Specification for SITC of 3P+N Protection Mode MOV Based Surge Protector devices housed in cabinet with 125 MCB for FM Transmitter , Akashvani Vellore, Yercard, Nandyal and Udipi

I) General Features:

1. Surge Protectors must be of Industrial grade providing Superior Protection Characteristics. They will be installed in existing LT Panels of FM Transmitters at AIR, Stations which are situated in high Rainfall, High Lightning areas in South Zone, India.
2. Surge Protection Device should provide uninterrupted protection from damage caused by electrical surges or direct lightning strikes thereby preventing damage of FM Transmitter and its associated Components. They should be maintenance free design and should absorb and dissipates the excess energy of successive surges without performance deterioration.
3. Surge protector in 3P+N protection Mode shall be of heavy duty distribution grade Metal Oxide Varistor (MOV) disk type which are assembled under pressure in an environmentally sealed aluminum casing thereby providing very low internal contact resistance, excellent thermal management and uniform distribution of the surge current over the total area of the protection element.
4. Surge Protector should be capable of handling extremely high energy combined with very low let through voltage.
5. Surge Protector should be designed to minimize the effects of ageing, completely eliminates the risk of catastrophic failure, explosion or fire which are common in conventional surge protective devices relying on the use of internal fuses and thermal disconnects.
6. Surge Protector module should be designed to withstand repeated surges providing a cost effective and maintenance free operation in harsh environments thereby ensuring that critical electronic equipment will remain protected at all times.
7. Surge Protection should be rated for safe operation without the use of internal fuses.
8. Surge Protector in 3P+N Mode Protection should be housed in a cabinet with 125A MCB 4PN Breaker. This Surge Protector should be integrated to existing LT Panels.

II) TECHNICAL SPECIFICATION:

Sl.No.	Specification Parameters	Specification Values
1	Surge protective Devices (SPD) type as per UL 1449 4th Edition	Type 2 component Assembly
2	Surge protective Devices (SPD) class as per IEC 61643-11	Class I
3	Mode of protection	3Phase +Neutral
4	Nominal operating AC voltage [U]	277 V
5	Maximum continuous operating AC Voltage [U]	350 V
6	Temporary AC over voltage with stand [U] for 5 sec/IEC 61643 - 11	528 V
7	Nominal Discharge current [In] as per UL 1449 4TH Edition	20 kA 8/20 µs
8	Response Time [t]	<1 ns
9	Impulse discharge current [Imp] as per IEC 61643-11	25kA 10/350 µs
10	Maximum surge current capacity [I max]	200kA 8/20 µs
11	Voltage protection rating [VPR] as per UL 1449 4th edition	1200 V
12	Voltage protection level [Up] as per IEC 61643-11	1200 V
13	Nominal frequency range	50 Hz
14	Environmental ingress protection (IP) Rating	IP 65
15	Operating Temperature (C°)	0° C to +80° C
16	State indicator	Yes
17	Disconnector	125A, TPN, MCB, Curve B or C

III). GUARANTEE

One Year from the date of completion of installation.

IV) PAYMENT TERMS :

100% payment upon completion of installation at all the places.

V) INSPECTION

Before Delivery Item should be offered for inspection.

BILL OF MATERIALS

Sl.No.	Description of Item	Quantity
1.	Supply, Installation and commissioning of 3P+N Protection Mode MOV based Surge Protector devices housed in a Cabinet with 125A MCB as per Specification	4 sets