

**ENERGY AND AUTOMATION** 

CONTACTOR FOR POWER FACTOR CORRECTION WITH AC CONTROL CIRCUIT, electric INCLUDING LIMITING RESISTORS, MAXIMUM IEC OPERATIONAL POWER 400V = 100KVAR, COIL 230VAC 60HZ



| Product designation  |   |          | Power contactor |
|--|---|----------|-----------------|
| Product type designation   |   |          | BFK150          |
| Contact characteristics  |   |          |                 |
| Number of poles  |   | Nr.      | 3               |
| Rated insulation voltage Ui IEC/EN                               |   | V        | 690             |
| Rated impulse withstand voltage Uimp                             |   | kV       | 8               |
| Operational frequency  |   |          |                 |
|  | min                                     | Hz       | 25              |
|  | max                                     | Hz       | 400             |
| IEC Conventional free air thermal current Ith                    |   | Α        | 165             |
| Rated operational power AC-6b (T≤40°C)                           |   |          |                 |
|  | 230V                                    | kvar     | 50              |
|  | 400V                                    | kvar     | 100             |
|  | 440480V                                 | kvar     | 115             |
|  | 690V                                    | kvar     | 150             |
| Short-time allowable current for 10s (IEC/EN60947-1)             |   | Α        | 1200            |
| Protection fuse  |   |          |                 |
|  | gG (IEC)                                | Α        | 160             |
| Making capacity (RMS value)                                      | • | Α        | 1500            |
| Breaking capacity at voltage                                     |   |          |                 |
| 3 - 1 - 1 - 1 - 1 - 1  | 440V                                    | Α        | 1200            |
|  | 500V                                    | Α        | 1025            |
|  | 690V                                    | Α        | 905             |
| Resistance per pole (average value)                              |   | mΩ       | 0.45            |
| Power dissipation per pole (average value)                       |   |          |                 |
| (  | Ith                                     | W        | 12              |
| Tightening torque for terminals                                  |   |          |                 |
| Tightorning to ique for terminale                                | min                                     | Nm       | 6               |
|  | max                                     | Nm       | 7               |
|  | min                                     | lbin     | 4.4             |
|  | max                                     | lbin     | 5.2             |
| Tightening torque for coil terminal                              | IIIdA                                   | IDIII    | J.2             |
| rightening torque for con terminal                               | min                                     | Nim      | 0.8             |
|  | min                                     | Nm<br>Nm |                 |
|  | max                                     | Nm       | 1               |
|  | min                                     | lbin     | 0.59            |
| May remain as of united principles acres to be a second as to be | max                                     | lbin     | 0.74            |
| Max number of wires simultaneously connectable                   |   | Nr.      | 2               |
| Conductor section  |   |          |                 |
| AWG/Kcmil  |   |          | 0/0             |
| FI 11 7 1 2 2  | max                                     |          | 2/0             |
| Flexible w/o lug conductor section                               |   | _        | 4 =             |
|  | min                                     | mm²      | 1.5             |
| <del></del>  | max                                     | mm²      | 70              |
| Flexible c/w lug conductor section                               |   | _        |                 |
|  | min                                     | mm²      | 1.5             |



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|                          |                          |            | max             | mm²      | 70               |
|--------------------------|--------------------------|------------|-----------------|----------|------------------|
|                          | tion according to IEC/EN | 60529      |                 |          | IP20 front       |
| Mechanical features      |                          |            |                 |          |                  |
| Operating position       |                          |            |                 |          |                  |
|                          |                          |            | normal          |          | Vertical plan    |
|                          |                          |            | allowable       |          | ±30°             |
| Fixing                   |                          |            |                 |          | Screw / DIN rail |
| Moight                   |                          |            |                 | ~        | 35mm<br>2095     |
| Weight Conductor section |                          |            |                 | g        | 2095             |
| Conductor Section        | AWG/kcmil conductor s    | action     |                 |          |                  |
|                          | AVVG/KCITIII CONDUCTOR S | Section    | max             |          | 2/0              |
| Operations               |                          |            | IIIAX           |          | 2/0              |
| Mechanical life          |                          |            |                 | cycles   | 15000000         |
| Electrical life          |                          |            |                 | cycles   | 800000           |
| Safety related data      |                          |            |                 | Cyclos   | 000000           |
|                          | Od according to EN/ISO 1 | 3489-1     |                 |          |                  |
| . C. C. Mario lovoi Di   | a according to Liviou    |            | rated load      | cycles   | 400000           |
|                          |                          |            | mechanical load | cycles   | 15000000         |
| EMC compatibility        |                          |            |                 | 0,0.00   | yes              |
| AC coil operating        |                          |            |                 |          | ,                |
| Rated AC voltage at 60   | )Hz                      |            |                 | V        | 230              |
| AC operating voltage     |                          |            |                 |          |                  |
|                          | of 60Hz coil powered a   | t 60Hz     |                 |          |                  |
|                          | •                        | pick-up    |                 |          |                  |
|                          |                          |            | min             | %Us      | 80               |
|                          |                          |            | max             | %Us      | 110              |
|                          |                          | drop-out   |                 |          |                  |
|                          |                          |            | min             | %Us      | 20               |
|                          |                          |            | max             | %Us      | 55               |
| AC average coil consu    | mption at 20°C           |            |                 |          |                  |
|                          | of 60Hz coil powered a   | t 60Hz     |                 |          |                  |
|                          |                          |            | in-rush         | VA       | 300              |
|                          |                          |            | holding         | VA       | 20               |
| Dissipation at holding:  | ≤20°C 50Hz               |            |                 | W        | 6.5              |
| Max cycles frequency     |                          |            |                 |          |                  |
| Mechanical operation     |                          |            |                 | cycles/h | 1500             |
| Operating times          |                          |            |                 |          |                  |
| Average time for Us co   |                          |            |                 |          |                  |
|                          | in AC                    | 01 1 110   |                 |          |                  |
|                          |                          | Closing NO | •               | ,        | 4.0              |
|                          |                          |            | min             | ms       | 16               |
|                          |                          | Opening NO | max             | ms       | 32               |
|                          |                          | Opening NO | min             | me       | 9                |
|                          |                          |            | min             | ms<br>ms | 24               |
| UL technical data        |                          |            | max             | ms       | ۷4               |
| General USE              |                          |            |                 |          |                  |
| Contrai COL              | Contactor                |            |                 |          |                  |
|                          | Contactor                |            | AC current      | Α        | 165              |
| Ambient conditions       |                          |            | AO CUITEIR      |          |                  |
| Temperature              |                          |            |                 |          |                  |
|                          | Operating temperature    |            |                 |          |                  |
|                          | Sporating temperature    |            |                 |          |                  |



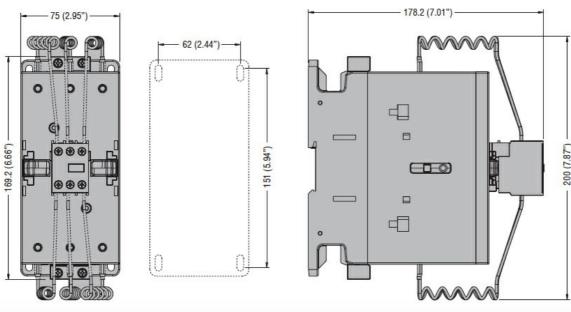


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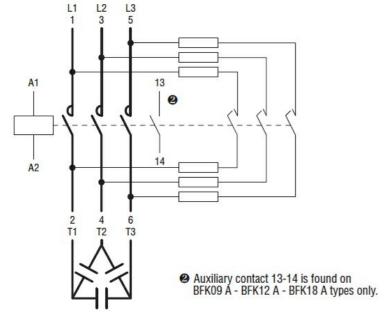
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|  | min | °C | -50  |
|--|-----|----|------|
|  | max | °C | 70   |
| Storage temperature  |     |    |      |
|  | min | °C | -60  |
|  | max | °C | 80   |
| Max altitude   |     | m  | 3000 |
| Resistance & Protection  |     |    |      |
| Pollution degree   |     |    | 3    |
| Discount of the control of the contr |     |    |      |

## Dimensions



### Wiring diagrams



#### Certifications and compliance

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN/BS 60947-1

IEC/EN/BS 60947-4-1

UL 60947-1

UL 60947-4-1



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#### BFK15000A23060

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| Certificates        |       |                                      |
|---------------------|-------|--------------------------------------|
|                     | CCC   |                                      |
|                     | cULus |                                      |
| ETIM classification | n     |                                      |
| ETIM 8.0            |       | EC001079 -<br>Capacitor<br>contactor |