# SIEMENS

#### Data sheet

#### US2:CLM1H02120



Mechanically held lighting contactor, Contactor amp rating 400Amp 0NC  $\_$  2NO poles, 110VAC 50HZ/120VAC 60HZ coil, Non-combination type, Enclosure NEMA type 1, Indoor general purpose use

product brand name	Class CLM	
design of the product	Mechanically latched lighting contactor	
special product feature	Energy efficient; Quiet operation	
General technical data		
weight [lb]	145 lb	
Height x Width x Depth [in]	48 × 20 × 13 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	400 Amp	
number of NO contacts for main contacts	2	
number of NC contacts for main contacts	0	
operating voltage for main current circuit at AC at 60 Hz maximum	600 V	
mechanical service life (operating cycles) of the main contacts typical	600000	
contact rating of the main contacts of lighting contactor		
<ul> <li>at tungsten (1 pole per 1 phase) rated value</li> </ul>	400A @277V 1p 1ph	
<ul> <li>at tungsten (2 poles per 1 phase) rated value</li> </ul>	400A @480V 2p 1ph	
<ul> <li>at tungsten (3 poles per 3 phases) rated value</li> </ul>	400A @480V 3p 3ph	
<ul> <li>at ballast (1 pole per 1 phase) rated value</li> </ul>	400A @347V 1p 1ph	
<ul> <li>at ballast (2 poles per 1 phase) rated value</li> </ul>	400A @600V 2p 1ph	
<ul> <li>at ballast (3 poles per 3 phases) rated value</li> </ul>	400A @600V 3p 3ph	
<ul> <li>at resistive load (1 pole per 1 phase) rated value</li> </ul>	400A @347V 1p 1ph	
<ul> <li>at resistive load (2 poles per 1 phase) rated value</li> </ul>	400A @600V 2p 1ph	
<ul> <li>at resistive load (3 poles per 3 phases) rated value</li> </ul>	400A @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 V	
<ul> <li>at AC at 60 Hz rated value</li> </ul>	120 V	
apparent pick-up power of magnet coil at AC	1600 VA	
apparent holding power of magnet coil at AC	550 VA	
operating range factor control supply voltage rated value of magnet coil	0.85 1.1	

degree of protection NEMA rating of the enclosure         NEMA 1 enclosure           design of the housing         indoors, usable on a general basis           Mounting/writing         mounting position         Vertical           fastening method         Surface mounting and installation         type of electrical connection for supply voltage line-side         Box lug           tightening torque [bf-in] for supply notice ine-side for able ingrit conductor cross-sections at line-side for able single or multi-stranded         2x (2 AWG 350 kcmil)           AWG cables single or multi-stranded         T5 °C           material of the conductor for supply maximum permissible         75 °C           material or on concetable conductor for supply maximum permissible         75 °C           material or the conductor for supply maximum permissible         2x (2 AWG 350 kcmil)           type of electrical connection for load-side outgoing feeder         275 300 lbFin           type of connectable conductor for supply freeder         275 300 kcmil)           temperature of the conductor for load-side outgoing feeder         275 °C           material of the conductor for load-side outgoing feeder         275 °C           material of the conductor for load-side outgoing feeder         27 °C           material of the conductor for load-side outgoing feeder         27 °C           temperature of the conductor for load-side outgoing feeder	Enclosure	
Mounting/wiring         Vertical           mounting position         Vertical           fastening method         Surface mounting and installation           type of electrical connectable conductor rosupply voltage line-side         Box lug           tightening torque [ibf-in] for supply         275 300 lbf-in           XWG cables single or multi-stranded         Zx (2 AWG 350 kcmil)           temperature of the conductor for supply maximum permissible         75 °C           material of the conductor for supply maximum permissible         75 °C           material of the conductor for load-side outgoing feeder         275 300 lbf-in           type of electrical connectable conductor for load-side outgoing feeder         275 300 lbf-in           type of electrical connectable conductor for load-side outgoing feeder         275 300 lbf-in           type of electrical connection of magnet coil         Screw-type terminals           tightening torque [lbf-in] for load-side outgoing feeder         75 °C           material of the conductor for load-side outgoing feeder         75 °C           material of the conductor for load-side outgoing feeder         27 °C           material of the conductor for load-side outgoing feeder         27 °C           material of the conductor for load-side outgoing feeder         2 °C °C           material of the conductor at magnet coil         2 x.	degree of protection NEMA rating of the enclosure	NEMA 1 enclosure
mounting position         Vertical           fastening method         Surface mounting and installation           Type of electrical connection for supply voltage line-side         Box lug           tightening torque [lbf-in] for supply         275 300 lbf-in           type of connectable conductor cross-sections at line-side for         Zx (2 AWG 350 kcmil)           AWG cables single or multi-stranded         75 °C           material of the conductor for supply maximum permissible         75 °C           material of the conductor for load-side outgoing feeder         Box lug           tightening torque [lbf-in] for load-side outgoing feeder         275 300 lbf-in           type of connectable conductor for load-side outgoing feeder         275 300 lbf-in           type of connectable conductor for load-side outgoing feeder         275 °C           material of the conductor for load-side outgoing feeder         2x (2 AWG 350 kcmil)           for load-side outgoing feeder single or multi-stranded         2x (2 AWG 350 kcmil)           material of the conductor for load-side outgoing feeder         AL or CU           type of electrical connection of magnet coil         Screw-type terminals           tightening torque [lbf-in] at magnet coil         8 12 lbf-in           type of oncetable conductor cross-sections of magnet coil for AWG cables single or multi-stranded         2x (16 12 AWG) </td <td>design of the housing</td> <td>indoors, usable on a general basis</td>	design of the housing	indoors, usable on a general basis
Instanting method       Surface mounting and installation         type of electrical connection for supply voltage line-side       Box lug         tightening torque [lbf-in] for supply       275 300 lbf-in         VVC cables single or multi-stranded       2x (2 AWG 350 kcmil)         temperature of the conductor for supply maximum permissible       75 °C         material of the conductor for supply       AL or CU         type of electrical connection for load-side outgoing feeder       275 300 lbf-in         type of electrical connection for load-side outgoing feeder       275 300 lbf-in         type of connectable conductor for supply       AL or CU         type of connectable conductor for supply in a tranded       2x (2 AWG 350 kcmil)         temperature of the conductor for load-side outgoing feeder       275 300 lbf-in         type of connectable conductor for load-side outgoing feeder       75 °C         maximum permissible       75 °C         material of the conductor for load-side outgoing feeder       AL or CU         type of electrical connection of magnet coil       Screw-type terminals         tightening torque [lbf-in] at magnet coil       8 12 lbf-in         type of connectable conductor at magnet coil for       AL or CU         Vec ables single or multi-stranded       2x (16 12 AWG)         Stort-circuit ururent ratin	Mounting/wiring	
type of electrical connectoin for supply voltage line-sideBox lugtightening torque [lbf-in] for supply275 300 lbf-intype of connectable conductor cross-sections at line-side for AWG cables single or multi-stranded2x (2 AWG 350 kcmil)temperature of the conductor for supply maximum permissible75 °Cmaterial of the conductor for load-side outgoing feederBox lugtightening torque [lbf-in] for load-side outgoing feeder275 300 lbf-intype of electrical connection for load-side outgoing feeder275 300 lbf-intype of electrical conductor cross-sections for AWG cables for load-side outgoing feeder75 °Cmaterial of the conductor for load-side outgoing feeder75 °Cmaterial of the conductor for load-side outgoing feeder75 °Cmaterial of the conductor for load-side outgoing feederAL or CUtype of electrical connection of magnet coilScrew-lype terminalstightening torque [lbf-in] at magnet coil8 12 lbf-intype of electrical connectable conductor cross-sections of magnet coil for AWG cables single or multi-stranded2x (16 12 AWG)temperature of the conductor at magnet coil maximum permissible75 °Cmaterial of the conductor at magnet coilCUShort-circuit current rating0design of the fuse link for short-circuit protection of the main circuit requirednonedesign of the short-circuit tripThermal magnetic circuit breakermaximum short-circuit urrent breaking capacity (lcu) • at 240 V10 kAext 480 V10 kAext 480 V10 kA <td>mounting position</td> <td>Vertical</td>	mounting position	Vertical
tightening torque [lbf·in] for supply       275 300 lbf·in         type of connectable conductor cross-sections at line-side for       2x (2 AWG 350 kcmil)         AWG cables single or multi-stranded       75 °C         material of the conductor for supply       AL or CU         type of electrical connection for load-side outgoing feeder       275 300 lbf·in         tightening torque [lbf·in] for load-side outgoing feeder       275 300 lbf·in         type of connectable conductor cross-sections for AWG cables       2x (2 AWG 350 kcmil)         for load-side outgoing feeder       275 300 lbf·in         type of connectable conductor for load-side outgoing feeder       2x (2 AWG 350 kcmil)         temperature of the conductor for load-side outgoing feeder       2x (2 AWG 350 kcmil)         temperature of the conductor for load-side outgoing feeder       2x (2 AWG 350 kcmil)         temperature of the conductor for load-side outgoing feeder       AL or CU         type of electrical connection of magnet coil       Screw-type terminals         tightening torque [lbf·in] at magnet coil       8 12 lbf·in         type of electrical conductor at magnet coil maximum       75 °C         ematerial of the conductor at magnet coil maximum       75 °C         gentarial of the conductor at magnet coil maximum       75 °C         sinderial of the conductor at magnet coil	fastening method	Surface mounting and installation
Upper of connectable conductor cross-sections at line-side for       2x (2 AWG 350 kcmil)         XWG cables single or multi-stranded       2x (2 AWG 350 kcmil)         temperature of the conductor for supply maximum permissible       75 °C         material of the conductor for load-side outgoing feeder       Box lug         tightening torque [lbf-in] for load-side outgoing feeder       2x (2 AWG 350 kcmil)         type of connectable conductor rorse-sections for AWC cables       2x (2 AWG 350 kcmil)         for load-side outgoing feeder single or multi-stranded       2x (2 AWG 350 kcmil)         temperature of the conductor for load-side outgoing feeder       75 °C         material of the conductor for load-side outgoing feeder       75 °C         material of the conductor for load-side outgoing feeder       75 °C         material of the conductor for load-side outgoing feeder       75 °C         material of the conductor for load-side outgoing feeder       2x (16 12 AWG)         type of electrical connection of magnet coil       8 12 lbf-in         type of onnectable conductor at magnet coil       2x (16 12 AWG)         AWG cables single or multi-stranded       75 °C         temperature of the conductor at magnet coil       CU         Short-circuit current rating       Cu         design of the short-circuit protection of the main       none	type of electrical connection for supply voltage line-side	Box lug
ÁWG cables single or multi-stranded       75 °C         material of the conductor for supply maximum permissible       75 °C         material of the conductor for supply       AL or CU         type of electrical connection for load-side outgoing feeder       Box lug         tightening torque [lbf-in] for load-side outgoing feeder       275 300 lbf-in         type of connectable conductor cross-sections for AWG cables       2x (2 AWG 350 kcmil)         for load-side outgoing feeder single or multi-stranded       75 °C         material of the conductor for load-side outgoing feeder       75 °C         material of the conductor for load-side outgoing feeder       75 °C         material of the conductor for load-side outgoing feeder       AL or CU         type of electrical connection of magnet coil       Screw-type terminals         tightening torque [lbf-in] at magnet coil       8 12 lbf-in         type of connectable conductor at magnet coil for AWG cables single or multi-stranded       75 °C         temperature of the conductor at magnet coil maximum permissible       2x (16 12 AWG)         temperature of the conductor at magnet coil for AWG cables single or multi-stranded       2x (16 12 AWG)         temperature of the conductor at magnet coil or ductor at magnet coil or the main circuit required       CU         stort-circuit current trating       none         design of the f	tightening torque [lbf·in] for supply	275 300 lbf-in
material of the conductor for supply       AL or CU         type of electrical connection for load-side outgoing feeder       Box lug         tightening torque [lbf in] for load-side outgoing feeder       275 300 lbf in         type of connectable conductor cross-sections for AWG cables       2x (2 AWG 350 kcmil)         for load-side outgoing feeder single or multi-stranded       75 °C         maximum permissible       75 °C         material of the conductor for load-side outgoing feeder       AL or CU         type of electrical connection of magnet coil       Screw-type terminals         tightening torque [lbf in] at magnet coil       8 12 lbf in         type of connectable conductor at magnet coil for       2x (16 12 AWG)         AWG cables single or multi-stranded       75 °C         iemperature of the conductor at magnet coil of the conductor at magnet coil maximum       75 °C         permissible       2x (16 12 AWG)         AWG cables single or multi-stranded       CU         temperature of the conductor at magnet coil       CU         Short-circuit current rating       design of the fuse link for short-circuit protection of the main circuit protection of the main circuit required       none         design of the short-circuit trip       Thermal magnetic circuit breaker       maximum short-circuit current breaking capacity (lcu)         • at 240 V		2x (2 AWG 350 kcmil)
type of electrical connection for load-side outgoing feederBox lugtightening torque [lbf-in] for load-side outgoing feeder275 300 lbf-intype of connectable conductor cross-sections for AWG cables for load-side outgoing feeder single or multi-stranded2x (2 AWG 350 kcmil)temperature of the conductor for load-side outgoing feeder75 °Cmaterial of the conductor for load-side outgoing feederAL or CUtype of electrical connection of magnet coilScrew-type terminalstightening torque [lbf-in] at magnet coil8 12 lbf-intype of connectable conductor cross-sections of magnet coil of AWG cables single or multi-stranded75 °CAWG cables single or multi-stranded75 °Ctemperature of the conductor at magnet coil maximum permissible75 °Cdesign of the fuse link for short-circuit protection of the main circuit required75 °Cdesign of the short-circuit tripThermal magnetic circuit breakermaximum short-circuit tripThermal magnetic circuit breakereta 240 V10 kA• at 480 V10 kA• at 600 V10 kA	temperature of the conductor for supply maximum permissible	75 °C
Hightening torque [lbf-in] for load-side outgoing feeder       275 300 lbf-in         type of connectable conductor cross-sections for AWG cables for load-side outgoing feeder single or multi-stranded       2x (2 AWG 350 kcmil)         temperature of the conductor for load-side outgoing feeder       75 °C         material of the conductor for load-side outgoing feeder       AL or CU         type of electrical connection of magnet coil       Screw-type terminals         tightening torque [lbf-in] at magnet coil       8 12 lbf-in         type of connectable conductor ross-sections of magnet coil of XWG cables single or multi-stranded       75 °C         temperature of the conductor at magnet coil       8 12 lbf-in         temperature of the conductor at magnet coil maximum permissible       75 °C         material of the conductor at magnet coil       CU         Short-circuit current rating       CU         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 trip       10 kA         • at 480 V       10 kA         • at 600 V       10 kA	material of the conductor for supply	AL or CU
Upe of connectable conductor cross-sections for AWG cables for load-side outgoing feeder single or multi-stranded       2x (2 AWG 350 kcmil)         temperature of the conductor for load-side outgoing feeder maximum permissible       75 °C         material of the conductor for load-side outgoing feeder       AL or CU         type of electrical connection of magnet coil       8 12 lbf-in         type of connectable conductor at magnet coil of AWG cables single or multi-stranded       2x (16 12 AWG)         temperature of the conductor at magnet coil maximum permissible       75 °C         temperature of the conductor at magnet coil of AWG cables single or multi-stranded       2x (16 12 AWG)         temperature of the conductor at magnet coil maximum permissible       75 °C         material of the conductor at magnet coil maximum permissible       75 °C         temperature of the short-circuit protection of the main circuit current rating       0         design of the short-circuit protection of the main circuit required       none         design of the short-circuit trip       Thermal magnetic circuit breaker         maximum short-circuit trip       10 kA         • at 480 V       10 kA         • at 600 V       10 kA	type of electrical connection for load-side outgoing feeder	Box lug
for load-side outgoing feeder single or multi-stranded75 °Cmaterial of the conductor for load-side outgoing feeder maximum permissible75 °Cmaterial of the conductor for load-side outgoing feederAL or CUtype of electrical connection of magnet coilScrew-type terminalstightening torque [lbf·in] at magnet coil8 12 lbf·intype of connectable conductor cross-sections of magnet coil for AWG cables single or multi-stranded2x (16 12 AWG)temperature of the conductor at magnet coil maximum permissible75 °Cmaterial of the conductor at magnet coilCUShort-circuit current ratingCUdesign of the fuse link for short-circuit protection of the main circuit requirednonedesign of the short-circuit tripThermal magnetic circuit breakermaximum short-circuit current breaking capacity (lcu)10 kA• at 480 V • at 600 V10 kA	tightening torque [lbf·in] for load-side outgoing feeder	275 300 lbf·in
maximum permissibleAL or CUtype of electrical connection of magnet coilScrew-type terminalstightening torque [lbf-in] at magnet coil8 12 lbf-intype of connectable conductor cross-sections of magnet coil for AWG cables single or multi-stranded2x (16 12 AWG)temperature of the conductor at magnet coil maximum permissible75 °Cmaterial of the conductor at magnet coilCUShort-circuit current ratingdesign of the fuse link for short-circuit protection of the main circuit requirednonedesign of the short-circuit tripThermal magnetic circuit breakermaximum short-circuit current breaking capacity (Icu) • at 240 V • at 480 V • at 600 V10 kA		2x (2 AWG 350 kcmil)
type of electrical connection of magnet coil       Screw-type terminals         tightening torque [lbf-in] at magnet coil       8 12 lbf-in         type of connectable conductor cross-sections of magnet coil for       2x (16 12 AWG)         AWG cables single or multi-stranded       2x (16 12 AWG)         temperature of the conductor at magnet coil maximum       75 °C         material of the conductor at magnet coil       CU         Short-circuit current rating       onone         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)       10 kA         • at 480 V       10 kA         • at 600 V       10 kA		75 °C
tightening torque [lbf-in] at magnet coil       8 12 lbf-in         type of connectable conductor cross-sections of magnet coil for       2x (16 12 AWG)         AWG cables single or multi-stranded       2x (16 12 AWG)         temperature of the conductor at magnet coil maximum       75 °C         material of the conductor at magnet coil       CU         Short-circuit current rating       CU         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)       10 kA         • at 240 V       10 kA         • at 480 V       10 kA	material of the conductor for load-side outgoing feeder	AL or CU
type of connectable conductor cross-sections of magnet coil for AWG cables single or multi-stranded       2x (16 12 AWG)         temperature of the conductor at magnet coil maximum permissible       75 °C         material of the conductor at magnet coil       CU         Short-circuit current rating       CU         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)       10 kA         • at 480 V       10 kA         • at 600 V       10 kA	type of electrical connection of magnet coil	Screw-type terminals
ÁWG cables single or multi-stranded     The transmission       temperature of the conductor at magnet coil maximum permissible     75 °C       material of the conductor at magnet coil     CU       Short-circuit current rating     CU       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)     10 kA       • at 240 V     10 kA       • at 480 V     10 kA       • at 600 V     10 kA	tightening torque [lbf·in] at magnet coil	8 12 lbf·in
permissible     CU       material of the conductor at magnet coil     CU       Short-circuit current rating     CU       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)     10 kA       • at 240 V     10 kA       • at 480 V     10 kA       • at 600 V     10 kA		2x (16 12 AWG)
Short-circuit current rating       none         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)       0         • at 240 V       10 kA         • at 480 V       10 kA         • at 600 V       10 kA		75 °C
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)       10 kA         • at 240 V       10 kA         • at 480 V       10 kA         • at 600 V       10 kA	material of the conductor at magnet coil	CU
circuit required       Thermal magnetic circuit breaker         design of the short-circuit trip       Thermal magnetic circuit breaker         maximum short-circuit current breaking capacity (Icu)       10 kA         • at 240 V       10 kA         • at 480 V       10 kA         • at 600 V       10 kA	Short-circuit current rating	
maximum short-circuit current breaking capacity (lcu)       • at 240 V       • at 480 V       • at 600 V		none
• at 240 V     10 kA       • at 480 V     10 kA       • at 600 V     10 kA	design of the short-circuit trip	Thermal magnetic circuit breaker
• at 480 V 10 kA • at 600 V 10 kA	maximum short-circuit current breaking capacity (Icu)	
• at 600 V 10 kA	• at 240 V	10 kA
	• at 480 V	10 kA
certificate of suitability NEMA ICS 2; UL 508; CSA 22.2, No. 14	• at 600 V	10 kA
	5	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)

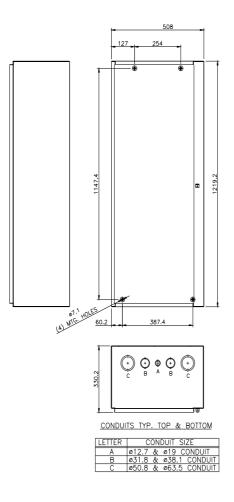
https://mall.industry.siemens.com/mall/en/us/Catalog/product?mlfb=US2:CLM1H02120

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/US/en/ps/US2:CLM1H02120

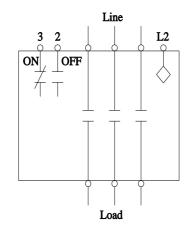
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=US2:CLM1H02120&lang=en

Certificates/approvals

https://support.industry.siemens.com/cs/US/en/ps/US2:CLM1H02120/certificate



## Wiring Diagram Class CLM 300 & 400 Amp 2 & 3 Pole



### Notes:

- 1. Dotted line represents third pole.
  - Contactor may have 2 or 3 poles.
- 2. Optional auxiliary contacts are not shown.

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last modified:

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