

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



**Part no.** INX40N3-16F-1  
**184051**  
**EL Number** 4398413  
**(Norway)**

General specifications		
Product name		Eaton Moeller series IZMX/INX switch-disconnector
Part no.		INX40N3-16F-1
EAN		4015081795901
Product Length/Depth		584 millimetre
Product height		597 millimetre
Product width		521 millimetre
Product weight		45 kilogram
Compliances		IEC IEC/EN 60947 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		Three-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		Air circuit breakers/switch-disconnector Open 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
<b>Technical Data - Mechanical</b>	
Device construction	Built-in device fixed built-in technique
Mounting Method	Fixed
Degree of protection	IP55 with protective cover IP31 with door seals
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 (3-pole)	43 kg
Actuator color	Green
Lifespan, mechanical	25000 operations (switching capacity, with maintenance) 12500 switching cycles (ON/OFF)
<b>Technical Data - Mechanical - Terminals</b>	
Terminal capacity (copper bar)	80 mm x 10 mm (1x) for fixed mounting (black)
<b>Design verification as per IEC/EN 61439 - technical data</b>	
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
<b>Design verification as per IEC/EN 61439</b>	
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.
<b>Additional information</b>		
Functions		Interlockable Voltage release optional

## Technical data ETIM 9.0

Low-voltage industrial components (EG000017) / Switch disconnecter (low voltage) (EC000216)		
Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnecter (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 U <sub>e</sub> AC	V	690
Rated operating voltage	V	690 - 690
Rated permanent current I <sub>u</sub>	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 I <sub>cw</sub>	kA	85
Rated operation power at AC-23, 400 V	kW	0
Switching power at 400 V	kW	0
Conditioned rated short-circuit current I <sub>q</sub>	kA	187
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 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		24