

ZiyaoPower SCB18 Dry-Type Transformer

Technical Datasheet

1. Application

ZiyaoPower **SCB series dry-type transformers** are manufactured using **epoxy-resin vacuum casting** (thin insulating tape encapsulation with degassed resin poured under high vacuum). The cast resin process produces a solid, void-free winding block with excellent moisture resistance, partial discharge <10 pC, and a design service life exceeding 30 years.

Typical applications: hospitals, data centers, commercial complexes, airports, metro/subway stations, industrial plants, high-rise buildings, and renewable energy substations.

Efficiency Classification: Grade 1 Energy Efficiency■NX1,Top Tier■per GB20052-2020

2. Technical Parameters

Rated High Voltage	10 kV (11/20/33 kV customizable)
Rated Low Voltage	0.4 kV
Rated Frequency	50 Hz / 60 Hz
Tap Range (HV Side)	±2×2.5%
Vector Group	Dyn11 / Yyn0
Insulation Class	F (155°C) / H (180°C)
Cooling Method	AN (Natural Air) / AF (Forced Air, 40-50% overload)
Enclosure Protection	IP00 / IP20 / IP23
Applicable Standards	GB 20052-2020, IEC 60076-11, GB/T 10228

3. Loss & Performance Data

Model	kVA	P0(W)	P1(W)	η(%)	kNo	Noise(dB)	kg	mm	mm	mm
SCB18-200	200	403	2429	1.1	4.0	56	580	1350	820	1200
SCB18-315	315	550	3511	0.9	4.0	58	913	1500	900	1300
SCB18-400	400	651	4294	0.8	4.0	58	1160	1600	950	1350
SCB18-500	500	749	5174	0.7	4.0	58	1130	1700	1000	1400
SCB18-630	630	861	6125	0.7	6.0	60	1368	1800	1050	1450
SCB18-800	800	1001	7392	0.6	6.0	60	1592	1900	1100	1500
SCB18-1000	1000	1155	8686	0.6	6.0	62	2260	2000	1150	1550
SCB18-1250	1250	1365	10270	0.5	6.0	62	2488	2100	1200	1600
SCB18-1600	1600	1610	12338	0.5	6.0	63	3184	2200	1300	1700
SCB18-2000	2000	1960	14626	0.5	6.0	63	3620	2400	1400	1800
SCB18-2500	2500	2310	17415	0.5	6.0	66	4520	2600	1500	1900

Weight and dimensions are approximate. Contact ZiyaoPower for certified outline drawings.

4. Key Features

- 1. Epoxy-resin vacuum-cast winding: void-free solid block, superior moisture resistance, zero delamination risk
- 2. Low partial discharge (<10 pC): long-term insulation integrity in humid environments
- 3. Fire-safe and self-extinguishing: no toxic gas emission, suitable for occupied buildings
- 4. Maintenance-free: no oil change, no leakage, no gasket degradation
- 5. Low-noise design: 10~15 dB below JB/T 10088 limits at rated load

6. Built-in PT100 temperature sensors with optional fan control relay
7. Tropicalization available: anti-condensation heaters for >95% RH environments
8. Lifting lugs, bi-directional rollers, vibration damping pads included

5. Standards & Certifications

- IEC 60076-11: Power Transformers - Dry-type
- GB/T 10228: Technical specification for dry-type power transformers
- GB 20052-2020: Minimum allowable values of energy efficiency
- ISO 9001: Quality Management System
- CCC: China Compulsory Certification
- CE: European Conformity Marking
- Type tested: temperature rise, lightning impulse, and short-circuit withstand

6. How to Order

Specify: **SCB18-[kVA]/[HV kV]-[LV kV] [Vector Group] [Cooling] [IP]**

Example: **SCB18-1000/10-0.4 Dyn11 AN IP20**

Available options:

- Forced-air cooling (AF) for 40% overload
- Temperature controller with RS485
- IP23 weatherproof enclosure
- Custom voltage: 11/20/33 kV
- Anti-vibration pads
- 5-year extended warranty

ZiyaoPower Electrical Co., Ltd.

www.ziyaopower.com | sales@ziyaopower.com

This datasheet is for reference only. Specifications subject to change without notice.