Technical specifications

|  |  |  |  | 5TE1. 1 | 5TE1 . 2 | 5TE1 . 3 | 5TE1. 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Standards Approved acc. to |  |  |  | IEC/EN 60947-3, UL 508 <br> UL 508 for the following types: 5TE1 320, 5TE1 330, 5TE1 340, 5TE1 420, 5TE1 430 and 5TE1 440. <br> UL File No. E302554 |  |  |  |
| Rated operational current $I_{\mathrm{e}}$ With utilization category AC-21A | Per conducting path at $U_{e}=$ | $\begin{aligned} & 400 \text { V DC } \\ & 415 \vee D C \\ & 500 \vee D C \\ & 690 \text { V DC } \end{aligned}$ |  | $\begin{aligned} & 100 \\ & 100 \\ & 100 \\ & 100 \end{aligned}$ | $\begin{aligned} & 125 \\ & 125 \\ & 125 \\ & 125 \end{aligned}$ | $\begin{aligned} & 160 \\ & 160 \\ & 160 \\ & 160 \end{aligned}$ | $\begin{aligned} & 200 \\ & 200 \\ & 200 \\ & 200 \end{aligned}$ |
| Rated operational current $I_{\mathrm{e}}$ With utilization category AC-22A | Per conducting path at $U_{\mathrm{e}}=$ | $\begin{aligned} & 400 \mathrm{~V} \text { DC } \\ & 415 \mathrm{~V} \text { DC } \\ & 500 \mathrm{~V} D C \\ & 690 \mathrm{~V} \text { DC } \end{aligned}$ |  | $\begin{array}{r} 100 \\ 100 \\ 100 \\ 63 \end{array}$ | $\begin{array}{r} 125 \\ 125 \\ 100 \\ 63 \end{array}$ | $\begin{aligned} & 160 \\ & 160 \\ & 160 \\ & 160 \end{aligned}$ | $\begin{aligned} & 200 \\ & 200 \\ & 200 \\ & 200 \end{aligned}$ |
| Rated operational current $I_{\mathrm{e}}$ With utilization category AC-23A | Per conducting path at $U_{e}=$ | $\begin{aligned} & 400 \text { V DC } \\ & 415 \vee D C \\ & 500 \vee D C \\ & 690 \text { V DC } \end{aligned}$ | $\begin{aligned} & \text { A } \\ & \text { A } \\ & \text { A } \\ & \text { A } \end{aligned}$ | $\begin{aligned} & 80 \\ & 80 \\ & 50 \\ & 40 \end{aligned}$ |  | $\begin{array}{r} 125 \\ 125 \\ 125 \\ 63 \end{array}$ | $\begin{array}{r} 160 \\ 160 \\ 125 \\ 80 \end{array}$ |
| Rated operational current $I_{\mathrm{e}}$ With utilization category DC-23A | 2 poles in series 2 poles in series 4 poles in series | $\begin{aligned} & \hline 110 \text { V DC } \\ & 220 \text { V DC } \\ & 220 \text { V DC } \end{aligned}$ |  | $\begin{aligned} & 100 \\ & -- \\ & 100 \end{aligned}$ |  | $\begin{aligned} & 160 \\ & 100 \\ & 160 \end{aligned}$ |  |
| Rated operational voltage $\boldsymbol{U}_{\text {e }}$ | $V$ AC Acc. to UL: 480, acc. to IEC: 690 |  |  |  |  |  |  |
| Rated insulation voltage $\boldsymbol{U}_{\mathbf{i}}$ |  |  | $V$ AC | 690 |  |  |  |
| Rated impulse withstand voltage $\boldsymbol{U}_{\text {imp }}$ | 2000 m |  | kV | 8 |  |  |  |
| Impulse test voltage | At sea level |  | kV | 12.3 |  |  |  |
| Max. rated operational power With utilization category AC-23A | At $U_{\mathrm{e}}=$ | $\begin{aligned} & 400 \text { V DC } \\ & 415 \text { V DC } \\ & 500 \text { V DC } \\ & 690 \text { V DC } \end{aligned}$ | kW <br> kW <br> kW <br> kW | $\begin{aligned} & 44 \\ & 46 \\ & 35 \\ & 36 \end{aligned}$ |  | $\begin{aligned} & 69 \\ & 72 \\ & 86 \\ & 60 \end{aligned}$ | $\begin{aligned} & 88 \\ & 92 \\ & 86 \\ & 76 \end{aligned}$ |
| Thermal rated current $I_{\text {th }}$ | At $40{ }^{\circ} \mathrm{C}, 50^{\circ} \mathrm{C}$ and $60^{\circ} \mathrm{C}$ |  | A | 100 | 125 | 160 | 200 |
| Rated making capacity | At 415 V AC-23A |  | A | 1875 |  | 3200 | 4000 |
| Rated breaking capacity | At 415 V AC-23A |  | A | 1000 |  | 1920 | 2400 |
| Rated short-circuit making capacity $I_{\text {cm }}$ | Per conducting path At $U_{\mathrm{e}}=$ 400 V DC <br>  415 VA <br>  500 VCDC <br>  690 VA <br>  6 kA <br>   |  |  | $\begin{gathered} 10 \\ 10 \\ 6.7 \\ 6.7 \\ \hline \end{gathered}$ |  |  |  |
| Rated short-time withstand current $I_{\text {cw }}$ (peak value) | Per conducting path | $\begin{aligned} & 0.25 \mathrm{~s} \\ & 1 \mathrm{~s} \end{aligned}$ | $\begin{aligned} & \text { kA } \\ & \text { kA } \end{aligned}$ | $\begin{aligned} & \hline 5 \\ & 2.5 \end{aligned}$ |  | $\begin{aligned} & 6 \\ & 3 \end{aligned}$ |  |
| Rated conditional short-circuit current With back-up protection with back-up fuse With identical rated current | $\text { At } U_{\mathrm{e}}=$ | $\begin{aligned} & 400 \vee D C \\ & 415 \vee D C \\ & 500 \vee D C \\ & 690 \vee D C \end{aligned}$ | kA <br> kA <br> kA <br> kA | $\begin{aligned} & 50 \\ & 50 \\ & 50 \\ & 33 \end{aligned}$ | 33 | 20 | 18 |
| Capacitive load | At 400 V |  | kVar | 50 | 60 | 77 | 97 |
| Number of poles |  |  |  | 2/3/4 |  |  |  |
| Rated power dissipation $P_{\mathbf{v}}$ | Per pole |  | VA | 2.9 | 4.5 | 6.5 | 10 |
| Frequency |  |  | Hz | 50/60 |  |  |  |
| Conductor cross-sections <br> - Solid and stranded <br> - AWG cables <br> - Copper busbars |  |  | $\begin{aligned} & \mathrm{mm}^{2} \\ & \text { AWG } \\ & \mathrm{mm}^{2} \end{aligned}$ | $\begin{aligned} & 6 \ldots 50 \\ & 10 \ldots 1 / 0 \end{aligned}$ |  | 8 <br> Max. $20 \times 6$ |  |
| Service life | Electrical Mechanical |  | Switching cycles | $\begin{aligned} & 1500 \\ & 20000 \\ & \hline \end{aligned}$ |  | $\begin{aligned} & 1000 \\ & 10000 \\ & \hline \end{aligned}$ |  |
| Acc. to UL 508 <br> UL 508 General Use 480 V <br> UL 508 manual motor controller 230 V <br> UL 508 manual motor controller 480 V <br> UL 508 short circuit at 480 V | $I_{n}$ <br> FLA (full load amperes) <br> Power <br> Power <br> With Class H or K5 fuses <br> With J fuses |  | A <br> A <br> hp <br> hp <br> kA <br> kA | $\begin{aligned} & \text {-- } \\ & \text {-- } \\ & \text {-- } \\ & \text {-- } \\ & \hline \end{aligned}$ | $\begin{aligned} & 80 \\ & 28 \\ & 10 \\ & 20 \\ & 10 \\ & 50 \end{aligned}$ | $\begin{aligned} & 100 \\ & 34 \\ & 25 \\ & 15 \end{aligned}$ | $\begin{aligned} & 125 \\ & 40 \\ & 30 \\ & 15 \end{aligned}$ |

