

Switch-disconnector, 3 pole, 630 A, without protection, IEC, Fixed

Part no. Article no.

INX16B3-06F-1 183447



Delivery programme

Product range			Air circuit-breakers/switch-disconnectors
Product range			Open switch-disconnectors
Current Range			Up to 4000 A
Protective function			without protection
Installation type			Fixed
Construction size			INX16
Release system			without releases
Standard/Approval			IEC
Number of poles			3 pole
Degree of Protection			IP31 with door seals, IP55 with protective cover
			optionally fittable by user with comprehensive accessories
Rated current = rated uninterrupted current	$I_n = I_u$	А	630
Bemessungskurzschlusseinschaltvermögen bis 440V/690V 42/42	I _{cm}	kA	88
Bemessungskurzzeitstromfestigkeit t = 1 s	I _{cw}	kA	42

Technical data

General			
Standards			IEC/EN 60947
Ambient temperature			
Storage	9	°C	-40 - +70
Ambient temperature		°C	-25 - +70
Mounting position			
Utilization category			В
Degree of Protection			IP31 with door seals, IP55 with protective cover
Direction of incoming supply			as required
Main conducting paths			
Rated current = rated uninterrupted current	$I_n = I_u$	A	630
Rated uninterrupted current at 50 °C	lu	A	630
Rated uninterrupted current at 60 °C	lu	А	630
Rated uninterrupted current at 70 °C	lu	А	630
Rated impulse withstand voltage	U _{imp}	V AC	12000
Rated operational voltage	Ue	V AC	690
Overvoltage category/pollution degree			111/3
Rated insulation voltage	Ui	V	1000
Switching capacity			
Rated short-circuit making capacity	I _{cm}		
up to 440 V 50/60 Hz	I _{cm}	kA	88
up to 690 V 50/60 Hz	I _{cm}	kA	88
Rated short-time withstand current 50/60 Hz			
Rated short-time withstand current (t=1s)	I _{cw}	kA	42
Operating times			
Closing delay via spring release		ms	25

Total opening delay via shunt release		ms	25
Total opening delay via undervoltage release		ms	50
Lifespan		S	
Lifespan, mechanical	Switching cycles (ON/ OFF)		12500
Lifespan, mechanical with maintenance	Switching cycles (ON/ OFF)		25000.
Lifespan, electrical	Switching cycles (ON/ OFF)		10000
Lifespan, electrical with maintenance	Switching cycles (ON/ OFF)		20000.
Maximum operating frequency		Ops./h	
Maximum operating frequency	Operations/h		60
Heat dissipation at rated current I _n			
Fixed mounting		W	36
Weight			
Fixed mounting			
3-pole		kg	17
Terminal capacities			
Copper bar			
Fixed mounting			
Black		mm	2 x 5 x 50
			These are values used in separate switchgear. The actual values will depend on the temperature around the circuit-breaker, which is influenced by the ambient temperature, the degree of protection (IP), the mounting height, the partitions, and any external ventilation. Depending on the specific switchgear design, this may result in derating, which can then be compensated for by increasing the cross- sectional area. Temperature rise tests in the specific switchgear can provide specific and detailed information.
			Permissible continuous current for circuit-breakers operating in switchboards at various internal ambient temperatures. The switchboard's internal ambient temperature should be estimated using the calculation methods of IEC regulation.

Design verification as per IEC/EN 61439

· · · ·			
Technical data for design verification			
Rated operational current for specified heat dissipation	I _n	А	630
Equipment heat dissipation, current-dependent	P _{vid}	W	36
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	70
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 6.0

Low-voltage industrial components (EG000017) / Switch disconnector (EC000216)

Version as maintenner-/sorvice switch Image: set of the set	Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnector (ecl@ss8.1-27-37-14-03 [AKF060010])			
Version as safety switch No Version as enversing switch No Version as enversing switch No Nax. rated operation voltage Ue AC No Rated operation voltage Ue AC S0 Rated operation voltage Ue AC No Rated permanent current lu No No Rated permanent current lu No No Rated abertation power at AC-23, 400 V No No Rated abertation power at AC-23, 400 V No No Switching routest as normally closed contact <td< td=""><td>Version as main switch</td><td></td><td></td><td>Yes</td></td<>	Version as main switch			Yes
Version as revorsing switch No Version as revorsing switch No Max. redo operation voltage Ue AC No Rated operation voltage Ue AC No Switching power at 400 V No Souther of poles No Number of auxiliary contacts as normally open contact No Number of auxiliary contacts as normally open contact No Notor drive integrated No Notor drive integrated No Notor drive integrated No Sutable for for mounting centar	Version as maintenance-/service switch			No
Version as reversing with Image: state operation voltage Uo AC	Version as safety switch			No
Max rated operating voltage V 80 Rated operating voltage V 80 60 Rated operating voltage V 80 60 Rated permanent current lu C A 0 Rated operation power at AC-21, 400 V C Rated short-toricut current low Rated short-toricut current low C Rated short-toricut current low C Rated short-toricut current low C Rated short	Version as emergency stop installation			No
Rade operation yoldsge V Sign - Sign	Version as reversing switch			No
Acted permanent current lu A S0 Rated permanent current ta AC-21,400 V A 0 Rated operation power at AC-3,400 V KW 0 Rated operation power at AC-23,400 V KM 2 Rated short-time withstand current lcw KM 2 Rated short-time withstand current lcw KM 0 Switching power at 400 V KW 0 Conditioned rated short-tircuit current lq KW 8 Number of auxiliary contacts as normally open contact KW 0 Number of auxiliary contacts as change-over contact Yes 0 Voltago release optional Yes Yes Sutable for front mounting -thole Yes No Sutable for front mounting center Yes No Sutable for front mounting center Yes No Sutable for front mounting center Yes No Sutable for intermediate mounting Yes No Sutable for intermediate mounting Yes No Sutable for intermediate mounting Yes No Su	Max. rated operation voltage Ue AC		V	690
Asted permanent current at AC-21, 400 V Image: Construction power at AC-3, 400 V Image: Construction power at AC-3, 400 V Image: Construction power at AC-23, 400 V Image: Construction p	Rated operating voltage		V	690 - 690
Ander operation power at AC-3, 400 V Image: Section operation power pow	Rated permanent current lu		А	630
Rated short-time withstand current low Image: Construction power at AC-33, 400 V Image: Construction power at A00 V Image: Construction power A00 V Image: Construction power at A00 V	Rated permanent current at AC-21, 400 V		А	0
Rated operation power at AC-23, 400 V Image: Note of the second sec	Rated operation power at AC-3, 400 V		kW	0
Witching power at 400 VIIConditioned rated short-circuit current IqIIINumber of polesIIIINumber of auxiliary contacts as normally closed contactIIIINumber of auxiliary contacts as change-over contactIIIIINumber of auxiliary contacts as change-over contactIIIIIIINumber of auxiliary contacts as change-over contactIIIIIIIIIIIIIIIIII	Rated short-time withstand current lcw		kA	42
Conditioned rated short-circuit current Iq KA 8 Number of poles 3 3 Number of auxiliary contacts as normally closed contact 0 0 Number of auxiliary contacts as normally open contact 0 0 Number of auxiliary contacts as change-over contact 0 0 Motor drive optional Vers 2 Motor drive integrated No No Voltage release optional Vers No Suitable for ground mounting Vers No Suitable for front mounting center Vers No Suitable for intermediate mounting Yers No Suitabl	Rated operation power at AC-23, 400 V		kW	0
Number of poles 3 Number of auxiliary contacts as normally cosed contact 0 Number of auxiliary contacts as normally open contact 0 Number of auxiliary contacts as normally open contact 0 Number of auxiliary contacts as normally open contact 0 Number of auxiliary contacts as change-over contact 0 Motor drive pitional Yes Motor drive integrated Yes Police construction Yes Suitable for ground mounting Yes Suitable for front mounting enter Yes Suitable for dristribution board installation Yes Suitable for intermediate mounting Yes	Switching power at 400 V		kW	0
Auwher of auxiliary contacts as normally closed contact Image: space of auxiliary contacts as normally open contact Image: space of auxiliary contacts as normally open contact Image: space of auxiliary contacts as normally open contact Image: space of auxiliary contacts as normally open contact Image: space of auxiliary contacts as normally open contact Image: space of auxiliary contacts as normally open contact Image: space of auxiliary contacts as normally open contact Image: space of auxiliary contacts as normally open contact Image: space of auxiliary contacts as normally open contact Image: space of auxiliary contacts as normally open contact Image: space of auxiliary contacts as normally open contact Image: space of auxiliary contacts as normally open contact Image: space of auxiliary contacts as normally open contact Image: space of auxiliary contacts as normally open contact Image: space of auxiliary contacts as normally open contact Image: space of auxiliary contacts as normally open contact Image: space of auxiliary contacts as normally open contact Image: space of auxiliary contacts as normally open contact Image: space of auxiliary contacts as normally open contact Image: space of auxiliary contacts as normally open contact Image: space of auxiliary contacts as normally open contact Image: space of auxiliary contacts as normally open contact Image: space of auxiliary contacts as normally open contact Image: space of auxiliary contacts as normally open contact Image: space of auxiliary contacts as normally open contact Image: space of auxiliary	Conditioned rated short-circuit current Iq		kA	88
Number of auxiliary contacts as normally open contact Image: space open	Number of poles			3
Number of auxiliary contacts as change-over contact 2 Motor drive optional Yes Motor drive integrated No Voltage release optional Ses Device construction Suitable for ground mounting Suitable for front mounting 4-hole Ses Suitable for front mounting center No Suitable for intermediate mounting Ses Ses Ses Ses Ses <td>Number of auxiliary contacts as normally closed contact</td> <td></td> <td></td> <td>0</td>	Number of auxiliary contacts as normally closed contact			0
Motor drive optional Yes Votage release optional Yes Device construction Yes Device construction Yes Suitable for ground mounting Yes Suitable for front mounting 4-hole Yes Suitable for front mounting center No Suitable for front mounting center Yes Suitable for intermediate mounting Yes Suitable for intermediate mounting Yes Colour control element Yes Type of control element Yes Type of control element Yes Type of electrical connection of main circuit Yes	Number of auxiliary contacts as normally open contact			0
Motor drive integrated No Wotor drive integrated No Votage release optional Yes 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 center No Suitable for front mounting center No Suitable for intermediate mounting Yes Colour control element No Type of control element Genen Type of elettrical connection of main circuit Yes Type of electrical connection of main circuit Set	Number of auxiliary contacts as change-over contact			2
Voltage release optional Fes Device construction Built- in device fixed built-in technique Suitable for ground mounting Fes Suitable for front mounting 4-hole No Suitable for front mounting center No Suitable for intermediate mounting Fes	Motor drive optional			Yes
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 center Yes Suitable for distribution board installation Yes Suitable for intermediate mounting Yes Colour control element Yes Type of control element Yes Interlockable Yes Interlockable Yes Ride construction of main circuit Yes Rest Rail connection of main circuit	Motor drive integrated			No
Suitable for ground mounting Yes Suitable for front mounting 4-hole No Suitable for front mounting center No Suitable for distribution board installation Yes Suitable for intermediate mounting Yes Colour control element Yes Type of control element Yes Interlockable Yes Type of electrical connection of main circuit Yes	Voltage release optional			Yes
Suitable for front mounting 4-hole No Suitable for front mounting center No Suitable for distribution board installation Yes Suitable for intermediate mounting No Colour control element No Type of control element Yes Interlockable Yes Type of electrical connection of main circuit Solitable for intermediate mounting	Device construction			Built-in device fixed built-in technique
Suitable for front mounting centerNoSuitable for distribution board installationYesSuitable for intermediate mountingNoColour control elementGreenType of control elementYesInterlockableYesType of electrical connection of main circuitGreenSuitable for intermediate mountingYesSuitable for intermediate mountingYesSuitable for intermediate mountingYesSuitable for intermediate mountingSuitableSuitable for intermediate mountingYesSuitable for intermediate mountingSuitableSuitable for intermediate mounting </td <td>Suitable for ground mounting</td> <td></td> <td></td> <td>Yes</td>	Suitable for ground mounting			Yes
Suitable for distribution board installation Yes Suitable for intermediate mounting No Colour control element Green Type of control element Push button Interlockable Yes Type of electrical connection of main circuit Green	Suitable for front mounting 4-hole			No
Suitable for intermediate mounting No Colour control element Green Type of control element Push button Interlockable Yes Type of electrical connection of main circuit Green	Suitable for front mounting center			No
Colour control element Green Type of control element Push button Interlockable Yes Type of electrical connection of main circuit Green	Suitable for distribution board installation			Yes
Type of control element Push button Interlockable Yes Type of electrical connection of main circuit All connection	Suitable for intermediate mounting			No
Interlockable Yes Type of electrical connection of main circuit Mail connection	Colour control element			Green
Type of electrical connection of main circuit Rail connection	Type of control element			Push button
	Interlockable			Yes
Degree of protection (IP), front side IP31	Type of electrical connection of main circuit			Rail connection
	Degree of protection (IP), front side			IP31

Dimensions

