

Mechanically held lighting contactor, Contactor amp rating 20A, 0 N.C. / 3 N.O. poles, Non-combination type, Enclosure NEMA type 1, Indoor general purpose use



Figure similar

product brand name	Class CLM
design of the product	Mechanically held lighting contactor
special product feature	Energy efficient; Quiet operation
<b>General technical data</b>	
weight [lb]	8 lb
Height x Width x Depth [in]	14 × 8 × 7 in
touch protection against electrical shock	NA for enclosed products
installation altitude [ft] at height above sea level maximum	6560 ft
country of origin	USA
<b>Contactor</b>	
size of contactor	20 Amp
number of NO contacts for main contacts	3
number of NC contacts for main contacts	0
operating voltage for main current circuit at AC at 60 Hz maximum	600 V
contact rating of the main contacts of lighting contactor	
<ul style="list-style-type: none"> <li>at tungsten (1 pole per 1 phase) rated value</li> <li>at tungsten (2 poles per 1 phase) rated value</li> <li>at tungsten (3 poles per 3 phases) rated value</li> <li>at ballast (1 pole per 1 phase) rated value</li> <li>at ballast (2 poles per 1 phase) rated value</li> <li>at ballast (3 poles per 3 phases) rated value</li> <li>at resistive load (1 pole per 1 phase) rated value</li> <li>at resistive load (2 poles per 1 phase) rated value</li> <li>at resistive load (3 poles per 3 phases) rated value</li> </ul>	20A @250V 1p 1ph 20A @250V 2p 1ph 20A @250V 3p 3ph 20A @347V 1p 1ph 20A @600V 2p 1ph 20A @600V 3p 3ph 30A @347V 1p 1ph 30A @600V 2p 1ph 30A @600V 3p 3ph
<b>Auxiliary contact</b>	
number of NC contacts for auxiliary contacts	0
number of NO contacts for auxiliary contacts	0
number of total auxiliary contacts maximum	4
contact rating of auxiliary contacts of contactor according to UL	NA
<b>Coil</b>	
type of voltage of the control supply voltage	AC
control supply voltage	
<ul style="list-style-type: none"> <li>at AC at 50 Hz rated value</li> <li>at AC at 60 Hz rated value</li> </ul>	110 ... 120 V 110 ... 120 V
apparent pick-up power of magnet coil at AC	600 VA
apparent holding power of magnet coil at AC	6 VA
operating range factor control supply voltage rated value	0.85 ... 1.1

of magnet coil	
<b>Enclosure</b>	
degree of protection NEMA rating of the enclosure	NEMA 1 enclosure
design of the housing	indoors, usable on a general basis
<b>Mounting/wiring</b>	
mounting position	Vertical
fastening method	Surface mounting and installation
type of electrical connection for supply voltage line-side	Screw-type terminals
tightening torque [lbf-in] for supply	18 ... 18 lbf-in
type of connectable conductor cross-sections at line-side at AWG cables single or multi-stranded	2x (18 ... 10 AWG)
temperature of the conductor for supply maximum permissible	75 °C
material of the conductor for supply	CU
type of electrical connection for load-side outgoing feeder	Screw-type terminals
tightening torque [lbf-in] for load-side outgoing feeder	18 ... 18 lbf-in
type of connectable conductor cross-sections at AWG cables for load-side outgoing feeder single or multi-stranded	2x (18 ... 10 AWG)
temperature of the conductor for load-side outgoing feeder maximum permissible	75 °C
material of the conductor for load-side outgoing feeder	CU
type of electrical connection of magnet coil	Screw-type terminals
tightening torque [lbf-in] at magnet coil	18 ... 18 lbf-in
type of connectable conductor cross-sections of magnet coil at AWG cables single or multi-stranded	2x (18 ... 10 AWG)
temperature of the conductor at magnet coil maximum permissible	75 °C
material of the conductor at magnet coil	CU
<b>Short-circuit current rating</b>	
design of the fuse link for short-circuit protection of the main circuit required	none
design of the short-circuit trip	Thermal magnetic circuit breaker
breaking capacity maximum short-circuit current (Icu)	
• at 240 V	5 kA
• at 480 V	5 kA
• at 600 V	5 kA
certificate of suitability	NEMA ICS 2; UL 508; CSA 22.2, No. 14

#### Further information

**Industrial Controls - Product Overview (Catalogs, Brochures,...)**

[www.usa.siemens.com/iccatalog](http://www.usa.siemens.com/iccatalog)

**Industry Mall (Online ordering system)**

<https://mall.industry.siemens.com/mall/en/us/Catalog/product?mlfb=US2:CLM1B03120>

**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<https://support.industry.siemens.com/cs/US/en/ps/US2:CLM1B03120>

**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=US2:CLM1B03120&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:CLM1B03120&lang=en)

**Certificates/approvals**

<https://support.industry.siemens.com/cs/US/en/ps/US2:CLM1B03120/certificate>

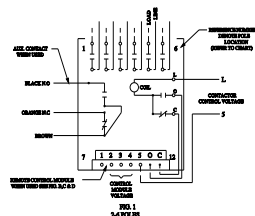


FIG. 1  
24 POLES

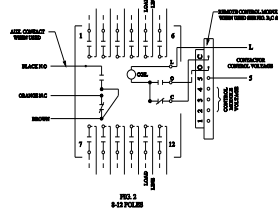


FIG. 2  
8-12 POLES

**CONTACT POLE LOCATION CHART**

POLES	LOCATION
2	2 & 3
3	2, 3 & 5
4	2, 3, 4 & 5
6	1-4
8	1-6, 8 & 11
10	1-6, 8, 9, 10 & 11
12	1-12

**AUXILIARY CONTACT RATING**  
 ACC. CLAMP/SH (SHD)  
 ACC. CLAMP/SH (SHD)  
 10A, 10 1P  
 277VAC  
 0.5A, 10VDC  
 0.25A, 20VDC

**MAIN CONTACT MAXIMUM VOLTAGE RATINGS OPEN OR CLOSED**

POLES TO LOAD	1 POLE	NUMBER CONTACTS
FOR 1	3 POLES	
250 AC	250 AC	30 TUNGSTEN
377 AC	400 AC	30 BALLAST
500 AC	600 AC	30 GENERAL

30 AMP, 2VC  
 GENERAL  
 10VDC MAX. 5 POLES IN SERIES

NOTES: 1. NOT SUITABLE FOR USE IN A CIRCUIT CAPABLE OF DELIVERING MORE THAN THE AMPERAGE INDICATED AT THE MAXIMUM VOLTAGE SHOWN BELOW. THESE PROTECTIVE 15 AMP CIRCUIT BREAKERS BAYING AN INTERLOCKING BAYING OR POLE LINE TRIP VALVES SHOWN.

MAXIMUM RMS	MAXIMUM AC
AMPERES	VOLTS
23,000	250
14,000	400
10,000	600

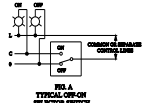
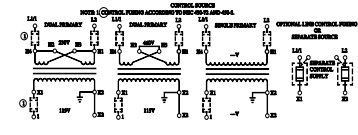
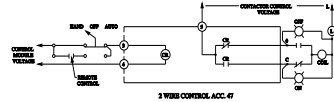
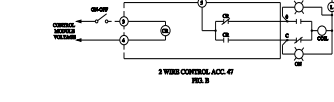


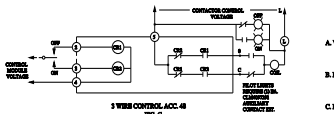
FIG. 4  
TYPICAL ON-OFF  
SELECTOR SWITCH



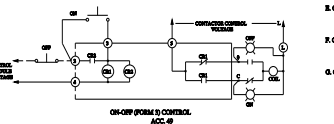
3 WIRE CONTROL, ACC. 47  
FIG. 5



3 WIRE CONTROL, ACC. 47  
FIG. 6



3 WIRE CONTROL, ACC. 48  
FIG. 7



ON-OFF (FORM B) CONTROL  
ACC. 49  
FIG. 8

**CONNECTIONS TO CONTROL MODULES**

MODULE TERMINAL	CONNECT TO:
1	NOT USED
2	CONT. STATION FOR ACC. 47 & 48
3	CONT. STATION FOR ACC. 47 & 48
4	MIDDLE CONTROL VOLTAGE*
5	CONTRACTOR CONTROL VOLTAGE
0	TERMINAL C OF CONTACTOR
C	TERMINAL C OF CONTACTOR

\* FOR 120VDC CONTROL MODULES  
 CONNECT TERMINAL TO NEGATIVE (-)

**GENERAL NOTES**

- A. WHEN CONTACTOR & LINE VOLTAGE ARE THE SAME, THE CONTACTOR CONTROL VOLTAGE CAN BE DERIVED FROM THE LINE POLES OF THE CONTACTOR SWITCH.
- B. MAIN CONTACTS ARE SHOWN IN OPEN POSITION WITH CONTROL LINES SHOWN. SEE RATINGS BELOW. SWITCHES SHOWN WITH CONTACTS CLOSED.
- C. LINE & LOAD TERMINALS ARE INTERFERABLE.
- D. CONTACTS ARE SINGLE THROW, DOUBLE BREAK, WITH MOMENTARILY INTERRUPTED SINGLE COIL OPERATING MECHANICALLY HELD BY FORCE OPEN & CLOSED POSITIONERS.
- E. CUSTOMER CONNECTIONS TO LINE & LOAD WILL ACCEPT NO. 10 BAY TO 10 AWG COPPER WIRE. TORQUE LINE POLE CONNECTION TO 15 lb. ft.
- F. CUSTOMER CONNECTIONS TO ELECTRONIC MODULES (ACC. 47, 48, OR 49) WILL ACCEPT NO. 22 AWG TO 10 AWG COPPER WIRE. TORQUE CONTACT TERMINALS TO 15 lb. ft.
- G. CONTROL MODULE VOLTAGE SUPPLIED BY CUSTOMER.

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