

# OUTDOOR ISOLATION TRANSFORMERS



## I. General Information

Equipment Type	Dry-Type Isolation Transformer
Application	Electrical isolation, noise attenuation, harmonic mitigation
Installation	Indoor / Outdoor

## II. Basic Parameters

Rated Capacity	125 kVA
Number of Phases	Three Phase
Frequency	50 Hz
Input Voltage	400 V (3-phase - 4W)
Output Voltage	400 V (3-phase - 4W)
Vector Group	Yyn0
Neutral Availability	Fully rated neutral brought out
Neutral Earthing	Solidly grounded / as per system design

## III. Isolation Features

Electrostatic Shield	Copper shield between primary & secondary
Shield Grounding	Dedicated earthing terminal
Isolation Type	Galvanic isolation
Purpose	Transient suppression & noise reduction

#### IV. Environmental Conditions

Ambient Temperature	-5°C to +50°C
Protection Class	IP55
Relative Humidity	≤ 95% (non-condensing)
Altitude	≤ 1000 m
Corrosion Protection	Anti-corrosion coating
UV Protection	UV-resistant powder coating
Dust Protection	Removable washable filters

#### V. Electrical Performance

Rated Current	180 A
Efficiency	98% @ full load & 50°C
Short Circuit Impedance	4%
Short Circuit Withstand	2 seconds
No-load Current	≤ 1.5%
No-load Loss	≤ 665 W
Load Loss	≤ 2350 W
Insulation Resistance	≥ 500 MΩ @ 500 VDC
Dielectric Strength	3.5 kV / 60 sec

#### VI. Insulation & Thermal

Insulation Class	Class H (180°C)
Temperature Rise	≤ 80 K
Max Temperature	180°C
Cooling Method	AN / AF (auto fan control)

#### VII. Harmonic & Load Capability

K-Factor	K-13 (or as required)
Load Type	Suitable for VFD, UPS, Solar

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### VIII. Mechanical Construction

Winding Material	Copper
Core Material	CRGO Steel
Enclosure	Powder-coated CRCA
Color	RAL 7035
Cooling Fans	Dual redundant
Cable Entry	Bottom entry with glands
Earthing	Dual earth + shield grounding
Dimensions (WxDxH)	1000 × 650 × 1350 mm
Mounting	Floor mounted (≥200 mm base)
Weight	580 kg

### IX. Protection & Monitoring

Temperature Protection	75°C–155°C, @fan starts at 75°C & @over-temperature alarm at 155°C
Alarm	Dry contact for EMS
Communication	RS485 (Modbus RTU)
Fan Monitoring	Fault & run indication
Optional	Winding Temperature Indicator

### X. Standards & Compliance

IEC 60076  
GB 1094

### XI. Noise Level

Sound Level	≤ 70 dB @ 1m
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### XII. Warranty

Transformer	3 Years
Fans	1 Year