



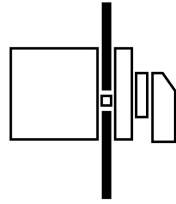
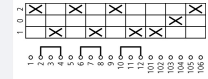
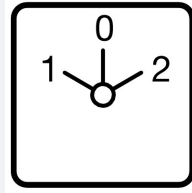
**Changeoverswitches, T8, 315 A, flush mounting, 3 contact unit(s),
Contacts: 9, 60 °, maintained, With 0 (Off) position, 1-0-2, design no. 8212**

**Part no. T8-3-8212/E/HI12
Catalog No. 214782**

**EL-Nummer 0001456954
(Norway)**



Delivery program

Product range			Control switches
Part group reference			T8
Basic function			Changeoverswitches with black thumb grip and front plate
Contacts			9
Degree of Protection			Front IP65
Design			flush mounting 
Contact sequence			
Switching angle		°	60
Switching performance			maintained With 0 (Off) position
Design number			8212
Front plate no.			 FS 684
front plate			1-0-2
Motor rating AC-23A, 50 - 60 Hz			
400 V	P	kW	132
Rated uninterrupted current	I _u	A	315
Note on rated uninterrupted current I _u			Rated uninterrupted current I _u is specified for max. cross-section. Open = 315, enclosed= 275 A
Number of contact units		contact unit(s)	3

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	8000

Mounting position			As required
Contacts			
Electrical characteristics			
Rated operational voltage	U_e	V AC	690
Rated uninterrupted current	I_u	A	315
Note on rated uninterrupted current I_u			Rated uninterrupted current I_u is specified for max. cross-section. Open = 315, enclosed= 275 A
Load rating with intermittent operation, class 12			
AB 25 % DF		$\times I_e$	2
AB 40 % DF		$\times I_e$	1.6
AB 60 % DF		$\times I_e$	1.3
Short-circuit rating			
Fuse		A gG/gL	315
Rated short-time withstand current (1 s current)	I_{cw}	A_{rms}	4200
Note on rated short-time withstand current I_{cw}			Current for a time of 1 second
Rated conditional short-circuit current	I_q	kA	5
Switching capacity			
$\cos \varphi$ rated making capacity as per IEC 60947-3		A	2390
Rated breaking capacity $\cos \varphi$ to IEC 60947-3		A	
230 V		A	1910
400/415 V		A	1800
500 V		A	1200
690 V		A	420
Safe isolation to EN 61140			
between the contacts		V AC	440
Current heat loss per contact at I_e		W	11
Current heat loss per auxiliary circuit at I_e (AC-15/230 V)		CO	0.2
Lifespan, mechanical	Operations	$\times 10^6$	> 0.1
Maximum operating frequency	Operations/h		50
AC			
AC-3			
Rating, motor load switch	P	kW	
220 V 230 V	P	kW	37
230 V Star-delta	P	kW	37
400 V 415 V	P	kW	55
400 V Star-delta	P	kW	55
500 V	P	kW	37
500 V Star-delta	P	kW	37
690 V	P	kW	37
690 V Star-delta	P	kW	37
Rated operational current motor load switch			
230 V	I_e	A	126
400V 415 V	I_e	A	105
400 V star-delta	I_e	A	105
500 V	I_e	A	78
500 V star-delta	I_e	A	78
690 V	I_e	A	42
AC-21A			
Rated operational current switch			
440 V	I_e	A	315
AC-23A			
Motor rating AC-23A, 50 - 60 Hz	P	kW	
230 V	P	kW	75
400 V 415 V	P	kW	132
500 V	P	kW	132

690 V	P	kW	37
Rated operational current motor load switch			
230 V	I _e	A	239
400 V 415 V	I _e	A	245
500 V	I _e	A	184
690 V	I _e	A	42
DC			
DC-1, Load-break switches L/R = 1 ms			
Rated operational current	I _e	A	315
Voltage per contact pair in series		V	42
DC-23A, motor load switch L/R = 15 ms			
24 V			
Rated operational current	I _e	A	250
Contacts		Quantity	1
48 V			
Rated operational current	I _e	A	250
Contacts		Quantity	2
60 V			
Rated operational current	I _e	A	125
Contacts		Quantity	3
120 V			
Rated operational current	I _e	A	50
Contacts		Quantity	3
DC-13, Control switches L/R = 50 ms			
Rated operational current	I _e	A	250
Control circuit reliability at 24 V DC, 10 mA	Fault probability	H _F	< 10 ⁻⁵ , < 1 failure in 100,000 switching operations

Terminal capacities

Solid or stranded		mm ²	185
Flat conductor connection with busbars		mm ²	1 x (25 x 5) 2 x (20 x 3)
Terminal screw			M12
Tightening torque for terminal screw		Nm	14

Technical safety parameters:

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

Terminal capacity			
Terminal screw			M12
Tightening torque		lb-in	125

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	I _n	A	315
Heat dissipation per pole, current-dependent	P _{vid}	W	11
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	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		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.

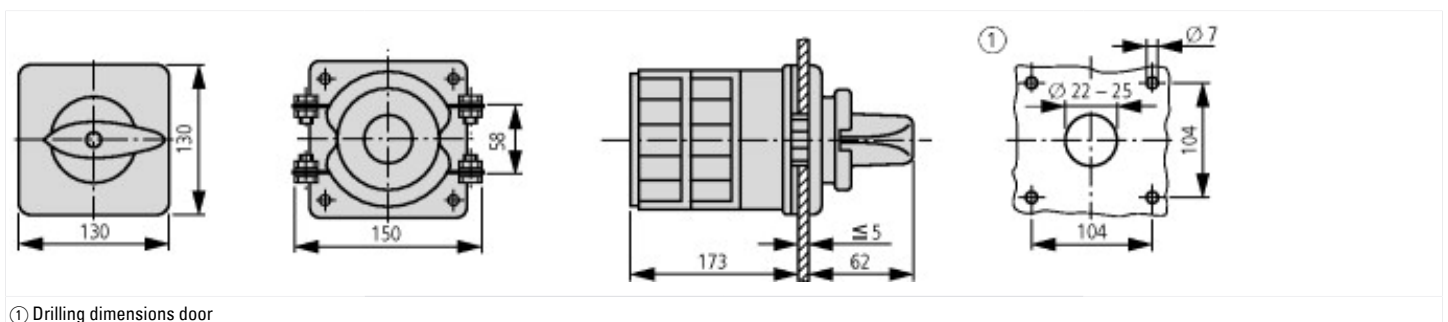
Technical data ETIM 7.0

Low-voltage industrial components (EG000017) / Off-load switch (EC001105)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Changeover switch (ecl@ss10.0.1-27-37-14-05 [AKF062013])

Model		Reverser
Number of poles		3
With 0 (off) position		Yes
With retraction in 0-position		No
Rated permanent current I _u	A	315
Rated operation current I _e at AC-3, 400 V	A	105
Rated operation power at AC-3, 400 V	kW	55
Degree of protection (IP), front side		IP65
Degree of protection (NEMA), front side		Other
Number of auxiliary contacts as normally closed contact		0
Number of auxiliary contacts as normally open contact		0
Number of auxiliary contacts as change-over contact		0
Suitable for ground mounting		No
Suitable for front mounting 4-hole		Yes
Suitable for distribution board installation		No
Suitable for intermediate mounting		No
Complete device in housing		No
Material housing		Plastic
Type of control element		Toggle
Type of electrical connection of main circuit		Screw connection

Dimensions



Additional product information (links)

IL03801018Z (AWA1150-0365) Cam switch: changeover switch with 0 position

IL03801018Z (AWA1150-0365) Cam switch: changeover switch with 0 position	https://es-assets.eaton.com/DOCUMENTATION/AWA_INSTRUCTIONS/IL03801018Z2018_04.pdf
Display flip catalog page.	http://ecat.moeller.net/flip-cat/?edition=K115A&startpage=135
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