PRODUCT-DETAILS

# GAE75-10-11 110V DC

## GAE75-10-11 110V DC Contactor



### General Information

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|---|---|
| Extended Product Type | GAE75-10-11 110V DC |
| Product ID | 1SBL419025R8611 |
| EAN | 3471522113863 |
| Catalog Description | GAE75-10-11 110V DC Contactor |
| Long Description | GAE75 contactors are designed for DC circuit switching. Arc suppression is more difficult in DC than in AC. To choose a contactor, it is necessary to know the current and voltage to be broken as well as the L/R time constant of the power circuit to be controlled. GAE 75 contactors are of the block type design. - Main poles: the contactors are fitted with arc chutes with permanent magnets specially designed for DC breaking. The three contactor paths are arranged in series via two supplied and fitted insulated connections (25 $mm^2$). The GAE75 are "single-pole" devices for which the connection polarities indicated next to the connection terminals must be respected. Furthermore, they are marked 1L1 for the positive terminal and 2T1 for the negative terminal. - Auxiliary contact: 1 CAL 5-11 side-mounted add-on auxiliary contact block (GAE75-10-11 types) - Control circuit: DC operated with standard double-winding DC coils (with add-on factory-mounted lagging contact for insertion of the"holding" winding) - Accessories: a wide range of accessories is available |

### Ordering

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| Minimum Order Quantity | 1 piece |

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| Customs Tariff Number | 85364900 |

## Popular Downloads

| | |
|---|---|
| Data Sheet, Technical Information | 1SBC100122C0202_CH02 |
| Instructions and Manuals | FPTC407691P0003 |
| CAD Dimensional Drawing | 2CDC001079B0201 |

## Dimensions

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| Product Net Width | 94 mm |
| Product Net Depth / Length | 108 mm |
| Product Net Height | 132 mm |
| Product Net Weight | 1.3 kg |

## Technical

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| Number of Main Contacts NO | 1 |
| Number of Main Contacts NC | 0 |
| Number of Auxiliary Contacts NO | 1 |
| Number of Auxiliary Contacts NC | 1 |
| Rated Operational Voltage | Auxiliary Circuit 690 V<br>Main Circuit 1000 V DC |
| Rated Frequency (f) | Auxiliary Circuit 50 / 60 Hz |
| Conventional Free-air Thermal Current ($I_{th}$) | acc. to IEC 60947-4-1, Open Contactors Θ = 40 °C 125 A<br>acc. to IEC 60947-5-1, Θ = 40 °C 16 A |
| Rated Operational Current AC-15 ($I_e$) | (500 V) 2 A<br>(690 V) 2 A<br>(24 / 127 V) 6 A<br>(220 / 240 V) 4 A<br>(380 / 400 V) 3 A |
| Short-Circuit Protective Devices | Auxiliary Circuit - gG Type Fuses 10 A<br>gG Type Fuses 160 A |
| Rated Short-time Withstand Current Low Voltage ($I_{cw}$) | for 0.1 s 140 A<br>for 1 s 100 A |
| Maximum Electrical Switching Frequency | 300 cycles per hour |
| Rated Operational Current DC-1 ($I_e$) | (1000 V) 1-Pole, 40 °C 35 A<br>(1000 V) 1-Pole, 55 °C 35 A<br>(1000 V) 1 Pole, 70 °C 35 A<br>(110 V) 1-Pole, 40 °C 120 A<br>(110 V) 1-Pole, 55 °C 100 A<br>(110 V) 1-Pole, 70 °C 85 A<br>(220 V) 1-Pole, 40 °C 120 A<br>(220 V) 1-Pole, 55 °C 100 A<br>(220 V) 1-Pole, 70 °C 85 A<br>(440 V) 1-Pole, 40 °C 100 A<br>(440 V) 1-Pole, 55 °C 100 A<br>(440 V) 1-Pole, 70 °C 85 A<br>(600 V) 1-Pole, 40 °C 75 A<br>(600 V) 1-Pole, 55 °C 75 A |

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|---|---|
| | (600 V) 1-Pole, 70 °C 75 A<br>(72 V) 1-Pole, 40 °C 120 A<br>(72 V) 1-Pole, 55 °C 100 A<br>(72 V) 1-Pole, 70 °C 85 A |
| Rated Operational Current DC-3 ($I_e$) | (110 V) 1-Pole, 40 °C 120 A<br>(110 V) 1-Pole, 55 °C 100 A<br>(220 V) 1-Pole, 40 °C 100 A<br>(220 V) 1-Pole, 55 °C 100 A<br>(440 V) 1-Pole, 40 °C 85 A<br>(440 V) 1-Pole, 55 °C 85 A<br>(72 V) 1-Pole, 40 °C 120 A<br>(72 V) 1-Pole, 55 °C 100 A |
| Rated Operational Current DC-5 ($I_e$) | (110 V) 1-Pole, 40 °C 85 A<br>(110 V) 1-Pole, 55 °C 85 A<br>(220 V) 1-Pole, 40 °C 85 A<br>(220 V) 1-Pole, 55 °C 85 A<br>(440 V) 1-Pole, 40 °C 35 A<br>(440 V) 1-Pole, 55 °C 35 A<br>(72 V) 1-Pole, 40 °C 85 A<br>(72 V) 1-Pole, 55 °C 85 A |
| Rated Operational Current DC-13 ($I_e$) | (24 V) 6 A / 144 W<br>(48 V) 2.8 A / 134 W<br>(72 V) 1 A / 72 W<br>(110 V) 0.55 A / 60 W<br>(125 V) 0.55 A / 69 W<br>(220 V) 0.30 A / 66 W<br>(250 V) 0.3 / 75 W |
| Rated Insulation Voltage ($U_i$) | acc. to IEC 60947-4-1 1000 V<br>acc. to IEC 60947-5-1 690 V<br>acc. to UL/CSA 600 V |
| Rated Impulse Withstand Voltage ($U_{imp}$) | 8 kV |
| Mechanical Durability | 5 million |
| Maximum Mechanical Switching Frequency | 3600 cycles per hour |
| Rated Control Circuit Voltage ($U_c$) | DC Operation 110 V |
| Coil Consumption | Average Holding Value, from Warm State 4 W<br>Average Pull-in Value, from Cold State 200 W<br>Holding at Max. Rated Control Circuit Voltage 50 Hz 4 W<br>Holding at Max. Rated Control Circuit Voltage DC 4 W<br>Pull-in at Max. Rated Control Circuit Voltage DC 200 V·A |
| Operate Time | Between Coil De-energization and NC Contact Closing 8 ... 18 ms<br>Between Coil De-energization and NO Contact Opening 5 ... 15 ms<br>Between Coil Energization and NC Contact Opening 10 ... 27 ms<br>Between Coil Energization and NO Contact Closing 30 ... 30 ms |
| Mounting on DIN Rail | TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715<br>TH75-25 (75 x 25 mm Mounting Rail) acc. to IEC 60715 |
| Mounting by Screws (not supplied) | 2 x M6 screws placed diagonally |
| Connecting Capacity Main Circuit | Flexible with Cable End 6 ... 16 mm²<br>Rigid Cable 6 ... 25 mm² |
| Connecting Capacity Auxiliary Circuit | Flexible with Cable End 0.75 ... 2.5 mm²<br>Rigid Cable 1 ... 4 mm² |
| Degree of Protection | acc. to IEC 60529, IEC 60947-1, EN 60529 Auxiliary Terminals IP20<br>acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP20<br>acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP10 |
| Connecting Terminals (delivered in open position) Main Poles | M 6 (+,-) pozidriv 2 screws with 1x (13 x 10 mm) connector |
| Terminal Type | Screw Terminals |

## Technical UL/CSA

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| Maximum Operating Voltage UL/CSA | Main Circuit 1000 V DC |
| General Use Rating UL/CSA | (1000 V DC) 35 A<br>(440 V DC) 100 A<br>(600 V DC) 75 A |

## Environmental

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|---|---|
| Ambient Air Temperature | Close to Contactor for Storage -60 ... +80 °C<br>Near Contactor for Operation in Free Air (0.85 ... 1.1 Uc) -40 ... +55 °C<br>Near Contactor for Operation in Free Air (Uc) -40 ... 70 °C |
| Climatic Withstand | acc. to IEC 60068-2-30 and 60068-2-11 - UTE C 63-100 specification II |
| Maximum Operating Altitude Permissible | Without Derating 3000 m |

## Material Compliance

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| Conflict Minerals Reporting Template (CMRT) | 9AKK108467A5658 |
| REACH Declaration | 2CMT2021-006202 |
| RoHS Information | 2CMT2021-006277 |
| RoHS Status | Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019 |
| WEEE B2C / B2B | Business To Business |
| WEEE Category | 5. Small Equipment (No External Dimension More Than 50 cm) |

## Certificates and Declarations

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|---|---|
| CB Certificate | CB_CN45325 |
| CCC Certificate | CCC_2018010304129268 |
| CQC Certificate | CQC2018010304129268 |
| CSA Certificate | CSA_1033838_LR056745 |
| Declaration of Conformity - CCC | 2020980304001625 |
| Declaration of Conformity - CE | 1SBD250807U1000 |
| Declaration of Conformity - UKCA | 1SBD250824U1000 |
| EAC Certificate | EAC_RU C-FR ME77 B03599 |
| UL Listing Card | UL_E319322 |

## Container Information

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| Package Level 1 Units | box 1 piece |
| Package Level 1 Width | 140 mm |
| Package Level 1 Depth / Length | 146 mm |
| Package Level 1 Height | 96 mm |
| Package Level 1 Gross Weight | 1.3 kg |
| Package Level 1 EAN | 3471522113863 |
| Package Level 2 Units | box 63 piece |
| Package Level 2 Gross Weight | 81.9 kg |

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## Classifications

| Object Classification Code | Q |
|---|---|
| ETIM 7 | EC002552 - Power contactor, DC switching |
| ETIM 8 | EC002552 - Power contactor, DC switching |
| ETIM 9 | EC002552 - Power contactor, DC switching |
| eClass | V11.0 : 27371018 |
| UNSPSC | 39121529 |

## Categories

Low Voltage Products and Systems → Control Products → Contactors → Block Contactors → GA Contactors → GAE75



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