

















| Description |
|--|
| <p>3TF Series AC Contactors are latest products of Siemens AG in 1990's. The series products are suitable for frequency of 50/60Hz, rated insulation voltage up to 690 ~ 1000V, rated operational current up to 9A ~ 400A at rated operational voltage up to 380V under the utilization category AC - 3. 3TF Series AC Contactors are mainly used for making/breaking electric circuits at a long distance and for frequent starting/ stopping and reversing control of AC motors. They comply with IEC947, VDE0660, GB14048.</p> |
| Operating Conditions |
| <ul style="list-style-type: none">• The altitude of the site of installation does not exceed 2000 meters above sea levels.• The ambient air temperature: -25 ~ +55°C• Relative humidity does not exceed 50% at +40¼C and 90% at +25°C• Atmospheric conditions: the air does not contain any explosive medium, corrosive gases and conductive dust.• Never be shocked and vibrated obviously.• Never be wetted by rain and snow. |
| Features |
| <ul style="list-style-type: none">• For better safety, conductive part are enclosed.• Small sizes, light weight, material of arc chute adopts unsaturated resin, with good arc resistance, never splitting.• The arc chute is enclosed , arc-over distance is small, with a compact electric cabinet.• Construction of main contacts system is unique, abrasion of the contacts is small, with a long electric endurance.• The operation of the magnet has many advantages such as good reliability, little consumption, low noise and high mechanical strength.• The contactors have higher operation frequency and control capacity.• Auxiliary contact block may be attached to 3TF30 ~ 50 Series AC Contactors.• SIGUT - Siemens patent terminal, ensures easy and reliable connection, strog shock resistance and perfect safety protection. |

3TF AC Contactors









| Selection and ordering data | | | | | | | | | |
|---|--|---|--|--|----------------|---|--|--|--|
| AC operation | |  | |  | |  | |  | |
| | | 3TF30 | | 3TF40 | | 3TF31 | | 3TF41 | |
| Auxiliary contacts NO NC | |  | |  | |  | |  | |
| | | NO - NC | | NO - NC | | NO - NC | | NO - NC | |
| Order No. | | 3TF30 00 - OX 3TF30 10 - OX 3TF30 01 - OX | | 3TF40 10 - OX 3TF40 01 - OX 3TF40 11 - OX 3TF40 22 - OX 3TF40 20 - OX 3TF40 31 - OX | | 3TF31 00 - OX 3TF31 10 - OX 3TF31 01 - OX | | 3TF41 10 - OX 3TF41 01 - OX 3TF41 11 - OX 3TF41 22 - OX 3TF41 20 - OX 3TF41 31 - OX | |
| | | - - 1 - - 1 | | - - - 1 1 1 2 2 2 - 3 1 | | - - 1 - - 1 | | 1 - - 1 1 1 2 2 2 - 3 1 | |
| Rated insulation voltage (V) | | 690 | | 690 | | 690 | | 690 | |
| Rated operational current (380V) | | AC - 3 AC - 4 | | 9 3.3 | | 9 3.3 | | 12 4.3 | |
| Rated outputs of three-phase motors at 50Hz (KW) | | AC - 3 AC - 4 | | 230/220V 400/380V 500 V 690/660V 1000 V | | 2.4 4 5.5 5.5 -- | | 2.4 4 5.5 5.5 -- | |
| | | 400/380V 690/660V | | 1.48/1.4 2.54/2.4 | | 1.48/1.4 2.54/2.4 | | 2/1.9 3.45/3.3 | |
| Mechanical endurance (x10 ⁶) | | 15 | | 15 | | 15 | | 15 | |
| Electrical endurance (x10 ⁶) | | AC - 3 AC - 4 | | 1.2 0.2 | | 1.2 0.2 | | 1.2 0.2 | |
| Switching frequency (1/h) | | AC - 3 AC - 4 | | 1000 250 | | 1000 250 | | 1000 250 | |
| Coil voltage tolerance (AC) | | (0.8~1.1)U _n | | | | | | | |
| Order No. suffixes for rated control voltages for coils | | Coils for 50Hz | | | Coils for 60Hz | | | Coils for 50/60Hz | |
| | | 50Hz 60Hz | | 60Hz 50Hz | | | | | |
| 3TF3...OX □□ | | 24V 29V | | 24V 20V | | C1 | | 24V C2 | |
| 3TF4...OX □□ | | 32V 38V | | 110V 92V | | G1 | | 42V D2 | |
| | | 36V 42V | | 115V 96V | | J1 | | 110V G2 | |
| | | 42V 50V | | 120V 100V | | K1 | | 115V J2 | |
| | | 48V 58V | | 208V 173V | | M1 | | 120V K2 | |
| | | 60V 72V | | 220V 183V | | N1 | | 208V M2 | |
| | | 110V 132V | | 230V 192V | | L1 | | 220V N2 | |
| | | 125/127V 150/152V | | 240V 200V | | P1 | | 230V L2 | |
| | | 220V 264V | | 440V 367V | | R1 | | 240V P2 | |
| | | 230V 277V | | 575V 480V | | S1 | | 440V R2 | |
| | | 240V 288V | | | | | | 575V S2 | |
| | | 380V 460V | | | | | | | |
| | | 400V 480V | | | | | | | |
| | | 415V 500V | | | | | | | |
| | | 500V 600V | | | | | | | |
| Power consumption of coil (50Hz) | | Closed (VA) | | 10 | | 10 | | 10 | |
| | | p.f. | | 0.29 | | 0.29 | | 0.29 | |
| | | Closed (VA) | | 68 | | 68 | | 68 | |
| | | p.f. | | 0.82 | | 0.82 | | 0.82 | |
| Conventional thermal current (A) | | 20 | | 20 | | 20 | | 20 | |
| Conventional thermal current of auxiliary contacts | | 10 | | 10 | | 10 | | 10 | |
| Rated insulation voltage of auxiliary contacts | | 690 | | 690 | | 690 | | 690 | |
| Rated operational current of auxiliary contacts (A) | | AC - 15 380/220V | | 6/10 | | 6/10 | | 6/10 | |
| | | DC - 13 110/220V | | 0.9/0.45 | | 0.9/0.45 | | 0.9/0.45 | |
| Weight (kg) | | 0.37 | | 0.43 | | 0.37 | | 0.43 | |

Note: 3TX4 auxiliary contact blocks for 3TF3 series, see P2/16.









| Selection and ordering data | | | | | | | | | |
|--|--|---|--|---|--------------------|---|--|---|--|
| AC operation | |  | |  | |  | |  | |
| | | 3TF32 | | 3TF42 | | 3TF33 | | 3TF43 | |
| Auxiliary contacts NO NC | |  | |  | |  | |  | |
| | | NO - NC | | NO - NC | | NO - NC | | NO - NC | |
| Order No. | | 3TF32 00 - 0X 3TF32 11 - 0X | | 3TF42 10 - 0X 3TF42 11 - 0X 3TF42 20 - 0X 3TF42 22 - 0X | | 3TF33 00 - 0X 3TF33 11 - 0X | | 3TF43 10 - 0X 3TF43 11 - 0X 3TF43 20 - 0X 3TF43 22 - 0X | |
| | | - - 1 1 | | 1 - 1 1 2 - 2 2 | | - - 1 1 | | 1 - 1 1 2 - 2 2 | |
| Rated insulation voltage (V) | | 690 | | 690 | | 690 | | 690 | |
| Rated operational current (A) (380V) | | AC - 3 AC - 4 | | 16 7.7 | | 16 7.7 | | 22 8.5 | |
| Rated outputs of three-phase motors at 50Hz (KW) | | AC - 3 AC - 4 | | 230/220V 400/380V 500 V 690/660V 1000 V 400/380V 690/660V | | 4 7.5 9 11 -- 3.5 6 | | 4 7.5 9 11 -- 4 6.6 | |
| Mechanical endurance (x10 ⁶) | | 15 | | 15 | | 15 | | 15 | |
| Electrical endurance (x10 ⁶) | | AC - 3 AC - 4 | | 1.2 0.2 | | 1.2 0.2 | | 1.2 0.2 | |
| Switching frequency (1/h) | | AC - 3 AC - 4 | | 750 250 | | 750 250 | | 750 250 | |
| Coil voltage tolerance (AC) | | (0.8-1.1)U _s | | | | | | | |
| Order No. suffixes for rated control voltages for coils | | Coils for 50Hz | | | Coils for 60Hz | | | Coils for 50/60Hz | |
| | | 50Hz 60Hz | | | 60Hz 50Hz | | | | |
| 3TF3...-0X <input type="checkbox"/> | | 24V 29V B0 | | | 24V 20V C1 | | | 24V C2 | |
| 3TF4...-0X <input type="checkbox"/> | | 32V 38V C0 | | | 110V 92V G1 | | | 42V D2 | |
| | | 36V 42V G0 | | | 115V 96V J1 | | | 110V G2 | |
| | | 42V 50V D0 | | | 120V 100V K1 | | | 115V J2 | |
| | | 48V 58V H0 | | | 208V 173V M1 | | | 120V K2 | |
| | | 60V 72V E0 | | | 220V 183V N1 | | | 208V M2 | |
| | | 110V 132V F0 | | | 230V 192V L1 | | | 220V N2 | |
| | | 125/127V 150/152V L0 | | | 240V 200V P1 | | | 230V L2 | |
| | | 220V 264V M0 | | | 440V 367V R1 | | | 240V P2 | |
| | | 230V 277V P0 | | | 575V 480V S1 | | | 440V R2 | |
| | | 240V 288V U0 | | | | | | 575V S2 | |
| | | 380V 460V Q0 | | | | | | | |
| | | 400V 480V V0 | | | | | | | |
| | | 415V 500V R0 | | | | | | | |
| | | 500V 600V S0 | | | | | | | |
| Power consumption of coil (50Hz) | | Closed (VA) | | 10 | | 10 | | 10 | |
| | | p.f. | | 0.29 | | 0.29 | | 0.29 | |
| | | Closing (VA) | | 68 | | 68 | | 68 | |
| | | p.f. | | 0.82 | | 0.82 | | 0.82 | |
| Conventional thermal current (A) | | 30 | | 30 | | 30 | | 30 | |
| Conventional thermal current of auxiliary contacts | | 10 | | 10 | | 10 | | 10 | |
| Rated insulation voltage of auxiliary contacts | | 690 | | 690 | | 690 | | 690 | |
| Rated operational current of auxiliary contacts (A) | | AC - 15 380/220V | | 4/6 | | 6/10 | | 4/6 | |
| | | DC - 13 110/220V | | 1.14/0.48 | | 0.9/0.45 | | 1.14/0.48 | |
| Weight (kg) | | 0.45 | | 0.49 | | 0.45 | | 0.49 | |

Note: 3TX4 auxiliary contact blocks for 3TF3 series, see P2/16









3TF AC Contactors







| Selection and ordering data | | | | | | | | | |
|--|--|---|--|---|--|---|-------------------|---|--|
| AC operation | |  | |  | |  | |  | |
| | | 3TF34 | | 3TF44 | | 3TF35 | | 3TF45 | |
| Auxiliary contacts NO NC | |  | |  | |  | |  | |
| | | NO - NC | | NO - NC | | NO - NC | | NO - NC | |
| Order No. | | 3TF34 00 - 0X 3TF34 11 - 0X | | 3TF44 11 - 0X 3TF44 22 - 0X | | 3TF35 00 - 0X 3TF35 11 - 0X | | 3TF45 11 - 0X 3TF45 22 - 0X | |
| | | - - 1 1 | | 1 1 2 2 | | - - 1 1 | | 1 1 2 2 | |
| Rated insulation voltage (V) | | 690 | | 690 | | 690 | | 690 | |
| Rated operational current (A) (380V) | | AC - 3 AC - 4 | | 32 15.6 | | 32 15.6 | | 38 18.5 | |
| Rated outputs of three-phase motors at 50Hz (kW) | | AC - 3 AC - 4 | | 230/220V 400/380V 500 V 690/660V 1000 V | | 8.5 15 21 23 -- | | 8.5 15 21 23 -- | |
| | | 400/380V 690/660V | | 7.5 13 | | 7.5 13 | | 9 15.5 | |
| Mechanical endurance (x10 ⁶) | | 10 | | 10 | | 10 | | 10 | |
| Electrical endurance (x10 ⁶) | | AC - 3 AC - 4 | | 1.2 0.2 | | 1.2 0.2 | | 1.2 0.2 | |
| Switching frequency (1/h) | | AC - 3 AC - 4 | | 750 250 | | 750 250 | | 600 200 | |
| Coil voltage tolerance (AC) | | (0.8~1.1)U _s | | | | | | | |
| Order No. suffixes for rated control voltages for coils | | Coils for 50Hz | | Coils for 60Hz | | | Coils for 50/60Hz | | |
| | | 50Hz 60Hz | | 60Hz 50Hz | | | | | |
| 3TF3...-0X <input type="checkbox"/> | | 24V 29V B0 | | 24V 20V C1 | | | 24V C2 | | |
| 3TF4...-0X <input type="checkbox"/> | | 32V 38V C0 | | 110V 92V G1 | | | 42V D2 | | |
| | | 36V 42V G0 | | 115V 96V J1 | | | 110V G2 | | |
| | | 42V 50V D0 | | 120V 100V K1 | | | 115V J2 | | |
| | | 48V 58V H0 | | 208V 173V M1 | | | 120V K2 | | |
| | | 60V 72V E0 | | 220V 183V N1 | | | 208V M2 | | |
| | | 110V 132V F0 | | 230V 192V L1 | | | 220V N2 | | |
| | | 125/127V 150/152V L0 | | 240V 200V P1 | | | 230V L2 | | |
| | | 220V 264V M0 | | 440V 367V R1 | | | 240V P2 | | |
| | | 230V 277V P0 | | 575V 480V S1 | | | 440V R2 | | |
| | | 240V 288V U0 | | | | | 575V S2 | | |
| | | 380V 460V Q0 | | | | | | | |
| | | 400V 480V V0 | | | | | | | |
| | | 415V 500V R0 | | | | | | | |
| | | 500V 600V S0 | | | | | | | |
| Power consumption of coil (50Hz) | | Closed (VA) | | 12.1 | | 12.1 | | 12.1 | |
| | | p.f. | | 0.28 | | 0.28 | | 0.28 | |
| | | Closing (VA) | | 101 | | 101 | | 101 | |
| | | p.f. | | 0.83 | | 0.83 | | 0.83 | |
| Conventional thermal current (A) | | 55 | | 55 | | 55 | | 55 | |
| Conventional thermal current of auxiliary contacts (A) | | 10 | | 10 | | 10 | | 10 | |
| Rated insulation voltage of auxiliary contacts (V) | | 690 | | 690 | | 690 | | 690 | |
| Rated operational current of auxiliary contacts (A) | | AC - 15 380/220V | | 4/6 | | 4/6 | | 4/6 | |
| | | DC - 13 110/220V | | 1.14/0.48 | | 1.14/0.48 | | 1.14/0.48 | |
| Weight (kg) | | 0.68 | | 0.8 | | 0.68 | | 0.8 | |

Note: 3TX4 auxiliary contact blocks for 3TF3 series, see P2/16.









| Selection and ordering data | | | | | | | | | |
|--|--|---|--|---|----------------|---|--|---|--|
| AC operation | |  | |  | |  | |  | |
| | | 3TF46 | | 3TF47 | | 3TF48 | | 3TF49 | |
| Auxiliary contacts NO NC | |  | |  | |  | |  | |
| | | NO - NC | | NO - NC | | NO - NC | | NO - NC | |
| Order No. | | 3TF46 22 - 0X 3TF46 44 - 0X | | 2 2 4 4 | | 3TF47 22 - 0X 3TF47 44 - 0X | | 2 2 4 4 | |
| Rated insulation voltage (V) | | 1000 | | 1000 | | 1000 | | 1000 | |
| Rated operational current (A) (380V) | | AC - 3 AC - 4 | | 45 24 | | 63 28 | | 75 34 | |
| Rated outputs of three-phase motors at 50Hz (KW) | | AC - 3 AC - 4 | | 15 12.6/12 21.8/20.8 | | 18.5 14.7/14 25.4/24.3 | | 22 17.9/17 30.9/29.5 | |
| | | 230/220V 400/380V 500 V 690/660V 1000 V | | 22 30 39 7.5 | | 30 41 55 7.5 | | 37 50 67 39 | |
| Mechanical endurance (x10 ⁶) | | 10 | | 10 | | 10 | | 10 | |
| Electrical endurance (x10 ⁶) | | AC - 3 AC - 4 | | 1.2 0.2 | | 1.2 0.2 | | 1.2 0.2 | |
| Switching frequency (1/h) | | AC - 3 AC - 4 | | 1200 400 | | 1000 300 | | 1000 250 | |
| Coil voltage tolerance (AC) | | (0.8~1.1)U _s | | | | | | | |
| Order No. suffixes for rated control voltages for coils | | Coils for 50Hz | | | Coils for 60Hz | | | Coils for 50/60Hz | |
| | | 50Hz 60Hz | | 60Hz 50Hz | | | | | |
| 3TF46-..0X□□ | | 24V 29V B0 | | 24V 20V C1 | | 24V C2 | | | |
| 3TF49-..0X□□ | | 32V 38V C0 | | 110V 92V G1 | | 42V D2 | | | |
| | | 36V 42V G0 | | 115V 96V J1 | | 110V G2 | | | |
| | | 42V 50V D0 | | 120V 100V K1 | | 115V J2 | | | |
| | | 48V 58V H0 | | 208V 173V M1 | | 120V K2 | | | |
| | | 60V 72V E0 | | 220V 183V N1 | | 208V M2 | | | |
| | | 110V 132V F0 | | 230V 192V L1 | | 220V N2 | | | |
| | | 125/127V 150/152V L0 | | 240V 200V P1 | | 230V L2 | | | |
| | | 220V 264V M0 | | 440V 367V R1 | | 240V P2 | | | |
| | | 230V 277V P0 | | 575V 480V S1 | | 440V R2 | | | |
| | | 240V 288V U0 | | | | 575V S2 | | | |
| | | 380V 460V Q0 | | | | | | | |
| | | 400V 480V V0 | | | | | | | |
| | | 415V 500V R0 | | | | | | | |
| | | 500V 600V S0 | | | | | | | |
| Power consumption of coil (50Hz) | | Closed (VA) | | 17 | | 17 | | 32 | |
| | | p.f. | | 0.29 | | 0.29 | | 0.23 | |
| | | Closing (VA) | | 183 | | 183 | | 330 | |
| | | p.f. | | 0.6 | | 0.6 | | 0.5 | |
| Conventional thermal current (A) | | 80 | | 90 | | 100 | | 100 | |
| Conventional thermal current of auxiliary contacts (A) | | 10 | | 10 | | 10 | | 10 | |
| Rated insulation voltage of auxiliary contacts (V) | | 690 | | 690 | | 690 | | 690 | |
| Rated operational current of auxiliary contacts (A) | | AC - 15 380/220V | | 4/6 | | 4/6 | | 4/6 | |
| | | DC - 13 110/220V | | 1.14/0.48 | | 1.14/0.48 | | 1.14/0.48 | |
| Weight (kg) | | 1.4/1.6 | | 1.4/1.6 | | 2.3/2.5 | | 2.3/2.5 | |

3TF AC Contactors









| Selection and ordering data | | | | | | | | | | | | | |
|--|--|---|--|---|----------------|---|--|---|--|------------------------------|--|-------------------------------|--|
| AC operation | |  | |  | |  | |  | | | | | |
| | | 3TF50 | | 3TF51 | | 3TF52 | | 3TF53 | | | | | |
| Auxiliary contacts NO NC | |  | |  | |  | |  | | | | | |
| | | NO - NC | | NO - NC | | NO - NC | | NO - NC | | | | | |
| Order No. | | 3TF50 22 - 0X 3TF50 44 - 0X | | 3TF51 22 - 0X 3TF51 44 - 0X | | 3TF52 22 - 0X 3TF52 44 - 0X | | 3TF53 22 - 0X 3TF53 44 - 0X | | | | | |
| | | 2 2 4 4 | | 2 2 4 4 | | 2 2 4 4 | | 2 2 4 4 | | | | | |
| Rated insulation voltage (V) | | 1000 | | 1000 | | 1000 | | 1000 | | | | | |
| Rated operational current (A) (380V) | | AC - 3 AC - 4 | | 110 54 | | 140 68 | | 170 75 | | 205 96 | | | |
| Rated outputs of three-phase motors at 50Hz (KW) | | AC - 3 AC - 4 | | 230/220V 400/380V 500 V 690/660V 1000 V | | 37 55 76 100 65 | | 43 75 98 100 65 | | 55 90 118 156 90 | | 64 110 145 156 90 | |
| | | 400/380V 690/660V | | 28.4/27 49/46.9 | | 36/35 63/60 | | 40/38 69/66 | | 52/50 90/86 | | | |
| Mechanical endurance (x10 ⁶) | | 10 | | 10 | | 10 | | 10 | | | | | |
| Electrical endurance (x10 ⁶) | | AC - 3 AC - 4 | | 1.2 0.2 | | 1.2 0.2 | | 1.2 0.2 | | 1.2 0.2 | | | |
| Switching frequency (1/h) | | AC - 3 AC - 4 | | 1000 300 | | 750 200 | | 700 200 | | 500 130 | | | |
| Coil voltage tolerance (AC) | | (0.8~1.1)U _s | | | | | | | | | | | |
| Order No. suffixes for rated control voltages for coils | | Coils for 50Hz | | | Coils for 60Hz | | | Coils for 50/60Hz | | | | | |
| | | 50Hz | | 60Hz | | 60Hz | | 50Hz | | | | | |
| 3TF50...-0X□□ | | 24V 29V | | B0 | | 24V 20V | | C1 | | 24V C2 | | | |
| | | 32V 38V | | C0 | | 110V 92V | | G1 | | 42V D2 | | | |
| | | 36V 42V | | G0 | | 115V 96V | | J1 | | 110V G2 | | | |
| | | 42V 50V | | D0 | | 120V 100V | | K1 | | 115V J2 | | | |
| 3TF53...-0X□□ | | 48V 58V | | H0 | | 208V 173V | | M1 | | 120V K2 | | | |
| | | 60V 72V | | E0 | | 220V 183V | | N1 | | 208V M2 | | | |
| | | 110V 132V | | F0 | | 230V 192V | | L1 | | 220V N2 | | | |
| | | 125/127V 150/152V | | L0 | | 240V 200V | | P1 | | 230V L2 | | | |
| | | 220V 264V | | M0 | | 440V 367V | | R1 | | 240V P2 | | | |
| | | 230V 277V | | P0 | | 575V 480V | | S1 | | 440V R2 | | | |
| | | 240V 288V | | U0 | | | | | | 575V S2 | | | |
| | | 380V 460V | | Q0 | | | | | | | | | |
| | | 400V 480V | | V0 | | | | | | | | | |
| | | 415V 500V | | R0 | | | | | | | | | |
| | | 500V 600V | | S0 | | | | | | | | | |
| Power consumption of coil (50Hz) | | Closed (VA) | | 39 | | 39 | | 58 | | 58 | | | |
| | | p.f. | | 0.24 | | 0.24 | | 0.26 | | 0.26 | | | |
| | | Closing (VA) | | 550 | | 550 | | 910 | | 910 | | | |
| | | p.f. | | 0.45 | | 0.45 | | 0.38 | | 0.38 | | | |
| Conventional thermal current (A) | | 160 | | 160 | | 210 | | 220 | | | | | |
| Conventional thermal current of auxiliary contacts (A) | | 10 | | 10 | | 10 | | 10 | | | | | |
| Rated insulation voltage of auxiliary contacts (V) | | 690 | | 690 | | 690 | | 690 | | | | | |
| Rated operational current of auxiliary contacts (A) | | AC - 15 380/220V | | 4/6 | | 4/6 | | 4/6 | | 4/6 | | | |
| | | DC - 13 110/220V | | 1.14/0.48 | | 1.14/0.48 | | 1.14/0.48 | | 1.14/0.48 | | | |
| Weight (kg) | | 3.3/3.5 | | 3.3/3.5 | | 4.8/5.0 | | 4.8/5.0 | | | | | |

| Selection and ordering data | | | | | | | | |
|--|---|----------------------|---|------------|---|-------------------|------|----|
| AC operation |  | |  | |  | | | |
| | 3TF54 | | 3TF55 | | 3TF56 | | | |
| Auxiliary contacts NO NC |  | |  | |  | | | |
| | NO - NC | | NO - NC | | NO - NC | | | |
| Order No. | 3TF54 22 - 0X 3TF54 44 - 0X | 2 2 4 4 | 3TF55 22 - 0X 3TF55 44 - 0X | 2 2 4 4 | 3TF56 22 - 0X 3TF56 44 - 0X | 2 2 4 4 | | |
| Rated insulation voltage (V) | 1000 | | 1000 | | 1000 | | | |
| Rated operational current (A) (380V) | AC - 3 | 250 | 300 | | 400 | | | |
| | AC - 4 | 110 | 125 | | 150 | | | |
| Rated outputs of three-phase motors at 50Hz (KW) | AC - 3 | 230/220V | 78 | | 93 | | | |
| | | 400/380V | 132 | | 160 | | | |
| | | 500 V | 178 | | 210 | | | |
| | AC - 4 | 690/660V | 235 | | 235 | | | |
| | | 1000 V | 132 | | 132 | | | |
| | | 400/380V 690/660V | 61/58 105/100 | | 69/66 119/114 | | | |
| Mechanical endurance (x10 ⁶) | 10 | | 10 | | 10 | | | |
| Electrical endurance (x10 ⁶) | AC - 3 | 1.2 | | 1.2 | | 1.2 | | |
| | AC - 4 | 0.2 | | 0.2 | | 0.2 | | |
| Switching frequency (1/h) | AC - 3 | 700 | | 500 | | 500 | | |
| | AC - 4 | 200 | | 130 | | 150 | | |
| Coil voltage tolerance (AC) | (0.8–1.1)U _s | | | | | | | |
| Order No. suffixes for rated control voltages for coils | Coils for 50Hz | | Coils for 60Hz | | | Coils for 50/60Hz | | |
| | 50Hz | 60Hz | 60Hz | 50Hz | | | | |
| 3TF54...-0X□□ | 24V | 29V | B0 | 24V | 20V | C1 | 24V | C2 |
| | 32V | 38V | C0 | 110V | 92V | G1 | 42V | D2 |
| | 36V | 42V | G0 | 115V | 96V | J1 | 110V | G2 |
| | 42V | 50V | D0 | 120V | 100V | K1 | 115V | J2 |
| 3TF56...-0X□□ | 48V | 58V | H0 | 208V | 173V | M1 | 120V | K2 |
| | 60V | 72V | E0 | 220V | 183V | N1 | 208V | M2 |
| | 110V | 132V | F0 | 230V | 192V | L1 | 220V | N2 |
| | 125/127V | 150/152V | L0 | 240V | 200V | P1 | 230V | L2 |
| | 220V | 264V | M0 | 440V | 367V | R1 | 240V | P2 |
| | 230V | 277V | P0 | 575V | 480V | S1 | 440V | R2 |
| | 240V | 288V | U0 | | | | 575V | S2 |
| | 380V | 460V | Q0 | | | | | |
| | 400V | 480V | V0 | | | | | |
| | 415V | 500V | R0 | | | | | |
| | 500V | 600V | S0 | | | | | |
| Power consumption of coil (50Hz) | Closed (VA) | 84 | | 84 | | 115 | | |
| | p.f. | 0.24 | | 0.24 | | 0.33 | | |
| | Closing (VA) | 1430 | | 1430 | | 2450 | | |
| | p.f. | 0.34 | | 0.34 | | 0.21 | | |
| Conventional thermal current (A) | 300 | | 300 | | 400 | | | |
| Conventional thermal current of auxiliary contacts (A) | 10 | | 10 | | 10 | | | |
| Rated insulation voltage of auxiliary contacts (V) | 690 | | 690 | | 690 | | | |
| Rated operational current of auxiliary contacts (A) | AC - 15 380/220V | 4/6 | | 4/6 | | 4/6 | | |
| | DC - 13 110/220V | 1.14/0.48 | | 1.14/0.48 | | 1.14/0.48 | | |
| Weight (kg) | 6.2/6.4 | | 6.2/6.4 | | 8.5/8.7 | | | |

3TF AC Contactors









| Selection and ordering data | | | | | | | | | |
|--|---------------------------|---|---|--|---|---|--------------------------------|--|--|
| DC operation | |  |  |  |  | | | | |
| | | 3TF30 | | 3TF40 | | 3TF31 | | 3TF41 | |
| Auxiliary contacts NO NC | |  |  |  |  | | | | |
| | | NO - NC | | NO - NC | | NO - NC | | NO - NC | |
| Order No. | | 3TF30 00 - 1X 3TF30 10 - 1X 3TF30 01 - 1X | - - 1 - - 1 | 3TF40 10 - 1X 3TF40 01 - 1X 3TF40 11 - 1X 3TF40 20 - 1X 3TF40 22 - 1X 3TF40 31 - 1X | 1 - - 1 1 1 2 - 2 2 3 1 | 3TF31 00 - 1X 3TF31 10 - 1X 3TF31 01 - 1X | - - 1 - - 1 | 3TF41 10 - 1X 3TF41 01 - 1X 3TF41 11 - 1X 3TF41 20 - 1X 3TF41 22 - 1X 3TF41 31 - 1X | 1 - - 1 1 1 2 - 2 2 3 1 |
| Rated insulation voltage (V) | | 690 | | 690 | | 690 | | 690 | |
| Rated operational current (A) (380V) | | AC - 3 | | 9 | | 9 | | 12 | 12 |
| | | AC - 4 | | 3.3 | | 3.3 | | 4.3 | 4.3 |
| Rated outputs of three-phase motors at 50Hz (KW) | | AC - 3 | | 230/220V 400/380V 500 V 690/660V 1000 V | 2.4 4 5.5 5.5 -- | 2.4 4 5.5 5.5 -- | 3.3 5.5 7.5 7.5 -- | 3.3 5.5 7.5 7.5 -- | |
| | | AC - 4 | | 400/380V 690/660V | 1.48/1.4 2.54/2.4 | 1.48/1.4 2.54/2.4 | 2/1.9 3.45/3.3 | 2/1.9 3.45/3.3 | |
| Mechanical endurance (x10 ⁶) | | 15 | | 15 | | 15 | | 15 | |
| Electrical endurance (x10 ⁶) | | AC - 3 | | 1.2 | | 1.2 | | 1.2 | 1.2 |
| | | AC - 4 | | 0.2 | | 0.2 | | 0.2 | 0.2 |
| Switching frequency (1/h) | | AC - 3 | | 1000 | | 1000 | | 1000 | 1000 |
| | | AC - 4 | | 250 | | 250 | | 250 | 250 |
| Coil voltage tolerance (AC) | | (0.8~1.1)U _s | | | | | | | |
| Order No. suffixes for rated control voltages for coils | | Rated V DC control voltage 12 21.5 24 30 36 42 48 60 110 125 180 220 230 240 250 | | | | | | | |
| 3TF3...1X □□ 3TF4...1X □□ | | Order No. suffix A4 U4 B4 C4 V4 D4 W4 E4 F4 G4 K4 M4 P4 Q4 N4 | | | | | | | |
| Power consumption of coil (50Hz) | Closing and Closed (W) | 6.2 | | 6.2 | | 6.2 | | 6.2 | |
| Conventional thermal current (A) | | 20 | | 20 | | 20 | | 20 | |
| Conventional thermal current of auxiliary contacts (A) | | 10 | | 10 | | 10 | | 10 | |
| Rated insulation voltage of auxiliary contacts (V) | | 690 | | 690 | | 690 | | 690 | |
| Rated operational current of auxiliary contacts (A) | | AC - 15 380/220V | | 6/10 | | 6/10 | | 6/10 | |
| | | DC - 13 110/220V | | 0.9/0.45 | | 0.9/0.45 | | 0.9/0.45 | |
| Weight (kg) | | 0.58 | | 0.64 | | 0.58 | | 0.64 | |

Note: 3TX4 auxiliary contact blocks for 3TF3 series, see P2/16.









| Selection and ordering data | | | | | | | | | |
|--|---------------------------|---|---|---|---|--------------------------------|------------|--|--------------------------|
| DC operation | |  |  |  |  | | | | |
| | | 3TF32 | | 3TF42 | | 3TF33 | | 3TF43 | |
| Auxiliary contacts NO NC | |  |  |  |  | | | | |
| | | NO - NC | | NO - NC | | NO - NC | | NO - NC | |
| Order No. | | 3TF32 00 - 1X 3TF32 11 - 1X | - - 1 1 | 3TF42 10 - 1X 3TF42 11 - 1X 3TF42 20 - 1X 3TF42 22 - 1X | 1 - 1 1 2 - 2 2 | 3TF33 00 - 1X 3TF33 11 - 1X | - - 1 1 | 3TF43 10 - 1X 3TF43 11 - 1X 3TF43 20 - 1X 3TF43 22 - 1X | 1 - 1 1 2 - 2 2 |
| Rated insulation voltage (V) | | 690 | | 690 | | 690 | | 690 | |
| Rated operational current (A) (380V) | | AC - 3 | | 16 | | 16 | | 22 | |
| | | AC - 4 | | 7.7 | | 7.7 | | 8.5 | |
| Rated outputs of three-phase motors at 50Hz (kW) | | 230/220V | | 4 | | 4 | | 5.5 | |
| | | 400/380V | | 7.5 | | 7.5 | | 11 | |
| | | AC - 3 500 V | | 9 | | 9 | | 11 | |
| | | 690/660V | | 11 | | 11 | | 11 | |
| | | 1000 V | | -- | | -- | | -- | |
| | | AC - 4 400/380V | | 3.5 | | 3.5 | | 4 | |
| | | 690/660V | | 6 | | 6 | | 6.6 | |
| Mechanical endurance (x10 ⁶) | | 15 | | 15 | | 15 | | 15 | |
| Electrical endurance (x10 ⁶) | | AC - 3 | | 1.2 | | 1.2 | | 1.2 | |
| | | AC - 4 | | 0.2 | | 0.2 | | 0.2 | |
| Switching frequency (1/h) | | AC - 3 | | 750 | | 750 | | 750 | |
| | | AC - 4 | | 250 | | 250 | | 250 | |
| Coil voltage tolerance (AC) | | (0.8–1.1)U _s | | | | | | | |
| Order No. suffixes for rated control voltages for coils 3TF3...1X□□ 3TF4...1X□□ | | Rated control voltage | | V DC | | 24 | | 48 110 125 220 | |
| | | Order No. suffix | | B4 | | W4 F4 G4 | | M4 | |
| Power consumption of coil (50Hz) | Closing and Closed (W) | 6.2 | | 6.2 | | 6.2 | | 6.2 | |
| Conventional thermal current (A) | | 30 | | 30 | | 30 | | 30 | |
| Conventional thermal current of auxiliary contacts (A) | | 10 | | 10 | | 10 | | 10 | |
| Rated insulation voltage of auxiliary contacts (V) | | 690 | | 690 | | 690 | | 690 | |
| Rated operational current of auxiliary contacts (A) | | AC - 15 380/220V | | 4/6 | | 6/10 | | 4/6 | |
| | | DC - 13 110/220V | | 1.14/0.48 | | 0.9/0.45 | | 1.14/0.48 | |
| Weight (kg) | | 0.70 | | 0.66 | | 0.70 | | 0.66 | |

Note: 3TX4 auxiliary contact blocks for 3TF3 series, see P2/16.









3TF AC Contactors

| Selection and ordering data | | | | | | | | | |
|--|--|---|--|---|--|---|--|---|--|
| DC operation | |  | |  | |  | |  | |
| | | 3TF34 | | 3TF44 | | 3TF35 | | 3TF45 | |
| Auxiliary contacts NO NC | |  | |  | |  | |  | |
| | | NO - NC | | NO - NC | | NO - NC | | NO - NC | |
| Order No. | | 3TF34 00 - 1X 3TF34 11 - 1X | | 3TF44 11 - 1X 3TF44 22 - 1X | | 3TF35 00 - 1X 3TF35 11 - 1X | | 3TF45 11 - 1X 3TF45 22 - 1X | |
| | | - - 1 1 | | 1 1 2 2 | | - - 1 1 | | 1 1 2 2 | |
| Rated insulation voltage (V) | | 690 | | 690 | | 690 | | 690 | |
| Rated operational current (A) (380V) | | AC - 3 | | 32 | | 32 | | 38 | |
| | | AC - 4 | | 15.6 | | 15.6 | | 18.5 | |
| Rated outputs of three-phase motors at 50Hz (kW) | | AC - 3 230/220V 400/380V 500 V 690/660V 1000 V | | 8.5 | | 8.5 | | 11 | |
| | | | | 15 | | 15 | | 18.5 | |
| | | | | 21 | | 21 | | 25 | |
| | | | | 23 | | 23 | | 23 | |
| | | AC - 4 400/380V 690/660V | | 7.5 | | 7.5 | | 9 | |
| | | | | 13 | | 13 | | 15.5 | |
| Mechanical endurance (x10 ⁶) | | 10 | | 10 | | 10 | | 10 | |
| Electrical endurance (x10 ⁶) | | AC - 3 | | 1.2 | | 1.2 | | 1.2 | |
| | | AC - 4 | | 0.2 | | 0.2 | | 0.2 | |
| Switching frequency (1/h) | | AC - 3 | | 750 | | 750 | | 600 | |
| | | AC - 4 | | 250 | | 250 | | 200 | |
| Coil voltage tolerance (AC) | | (0.8~1.1)U _s | | | | | | | |
| Order No. suffixes for rated control voltages for coils 3TF3...1X □□ 3TF4...1X □□ | | Rated control voltage | | V DC | | 24 | | 48 110 125 220 | |
| | | Order No. suffix | | B4 | | W4 F4 G4 | | M4 | |
| Power consumption of coil (50Hz) | | Closing and Closed (W) | | 11.7 | | 11.7 | | 11.7 | |
| Conventional thermal current (A) | | 55 | | 55 | | 55 | | 55 | |
| Conventional thermal current of auxiliary contacts (A) | | 10 | | 10 | | 10 | | 10 | |
| Rated insulation voltage of auxiliary contacts (V) | | 690 | | 690 | | 690 | | 690 | |
| Rated operational current of auxiliary contacts (A) | | AC - 15 380/220V | | 4/6 | | 4/6 | | 4/6 | |
| | | DC - 13 110/220V | | 1.14/0.48 | | 1.14/0.48 | | 1.14/0.48 | |
| Weight (kg) | | 1.25 | | 1.43 | | 1.25 | | 1.43 | |







Note: 3TX4 auxiliary contact blocks for 3TF3 series, see P2/16.

| Selection and ordering data | | | | | | | | | | | | | | | |
|--|--|---|---|---|---|---|------------|---|------------|----------------------|--|-----------|--|-----|--|
| DC operation | |  |  |  |  | | | | | | | | | | |
| | | 3TF46 | | 3TF47 | | 3TF48 | | 3TF49 | | | | | | | |
| Auxiliary contacts NO NC | |  | |  | |  | |  | | | | | | | |
| | | NO - NC | | NO - NC | | NO - NC | | NO - NC | | | | | | | |
| Order No. | | 3TF46 22 - 1X 3TF46 33 - 1X | 2 2 3 3 | 3TF47 22 - 1X 3TF47 33 - 1X | 2 2 3 3 | 3TF48 22 - 1X 3TF48 33 - 1X | 2 2 3 3 | 3TF49 22 - 1X 3TF49 33 - 1X | 2 2 3 3 | | | | | | |
| Rated insulation voltage (V) | | 1000 | | 1000 | | 1000 | | 1000 | | | | | | | |
| Rated operational current (A) (380V) | | AC - 3 | | 45 | | 63 | | 75 | | 85 | | | | | |
| | | AC - 4 | | 24 | | 28 | | 34 | | 42 | | | | | |
| Rated outputs of three-phase motors at 50Hz (KW) | | 230/220V 400/380V | | 15 | | 18.5 | | 22 | | 26 | | | | | |
| | | AC - 3 500 V 690/660V 1000 V | | 22 30 39 7.5 | | 30 41 55 7.5 | | 37 50 67 39 | | 45 59 67 39 | | | | | |
| | | AC - 4 400/380V 690/660V | | 12.6/12 21.8/20.8 | | 14.7/14 25.4/24.3 | | 17.9/17 30.9/29.5 | | 22/21 38/36 | | | | | |
| Mechanical endurance (x10 ⁶) | | 3 | | 3 | | 3 | | 3 | | | | | | | |
| Electrical endurance (x10 ⁶) | | AC - 3 | | 1.2 | | 1.2 | | 1.2 | | 1.2 | | | | | |
| | | AC - 4 | | 0.2 | | 0.2 | | 0.2 | | 0.2 | | | | | |
| Switching frequency (1/h) | | AC - 3 | | 1200 | | 1000 | | 1000 | | 850 | | | | | |
| | | AC - 4 | | 400 | | 300 | | 300 | | 250 | | | | | |
| Coil voltage tolerance (AC) | | (0.8-1.1)U _s | | | | | | | | | | | | | |
| Order No. suffixes for rated control voltages for coils 3TF46...1X□□ 3TF49...1X□□ | | Rated control voltage | | V DC | | 24 | | 48 | | 110 | | 125 | | 220 | |
| | | Order No. suffix | | B4 | | W4 | | F4 | | G4 | | M4 | | | |
| Power consumption of coil (50Hz) | | Closed (W) | | 2.1 | | 2.1 | | 2.7 | | 2.7 | | | | | |
| | | Closing (W) | | 400 | | 400 | | 420 | | 420 | | | | | |
| Conventional thermal current (A) | | 80 | | 90 | | 100 | | 100 | | | | | | | |
| Conventional thermal current of auxiliary contacts (A) | | 10 | | 10 | | 10 | | 10 | | | | | | | |
| Rated insulation voltage of auxiliary contacts (V) | | 690 | | 690 | | 690 | | 690 | | | | | | | |
| Rated operational current of auxiliary contacts (A) | | AC - 15 380/220V | | 4/6 | | 4/6 | | 4/6 | | 4/6 | | | | | |
| | | DC - 13 110/220V | | 1.14/0.48 | | 1.14/0.48 | | 1.14/0.48 | | 1.14/0.48 | | 1.14/0.48 | | | |
| Weight (kg) | | 1.4/1.6 | | 1.4/1.6 | | 2.3/2.5 | | 2.3/2.5 | | | | | | | |

3TF AC Contactors











| Selection and ordering data | | | | | | | | | | | |
|--|--|---|------------|---|------------|---|------------|---|------------|----------------|--|
| DC operation | |  | |  | |  | |  | | | |
| | | 3TF50 | | 3TF51 | | 3TF52 | | 3TF53 | | | |
| Auxiliary contacts NO NC | |  | |  | |  | |  | | | |
| | | NO - NC | | NO - NC | | NO - NC | | NO - NC | | | |
| Order No. | | 3TF50 22 - 1X 3TF50 33 - 1X | 2 2 3 3 | 3TF51 22 - 1X 3TF51 33 - 1X | 2 2 3 3 | 3TF52 22 - 1X 3TF52 33 - 1X | 2 2 3 3 | 3TF53 22 - 1X 3TF53 33 - 1X | 2 2 3 3 | | |
| Rated insulation voltage (V) | | 1000 | | 1000 | | 1000 | | 1000 | | | |
| Rated operational current (A) (380V) | | AC - 3 | | 110 | | 140 | | 170 | | 205 | |
| | | AC - 4 | | 54 | | 68 | | 75 | | 96 | |
| Rated outputs of three-phase motors at 50Hz (KW) | | 230/220V | | 37 | | 43 | | 55 | | 64 | |
| | | 400/380V | | 55 | | 75 | | 90 | | 110 | |
| | | 500 V | | 76 | | 98 | | 118 | | 145 | |
| | | 690/660V | | 100 | | 100 | | 156 | | 156 | |
| | | 1000 V | | 65 | | 65 | | 90 | | 90 | |
| | | AC - 4 | | 400/380V 690/660V | | 28.4/27 49/46.9 | | 36/35 63/60 | | 40/38 69/66 | |
| Mechanical endurance (x10 ⁶) | | 3 | | 3 | | 3 | | 3 | | | |
| Electrical endurance (x10 ⁶) | | AC - 3 | | 1.2 | | 1.2 | | 1.2 | | 1.2 | |
| | | AC - 4 | | 0.2 | | 0.2 | | 0.2 | | 0.2 | |
| Switching frequency (1/h) | | AC - 3 | | 1000 | | 750 | | 700 | | 500 | |
| | | AC - 4 | | 300 | | 200 | | 200 | | 130 | |
| Coil voltage tolerance (AC) | | (0.8~1.1)U _s | | | | | | | | | |
| Order No. suffixes for rated control voltages for coils 3TF50...1X□□ 3TF53...1X□□ | | Rated control voltage | | V DC | | 24 | | 48 110 125 220 | | | |
| | | Order No. suffix | | B4 | | W4 F4 G4 | | M4 | | | |
| Power consumption of coil (50Hz) | | Closed (W) | | 2.7 | | 2.7 | | 11 | | 11 | |
| | | Closing (W) | | 500 | | 500 | | 876 | | 876 | |
| Conventional thermal current (A) | | 160 | | 160 | | 210 | | 220 | | | |
| Conventional thermal current of auxiliary contacts (A) | | 10 | | 10 | | 10 | | 10 | | | |
| Rated insulation voltage of auxiliary contacts (V) | | 690 | | 690 | | 690 | | 690 | | | |
| Rated operational current of auxiliary contacts (A) | | AC - 15 380/220V | | 4/6 | | 4/6 | | 4/6 | | 4/6 | |
| | | DC - 13 110/220V | | 1.14/0.48 | | 1.14/0.48 | | 1.14/0.48 | | 1.14/0.48 | |
| Weight (kg) | | 3.3/3.5 | | 3.3/3.5 | | 5.4/5.6 | | 5.4/5.6 | | | |


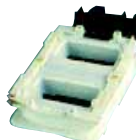



Note: The changeover contactor of 3TF52~3TF56 DC operation contactors is included in the delivery and contained in the contactor package.

| Selection and ordering data | | | | | | |
|--|--|---|---|---|------------|---------------------------------|
| DC operation | |  |  |  | | |
| | | 3TF54 | 3TF55 | 3TF56 | | |
| Auxiliary contacts NO NC | |  |  |  | | |
| | | NO - NC | NO - NC | NO - NC | | |
| Order No. | | 3TF54 22 - 1X 3TF54 33 - 1X | 2 2 3 3 | 3TF55 22 - 1X 3TF55 33 - 1X | 2 2 3 3 | 3TF56 22 - 1X 3TF56 33 - 1X |
| | | | | | | |
| Rated insulation voltage (V) | | 1000 | | 1000 | | 1000 |
| Rated operational current (A) (380V) | | AC - 3 | 250 | 300 | | 400 |
| | | AC - 4 | 110 | 125 | | 150 |
| Rated outputs of three-phase motors at 50Hz (KW) | | 230/220V 400/380V AC - 3 500 V 690/660V 1000 V | 78 132 178 235 132 | 93 160 210 235 132 | | 125 200 284 375 250 |
| | | AC - 4 400/380V 690/660V | 61/58 105/100 | 69/66 119/114 | | 85/81 147/140 |
| Mechanical endurance (x10 ⁶) | | 3 | | 3 | | 3 |
| Electrical endurance (x10 ⁶) | | AC - 3 | 1.2 | 1.2 | | 1.2 |
| | | AC - 4 | 0.2 | 0.2 | | 0.2 |
| Switching frequency (1/h) | | AC - 3 | 700 | 500 | | 500 |
| | | AC - 4 | 200 | 130 | | 150 |
| Coil voltage tolerance (AC) | | (0.8–1.1)U _s | | | | |
| Order No. suffixes for rated control voltages for coils 3TF54...1X□□ | | Rated control voltage V DC | | | | |
| | | 24 48 110 125 220 | | | | |
| 3TF56...1X□□ | | Order No. suffix B4 W4 F4 G4 M4 | | | | |
| Power consumption of coil (50Hz) | | Closed (W) | 13.3 | 13.3 | | 14 |
| | | Closing(W) | 1216 | 1216 | | 1306 |
| Conventional thermal current (A) | | 300 | | 300 | | 400 |
| Conventional thermal current of auxiliary contacts (A) | | 10 | | 10 | | 10 |
| Rated insulation voltage of auxiliary contacts (V) | | 690 | | 690 | | 690 |
| Rated operational current of auxiliary contacts (A) | | AC - 15 380/220V | 4/6 | 4/6 | | 4/6 |
| | | DC - 13 110/220V | 1.14/0.48 | 1.14/0.48 | | 1.14/0.48 |
| Weight (kg) | | 6.8/7.0 | | 6.8/7.0 | | 9.2/9.4 |

Note: The changeover contactor of 3TF52~3TF56 DC operation contactors is included in the delivery and contained in the contactor package.

3TB AC Contactors




| Selection and ordering data | | | | | | | | | | | | | |
|--|-----|---|---|--|---|---|---------------------------|---------------|-----|---------------|-----|---------|--|
| AC operation | |  |  |  |  |  | | | | | | | |
| | | 3TB40 | 3TB41 | 3TB42 | 3TB43 | 3TB44 | | | | | | | |
| Auxiliary contacts NO NC | |  |  |  |  |  | | | | | | | |
| | | NO - NC | NO - NC | NO - NC | NO - NC | NO - NC | | | | | | | |
| Order No. | | 3TB40 10 - 0X 3TB40 01 - 0X 3TB40 22 - 0X | 1 - - 1 2 2 | 3TB41 10 - 0X 3TB41 01 - 0X 3TB41 22 - 0X | 1 - - 1 2 2 | 3TB42 22 - 0X | 2 2 | 3TB43 22 - 0X | 2 2 | 3TB44 22 - 0X | 2 2 | | |
| Rated insulation voltage (V) | | 660 | | 660 | | 660 | | 660 | | 660 | | | |
| Rated operational current (A) (380V) | | AC - 3 | | 9 | | 12 | | 16 | | 22 | | 32 | |
| | | AC - 4 | | 3.3 | | 4.3 | | 7.7 | | 8.5 | | 15.6 | |
| Rated outputs of three-phase motors at 50Hz (kW) | | AC - 3 | | 230/220V | 2.4 | 3.3 | 4 | 6.1 | 8.5 | | | | |
| | | | | 400/380V | 4 | 5.5 | 7.5 | 11 | 15 | | | | |
| | | | | 500 V | 5.5 | 7.5 | 10 | 11 | 21 | | | | |
| | | | | 690/660V | 5.5 | 7.5 | 11 | 11 | 23 | | | | |
| | | | | 1000 V | -- | -- | -- | -- | -- | | | | |
| | | AC - 4 | | 400/380V | 1.4 | 1.9 | 3.5 | 4 | 7.5 | | | | |
| 690/660V | 2.4 | | | 3.3 | 6 | 6.6 | 13 | | | | | | |
| Mechanical endurance (x10 ⁶) | | 10 | | 10 | | 10 | | 10 | | 10 | | | |
| Electrical endurance (x10 ⁶) | | AC - 3 | | 1.0 | | 1.0 | | 1.0 | | 1.0 | | | |
| | | AC - 4 | | 0.2 | | 0.2 | | 0.2 | | 0.2 | | | |
| Switching frequency (1/h) | | AC - 3 | | 1000 | | 1000 | | 750 | | 750 | | | |
| | | AC - 4 | | 250 | | 250 | | 250 | | 250 | | | |
| Coil voltage tolerance (AC) | | (0.8~1.1)U _s | | | | | | | | | | | |
| Order No. suffixes for rated control voltages for coils 3TB40..-0X□□ 3TB44..-0X□□ | | Coils for 50Hz V AC | | | | | Coils for 50/60Hz V AC | | | | | | |
| | | 24 | | B0 | | | 24 | | C2 | | | | |
| | | 42 | | D0 | | | 42 | | D2 | | | | |
| | | 110 | | F0 | | | 110 | | G2 | | | | |
| | | 220 | | M0 | | | 220 | | N2 | | | | |
| | | 240 | | U0 | | | 240 | | P2 | | | | |
| 380 | | Q0 | | | | | | | | | | | |
| Power consumption of coil (50Hz) | | Closed (VA) | | 10 | | 10 | | 10 | | 10 | | | |
| | | p.f. | | 0.29 | | 0.29 | | 0.29 | | 0.29 | | | |
| | | Closing (VA) | | 68 | | 68 | | 68 | | 69 | | | |
| | | p.f. | | 0.82 | | 0.82 | | 0.82 | | 0.86 | | | |
| Conventional thermal current (A) | | 20 | | 20 | | 30 | | 30 | | 45 | | | |
| Conventional thermal current of auxiliary contacts (A) | | 10 | | 10 | | 10 | | 10 | | 10 | | | |
| Rated insulation voltage of auxiliary contacts (V) | | 660 | | 660 | | 660 | | 660 | | 660 | | | |
| Rated operational current of auxiliary contacts (A) | | AC - 15 380/220V | | 6/10 | | 6/10 | | 6/10 | | 4/6 | | | |
| | | DC - 13 110/220V | | 0.9/0.45 | | 0.9/0.45 | | 0.9/0.45 | | 0.9/0.45 | | 1.8/0.9 | |
| Weight (kg) | | 0.43 | | 0.43 | | 0.49 | | 0.49 | | 0.7 | | | |

| Spare Parts | | | | | | |
|--|---|-------------|----|---|--|-------------------------------------|
| Type | Contactor size | Contacts No | | Order No | Illustration | Weight |
| | | NO | NC | | | kg |
|  3TY75 61-1. Auxiliary contacts block | 3TF32 11, 3TF33 11 | 1 | 1 | 3TX4 011 - 8A | Auxiliary contacts left | 0.042 |
| | 3TF34 11, 3TF35 11 | 1 | 1 | 3TY7 561 - 1AA00 | Auxiliary contacts left | |
| | 3TF44 - 3TF56 | 1 | 1 | 3TY7 561 - 1AA00 | Auxiliary contacts left | |
| | | 1 | 1 | 3TY7 561 - 1AA00 | Auxiliary contacts right | |
| | 3TF46 - 3TF56 | 1 | 1 | 3TY7 561 - 1KA00 | 2nd auxiliary contacts left | |
| | | 1 | 1 | 3TY7 561 - 1KA00 | 2nd auxiliary contacts right | |
|  3BE; Coil | 3TF30 - 3TF33 3TF40 - 3TF43 3TH3 - 3TH4 | | | 3TY7 403 - 0X.. | Double coil from 3TF48 | 0.07 |
| | 3TF34 - 3TF35 3TF44 - 3TF45 | | | 3TY7 443 - 0X.. | | 0.1 |
| | 3TF46, 3TF47 | | | 3TY7 463 - 0X.. | | 0.12 |
| | 3TF48, 3TF49 3TF50, 3TF51 3TF52, 3TF53 3TF54, 3TF55 3TF56 | | | 3TY7 483 - 0X.. 3TY7 503 - 0X.. 3TY7 523 - 0X.. 3TY7 543 - 0X.. 3TY7 563 - 0X.. | | 0.2 0.23 0.35 0.39 0.56 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
|  3TX40.. - .. | 3TF30 - 3TF35 3TH3 | | | | | |
| | | | | | | |
|  3TY7.0 - 0X Contact bridge Contacts | 3TF44 3TF45 | | | 3TY74 40 - 0X 3TY74 50 - 0X | Three pieces of contact bridge and six pieces of contacts consists of one sets | 0.1 |
| | 3TF46 3TF47 | | | 3TY74 60 - 0X 3TY74 70 - 0X | | 0.1 |
| | 3TF48 3TF49 | | | 3TY74 80 - 0X 3TY74 90 - 0X | | 0.13 |
| | 3TF50 3TF51 | | | 3TY75 00 - 0X 3TY75 10 - 0X | | 0.25 |
| | 3TF52 3TF53 | | | 3TY75 20 - 0X 3TY75 30 - 0X | | 0.3 |
| | 3TF54 3TF55 | | | 3TY75 40 - 0X 3TY75 50 - 0X | | 0.47 |
| | 3TF56 | | | 3TY75 60 - 0X | | 0.73 |
|  3TY7.2 - 0X Arcing chamber | 3TF44 3TF45 | | | 3TY74 42 - 0X 3TY74 52 - 0X | Arcing chamber | 0.15 |
| | 3TF46 3TF47 | | | 3TY74 62 - 0X 3TY74 72 - 0X | | 0.28 |
| | 3TF48 3TF49 | | | 3TY74 82 - 0X 3TY74 92 - 0X | | 0.45 |
| | 3TF50 3TF51 | | | 3TY75 01 - 0X 3TY75 12 - 0X | | 0.75 |
| | 3TF52 3TF53 | | | 3TY75 22 - 0X 3TY75 32 - 0X | | 1 |
| | 3TF54 3TF55 | | | 3TY75 42 - 0X 3TY75 52 - 0X | | 1.3 |
| | 3TF56 | | | 3TY75 62 - 0X | | 1.7 |

Auxiliary contact blocks

When an additional auxiliary contact is needed, you can select the 3TX4 auxiliary contact block for the 3TF3 contactors only. Up to 4 auxiliary contact blocks with 1NO or 1NC contact can be plugged onto 3TF3 contactors.

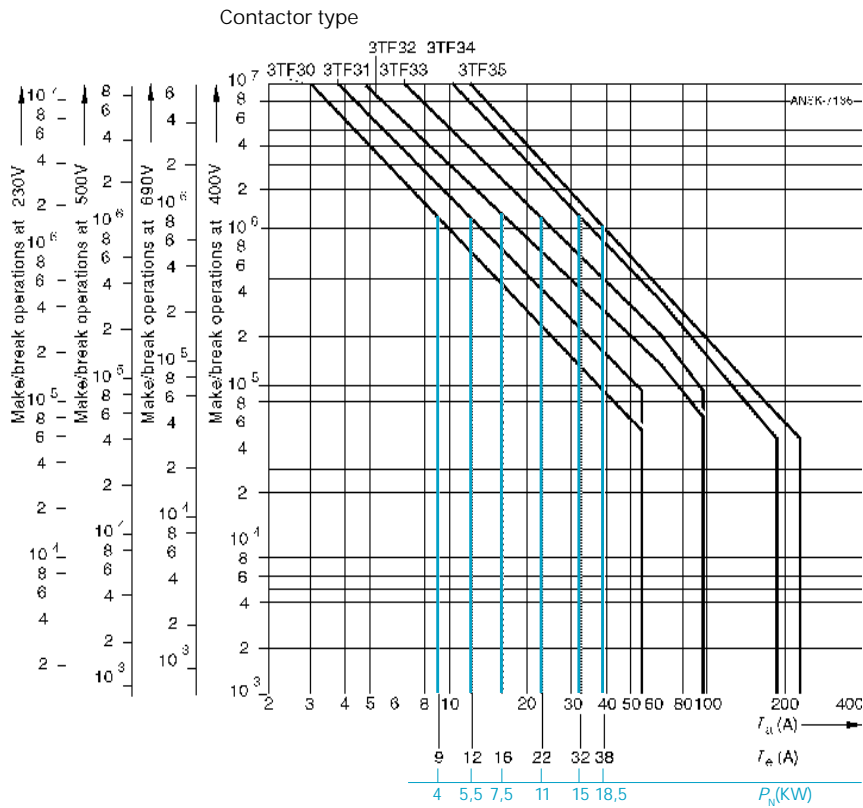
Mounting see 3TH30 mounting size figure

| | | | | | | | | |
|---|--|-------------------|-----------|-------------------|--|--|--|----------------|
|  <p>3TX4</p> | Rated operational current $I_e/AC - 15/AC - 14$ | | | | Contacts | | Order No. | Weight |
| | 230/ 220V A | 400/ 380V A | 500V A | 690/ 660V A |  NO  NC | | | |
| | 5.6/6 | 3.8/4 | 2.5 | 1.8/2 | 1 - - 1 1 - | | 3TX4 010 - 2A 3TX4 001 - 2A 3TX4 010 - 3A* | kg 0.02 |

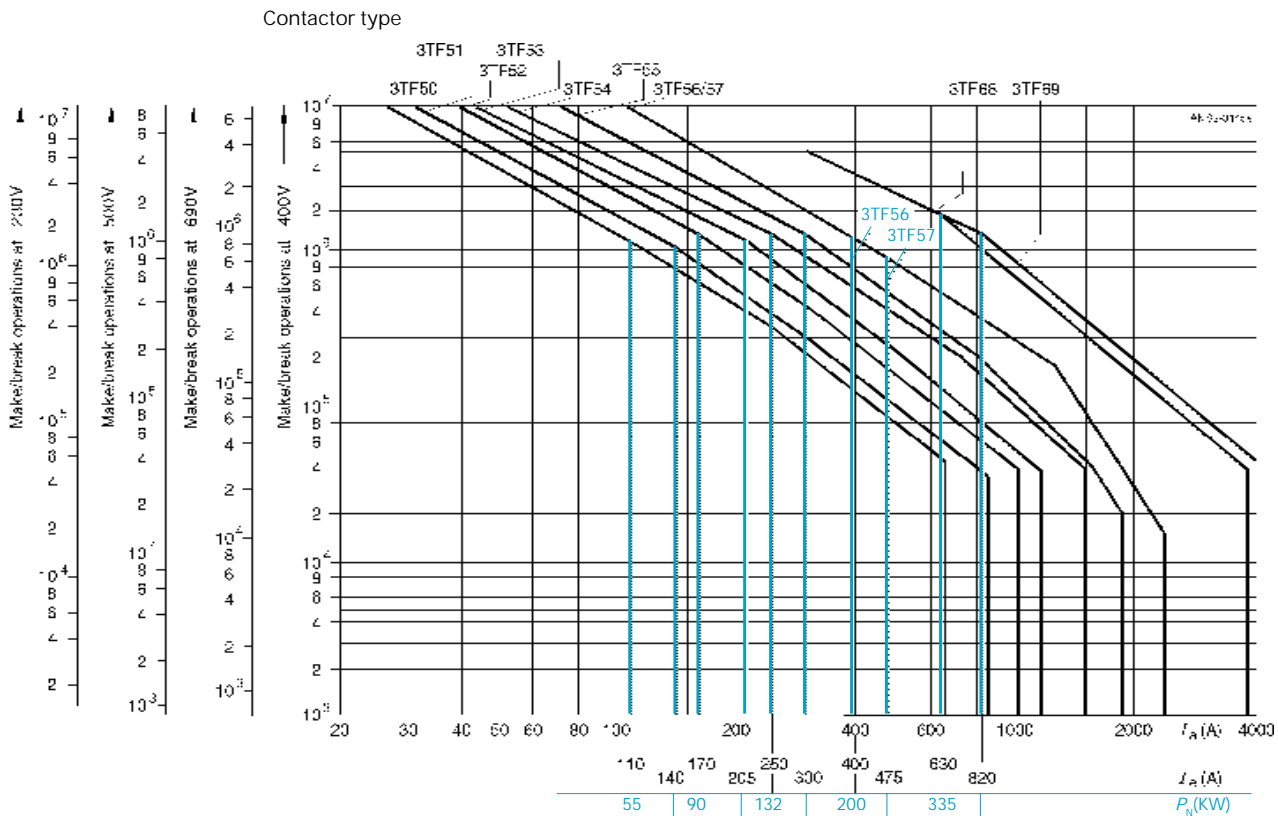
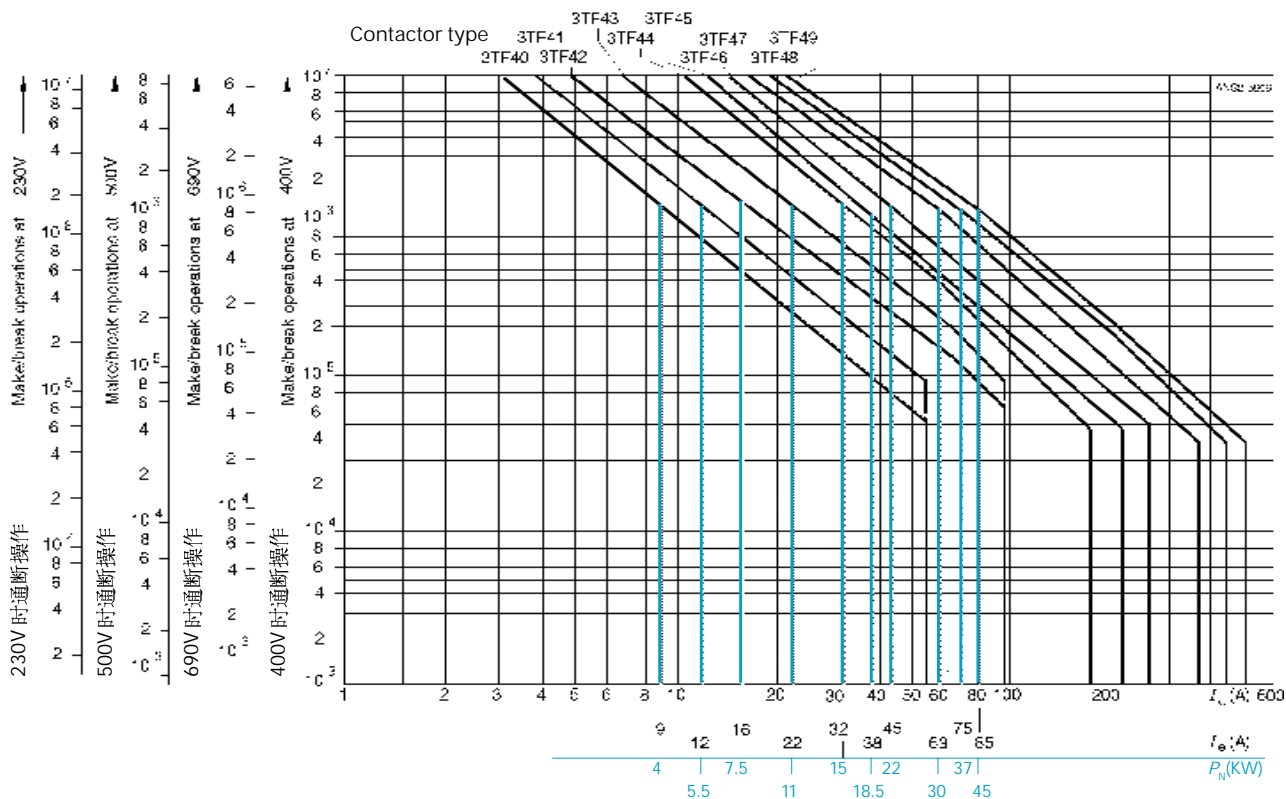
* 3TX4010 - 3A with switch position indicator

Technical data

Contact endurance of the main contacts (AC-3):



Technical data

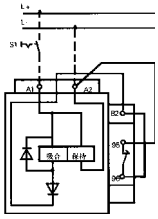


I_b : Breaking current
 I_e : Rated operational current

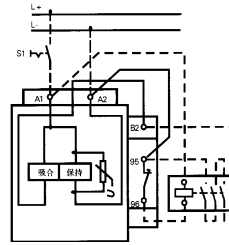
P_N : Rated output of three-phase motors with squirrel-cage (at 400V)

3TF/3TB AC Contactors

DC circuit diagrams



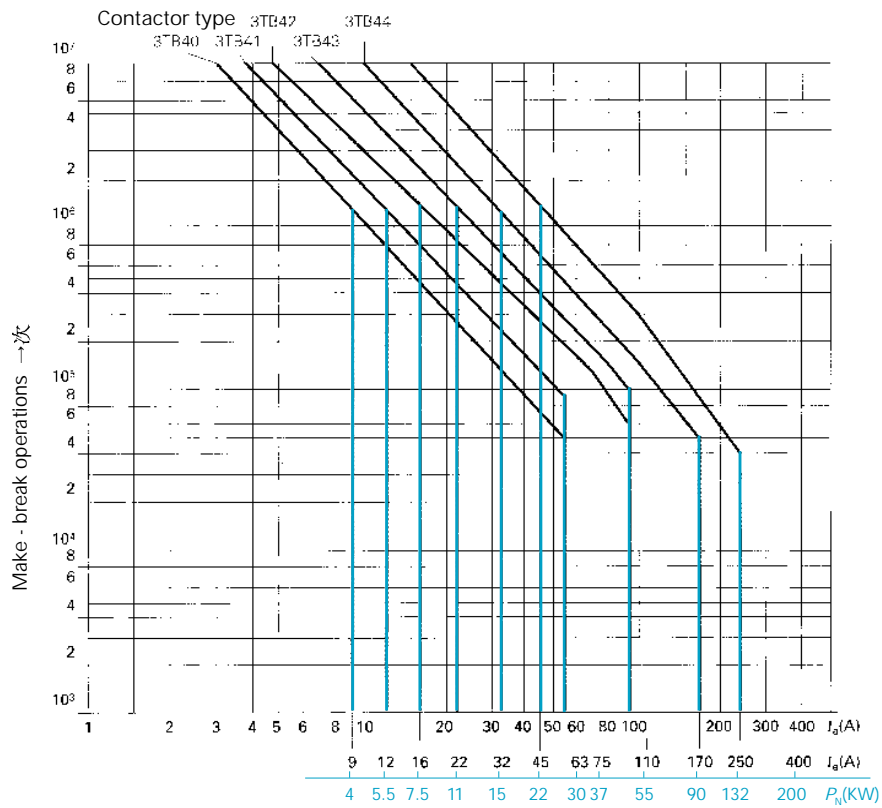
3TF46-3TF51
DC economy circuit



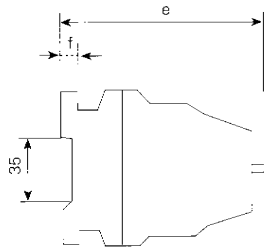
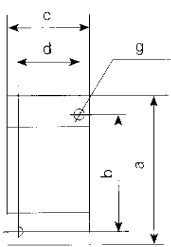
3TF52-3TF56
DC economy circuit
with changeover contactor:
3TF52 ~ 3TF55 : 3TF40
3TF56 : 3TF42

Technical data

Contact endurance of the main contacts (AC-3):



Dimension drawings

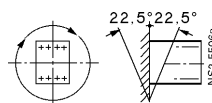


| Type | a | b | c | d | e | f | g |
|--------------|----|----|----|----|------------|-----|----|
| 3TB40, 3TB41 | 79 | 60 | 46 | 35 | *90 106 | 7.5 | ∅5 |
| 3TB42, 3TB43 | 89 | 75 | 46 | 35 | 116 | 8 | ∅5 |
| 3TB44 | 90 | 75 | 74 | 50 | 109 | 8 | ∅5 |

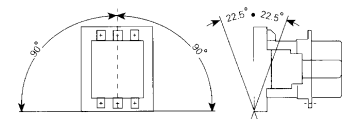
* Size 90 is suitable for 3TB4010, 3TB4001, 3TB4110, 3TB4101
Size 106 is suitable for 3TB4011, 3TB4022, 3TB4111, 3TB4122

Permissible Mounting Position

The contactors are designed for operation on vertical mounting surface.

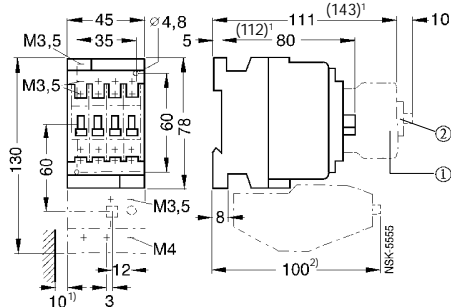


3TB40-3TB43

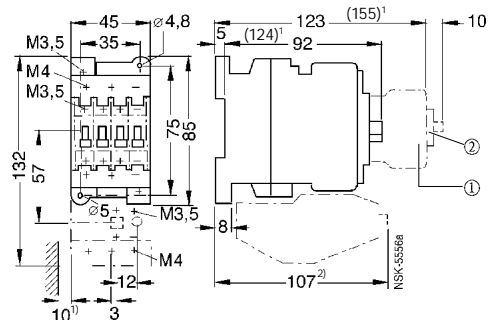


3TB44

Dimension drawings



3TF30 and 3TF31, size 0

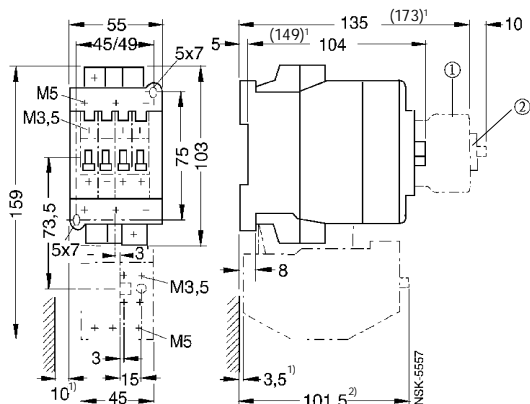


3TF32 and 3TF33, size 1

- ① Auxiliary contact block with position indicator
- ② Labelling plate

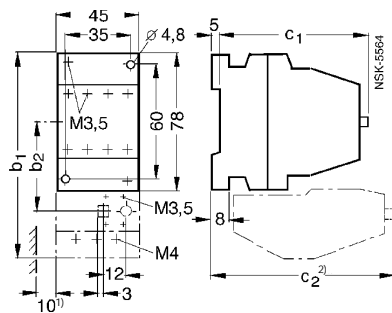
Without and with overload relay (3UA52 or 3UW13)

Without and with overload relay (3UA50 or 3UW10)

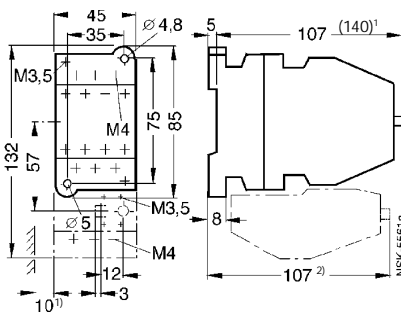


3TF34 and 3TF35, size 2

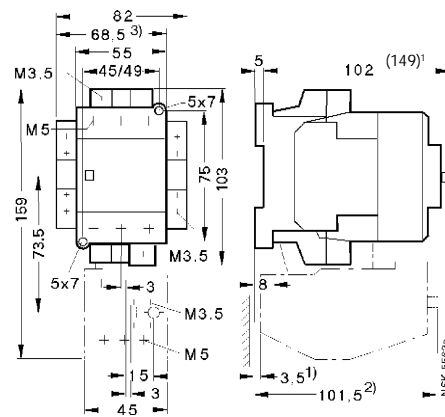
Without and with overload relay (3UA55)



3TF40 and 3TF41, size 0



3TF42 and 3TF43, size 1



3TF44 and 3TF45, size 2

With and without 3UA50 or 3UW10 overload relay

With and without 3UA52 or 3UW13 overload relay

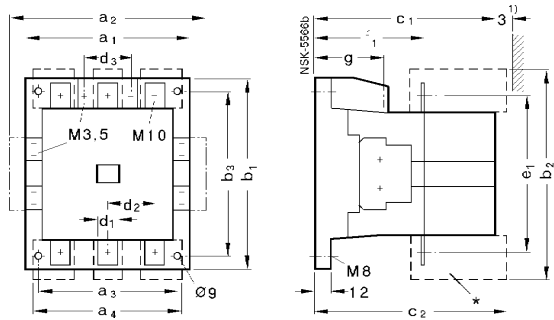
With and without 3UA55 overload relay

| Contacteur Type | b ₁ | b ₂ | c ₁ | (c ₁) ³ | c ₂ |
|-----------------|----------------|----------------|----------------|--------------------------------|----------------|
| 1NO or 1NC | 125 | 55 | 81 | (115) ³ | 108 |
| 1NO+1NC or | 130 | 60 | 97 | (130) ³ | 100 |
| 2NO+2NC | | | | | |

(³) DC operation

- ¹) Minimum clearance from the earthed parts
- ²) Dimension for the square OFF - button (stroke 3mm)
Dimension for the round RESET - button (stroke 2.5mm) less 2.5mm

Dimension drawings



3TF53 to 3TF56, size 8~12

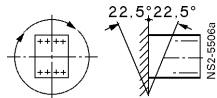
| Type | a ₁ | a ₂ | a ₃ | b ₁ | b ₃ | c ₁ | (c ₁) ¹ | e ₁ | f ₁ | g | d ₁ | d ₂ | ∅g ₁ |
|--------------|----------------|----------------|----------------|----------------|----------------|----------------|--------------------------------|----------------|----------------|----|----------------|----------------|-----------------|
| 3TF53 | 135 | 158 | 110 | 180 | 160 | 185 | 185 | 159 | 115 | 48 | 25 | 48 | 7 |
| 3TF54, 3TF55 | 145 | 168 | 120 | 200 | 180 | 198 | 198 | 168 | 132 | 58 | 25 | 48 | 9 |
| 3TF53 | 160 | 183 | 130 | 200 | 180 | 222 | 222 | 178 | 150 | 65 | 25 | 48 | 9 |

* With box terminals (Accessories)

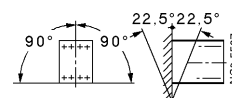
()¹ DC operation

Permissible mounting position

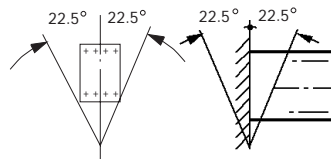
The contactors are designed for operation on vertical mounting surface.



3TF30 - 3TF33 (AC operation)
3TF40 - 3TF43 (AC operation)



3TF34 - 3TF35 (AC operation)
3TF44 - 3TF56 (AC operation)
3TF30 - 3TF33 (DC operation)
3TF40 - 3TF43 (DC solenoid system)
3TF46 - 3TF56 (DC economy circuit)



3TF34, 3TF35 (DC operation)
3TF44, 3TF45 (DC solenoid system)

3TD Reversing Contactor Combinations

Description

3TD Reversing Contactor Combinations are suitable for frequency of 50/60Hz, rated insulation voltage up to 690 – 1000V, rated operational current 9A – 400A at rated operational voltage 380V under AC - 3. They are mainly used for controlling the forward and reverse rotation. They comply with IEC947, VDE0660, GB14048.

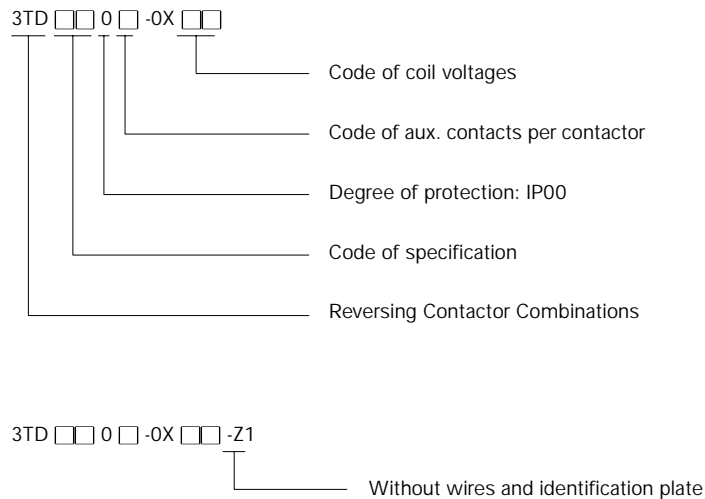
Operating Conditions

- The altitude of the site of installation does not exceed 2000 meters above sea levels.
- The ambient air temperature: -25 ~ +55°C
- Relative humidity does not exceed 50% at +40°C and 90% at +25°C
- Atmospheric conditions: the air does not contain any explosive medium, corrosive gases and conductive dust.
- Never be shocked and vibrated obviously.
- Never be wetted by rain and snow.

Features

- It is a Combinations consisting of two same type sets of 3TF AC contactors, between which one is interlocked by another through a mechanical device.
- The mechanical interlocking device does not affect the acting time of a single set of AC contactors.
- The conducting wires of the main circuit and auxiliary circuit have been connected. (The products without connection can also be supplied.)
- Compact in size, reliable in interlocking.
- The overload relays 3UA can be mounting directly on the 3TD (up to 3TD42).

Type model nomenclature



Selection and ordering data

- Mechanical endurance: 10 x10⁶ operations;
- Operating time: the making time of the contacts in a contactor can not overlap the arcing time of the contacts in another contactor;
- The other technical data are same as those of 3TF, for example 3TD40, see 3TF40;
- Parameters and order specifications.

| | Order No. | Auxi. contact no. per contactor | | Rated operational current I _e at AC-3, 400/380V A | Rated outputs of three-phase motors AC-3 | | | | | Overload Relay Type | Fuses Conduction type | |
|--|-----------------------|---------------------------------|----|---|--|----------|------|----------|-------|---------------------|-----------------------|----------|
| | | NO | NC | | 230/220V | 400/380V | 500V | 690/660V | 1000V | | "1" A | "2" A |
| | | | | | KW | KW | KW | KW | KW | | | |
| | 3TD40 02 - 0X .. | 2 | 2 | 9 | 2.4 | 4 | 5.5 | 5.5 | - | 3UA50 | 35 | 25 |
| | 3TD40 02 - 0X .. - Z1 | 2 | 2 | | | | | | | | | |
| | 3TD40 01 - 0X .. - Z1 | 1 | 1 | | | | | | | | | |
| | 3TD40 00 - 0X .. - Z1 | - | 1 | | | | | | | | | |
| | 3TD41 02 - 0X .. | 2 | 2 | 12 | 3.3 | 5.5 | 7.5 | 7.5 | - | | 35 | 25 |
| | 3TD41 02 - 0X .. - Z1 | 2 | 2 | | | | | | | | | |
| | 3TD41 01 - 0X .. - Z1 | 1 | 1 | | | | | | | | | |
| | 3TD41 00 - 0X .. - Z1 | - | 1 | | | | | | | | | |
| | 3TD42 02 - 0X .. | 2 | 2 | 16 | 4 | 7.5 | 9 | 11 | - | 3UA52 | 65 | 35 |
| | 3TD42 02 - 0X .. - Z1 | 2 | 2 | | | | | | | | | |
| | 3TD43 02 - 0X .. | 2 | 2 | 22 | 5.5 | 11 | 11 | 11 | - | | 65 | 35 |
| | 3TD43 02 - 0X .. - Z1 | 2 | 2 | | | | | | | | | |
| | 3TD44 02 - 0X .. | 2 | 2 | 32 | 8.5 | 15 | 21 | 23 | - | 3UA55 | 80 | 63 |
| | 3TD44 02 - 0X .. - Z1 | 2 | 2 | | | | | | | | | |
| | 3TD45 02 - 0X .. | 2 | 2 | 38 | 11 | 18.5 | 25 | 23 | - | | 80 | 63 |
| | 3TD45 02 - 0X .. - Z1 | 2 | 2 | | | | | | | | | |
| | 3TD46 02 - 0X .. | 2 | 2 | 45 | 15 | 22 | 30 | 39 | - | 3UA58 | 160 | 100 |
| | 3TD47 02 - 0X .. | 2 | 2 | 63 | 18.5 | 30 | 41 | 55 | - | | 160 | 125 |
| | 3TD48 02 - 0X .. | 2 | 2 | 75 | 22 | 37 | 50 | 67 | 39 | | 250 | 160 |
| | 3TD50 02 - 0X .. | 2 | 2 | 110 | 37 | 55 | 76 | 100 | 55 | 3UA60 | 315 | 250 |
| | 3TD52 02 - 0X .. | 2 | 2 | 170 | 55 | 90 | 118 | 156 | 90 | 3AU62 | 355 | 250 |
| | 3TD54 02 - 0X .. | 2 | 2 | 250 | 78 | 132 | 178 | 235 | 132 | 3UA66 | 500 | 315 |
| | 3TD56 02 - 0X .. | 2 | 2 | | | | | | | | | |

1) The coil for AC 50/60 Hz for 3TD40 to 3TD50 contactor combinations should be used only if it is ensured that between the signal output for both directions of rotation minimum dead interval on reversing of 50ms exists.

2) Selection of the fuses in the above table is in accordance with excerpt from IEC947 - 4.

Type of co-ordination "1":

Destruction of contactor and overload relay is admissible. Contactor and/or overload relay must be replaced, if necessary.

Type of co-ordination "2":

No damage can be tolerated on the overload relay, but contact welding on the contactor is permitted, if the contacts can easily be separated.

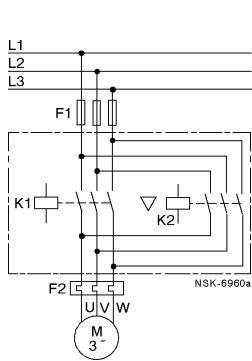
3TD Reversing Contactor Combinations

Conductor cross-section (screw terminal)

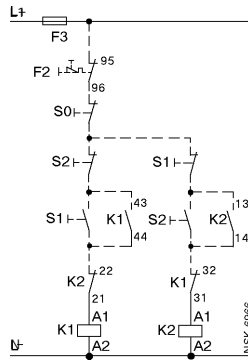
- | | |
|---|--|
| <p>1. Main conductors</p> <p>a) solid/stranded</p> <p>b) finely stranded with and without end sleeve</p> <p>c) finely stranded with cable lug</p> <p>d) stranded with cable lug</p> <p>e) connecting bars</p> <p>f) stripped length</p> <p>g) terminal screws</p> <p>h) tightening torque</p> <p>i) AWG wires</p> | <p>2. Auxiliary conductors</p> <p>a) solid</p> <p>b) finely stranded with end sleeve</p> <p>c) terminal screws</p> <p>d) tightening torque</p> <p>e) AWG wires</p> |
|---|--|

| | 1.a) mm ² | 1.b) mm ² | 1.c) mm ² | 1.d) mm ² | 1.e) mm ² | 1.f) mm | 1.g) mm | 1.h) Nm/lb.in | 1.i) AWG | 2.a) mm ² | 2.b) mm ² | 2.c) | 2.d) Nm/lbin | 2.e) AWG |
|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|------------------|------------|------------------|-------------|-------------------------|-------------------------|------|-----------------|-------------|
| 3TD40 3TD41 | 1~2.5 1 × 4 | 0.75-2.5 | - | - | - | 10 | M3.5 | 0.8~1, 4/7~12 | 18~12 | 0.5~2.5 | 0.75~2.5 | M3.5 | 0.8~1, 4/7~12 | 18~14 |
| 3TD42 3TD43 | 2.5~6 | 1.5~4 | - | - | - | 12 | M4 | 1~1.5/9~13 | 14~10 | 0.5~2.5 | 0.75~2.5 | M3.5 | 0.8~1, 4/7~12 | 18~14 |
| 3TD44 3TD45 | 2.5~25 | 2.5~16 | - | - | - | 10 | M5 | 2.5~3/22~26.5 | 14~6 | | | | | |
| 3TD46 3TD47 3TD48 | 6~35 | 4~25 | - | - | - | 16 ⁺³ | - | 3~4 | | | | | | |
| 3TD50 | 25~70 | 25~50 | - | - | - | 22 ⁺³ | - | 4~5 | | | | | | |
| 3TD52 | - | - | 35~95 | 50~120 | 20 × 3 | - | M8 | 10~14 | | | | | | |
| 3TD54 | - | - | 50~240 | 70~240 | 25 × 5 | - | M10 | 14~16.5 | | | | | | |
| 3TD56 | - | - | 50~240 | 70~240 | 2 × (25 × 5) | - | M10 | 14~16.5 | | | | | | |

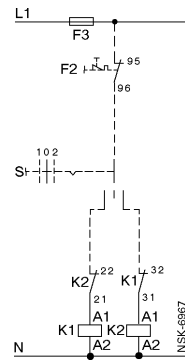
Circuit diagrams



Power circuit



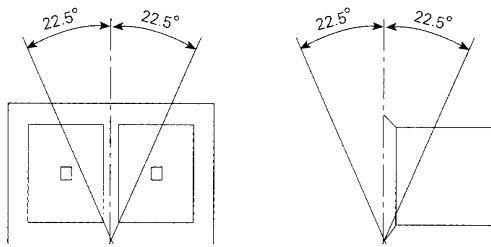
Control circuit for momentary-contact control



Control circuit for maintained-contact control

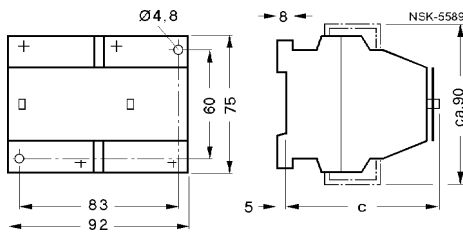
- | | |
|--|--|
| S0 "Off" button | K1 Contactor for clockwise rotation |
| S1 "On-clockwise" button | K2 Contactor for anti-clockwise rotation |
| S2 "On-anti-clockwise" button | F1 Fuse for power circuit |
| S "clockwise-Off-anti-clockwise" selector switch | F2 Overload relay |
| | F3 Fuse for control circuit |

Permissible mounting position

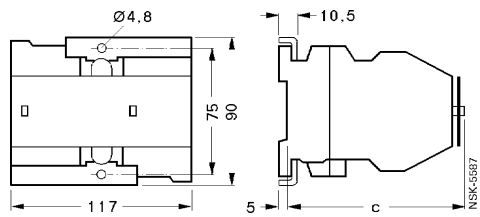


Dimension drawings

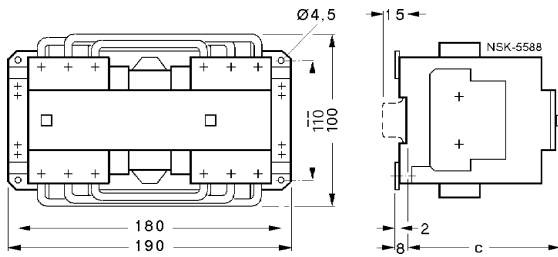
1. 3TD40, 3TD41 c=97mm/81mm



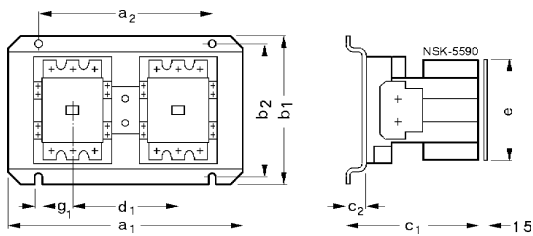
2. 3TD42, 3TD43 c=107mm



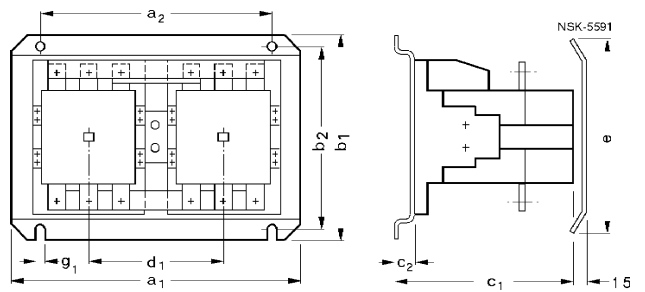
3. 3TD44, 3TD45 c=102mm



4. 3TD46 - 3TD48



5. 3TD50 - 3TD56



| | a1 | a2 | b1 | b2 | b4 | c1 | c2 | d1 | e | g1 |
|-------|-----|-----|-----|-----|-----|-----|----|-----|-----|---------|
| 3TD46 | 240 | 180 | 165 | 145 | - | 141 | 18 | 117 | 150 | 7(M6) |
| 3TD47 | 240 | 180 | 165 | 145 | - | 141 | 18 | 117 | 150 | 7(M6) |
| 3TD48 | 260 | 200 | 175 | 155 | - | 158 | 18 | 127 | 160 | 7(M6) |
| 3TD50 | 300 | 240 | 210 | 185 | 260 | 168 | 18 | 147 | - | 9(M8) |
| 3TD52 | 330 | 270 | 240 | 215 | 315 | 203 | 18 | 162 | - | 9(M8) |
| 3TD54 | 350 | 290 | 265 | 240 | 375 | 219 | 21 | 172 | - | 11(M10) |
| 3TD56 | 380 | 310 | 265 | 240 | 385 | 243 | 21 | 187 | - | 11(M10) |