



Oil-Immersed

S20-M NX2 Grade-2 Efficiency Oil-Immersed Transformer

The S20-M series fully-sealed oil-immersed power transformer offers low loss, low noise and high efficiency for good energy savings and reduced pollution. Compared with ordinary oil-immersed transformers it dispenses with the conservator: oil-volume changes are automatically compensated by the elasticity of the corrugated-fin tank, isolating the oil from air to slow oil deterioration and insulation ageing - enhancing reliability with maintenance-free normal operation.

MODEL DESIGNATION

S 20 - M - □/□

S three-phase
M fully sealed

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

TECHNICAL SPECIFICATIONS

Rated voltage	6 / 6.3 / 10 kV
Rated capacity	30 – 2500 kVA
LV voltage	0.4 kV
Connection	Yyn0 / Dyn11
Tap range	±5% or ±2×2.5%
No-load loss	0.070 – 1.440 kW
Load loss	0.48 – 14.84 kW
No-load current	1.5% – 0.4%
Short-circuit impedance	4.0% / 4.5% / 5.0%
Efficiency	National Energy-Efficiency Grade 2
Standards	GB 1094 / GB 20052 / GB/T 6451 / IEC 60076

KEY FEATURES

- Core stacked from imported high-quality cold-rolled silicon steel and bound — greatly cuts no-load loss and no-load current, and lowers noise
- Dyn11 connection reduces harmonics and improves supply quality
- Measured noise level below the national standard
- Oxygen-free copper windings: LV ≤ 500 kVA double-layer cylindrical, ≥ 630 kVA double / four-helix or copper-foil; HV multi-layer cylindrical
- Corrugated-fin fully-sealed tank — no conservator, long life, no core-lifting, maintenance-free

NORMAL OPERATING ENVIRONMENT

- ▶ Altitude not exceeding 1000 m (special environments noted separately)
- ▶ Outdoor minimum temperature -25°C
- ▶ Ambient temperature not higher than $+40^{\circ}\text{C}$
- ▶ Transformers for special operating conditions available on request

RATINGS & LOSSES

S20-M NX2 Grade-2 energy-efficiency oil-immersed transformer (GB 20052 Grade 2) — HV 6/6.3/10 kV, LV 0.4 kV, Dyn11 / Yyn0. Load loss at Dyn11 connection. Per GB 1094 / GB 20052.

Capacity (kVA)	No-load loss (kW)	Load loss (kW)	No-load current (%)	Impedance Uk (%)
30	0.07	0.505	1.5	4
50	0.09	0.73	1.3	4
63	0.1	0.87	1.2	4
80	0.115	1.05	1.2	4
100	0.135	1.265	1.1	4
125	0.15	1.51	1.1	4
160	0.18	1.85	1	4
200	0.215	2.185	1	4
250	0.26	2.56	0.9	4
315	0.305	3.065	0.9	4
400	0.37	3.615	0.8	4
500	0.43	4.33	0.8	4
630	0.51	4.96	0.6	4.5
800	0.63	6	0.6	4.5
1000	0.745	8.24	0.6	4.5
1250	0.87	9.6	0.5	4.5
1600	1.05	11.6	0.5	4.5
2000	1.225	14.64	0.4	5
2500	1.44	14.84	0.4	5