# On-Off switch, 8-pole, 100 A, 90 °, surface mounting

Part no. T5-4-8344/I5 Article no. 207272





Similar to illustration

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Delivery program			
Product range			On-Off switch
Part group reference			T5
			with black thumb grip and front plate
Number of poles			8-pole
Degree of Protection			IP65
			totally insulated
Design			surface mounting
Contact sequence			
Switching angle		0	90
Switching performance			maintained
Front plate no.			FS 908
front plate			0-1
Motor rating AC-23A, 50 - 60 Hz			
400 V	P	kW	55
Rated uninterrupted current	I <sub>u</sub>	Α	100
Number of contact units		contact unit(s)	4

## **Technical data** General

delicial			
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			
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			8-pole
Electrical characteristics			
Rated operational voltage	U <sub>e</sub>	V AC	690
Rated uninterrupted current	I <sub>u</sub>	Α	100
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	100
Rated short-time withstand current (1 s current)	I <sub>cw</sub>	A <sub>rms</sub>	1700
Note on rated short-time withstand current lcw	000	11113	Current for a time of 1 second
Rated conditional short-circuit current	Iq	kA	2
Switching capacity	-4	1	-
cos φ rated making capacity as per IEC 60947-3		Α	950
Rated breaking capacity cos φ to IEC 60947-3		Α	
230 V		Α	760
400/415 V		Α	740
500 V		Α	590
690 V		Α	420
Safe isolation to EN 61140			
between the contacts		V AC	440
Current heat loss per contact at I <sub>e</sub>		W	7.5
Current heat loss per auxiliary circuit at I <sub>e</sub> (AC-15/230 V)		CO	7.5
Lifespan, mechanical	Operations	x 10 <sup>6</sup>	> 0.5
Maximum operating frequency	Operations/h		1200
AC	Operations/ii		1200
AC-3			
Rating, motor load switch	P	kW	
220 V 230 V	P	kW	22
230 V Star-delta	P	kW	30
400 V 415 V	P	kW	30
400 V Star-delta	P	kW	45
500 V	P	kW	30
500 V Star-delta	P	kW	45
690 V	P	kW	15
690 V Star-delta	P	kW	22
Rated operational current motor load switch		K V V	
230 V	I <sub>e</sub>	A	71
230 V 230 V star-delta			100
	l <sub>e</sub>	A	
400V 415 V	l <sub>e</sub>	A	55
400 V star-delta	I <sub>e</sub>	Α	95.3
500 V	l <sub>e</sub>	Α	44
500 V star-delta	I <sub>e</sub>	Α	76.2
690 V	I <sub>e</sub>	Α	17
690 V star-delta	I <sub>e</sub>	Α	29.4
AC-21A			
Rated operational current switch			

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	37
690 V	P	kW	30
Rated operational current motor load switch			
230 V	I <sub>e</sub>	Α	100
400 V 415 V	I <sub>e</sub>	Α	100
500 V	I <sub>e</sub>	Α	55
690 V	I <sub>e</sub>	Α	32
DC			
DC-1, Load-break switches L/R = 1 ms			
Rated operational current	I <sub>e</sub>	Α	80
Voltage per contact pair in series		V	60
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		mm <sup>2</sup>	1 x (2,5 - 35) 2 x (2,5 - 16)
Flexible with ferrules to DIN 46228		mm <sup>2</sup>	1 x (1 - 25) 2 x (1.5 - 10)
Terminal screw			M6
Max. tightening torque		Nm	4
Technical safety parameters:			
Notes			B10 <sub>d</sub> values as per EN ISO 13849-1, table C1
Rating data for approved types			
Terminal capacity			
Terminal screw			M6

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

echnical data for design verification			
Rated operational current for specified heat dissipation	In	Α	100
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	7.5
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	40
C/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 No Version as maintenance-/service switch No Version as safety switch No No Version as emergency stop installation Version as reversing switch No 690 Max. rated operation voltage Ue AC Rated operating voltage ٧ 690 - 690 Rated permanent current lu Α 95 Rated permanent current at AC-21, 400 V 100 Rated operation power at AC-3, 400 V kW 30 Rated short-time withstand current lcw kΑ 1.7 Rated operation power at AC-23, 400 V kW 55 Switching power at 400 V kW 55 kΑ 2 Conditioned rated short-circuit current Iq 8 Number of poles 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 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 No Suitable for front mounting center Suitable for distribution board installation No Suitable for intermediate mounting No Black Colour control element Type of control element Toggle

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

Type of electrical connection of main circuit

Degree of protection (IP), front side

Interlockable

IL03801009Z (AWA1150-1692) Cam switches: switch-disconnectors		
IL03801009Z (AWA1150-1692) Cam switches: switch-disconnectors	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03801009Z2016_07.pdf	
Display flip catalog page.	http://ecat.moeller.net/flip-cat/?edition=K115A&startpage=130	
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	

No

IP65

Screw connection

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