

CE/Testing/Star Rated/DT/

NO 9923

Date: 28 APR 2017

CIRCULAR

Sub: Implementation of revised energy performance standards for Distribution Transformers up to 2500 KVA rating.

In exercise of the powers conferred by clause (a) of section 14 of the Energy Conservation Act, 2001, the Central Government in consultation with the Bureau of Energy Efficiency, has amended its notification i.e. S.O. 185(E) dated 12th Jan, 2009 vide S.O. No. 4062(E) dated 16th December 2016 and further amended vide S.O. No. 513(E) for distribution transformer dated 17/02/2017.

In reference with the said gazette of ministry of power ref no. S.O. No. 4062(E) dated 16th December 2016; energy performance standards for the distribution transformer have been revised in the star rating band.

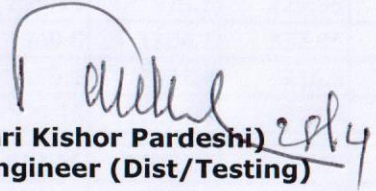
Accordingly the energy efficiency Level-1 of IS 1180(Part1):2014 is removed and energy efficiency Level 2 and Level-3 are re-designated as Star-1 and Star-2. As per the said notification the said revision have to be implemented from 01st Jan 2017 onwards.

However, now as per amendment notification no. S.O. No. 513(E), dated 17/02/2017 it is to inform that **the energy efficiency Level-1(old star-3) distribution transformers shall remain valid up to 30th June 2017. And Energy efficiency Level-2(revised star 1) distribution transformers shall be considered for procurement in various schemes up to 2500 KVA rating, with effect from 1st July 2017 onwards.**

The revised Star Rating and Standard Losses in Watts up to 11KV and 22KV class for 16 KVA to 2500KVA Outdoor Type Distribution Transformer are enclosed herewith as Annexure-A for ready reference.

This is for your information and further immediate necessary action please.

Encl: As Above.


(Shri Kishor Pardeshi)
Chief Engineer (Dist/Testing)

Copy s. w. r to:

- 1) The Director (Finance), / Director (Operations)/Director (Projects), MSEDCL.
- 2) The Executive Director, 1/1I/III/IV, MSEDCL.
- 3) The Regional Director, Pune/Konkan/Aurangabad/Nagpur, MSEDCL.

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- 1) The Chief Engineer (Comm.)/APDRP/INFRA/PP/Stores/Civil, MSEDCL
- 2) All Chief Engineer, O & M Zones, MSEDCL

Copy to:

- 1) The OSD to Chairman & Managing Director, MSEDCL.
- 2) All Superintending Engineers, O&M Circles, MSEDCL.

Maximum Total Losses for 11KV class Distribution Transformers

RATING TRANSFORMER CAPACITY IN KVA	1 STAR		2 STAR		3 STAR		4 STAR		5 STAR	
	MAX LOSSES AT 50% (WATTS)	MAX LOSSES AT 100% (WATTS)	MAX LOSSES AT 50% (WATTS)	MAX LOSSES AT 100% (WATTS)	MAX LOSSES AT 50% (WATTS)	MAX LOSSES AT 100% (WATTS)	MAX LOSSES AT 50% (WATTS)	MAX LOSSES AT 100% (WATTS)	MAX LOSSES AT 50% (WATTS)	MAX LOSSES AT 100% (WATTS)
16	135	440	120	400	108	364	97	331	87	301
25	190	635	175	595	158	541	142	493	128	448
63	340	1140	300	1050	270	956	243	870	219	791
100	475	1650	435	1500	392	1365	352	1242	317	1130
160	670	1950	570	1700	513	1547	462	1408	416	1281
200	780	2300	670	2100	603	1911	543	1739	488	1582
250	980	2930	920	2700	864	2488	811	2293	761	2113
315	1025	3100	955	2750	890	2440	829	2164	772	1920
400	1225	3450	1150	3330	1080	3214	1013	3102	951	2994
500	1510	4300	1430	4100	1354	3909	1282	3727	1215	3554
630	1860	5300	1745	4850	1637	4438	1536	4061	1441	3717
1000	2790	7700	2620	7000	2460	6364	2310	5785	2170	5259
1250	3300	9200	3220	8400	2142	7670	3066	7003	2991	6394
1600	4200	11800	3970	11300	3753	10821	3547	10363	3353	9924
2000	5050	15000	4790	14100	4543	13254	4309	12459	4088	11711
2500	6150	18500	5900	17500	5660	16554	5430	15659	5209	14813

Maximum Total Losses for 22KV class Distribution Transformers

RATING TRANSFORMER CAPACITY IN KVA	1 STAR		2 STAR		3 STAR		4 STAR		5 STAR	
	MAX LOSSES AT 50% (WATTS)	MAX LOSSES AT 100% (WATTS)	MAX LOSSES AT 50% (WATTS)	MAX LOSSES AT 100% (WATTS)	MAX LOSSES AT 50% (WATTS)	MAX LOSSES AT 100% (WATTS)	MAX LOSSES AT 50% (WATTS)	MAX LOSSES AT 100% (WATTS)	MAX LOSSES AT 50% (WATTS)	MAX LOSSES AT 100% (WATTS)
16	141.75	462	126	420	113.4	382.2	101.85	347.55	91.35	316.05
25	199.5	666.75	183.75	624.75	165.9	568.05	149.1	517.65	134.4	470.4
63	357	1197	315	1102.5	283.5	1003.8	255.15	913.5	229.95	830.55
100	498.75	1732.5	456.75	1575	411.6	1433.25	369.6	1304.1	332.85	1186.5
160	703.5	2047.5	598.5	1785	538.65	1624.35	485.1	1478.4	436.8	1345.05
200	819	2415	703.5	2205	633.15	2006.55	570.15	1825.95	512.4	1661.1
250	1029	3076.5	966	2835	907.2	2612.4	851.55	2407.65	799.05	2218.65
315	1076.25	3255	1002.75	2887.5	934.5	2562	870.45	2272.2	810.6	2016
400	1286.25	3622.5	1207.5	3496.5	1134	3374.7	1063.65	3257.1	998.55	3143.7
500	1585.5	4515	1501.5	4305	1421.7	4104.45	1346.1	3913.35	1275.75	3731.7
630	1953	5565	1832.25	5092.5	1718.85	4659.9	1612.8	4264.05	1513.05	3902.85
1000	2929.5	8085	2751	7350	2583	6682.2	2425.5	6074.25	2278.5	5521.95
1250	3465	9660	3381	8820	2249.1	8053.5	3219.3	7353.15	3140.55	6713.7
1600	4410	12390	4168.5	11865	3940.65	11362.05	3724.35	10881.15	3520.65	10420.2
2000	5302.5	15750	5029.5	14805	4770.15	13916.7	4524.45	13081.95	4292.4	12296.55
2500	6457.5	19425	6195	18375	5943	17381.7	5701.5	16441.95	5469.45	15553.65