SIEMENS

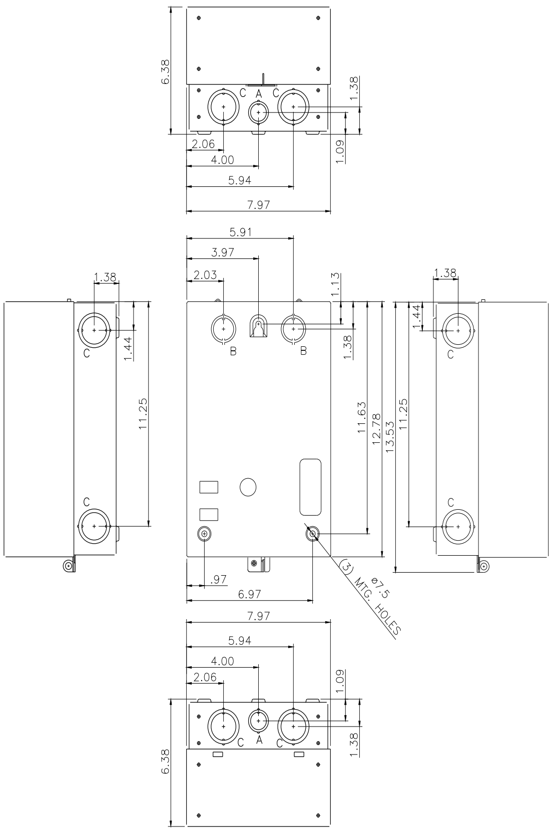
Data sheet US2:CLM1B04120

Mechanically held lighting contactor, Contactor amp rating 20A, 0 N.C. / 4 N.O. poles, Non-combination type, Enclosure NEMA type 1, Indoor general purpose use

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]	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
Contactor	
size of contactor	20 Amp
number of NO contacts for main contacts	4
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	20A @250V 1p 1ph
● at tungsten (2 poles per 1 phase) rated value	20A @250V 2p 1ph
● at tungsten (3 poles per 3 phases) rated value	20A @250V 3p 3ph
● at ballast (1 pole per 1 phase) rated value	20A @347V 1p 1ph
● at ballast (2 poles per 1 phase) rated value	20A @600V 2p 1ph
● at ballast (3 poles per 3 phases) rated value	20A @600V 3p 3ph
● at resistive load (1 pole per 1 phase) rated value	30A @347V 1p 1ph
● at resistive load (2 poles per 1 phase) rated value	30A @600V 2p 1ph
● at resistive load (3 poles per 3 phases) rated value	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 VA
apparent holding power of magnet coil at AC	6 VA
operating range factor control supply voltage rated value of magnet coil	0.85 ... 1.1
Enclosure	
degree of protection NEMA rating of the enclosure	NEMA 1 enclosure

design of the housing	indoors, usable on a general basis
Mounting/wiring	
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 for 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 for 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 for 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
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)	
• 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
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/us/Catalog/product?mlfb=US2:CLM1B04120
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/US/en/ps/US2:CLM1B04120
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:CLM1B04120&lang=en
Certificates/approvals
https://support.industry.siemens.com/cs/US/en/ps/US2:CLM1B04120/certificate



LETTER	KNOCKOUT & CONDUIT SIZE
A	ø22.2 X ø28.6 FOR 12.7 & 19 CONDUIT
B	ø28.6 X ø34.9 FOR 19 & 25.4 CONDUIT
C	ø34.9 X ø43.6 FOR 25.4 & 31.8 CONDUIT

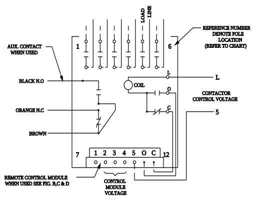


FIG. 1
2-6 POLES

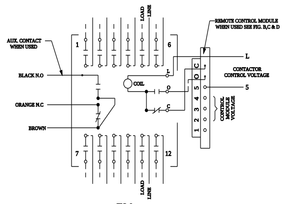


FIG. 2
8-12 POLES

CONTACT POLE LOCATION CHART

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. CLM4097291 (1PDT)
ACC. CLM4097292 (2PDT)

10A, 1/3 HP
277 VAC
0.5A, 125VDC
0.25A, 250VDC

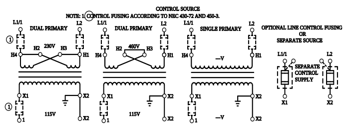
MAIN CONTACT MAXIMUM VOLTAGE RATINGS OPEN OR CLOSED

POLES TO LOAD		AMPERE CONTINUOUS	
1 FOR 1	2 FOR 1 / 3 FOR 3		
250 AC	250 AC	20	TUNGSTEN
277 AC	480 AC	20	BALLAST
347 AC	600 AC	30	GENERAL

20 AMP. DC GENERAL	125V DC MAX. 2 POLES IN SERIES
	250V DC MAX. 3 POLES IN SERIES

SWITCH IS SUITABLE FOR USE IN A CIRCUIT CAPABLE OF DELIVERING NOT MORE THAN THE RMS SYMMETERICAL CURRENT AT THE MAXIMUM VOLTAGE SHOWN BELOW, WHEN PROTECTED BY A 30 AMP CIRCUIT BREAKER HAVING AN INTERRUPTING RATING OF NOT LESS THAN VALUES SHOWN.

MAXIMUM RMS AMPERES	MAXIMUM AC VOLTS
22,000	250
14,000	480
10,000	600



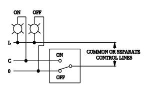
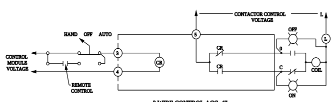


FIG. A
TYPICAL OFF-ON
SELECTOR SWITCH

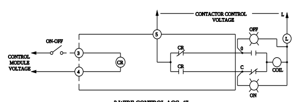
CONNECTIONS TO CONTROL MODULES

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
O	TERMINAL O ON CONTACTOR
C	TERMINAL C ON CONTACTOR

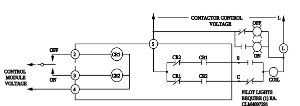
* FOR 24 VDC CONTROL MODULES CONNECT TERMINAL 4 TO NEGATIVE (-)



2 WIRE CONTROL ACC. 47



2 WIRE CONTROL ACC. 47
FIG. B



3 WIRE CONTROL ACC. 48
FIG. C

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)

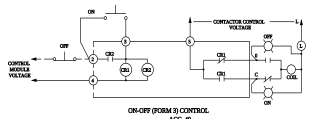
C. LINE & LOAD TERMINALS ARE REVERSIBLE.

D. CONTACTS ARE SINGLE THROW, DOUBLE BREAK, WITH MOMENTARILY ENERGIZED SINGLE COIL OPERATOR MECHANICALLY HELD IN BOTH OPEN & CLOSED PORITIONS.

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

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

G. CONTROL MODULE VOLTAGE SUPPLIED BY CUSTOMER.



ON-OFF (FORM 3) CONTROL
ACC. 49
FIG. D

24306100401

last modified: 1/25/2022