

Mechanically held lighting contactor, Contactor amp rating 20A, 0 N.C. / 12 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]	9 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	12
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>	208 ... 240 V 208 ... 240 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:CLM1B12240>

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

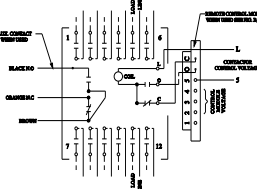
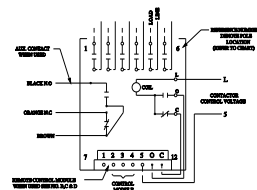
<https://support.industry.siemens.com/cs/US/en/ps/US2:CLM1B12240>

**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:CLM1B12240&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:CLM1B12240&lang=en)

**Certificates/approvals**

<https://support.industry.siemens.com/cs/US/en/ps/US2:CLM1B12240/certificate>



**CONTACT POLE LOCATION CHART**

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

**AUXILIARY CONTACT RATINGS**

ACC. CLAMP/ON (SDO)	ACC. CLAMP/OFF (SDO)
10A, 10 SP	277VAC
25A, 25 SP	250VDC

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

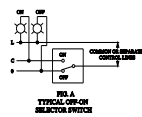
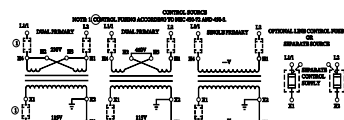
POLES TO LOAD	1 POLE	2 POLES	NUMBER CONTACTS
FOR 1	390V	390V	
25 AC	25 AC	25	TRIUMPH
37 AC	40 AC	30	BALLAST
37 AC	40 AC	30	GENERAL

**10 AMP, 25C**    **SDO DC MAX. 5 POLES IN SERIES**

**GENERAL:**    **SDO DC MAX. 1 POLE IN SERIES**

NOTES IN ADDITION TO THIS IN A CIRCUIT: CAPABLE OF WITHSTANDING SHORT CIRCUIT CURRENTS AND MECHANICAL CONTACT AT THE MAXIMUM VOLTAGE SHOWN BELOW. THESE PROTECTED BY A 10 AMP CIRCUIT BREAKER RATED AT THE INTERRUPTING RATING OF THE LINE TRIP VALUES SHOWN.

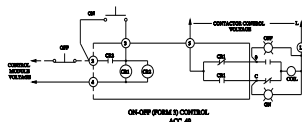
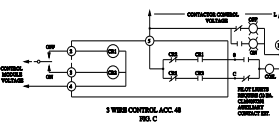
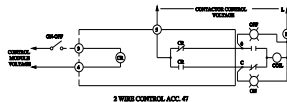
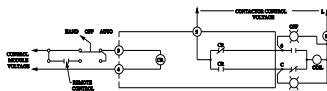
MAXIMUM TIME	MAXIMUM AC
AMPERES	VOLTS
23,000	250
14,000	400
10,000	400



**CONNECTIONS TO CONTROL MODULES**

MODULE TERMINAL	CONNECT TO:
1	NOT USED
2	CONT. STATION FOR ACC. 4 & 8
3	CONT. STATION FOR ACC. 6 & 8
4	MIDDLE CONTROL VOLTAGE*
5	CONTRACTOR CONTROL VOLTAGE
0	TERMINAL OF CONTACTOR
C	TERMINAL OF CONTACTOR

\* FOR 14 VDC CONTROL MODULES CONNECT TERMINAL TO RESISTIVE (1)



**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 DISCONNECTED. SEE RATINGS BELOW. SWITCH 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 OF A CLOSED FORTUNE.
- E. CUSTOMER CONNECTIONS TO LINE & LOAD WILL ACCEPT NO. 10 AWG TO 14 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 14 AWG COPPER WIRE. TORQUE CONTACT TERMINALS TO 15 lb. ft.
- G. CONTROL MODULE VOLTAGE SUPPLIED BY CUSTOMER.

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