Protection Settings with LSI-Function
Reference value of I_{sd} (S - part)
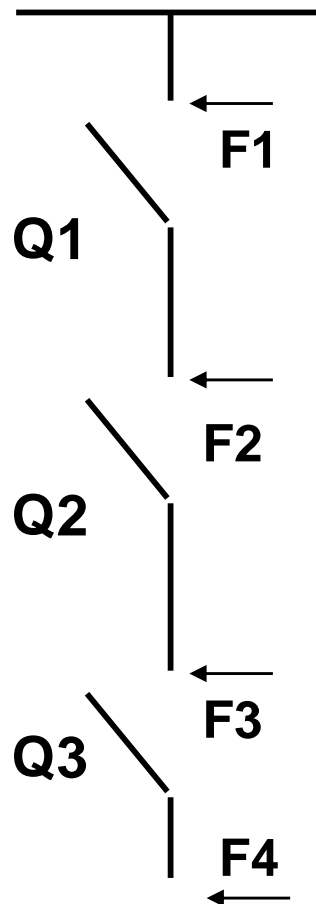
Calculating and Settings of I_{sd} :

a) When I_{sd} <u>and</u> I_i are known, then I_{sd} has be used for personnel protection.

b) It must be guaranteed that the lowest possible setting point of I_{sd} + 20% is lower than the given (or calculated) min. short circuit current $I_{sc\ min}$.
Disconnected time hast to be 5s or 0.4 s.

c) Means, I_{sd} from Q_3 has to be detect $I_{sc\ min}$ in the end of the circuit (F4) and has to switch off within the tolerances of plus/ minus 20%.

d) Within tolerance band means, $I_{sc\ min}$ is corresponding with the upper value, = 120%.

e) Therefore the set value of I_{sd} :

$$I_{sd\ Q3} < I''_{sc\ min} + 20\%$$

Note :   At all selectivity analysis and protection settings, we calculate from the final circuit (load).

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