

ZiyaoPower SCB14 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 2 Energy Efficiency **■NX2■** per GB20052-2020 — verified ≤NX2 limits with margin

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)	P120(W)	η(%)	kN	Noise(dB)	Weight(kg)	W(mm)	H(mm)	W(mm)	H(mm)
SCB14-100	100	338	1665	1.4	4.0	54	340	1200	720	1050	
SCB14-200	200	518	2484	1.2	4.0	57	608	1350	820	1200	
SCB14-315	315	707	3591	1.0	4.0	59	958	1500	900	1300	
SCB14-400	400	837	4392	0.9	4.0	59	1216	1600	950	1350	
SCB14-500	500	963	5292	0.8	4.0	59	1188	1700	1000	1400	
SCB14-630	630	1107	6264	0.8	6.0	61	1436	1800	1050	1450	
SCB14-800	800	1287	7560	0.7	6.0	61	1672	1900	1100	1500	
SCB14-1000	1000	1485	8883	0.7	6.0	63	2375	2000	1150	1550	
SCB14-1250	1250	1755	10503	0.6	6.0	63	2613	2100	1200	1600	
SCB14-1600	1600	2070	12618	0.6	6.0	64	3344	2200	1300	1700	
SCB14-2000	2000	2520	14958	0.5	6.0	64	3800	2400	1400	1800	
SCB14-2500	2500	2970	17811	0.5	6.0	67	4750	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: **SCB14-[kVA]/[HV kV]-[LV kV] [Vector Group] [Cooling] [IP]**

Example: **SCB14-1000/10-0.4 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

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