

**GUARANTEED TECHNICAL PARTICULARS FOR 11 KV TPMO SWITCH (AIR
BREAK SWITCHES**

| Sl No. | | Min Requirement as per Tech. Spef. |
|--------|---|------------------------------------|
| | | |
| 1. | Name of Manufacturer | |
| 2. | Rating | |
| (a) | Rated Insulation Level | |
| (b) | Rated Breaking Current | |
| (c) | Reference to standard | |
| 3. | Constructional Features | |
| (a) | Weight of complete 11 KV Air break switch | |
| (b) | Size of blade, width and thickness | |
| (c) | Type of contacts and material thereof | |
| | 1. Moving Contact | |
| | 2. Fixed Contact | |
| (d) | Length, Size & Weight of operating rod pipd | |
| 4. | Maximum temperature attained by contacts under continuous maximum rating condition in an ambient temp. of 50 C. | |
| 5. | Maximum current in Amp. that isolator shall be capable of breaking at rated voltage. | |
| 6. | Type of operating device including details of mechanism | |
| 7. | Whether 11 KV Air Break Switches (TPMO) marked with ISI certificate or not. | |
| 8. | Name of manufacturer of Insulator with type test result | |
| (i) | Is the offered TPMO Type Tested. | |
| (ii) | If yes, when & where was it type tested. | |
| (iii) | Is there any deviations in technical specn. of the offered 11 KV TPMO where compared to type tested. | |
| (vi) | Have you enclosed complete test report and drawing of the design already type tested inform the number of sheets of this report which have been enclosed with tender. | |
| 9. (a) | Whether single break or not | Single break |
| (b) | No. of poles | 3 poles |
| (c) | Voltage rating | 12 KV |
| (d) | Frequency | 50 Hz |
| (e) | Current rating AMPS | 200 Amps |
| (f) | Normal | 200 Amps |
| (ii) | Maximum with duration | |
| (g) | Temperature rise of the following at full rated current at ambient | |
| (i) | Copper contacts with tin coating, in air | |
| (ii) | Terminals of switches intended to the connected to external conductors by bolts | |
| (h) | Whether contacts are silver coated or tin coated along with thickness of coating in mm | |

| | | |
|------|---|--|
| (i) | Voltage drop across terminals of poles | |
| (j) | Short time current and duration | 12.5 kA (rms) 31.25 kA peak for (one second) |
| (k) | Material of fixed contact | Hard drawn Electrolytic copper flat. 30x 2.5 mm (Paired) |
| (l) | Material of terminal connector | Aluminium Alloy |
| (m) | Material of moving blade | Hard drawn Electrolytic copper flat 30x5 mm |
| (n) | Type diameter and length of operating handle | |
| (o) | Material of arcing horns | M.S. Galvanised 6 mm Rod |
| (p) | Size and length of base mounting channel | 75x40x500 mm |
| (q) | Whether the TPMO Switch is complete with all accessories | |
| (r) | Whether dimensional drawing is enclosed with the tender | |
| (s) | Minimum clearance between phases (The center distance between the insulators of adjacent phases in the assembled position of switch). | 550 mm |
| (t) | Center to center distance between insulators of the consecutive poles of the same phase in the assembled position of switch (in mm). | |
| (u) | Type of bearing used | BUSH Bearing |
| (v) | Impulse withstand voltage with 1/50 microsecond wave, positive and negative polarity. | |
| (i) | Across isolating distance | 85 KV (Peak) |
| (ii) | To earth and between poles | 75 KV (Peak) |
| (w) | One minute power frequency withstand voltage | |
| (a) | Across isolating distance | 32 KV (rms) |
| (b) | Between poles and earth | 28 KV (rms) |
| (x) | Whether all ferrous parts are hot dip galvanized or not. | |

10. PARTICULARS FOR INSULATORS

| Sl. | Item | |
|-----|------------------------------|----------------------|
| (a) | Type of insulator | 11 KV Post Insulator |
| (b) | Name of manufacturer | |
| (c) | Height of the Insulator | 254 mm |
| (d) | Diameter of the largest head | |
| (e) | PCD of insulator pin and cap | |

11. ELECTRICAL CHARACTERISTICS

| Sl. No. | Item | |
|---------|---|------------------|
| (a) | (For one insulator) | |
| (b) | Flash over voltage | |
| (i) | Dry Power Frequency | |
| (ii) | Wet power frequency | |
| (iii) | Impulse voltage of 1.2/59 microsecond (+ve) | 75 KV (Peak) |
| (iv) | Impulse voltage of 1.2/50 microsecond (-ve) | 75 KV (Peak) |
| (d) | Power frequency puncture withstand voltage | 110 KV (rms) |
| (e) | MECHANICAL CHARACTERISTICS : | |
| (i) | Cantilever strength upright | |
| (ii) | Cantilever strength under hung | |
| (iii) | Tensional strength | |
| (iv) | Tensile strength | |
| (v) | Compression strength | |
| (f) | GENERAL CHARACTERISTICS | |
| (i) | Minium creep age distance | 320 mm (minimum) |
| (ii) | Weight of complete unit | |
| (g) | Standard to which insulator conforms | |
| (h) | Wt. of 11 KV TMO Switch complete set | |
| | | |