

## 3000KVA Transformer Compari

S. N	Parameter	UOM	Schnieder Electric	Kirloskar	Voltamp Transforme
1	Name of manufacturer		Schieder Electric	Kisloskar	Voltamp
2	Reference standered		IS 2026	IS 2026	IS 2026
3	KVA Rating	KVA	3000	3000	3000
4	Type of Cooling		ONAN	ONAN	ONAN
5	Class of insulation	Class	A	Not Mentioned	A
6	Rated frequency	Hz	50	50	Not Mentioned
7	No of phase	No	3	3	3
8	Rated Secondary Current	Amp	Not Mentioned	Not Mentioned	Not Mentioned
9	Rated voltage ( kV)	KV	33/ 0.433	33/ 0.433	33/ 0.433
10	Connection Primary		Delta	Delta	Not Mentioned
11	Connection Secondary		Star	Star	Not Mentioned
12	VECTOR GROUP		Dyn11	Dyn11	Dyn11
13	Winding material HV side		Copper	Copper	Copper
14	Winding material LV side		Copper	Copper	Copper
15	Insulation level ( Impulse withstand )(kVpeak) HV	KVpeak	170	170	170
16	Insulation level ( Impulse withstand )(kVpeak) LV	KVpeak	Not Mentioned	Not Mentioned	Not Mentioned
17	Insulation level ( power frequency withstand ) (kVrms) HV	KVrms	70	70	70
18	Insulation level ( power frequency withstand ) (kVrms) LV	KVrms	3	3	3
19	Taping Range		+ 5% to - 15% @ 1.25%	+ 5% to - 15% @ 1.25%	10 % to - 10% @ 1.25%
20	Taping steps		16 steps, 17 Position	16 steps, 17 Position	Not Mentioned
21	Tap change side		HT side	HT side	Not Mentioned
22	Tape Changer type		OLTC+RTCC+AVR	OLTC	OLTC+RTCC+AVR
23	Temperature rise of oil/winding over design ambient temperature of 50(oC)		50 / 55(oC)	50 / 55(oC)	50 / 55(oC)
24	Hot spot temperature rise over a maximum yearly weighted temperature of 32 oC		98.5 oC	Not Mentioned	Not Mentioned
25	Short circuit Thermal withstand time	Sec	2	Not Mentioned	Not Mentioned
26	% Impedance at 75°C, rated current & Frequency	% ( IS Tol )	6.5	6.5	7
27	No Load losses at rated voltage & frequency	Kw (Tol)	3.5	3.8	3.2
28	Losses on 50% Load	Kw (Tol)	Not Mentioned	Not Mentioned	Not Mentioned
29	Full Load losses at rated current & 75 deg C	Kw (Tol)	27	35	31
30	% Efficiency at 100% Load at 0.8 Pf	%	98.75	98.41	Not Mentioned
31	% Efficiency at 75% Load at 0.8 Pf	%	98.97	98.71	Not Mentioned
32	% Efficiency at 50% Load at 0.8 Pf	%	99.15	98.97	Not Mentioned
33	% Efficiency at 25% Load at 0.8 Pf	%	Not Mentioned	99.01	Not Mentioned
34	% Efficiency at 120% Load at uPf	%	Not Mentioned	Not Mentioned	Not Mentioned
35	% Efficiency at 100% Load at uPf	%	98.99	98.72	Not Mentioned
36	% Efficiency at 75% Load at uPf	%	99.18	98.97	Not Mentioned
37	% Efficiency at 50% Load at uPf	%	99.32	99.17	Not Mentioned
38	% Efficiency at 25% Load at uPf	%	Not Mentioned	99.21	Not Mentioned
39	% Load at which Max Efficiency occurs	%	36	32.95	Not Mentioned
40	Maximum Efficiency	%	99.36	Not Mentioned	Not Mentioned
41	Regulation at full load 0.8pf%	%	4.69	4.71	Not Mentioned
42	Regulation at full load upf%	%	1.11	1.36	Not Mentioned
43	Bushing in HT side		Porcelain	Not Mentioned	Not Mentioned
44	Bushing in LT side		Epoxy	Not Mentioned	Not Mentioned
45	Voltage rating of Bushing HT side	KV	12	Not Mentioned	Not Mentioned
46	Voltage rating of Bushing LT side	KV	1	Not Mentioned	Not Mentioned
47	Current rating of Bushing HT side	Amp	250	Not Mentioned	Not Mentioned
48	Current rating of Bushing LT side	Amp	5000	Not Mentioned	Not Mentioned
49	Wiegth of core and winding	Kg	4360	Not Mentioned	Not Mentioned
50	Wiegth of tank and fitting	Kg	4260	Not Mentioned	Not Mentioned
51	Wiegth of Oil	Kg	2790	Not Mentioned	Not Mentioned
52	Total wieght	Kg	11400	Not Mentioned	Not Mentioned
53	Termination HT side		Cable Box 1 run/ph	Cable Box	Bare Bushing
54	Termination LT side		Bus Duct frame	Cable Box	Cable Box
55	Orentation		180 Degree	Not Mentioned	180 Degree
56	Tank Type		CONVENTIONAL TYPE	Not Mentioned	Not Mentioned
57	Insulating Oil		MINERAL OIL As per IS-335 Latest Amendment	Not Mentioned	Not Mentioned

### Scoring Pattern

Color	Marks
	10
	5
	3
	-5

### SCORE CARD AS PER TECHNICAL ANALYSIS

Vendor Name	Score Obtained			
	Dark Green	Light Green	Blue	Red
Schnieder	13	5	1	1
Kirloskar	3	6	3	0
Voltamp	2	1	1	0
Century				
ATS				
Guru Teg Bahadur				
Svaska				