

11KV TAP CHANGER TYPE ABS11

CONSTRUCTION DETAILS

The tap changer unit can be divided into two chambers i.e. the selector switch and the drive mechanism chambers; housed in a sheet metal enclosure. The selector switch is separated from the drive mechanism by a metal sheet. The fixed contacts are mounted on the phase boards of the selector switch, over which the moving contact moves and selects the tap. This is carried out in all the phases by a selector switch. The selector switch combines the function of tap selector and diverter switch. It carries a main contact and an auxiliary contact. The drive mechanism is coupled to the selector switch by drive shaft and series of gears. It also consists of an energy storage device whose sudden release of energy drives the selector switch.

MOUNTING ON TRANSFORMER:

The tap changer is mounted on the transformer by taking out leads via the epoxy cast terminal board of the tap-changer, which is a part of OLG supply.

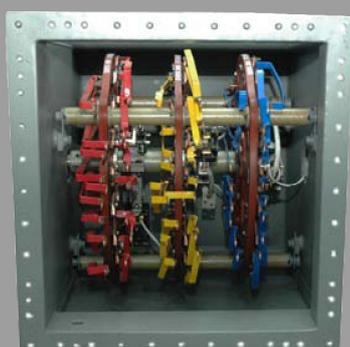
PROTECTIVE DEVICE

The tap changer is protected by an oil surge protective relay (OSR) which is connected to a conservator. The OSR forms a part of tap changer supply but the conservator and transformer oil are not in the scope of supply. A pressure relief device can also be provided in addition as per the customer requirements.



TECHNICAL DETAILS

OLTC type ABS11 is a 3 phase, single compartment, externally mounted on load tap changer. This OLTC works on the principle of high speed transition resistance and is suitable for application at all locations of 11kV star and delta connected transformers. The tap changer follows the principle of Asymmetrical pennant cycle thus making it suitable for uni directional flow of power. It has a maximum current and voltage ratings of 200A and 12kV respectively and can give a maximum of 17 positions under linear arrangement. Thus the OLTC can be applied to a winding of 16 steps to give 17 different voltages. The compact design, less maintenance and less selector switch oil requirement adds advantage to this tap changer.



SELECTOR SWITCH



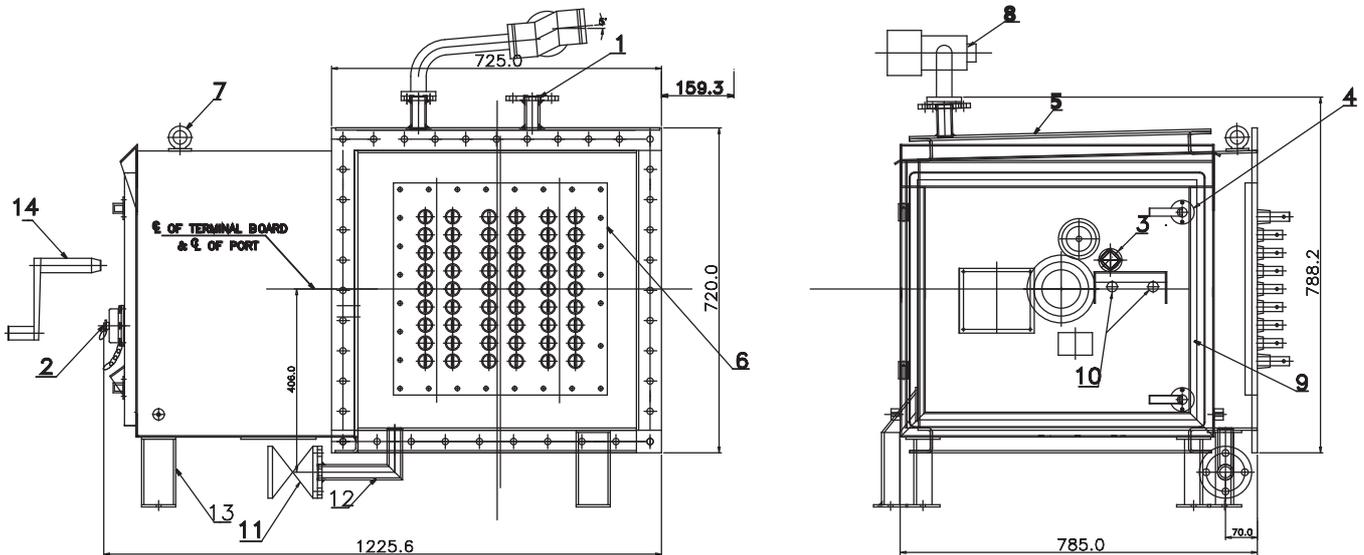
DRIVE MECHANISM



TERMINAL BOARD

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OUTLINE DIAGRAM



- | | |
|--|---|
| 1.OIL FILLING AND FILTERING VALVE FLANGE | 10.PUSH BUTTON SWITCHES FOR RAISE AND LOWER |
| 2.CRANK HANDLE | 11.CABLE ENTRY GLAND PLATE |
| 3.WINDOW FOR TAP NUMBER COUNTER | 12.OIL DRAIN AND FILTERING VALVE FLANGE |
| 4.DOOR HANDLE | 13.SUPPORTING LEG |
| 5.REMOVABLE INSPECTION COVER | 14.REMOVABLE CRANK HANDLE |
| 6.TERMINAL BOARD BARRIER | |
| 7.LIFTING LUG | NOTES: |
| 8.OIL SURGE BUCHHOLZ RELAY | 1.ALL DIMENSIONS ARE IN "MM" |
| 9.MECHANISM DOOR | 2.TRANSPORTATION DIMENSIONS ARE MARKED THUS X |

TECHNICAL DATA

Maximum voltage	: 12kV	Tapping arrangement	: linear
Max.Rated through current	: 200A	Cycle of transition	: Asymmetric pennant cycle
Max.Rated step voltage	: 300V	Weight of OLTC with oil	: 610kg
Rated insulation level	: 28kV power freq and 75kV impulse	Oil content	: 245lts (approx)
Max no of tapping positions	: 17 with linear arrangement		



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