DATASHEET - DDC-400/2



DC switch disconnector, 400 A, 2 pole, 2 N/O, 2 N/C, with grey knob, service distribution board mounting



DDC-400/2 Part no. 6098943 Catalog No.

Delivery program		
Product range		DC switch-disconnector Main switch maintenance switch
Part group reference		DDC
		with grey knob
Information about equipment supplied		auxiliary contact fitted by user.
Number of poles		2 pole
Auxiliary contacts		
•	N/0	2
7	N/C	2
Degree of Protection		IP20
Design		service distribution board mounting

Rated uninterrupted current	Iu	Α	400
Note on rated uninterrupted current $\boldsymbol{!}_{\boldsymbol{u}}$			Rated uninterrupted current $\boldsymbol{I}_{\boldsymbol{u}}$ is specified for max. cross-section.

Technical data

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Standards			IEC/EN 60947, VDE 0660, IEC/EN 60204 Switch-disconnector according to IEC/EN 60947-3
Certifications			CE, RoHs
Ambient temperature			
Operation	θ	°C	-25 - +55
Storage	θ	°C	-30 - +80
Overvoltage category/pollution degree			III/3
Rated impulse withstand voltage	U_{imp}	kV	12
Rated insulation voltage	Ui	V	1200
Mounting position			As required
Contacts			

Contacts			
Mechanical variables			
Number of poles			2 pole
Auxiliary contacts			
		N/0	2
		N/C	2
Electrical characteristics			
Rated uninterrupted current	Iu	Α	400
Note on rated uninterrupted current $\boldsymbol{!}_{\boldsymbol{u}}$			Rated uninterrupted current $\boldsymbol{I}_{\boldsymbol{u}}$ is specified for max. cross-section.
Rated short-time withstand current (1 s current)	I _{cw}	A _{rms}	15000
Note on rated short-time withstand current lcw			Current for a time of 1 second
Rated short-circuit making capacity	I _{cm}	kA _{eff}	25

Heat dissipation per pole, current-dependent	P _{vid}	W	39
Switching capacity			
Lifespan, mechanical	Operations		10000
DC			
Utilization category DC21B			
Rated operational current switch			
480 V	I _e	Α	400
600 V	I _e	Α	400
1000 V	I _e	Α	400
Terminal capacities			
Solid		mm^2	1 x 240
Flat conductor connection with busbars		mm^2	2 x (25 x 6)
Terminal screw			M10
Tightening torque for terminal screw		Nm	20

Design verification as per IEC/EN 61439

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Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	400
Heat dissipation per pole, current-dependent	P _{vid}	W	39
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 switchgear must b observed.
10.12 Electromagnetic compatibility			Is the panel builder's responsibility. The specifications for the switchgear must b observed.
10.13 Mechanical function			The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

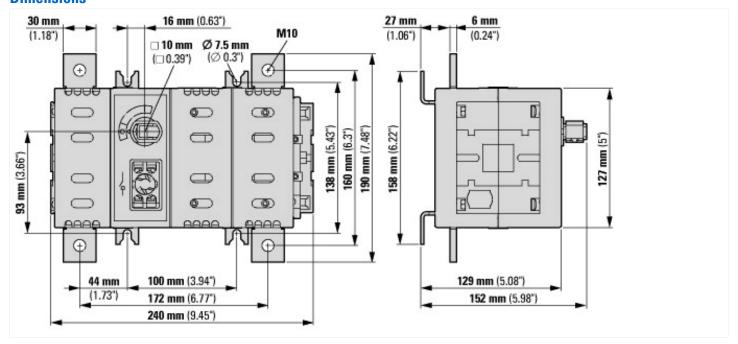
Technical data ETIM 7.0

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

Version as maintenance /service switch Version as maintenance /service switch Version as memreponcy stop installation Version as memreponcy stop installation Number of switches Number	[AKF060013])	0, ·		
Version as safety switch Version as energency stop installation No	Version as main switch			Yes
Version as emergency stop installation No Version as enversing switch No Number of switches V Rated operation voltage Ue AC A Rated operation power at AC-2,400 V A Rated operation power at AC-2,400 V kW Rated operation power at AC-2,400 V kW Switching power at A00 V kW Conditioned rated short-circuit current lq kA Number of poles A Number of auxiliary contacts as normally open contact B Motor drive optional No Motor drive optional No Voltage release optional No </td <td>Version as maintenance-/service switch</td> <td></td> <td></td> <td>Yes</td>	Version as maintenance-/service switch			Yes
Number of switches Number of swi	Version as safety switch			No
Number of switches 1 Max. rated operation voltage Ua AC V 0 Rated operation voltage V 1000-1000 Rated operation youtage V 1000-1000 Rated permanent current at AC-23, 400 V A 0 Rated permanent current at AC-23, 400 V A 0 Rated short-sine withstand current lev kA 15 Rated operation power at AC-23, 400 V kW 0 Rated short-sine withstand current lev kA 15 Switching power at 400 V kW 0 Conditioned rated short-circuit current Iq kA 0 Number of poles 2 2 Number of auxiliary contacts as normally closed contact 0 0 Number of auxiliary contacts as change-over contact 0 0 Motor drive integrated No No Motor drive integrated No No Words greates optional No No Device construction We ske No Suitable for front mounting - thole No No <	Version as emergency stop installation			No
Max. rated operating voltage V 1000 - 1000 Rated operating voltage V 1000 - 1000 Rated operating voltage A 400 Rated permanent current at AC-23, 400 V A 0 Rated operation power at AC-3, 400 V kW 0 Rated operation power at AC-3, 400 V kW 15 Rated operation power at AC-23, 400 V kW 0 Rated short-time withstand current low kW 0 Rated operation power at AC-23, 400 V kW 0 Rated operation power at AC-23, 400 V kW 0 Rated operation power at AC-23, 400 V kW 0 Rated operation power at AC-23, 400 V kW 0 Rated operation power at AC-23, 400 V kW 0 Rated operation power at AC-23, 400 V kW 0 Rated operation power at AC-23, 400 V kW 0 Rated power at 400 V Conditioned rated short-circuit current Iq kW 0 Number of abuxiliary contacts as normally closed contact No 0 Number of abuxiliary contacts as change-over contact	Version as reversing switch			No
Rated permanent current lu A 400 Rated permanent current at AC-23, 400 V A 0 Rated permanent current at AC-23, 400 V A 0 Rated permanent current at AC-21, 400 V Rated short-time withstand current lew Rated operation power at AC-23, 400 V Rated operation power at AC-23, 400 V RATED SWITCHING POWER SWITCHING PO	Number of switches			1
Rated permanent current lu A 400 Rated permanent current at AC-23, 400 V A 0 Rated operation power at AC-23, 400 V kW 0 Rated short-time withstand current lcw kA 15 Rated operation power at AC-23, 400 V kW 0 Switching power at 400 V kW 0 Conditioned rated short-circuit current lq kA 0 Number of poles 2 2 Number of poles 0 0 Number of suxiliary contacts as normally closed contact 0 0 Number of suxiliary contacts as change-over contact No No Motor drive pitional No No Motor drive pitional No No Suitable for ground mounting Yes No Suitable for ground mounting 4-ble No No Suitable for front mounting 4-ble	Max. rated operation voltage Ue AC		V	0
Rated permanent current at AC-23, 400 V A 0 Rated permanent current at AC-21, 400 V kW 0 Rated operation power at AC-3, 400 V kW 0 Rated operation power at AC-3, 400 V kW 0 Rated operation power at AC-23, 400 V kW 0 Rated operation power at AC-23, 400 V kW 0 Rated operation power at AC-23, 400 V kW 0 Rother a	Rated operating voltage		V	1000 - 1000
Rated permanent current at AC-21, 400 V	Rated permanent current lu		Α	400
Rated operation power at AC-3, 400 V	Rated permanent current at AC-23, 400 V		Α	0
Rated short-time withstand current Icw Rated operation power at AC-23, 400 V RW 0 Conditioned rated short-circuit current Iq RW Number of poles Number of poles 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 No No No No No Suitable for ground mounting Suitable for front mounting 4-hole Suitable for front mounting centre Suitable for intermediate mounting Colour control element Type of control element Type of control element Type of control element Interlockable Type of electrical connection of main circuit Degree of protection (IP), front side Ves Ves	Rated permanent current at AC-21, 400 V		Α	0
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 open contact Number of auxiliary contacts as change-over contact Motor drive optional Motor drive integrated Voltage release optional Device construction Suitable for front mounting Suitable for front mounting 4-hole Suitable for front mounting centre Suitable for intermediate mounting Colour control element Type of centrol element Interlockable Type of electrical connection of main circuit Degree of protection (IP), front side Vec	Rated operation power at AC-3, 400 V		kW	0
Switching power at 400 V Conditioned rated short-circuit current Iq Number of poles Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as change-over contact No No No No No No Device construction Suitable for ground mounting Suitable for ground mounting Suitable for front mounting 4-hole Suitable for front mounting centre Suitable for intermediate mounting Suitable for intermediate mounting Colour control element Type of control element Type of control element Type of control element Type of electrical connection of main circuit Degree of protection (IP), front side IP20	Rated short-time withstand current lcw		kA	15
Conditioned rated short-circuit current Iq Number of poles Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact Motor drive optional Motor drive integrated No No No No 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 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 I P20	Rated operation power at AC-23, 400 V		kW	0
Number of poles 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 No Motor drive optional No No No No Noutage 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 intermediate mounting Suitable for intermediate mounting Colour control element Type of electrical connection of main circuit Degree of protection (IP), front side No Screw connection Degree of protection (IP), front side	Switching power at 400 V		kW	0
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 Motor drive integrated 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 Colour control element Type of control element Type of control element Type of electrical connection of main circuit Degree of protection (IP), front side Degree of protection (IP), front side O O O O O O O O O O O O O	Conditioned rated short-circuit current Iq		kA	0
Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact No Motor drive optional Motor drive integrated No No Voltage release optional No 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 distribution board installation Suitable for intermediate mounting Colour control element Interlockable Type of control element Interlockable Type of electrical connection of main circuit Degree of protection (IP), front side O O O O O O O O O O	Number of poles			2
Number of auxiliary contacts as change-over contact Motor drive optional Motor drive integrated No No 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 Ro Ro Ro Ro Ro Ro	Number of auxiliary contacts as normally closed contact			0
Motor drive optional Motor drive integrated No 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 No Suitable for intermediate mounting Colour control element Grey Type of control element Long turning handle Interlockable Type of electrical connection of main circuit Degree of protection (IP), front side	Number of auxiliary contacts as normally open contact			0
Motor drive integrated 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 Interlockable Type of electrical connection of main circuit Degree of protection (IP), front side No No No No Screw connection IND No Screw connection IND IND IND IND IND IND IND IN	Number of auxiliary contacts as change-over contact			0
Voltage release optional 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 No Suitable for intermediate mounting Colour control element Grey Type of control element Unong turning handle Interlockable Type of electrical connection of main circuit Degree of protection (IP), front side No Interlockable IP20	Motor drive optional			No
Device construction Built-in device fixed built-in technique Yes Suitable for ground mounting 4-hole No 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 Built-in device fixed built-in technique Yes Suitable for device fixed built-in technique No No Suitable for intermediate mounting No Grey Type of control element Long turning handle Screw connection IP20	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 No Suitable for intermediate mounting Colour control element Grey Type of control element Long turning handle Interlockable Type of electrical connection of main circuit Degree of protection (IP), front side Yes No Screw connection IP20	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 Colour control element Long turning handle Yes Screw connection IP20	Device construction			Built-in device fixed built-in technique
Suitable for front mounting centre Suitable for distribution board installation No 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 Long turning handle Yes Type of electrical connection of main circuit Degree of protection (IP), front side	Suitable for ground mounting			Yes
Suitable for distribution board installation No 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 Grey Long turning handle Yes Screw connection IP20	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 Grey Long turning handle Yes Screw connection IP20	Suitable for front mounting centre			No
Colour control element Type of control element Long turning handle Interlockable Type of electrical connection of main circuit Screw connection Degree of protection (IP), front side Grey Long turning handle Yes Screw connection	Suitable for distribution board installation			No
Type of control element Interlockable Type of electrical connection of main circuit Degree of protection (IP), front side Long turning handle Yes Screw connection IP20	Suitable for intermediate mounting			No
Interlockable Yes Type of electrical connection of main circuit Degree of protection (IP), front side IP20	Colour control element			Grey
Type of electrical connection of main circuit Degree of protection (IP), front side Screw connection IP20	Type of control element			Long turning handle
Degree of protection (IP), front side	Interlockable			Yes
	Type of electrical connection of main circuit			Screw connection
Degree of protection (NEMA) Other	Degree of protection (IP), front side			IP20
	Degree of protection (NEMA)			Other

Dimensions



Additional product information (links)

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