

# POWER TRANSFORMERS

Since 1998 OTDS has manufactured its own transformers at our plant situated in Northern Italy. Our plant has a capacity of 1200 pieces per year and employs over 60 people, with an annual turnover in excess of €15m.

The current range of manufacture extends from 15kVA single phase pole mounting type distribution transformers and package substations, up to large power transformers at several MVA. Oil type, Cast resin & Dry type transformers, hermetically sealed or conservator designed, are all within our standard manufacturing range. OTDS Power Transformers are used worldwide in some of the harshest environments. Our units are designed and comply with the national standards of a each market.

OTDS Power Transformers offer standardised transformers used by utility and industries. This enables us to provide competitive pricing along with excellent lead times.



Pole mounted 200kva transformers awaiting inspection



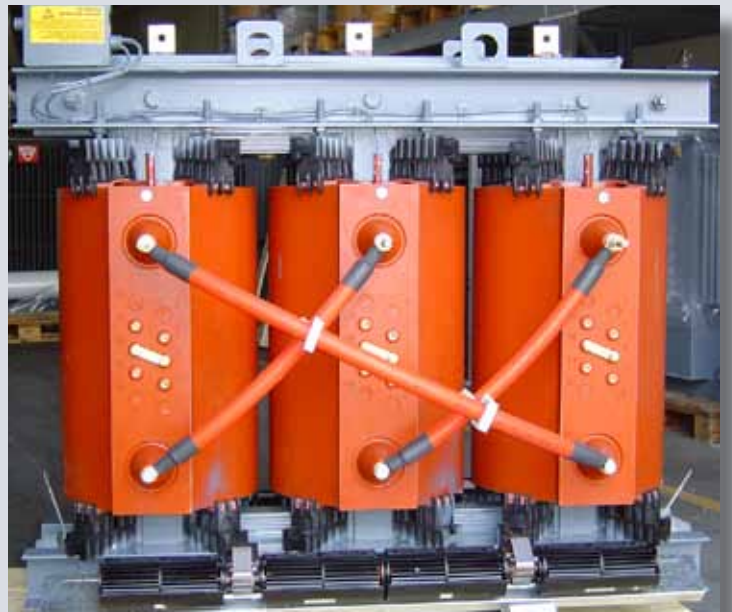
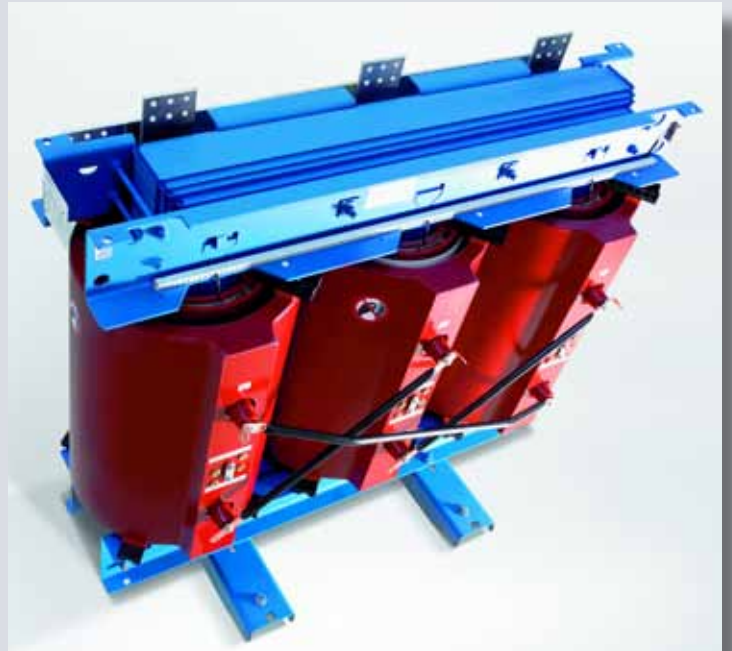
# CAST RESIN TRANSFORMERS

## DESIGN AND STANDARD EQUIPMENT

- Primary voltage up to 24kV.
- Secondary voltage up to 0.5kV.
- Insulation class up to 24kV.
- Connection delta star with neutral.
- Group Dyn11 or Dyn5.
- 50Hz.
- Core with orientated grain.
- Cast resin HV windings.
- Impregnated LV windings.
- Plate for LV connection.
- Rollers.
- Lifting lugs.
- Earthing terminal.
- 3 nos temp sensors PT100.
- Electronic temperature monitoring unit.
- Name plate.
- Protection degree IP00.

## DESIGN AND FITTINGS BY REQUEST

- Double primary voltage.
- Double secondary voltage.
- Various losses / voltages.
- Connection group variation.
- 60Hz frequency.
- Sheet screen between HV/LV windings.
- HV disconnecting bushings.
- Cooling fans.
- IP31 protection box.







# OIL TYPE TRANSFORMERS

## DESIGN AND STANDARD EQUIPMENT

- Brown porcelain bushings for HV.
- Brown porcelain bushings for LV and neutral.
- Tap changer, cover mounted, no load.
- Thermometer pocket.
- Lifting lugs.
- Oil conservator (from 1000kVA to 3000kVA).
- Oil lever (transformers with conservator).
- Silica gel breather (transformers with conservator).
- Bursting valve.
  - relief valve for conservator transformers.
  - Overpressure valve for hermetically sealed units.
- Rollers or skids.
- Drain valve.
- Earthing terminal..
- Name plat.

## DESIGN AND FITTINGS BY REQUEST

Thermometer with two connections N.O  
 Bucholz relay (Conservator transformers)  
 DGPT2 device.

- Double HV.
- Double LV.
- Various losses / voltages.
- Connection group variation.
- 60Hz frequency.
- HV disconnecting bushings.
- Air cable boxes HV / LV.
- Auxiliary terminal box.
- Silicone fillings.
- Sheet screen between HV / LV windings.

Notes:

Between 25kVA to 800kVA oil type transformers are hermitically designed as standard  
 Between 1000kVA & 1600kVA oil type transformers are conservator designed with corrugated tanks  
 For 2000kVA & larger oil type transformers, standard design is radiators and conservator



Radiators type with conservator



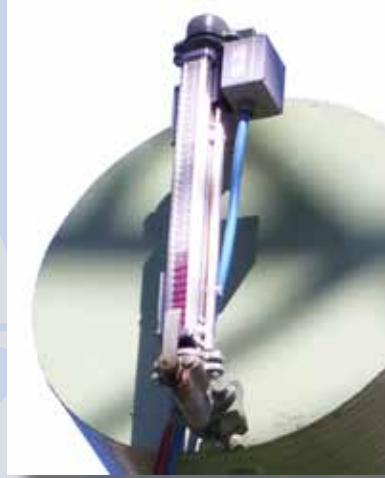
Radiator hermetically sealed type



Corrugated type with conservator



# TRANSFORMER ACCESSORIES





# STANDARD SPECIFICATIONS

## OTDS THREE PHASE OIL IMMERSSED TRANSFORMERS RATED UP TO 24KV / 0.650

KVA	NO LOAD	LOAD LOSSES watts	CURRENT A	IMPEDANCE %	COSFI'1	COSFI' 0.9	LENGTH mm	WIDTH mm	HEIGHT mm	WHEEL BASE mm	OIL Kg WEIGHT	TOT. Kg WEIGHT	LpA (dB)	LwA (dB)
25	200	780	7.0	4	3.15	3.90	780	460	1120	360	65	300	46	55
50	235	1250	5.3	4	2.54	3.62	790	460	1165	360	80	350	46	57
63	250	1500	5.0	4	2.43	3.56	800	550	1175	360	90	400	48	58
100	380	2000	4.0	4	2.06	3.35	920	600	1200	520	120	500	50	59
125	440	2400	4.2	4	1.98	3.28	930	620	1240	520	130	600	50	59
160	500	2900	3.5	4	1.87	3.21	1000	620	1240	520	150	700	55	62
200	660	3250	3.2	4	1.69	3.08	1035	630	1270	520	180	800	56	63
250	770	3950	2.9	4	1.64	3.05	1085	780	1300	520	220	950	58	65
315	990	5000	2.7	4.5	1.67	3.31	1140	745	1360	520	240	1100	60	67
400	1150	6000	2.4	4.5	1.59	3.24	1270	790	1430	670	270	1300	61	68
500	1350	7000	2.2	4.5	1.49	3.17	1355	860	1455	670	330	1500	61	69
630	1850	9000	2.0	6	1.59	3.93	1460	920	1525	670	400	1700	62	70
800	1950	11000	1.9	6	1.54	3.89	1570	990	1590	670	450	2100	62	72
1000	2200	13000	1.8	6	1.47	3.83	1760	1090	1815	820	550	2700	64	73
1250	2500	15200	1.8	6	1.38	3.76	1850	1140	1930	820	660	3250	66	75
1600	3200	19500	1.7	6	1.39	3.77	1950	1250	2100	820	800	3900	68	76
2000	3600	23500	1.7	6	1.34	3.73	2500	1560	2160	1070	900	4600	70	79
2500	4400	26500	1.6	6	1.23	3.64	2620	1680	2220	1070	1000	5400	74	81
3150	5000	32000	1.5	6	1.19	3.61	2700	1720	2300	1070	1200	6400	75	83

## OTDS THREE PHASE CAST RESIN TRANSFORMERS RATED UP TO 24KV / 0.650

KVA	NO LOAD watts	LOAD LOSSES @75°C watts	LOAD LOSSES @120° watts	CURRENT A	IMPEDANCE %	LENGTH-mm	WIDTH-mm	HEIGHT-mm	WHEEL BASE mm	TOT. WEIGHT Kg	LpA (dB)	LwA (dB)
50	380	1780	2000	2.2	6	1050	620	1000	520	530	50	57
100	530	1880	2200	2	6	1100	620	1100	520	600	50	57
160	680	2600	3000	1.9	6	1250	620	1150	520	780	51	62
200	800	2850	3200	1.7	6	1300	620	1180	520	910	52	63
250	900	3300	3800	1.5	6	1350	620	1260	520	1020	54	63
315	1080	4100	4700	1.4	6	1400	800	1340	670	1180	55	66
400	1250	4800	5500	1.3	6	1450	800	1400	670	1350	56	67
500	1400	5800	6700	1.2	6	1500	800	1550	670	1500	56	68
630	1850	6800	7800	1.2	6	1550	850	1600	670	1830	56	69
800	2100	8250	9400	1.1	6	1600	850	1700	670	2150	58	70
1000	2350	9700	11000	1.0	6	1700	1000	1820	820	2600	59	72
1250	2750	11500	13300	1.0	6	1800	1000	1900	820	3050	60	74
1600	3200	14200	16000	0.9	6	1850	1000	2120	820	3570	62	76
2000	3900	17000	19000	0.9	6	1950	1300	2280	1070	4300	64	77
2500	5000	20000	23000	0.8	6	2100	1300	2350	1070	5300	65	79
3150	5700	24500	27000	0.7	6	2200	1300	2410	1070	6450	67	82

Sizes of up to 15MVA and a huge range of designs are available; please contact us for further information.