#### DATASHEET - DDC-160/2/M4/P-G



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



Part no. Catalog No. DDC-160/2/M4/P-G 6098935

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.
Notes			With metal shaft for a control panel depth of 400 mm
Number of poles			2 pole
Auxiliary contacts			
·		N/0	2
7		N/C	2
Degree of Protection			IP20
Design			rear mounting
Rated uninterrupted current	lu	Α	160
Note on rated uninterrupted current $!_{\rm u}$			Rated uninterrupted current ${\rm I}_{\rm u}$ is specified for max. cross-section.
Technical data			

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General			
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			111/3
Rated impulse withstand voltage	U <sub>imp</sub>	kV	8
Rated insulation voltage	Ui	V	1200
Mounting position			As required
Contacts			
Mechanical variables			
Number of poles			2 pole
Auxiliary contacts			
		N/0	2
		N/C	2
Electrical characteristics			
Rated uninterrupted current	Iu	А	160
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 <sub>cw</sub>	A <sub>rms</sub>	4000
Note on rated short-time withstand current lcw			Current for a time of 1 second

04/11/2020

Rated short-circuit making capacity	I <sub>cm</sub>	kA <sub>eff</sub>	6
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	13
Switching capacity			
Lifespan, mechanical	Operations		10000
DC			
Utilization category DC21B			
Rated operational current switch			
480 V	le	Α	160
600 V	le	А	160
1000 V	le	A	160
Terminal capacities			
Solid		mm <sup>2</sup>	1 x 120
Flat conductor connection with busbars		mm <sup>2</sup>	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

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Technical data for design verification			
Rated operational current for specified heat dissipation	In	А	160
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	13
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	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 techno [AKF060013])	ology / Off-load s	witch, circuit breaker, control switch / Switch disconnector (ecl@ss10.0.1-27-37-14-03
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	0
Rated operating voltage	V	1000 - 1000
Rated permanent current lu	А	160
Rated permanent current at AC-23, 400 V	А	0
Rated permanent current at AC-21, 400 V	А	0
Rated operation power at AC-3, 400 V	kW	0
Rated short-time withstand current Icw	kA	4
Rated operation power at AC-23, 400 V	kW	0
Switching power at 400 V	kW	0
Conditioned rated short-circuit current Iq	kA	0
Number of poles		2
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		No
Suitable for intermediate mounting		No
Colour control element		Grey
Type of control element		Long turning handle
Interlockable		Yes
Type of electrical connection of main circuit		Screw connection
Degree of protection (IP), front side		IP20
Degree of protection (NEMA)		Other

### Assets (links)

#### Instruction Leaflets

IL008022ZU2018\_05

# Additional product information (links)

IL008021ZU Switch disconnector DDC, DC-Switch (Box 1)		
IL008021ZU Switch disconnector DDC, DC- Switch (Box 1)	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL008022ZU2018_05.pdf	
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	