## SIEMENS

## Data sheet

## 3VA5170-4ED11-1AA0

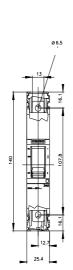


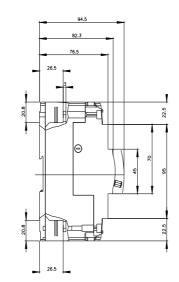
circuit breaker 3VA5 UL frame 125 breaking capacity class S 25kA @ 277V 1-pole, line protection TM210, FTFM, In=70A overload protection Ir=70A fixed short-circuit protection li=10 x In UL 489 SB (naval), 50° C without connection

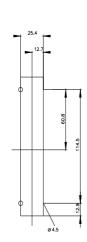
| product brand name         SENTRON           product designation / according to UL file         SEAM           design of the product         System protection           design of the load switch / according to UL 489 / Hearing, Arr<br>Conditioning, and Refrigeration circuit breaker (HACR Type)         Yes           design of the load switch / according to UL 489 / High-intensity:         No           Discharge circuit breaker (HOT Type)         No           design of the load switch / according to UL 489 / High-intensity:         No           Discharge circuit breaker (HOT Type)         No           design of the load switch / according to UL 489 / Switching Duty<br>circuit breaker (WOT Type)         No           design of the load switch / according to UL 489 / High-intensity:         No           portection tiruction of the overcurrent release         TU210           number of poles         1           central technical data         operating voles // 1 / Crated value           operating voles // 1 / Crated value of the current / at AC / in hot<br>operating voles // 1 / for rated value of the current / at AC / in hot<br>operating voles // 1 / or rated value of the current / at AC / in at A00           electrical endurance (operating voles) / typical         20 000           electrical endurance (operating voles) / typical         8000           electrical endurance (operating voles) / upgradableretrofittable         No  | Model  |                             |
|---|--|-----------------------------|
| product designation / according to UL file         SEAM           design of the product         System protection           design of the load switch / according to UL 489 / Heating, Arr         Yes           design of the load switch / according to UL 489 / High-Intensity-<br>Discharge circuit breaker (HIO Type)         No           design of the load switch / according to UL 489 / Switching Duty<br>circuit breaker (WIO Type)         No           design of the load switch / according to UL 489 / Switching Duty<br>circuit breaker (WIO Type)         No           design of the load switch / according to UL 489 / Switching Duty<br>circuit breaker (WIO Type)         No           design of the load switch / according to UL 489 / Switching Duty<br>circuit breaker (SWD Type)         No           design of the load switch / according to UL 489 / Switching Duty<br>circuit breaker (SWD Type)         No           design of the load switch / according to UL 489 / Switching Duty<br>circuit breaker (SWD Type)         No           operating voltage / at AC / rated value         415 V           operating voltage / at AC / rated value         415 V           power loss [W] / for rated value of the current / at AC / In hot<br>operating state / per pole         6.1 W           mechanical service life (operating cycles) / typical         20 000           electrical endurance (operating cycles) / typical         8 000           electrical endurance (operating cycles) / ta 80 V         8 000  | product brand name   | SENTRON                     |
| design of the product         System protection           design of the load switch / according to UL 489 / Heating, Air<br>Conditioning, and Refrigerater (HACR Type)         Yes           design of the load switch / according to UL 489 / High-Intensity-<br>Discharge circuit breaker (HID Type)         No           design of the load switch / according to UL 489 / Nething Duty<br>circuit breaker (IND Type)         No           design of the load switch / according to UL 489 / Switching Duty<br>circuit breaker (IND Type)         No           design of the oversurrent release         TM210           protection function of the oversurrent release         LI           number of poles         1           operating voltage / at AC / rated value         6.1 W           power loss (W) / for rated value of the current / at AC / in hot<br>operating state / per pole         6.1 W           mechanical service life (operating cycles) / typical         20 000           electrical endurance (operating cycles) / at AC-1 / at 380/415 V         8 000           electrical endurance (operating cycles) / at AC-1 / at 380/415 V         8 000           electrical endurance (operating cycles) / at AC-1 / at 380/415 V         8 000           electrical endurance (operating cycles) / at AC-1 / at 380/415 V         8 000           electrical endurance (operating cycles) / at AC-1 / at 380/415 V         8 000           ground-faultrance (operating cycles) / at AC-1 / at 380/415 V <td>product designation</td> <td>Molded-case circuit breaker</td> | product designation  | Molded-case circuit breaker |
| design of the load switch / according to UL 489 / Heating, Air<br>Conditioning, and Refrigeration circuit breaker (HACR Type)     Yes       design of the load switch / according to UL 489 / High-Intensity-<br>Discharge circuit breaker (HID Type)     No       design of the load switch / according to UL 489 / High-Intensity-<br>Discharge circuit breaker (HID Type)     No       design of the load switch / according to UL 489 / Switching Duty<br>circuit breaker (SWD Type)     No       design of the overcurrent release     TM210       protection function of the overcurrent release     Ll       number of poles     1       contral tochnical data     6.1 W       operating voltage / at AC / rated value     415 V       power loss (W) / for arted value of the current / at AC / in hot<br>operating state / per pole     6.1 W       electrical endurance (operating cycles) / typical     20 000       electrical endurance (operating cycles) / at AC -1 / at 380/415 V     8 000       electrical endurance (operating cycles) / at A0 V     8 000       electrical endurance (operating cycles) / at 480 V     8 000       ground-fault monitoring version     without       product feature / for neutral conductors / upgradable/retrofittable     No       / short-full     0.38 kg       Current     0.38 kg       marking / according to UL 489 / 100%-rated breaker     No       opter dist for C     68 A       • at 40 °C     68 A   | product designation / according to UL file                       | SEAM                        |
| Conditioning, and Refrigeration circuit breaker (HACR Type)         design of the load switch / according to UL 489 / High-Intensity-<br>Discharge circuit breaker (HID Type)       No         design of the load switch / according to UL 489 / Switching Duty<br>circuit breaker (SWD Type)       No         design of the overcurrent release       TM210         protection function of the overcurrent release       LI         number of poles       1         Concrait to chricial data       6.1 W         operating voltage / at AC / rated value       415 V         power loss [W] / maximum       6.1 W         operating state / per pole       000         electrical endurance (operating cycles) / typical       8000         electrical endurance (operating cycles) / ta AC / 1 at 380/415 V       8000         electrical endurance (operating cycles) / at AC / 1 at 380/415 V       8000         electrical endurance (operating cycles) / at 480 V       8000         electrical endurance (operating cycles) / at 480 V       8000         electrical endurance (operating cycles) / at 480 V       8000         ground-fault monitoring version       without         product feature / for neutral conductors / upgradable/retrofittable       No         o-ther measurement function       No         • other measurement function       No         • ot  | design of the product  | System protection           |
| Discharge circuit breaker (HID Type)       No         design of the load switch / according to UL 489 / Switching Duty<br>circuit breaker (SWD Type)       No         design of the overcurrent release       TM210         protection function of the overcurrent release       Ll         number of poles       1         Ceneral tochnical data       6.1 W         power loss [W] / for rated value of the current / at AC / in hot<br>operating soltage / at AC / rated value of the current / at AC / in hot<br>operating state / per pole       6.1 W         mechanical service life (operating cycles) / typical       20 000         electrical endurance (operating cycles) / at AC-1 / at 380/415 V       8 000         electrical endurance (operating cycles) / at AC-1 / at 690 V       4 000         electrical endurance (operating cycles) / at AC0 V       8 000         electrical endurance (operating cycles) / at A00 V       8 000         electrical endurance (operating cycles) / at 480 V       8 000         electrical endurance (operating cycles) / at A00 V       8 000         ground-fault monitoring version       without         product fueature / for neutral conductors / upgradable/retrofittable       No         / stot function       No         • other measurement function       No         • other measurement function       No         • at 45 °C  |  | Yes                         |
| circuit breaker (SWD Type)       TM210         design of the overcurrent release       LI         number of poles       1         constrait technical data  |  | No                          |
| protection function of the overcurrent release         Ll           number of poles         1           General technical data  |  | No                          |
| number of poles       1         General tochnical data  | design of the overcurrent release                                | TM210                       |
| General tochnical data         operating voltage / at AC / rated value       415 V         power loss [W] / maximum       6.1 W         power loss [W] / for rated value of the current / at AC / in hot<br>operating state / per pole       6.1 W         mechanical service life (operating cycles) / typical       20 000         electrical endurance (operating cycles) / at AC-1 / at 380/415 V       8 000         electrical endurance (operating cycles) / at AC-1 / at 690 V       4 000         electrical endurance (operating cycles) / at AC-1 / at 690 V       4 000         electrical endurance (operating cycles) / at 600 V       4 000         product feature / for neutral conductors / upgradable/retrofittable       No         / short-circuit and overload proof       without         ground-fault monitoring version       without         product function       No         • other measurement function       No         Net Weight       0.38 kg         Current       marking / according to UL 489 / 100%-rated breaker         • at 40 °C       69 A         • at 55 °C       66 A         • at 55 °C       66 A         • at 60 °C       66 A         • at 65 °C       65 A  | protection function of the overcurrent release                   | LI                          |
| operating voltage / at AC / rated value         415 V           power loss [W] / maximum         6.1 W           power loss [W] / for rated value of the current / at AC / in hot<br>operating state / per pole         6.1 W           mechanical service life (operating cycles) / typical         20 000           electrical endurance (operating cycles) / typical         20 000           electrical endurance (operating cycles) / at AC-1 / at 380/415 V         8 000           electrical endurance (operating cycles) / at AC-1 / at 690 V         4 000           electrical endurance (operating cycles) / at ABO V         8 000           electrical endurance (operating cycles) / at ABO V         8 000           electrical endurance (operating cycles) / at 4BO V         8 000           electrical endurance (operating cycles) / at 4BO V         8 000           electrical endurance (operating cycles) / at 600 V         4 000           product feature / for neutral conductors / upgradable/retrofittable         No           /short-circuit and overload proof         No           e communication function         No           • communication function         No           • other measurement function         No           operational current         69 A           • at 40 °C         69 A           • at 50 °C         67 A  | number of poles  | 1                           |
| intervent       6.1 W         power loss [W] / for rated value of the current / at AC / in hot operating state / per pole       6.1 W         mechanical service life (operating cycles) / typical       20 000         electrical endurance (operating cycles) / at AC-1 / at 380/415 V       8 000         electrical endurance (operating cycles) / at AC-1 / at 690 V       4 000         electrical endurance (operating cycles) / at AC0 V       8 000         electrical endurance (operating cycles) / at 600 V       4 000         product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof       No         ground-fault monitoring version       without         product function       No         • other measurement function       No         Net Weight       0.38 kg         Current       eat 40 °C         • at 40 °C       69 A         • at 40 °C       69 A         • at 55 °C       67 A         • at 55 °C       67 A         • at 60 °C       66 A         • at 65 °C       65 A  | General technical data   |                             |
| power loss [W] / for rated value of the current / at AC / in hot<br>operating state / per pole6.1 Wmechanical service life (operating cycles) / typical20 000electrical endurance (operating cycles) / at AC-1 / at 380/415 V8 000electrical endurance (operating cycles) / at A690 V4 000electrical endurance (operating cycles) / at 600 V4 000electrical endurance (operating cycles) / at 600 V4 000product feature / for neutral conductors / upgradable/retrofittable<br>/ short-circuit and overload proofNoground-fault monitoring versionwithoutproduct functionNo• other measurement functionNoNet Weight0.38 kgCurrentmarking / according to UL 489 / 100%-rated breaker• at 40 °C69 A• at 45 °C69 A• at 55 °C67 A• at 60 °C66 A• at 65 °C65 A   | operating voltage / at AC / rated value                          | 415 V                       |
| operating state / per polemechanical service life (operating cycles) / typical20 000electrical endurance (operating cycles) / at AC-1 / at 380/415 V8 000electrical endurance (operating cycles) / at 690 V4 000electrical endurance (operating cycles) / at 600 V8 000electrical endurance (operating cycles) / at 800 V4 000electrical endurance (operating cycles) / at 600 V4 000product feature / for neutral conductors / upgradable/retrofittable<br>/ short-circuit and overload proofNoground-fault monitoring versionwithoutproduct functionNo• communication functionNo• other measurement functionNoNet Weight0.38 kgCurrentmarking / according to UL 489 / 100%-rated breaker• at 40 °C69 A• at 45 °C69 A• at 55 °C67 A• at 60 °C66 A• at 65 °C65 A  | power loss [W] / maximum   | 6.1 W                       |
| electrical endurance (operating cycles) / at AC-1 / at 380/415 V       8 000         electrical endurance (operating cycles) / at AC-1 / at 690 V       4 000         electrical endurance (operating cycles) / at AC V       8 000         electrical endurance (operating cycles) / at AB V       8 000         electrical endurance (operating cycles) / at AB V       8 000         electrical endurance (operating cycles) / at 600 V       4 000         product feature / for neutral conductors / upgradable/retrofittable       No         / short-circuit and overload proof       without         ground-fault monitoring version       without         product function       No         • communication function       No         • other measurement function       No         Net Weight       0.38 kg         Current       at 40 °C         • at 40 °C       69 A         • at 40 °C       69 A         • at 50 °C       68 A         • at 55 °C       67 A         • at 60 °C       66 A         • at 60 °C       65 A  |  | 6.1 W                       |
| electrical endurance (operating cycles) / at AC-1 / at 690 V       4 000         electrical endurance (operating cycles) / at 480 V       8 000         electrical endurance (operating cycles) / at 600 V       4 000         product feature / for neutral conductors / upgradable/retrofittable<br>/ short-circuit and overload proof       No         ground-fault monitoring version       without         product function       No         • communication function       No         • other measurement function       No         Net Weight       0.38 kg         Current       marking / according to UL 489 / 100%-rated breaker         operational current       69 A         • at 40 °C       69 A         • at 55 °C       67 A         • at 60 °C       66 A         • at 65 °C       65 A  | mechanical service life (operating cycles) / typical             | 20 000                      |
| electrical endurance (operating cycles) / at 480 V       8 000         electrical endurance (operating cycles) / at 600 V       4 000         product feature / for neutral conductors / upgradable/retrofittable       No         / short-circuit and overload proof       No         ground-fault monitoring version       without         product function       No         • communication function       No         • other measurement function       No         Net Weight       0.38 kg         Current   | electrical endurance (operating cycles) / at AC-1 / at 380/415 V | 8 000                       |
| electrical endurance (operating cycles) / at 600 V       4 000         product feature / for neutral conductors / upgradable/retrofittable       No         / short-circuit and overload proof       without         ground-fault monitoring version       without         product function       No         • communication function       No         • other measurement function       No         Net Weight       0.38 kg         Current       Image: Current         marking / according to UL 489 / 100%-rated breaker       No         operational current       69 A         • at 40 °C       69 A         • at 55 °C       67 A         • at 60 °C       66 A         • at 65 °C       65 A   | electrical endurance (operating cycles) / at AC-1 / at 690 V     | 4 000                       |
| product feature / for neutral conductors / upgradable/retrofittable       No         / short-circuit and overload proof       without         ground-fault monitoring version       without         product function       No         • communication function       No         • other measurement function       No         Net Weight       0.38 kg         Current       marking / according to UL 489 / 100%-rated breaker         No       No         operational current       70 A         • at 40 °C       69 A         • at 55 °C       67 A         • at 60 °C       66 A         • at 65 °C       65 A  | electrical endurance (operating cycles) / at 480 V               | 8 000                       |
| / short-circuit and overload proof         ground-fault monitoring version       without         product function       No         • communication function       No         • other measurement function       No         Net Weight       0.38 kg         Current       marking / according to UL 489 / 100%-rated breaker         no operational current       No         • at 40 °C       70 A         • at 45 °C       69 A         • at 55 °C       67 A         • at 60 °C       66 A         • at 65 °C       65 A  | electrical endurance (operating cycles) / at 600 V               | 4 000                       |
| product function       No         • communication function       No         • other measurement function       No         Net Weight       0.38 kg         Current       Current         marking / according to UL 489 / 100%-rated breaker       No         operational current          • at 40 °C       70 A         • at 45 °C       69 A         • at 50 °C       68 A         • at 55 °C       67 A         • at 60 °C       66 A         • at 65 °C       65 A   |  | No                          |
| • communication functionNo• other measurement functionNoNet Weight0.38 kgCurrentCurrentmarking / according to UL 489 / 100%-rated breakerNooperational current70 A• at 40 °C69 A• at 55 °C68 A• at 55 °C67 A• at 60 °C66 A• at 65 °C65 A  | ground-fault monitoring version                                  | without                     |
| • other measurement functionNoNet Weight0.38 kgCurrentmarking / according to UL 489 / 100%-rated breakerNooperational currentNo• at 40 °C70 A• at 45 °C69 A• at 55 °C68 A• at 55 °C67 A• at 60 °C66 A• at 65 °C65 A   | product function   |                             |
| Net Weight0.38 kgCurrentNomarking / according to UL 489 / 100%-rated breakerNooperational current70 A• at 40 °C70 A• at 45 °C69 A• at 55 °C68 A• at 55 °C67 A• at 60 °C66 A• at 65 °C65 A   | <ul> <li>communication function</li> </ul>                       | No                          |
| Current       No         marking / according to UL 489 / 100%-rated breaker       No         operational current       70 A         • at 40 °C       70 A         • at 45 °C       69 A         • at 50 °C       68 A         • at 55 °C       67 A         • at 60 °C       66 A         • at 65 °C       65 A   | <ul> <li>other measurement function</li> </ul>                   | No                          |
| marking / according to UL 489 / 100%-rated breakerNooperational current-• at 40 °C70 A• at 45 °C69 A• at 50 °C68 A• at 55 °C67 A• at 60 °C66 A• at 65 °C65 A  | Net Weight   | 0.38 kg                     |
| operational current         70 A           • at 40 °C         70 A           • at 45 °C         69 A           • at 50 °C         68 A           • at 55 °C         67 A           • at 60 °C         66 A           • at 65 °C         65 A  | Current  |                             |
| • at 40 °C       70 A         • at 45 °C       69 A         • at 50 °C       68 A         • at 55 °C       67 A         • at 60 °C       66 A         • at 65 °C       65 A   | marking / according to UL 489 / 100%-rated breaker               | No                          |
| • at 45 °C       69 A         • at 50 °C       68 A         • at 55 °C       67 A         • at 60 °C       66 A         • at 65 °C       65 A   | operational current  |                             |
| • at 50 °C       68 A         • at 55 °C       67 A         • at 60 °C       66 A         • at 65 °C       65 A   | ● at 40 °C   | 70 A                        |
| • at 55 °C 67 A<br>• at 60 °C 66 A<br>• at 65 °C 65 A   | ● at 45 °C   | 69 A                        |
| • at 60 °C 66 A<br>• at 65 °C 65 A  | ● at 50 °C   | 68 A                        |
| • at 65 °C 65 A   | ● at 55 °C   | 67 A                        |
|   | ● at 60 °C   | 66 A                        |
| • at 70 °C 64 A   | ● at 65 °C   | 65 A                        |
|   | • at 70 °C   | 64 A                        |

| Switching capacity according to IEC 60947   |  |  |  |  |
|---|--|--|--|--|
| switching capacity class of the circuit breaker   | S  |  |  |  |
| design of short-circuit protection  | For switching power values in DC networks, see the 3VA molded case circuit breaker device manual; link to be found under Service & Support in the last chapter |  |  |  |
| Switching capacity according to UL 489  |  |  |  |  |
| current breaking capacity   |  |  |  |  |
| • at 120 V  | 65 kA  |  |  |  |
| • at 277 V  | 25 kA  |  |  |  |
| • at 347 V  | 14 kA  |  |  |  |
| Adjustable parameters   |  |  |  |  |
| adjustable response value setting current (Ir) / of the L-trip / with                     |  |  |  |  |
| I2t characteristic  |  |  |  |  |
| • minimum   | 70 A   |  |  |  |
| • maximum   | 70 A   |  |  |  |
| adjustable response value delay time (tr) / for L-tripping / with I2t characteristic      |  |  |  |  |
| • minimum   | 1 s  |  |  |  |
| • maximum   | 1 s  |  |  |  |
| adjustable response value setting current (li) / for I-tripping                           |  |  |  |  |
| • minimum   | 700 A  |  |  |  |
| • maximum   | 700 A  |  |  |  |
| adjustable absolute value setting current (InN) / for N-tripping                          |  |  |  |  |
| • minimum   | 0 A  |  |  |  |
| • maximum   | 0 A  |  |  |  |
| adjustable current response value current / of the current-<br>dependent overload release | 70 70 A  |  |  |  |
| product function / grounding protection   | No   |  |  |  |
| Mechanical Design   |  |  |  |  |
| product component   |  |  |  |  |
| undervoltage release  | No   |  |  |  |
| voltage trigger   | No   |  |  |  |
| trip indicator  | No   |  |  |  |
| height [in]   | 5.51 in  |  |  |  |
| height  | 140 mm   |  |  |  |
| width [in]  | 1 in   |  |  |  |
| width   | 25.4 mm  |  |  |  |
| depth [in]  | 3.01 in  |  |  |  |
| depth   | 76.5 mm  |  |  |  |
| Connections   |  |  |  |  |
| arrangement of electrical connectors / for main current circuit                           | Without connection   |  |  |  |
| type of electrical connection / for main current circuit                                  | Without  |  |  |  |
| Auxiliary circuit   |  |  |  |  |
| number of CO contacts / for auxiliary contacts  | 0  |  |  |  |
| Accessories   |  |  |  |  |
|   | No   |  |  |  |
| product extension / optional / motor drive<br>Environmental conditions                    | No   |  |  |  |
|   |  |  |  |  |
| protection class IP / on the front  | IP40   |  |  |  |
| ambient temperature   | 25.10  |  |  |  |
| during operation / minimum  | -25 °C   |  |  |  |
| during operation / maximum  | 70 °C  |  |  |  |
| during storage / minimum  | -40 °C   |  |  |  |
| during storage / maximum  | 80 °C  |  |  |  |
| Certificates<br>certificate of suitability / as approval for NAVAL (no combat             | Yes  |  |  |  |
| vessels) / supplement SB  |  |  |  |  |
| General Product Approval  |  |  |  |  |
|   |  |  |  |  |

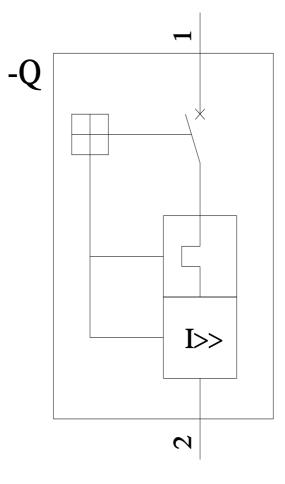
|   | EMC  | Declaration of Conformity  |                      | Test Certificates                       | Marine / Shipping       |
|---|--|--|----------------------|---|-------------------------|
| EHC   | RCM  | CE<br>EG-Konf.   | UK<br>CA             | Type Test Certific-<br>ates/Test Report | ABS                     |
| Marine / Shipping   |  |  |                      | other                                   |                         |
|   |  | Lloydis<br>Register<br>urs   |                      | <u>Confirmation</u>                     | <u>Miscellaneous</u>    |
| other   |  |  |                      |   |                         |
|   | •  | se/siemens-wind-down-russian-b   |                      |   |                         |
| iemens is working or  |  | e status of validity of the EAC certi  | fication if you inte | end to import or offer to supp          | ply these products to a |
| iemens is working or<br>lease contact your loca<br>AC relevant market (of<br>formation on the pac<br>ttps://support.industry<br>formation- and Down<br>ttp://www.siemens.com<br>ndustry Mall (Online of<br>ttps://mall.industry.siem<br>ervice&Support (Mar | al Siemens office on the<br>ther than the sanctione<br>ckaging<br>siemens.com/cs/ww/en<br>hloadcenter (Catalogs<br>h/lowvoltage/catalogs<br>ordering system)<br>mens.com/mall/en/en/C<br>huals, Certificates, Ch | e status of validity of the EAC certi<br>d EAEU member states Russia or<br>/view/109813875 | Belarus).            | na to import or offer to sup            | oly these products to a |

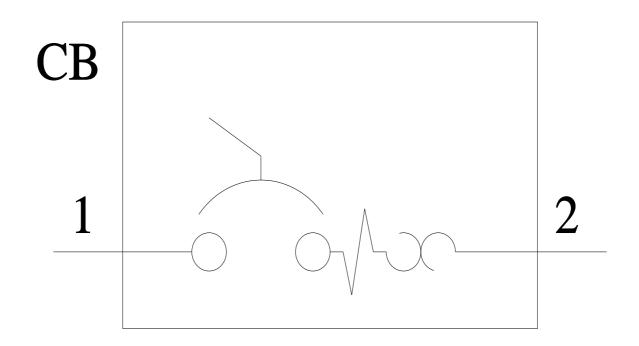












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