DATA CONVERTOR UNIT SPECIFICATION

S.No.	DATA CONVERTOR UNIT at Each Sub-station
1	RS 485 to RS 232 data Converter unit
2	The Converter Shall be a fast Asynchronous bi-directional RS485 <=> RS232 intelligent interface converter for 2-wire (Single twisted wire pair) , half-duplex operations, with an automatic TX enable circuit, that will operate at data rates up to 115.2Kbps. The master port shall be configured for RS-232 and uses Transmit Data, Receive Data and Ground The unit has jumpers for bias, termination, RS232 DTE/DCE selection and operating mode settings. Galvanic (Opto/Xformer) isolation between the RS232 and RS485 ports shall be provided to eliminate noise and protect equipment from destructive transients due to switching operation of Feeders / Transformers. Power supply unit for the converter should be built inside the enclosure. Every port shall be surge protected and the unit shall be equipped with a grounding stud to allow a connection to earth for diversion of the otherwise deadly effects of induced surges.
3	Interface: Master port- RS-232; Slave ports- RS-485
4	Distance : RS 485 up to 4000 ft. (1250 Mtrs)
5	Operation : 2-wire, half duplex Rs 485
6	Format : Asynchronous data with any combination of bits, parity, stop
7	Data Rate: Up to 115.2 KBPS
8	Indicators : LED's, one Red LED as TD indicator for each ports and one Green LED as RD indicator for each port and one Yellow LED for power/fault
9	Protection: Transient Voltage Suppressors, auto-reset communications fuses on RS485 TX/RX data lines, 3000VDC, 1 sec. Galvanic isolation.
10	Surge Protection: Response time less than 5 nanoseconds.
11	Power: 220 Volts, 50 Hz , 4 Watt or less + external load
12	Mounting : Stand alone or Wall
13	Environment : -10° to 55° C, 5% to 95% RH non condensing
14	Normally, there will be 4 to 6 outgoing and 2 incoming Feeders in a substation. The Data converter unit shall also support future expansion of substation / feeders and Should be scalable and flexible enough to accommodate the expansion.