockable Type of control element Type of electrical connection of main circuit Degree of protection (IP), front side	Rated short-time withstand current lcw	kA	0.32
Conditioned rated short-circuit current Iq kA 6 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 Complete device in housing Suitable for ground mounting Yes Suitable for front mounting 4-hole No Suitable for distribution board installation No Suitable for intermediate mounting No Suitable for intermediate mounting No Colour control element No Type of control element No Type of control element Poor coupling rotary drive Interlockable Yes Type of electrical connection of main circuit Screw connection Degree of protection (IP), front side IP65	Rated operation power at AC-23, 400 V	kW	5.5
Number of poles Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact Number of auxiliary contacts as change-over contact Number of auxiliary contacts as change-over contact No Motor drive optional No Motor drive integrated No Voltage release optional No Device construction Suitable for ground mounting Suitable for ground mounting Suitable for front mounting 4-hole Suitable for front mounting entre Suitable for distribution board installation No Suitable for distribution board installation No Suitable for intermediate mounting Colour control element Type of control element Type of control element Type of electrical connection of main circuit Degree of protection (IP), front side 4 Na Au Au Au Au Au Au Au Au Au A	Switching power at 400 V	kW	5.5
Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact Number of auxiliary contacts as change-over contact No Motor drive optional No No No Voltage release optional No Device construction Suitable for ground mounting Suitable for ground mounting 4-hole Suitable for front mounting 4-hole Suitable for distribution board installation Suitable for distribution board installation Suitable for intermediate mounting Colour control element Type of control element Type of control element Type of electrical connection of main circuit Degree of protection (IP), front side	Conditioned rated short-circuit current Iq	kA	6
Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact Number of auxiliary contacts as change-over contact Notor drive optional Notor drive integrated Notor drive integrated integr	Number of poles		4
Number of auxiliary contacts as change-over contact Motor drive optional Motor drive integrated No No Voltage release optional Device construction Suitable for ground mounting Suitable for front mounting 4-hole Suitable for front mounting centre Suitable for firont mounting centre Suitable for intermediate mounting Suitable for distribution board installation Suitable for intermediate mounting Colour control element Type of control element Type of control element Type of electrical connection of main circuit Degree of protection (IP), front side	Number of auxiliary contacts as normally closed contact		1
Motor drive optional Motor drive integrated No No Voltage release optional No Device construction Suitable for ground mounting Suitable for front mounting 4-hole Suitable for front mounting centre Suitable for distribution board installation Suitable for intermediate mounting Colour control element Type of control element Type of electrical connection of main circuit Degree of protection (IP), front side No No No No Screw connection	Number of auxiliary contacts as normally open contact		1
Motor drive integrated No Nolage release optional No Device construction Suitable for ground mounting Suitable for front mounting 4-hole Suitable for front mounting centre Suitable for distribution board installation Suitable for intermediate mounting Colour control element Type of control element Interlockable Type of electrical connection of main circuit Degree of protection (IP), front side No No No No No Red Door coupling rotary drive Yes Screw connection IP65	Number of auxiliary contacts as change-over contact		0
Voltage release optional Device construction Complete device in housing Suitable for ground mounting Suitable for front mounting 4-hole Suitable for front mounting centre Suitable for distribution board installation Suitable for intermediate mounting Colour control element Type of control element Interlockable Type of electrical connection of main circuit Degree of protection (IP), front side No Complete device in housing Complete device in housing Complete device in housing Yes No No No No No No Suitable for intermediate mounting No No Suitable for intermediate mounting No Screw connection Serew connection Serew connection Serew connection Serew connection	Motor drive optional		No
Device construction Suitable for ground mounting Suitable for front mounting 4-hole Suitable for front mounting centre Suitable for front mounting centre Suitable for distribution board installation Suitable for intermediate mounting Colour control element Type of control element Interlockable Type of electrical connection of main circuit Degree of protection (IP), front side Complete device in housing Complete device in housing Yes No Complete device in housing Yes No Society No Occopling rotary drive Yes Screw connection IP65	Motor drive integrated		No
Suitable for ground mounting Suitable for front mounting 4-hole Suitable for front mounting centre No Suitable for distribution board installation Suitable for intermediate mounting No Colour control element Red Type of control element Door coupling rotary drive Interlockable Type of electrical connection of main circuit Degree of protection (IP), front side Yes Yes	Voltage release optional		No
Suitable for front mounting 4-hole Suitable for front mounting centre No Suitable for distribution board installation Suitable for intermediate mounting Colour control element Type of control element Interlockable Type of electrical connection of main circuit Degree of protection (IP), front side No No No No Red Door coupling rotary drive Screw connection IP65	Device construction		Complete device in housing
Suitable for front mounting centre Suitable for distribution board installation Suitable for intermediate mounting No Colour control element Type of control element Interlockable Type of electrical connection of main circuit Degree of protection (IP), front side No No No No No No No No Suitable for intermediate mounting No No Seed Type of control element Pes Seed Yes Type of electrical connection of main circuit Degree of protection (IP), front side	Suitable for ground mounting		Yes
Suitable for distribution board installation Suitable for intermediate mounting No Colour control element Type of control element Interlockable Type of electrical connection of main circuit Degree of protection (IP), front side No Red Red Yes Yes Type of electrical connection of main circuit Degree of protection (IP), front side IP65	Suitable for front mounting 4-hole		No
Suitable for intermediate mounting Colour control element Type of control element Interlockable Type of electrical connection of main circuit Degree of protection (IP), front side No Red Door coupling rotary drive Yes Screw connection IP65	Suitable for front mounting centre		No
Colour control element Type of control element Interlockable Type of electrical connection of main circuit Degree of protection (IP), front side Red Poor coupling rotary drive Yes Screw connection IP65	Suitable for distribution board installation		No
Type of control element Interlockable Type of electrical connection of main circuit Degree of protection (IP), front side Door coupling rotary drive Yes Screw connection IP65	Suitable for intermediate mounting		No
Interlockable Yes Type of electrical connection of main circuit Screw connection Degree of protection (IP), front side IP65	Colour control element		Red
Type of electrical connection of main circuit Degree of protection (IP), front side Screw connection IP65	Type of control element		Door coupling rotary drive
Degree of protection (IP), front side IP65	Interlockable		Yes
	Type of electrical connection of main circuit		Screw connection
Degree of protection (NEMA) Other	Degree of protection (IP), front side		IP65
	Degree of protection (NEMA)		Other

Dimensions



5/7





≦3 padlocks

Additional product information (links)

Display flip catalog page.	http://ecat.moeller.net/flip-cat/?edition=K115A&startpage=40
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