# **DATASHEET - DDC-1000/2**



DC switch disconnector, 1000 A, 2 pole, 1 N/O, 1 N/C, with grey knob, service distribution board mounting



**DDC-1000/2** Part no. 6098953 Catalog No.

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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			
1		N/0	1
<b>7</b>		N/C	1
Degree of Protection			IP20
Design			service distribution board mounting
Rated uninterrupted current	I <sub>u</sub>	Α	1000
Note on rated uninterrupted current $\mathbf{I}_{\mathbf{u}}$			Rated uninterrupted current $\mathbf{I}_{\mathbf{u}}$ is specified for max. cross-section.

### **Technical data**

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			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	1
		N/C	1
Electrical characteristics			
Rated uninterrupted current	I <sub>u</sub>	Α	1000
Note on rated uninterrupted current $\mathbf{I}_{\mathbf{u}}$			Rated uninterrupted current $\boldsymbol{l}_{\boldsymbol{u}}$ is specified for max. cross-section.
Rated short-time withstand current (1 s current)	I <sub>cw</sub>	A <sub>rms</sub>	25000
Note on rated short-time withstand current lcw			Current for a time of 1 second
Rated short-circuit making capacity	I <sub>cm</sub>	kA <sub>eff</sub>	54.5

Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	53	
Switching capacity				
Lifespan, mechanical	Operations		5000	
DC				
Utilization category DC21B				
Rated operational current switch				
480 V	l <sub>e</sub>	Α	1000	
600 V	l <sub>e</sub>	Α	1000	
1000 V	I <sub>e</sub>	Α	1000	
Terminal capacities				
Flat conductor connection with busbars		$\text{mm}^2$	2 x (60 x 5)	
Terminal screw			M12 (2 x)	
Tightening torque for terminal screw		Nm	28	

# 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	1000
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	53
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 switch gear must be observed. $\label{eq:specifications}$
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.

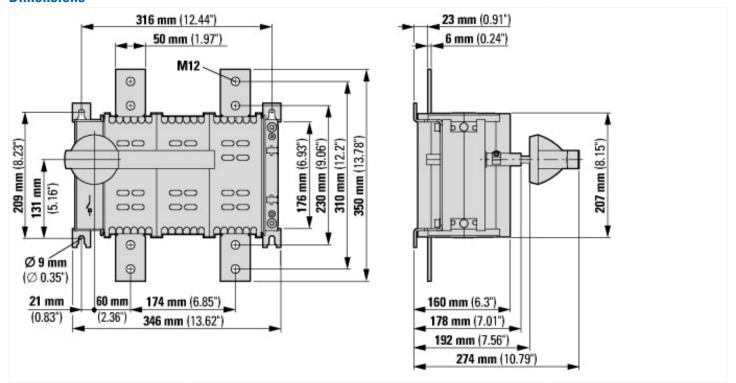
# **Technical data ETIM 7.0**

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 maintenance /service switch Version as semergency stop installation Version as emergency stop installation Version as emergency stop installation Version as emergency stop installation Version as eversing switch Version as reversing switch Ver			
Version as settery switch Version as emergency stop installation Version as reversing switch Version as reversing	Version as main switch		Yes
Averaion as emergency stop installation Averaion as emergency stop installation Averaion as emergency stop installation Averaion of switches Averaion of switches Averaion of switches Averaion operation voltage Ue AC Averaion operation voltage Ue AC Averaion operation voltage Averaion operation operation Averaion operation Averaion operation Averaion Av	Version as maintenance-/service switch		Yes
Avancion as reversing switch  Alumber of switches  Alex reter deperation voltage Ue AC  Au 0  V 000-1000  Alated operation voltage Ue AC  Au 1000-1000  Alated permanent current to AC 23, 400 V  Alated permanent current at AC-23, 400 V  Alated spermanent current at AC-23, 400 V  Alated spermanent current leve Ac 24, 400 V  Alated spermanent current leve Ac 25, 400 V  Alated sperm	Version as safety switch		No
	Version as emergency stop installation		No
Adar a tated operating voltage         V         0           Lated operating voltage         V         1000-1000           Lated operating voltage         V         1000-1000           Lated permanent current at AC-23,400 V         A         0           Lated operation power at AC-3,400 V         kW         0           Lated short-time withstand current low         kW         2           Lated short-time withstand current low         kW         0           Lated short-time with low current low         kW         0           L	Version as reversing switch		No
No.   1000   1	Number of switches		1
Stated permanent current lu         A         1000           Stated permanent current at AC-23, 400 V         A         0           Stated permanent current at AC-21, 400 V         kW         0           Stated short-time withstand current lcw         kA         25           Stated operation power at AC-23, 400 V         kW         0           Switching power at 400 V         kW	Max. rated operation voltage Ue AC	V	0
A comment current at AC-23, 400 V         A comment current at AC-21, 400 V         A comment current at AC-21, 400 V           Acted operation power at AC-3, 400 V         kW         0           Acted operation power at AC-3, 400 V         kW         0           Acted operation power at AC-23, 400 V         kW         0           Acted operation power at AC-23, 400 V         kW         0           Acted operation power at AC-3, 400 V         kW         0           Acted operation power at AC-3, 400 V         kW         0           Acted operation power at AC-3, 400 V         kW         0           Acted operation power at AC-3, 400 V         kW         0           Acted operation power at AC-3, 400 V         kW         0           Acted operation power at AC-3, 400 V         kW         0           Acted operation power at AC-3, 400 V         kW         0           Acted operation power at AC-3, 400 V         kW         0           Acted operation power at AC-3, 400 V         kW         0           Acted operation power at AC-3, 400 V         kW         0           Acted operation power at AC-3, 400 V         kW         0           Acted operation power at AC-3, 400 V         kW         0           Acted operation power at AC-3, 400 V         kW<	Rated operating voltage	V	1000 - 1000
Asted permanent current at AC-21, 400 V Reted operation power at AC-3, 400 V Reted short-time withstand current lcw Reted short-time withstand current lcw Reted operation power at AC-23, 400 V Reted operation power at AC-2	Rated permanent current lu	Α	1000
Rated operation power at AC-3, 400 V         kW         25           Rated short-time withstand current lcw         kW         0           Rated operation power at AC-23, 400 V         kW         0           Switching power at 400 V         kW         0           Switching power at 400 V         kW         0           Sumber of poles         2         2           Sumber of poles         0         0           Sumber of auxiliary contacts as normally closed contact         0         0           Wumber of auxiliary contacts as change-over contact         0         0           Wumber of auxiliary contacts as a change-over contact         0         0           Worth of rive optional         No         No           Worth of rive optional         No         No           Worth of rive optional         No         No           Suitable for ground mounting         No         No           Suitable for front mounting 4-hole         No         No           Suitable for front mounting enertre         No         No           Suitable for intermediate mounting         No         No           Suitable for intermediate mounting         No         No           Suitable for intermediate mounting         No	Rated permanent current at AC-23, 400 V	Α	0
Asked short-time withstand current low Asked operation power at AC-23,400 V AVV Conditioned rated short-circuit current Iq Available of poles Available of auxiliary contacts as normally closed contact Available of auxiliary contacts as normally open contact Available of auxiliary contacts as change-over contact Available of auxiliary contacts as change-over contact Available of auxiliary contacts as change-over contact Available of fort mounting Available for front mounting Available for front mounting centre Available for front mounting centre Available for intermediate mounting Available for fort mounting centre Available for intermediate mounting Available for fort mounting centre Available for intermediate mounting Available for intermediate mounting Available for fort mounting centre Available for fort mounting centre Available for fort mounting centre Available for intermediate mounting Available for fort mounting centre Available for fo	Rated permanent current at AC-21, 400 V	Α	0
Rated operation power at AC-23, 400 V  KW  Conditioned rated short-circuit current Iq  KA  Conditioned rated short-circuit current Iq  Conditioned rated short-circuit current Iq  KA  Conditioned rated short-circuit current Iq  Conditioned rated short-circuit current Iq  Conditioned rated short-circuit current Iq  KA  Conditioned rated short-circuit current Iq  Conditioned rated short-circuit current Iq  KA  Con	Rated operation power at AC-3, 400 V	kW	0
Switching power at 400 V Conditioned rated short-circuit current Iq Conditioned rated short-circuit contacts as normally closed contact Conditioned rated swilliary contacts as normally open contact Conditioned rated swilliary contacts as normally open contact Conditioned rated swilliary contacts as normally closed contact Conditioned rated swilliary contacts as contacts as contacts as normally closed contacts as normally	Rated short-time withstand current lcw	kA	25
Radio   Conditioned rated short-circuit current Iq	Rated operation power at AC-23, 400 V	kW	0
Aumber of poles Aumber of auxiliary contacts as normally closed contact Aumber of auxiliary contacts as normally open contact Aumber of auxiliary contacts as change-over contact Aumber of auxiliary contacts as normally open contact Aumber of auxiliary contacts as normally open contact Aumber of auxiliary contacts as normally open contact Aumber of auxiliary contacts as normally contacts Auxor of auxiliary contacts as normally contacts	Switching power at 400 V	kW	0
Number of auxiliary contacts as normally open contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change. No No Suitable for front mounting 4-hole No Suitable for ground mounting 4-hole No Suitable for front mounting 4-hole No Suitable for front mounting 4-hole No Suitable for front mounting 4-hole No Suitable for ground mounting 4-hole No S	Conditioned rated short-circuit current Iq	kA	0
Number of auxiliary contacts as normally open contact  Number of auxiliary contacts as change-over contact  Notor drive optional  Notor drive integrated  Notor drive integrat	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 distribution board installation  Suitable for distribution board installation  Suitable for intermediate mounting Suitable	Number of auxiliary contacts as normally closed contact		0
Motor drive optional Motor drive integrated No No Device construction Suitable for ground mounting 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 Suitable for intermediate mounting Suitable for intermediate	Number of auxiliary contacts as normally open contact		0
Motor drive integrated  Motor	Number of auxiliary contacts as change-over contact		0
No Device construction Suitable for ground mounting Suitable for front mounting 4-hole Suitable for front mounting centre Suitable for firont mounting centre Suitable for intermediate mounting Suitable for intermediate mountin	Motor drive optional		No
Device construction  Built-in device fixed built-in technique  Yes  Suitable for ground 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  Suitable for intermediate mounting  Colour control element  Suitable for intermediate mounting  Colour control element  Suitable for intermediate mounting  No  Colour control element  Suitable for intermediate mounting  No  Colour control element  Suitable for intermediate mounting  Suitable for front mounting centre  Suitable for front mounting centre  No  Suitable for fort mounting centre  N	Motor drive integrated		No
Suitable for ground mounting Suitable for front mounting 4-hole Suitable for front mounting centre Suitable for distribution board installation Suitable for intermediate mounting Suitable for distribution board installation Suitable for front mounting 4-hole Suitable for distribution 5-hole S	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 Suitable for distribution board installation No Suitable for intermediate mounting No Suitable for distribution board installation No Suitable for distribution board installation No Suitable for dist	Device construction		Built-in device fixed built-in technique
Suitable for front mounting centre  Suitable for distribution board installation  Suitable for intermediate mounting  Suitable for intermediate mounting  No  Colour control element  Suitable for intermediate mounting  Colour control element  Suitable for intermediate mounting  Suitable for intermediate mounting  No  Colour control element  Long turning handle  Yes  Surew connection  Surew connection  Degree of protection (IP), front side  IP20	Suitable for ground mounting		Yes
Suitable for distribution board installation  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  Grey  Long turning handle  Yes  Screw connection  IP20	Suitable for front mounting 4-hole		No
Suitable for intermediate mounting  Solution control element  Solution control element  Solution control element  Solution control element  Long turning handle  Yes  Solution control element  Yes	Suitable for front mounting centre		No
Colour control element  Type of control element  Interlockable  Type of electrical connection of main circuit  Degree of protection (IP), front side  Grey  Grey  Long turning handle  Yes  Screw connection  IP20	Suitable for distribution board installation		No
Type of control element Long turning handle Yes Type of electrical connection of main circuit Segree of protection (IP), front side IP20	Suitable for intermediate mounting		No
nterlockable Yes  Type of electrical connection of main circuit Screw connection 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