



Oil-Immersed

S13-M Energy-Saving Sealed Distribution Transformer

The S13-M series is an energy-saving distribution transformer whose core uses high-permeability grain-oriented silicon steel; through optimised design its no-load loss is about 30% lower on average than the S11 type, making it a next-generation energy-saving product second only to S(B)H15 amorphous-alloy transformers — with excellent cost-performance. It is suitable for power plants (stations), substations (distribution stations) and industrial, commercial and building applications.

MODEL DESIGNATION

S 13 - M - □/□

S three-phase oil-immersed
M sealed construction

13 performance-level series
□/□ rated capacity (kVA) / voltage class (kV)

TECHNICAL SPECIFICATIONS

Rated voltage	6 / 6.3 / 10 / 10.5 / 11 kV
Rated capacity	30 – 1600 kVA (larger on request)
LV voltage	0.4 kV
Connection	Dyn11 / Yyn0
Tap range	±5% or ±2×2.5%
No-load loss	0.080 – 1.170 kW
Load loss	0.60 – 14.5 kW
No-load current	2.3% – 0.8%
Short-circuit impedance	4.0% (30–500 kVA) / 4.5% (630–1600 kVA)
Cooling	ONAN
Standards	GB 1094 / GB 20052 / GB/T 6451-2015 / IEC 60076

RATINGS & LOSSES

S13-M oil-immersed sealed distribution transformer — HV 6/6.3/10/10.5/11 kV, LV 0.4 kV, Dyn11 / Yyn0. No-load loss ~30% below S11. Load loss at Dyn11 connection. Per GB 1094 / GB/T 6451.

Capacity (kVA)	No-load loss (kW)	Load loss (kW)	No-load current (%)	Impedance Uk (%)
30	0.08	0.63	2.3	4
50	0.1	0.91	2	4
63	0.11	1.09	1.9	4
80	0.13	1.31	1.9	4
100	0.15	1.58	1.8	4
125	0.17	1.89	1.7	4
160	0.2	2.31	1.6	4
200	0.24	2.73	1.5	4
250	0.29	3.2	1.4	4
315	0.34	3.83	1.4	4
400	0.41	4.52	1.3	4
500	0.48	5.41	1.2	4
630	0.57	6.2	1.1	4.5
800	0.7	7.5	1	4.5
1000	0.83	10.3	1	4.5
1250	0.97	12	0.9	4.5
1600	1.17	14.5	0.8	4.5