DATASHEET - DCM-40/4+CM



Switch-disconnector, DCM, 40 A, 4 pole, With blue rotary handle and drive shaft, Vertical connection $\,$



Part no. DCM-40/4+CM Catalog No. 1314111

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Delivery program			
Product range			Switch-disconnector Main switch maintenance switch
Part group reference			DCM
			With blue rotary handle and drive shaft
Number of poles			4 pole
Auxiliary contacts			
1		N/0	0
7		N/C	0
Notes			1 padlock, # 5 mm
Locking facility			Lockable in the 0 (Off) position
Degree of Protection			IP20
Design			flush mounting
Contact sequence			L1 L2 L3 $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
Motor rating AC-23A, 50 - 60 Hz			
400 V	P	kW	20
Rated uninterrupted current	I _u	Α	40
Note on rated uninterrupted current !u			Rated uninterrupted current $\mathbf{I}_{\mathbf{U}}$ is specified for max. cross-section.
Connection technique			Vertical connection

Technical data

Genera

General			
Standards			IEC/EN 60947, VDE 0660, IEC/EN 60204 Switch-disconnector according to IEC/EN 60947-3
Certifications			CE, RoHs, KEMA, EAC, Lloyds
Ambient temperature			
Operation	8	°C	-25 - +55
Storage	8	°C	-30 - +80
Overvoltage category/pollution degree			III/3
Rated impulse withstand voltage	U_{imp}	kV	6
Rated insulation voltage	U_{i}	V	690
Mounting position			As required

Contacts			
Mechanical variables			
Number of poles			4 pole
Auxiliary contacts			
		N/0	0
		N/C	0
Electrical characteristics			
Rated operational voltage	U_{e}	V AC	415
Rated uninterrupted current	I _u	Α	40
Note on rated uninterrupted current $\mathbf{I}_{\mathbf{u}}$			Rated uninterrupted current $\mathbf{I}_{\mathbf{u}}$ is specified for max. cross-section.
Short-circuit rating			
fuse			50
Rated conditional short-circuit current	Iq	kA	50
Breaking current		kA	7
max. let-through energy		kA ² s	12
Rated short-time withstand current (1 s current)	I _{cw}	A_{rms}	1000
Note on rated short-time withstand current lcw			Current for a time of 1 second
Rated short-circuit making capacity	I _{cm}	kA _{eff}	2.2
Heat dissipation per pole, current-dependent	P _{vid}	W	3
Switching capacity			
Rated breaking capacity cos φ to IEC 60947-3		Α	
400/415 V		Α	320
Safe isolation to EN 61140			
Current heat loss per contact at I _e		W	3
Lifespan, mechanical	Operations		10000
AC			
AC-21A			
Rated operational current switch			
400 V 415 V	le	Α	40
AC-22A			
Rated operational current switch			
400 V 415 V	I _e	Α	40
AC-23A			
Rated operational current switch			
400 V 415 V	I _e	Α	40
Motor rating AC-23A, 50 - 60 Hz	P	kW	
400 V 415 V	P	kW	20
Terminal capacities			
Solid		mm ²	2.5 - 16
Flexible with ferrules to DIN 46228		mm ²	
flexible		mm ²	1.5 - 25
Stripping length		mm	14
Tightening torque for terminal screw		Nm	2
Technical safety parameters:			
Notes			B10 _d values as per EN ISO 13849-1, table C1

Solid	mm ²	2.5 - 16
Flexible with ferrules to DIN 46228	mm^2	
flexible	mm^2	1.5 - 25
Stripping length	mm	14
Tightening torque for terminal screw	Nm	2

 $\mathrm{B10_{d}}$ values as per EN ISO 13849-1, table C1 Notes

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	40
Heat dissipation per pole, current-dependent	P_{vid}	W	3
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
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		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} % \begin{subarray}{ll} \end{subarray} % \begin{subarray}{ll} \e$
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

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		No
Version as emergency stop installation		No
Version as reversing switch		No
Number of switches		1
Max. rated operation voltage Ue AC	V	415
Rated operating voltage	V	415 - 415
Rated permanent current lu	А	40
Rated permanent current at AC-23, 400 V	Α	40
Rated permanent current at AC-21, 400 V	Α	40
Rated operation power at AC-3, 400 V	kW	0
Rated short-time withstand current lcw	kA	1
Rated operation power at AC-23, 400 V	kW	0
Switching power at 400 V	kW	20
Conditioned rated short-circuit current Iq	kA	0
Number of poles		4
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 centre	No
Suitable for distribution board installation	Yes
Suitable for intermediate mounting	Yes
Colour control element	Other
Type of control element	Toggle
Interlockable	No
Type of electrical connection of main circuit	Screw connection
Degree of protection (IP), front side	IP20
Degree of protection (NEMA)	Other

Dimensions

