## Switch-disconnector, 3 p, 630A, frame size 3



Part no. LN3-630-I 112009

General specifications	
Product name	Eaton Moeller series Power Defense molded case switch-disconnector
Part no.	LN3-630-I
EAN	4015081115570
Product Length/Depth	166 millimetre
Product height	275 millimetre
Product width	140 millimetre
Product weight	5.7 kilogram
Compliances	RoHS conform
Certifications	IEC
Product Tradename	Power Defense
Product Type	Molded case switch-disconnector
Product Sub Type	None
Delivery program	
Application	Use in unearthed supply systems at 690 V
Туре	Switch-disconnector
Circuit breaker frame type	LN3
Number of poles	Three-pole
Amperage Rating	630 A
Features	Motor drive optional Version as emergency stop installation Version as maintenance-/service switch Version as main switch
Special features	Main switch characteristics including positive drive to IEC/EN 60204 and VDE 0113. Isolating characteristics to IEC/EN 60947-3 and VDE 0660. Busbar tag shroud to VDI 0160 Part 100. Rated current = rated uninterrupted current: 630 A
Technical Data - Electrical	
Voltage rating	690 V - 690 V
Rated operating voltage (Ue) at AC - max	400 V
Rated insulation voltage (Ui)	1000 V
Rated impulse withstand voltage (Uimp) at auxiliary contacts	6000 V
Rated impulse withstand voltage (Uimp) at main contacts	8000 V
Rated conditional short-circuit current (Iq)	100 kA
Rated operational current	630 A (415 V AC-22A, making and breaking capacity) 500 A (415 V AC-23A, making and breaking capacity) 630 A (690 V AC-22A, making and breaking capacity) 500 A (690 V AC-23A, making and breaking capacity)
Rated permanent current at AC-21, 400 V	0 A
Rated conditional short-circuit current with back-up fuse	100 kA at 400/415 V 80 kA at 690 V PN3(N3)-400630: 630 AgGgL
Rated conditional short-circuit current with downstream fuse	100 kA at 400/415 V PN3(N3)-400630: 630 AgGgL 80 kA at 690 V
Rated short-time withstand current (Icw)	12 kA
Rated short-time withstand current (t = 0.3 s)	12 kA
Rated short-time withstand current (t = 1 s)	12 kA
Rated operating frequency	50 Hz
Rated short-circuit making capacity Icm at 690 V, 50/60 Hz	25 kA
Rated operating power at AC-3, 400 V	0 kW
Rated operating power at AC-23, 400 V	315 kW
Switching power at 400 V	0 kW

Short-circuit protective device fuses - max	630 A gL
Electrical connection type of main circuit	Screw connection
Number of operations per hour - max	60
Handle type	Rocker lever
Overvoltage category	III
Pollution degree	3
Lifespan, electrical	3000 operations at 400 V AC-3 5000 operations at 415 V AC-1 2000 operations at 690 V AC-3 5000 operations at 400 V AC-1 3000 operations at 690 V AC-1 3000 operations at 415 V AC-3
Technical Data - Mechanical	
Mounting Method  Degree of protection (IP), front side	Built-in device fixed built-in technique Distribution board installation Intermediate mounting Fixed Ground mounting IP20
Number of auxiliary contacts (change-over contacts)	0
Number of auxiliary contacts (crimings over contacts)	0
Number of auxiliary contacts (normally open contacts)	0
Handle color	Gray
Switch positions	I, +, 0
Special features	Main switch characteristics including positive drive to IEC/EN 60204 and VDE 0113 Isolating characteristics to IEC/EN 60947-3 and VDE 0660. Busbar tag shroud to VD 0160 Part 100. Rated current = rated uninterrupted current: 630 A
Lifespan, mechanical	15000 operations
Technical Data - Mechanical - Terminals	
Standard terminals	Screw terminal
Terminal capacity (control cable)	0.75 mm <sup>2</sup> - 1.5 mm <sup>2</sup> (2x) 0.75 mm <sup>2</sup> - 2.5 mm <sup>2</sup> (1x)
Terminal capacity (aluminum solid conductor/cable)	16 mm² (1x) at tunnel terminal
Terminal capacity (aluminum stranded conductor/cable)	25 mm <sup>2</sup> - 185 mm <sup>2</sup> (1x) at tunnel terminal
Terminal capacity (copper busbar)	Min. 20 mm x 5 mm direct at switch rear-side connection M10 at rear-side screw connection Max. 30 mm x 10 mm + 30 mm x 5 mm direct at switch rear-side connection Max. 10 mm x 50 mm (2x) at rear-side width extension
Terminal capacity (copper solid conductor/cable)	300 mm² (2x) at rear-side width extension 16 mm² - 185 mm² (1x) at tunnel terminal 16 mm² (2x) at box terminal 16 mm² (1x) direct at switch rear-side connection 16 mm² (2x) direct at switch rear-side connection
Terminal capacity (copper stranded conductor/cable)	50 mm <sup>2</sup> - 240 mm <sup>2</sup> (1x) at 2-hole tunnel terminal 50 mm <sup>2</sup> - 240 mm <sup>2</sup> (2x) at 2-hole tunnel terminal 25 mm <sup>2</sup> - 185 mm <sup>2</sup> (1x) at tunnel terminal 35 mm <sup>2</sup> - 240 mm <sup>2</sup> (1x) at box terminal 25 mm <sup>2</sup> - 120 mm <sup>2</sup> (2x) at box terminal 25 mm <sup>2</sup> - 240 mm <sup>2</sup> (1x) direct at switch rear-side connection 25 mm <sup>2</sup> - 240 mm <sup>2</sup> (2x) direct at switch rear-side connection
Terminal capacity (copper strip)	Min. 6 segments of 16 mm x 0.8 mm at box terminal  Max. 10 segments of 32 mm x 1 mm + 5 segments of 32 mm x 1 mm at rear-side connection (punched)  Min. 6 segments of 16 mm x 0.8 mm at rear-side connection (punched) 10 segments of 50 mm x 1 mm (2x) at rear-side width extension  Max. 10 segments of 24 mm x 1 mm + 5 segments of 24 mm x 1 mm  Max. 8 segments of 24 mm x 1 mm (2x) at box terminal
Design verification as per IEC/EN 61439 - technical data	
Rated operational current for specified heat dissipation (In)	630 A
Equipment heat dissipation, current-dependent	107.163 W
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 10.2.7 Inscriptions Meets the product standard's requirements. 10.3 Degree of protection of assemblies 10.4 Clearances and creepage distances 10.5 Protection against electric shock 10.6 Incorporation of switching devices and components 10.7 Internal electrical circuits and connections 10.8 Connections for external conductors 10.9.2 Power-frequency electric strength 10.9.3 Impulse writhstand voltage 10.9.4 Testing of enclosures made of insulating material 10.10 Temperature rise 10.11 Short-circuit rating 10.12 Electromagnetic compatibility 10.12 Electromagnetic compatibility 10.13 Mechanical function 10.13 Mechanical function 10.14 Median Information 10.15 Protection of switching devices and components 10.15 Protection against electric shock 10.16 Incorporation of switching devices and components 10.17 Internal electrical circuits and connections 10.8 Connections for external conductors 10.9 Internal electrical circuits and connections 10.9 Internal electrical circuits and connections 10.19 Electromagnetic connections 10.10 Temperature rise 10.10 Temperature rise 10.11 Short-circuit rating 10.12 Electromagnetic compatibility 10.13 Mechanical function 10.14 Mechanical function 10.15 Mechanical function 10.15 Mechanical function 10.16 The device meets the requirements, provided the information in the instruction leaffiet (IL) is observed. 10.13 Mechanical function 10.14 Mechanical function 10.15 Mechanical function 10.15 Mechanical function 10.16 Mechanical function 10.17 Mechanical function 10.18 Mechanical function 10.19 Mechanical function 10.19 Mechanical function 10.10 Temperature function functi		
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