

Switch-disconnector, 3 pole + N, 125 A, Without rotary handle and drive shaft, surface mounting, Vertical connection $\,$



Part no. DMM-125/1-SK Article no. 1314203

Delivery program

Delivery program			
Product range			Switch-disconnector Main switch maintenance switch
Part group reference			DMM
Stop Function			optional
			Without rotary handle and drive shaft
Information about equipment supplied			auxiliary contact fitted by user.
Number of poles			3 pole + N (direct)
Auxiliary contacts			
\texts{\darksquares}		N/O	0
7		N/C	0
Degree of Protection			IP20
Design			surface mounting
Contact sequence			$ \begin{array}{c ccccc} L1 & L2 & L3 \\ & \downarrow_1 & \downarrow_3 & \downarrow_5 \\ & \downarrow_2 & \downarrow_4 & \downarrow_6 & \mid_N \\ & T1 & T2 & T3 \\ & \downarrow_0 & & & & \\ \end{array} $
Motor rating AC-23A, 50 - 60 Hz			
400 V	P	kW	59
Rated uninterrupted current	Iu	Α	125
Connection technique			Vertical connection

Technical data

Conoral

General			
Standards			IEC/EN 60947, VDE 0660, IEC/EN 60204, Switch-disconnector according to IEC/EN 60947-3
Certifications			CE, RoHs, KEMA, GOST-R, Lloyds
Ambient temperature			
Operation	9	°C	-25 - +55
Storage	9	°C	-30 - +80
Overvoltage category/pollution degree			III/3
Rated impulse withstand voltage	U_{imp}	kV	6
Rated insulation voltage	Ui	V	1000
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 (direct)
Auxiliary contacts			
		N/0	0
		N/C	0
Electrical characteristics			
Rated operational voltage	U _e	V AC	690
Rated uninterrupted current	l _u	Α	125
Note on rated uninterrupted current $\boldsymbol{!}_{\boldsymbol{u}}$			Rated uninterrupted current lu is specified for max. cross-section.
Short-circuit rating			
fuse			125
Rated conditional short-circuit current	Iq	kA	50
Breaking current		kA	14.5
max. let-through energy		kA²s	140
Rated short-time withstand current (1 s current)	I _{cw}	A_{rms}	2500
Note on rated short-time withstand current lcw			Current for a time of 1 second
Switching capacity			
Rated breaking capacity cos φ to IEC 60947-3		Α	
400/415 V		A	480
500 V		A	520
690 V		Α	352
Safe isolation to EN 61140		14/	45
Current heat loss per contact at I _e		W	4.5
Lifespan, mechanical	Operations		10000
AC			
AC-21A			
Rated operational current switch 400 V 415 V		^	125
	I _e	A	125
500 V	I _e	A	125
690 V	l _e	Α	125
AC-22A			
Rated operational current switch			
400 V 415 V	I _e	Α	125
500 V	l _e	Α	125
690 V	le	Α	125
AC-23A			
Rated operational current switch			
400 V 415 V	l _e	Α	125
500 V	I _e	Α	66
690 V	I _e	Α	42
Motor rating AC-23A, 50 - 60 Hz	Р	kW	
400 V 415 V	Р	kW	59
500 V	Р	kW	45
690 V	Р	kW	37
Terminal capacities		2	
Flexible with ferrules to DIN 46228		mm ²	
flexible		mm^2	6 - 70
Max. tightening torque		Nm	7
Technical safety parameters:			PM 1 PM 100 105 17 1 1 1 2 1
Notes			B10 _d values as per EN ISO 13849-1, table C1

Design verification as per IEC/EN 61439

Rated operational current for specified heat dissipation	In	Α	125
Heat dissipation per pole, current-dependent	P_{vid}	W	4.5
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	55
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			Meets the product standard's requirements.
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 switch gear must be observed. $\label{eq:constraint}$
10.12 Electromagnetic compatibility			Is the panel builder's responsibility. The specifications for the switch gear must be observed. $\label{eq:constraint}$
10.13 Mechanical function			The device meets the requirements, provided the information in the instruction leaflet (IL) is observed. $\label{eq:continuous}$

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])

[AKI 0000 10]]		
Version as main switch		No
Version as maintenance-/service switch		No
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 lu	Α	125
Rated permanent current at AC-21, 400 V	Α	125
Rated operation power at AC-3, 400 V	kW	0
Rated short-time withstand current lcw	kA	2.5
Rated operation power at AC-23, 400 V	kW	30
Switching power at 400 V	kW	0
Conditioned rated short-circuit current Iq	kA	50
Number of poles		3
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	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	Yes
Suitable for intermediate mounting	No
Colour control element	
Type of control element	-
Interlockable	No
Type of electrical connection of main circuit	Screw connection
Degree of protection (IP), front side	IP20

Dimensions

