DATASHEET - INX40N4-16F-1

Switch-disconnector, 4 pole, 1600A, without protection, IEC, Fixed

Part no.	**INX40N4-16F-1**
	184083
EL Number (Norway)	**4398445**

General specifications

Product name	Eaton Moeller series IZMX/INX switch-disconnector
Part no.	INX40N4-16F-1
EAN	4015081796229
Product Length/Depth	584 millimetre
Product height	597 millimetre
Product width	521 millimetre
Product weight	56 kilogram
Compliances	IEC/EN 60947 IEC RoHS conform
Product Tradename	IZMX/INX
Product Type	Switch-disconnector
Product Sub Type	None

Delivery program

Type	Air circuit breakers/switch-disconnector Open switch-disconnector
Number of poles	Four-pole
Amperage Rating	1600 A
Release system	Without releases
Features	Version as main switch Motor drive optional Version as maintenance-/service switch
Special features	Optionally fittable by user with comprehensive accessories Terminal capacity hint: 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.
Frame	INX40
Suitable for	Distribution board installation Ground mounting Intermediate mounting
Used with	Open switch-disconnector Air circuit breakers/switch-disconnector

Technical Data - Electrical

Voltage rating at AC	690 V AC
Rated operating voltage (Ue) - min	690 V
Rated operating voltage (Ue) - max	690 V
Rated operating voltage (Ue) at AC - max	690 V
Rated insulation voltage (Ui)	1000 V
Rated impulse withstand voltage (Uimp)	12 kV AC
Rated uninterrupted current (Iu)	1600 A
Rated uninterrupted current (Iu) at 50°C	1600 A
Rated uninterrupted current (Iu) at 60°C	1600 A
Rated uninterrupted current (Iu) at 70°C	1600 A
Rated conditional short-circuit current (Iq)	187 kA
Rated permanent current at AC-21, 400 V	0 A
Rated permanent current at AC-23, 400 V	1600 A
Rated short-time withstand current (Icw)	85 kA
Rated short-time withstand current (t = 1 s)	85 kA
Rated short-time withstand current at 50/60 Hz (t = 3 s)	66 kA

Rated short-circuit making capacity up to 440 V, 50/60 Hz	187 kA
Rated short-circuit making capacity up to 690 V, 50/60 Hz	166 kA
Rated operating power at AC-3, 400 V	0 kW
Rated operating power at AC-23, 400 V	0 kW
Switching power at 400 V	0 kW
Closing delay via spring release	35 ms
Electrical connection type of main circuit	Rail connection
Number of standard mechanical operations per hour - max	60
Actuator type	Push button
Utilization category	B
Overvoltage category	III
Pollution degree	3
Lifespan, electrical	10000 operations (switching capacity) 20000 operations (switching cycles ON/OFF, with maintenance)
Direction of incoming supply	As required

Technical Data - Mechanical

Device construction	Built-in device fixed built-in technique
Mounting Method	Fixed
Degree of protection	IP31 with door seals IP55 with protective cover
Degree of protection (front side)	IP31
Protection	None
Number of auxiliary contacts (change-over contacts)	2
Number of auxiliary contacts (normally closed contacts)	0
Number of auxiliary contacts (normally open contacts)	0
Number of switches	1
Position of connection for main current circuit	Back side
Weight of fixed mounting version (4-pole)	54 kg
Actuator color	Green
Lifespan, mechanical	25000 operations (switching capacity, with maintenance) 12500 switching cycles (ON/OFF)

Technical Data - Mechanical - Terminals

Terminal capacity (copper bar)	80 mm x 10 mm (1x) for fixed mounting (black)

Design verification as per IEC/EN 61439 - technical data

Rated operational current for specified heat dissipation (In)	1600 A
Equipment heat dissipation, current-dependent	100 W
Heat dissipation at rated current with fixed mounting	100 W
Ambient operating temperature details	-20 °C - 70 °C
Ambient operating temperature - min	-25 °C
Ambient operating temperature - max	70 °C
Ambient storage temperature - min	-40 °C
Ambient storage temperature - max	70 °C

Design verification as per IEC/EN 61439

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 Resist. of insul. mat. to abnormal heat/fire by internal elect. 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.
10.9.2 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.

Additional information

Functions			Voltage release optional Interlockable

Technical data ETIM 9.0

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

Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnector (ecl@ss13-27-37-14-03 [AKF060018])

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	690
Rated operating voltage		V	690 - 690
Rated permanent current Iu		A	1600
Rated permanent current at AC-23, 400 V		A	1600
Rated permanent current at AC-21, 400 V		A	0
Rated operation power at AC-3, 400 V		kW	0
Rated short-time withstand current Icw		kA	85
Rated operation power at AC-23, 400 V		kW	0
Switching power at 400 V		kW	0
Conditioned rated short-circuit current Iq		kA	187
Number of poles			4
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 floor 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			Yes
Colour control element			Green
Type of control element			Push button
Interlockable			Yes
Type of electrical connection of main circuit			Rail connection
With pre-assembled cabling			No
Degree of protection (IP), front side			IP31
Degree of protection (NEMA)			
Width		mm	521

Height		mm	597
Depth		mm	584
Width in number of modular spacings			30

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