DATASHEET - DDC-160/2



DC switch disconnector, 160 A, 2 pole, 2 N/O, 2 N/C, with grey knob, service distribution board mounting



Part no. Catalog No. DDC-160/2 6098933

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	l _u	А	160
Note on rated uninterrupted current !u			Rated uninterrupted current ${\rm I}_{\rm u}$ is specified for max. cross-section.

Technical data

Initial and a set of the second second ing to IEC/EN 60947-3 Switch-disconnector according to IEC/EN 60947-3 Reflections ER MBs Initiation and a second s	General			
Animitet temperature Image: Sorage Sorage <td>Standards</td> <td></td> <td></td> <td></td>	Standards			
Operation9°C25+55Storage9-90 + 80-90 + 80New oldsge category/pollution degreeImpImpImpImpated inpulse withstand voltageImpV90StorageAdunting positionImpVStorageStorageAdunting positionImpVStorageStorageStorage Category/pollution degreeImpVStorageStorageAdunting positionImpVStorageStorageStorage Category/pollution degreeImpStorageStorageStorageAdunting positionImpVStorageStorageStorage Category/pollutionImpStorageStorageStorageAdunting positionImpImpStorageStorageNumber of polesImpImpStorageStorageNumber of polesImpImpStorageStorageAuxiliary contactsImpImpStorageStorageImpImpImpImpStorageStorageAuxiliary contactsImpImpStorageStorageImpImpImpImpStorageStorageImpImpImpImpImpStorageNumber of polesImpImpImpStorageImpImpImpImpImpStorageImpImpImpImpImpStorageImpImpImpImpImp </td <td>Certifications</td> <td></td> <td></td> <td>CE, RoHs</td>	Certifications			CE, RoHs
Storage 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 </td <td>Ambient temperature</td> <td></td> <td></td> <td></td>	Ambient temperature			
Nervotage category/pollution degree I/a I/a Nervotage category/pollution degree Uimp KV II/a Rated insulation voltage Uimp V 200 Adunting position Imp KV 200 Adunting position Imp K K Adunting position Imp K K Adunting position Imp K K Number of poles Imp Imp Pole Auxiliary contacts Imp Imp Imp Auxiliary contacts Imp Imp Imp Adunting contacts Imp Imp Imp Adunting contacts Imp Imp Imp Adunting contacts <td< td=""><td>Operation</td><td>θ</td><td>°C</td><td>-25 - +55</td></td<>	Operation	θ	°C	-25 - +55
kated impulse withstand voltage Uimp KV 8 kated insulation voltage Ui V 1200 Aounting position As required As required contacts	Storage	θ	°C	-30 - +80
kated insulation voltage Ui Value 200 Aounting position Image: Value As required contacts Image: Value Image: Value Image: Value Auxiliary contacts Image: Value Image: Value Ima	Overvoltage category/pollution degree			III/3
Auunting position As required Auunting position As required Auunting position As required Author of poles Image: Pole Pole Pole Pole Pole Pole Pole Pole	Rated impulse withstand voltage	U _{imp}	kV	8
Acchanical variables Mumber of poles Auxiliary contacts Lectrical characteristics Rated uninterrupted current lu Note on rated uninterrupted current lu Rated short-time withstand current low Note on rated short-time	Rated insulation voltage	Ui	V	1200
Acchanical variables Image: set of poles	Mounting position			As required
Number of poles Auxiliary contacts Pole Auxiliary contacts N/O 2 Image: Contact of the second o	Contacts			
Auxiliary contacts File N/O 2 N/C N/C 2 Celetrical characteristics N/C 2 Rated uninterrupted current !u Image: Part of the second current !u N/C 160 Rated short-time withstand current !u Image: Part of the second current !u Note on rated short-time withstand current !u Image: Part of the second current !u	Mechanical variables			
N/O 2 N/C 2 Rated uninterrupted current 1u N/C 2 Note on rated uninterrupted current 1u N/C 10 Rated short-time withstand current (1 s current) New Arms Note on rated short-time withstand current 1u N/C 10	Number of poles			2 pole
N/C N/C Anticipation Electrical characteristics I A 160 Note on rated uninterrupted current I I A Rated uninterrupted current I is specified for max. cross-section. Rated short-time withstand current (1 s current) I Arms 4000 Note on rated short-time withstand current I Current for a time of 1 second	Auxiliary contacts			
Rated uninterrupted current Iu A 60 Note on rated uninterrupted current !u Iu A Rated uninterrupted current lu is specified for max. cross-section. Rated short-time withstand current (1 s current) Iuw Arms 4000 Note on rated short-time withstand current lcw Iuw Arms Current for a time of 1 second			N/0	2
Rated uninterrupted current Iu A 160 Note on rated uninterrupted current Iu Rated uninterrupted current Iu is specified for max. cross-section. Rated short-time withstand current (1 s current) Icw Arms Note on rated short-time withstand current Icw Current for a time of 1 second			N/C	2
Note on rated uninterrupted current lu Image: Constant of the specified for max. cross-section. Rated short-time withstand current (1 s current) Image: Constant of the specified for max. cross-section. Note on rated short-time withstand current lcw Image: Constant of the specified for max. cross-section. Note on rated short-time withstand current lcw Image: Constant of the specified for max. cross-section.	Electrical characteristics			
Rated short-time withstand current (1 s current) Icw Arms 4000 Note on rated short-time withstand current Icw Current for a time of 1 second	Rated uninterrupted current	lu	А	160
Note on rated short-time withstand current lcw	Note on rated uninterrupted current $\boldsymbol{!}_{u}$			Rated uninterrupted current $\mathbf{I}_{\mathbf{u}}$ is specified for max. cross-section.
	Rated short-time withstand current (1 s current)	I _{cw}	A _{rms}	4000
Rated short-circuit making capacity I _{cm} kA _{eff} 6	Note on rated short-time withstand current lcw			Current for a time of 1 second
	Rated short-circuit making capacity	I _{cm}	kA _{eff}	6

Heat dissipation per pole, current-dependent	P _{vid}	W	13
Switching capacity			
Lifespan, mechanical	Operations		10000
DC			
Utilization category DC21B			
Rated operational current switch			
480 V	I _e	А	160
600 V	I _e	А	160
1000 V	le	А	160
Terminal capacities			
Solid		mm ²	1 x 120
Flat conductor connection with busbars		mm ²	1 x (30 x 3) 2 x (20 x 3)
Terminal screw			M8
Tightening torque for terminal screw		Nm	14

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	In	А	160
Heat dissipation per pole, current-dependent	P _{vid}	W	13
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 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.

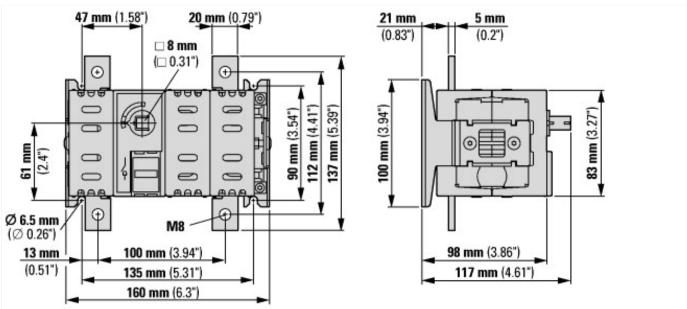
Technical data ETIM 7.0

Low-voltage industrial components (EG000017) / 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])

Degree of protection (NEMA)		Other
Degree of protection (IP), front side		IP20
Type of electrical connection of main circuit		Screw connection
Interlockable		Yes
Type of control element		Long turning handle
Colour control element		Grey
Suitable for intermediate mounting		No
Suitable for distribution board installation		No
Suitable for front mounting centre		No
Suitable for front mounting 4-hole		No
Suitable for ground mounting		Yes
Device construction		Built-in device fixed built-in technique
Voltage release optional		No
Motor drive integrated		No
Motor drive optional		No
Number of auxiliary contacts as change-over contact		0
Number of auxiliary contacts as normally open contact		0
Number of auxiliary contacts as normally closed contact		0
Number of poles		2
Conditioned rated short-circuit current Iq	kA	0
Switching power at 400 V	kW	0
Rated operation power at AC-23, 400 V	kW	0
Rated short-time withstand current lcw	kA	4
Rated operation power at AC-3, 400 V	kW	0
Rated permanent current at AC-21, 400 V	A	0
Rated permanent current at AC-23, 400 V	A	0
Rated permanent current lu	A	160
Rated operating voltage	V	1000 - 1000
Max. rated operation voltage Ue AC	V	0
Number of switches		1
Version as reversing switch		No
Version as emergency stop installation		No
Version as safety switch		No
Version as maintenance-/service switch		Yes
Version as main switch		Yes
[AKF060013])		

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