



|   |   |      |     |
|---|---|------|-----|
| Product designation   | Power contactor                                     |      |     |
| Product type designation  | B115  |      |     |
| <b>Contact characteristics</b>  |   |      |     |
| Number of poles   | Nr.   | 4    |     |
| Rated insulation voltage Ui IEC/EN  | V   | 1000 |     |
| Rated impulse withstand voltage Uimp  | kV  | 8    |     |
| Operational frequency   | min   | Hz   | 25  |
|   | max   | Hz   | 400 |
| IEC Conventional free air thermal current Ith                               |   | A    | 160 |
| Operational current Ie  |   |      |     |
|   | AC-1 ( $\leq 40^{\circ}\text{C}$ )                  | A    | 160 |
|   | AC-1 ( $\leq 55^{\circ}\text{C}$ )                  | A    | 150 |
|   | AC-1 ( $\leq 70^{\circ}\text{C}$ )                  | A    | 110 |
|   | AC-3 ( $\leq 440\text{V} \leq 55^{\circ}\text{C}$ ) | A    | 110 |
|   | AC-4 (400V)   | A    | 47  |
| Rated operational power AC-1 ( $T \leq 40^{\circ}\text{C}$ )                |   |      |     |
|   | 230V  | kW   | 57  |
|   | 400V  | kW   | 98  |
|   | 500V  | kW   | 129 |
|   | 690V  | kW   | 173 |
| IEC max current Ie in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series |   |      |     |
|   | 75V   | A    | 160 |
|   | 110V  | A    | 100 |
|   | 220V  | A    | —   |
|   | 330V  | A    | —   |
|   | 460V  | A    | —   |
| IEC max current Ie in DC1 with $L/R \leq 1\text{ms}$ with 2 poles in series |   |      |     |
|   | 75V   | A    | 160 |
|   | 110V  | A    | 130 |
|   | 220V  | A    | 100 |
|   | 330V  | A    | —   |
|   | 460V  | A    | —   |
| IEC max current Ie in DC1 with $L/R \leq 1\text{ms}$ with 3 poles in series |   |      |     |
|   | 75V   | A    | 160 |
|   | 110V  | A    | 130 |
|   | 220V  | A    | 130 |
|   | 330V  | A    | 100 |
|   | 460V  | A    | —   |
| IEC max current Ie in DC1 with $L/R \leq 1\text{ms}$ with 4 poles in series |   |      |     |
|   | 75V   | A    | 160 |
|   | 110V  | A    | 130 |
|   | 220V  | A    | 130 |
|   | 330V  | A    | 130 |
|   | 460V  | A    | 100 |

IEC max current  $I_e$  in DC3-DC5 with  $L/R \leq 15\text{ms}$  with 1 poles in series

|      |   |     |
|------|---|-----|
| 75V  | A | 140 |
| 110V | A | 70  |
| 220V | A | —   |
| 330V | A | —   |
| 460V | A | —   |

IEC max current  $I_e$  in DC3-DC5 with  $L/R \leq 15\text{ms}$  with 2 poles in series

|      |   |     |
|------|---|-----|
| 75V  | A | 140 |
| 110V | A | 100 |
| 220V | A | 80  |
| 330V | A | —   |
| 460V | A | —   |

IEC max current  $I_e$  in DC3-DC5 with  $L/R \leq 15\text{ms}$  with 3 poles in series

|      |   |     |
|------|---|-----|
| 75V  | A | 140 |
| 110V | A | 120 |
| 220V | A | 100 |
| 330V | A | 80  |
| 460V | A | —   |

IEC max current  $I_e$  in DC3-DC5 with  $L/R \leq 15\text{ms}$  with 4 poles in series

|      |   |     |
|------|---|-----|
| 75V  | A | 140 |
| 110V | A | 120 |
| 220V | A | 120 |
| 330V | A | 120 |
| 460V | A | 80  |

Short-time allowable current for 10s (IEC/EN60947-1) A 1100

Protection fuse

|          |   |     |
|----------|---|-----|
| gG (IEC) | A | 200 |
| aM (IEC) | A | 125 |

Making capacity (RMS value) A 1300

Breaking capacity at voltage

|      |   |      |
|------|---|------|
| 440V | A | 1300 |
| 500V | A | 1100 |
| 690V | A | 880  |

Resistance per pole (average value)  $\text{m}\Omega$  0.3

Power dissipation per pole (average value)

|                 |   |     |
|-----------------|---|-----|
| I <sub>th</sub> | W | 7.7 |
| AC-3            | W | 4   |

Tightening torque for terminals

|     |                  |     |
|-----|------------------|-----|
| min | Nm               | 10  |
| max | Nm               | 10  |
| min | I <sub>bin</sub> | 7.4 |
| max | I <sub>bin</sub> | 7.4 |

Max number of wires simultaneously connectable Nr. 2

Conductor section

|   |     |      |
|---|-----|------|
| AWG/Kcmil   | max | 2/0  |
| Power terminal protection according to IEC/EN 60529 |     | IP00 |

Mechanical features

Operating position

|                     |                                 |
|---------------------|---------------------------------|
| normal<br>allowable | Vertical plan<br>$\pm 30^\circ$ |
|---------------------|---------------------------------|

Fixing

|       |
|-------|
| Screw |
|-------|

Weight

|   |      |
|---|------|
| g | 6250 |
|---|------|

**Operations**

|                 |        |          |
|-----------------|--------|----------|
| Mechanical life | cycles | 10000000 |
| Electrical life | cycles | 1100000  |

**Safety related data**

Performance level B10d according to EN/ISO 13489-1

|                 |        |          |
|-----------------|--------|----------|
| rated load      | cycles | 1100000  |
| mechanical load | cycles | 10000000 |

Mirror contacts according to IEC/EN 609474-4-1

EMC compatibility

**AC coil operating**

Rated AC voltage at 50/60Hz

V 48

AC operating voltage

|                                 |     |     |     |
|---------------------------------|-----|-----|-----|
| of 50/60Hz coil powered at 50Hz |     |     |     |
| pick-up                         | min | %Us | 80  |
|                                 | max | %Us | 110 |
| drop-out                        | min | %Us | 20  |
|                                 | max | %Us | 60  |

|                                 |     |     |     |
|---------------------------------|-----|-----|-----|
| of 50/60Hz coil powered at 60Hz |     |     |     |
| pick-up                         | min | %Us | 80  |
|                                 | max | %Us | 110 |
| drop-out                        | min | %Us | 20  |
|                                 | max | %Us | 60  |

|                              |     |     |     |
|------------------------------|-----|-----|-----|
| of 60Hz coil powered at 60Hz |     |     |     |
| pick-up                      | min | %Us | 80  |
|                              | max | %Us | 110 |
| drop-out                     | min | %Us | 20  |
|                              | max | %Us | 60  |

AC average coil consumption at 20°C

|                                 |         |    |     |
|---------------------------------|---------|----|-----|
| of 50/60Hz coil powered at 50Hz | in-rush | VA | 300 |
|                                 | holding | VA | 10  |

|                                 |         |    |     |
|---------------------------------|---------|----|-----|
| of 50/60Hz coil powered at 60Hz | in-rush | VA | 300 |
|                                 | holding | VA | 10  |
|                                 |         | W  | 10  |

Dissipation at holding ≤20°C 50Hz

**DC coil operating**

DC rated control voltage

V 48

DC operating voltage

|          |     |     |     |
|----------|-----|-----|-----|
| pick-up  | min | %Us | 80  |
|          | max | %Us | 110 |
| drop-out | min | %Us | 20  |
|          | max | %Us | 60  |

Average coil consumption ≤20°C

|         |   |     |
|---------|---|-----|
| in-rush | W | 300 |
| holding | W | 10  |

**Max cycles frequency**

Mechanical operation cycles/h 2400

Operating times

Average time for Us control

in AC

Closing NO

|     |    |     |
|-----|----|-----|
| min | ms | 60  |
| max | ms | 100 |
| min | ms | 25  |
| max | ms | 60  |

in DC

Closing NO

|     |    |     |
|-----|----|-----|
| min | ms | 60  |
| max | ms | 100 |
| min | ms | 25  |
| max | ms | 60  |

UL technical data

Rated operational voltage AC (UL) V 600

Full-load current (FLA) for three-phase AC motor

|         |   |    |
|---------|---|----|
| at 480V | A | 96 |
| at 600V | A | 99 |

Yielded mechanical performance

for three-phase AC motor

|          |    |     |
|----------|----|-----|
| 200/208V | HP | 30  |
| 220/230V | HP | 40  |
| 575/600V | HP | 100 |

General USE

Contactor

|            |   |     |
|------------|---|-----|
| AC current | A | 160 |
|------------|---|-----|

Short-circuit protection fuse, 600V

Standard fault

|                       |    |     |
|-----------------------|----|-----|
| Short circuit current | kA | 5   |
| Fuse rating           | A  | 500 |
| Fuse class            |    | RK5 |

Ambient conditions

Temperature

Operating temperature

|     |    |     |
|-----|----|-----|
| min | °C | -50 |
| max | °C | 70  |

Storage temperature

|     |    |     |
|-----|----|-----|
| min | °C | -60 |
| max | °C | 80  |

Max altitude

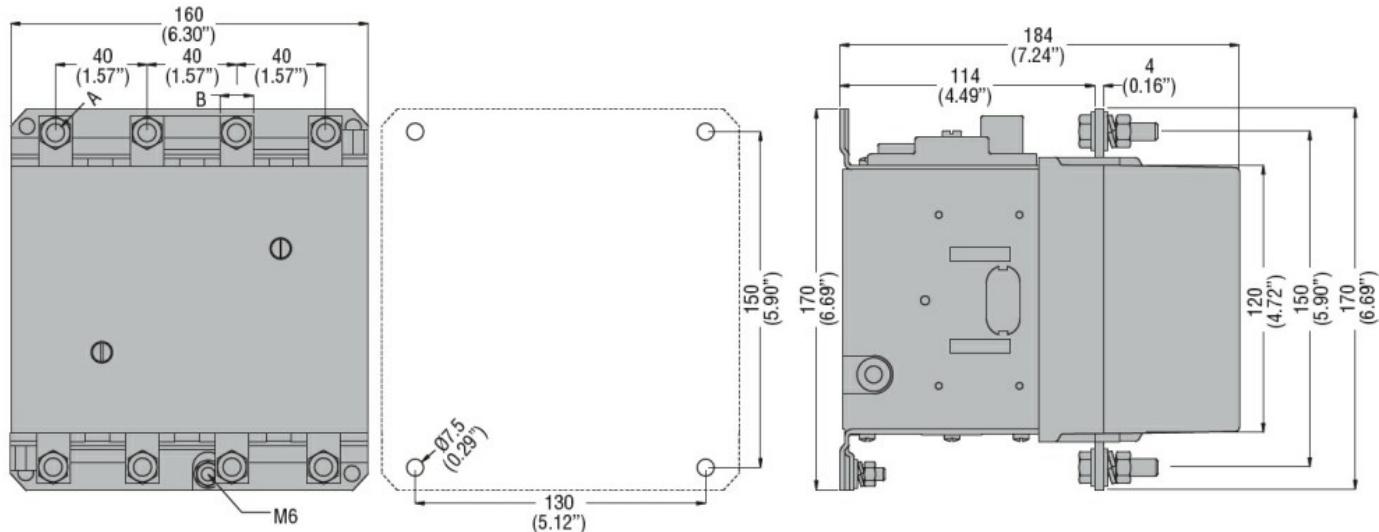
|   |      |
|---|------|
| m | 3000 |
|---|------|

Resistance & Protection

Pollution degree

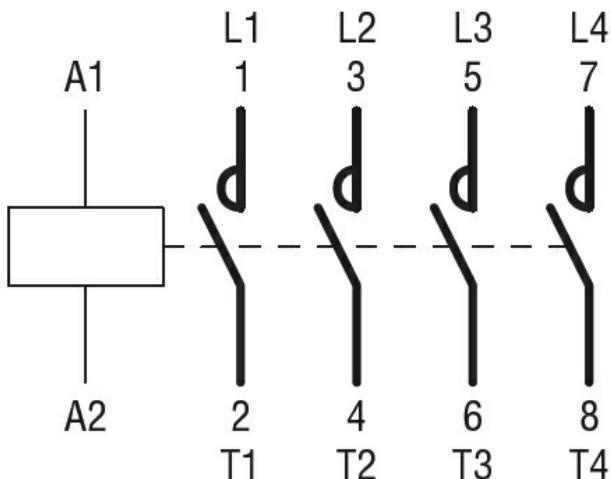
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Dimensions



| CONTACTOR TYPE | A  | B          |
|----------------|----|------------|
| B115           | M6 | 15 (0.59") |
| B145           | M8 | 20 (0.79") |
| B180           | M8 | 20 (0.79") |

#### Wiring diagrams



#### Certifications and compliance

##### Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN 60947-1

IEC/EN 60947-4-1

UL 60947-1

UL 60947-4-1

##### Certificates

CCC

cULus

EAC

#### ETIM classification

##### ETIM 8.0

EC000066 -  
Power contactor,  
AC switching