DATASHEET - INX40B3-32F-1



Switch-disconnector, 3 pole, 3200A, without protection, IEC, Fixed



INX40B3-32F-1 184046

4398408

EL-Nummer (Norway)

Part no.



Delivery program

		Air circuit-breakers/switch-disconnectors
		Open switch-disconnectors
		Up to 4000 A
		without protection
		Fixed
		INX40
		without releases
		IEC
		3 pole
		IP31 with door seals, IP55 with protective cover
		optionally fittable by user with comprehensive accessories
$I_n = I_u$	А	3200
I _{cm}	kA	145
I _{cw}	kA	66
I _{cw}	kA	53
	l _{cm} l _{cw}	I _{cm} kA I _{cw} kA

Technical data

Anbient emperature B C Anbient emperature Ambient temperature V 0 -25 - 70 Mounting position V	General			
Storage 0 °C 0 °D Anbient temperature °C 25 - 70 Mounting position Image: Storage Image: Storage Image: Storage Mounting position Image: Storage Image: Storage Image: Storage Utilization category Image: Storage Image: Storage Image: Storage Degree of Protection Image: Storage Image: Storage Image: Storage Nation conducting paths Image: Storage Image: Storage Image: Storage Act ournet rated uninterrupted current at 50 °C Image: Storage Image: Storage Image: Storage Rated uninterrupted current at 50 °C Image: Storage Image: Storage Image: Storage Image: Storage Rated uninterrupted current at 50 °C Image: Storage Image: Storage Image: Storage Image: Storage Rated uninterrupted current at 50 °C Image: Storage Image: Storage Image: Storage Image: Storage Rated uninterrupted current at 50 °C Image: Storage Image: Storage Image: Storage Image: Storage Image: Storage Rated uninterrupted cu	Standards			IEC/EN 60947
Ambient emperature C 25 - 70 Mounting position Image: Solution of the solution o	Ambient temperature			
Mounting position Image: Solution Image: S	Storage	9	°C	-40 - +70
Litization category Sol	Ambient temperature		°C	-25 - +70
Degree of Protection Pail with door seals, IP55 with protective cover Direction of incoming supply a required Main conducting paths a required Rated current = rated uninterrupted current In = Ing A Bated uninterrupted current at 50 °C Ing A 200 Rated uninterrupted current at 60 °C Ing A 200 Rated uninterrupted current at 70 °C Ing A 200 Rated uninterrupted current at 70 °C Ing A 200 Rated uninterrupted current at 70 °C Ing A 200 Rated uninterrupted current at 70 °C Ing A 200 Rated uninterrupted current at 70 °C Ing A 200 Rated operational voltage Ump VAC 200 Rated operational voltage Ump VAC 200 Rated atom voltage Ing VAC 200 Rated voltage category/pollution degree Ing 200 200 Ing totagot Stategord Ing 200 200 Ing totagot Stategord	Mounting position			30° 30° 30° 30°
Direction of incoming supply Instrume as required Baie Conducting paths as required as required Rated uninterrupted current at 50 °C Instrume A 300 Rated uninterrupted current at 60 °C Instrume A 300 Rated uninterrupted current at 60 °C Instrume A 300 Rated uninterrupted current at 60 °C Instrume A 300 Rated uninterrupted current at 60 °C Instrume A 300 Rated uninterrupted current at 60 °C Instrume A 300 Rated uninterrupted current at 60 °C Instrume A 300 Rated uninterrupted current at 60 °C Instrume A 300 Rated uninterrupted current at 60 °C Instrume A 300 Rated uninterrupted current at 60 °C Instrume 100 100 Rated on protein making capacity Instrume Instrume Instrume In to 400 V 50/60 Hz Instrume Instrume Instrume Instrume In to 600 V 50/60 Hz Instrume Instrume <	Utilization category			В
Main conducting paths Rated current = rated uninterrupted current at 50 °C Ia A 300 Rated uninterrupted current at 50 °C Ia 320 300 Rated uninterrupted current at 60 °C Ia A 320 Rated uninterrupted current at 70 °C Ia S 320 Rated uninterrupted current at 70 °C Ia S 320 Rated uninterrupted current at 70 °C Ia S 320 Rated uninterrupted current at 70 °C Ia S 320 Rated uninterrupted current at 70 °C Ia S 320 Rated insplate withstand voltage Ia V S 320 Rated insplate withstand voltage Ia Y S 320 Overvoltage category/pollution degree Ia Y S 320 Stottching capacity Ia Y S 320 Stottching capacity Ia Y 320 320 Ia to 4400 Sp(60 Hz Ia Y 320 320 Ia to 4900 Sp(60 Hz	Degree of Protection			IP31 with door seals, IP55 with protective cover
Rated current = rated uninterrupted current at 50 °C Ia A 3200 Rated uninterrupted current at 50 °C Ia A 3200 Rated uninterrupted current at 60 °C Ia A 3200 Rated uninterrupted current at 70 °C Ia A 3200 Rated uninterrupted current at 70 °C Ia A 3200 Rated inpulse withstand voltage Ia A 3200 Rated operational voltage Uimp VAC 3200 Overvoltage category/pollution degree Ve VAC 3200 Switching capacity Ve VAC 3200 Switching capacity Ve VAC 3200 Switching capacity Ve VAC 3200 In po 440 V50/60 Hz Ve Ve 3200 In po 440 V50/60 Hz Ia Ve 3200 In po 690 V50/60 Hz Ia Ve 3200 In po 690 V50/60 Hz Ia Mac 3200 In po 690 V50/60 Hz Ia Mac 3200 In po 690 V50/60 Hz Ia Mac 3200	Direction of incoming supply			as required
Rated uninterrupted current at 50 °C Iu A 300 Rated uninterrupted current at 60 °C Iu A 300 Rated uninterrupted current at 70 °C Iu A 300 Rated uninterrupted current at 70 °C Iu A 300 Rated uninterrupted current at 70 °C Iu A 300 Rated uninterrupted current at 70 °C Iu A 300 Rated uninterrupted current at 70 °C Iu A 300 Rated uninterrupted current at 70 °C Iu A 300 Rated uninterrupted current at 70 °C Va Mac 300 Rated inpulse withstand voltage Ug VAC S00 Overvoltage category/pollution degree Ug VAC S00 Rated insulation voltage Ug V S00 Svitching capacity Iu Vac S00 Iu to 440 V50/60 Hz Ia Mac S0 Iu to 440 V50/60 Hz Ia Mac S0 Iu to 440 V50/60 Hz Ia Mac S0	Main conducting paths			
Rated uninterrupted current at 60 °C Iu A 3200 Rated uninterrupted current at 70 °C Iu A 3200 Rated inpulse withstand voltage Ump VAC 12000 Rated operational voltage Ump VAC 690 Overvoltage category/pollution degree Via VAC 1000 Rated insulation voltage Ui Vac 1000 Rated short-circuit making capacity Via Vac 1000 up to 440 V 50/60 Hz Icm Kar 1500 up to 690 V 50/60 Hz Icm Kar 1400 up to 690 V 50/60 Hz Icm Kar 1400 up to 690 V 50/60 Hz Icm Kar 1400 up to 690 V 50/60 Hz Icm Kar 1400	Rated current = rated uninterrupted current	$I_n = I_u$	Α	3200
Rated uninterrupted current at 70 °C Iu A 3200 Rated inpulse withstand voltage Uinpot VAC 3200 Rated operational voltage Uinpot VAC 3200 Overvoltage category/pollution degree U VAC 300 Rated insulation voltage U VAC 300 Rated insulation voltage U VAC 300 Rated insulation voltage U VAC 300 Switching capacity U VAC 300 up to 440 V 50/60 Hz U Vac 300 up to 690 V 50/60 Hz Image KA 45 up to 690 V 50/60 Hz Image KA 45 up to 690 V 50/60 Hz Image KA 45	Rated uninterrupted current at 50 °C	l _u	Α	3200
Rated inpulse withstand voltage Vinp VAC 2000 Rated operational voltage Ve 90 Overvoltage category/pollution degree Ve 11/3 Rated insulation voltage Ve 100 Rated source category/pollution degree Ve 100 Rated insulation voltage Ve Ve Rated source category/pollution degree Ve 100 Rated source category/pollution degree Ve Ve Note category/pollution degree Ve Ve Rated insulation voltage Ve Ve 100 Source category/pollution degree Ve Ve Ve Note category/pollution degree Ve Ve 100 Source category/pollution degree Ve Ve Ve Note category catego	Rated uninterrupted current at 60 °C	lu	А	3200
Rated operational voltage Vac 600 Overvoltage category/pollution degree III/3 Rated insulation voltage Vac 100 Switching capacity Iema Iema up to 440 V 50/60 Hz Iema KAC 145 up to 6900 V 50/60 Hz Iema KAC 145	Rated uninterrupted current at 70 °C	I _u	А	3200
Overvoltage category/pollution degree Image: Comparison of tage Image: Comparison of tage Rated insulation voltage V 100 Switching capacity Image: Comparison of tage Image: Comparison of tage Rated short-circuit making capacity Image: Comparison of tage Image: Comparison of tage up to 440 V 50/60 Hz Image: Comparison of tage Image: Comparison of tage up to 690 V 50/60 Hz Image: Comparison of tage Image: Comparison of tage Up tage Image: Comparison of tage Image: Comparison of tage Up tage Image: Comparison of tage Image: Comparison of tage Up tage Image: Comparison of tage Image: Comparison of tage Up tage Image: Comparison of tage Image: Comparison of tage Up tage Image: Comparison of tage Image: Comparison of tage Up tage Image: Comparison of tage Image: Comparison of tage Up tage Image: Comparison of tage Image: Comparison of tage Up tage Image: Comparison of tage Image: Comparison of tage Up tage Image: Comparison of tage Image: Comparison of tage Up tage Image: Comparison of tage Image: Comparison of tage Up tage Image: Comparison of tage Image: Comparison of tage Up tage Imag	Rated impulse withstand voltage	U _{imp}	V AC	12000
Rated insulation voltage Ui V 1000 Switching capacity Image: Image	Rated operational voltage	Ue	V AC	690
Switching capacity Image: Comparison of the system of th	Overvoltage category/pollution degree			111/3
Rated short-circuit making capacity Icm Icm up to 440 V 50/60 Hz Icm KA 145 up to 690 V 50/60 Hz Icm KA 145 Operating times Icm KA 145	Rated insulation voltage	Ui	V	1000
up to 440 V 50/60 Hz Icm KA 145 up to 690 V 50/60 Hz Icm KA 145 Operating times Icm KA 145	Switching capacity			
up to 690 V 50/60 Hz Icm KA 145	Rated short-circuit making capacity	I _{cm}		
Operating times	up to 440 V 50/60 Hz	I _{cm}	kA	145
	up to 690 V 50/60 Hz	I _{cm}	kA	145
Closing delay via spring release ms 30	Operating times			
	Closing delay via spring release		ms	30

Total opening delay via shunt release		ms	35
Total opening delay via undervoltage release		ms	40
Lifespan		S	
Lifespan, mechanical	Switching cycles (ON/ OFF)		10000
Lifespan, mechanical with maintenance	Switching cycles (ON/ OFF)		20000.
Lifespan, electrical	Switching cycles (ON/ OFF)		5000
Lifespan, electrical with maintenance	Switching cycles (ON/ OFF)		10000.
Maximum operating frequency		Ops./h	
Maximum operating frequency	Operations/h		60
Heat dissipation at rated current In			
Fixed mounting		W	385
Weight			
Fixed mounting			
3-pole		kg	43
Terminal capacities			
Copper bar			
Fixed mounting			
Black		mm	3 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, 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.
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Design verification as per IEC/EN 61439

Design vernication as per icc/civ 01455			
Technical data for design verification			
Rated operational current for specified heat dissipation	In	А	3200
Equipment heat dissipation, current-dependent	P _{vid}	W	385
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.
10.9.4 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])

[AKF000013])			
Version as main switch		Yes	
Version as maintenance-/service switch		No	
Version as safety switch		No	
Version as emergency stop installation		No	
Version as reversing switch		No	
Number of switches			
Max. rated operation voltage Ue AC	V	690	
Rated operating voltage	V	690 - 690	
Rated permanent current lu	А	3200	
Rated permanent current at AC-23, 400 V	А		
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 lcw	kA	66	
Rated operation power at AC-23, 400 V	kW	0	
Switching power at 400 V	kW	0	
Conditioned rated short-circuit current Iq	kA	144	
Number of poles		3	
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		2	
Motor drive optional		Yes	
Motor drive integrated		No	
Voltage 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 centre		No	
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		Rail connection	
Degree of protection (IP), front side		IP31	
Degree of protection (NEMA)			



