

Question 1

A Switchboard with different make of Switchgear installed in it, for optimized design, how do we ensure proper co-ordination when performing type test ?

KEMA: Usually, for verification of co-ordination between Switchgears, manufacturer only performs on its own brands and make. It is highly unlikely that crossed make or brands are verified for co-ordination by the manufacturer. Thus, to ensure proper co-ordination and its co-ordinated level, it is imperative for the Switchboard Builder to carry out this test by themselves.

Question 2

For different Switchboard and with different Switchgear installed in each Switchboard, for optimized design, how can we ensure the proper co-ordination between the two Switchboards?

KEMA: It is difficult to ensure proper co-ordination between two Switchboards with two different brands and make of Switchgear installed in it as Switchgear manufacturers usually perform co-ordination study only to their brand. If Switchboard builders want to optimize their design with co-ordination between two different Switchgears, they have to perform this verification by themselves.

Question 3

It is possible for a Switchboard to be tested with one brand of Switchgear and uses another brand during construction?

KEMA: Currently, there is no clear directive regarding this issue. The IEC committee is currently working on a strict guideline pertaining to this issue but will only be available in due course. Though the standard does not specifically allow such construction but due to reasons such as product obsolescent and commercial constraint, Switchboard manufacturers do practice that but only by ensuring that the Switchgear is of technical superiority as compared to the one used for Type Testing. And such technical superiority are 1) Temperature limits, 2) Short Circuit Withstand Capability 3) Let Through Energy 4) Mechanical Operation.

Question 4

If the Switchgear in a Switchboard is selected based on co-ordination, in the event of replacement, can we chose to replace with different Brand?

KEMA: If the Switchgear is selected based on co-ordinated value (e.g. in term of short circuit capacity) , it is not permitted to replace with another Brand or same Brand but of non coordinated type .