



# JSL INDUSTRIES LTD.

## 245 kV Instrument Transformers

### 245 KV INSTRUMENT TRANSFORMERS

Instrument transformers are one of the vital components of any power system. Their contribution towards protection and metering in power system is momentous. Therefore their manufacturing and handling should be technically and practically feasible.

Our outdoor oil cooled instrument transformers are manufactured under controlled environment in dust free zones. The main insulation system is oil impregnated electrical grade paper and insulation winding is done with automatic insulation machine to avoid human error and to achieve consistency in manufacturing.

Outdoor oil cooled instrument transformers are hermetically sealed type in construction. The complete assembled unit is tested for leakage under vacuum and then introduced for processing. The heating, evacuation and impregnation are carried out under very high vacuum and strictly controlled conditions and are totally automatic to avoid human error. The collected condensate from evacuation system is monitored for each cycle to evaluate the moisture evacuated from the electrical grade paper. Once the insulating paper has been dried as per the requirements, fresh degassed, filtered and luke warm oil is impregnated to the instrument transformers under sufficient vacuum conditions. The instrument transformer is then hermetically sealed by means of dry and pure nitrogen gas through a non-returnable valve at pre determined pressure.

If requested JSL Industries Ltd. can also supply instrument transformers with stainless steel bellows instead of gas cushioning.

### Technical Features of Current Transformer

|   |  |
|---|--|
| Ratio   | As per customer's requirements             |
| Accuracy Class  | As per customer's requirement & (IEC & IS) |
| No. of secondary cores                                      | 5 Nos. (Max)                               |
| Short time thermal current Rating                           | 40kA/ 3 sec (100kA peak)                   |
| Voltage level nominal                                       | 245 kV/ 460kV / 1050kV peak                |
| Seismic level   | 0.5g                                       |
| Static withstand load on primary                            | 4000N                                      |
| Fabrication   | MS / HDG                                   |
| Other specifications are as per the IEC-61869-2 and IS-2705 |  |

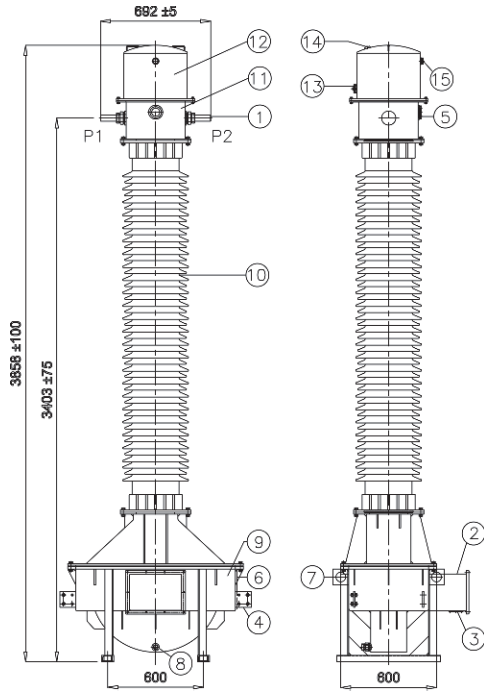
### Technical Features of Voltage Transformer

|   |  |
|---|--|
| Ratio   | As per customer's requirements             |
| Accuracy Class  | As per customer's requirement & (IEC & IS) |
| No. of secondary cores                                      | As per customer's requirement              |
| Voltage factor  | As per IEC & IS                            |
| Voltage level nominal                                       | 245 kV/ 460kV / 1050kV peak                |
| Seismic level   | 0.5g                                       |
| Static withstand load on primary                            | 4000N                                      |
| Fabrication   | MS / HDG                                   |
| Other specifications are as per the IEC-61869-3 and IS-3156 |  |



ISO 9001 : 2015

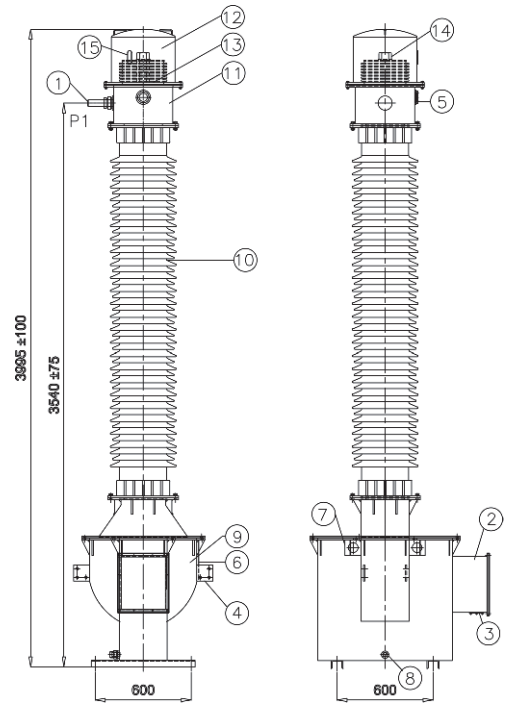
## General Arrangement of 245 KV Current Transformer



**Notes :** Mounting : 600 mm x 600 mm  
 Total Wt. : 1200 Kgs. (Approx.)  
 Oil : 200 Kgs. (Approx.)  
 Total Creepage Distance : 6125 mm (Min.)

| Sr. No. | PART NAME                       |
|---------|---------------------------------|
| 1       | PRIMARY TERMINAL P1-P2          |
| 2       | SECONDARY TERMINAL BOX          |
| 3       | REMOVABLE UNDRILLED GLAND PLATE |
| 4       | EARTHING PAD & HARDWARE         |
| 5       | OIL LEVEL GLASS                 |
| 6       | NAME PLATE                      |
| 7       | LIFTING HOOK                    |
| 8       | OIL OUTLET PLUG                 |
| 9       | TANK                            |
| 10      | INSULATOR                       |
| 11      | CONNECTION HEAD                 |
| 12      | EXPANSION CHAMBER               |
| 13      | NITROGEN FILLING VALVE          |
| 14      | OIL TOP UP PLUG                 |
| 15      | PRESSURE RELIEF VALVE           |

## General Arrangement of 245 KV Potential Transformer



**Notes :** Mounting : 600 mm x 600 mm  
 Total Wt. : 1200 Kgs. (Approx.)  
 Oil : 200 Kgs. (Approx.)  
 Total Creepage Distance : 6125 mm (Min.)

| Sr. No. | PART NAME                       |
|---------|---------------------------------|
| 1       | PRIMARY TERMINAL P1             |
| 2       | SECONDARY TERMINAL BOX          |
| 3       | REMOVABLE UNDRILLED GLAND PLATE |
| 4       | EARTHING PAD & HARDWARE         |
| 5       | OIL LEVEL GLASS                 |
| 6       | NAME PLATE                      |
| 7       | LIFTING HOOK                    |
| 8       | OIL OUTLET PLUG                 |
| 9       | TANK                            |
| 10      | INSULATOR                       |
| 11      | CONNECTION HEAD                 |
| 12      | EXPANSION CHAMBER               |
| 13      | METAL BELLOW                    |
| 14      | OIL TOP UP PLUG                 |
| 15      | BELLOW INDICATOR                |



FOR FURTHER ENQUIRIES  
PLEASE CONTACT

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In Keeping with the technological strides the world is making in the engineering field, we introduce changes in the design of our products. Hence, the products as actually supplied might have features varying herefrom.