DATASHEET - INX40B3-16F-1



Switch-disconnector, 3 pole, 1600A, without protection, IEC, Fixed

Powering Business Worldwide™

INX40B3-16F-1 Part no. Catalog No. 184043

EL-Nummer (Norway)

4398405

Delivery program

Delivery program			
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			INX40
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	$\boldsymbol{I}_n = \boldsymbol{I}_u$	Α	1600
Rated short-circuit making capacity up to 440V/690V 42/42	I _{cm}	kA	145
Rated short-time withstand current t =1 s	I _{cw}	kA	66
Rated short-time withstand current t =3 s	I _{cw}	kA	53

Technical data General					
Standards			IEC/EN 60947		
Ambient temperature					
Storage	9	°C	-40 - +70		
Ambient temperature		°C	-25 - +70		
Mounting position			30° 30° 30°		
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	$I_n = I_u$	Α	1600		
Rated uninterrupted current at 50 °C	I _u	Α	1600		
Rated uninterrupted current at 60 °C	Iu	Α	1600		
Rated uninterrupted current at 70 °C	I _u	Α	1600		
Rated impulse withstand voltage	U _{imp}	V AC	12000		
Rated operational voltage	U _e	V AC	690		
Overvoltage category/pollution degree			III/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	145		
up to 690 V 50/60 Hz	I _{cm}	kA	145		
Operating times					
Closing delay via spring release		ms	30		

Switching cycles (ON/ OFF) Switching cycles (ON/	ms ms S	35 40 12500
cycles (ON/ OFF) Switching		
cycles (ON/ OFF) Switching		
cycles (ON/ OFF) Switching	S	12500
cycles (ON/ OFF) Switching		12500
OFF)		25000.
Switching cycles (ON/ OFF)		10000
Switching cycles (ON/ OFF)		20000.
	Ops./h	
Operations/h		60
	W	140
	kg	43
	mm	1 x 80 x 10
		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, an 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.
	Switching cycles (ON/ OFF) Switching cycles (ON/ OFF)	Switching cycles (ON/OFF) Switching cycles (ON/OFF) Ops./h Operations/h W

Design verification as per IEC/EN 61439

Design verification as per IEC/EN 61439			
echnical data for design verification			
Rated operational current for specified heat dissipation	In	Α	1600
Equipment heat dissipation, current-dependent	P_{vid}	W	140
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	70
EC/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])

Version as main awinch (version as main internance-/service switch) () No Version as semergency stap installation () No Version as semergency stap installation () No Version as semergency stap installation () No Number of switched () Westion as semergency stap installation Mex. rated operation voltage Use AC () Westion as semergency stap installation Mex. rated operation voltage Use AC () 80 Rated operation voltage Use AC () 80 Rated operation power and AC-23,400 V () 0 Rated operation power at AC-23,400 V () 0 Rated operation power at AC-23,400 V () 0 Rated operation power at AC-23,400 V () 0 Rated operation power at AC-23,400 V () 0 Number of quadrate dark-territies and current () () 0 Number of quadrate dark-territies and premer of access and premer access access and premer access access and premer	[AKF060013])	37.		
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Version as emergency stop installation Image: Provided Serviction Serv	Version as maintenance-/service switch			No
Version as reversing switch Moment of switches Vol. 690-890 Second operation voltage (Lance) Vol. 690-890-890 Second operation voltage (Lance) Amount of switches Moment of switches Amount of switches Moment of switches Amount of switches Moment of switches Amount of switches Amount of switches Moment of switches Amount of swit	Version as safety switch			No
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Rated permanent current at AC-21, 400 V A 0 Rated permanent current at AC-21, 400 V A 0 Rated operation power at AC-3, 400 V W 0 Rated short-time withstand current lew A 66 Rated short-time withstand current lew B W 0 Rated permanent current at AC-23, 400 V W 0 0 Switching power at 400 V W 0 0 Conditioned rated short-circuit current lq M 14 4 Number of poles B 3 3 Number of auxiliary contacts as normally closed contact C 0 0 Number of auxiliary contacts as normally open contact C 2 0 Motor drive optional C 9 8 Motor drive optional C 9 9 Voltage release optional C 9 9 Suitable for ground mounting C 9 9 9 Suitable for front mounting centre C 9 9 9 Suitable fo	Rated operating voltage		V	690 - 690
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Motor drive integratedNoVoltage release optionalYesDevice constructionBuilt-in device fixed built-in techniqueSuitable for ground mountingYesSuitable for front mounting 4-holeNoSuitable for front mounting centreNoSuitable for distribution board installationYesSuitable for intermediate mountingNoColour control elementGreenType of control elementPush buttonInterlockableYesType of electrical connection of main circuitRail connectionDegree of protection (IP), front sideIP31	Number of auxiliary contacts as change-over contact			2
Voltage release optional 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 Type of electrical connection of main circuit Degree of protection (IP), front side Yes Suitable for distribution board installation Yes No Rail connection Pash Pash Pash Rail connection Pash Pa	Motor drive optional			Yes
Device construction Built-in device fixed built-in technique Yes Suitable for ground mounting 4-hole No 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 Built-in device fixed built-in technique Yes No Ro Ro Ro Ro Built-in device fixed built-in technique No Ro Ro Ro Ro Ro Ro Ro Ro Ro	Motor drive integrated			No
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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 Green Push button Rail connection IP31	Device construction			Built-in device fixed built-in technique
Suitable for front mounting centre Suitable for distribution board installation Yes 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 Green Push button Yes Rail connection IP31	Suitable for ground mounting			Yes
Suitable for distribution board installation Yes 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 Yes Yes IP31	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 Green Push button Yes Rail connection IP31	Suitable for front mounting centre			No
Colour control element Type of control element Push button Interlockable Type of electrical connection of main circuit Degree of protection (IP), front side Green Push button Yes Italian Ita	Suitable for distribution board installation			Yes
Type of control element Interlockable Type of electrical connection of main circuit Degree of protection (IP), front side Push button Yes Rail connection IP31	Suitable for intermediate mounting			No
Interlockable Yes Type of electrical connection of main circuit Rail connection Degree of protection (IP), front side IP31	Colour control element			Green
Type of electrical connection of main circuit Degree of protection (IP), front side Rail connection IP31	Type of control element			Push button
Degree of protection (IP), front side	Interlockable			Yes
	Type of electrical connection of main circuit			Rail connection
Degree of protection (NEMA)	Degree of protection (IP), front side			IP31
	Degree of protection (NEMA)			

Dimensions

