DATASHEET - P3-63/I4/SVB/HI11



Main switch, 3 pole + 1 N/O + 1 N/C, 63 A, Emergency-Stop function, Lockable in the 0 (Off) position, surface mounting



P3-63/I4/SVB/HI11 207348

EL-Nummer (Norway)

Part no. Catalog No.

0001457892

Delivery program

Bourony program			
Product range			Main switch maintenance switch Repair switch
Part group reference			P3
Stop Function			Emergency switching off function
			With red rotary handle and yellow locking ring
Information about equipment supplied			Auxiliary contact or neutral conductor fitted by user.
Number of poles			3 pole
Auxiliary contacts			
с.		N/0	1
7		N/C	1
Locking facility			Lockable in the 0 (Off) position
Degree of Protection			IP65
			totally insulated
Design			surface mounting
Contact sequence			
Switching angle		0	90
Function			
Motor rating AC-23A, 50 - 60 Hz			
400 V	Р	kW	30
		А	63
Rated uninterrupted current	l _u	~	

Technical data

General	
Standards	IEC/EN 60947, VDE 0660, IEC/EN 60204, CSA, UL Switch-disconnector according to IEC/EN 60947-3
Climatic proofing	Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30

Ambient temperature			
Enclosed		°C	-25 - +40
		U	-23 - +40
Overvoltage category/pollution degree		V A C	
Rated impulse withstand voltage	U _{imp}	V AC	6000
Mechanical shock resistance		g	15
Mounting position			As required
Contacts			
Mechanical variables			0
Number of poles			3 pole
Auxiliary contacts			
		N/0	1
		N/C	1
Electrical characteristics			
Rated operational voltage	U _e	V AC	690
Rated uninterrupted current	lu	А	63
Note on rated uninterrupted current !u			Rated uninterrupted current \mathbf{I}_{u} is specified for max. cross-section.
Load rating with intermittent operation, class 12			
AB 25 % DF		x I _e	2
AB 40 % DF		x l _e	1.6
AB 60 % DF			1.3
		x l _e	
Short-circuit rating			
Fuse		A gG/gL	
Rated short-time withstand current (1 s current)	I _{cw}	A _{rms}	1260
Note on rated short-time withstand current lcw			Current for a time of 1 second
Rated conditional short-circuit current	Ιq	kA	4
Switching capacity			
$\cos \phi$ rated making capacity as per IEC 60947-3		А	800
Rated breaking capacity $\cos\phi$ to IEC 60947-3		А	
230 V		А	640
400/415 V		А	600
500 V		А	590
690 V		А	340
Safe isolation to EN 61140			
between the contacts		V AC	440
Current heat loss per contact at l _e		W	4.5
Current heat loss per auxiliary circuit at I _e (AC-15/230 V)		CO	0.2
Lifespan, mechanical	Operations	x 10 ⁶	> 0.1
		x 10°	
Maximum operating frequency	Operations/h		1200
AC			
AC-3			
Rating, motor load switch	Р	kW	
220 V 230 V	Р	kW	15
400 V 415 V	Р	kW	30
500 V	Р	kW	30
690 V	Ρ	kW	30
Rated operational current motor load switch			
230 V	le	А	51
400V 415 V	le	A	55
500 V	le	A	44
690 V	le	A	22.1
	·e		
AC-21A			
Rated operational current switch			
440 V	le	A	63
AC-23A			

Motor rating AC-23A, 50 - 60 Hz	Р	kW	
230 V	Р	kW	18.5
400 V 415 V	Р	kW	30
500 V	Р	kW	45
690 V	Р	kW	55
Rated operational current motor load switch			
230 V		٨	co.
	l _e	A	63
400 V 415 V	l _e	A	63
500 V	۱ _e	А	63
690 V	۱ _e	А	63
DC			
DC-1, Load-break switches L/R = 1 ms			
Rated operational current	le	A	63
Voltage per contact pair in series		v	60
		v	
DC-23A, motor load switch L/R = 15 ms			
24 V			
Rated operational current	le	A	50
Contacts		Quantity	1
48 V			
Rated operational current	Ι _e	А	50
Contacts		Quantity	2
60 V			
Rated operational current	l _e	A	50
	·e		
Contacts		Quantity	2
120 V		٨	or.
Rated operational current	l _e	A	25
Contacts		Quantity	3
Control circuit reliability at 24 V DC, 10 mA	Fault probability	H _F	< 10 ⁻⁵ , < 1 fault in 100000 operations
Control circuit reliability at 24 V DC, 10 mA	Fault probability	H _F	
Control circuit reliability at 24 V DC, 10 mA Terminal capacities			< 10 ⁻⁵ , < 1 fault in 100000 operations
Control circuit reliability at 24 V DC, 10 mA			
Control circuit reliability at 24 V DC, 10 mA Terminal capacities			< 10 ⁻⁵ , < 1 fault in 100000 operations 1 x (2,5 - 35) 2 x (2,5 - 10) 1 x (1.5 - 25)
Control circuit reliability at 24 V DC, 10 mA Terminal capacities Solid or stranded Flexible with ferrules to DIN 46228		mm ²	< 10 ⁻⁵ , < 1 fault in 100000 operations 1 x (2,5 - 35) 2 x (2,5 - 10) 1 x (1.5 - 25) 2 x (1.5 - 6)
Control circuit reliability at 24 V DC, 10 mA Terminal capacities Solid or stranded Flexible with ferrules to DIN 46228 Terminal screw		mm ² mm ²	< 10 ⁻⁵ , < 1 fault in 100000 operations 1 x (2,5 - 35) 2 x (2,5 - 10) 1 x (1.5 - 25) 2 x (1.5 - 6) M5
Control circuit reliability at 24 V DC, 10 mA Terminal capacities Solid or stranded Flexible with ferrules to DIN 46228 Terminal screw Tightening torque for terminal screw		mm ²	< 10 ⁻⁵ , < 1 fault in 100000 operations 1 x (2,5 - 35) 2 x (2,5 - 10) 1 x (1.5 - 25) 2 x (1.5 - 6)
Control circuit reliability at 24 V DC, 10 mA Terminal capacities Solid or stranded Flexible with ferrules to DIN 46228 Terminal screw Tightening torque for terminal screw Technical safety parameters:		mm ² mm ²	< 10 ⁻⁵ , < 1 fault in 100000 operations 1 x (2,5 - 35) 2 x (2,5 - 10) 1 x (1.5 - 25) 2 x (1.5 - 6) M5 3
Control circuit reliability at 24 V DC, 10 mA Terminal capacities Solid or stranded Flexible with ferrules to DIN 46228 Terminal screw Tightening torque for terminal screw Technical safety parameters: Notes		mm ² mm ²	< 10 ⁻⁵ , < 1 fault in 100000 operations 1 x (2,5 - 35) 2 x (2,5 - 10) 1 x (1.5 - 25) 2 x (1.5 - 6) M5
Control circuit reliability at 24 V DC, 10 mA Terminal capacities Solid or stranded Flexible with ferrules to DIN 46228 Terminal screw Tightening torque for terminal screw Technical safety parameters: Notes Rating data for approved types		mm ² mm ²	< 10 ⁻⁵ , < 1 fault in 100000 operations 1 x (2,5 - 35) 2 x (2,5 - 10) 1 x (1.5 - 25) 2 x (1.5 - 6) M5 3
Control circuit reliability at 24 V DC, 10 mA Terminal capacities Solid or stranded Flexible with ferrules to DIN 46228 Terminal screw Tightening torque for terminal screw Technical safety parameters: Notes Rating data for approved types Contacts	probability	mm ² mm ² Nm	< 10 ⁻⁵ , < 1 fault in 100000 operations 1 x (2,5 - 35) 2 x (2,5 - 10) 1 x (1.5 - 25) 2 x (1.5 - 6) M5 3 B10 _d values as per EN ISO 13849-1, table C1
Control circuit reliability at 24 V DC, 10 mA Terminal capacities Solid or stranded Flexible with ferrules to DIN 46228 Terminal screw Tightening torque for terminal screw Technical safety parameters: Notes Rating data for approved types		mm ² mm ²	< 10 ⁻⁵ , < 1 fault in 100000 operations 1 x (2,5 - 35) 2 x (2,5 - 10) 1 x (1.5 - 25) 2 x (1.5 - 6) M5 3
Control circuit reliability at 24 V DC, 10 mA Terminal capacities Solid or stranded Flexible with ferrules to DIN 46228 Terminal screw Tightening torque for terminal screw Technical safety parameters: Notes Rating data for approved types Contacts	probability	mm ² mm ² Nm	< 10 ⁻⁵ , < 1 fault in 100000 operations 1 x (2,5 - 35) 2 x (2,5 - 10) 1 x (1.5 - 25) 2 x (1.5 - 6) M5 3 B10 _d values as per EN ISO 13849-1, table C1
Control circuit reliability at 24 V DC, 10 mA Terminal capacities Solid or stranded Flexible with ferrules to DIN 46228 Terminal screw Tightening torque for terminal screw Technical safety parameters: Notes Rating data for approved types Contacts Rated operational voltage	probability	mm ² mm ² Nm	< 10 ⁻⁵ , < 1 fault in 100000 operations 1 x (2,5 - 35) 2 x (2,5 - 10) 1 x (1.5 - 25) 2 x (1.5 - 6) M5 3 B10 _d values as per EN ISO 13849-1, table C1
Control circuit reliability at 24 V DC, 10 mA Terminal capacities Solid or stranded Flexible with ferrules to DIN 46228 Terminal screw Tightening torque for terminal screw Technical safety parameters: Notes Rating data for approved types Contacts Rated operational voltage Rated uninterrupted current max.	probability	mm ² mm ² Nm	< 10 ⁻⁵ , < 1 fault in 100000 operations 1 x (2,5 - 35) 2 x (2,5 - 10) 1 x (1.5 - 25) 2 x (1.5 - 6) M5 3 B10 _d values as per EN ISO 13849-1, table C1
Control circuit reliability at 24 V DC, 10 mA Terminal capacities Solid or stranded Flexible with ferrules to DIN 46228 Terminal screw Tightening torque for terminal screw Technical safety parameters: Notes Rating data for approved types Contacts Rated operational voltage Rated uninterrupted current max. Main conducting paths	probability	mm ² mm ² Nm	< 10 ⁻⁵ , < 1 fault in 100000 operations 1 x (2,5 - 35) 2 x (2,5 - 10) 1 x (1.5 - 25) 2 x (1.5 - 6) M5 3 B10 _d values as per EN ISO 13849-1, table C1 600
Control circuit reliability at 24 V DC, 10 mA Terminal capacities Solid or stranded Flexible with ferrules to DIN 46228 Terminal screw Tightening torque for terminal screw Technical safety parameters: Notes Rating data for approved types Contacts Rated operational voltage Rated uninterrupted current max. Main conducting paths General use	probability	mm ² mm ² Nm	< 10 ⁻⁵ , < 1 fault in 100000 operations 1 x (2,5 - 35) 2 x (2,5 - 10) 1 x (1.5 - 25) 2 x (1.5 - 6) M5 3 B10 _d values as per EN ISO 13849-1, table C1 600
Control circuit reliability at 24 V DC, 10 mA Terminal capacities Solid or stranded Flexible with ferrules to DIN 46228 Terminal screw Tightening torque for terminal screw Technical safety parameters: Notes Rating data for approved types Contacts Rated operational voltage Rated uninterrupted current max. Main conducting paths General use Auxiliary contacts	probability	mm ² mm ² Nm	< 10 ⁻⁵ , < 1 fault in 100000 operations 1 x (2,5 - 35) 2 x (2,5 - 10) 1 x (1.5 - 25) 2 x (1.5 - 6) M5 3 B10 _d values as per EN ISO 13849-1, table C1 600 60
Control circuit reliability at 24 V DC, 10 mA Terminal capacities Solid or stranded Flexible with ferrules to DIN 46228 Terminal screw Tightening torque for terminal screw Technical safety parameters: Notes Rating data for approved types Contacts Rated operational voltage Rated uninterrupted current max. Main conducting paths General use Auxiliary contacts General Use	probability	mm ² mm ² Nm	< 10 ⁻⁵ , < 1 fault in 100000 operations 1 x (2,5 - 35) 2 x (2,5 - 10) 1 x (1.5 - 25) 2 x (1.5 - 6) M5 3 B10 _d values as per EN ISO 13849-1, table C1 600 60 10
Control circuit reliability at 24 V DC, 10 mA Terminal capacities Solid or stranded Flexible with ferrules to DIN 46228 Terminal screw Tightening torque for terminal screw Technical safety parameters: Notes Rating data for approved types Contacts Rated operational voltage Rated uninterrupted current max. Main conducting paths General use Auxiliary contacts General Use	probability	mm ² mm ² Nm	< 10 ⁻⁵ , < 1 fault in 100000 operations 1 x (2,5 - 35) 2 x (2,5 - 10) 1 x (1.5 - 25) 2 x (1.5 - 6) M5 3 B10 _d values as per EN ISO 13849-1, table C1 600 60 60 10 A 600
Control circuit reliability at 24 V DC, 10 mA Terminal capacities Solid or stranded Flexible with ferrules to DIN 46228 Terminal screw Tightening torque for terminal screw Technical safety parameters: Notes Rating data for approved types Contacts Rated operational voltage Rated uninterrupted current max. Main conducting paths General use Auxiliary contacts General Use Pilot Duty	probability	mm ² mm ² Nm	< 10 ⁻⁵ , < 1 fault in 100000 operations 1 x (2,5 - 35) 2 x (2,5 - 10) 1 x (1.5 - 25) 2 x (1.5 - 6) M5 3 B10 _d values as per EN ISO 13849-1, table C1 600 60 60 10 A 600
Control circuit reliability at 24 V DC, 10 mA Terminal capacities Solid or stranded Flexible with ferrules to DIN 46228 Terminal screw Tightening torque for terminal screw Technical safety parameters: Notes Rating data for approved types Contacts Rated operational voltage Rated uninterrupted current max. Main conducting paths General use Auxiliary contacts General Use Pilot Duty Switching capacity	probability	mm ² mm ² Nm	< 10 ⁻⁵ , < 1 fault in 100000 operations 1 x (2,5 - 35) 2 x (2,5 - 10) 1 x (1.5 - 25) 2 x (1.5 - 6) M5 3 B10 _d values as per EN ISO 13849-1, table C1 600 60 60 10 A 600
Control circuit reliability at 24 V DC, 10 mA Terminal capacities Solid or stranded Flexible with ferrules to DIN 46228 Terminal screw Tightening torque for terminal screw Technical safety parameters: Notes Rating data for approved types Contacts Rated operational voltage Rated uninterrupted current max. Main conducting paths General use Auxiliary contacts General Use Pilot Duty Switching capacity Maximum motor rating	probability	mm ² mm ² Nm	< 10 ⁻⁵ , < 1 fault in 100000 operations 1 x (2,5 - 35) 2 x (2,5 - 10) 1 x (1.5 - 25) 2 x (1.5 - 6) M5 3 B10 _d values as per EN ISO 13849-1, table C1 600 60 60 10 A 600
Control circuit reliability at 24 V DC, 10 mA Terminal capacities Solid or stranded Flexible with ferrules to DIN 46228 Terminal screw Tightening torque for terminal screw Technical safety parameters: Notes Rating data for approved types Contacts Rated operational voltage Rated uninterrupted current max. Main conducting paths General use Auxiliary contacts General Use Pilot Duty Switching capacity Maximum motor rating Single-phase	probability	mm ² mm ² Nm V AC	< 10 ⁻⁵ , < 1 fault in 100000 operations 1 x (2,5 - 35) 2 x (2,5 - 10) 1 x (1.5 - 25) 2 x (1.5 - 6) M5 3 B10 _d values as per EN ISO 13849-1, table C1 600 60 10 A 600 P 600
Control circuit reliability at 24 V DC, 10 mA Terminal capacities Solid or stranded Flexible with ferrules to DIN 46228 Terminal screw Tightening torque for terminal screw Technical safety parameters: Notes Rating data for approved types Contacts Rated operational voltage Rated uninterrupted current max. Main conducting paths General use Auxiliary contacts General Use Pilot Duty Switching capacity Maximum motor rating Single-phase 120 V AC 200 V AC	probability	mm ² mm ² Nm VAC A A A HP HP	<pre>< 10⁻⁵, < 1 fault in 100000 operations 1 x (2,5 - 35) 2 x (2,5 - 10) 1 x (1.5 - 25) 2 x (1.5 - 6) M5 3 B10_g values as per EN ISO 13849-1, table C1 60 60 60 60 60 60 60 60 60 60 60 60 60</pre>
Control circuit reliability at 24 V DC, 10 mA Terminal capacities Solid or stranded Flexible with ferrules to DIN 46228 Terminal screw Tightening torque for terminal screw Technical safety parameters: Notes Rating data for approved types Contacts Rated operational voltage Rated uninterrupted current max. Main conducting paths General use Auxiliary contacts General Use Pilot Duty Switching capacity Maximum motor rating Single-phase 120 V AC 240 V AC	probability	mm ² mm ² Nm V AC A A HP	< 10 ⁻⁵ , < 1 fault in 100000 operations 1 x (2,5 - 35) 2 x (2,5 - 10) 1 x (1.5 - 25) 2 x (1.5 - 6) M5 3 B10 _d values as per EN ISO 13849-1, table C1 60 60 60 60 80 80 80 80 80 80 80 80 80 8
Control circuit reliability at 24 V DC, 10 mA Terminal capacities Solid or stranded Flexible with ferrules to DIN 46228 Terminal screw Tightening torque for terminal screw Technical safety parameters: Notes Rating data for approved types Contacts Rated operational voltage Rated uninterrupted current max. Main conducting paths General use Auxiliary contacts General Use Pilot Duty Switching capacity Maximum motor rating Single-phase 120 V AC 240 V AC 240 V AC	probability	mm ² mm ² Nm V AC A A A HP HP	 < 10 ⁻⁵, < 1 fault in 100000 operations 1 × (2,5 - 35) 2 × (2,5 - 10) 1 × (1,5 - 25) 2 × (1,5 - 6) M5 3 B10_d values as per EN ISO 13849-1, table C1 600 60 60 60 60 60 60 60 60 61 62 63 64 65 75 10 65 75 10 65 66 75
Control circuit reliability at 24 V DC, 10 mA Terminal capacities Solid or stranded Flexible with ferrules to DIN 46228 Terminal screw Tightening torque for terminal screw Technical safety parameters: Notes Rating data for approved types Contacts Rated operational voltage Rated uninterrupted current max. Main conducting paths General use Auxiliary contacts General Use Pilot Duty Switching capacity Maximum motor rating Single-phase 120 V AC 240 V AC	probability	mm ² mm ² Nm VAC A A A HP HP	<pre>< 10⁻⁵, < 1 fault in 100000 operations 1 x (2,5 - 35) 2 x (2,5 - 10) 1 x (1.5 - 25) 2 x (1.5 - 6) M5 3 B10_g values as per EN ISO 13849-1, table C1 60 60 60 60 60 60 60 60 60 60 60 60 60</pre>

480 V AC	HP	40
600 V AC	HP	50
Short Circuit Current Rating	SCCR	
Basic Rating	kA	10
max. Fuse	А	150
Terminal capacity		
Solid or flexible conductor with ferrule	AWG	14 - 2
Terminal screw		M5
Tightening torque	lb-in	26.5

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	l _n	Α	63
Heat dissipation per pole, current-dependent	P _{vid}	W	4.5
Equipment heat dissipation, current-dependent	P _{vid}	W	0
Static heat dissipation, non-current-dependent	P _{vs}	W	0
Heat dissipation capacity	P _{diss}	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	40
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			UV resistance only in connection with protective shield.
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

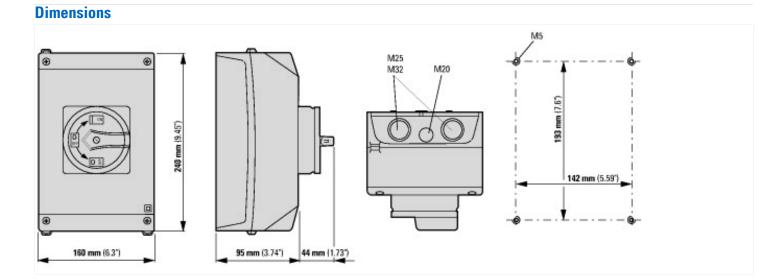
Low-voltage industrial components (EG000017) / Switch disconnector (EC000216)			
Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnector (ecl@ss10.0.1-27-37-14-03 [AKF060013])			
Version as main switch	Yes		
Version as maintenance-/service switch	Yes		
Version as safety switch	Yes		
Version as emergency stop installation	Yes		

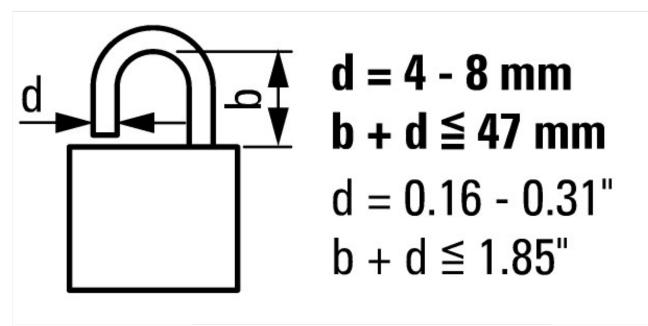
Version as reversing switch		No
Number of switches		1
Max. rated operation voltage Ue AC	V	690
Rated operating voltage	V	690 - 690
Rated permanent current lu	А	63
Rated permanent current at AC-23, 400 V	А	63
Rated permanent current at AC-21, 400 V	А	63
Rated operation power at AC-3, 400 V	kW	30
Rated short-time withstand current lcw	kA	1.26
Rated operation power at AC-23, 400 V	kW	30
Switching power at 400 V	kW	30
Conditioned rated short-circuit current Iq	kA	4
Number of poles		3
Number of auxiliary contacts as normally closed contact		1
Number of auxiliary contacts as normally open contact		1
Number of auxiliary contacts as change-over contact		0
Motor drive optional		No
Motor drive integrated		No
Voltage release optional		No
Device construction		Complete device in housing
Suitable for ground mounting		Yes
Suitable for front mounting 4-hole		No
Suitable for front mounting centre		No
Suitable for distribution board installation		No
Suitable for intermediate mounting		No
Colour control element		Red
Type of control element		Door coupling rotary drive
Interlockable		Yes
Type of electrical connection of main circuit		Screw connection
Degree of protection (IP), front side		IP65
Degree of protection (NEMA)		Other

Approvals

North America Certification

For UL/CSA certification order article number 255901





≦ 3 padlocks

Assets (links)

Declaration of CE Conformity 00003104

Instruction Leaflets IL03801010Z2018_05