Part of JINDAL'S group

Power and Distribution
Transformers

IS: 1180 (Part-1)

CML No. 9600024411

LOW LOSS AND ENERGY EFFICIENT TRANSFORMERS

About us:

With humble beginnings, today Pooja Group is into the manufacturing of power and distribution transformers, HT and LT automatic voltage controllers, compact substation (CSS), variable voltage transformers, isolation transformers, electroplating rectifiers, and other special purpose transformers, apart from manufacturing sewing machines & fans in South Asia since 1975.

The Power controller manufacturing division of POOJA Group is a part of **JINDAL Group** who are pioneers in this field. The consolidated group is one of the South Asia's largest power control company with largest client base and service network in the industry.

The group operates from 4 factory complexes which are spread in Himachal Pradesh, Punjab and Haryana. All our facilities are ISO 9001:2008 certified.

Pooja follows stringent quality control measures starting from designing to selection and assembly of raw materials along with rigorous testing after every process. Our products are designed and developed with modern techniques and with optimum utilization of raw materials, ensuring cost-effectiveness and trouble free running of our equipments.

We have an array of sophisticated facilities like coil winding machines, heating ovens, forklifts, EOT cranes etc. to name a few.

Why choose Pooja:

- Part of 50 year old Jindal group
- Timely Deliveries
- Quality of fresh raw materials as per IS/ international standards
- Modern plant with R&D facility
- Super strong process check at every stage during manufacturing
- Experienced and skilled manpower
- Excellent service after sales team across indian subcontinent
- Strong customer base of repeat customers and industrial users.
- Thorough testing of transformer as per applicable standard.
- Ensuring safety, health & hygiene for all employees

Product range:

- **Three Phase Power and Distribution Transformers up to 10 MVA 33 kV class**
- **Complete Self Protection (CSP) Transformers- up to 2500 kVA with external MCCB**
- **Furnace Duty Transformers**
- **LT-LT Transformers**
- **Step up Transformers**
- **Compact Substation Transformers (CSS/PSS) up to 2.5 MVA with RMU or HV breaker and LV distribution panel**
- **Inverter Duty Transformers for solar projects**
- **Skid Mount Transformer with HV & LV protection**
- **Automatic Voltage Controllers**
- **Super energy efficient Electric Fans- BEE marked**

ENERGY IS LIFE BEE CONSERVE IT

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Technical Specifications

Range	100 kVA to 10 MVA
Applicable Standards	IS 1180:2014 (Part-1)- Outdoor type oil immersed Distribution Transformers up to and including 2500 kVA, 33KV (EEL 1/2/3) Amendment 4 IS: 2026- Indian standard for Power Transformers IEC: 60076 (parts 1 to 11)- International standard for Power and Distribution Transformers
Vector Group	Dyn11 or as per customer specifications and requirement
Winding Material	Copper/ Aluminium
Primary Voltage	11, 22, 33 kV or as per customer specifications & requirement
Secondary Voltage	433/415/400 V or as per customer specifications & requirement
Duty, Type	Continuous duty Outdoor/Indoor, Conventional or hermetically sealed
No. of Phases	3 Phase
Class of Insulation	Class A
Insulating Oil	Mineral oil as per IS:335 / IEC:296

Customised Options

Mounting	Pole/Pad/Ground mounted with under carriage or four unidirectional/bi-directional rollers
Cooling Medium	Oil Natural Air Natural (ONAN)- Pressed Steel Radiators or Corrugated Finwall or Elliptical Tubes
Tapping	Externally operated Off circuit tap changing switch (OCTC)/ On load tap changer (OLTC) with RTCC panel and AVR as per customer requirement of range and steps
Termination	HV / LV : Bushing / cable box / busduct flange
Safety/Anti theft systems	» Primary expulsion fuse for protection » External circuit breaker for overload and fault protection » Primary surge arrestor for lightening protection » Anti theft measures to prevent theft of transformer oil
Optional fittings	» Buchholz Relay with alarm and trip contacts » Inspection cover » Weather proof marshalling box as per IP 55 » Jacking pads » Pressure relief valve (PRV) with alarm and trip contacts » Dial type winding temperature indicator (WTI) and oil temperature indicator (OTI) with contacts » Magnetic oil level gauge (MOG) with low level alarm contacts

Other Additional Services

- Repair and refurbishment of Power Transformers.
- Supply of spares of reputed transformer make.
- Supervision and commissioning of transformers on site.
- Overhauling and maintenance of transformer on annual contract base.

Maximum Total Losses up to 11kv Class Transformers

(As per IS:1180 (Part-1): 2014 Amendment 4), 3 Phase supply

			Maximum Total Loss (W)					
			Energy Efficiency Level 1		Energy Efficiency Level 2		Energy Efficiency Level 3	
SL. No	Rating (kVA)	Impedance (Percent)	50% Load	100% Load	50% Load	100% Load	50% Load	100% Load
i	100	4.5	475	1650	435	1500	392	1365
ii	160	4.5	670	1950	570	1700	513	1547
iii	200	4.5	780	2300	670	2100	603	1911
iv	250	4.5	980	2930	920	2700	864	2488
v	315	4.5	1025	3100	955	2750	890	2440
vi	400	4.5	1225	3450	1150	3330	1080	3214
vii	500	4.5	1510	4300	1430	4100	1354	3909
viii	630	4.5	1860	5300	1745	4850	1637	4438
ix	800	5.0	2287	6403	2147	5838	2015	5323
x	1000	5.0	2790	7700	2620	7000	2460	6364
xi	1250	5.0	3300	9200	3220	8400	3142	7670
xii	1600	6.25	4200	11800	3970	11300	3753	10821
xiii	2000	6.25	5050	15000	4790	14100	4543	13254
xiv	2500	6.25	6150	18500	5900	17500	5660	16554

Maximum Total Losses (As per IS: 1180 (Part-1) : 2014)

Above **11kV** upto **22kV-> +5 %** of the Maximum Total Loss Values given in above table

Above **22kV** upto **33kV-> +7.5 %** of the Maximum Total Loss Values given in above table

Permissible Limit of Temperature Rise

(As per IS: 1180 (Part-1) : 2014)

Particulars	Oil Temperature Rise	Winding Temperature Rise
Up to and including 200 kVA, 33kV Class transformer	35 °C	40 °C
From 250 kVA, up to including 2500 kVA, 33kV Class transformer	40 °C	45 °C

Testing, Quality & Control:

Every transformer goes through series of tests at every stage throughout the manufacturing process by our well laid Quality Assurance Plan (QAP). All the routine tests are carried out as per applicable standards in our in-house laboratory. Calibration of all instruments is done at regular intervals from NABL accredited labs. Our unit is equipped with modern testing lab, which is developed with an integrated testing panel with the following testing facilities:

- Measurement of no load loss
- Load loss test
- Separate source voltage with stand test
- Induced over voltage withstand test
- Turn ratio & phase polarity test
- Insulation resistance test
- Winding resistance test
- Vector group test
- Magnetic balance test
- Oil leakage test
- Oil dielectric test
- Heat run test
- Temperature rise test
- Paint adhesion test

Other Tests:

- Air Pressure Test
- Measurement of Paint Thickness
- Vacuum Test
- Measurement of Acoustic Sound Level

Our designs have been type tested (Short-circuit withstand and lightening impulse voltage test etc.) in NABL accredited laboratories such as CPRI and ERDA in India.

Select Clientele

LARSEN & TOUBRO	glenmark	NAYASA	Lloyd			KAY JAY FORGINGS
ASTI	MSDHONI	INDO FARM	Rossell Tea Limited		HAB	Lykis Limited
RSPL	LOTUS HERBALS	OM INFRA LTD	Anmol	SBL	RR GLOBAL	Aarti
PRESIDIUM	GARG ACRYLICS LIMITED	taj TECH AUTO	BALAJI WAFERS	PATANJALI	D. GOENKA	TULIPS

Pooja Udyog | Pooja Electrotech Pvt. Ltd.

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District Kangra, Himachal Pradesh
(India)

Sister Concerns:

Jindal Electric & Machinery Corporation (JEMC)
C-57, Phase - IV, Focal Point,
Ludhiana - 141010 (India)

Jindal Electricals
390-A, Industrial Area A,
Ludhiana - 141003 (India)

Jindal Rectifiers
Plot # 195 & 163, Sector-24,
Faridabad - 121005, Haryana (India)

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