

Mechanically held lighting contactor, Contactor amp rating 20Amp  
0NC - 10NO poles, 110-120V 50/60HZ coil, Non-combination type,  
Enclosure NEMA type open, No enclosure



Figure similar

Product brand name	Class CLM
Design of the product	Mechanically held lighting contactor
Special product feature	Energy efficient; Quiet operation

General technical data	
Weight [lb]	3 lb
Height x Width x Depth [in]	7.3 × 4.3 × 3.5 in
Protection against electrical shock	Not finger-safe
Installation altitude [ft] at height above sea level maximum	6560 ft
Country of origin	Mexico

Contactor	
Size of contactor	20 Amp
Number of NO contacts for main contacts	10
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	

- at tungsten (1 pole per 1 phase) rated value
- at tungsten (2 poles per 1 phase) rated value
- at tungsten (3 poles per 3 phases) rated value
- at ballast (1 pole per 1 phase) rated value
- at ballast (2 poles per 1 phase) rated value
- at ballast (3 poles per 3 phases) rated value
- at resistive load (1 pole per 1 phase) rated value
- at resistive load (2 poles per 1 phase) rated value
- at resistive load (3 poles per 3 phases) rated value

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

#### Auxiliary contact

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

#### Coil

Type of voltage of the control supply voltage	AC
Control supply voltage	
• at AC at 50 Hz rated value	110 ... 120 V
• at AC at 60 Hz rated value	110 ... 120 V
Apparent pick-up power of magnet coil at AC	600 V·A
Apparent holding power of magnet coil at AC	6 V·A
Operating range factor control supply voltage rated value of magnet coil	0.85 ... 1.1

#### Enclosure

Degree of protection NEMA rating of the enclosure	Open device (no enclosure)
Design of the housing	NA

#### Mounting/wiring

Mounting position	Vertical
Mounting type	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 conductors 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 conductors 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 conductors 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

#### Short-circuit current rating

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
Maximum short-circuit current breaking capacity (Icu) <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 480 V</li> <li>• at 600 V</li> </ul>	5 kA 5 kA 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:CLM102031>

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

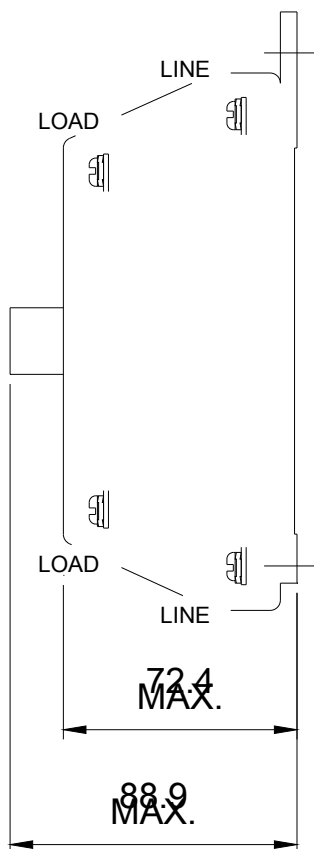
<https://support.industry.siemens.com/cs/US/en/ps/US2:CLM102031>

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

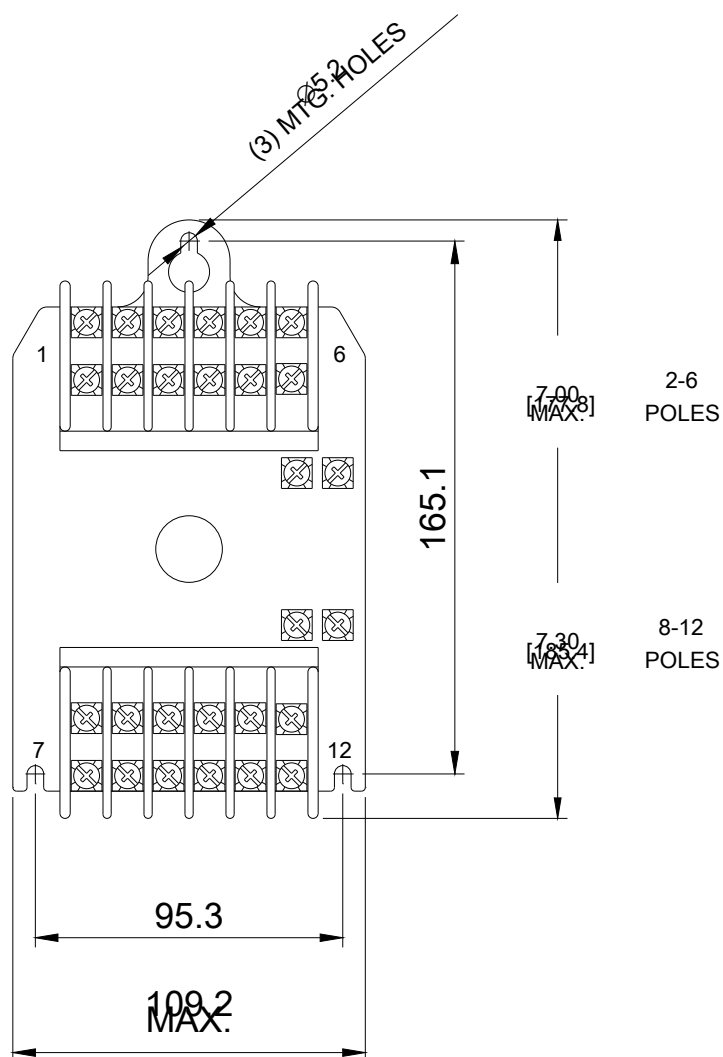
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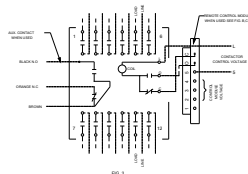
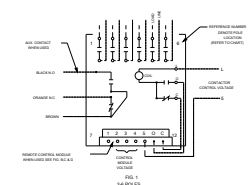
##### Certificates/approvals

<https://support.industry.siemens.com/cs/US/en/ps/US2:CLM102031/certificate>



REFERENCE  
DEVICES  
LOCATION





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

AUXILIARY CONTACT RATING  
ACC. CUMULATIVE (1PDT)  
ACC. CUMULATIVE (2PDT)

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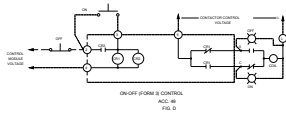
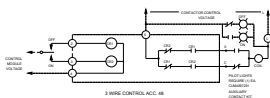
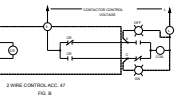
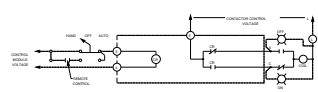
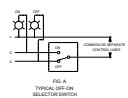
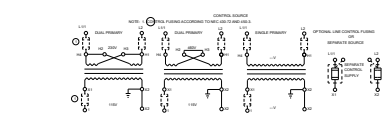
16A, 1/2 HP  
277 VAC  
0.5A, 135VDC  
0.16A, 560VDC

MAIN CONTACT MAXIMUM VOLTAGE RATINGS OPEN OR CLOSED			
POLES TO LOAD		AMPERE CONTINUOUS	
1 FOR 15V/C	3 FOR 15V/C 3 FOR 25V/C		
250 AC	250 AC	20	TUNGSTEN
277 AC	480 AC	20	SILICAT
347 AC	600 AC	20	GENERAL

20 AMP. DC GENERAL	125V DC MAX. 2 POLES IN-SERIES 600V AC MAX. 3 POLES IN-SERIES
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SWITCH IS SUITABLE FOR USE IN A CIRCUIT CAPABLE OF DELIVERING NOT MORE THAN 100 RMS SYMMETRICAL CURRENT AT THE MAXIMUM VOLTAGE SHOWN BELOW, WHEN PROTECTED BY A 30 AMP CIRCUIT BREAKER HAVING AN INTERRUPTING RATING OF NOT LESS THAN 100,000 AMP.

MAXIMUM RMS	MAXIMUM AC
<u>AMPERES</u>	<u>VOLTS</u>
22,000	250
14,000	480
10,000	600



CONNECTIONS TO CONTROL MODULES	
MODULE TERMINAL	CONNECT TO:
1	NOT USED
2	CONT. STATION FOR ACC. 48 & 49
3	CONT. STATION FOR ACC. 47, 48 & 49
4	MODULE CONTROL VOLTAGE *
5	CONTACTOR CONTROL VOLTAGE
0	TERMINAL 0: ON CONTACTOR
C	TERMINAL C: OFF CONTACTOR

\* FOR 24 VDC CONTROL MODULES  
CONNECT TERMINAL 4 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 LINE DE-ENERGIZED. SEE RATINGS BELOW.  
(SWITCH SHIPPED WITH CONTACTS CLOSED)

D. CONTACTS ARE SINGLE THROW, DOUBLE

E. CUSTOMER CONNECTIONS TO LINE & LOAD WILL ACCEPT  
NO. 10AWG TO 10KAWG COPPER WIRE. TORQUE LINE  
POLE CONNECTION TO 18 in. ID.

F. CUSTOMER CONNECTIONS TO ELECTRONIC MODULE (AC 47, 48, OR 49) WILL ACCEPT NO. 22AWG TO 12AWG COPPER WIRE. TORQUE CONTROL TERMINALS TO 12 in. b.

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**last modified:**

11/15/2019