In compliance with:

**CEN ISO 13849-1:2015**

Safety of machinery, safety related parts of control systems Part 1: general principles of design

**MTTFd KS 63 to 250amps Series**

*B10d* rating based on the calculated assumptions below is:-

\[ = 1,600,000 \text{ cycles} \]

Calculation data assumptions (CEN ISO 13849-1:2015, Annex C):

\[ \equiv \text{Performance Level e (CEN ISO 13849-1, Table 2)} \]
\[ \equiv \text{Safety Integrity Level 3 (CEN ISO 13849-1, Table 3)} \]
\[ \equiv \text{MTTFd denotation HIGH (CEN ISO 13849-1, Table 4)} \]

\( t_{cycle} \), mean time between two successive cycles 3600 seconds (1 cycle per hour)

\( h_{op} \), mean operation in hours per day 1 shift x 8 hours.

\( d_{op} \), mean operation in days per year 220 days.

\( \Pi_{op} = (d_{op} \times h_{op} \times 3600) / t_{cycle} \)

\( B10d \) no. cycles until 10% of components fail dangerously 1,600,000 cycles

\( MTTFd = B10d / (0.1 \times \Pi_{op}) \)

\( \lambda_d = (0.1 \times \Pi_{op}) / (B10d \times 220 \times 8) \)

\[ = 9,090.91 \text{ years} \]

\[ = 6.25 \times 10^{-8} \text{ per operating hour} \]

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