



| Product designation Product type designation | | | Power contactor BF25 |
|---|--------------------|-----|-------------------------|
| Contact characteristics | | | |
| Number of poles | | Nr. | 3 |
| Rated insulation voltage Ui IEC/EN | | V | 690 |
| Rated impulse withstand voltage Uimp | | kV | 6 |
| Operational frequency | | | |
| ., | min | Hz | 25 |
| | max | Hz | 400 |
| IEC Conventional free air thermal current Ith | | Α | 32 |
| Operational current le | | | |
| • | AC-1 (≤40°C) | Α | 32 |
| | AC-1 (≤55°C) | Α | 26 |
| | AC-1 (≤70°C) | Α | 23 |
| | AC-3 (≤440V ≤55°C) | Α | 25 |
| | AC-4 (400V) | Α | 10 |
| Rated operational power AC-3 (T≤55°C) | (/ | | |
| | 230V | kW | 7 |
| | 400V | kW | 12.5 |
| | 415V | kW | 13.4 |
| | 440V | kW | 13.4 |
| | 500V | kW | 15 |
| | 690V | kW | 11 |
| Rated operational power AC-1 (T≤40°C) | | | |
| , , , | 230V | kW | 12 |
| | 400V | kW | 21 |
| | 500V | kW | 26 |
| | 690V | kW | 36 |
| IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series | | | |
| · | ≤24V | Α | 20 |
| | 48V | Α | 18 |
| | 75V | Α | 18 |
| | 110V | Α | 6 |
| | 220V | Α | _ |
| IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series | | | |
| · | ≤24V | Α | 23 |
| | 48V | Α | 23 |
| | 75V | Α | 23 |
| | 110V | Α | 16 |
| | 220V | Α | 1 |
| IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series | | | |
| · | ≤24V | Α | 23 |
| | 48V | Α | 23 |
| | 75V | Α | 23 |
| | 110V | Α | 18 |
| | | | |



BF2510D220

| | 220V | Α | 12 |
|--|----------|-------|-----|
| IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series | | | |
| · | ≤24V | Α | _ |
| | 48V | Α | _ |
| | 75V | Α | _ |
| | 110V | Α | _ |
| | 220V | Α | _ |
| IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series | | | |
| The max carrent to in Boo Boo with Ent = Tome with 1 poles in conce | ≤24V | Α | 15 |
| | 48V | A | 13 |
| | 75V | A | 13 |
| | 110V | A | 2 |
| | | | |
| 150 | 220V | Α | |
| IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series | .0.0.4 | | 4.0 |
| | ≤24V | Α | 18 |
| | 48V | Α | 18 |
| | 75V | Α | 16 |
| | 110V | Α | 10 |
| | 220V | Α | 2 |
| IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series | | | |
| | ≤24V | Α | 22 |
| | 48V | Α | 22 |
| | 75V | Α | 18 |
| | 110V | Α | 15 |
| | 220V | Α | 8 |
| IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series | | | |
| The max surrounds in 200 200 mai 2/10 - 10/10 mai 1 poise in sonios | ≤24V | Α | _ |
| | 48V | A | _ |
| | 75V | A | _ |
| | 110V | A | _ |
| | 220V | | _ |
| Chart time allowable assurant for 40a (IEC/ENCO047.4) | 220 V | A | 200 |
| Short-time allowable current for 10s (IEC/EN60947-1) | | Α | 200 |
| Protection fuse | 0 (150) | | |
| | gG (IEC) | Α | 50 |
| | aM (IEC) | A | 25 |
| Making capacity (RMS value) | | Α | 250 |
| Breaking capacity at voltage | | | |
| | 440V | Α | 200 |
| | 500V | Α | 184 |
| | 690V | Α | 102 |
| Resistance per pole (average value) | | mΩ | 2.5 |
| Power dissipation per pole (average value) | | | |
| · · · · · · · · · · · · · · · · · · · | Ith | W | 2.6 |
| | AC-3 | W | 1.6 |
| Tightening torque for terminals | | | |
| G G I I I I I I I I I I I I I I I I I I | min | Nm | 1.5 |
| | max | Nm | 1.8 |
| | min | Ibin | 1.1 |
| | | Ibin | 1.5 |
| Tightoning torque for coil terminal | max | וווטו | 1.0 |
| Tightening torque for coil terminal | t. · | N I | 0.0 |
| | min | Nm | 0.8 |
| | max | Nm | 1 |
| | min | lbin | 0.8 |
| | | | |



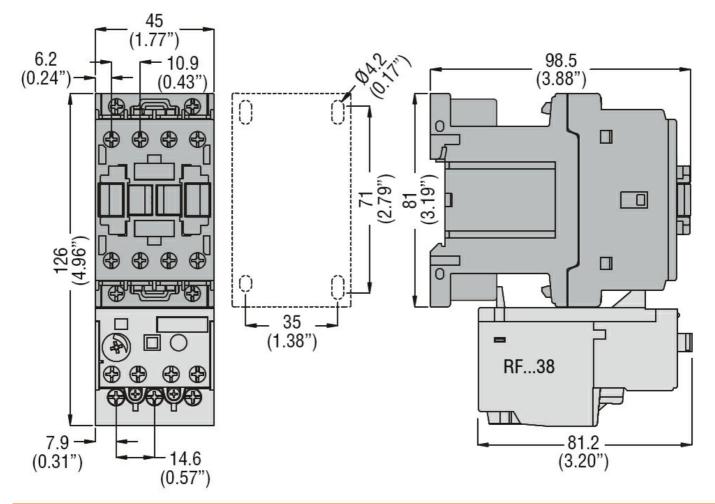
| | | max | Ibin | 0.74 |
|---|---|---|--|--|
| | simultaneously connectable | | Nr. | 2 |
| Conductor section | A1410 (14 !! | | | |
| | AWG/Kcmil | | | 4.0 |
| | Flevible w/e lug conductor coetien | max | | 10 |
| | Flexible w/o lug conductor section | min | mm² | 1 |
| | | max | mm² | 6 |
| | Flexible c/w lug conductor section | IIIdx | 111111 | 0 |
| | r lexible c/w lug conductor section | min | mm² | 1 |
| | | max | mm² | 4 |
| | Flexible with insulated spade lug conductor section | | | • |
| | r textele with mediated opade tag conductor cooler. | min | mm² | 1 |
| | | max | mm² | 4 |
| | | | | IP20 when |
| Power terminal prote | ction according to IEC/EN 60529 | | | properly wired |
| Mechanical features | | | | |
| Operating position | | | | |
| | | normal | | Vertical plan |
| | | allowable | | ±30° |
| Fixing | | | | Screw / DIN rail |
| | | | | 35mm |
| Weight | | | g | 500 |
| Conductor section | | | | |
| | AWG/kcmil conductor section | | | |
| | | max | | 10 |
| | | | | |
| Auxiliary contact char | acteristics | | | |
| Thermal current Ith | | | A | 10 |
| Thermal current Ith IEC/EN 60947-5-1 de | esignation | | Α | |
| Thermal current Ith | esignation | | | 10 A600 - P600 |
| Thermal current Ith IEC/EN 60947-5-1 de | esignation | 230V | A | 10 A600 - P600 |
| Thermal current Ith IEC/EN 60947-5-1 de | esignation | 230V 400V | A A | 10 A600 - P600 3 1.9 |
| Thermal current lth IEC/EN 60947-5-1 de Operating current AC | esignation :15 | 230V | A | 10 A600 - P600 |
| Thermal current Ith IEC/EN 60947-5-1 de | esignation :15 | 230V 400V 500V | A A A | 10 A600 - P600 3 1.9 1.4 |
| Thermal current lth IEC/EN 60947-5-1 do Operating current AC Operating current DC | esignation :15 | 230V 400V | A A | 10 A600 - P600 3 1.9 |
| Thermal current lth IEC/EN 60947-5-1 de Operating current AC | esignation :15 | 230V 400V 500V | A A A | 10 A600 - P600 3 1.9 1.4 |
| Thermal current lth IEC/EN 60947-5-1 do Operating current AC Operating current DC | esignation :15 | 230V 400V 500V 110V | A A A | 10 A600 - P600 3 1.9 1.4 5.7 |
| Thermal current lth IEC/EN 60947-5-1 de Operating current AC Operating current DC | esignation :15 | 230V 400V 500V 110V 24V 48V | A A A A | 10 A600 - P600 3 1.9 1.4 5.7 5.7 |
| Thermal current lth IEC/EN 60947-5-1 de Operating current AC Operating current DC | esignation :15 | 230V 400V 500V 110V 24V 48V 60V | A A A A A | 10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 |
| Thermal current lth IEC/EN 60947-5-1 do Operating current AC Operating current DC | esignation :15 | 230V 400V 500V 110V 24V 48V 60V 110V | A A A A A | 10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 |
| Thermal current lth IEC/EN 60947-5-1 do Operating current AC Operating current DC | esignation :15 | 230V 400V 500V 110V 24V 48V 60V 110V 125V | A A A A A A | 10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 |
| Thermal current lth IEC/EN 60947-5-1 do Operating current AC Operating current DC | esignation :15 | 230V 400V 500V 110V 24V 48V 60V 110V 125V 220V | A A A A A A A A | 10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 |
| Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC | esignation :15 | 230V 400V 500V 110V 24V 48V 60V 110V 125V | A A A A A A | 10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 |
| Thermal current lth IEC/EN 60947-5-1 do Operating current AC Operating current DC | esignation :15 | 230V 400V 500V 110V 24V 48V 60V 110V 125V 220V | A A A A A A A | 10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 |
| Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Mechanical life | esignation :15 | 230V 400V 500V 110V 24V 48V 60V 110V 125V 220V | A A A A A A A A Cycles | 10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 |
| Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life | esignation :15 | 230V 400V 500V 110V 24V 48V 60V 110V 125V 220V | A A A A A A A | 10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 |
| Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operating current DC Electrical life Electrical life Safety related data | esignation 215 212 213 | 230V 400V 500V 110V 24V 48V 60V 110V 125V 220V | A A A A A A A A Cycles | 10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 |
| Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operating current DC Electrical life Electrical life Safety related data | esignation :15 | 230V 400V 500V 110V 24V 48V 60V 110V 125V 220V 600V | A A A A A A A A Cycles cycles | 10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1200000 |
| Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operating current DC Electrical life Electrical life Safety related data | esignation 212 213 210 according to EN/ISO 13489-1 | 230V 400V 500V 110V 24V 48V 60V 110V 125V 220V | A A A A A A A A Cycles cycles | 10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 |
| Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operating current DC Electrical life Electrical life Safety related data Performance level B | esignation 212 213 10d according to EN/ISO 13489-1 | 230V 400V 500V 110V 24V 48V 60V 110V 125V 220V 600V | A A A A A A A A Cycles cycles | 10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1200000 12000000 |
| Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B | esignation 212 213 210 according to EN/ISO 13489-1 | 230V 400V 500V 110V 24V 48V 60V 110V 125V 220V 600V | A A A A A A A A Cycles cycles | 10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1200000 |

| DC rated control voltage | 70 | | | V | 220 |
|--|-------------------|------------|------------|----------|------|
| DC rated control voltage DC operating voltage | <u>je</u> | | | V | 220 |
| Do operating voltage | pick-up | | | | |
| | pick up | | min | %Us | 70 |
| | | | max | %Us | 125 |
| | drop-out | | max | 7000 | .20 |
| | а. ор оа. | | min | %Us | 10 |
| | | | max | %Us | 40 |
| Average coil consump | tion ≤20°C | | | | |
| | | | in-rush | W | 5.4 |
| | | | holding | W | 5.4 |
| Max cycles frequency | | | | | |
| Mechanical operation | | | | cycles/h | 3600 |
| Operating times | | | | | |
| Average time for Us co | ontrol | | | | |
| | in AC | | | | |
| | | Closing NO | | | |
| | | - | min | ms | 8 |
| | | | max | ms | 24 |
| | | Opening NO | | | |
| | | | min | ms | 10 |
| | | | max | ms | 20 |
| | | Closing NC | | | |
| | | | min | ms | 14 |
| | | | max | ms | 28 |
| | | Opening NC | | | |
| | | | min | ms | 7 |
| | | | max | ms | 18 |
| | in DC | | | | |
| | | Closing NO | | | |
| | | | min | ms | 54 |
| | | | max | ms | 66 |
| | | Opening NO | | | |
| | | | min | ms | 14 |
| | | | max | ms | 17 |
| UL technical data | | | | | |
| Full-load current (FLA) | for three-phase A | .C motor | | | |
| | | | at 480V | Α | 21 |
| | | | at 600V | A | 17 |
| Yielded mechanical pe | | | | | |
| | for single-phase | AC motor | | | |
| | | | 110/120V | HP | 2 |
| | | | 230V | HP | 3 |
| | for three-phase | AC motor | | | |
| | | | 200/208V | HP | 7.5 |
| | | | 220/230V | HP | 7.5 |
| | | | 460/480V | HP | 15 |
| 0 | | | 575/600V | HP | 15 |
| General USE | • | | | | |
| | Contactor | | | _ | |
| | | | AC current | A | 32 |
| | Auxiliary contact | S | | | |
| | | | AC voltage | V | 600 |
| | | | AC current | Α | 10 |
| | | | | | |

ENERGY AND AUTOMATION

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 25A, DC COIL, 220VDC, 1NO AUXILIARY CONTACT

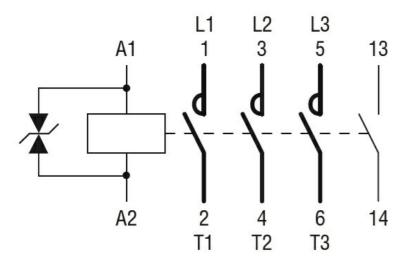
| | | DC voltage | V | 250 |
|-----------------------|----------------------------------|-----------------------|----|-------------|
| | | DC current | Α | 1 |
| Short-circuit protect | tion fuse, 600V | | | |
| | High fault | | | |
| | - | Short circuit current | kA | 100 |
| | | Fuse rating | Α | 60 |
| | | Fuse class | | J |
| | Standard fault | | | |
| | | Short circuit current | kA | 5 |
| | | Fuse rating | Α | 100 |
| Contact rating of au | xiliary contacts according to UL | | | A600 - P600 |
| Ambient conditions | | | | |
| Temperature | | | | |
| | Operating temperature | | | |
| | | min | °C | -50 |
| | | max | °C | 70 |
| | Storage temperature | | | |
| | | min | °C | -60 |
| | | max | °C | 80 |
| Max altitude | | | m | 3000 |
| Resistance & Prote | ction | | | |
| Pollution degree | | | | 3 |
| Dimensions | | | | |



Wiring diagrams

ENERGY AND AUTOMATION

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 25A, DC COIL, 220VDC, 1NO AUXILIARY CONTACT



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

Certificates

CCC

cULus

EAC

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching