

# FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 140A, AC COIL 50/60HZ, 230VAC



| Product designation Product type designation                                |               |        | Power contactor<br>BF95 |
|---|---------------|--------|-------------------------|
| Contact characteristics   |               |        | DI 30                   |
| 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                               |               | Α      | 140                     |
| Operational current le  |               |        |                         |
| AC-1 (≤   | 40°C)         | Α      | 140                     |
| AC-1 (≤   | 55°C)         | Α      | 115                     |
| AC-1 (≤   | 70°C)         | Α      | 100                     |
| AC-3 (≤440V ≤   | 55°C)         | Α      | 95                      |
| AC-4 (  | 400V)         | Α      | 45                      |
| IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series             |               |        |                         |
|   | ≤24V          | Α      | 140                     |
|   | 48V           | Α      | 140                     |
|   | 75V           | Α      | 100                     |
|   | 110V          | Α      | 10                      |
|   | 220V          | Α      |                         |
| IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series             |               |        |                         |
|   | ≤24V          | Α      | 140                     |
|   | 48V           | Α      | 140                     |
|   | 75V           | Α      | 140                     |
|   | 110V          | Α      | 110                     |
|   | 220V          | Α      | 12                      |
| IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series             |               | _      |                         |
|   | ≤24V          | Α      | 140                     |
|   | 48V           | A      | 140                     |
|   | 75V           | A      | 155                     |
|   | 110V          | A      | 120                     |
| IFC many assert to in DC4 with L/D < 4 may with 4 malos in parise           | 220V          | A      | 125                     |
| IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series             | <b>-24</b> 1/ | ۸      | 1.10                    |
|   | ≤24V<br>48V   | A<br>A | 140                     |
|   | 46 V<br>75 V  |        | 140<br>155              |
|   | 110V          | A      |                         |
|   | 220V          | A<br>A | 140<br>140              |
| IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series        | 22U V         |        | 140                     |
| TEO MAX GAMERICIE III DOO-DOO WILLI E/IT 2 10/113 WILLI I POICS III 36/1163 | ≤24V          | Α      | 140                     |
|   | ≥24 V<br>48 V | A      | 44                      |
|   | 75V           | A      | 36                      |
|   | 110V          | A      | 6                       |
|   |               | , ,    | Ť                       |



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|   | 220V     | Α    |               |
|---|----------|------|---------------|
| IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in serie | es       |      |               |
|   | ≤24V     | Α    | 140           |
|   | 48V      | Α    | 63            |
|   | 75V      | Α    | 60            |
|   | 110V     | Α    | 55            |
|   | 220V     | Α    | 7             |
| IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in serie |          |      |               |
|   | ≤24V     | Α    | 140           |
|   | 48V      | Α    | 115           |
|   | 75V      | Α    | 90            |
|   | 110V     | Α    | 85            |
|   | 220V     | A    | 76            |
| IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in serie |          |      |               |
|   | ≤24V     | Α    | 140           |
|   | 48V      | Α    | 110           |
|   | 75V      | Α    | 110           |
|   | 110V     | Α    | 105           |
|   | 220V     | A    | 95            |
| Short-time allowable current for 10s (IEC/EN60947-1)                |          | Α    | 760           |
| Protection fuse   |          |      |               |
|   | gG (IEC) | Α    | 160           |
|   | aM (IEC) | Α    | 100           |
| Making capacity (RMS value)   |          | Α    | 1200          |
| Breaking capacity at voltage  |          |      |               |
|   | 440V     | Α    | 1100          |
|   | 500V     | Α    | 775           |
|   | 690V     | Α    | 745           |
| Resistance per pole (average value)                                 |          | mΩ   | 0.45          |
| Power dissipation per pole (average value)                          |          |      |               |
|   | Ith      | W    | 8.8           |
|   | AC3      | W    | 4.1           |
| Tightening torque for terminals                                     |          |      |               |
|   | min      | Nm   | 6             |
|   | max      | Nm   | 7             |
|   | min      | Ibin | 4.4           |
|   | max      | Ibin | 5.2           |
| Tightening torque for coil terminal                                 |          |      |               |
|   | min      | Nm   | 0.8           |
|   | max      | Nm   | 1             |
|   | min      | lbft | 0.59          |
|   | max      | lbft | 0.74          |
| Conductor section   |          |      |               |
| Flexible w/o lug conductor section                                  |          | _    |               |
|   | min      | mm²  | 1.5           |
|   | max      | mm²  | 70            |
| Flexible c/w lug conductor section                                  |          | _    |               |
|   | min      | mm²  | 1.5           |
|   | max      | mm²  | 70            |
| Power terminal protection according to IEC/EN 60529                 |          |      | IP20 front    |
| Mechanical features   |          |      |               |
| Operating position  |          |      |               |
|   | normal   |      | Vertical plan |
|   |          |      |               |

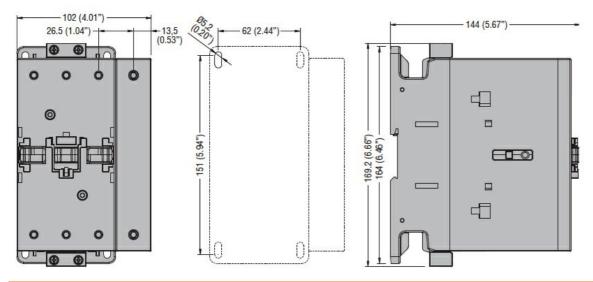


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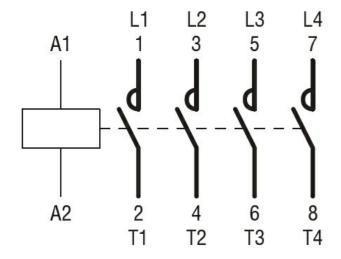
|                         |                        |              | allowable  |            | ±30°                     |
|-------------------------|------------------------|--------------|------------|------------|--------------------------|
| Fixing                  |                        |              |            |            | Screw / DIN rail<br>35mm |
| Weight                  |                        |              |            | g          | 2420                     |
| Auxiliary contact chara | octeristics            |              |            |            |                          |
| Thermal current Ith     |                        |              |            | Α          | 140                      |
| Operations              |                        |              |            |            |                          |
| Mechanical life         |                        |              |            | cycles     | 15000000                 |
| Electrical life         |                        |              |            | cycles     | 1400000                  |
| AC coil operating       |                        |              |            |            |                          |
| Rated AC voltage at 5   | 0/60Hz                 |              |            | V          | 230                      |
| AC operating voltage    |                        |              |            |            |                          |
|                         | of 50/60Hz coil powere |              |            |            |                          |
|                         |                        | pick-up      |            |            |                          |
|                         |                        |              | max        | %Us        | 110                      |
|                         |                        | drop-out     |            |            |                          |
|                         |                        |              | min        | %Us        | 20                       |
|                         |                        |              | max        | %Us        | 55                       |
|                         | of 50/60Hz coil powere |              |            |            |                          |
|                         |                        | pick-up      |            | 0/11       | 0.5                      |
|                         |                        |              | min        | %Us        | 85                       |
|                         |                        | duan aut     | max        | %Us        | 110                      |
|                         |                        | drop-out     | min        | 0/116      | 40                       |
|                         |                        |              | min        | %Us<br>%Us | 40<br>55                 |
| Dissipation at holding  | <20°C 50∐-             |              | max        | 76US<br>W  | 6.5                      |
| Max cycles frequency    | ≥20 C 50HZ             |              |            | VV         | 0.5                      |
| Mechanical operation    |                        |              |            | cycles/h   | 1500                     |
| Operating times         |                        |              |            | Cyclc3/11  | 1500                     |
| Average time for Us co  | ontrol                 |              |            |            |                          |
| rworago umo for oo oo   | in AC                  |              |            |            |                          |
|                         | 111710                 | Closing NO   |            |            |                          |
|                         |                        | Clocking 110 | min        | ms         | 16                       |
|                         |                        |              | max        | ms         | 32                       |
|                         |                        | Opening NO   |            |            |                          |
|                         |                        | -            | min        | ms         | 9                        |
|                         |                        |              | max        | ms         | 24                       |
| UL technical data       |                        |              |            |            |                          |
| General USE             |                        |              |            |            |                          |
|                         | Contactor              |              |            |            |                          |
|                         |                        |              | AC current | Α          | 150                      |
| Ambient conditions      |                        |              |            |            |                          |
| Temperature             |                        |              |            |            |                          |
|                         | Operating temperature  | )            |            |            |                          |
|                         |                        |              | min        | °C         | -50                      |
|                         |                        |              | max        | °C         | 70                       |
|                         | Storage temperature    |              |            |            |                          |
|                         |                        |              | min        | °C         | -60                      |
|                         |                        |              | max        | °C         | +80                      |
| Max altitude            |                        |              |            | m          | 3000                     |
| Dimensions              |                        |              |            |            |                          |

**ENERGY AND AUTOMATION** 

### FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 140A, AC COIL 50/60HZ,



#### 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