

GENERAL TECHNICAL SPECIFICATION REQUIREMENT FOR ALL RELAYS.

1	Vendor to confirm that all the offered relays are suitable to meet the requirement of inter-operability of IEC61850 compliance when used with the other manufacturer relays over IEC 61850 communication system .
2	The relay shall be provided with an RS232 or equivalent port on the front for connection to a laptop PC. The relay shall also have Ethernet port(s) on the rear for connecting relay to an IEC 61850 Ethernet ring LAN through managed Ethernet switch for data communication to Plant DDCMIS system.
3	Communication Protocol shall be IEC-61850 without use of any external protocol converter.
4	Licensed Relay Configuration Software CD for relay settings, I/O configuration, programming scheme logic, retrieving and analysing disturbance records, events etc. shall be supplied. This software shall be a part of Evaluation Unit covered in annexure-1 of the enquiry. Relay configuration software shall be same for all the relays.
5	All the offered relays shall be suitable for mounting in switchboard flush pattern case, with rear access ring type terminals. Each CT/PT terminals shall be suitable for connecting two wires of 2.5 mm square cross-section and other terminals suitable for connecting two wires of 1.5 sq.mm cross-section. Special lugs or socket, if required, shall be supplied in adequate quantity along with the relay.
6	All the offered relays shall be capable of display measurements in primary values and shall be suitable to display the primary current of the order of 25000 Amperes.
7	Interrogation voltage for digital inputs of all the offered relays shall be 220V DC with minimum threshold pick-up voltage of the order of 60-70% of 220V DC.
8	All numerical relays shall have Programmable Scheme Logic, Fault Recording, Disturbance Recording, Event & Alarm Recording and self diagnostic functions.
9	Time stamping of events, fault records, disturbance records shall be done within the numerical relay with a resolution of 1 milli second.
10	It shall be possible to synchronise the clock of all the numerical relays with GPS Clock on SNTP Protocol data from IEC-61850 Ethernet LAN.
11	Complete model number of numerical relays will be furnished with order acceptance for information only.

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| 12 | Supplier shall provide without any price implication, IED Capability Description file, PICS, MICS, PIXIT and any other necessary files and documents required for integration of all relays/IEDs with Plant DCS system. Goose subscription/publish feature also to be made available by the supplier. |
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Complied / Not complied