TDGC2J series variable autotransformer, 0.5kVA - 5kVA

Continuously adjustable single-phase AC supply from 0 to 250V, taken from a carbon brush running over a single-layer copper winding on a toroidal core. The standard instrument for bench testing, motor speed trim, heater control and burn-in racks where a switching supply would inject harmonics into the test.

HOW THE VARIAC DIFFERS FROM A FIXED TRANSFORMER

A fixed step transformer gives you one output voltage and no adjustment. A Variac gives you any voltage between zero and its ceiling, continuously and steplessly, from one winding. The trade-off is duty: the brush contact is rated for intermittent operation, so a Variac asked to sit at a fixed output for hours should be derated to about 60% of its nameplate, or replaced with a fixed-ratio transformer plus a tap changer. A Variac also provides no isolation from the mains - add an isolation transformer wherever the load under test must float.

MODEL RANGE

Model	Capacity	Input	Output	Dial
TDGC2J-0.5	0.5VA	220V (110V to order)	0-250V	Pointer / digital
TDGC2J-1	1VA	220V (110V to order)	0-250V	Pointer / digital
TDGC2J-2	2VA	220V (110V to order)	0-250V	Pointer / digital
TDGC2J-3	3VA	220V (110V to order)	0-250V	Pointer / digital
TDGC2J-5	5VA	220V (110V to order)	0-250V	Pointer / digital

ELECTRICAL SPECIFICATION

Winding	Single-layer copper winding on a toroidal core, carbon brush tap
Number of phases	Single phase
Input voltage	220VAC standard; 110V and other voltages to order
Output voltage	0 to 250VAC continuously adjustable
Frequency	50 / 60 Hz
Duty	Intermittent; derate to about 60% of rating for continuous output
Protection	Input fuse; over-current protection to order
Cooling	Natural air convection
Mounting	Bench case or panel-mount frame
Compliance	CE, RoHS; produced under an ISO 9001 quality system

TYPICAL APPLICATIONS

- Laboratory bench testing

Sweep a device from 0 to 250V to find its operating window.

- Motor and fan speed control

Voltage-based trim on shaded-pole and small universal motors.

- Heater and oven control

Stepless power adjustment for drying, curing and heat treatment.

- Transformer and relay testing

Pick-off voltages for turns-ratio and pick-up / drop-out checks.

- Ageing and burn-in racks

Adjustable supply for batch soak testing.

- Studio and stage lighting

Resistive lamp dimming without triac harmonics.

ORDERING INFORMATION

Minimum order quantity	1 pc for standard models. Trial orders below MOQ can be discussed for first-time buyers.
Custom / OEM orders	50 pcs for custom voltage, custom socket layout, branded front panel or non-standard capacity.
Sample policy	1-2 pcs for verified buyers. Sample lead time 3-5 working days.
Production lead time	10-20 working days for standard models; 15-25 working days for OEM or custom builds.
Packing	Export carton with foam, carton quantity as per the model table.
Payment terms	100% TT in advance for samples and retail orders; 30% deposit, balance before shipment for bulk.
Shipping	FOB Ningbo. CIF and door-to-door available on request.
Warranty	12 months from the delivery date.

Documentation	Packing list and routine test report standard. CE, RoHS, IEC declarations and ISO 9001 records on request.

Request a quotation

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