



TRANSFORMERS – DRY TYPE,
OIL FILLED, AMORPHOUS ALLOY CORE

TGOOD

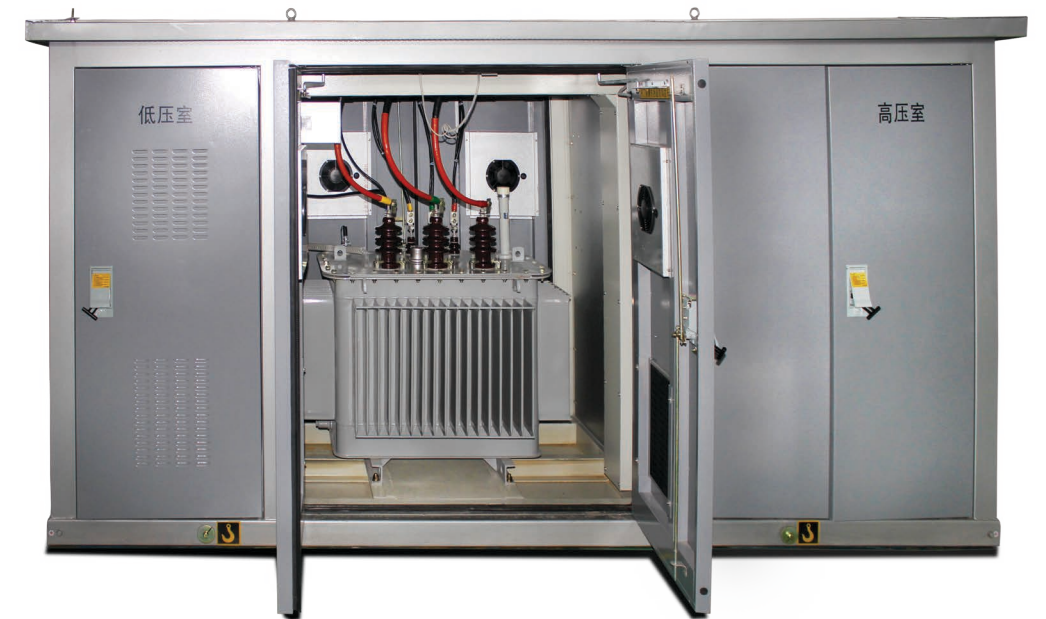
Energy. Fast.

tgood.com

TGOOD produces transformers for over 5000 prefabricated substation and switchgear units annually

PRODUCT OVERVIEW

- > Dry Type, Oil Filled, Amorphous Alloy Core, and Padmount Transformers
- > Rated capacity 10kVA to 31,500kVA
- > Primary Voltage 4160V to 35kV
- > Secondary Voltage 120V to 10kV
- > Best-in-class lead times measured in weeks, not months
- > Built and tested to IEC and relevant European safety standards



KEY BENEFITS

SUPERIOR PERFORMANCE

- > No-load loss reduced by up to 67% compared to previous generation transformers
- > Intelligent temperature controllers provide online monitoring and programmable alarm and trip functions
- > Exceptional weatherproofing with sealed iron cores for strong condensation and corrosion resistance
- > Advanced shearing equipment eliminates burrs on iron cores
- > Low noise designs ideal for use in congested urban environments

DESIGNED AND TESTED TO IEC STANDARDS

- > IEC60076-2006
Technical parameters and requirements of three-phase oil-immersed power transformer
- > IEC76-1-1993
Power transformer part I: general
- > IEC76.2-1993, IEC60076-2-1993
Power transformer part II: temperature rise
- > IEC60076-3:2000
Power transformer part III: insulation level, insulation test and external insulation air gap
- > IEC60076-5:2006
Power transformer part V: ability to withstand short-circuit
- > IEC60050-321:1986
Technical parameters and requirements of oil-immersed amorphous alloy iron core distribution transformer

DRY TYPE TRANSFORMERS

KEY FEATURES

- > Coil encased in epoxy resin
- > Cold-rolled silicon electrical steel core
- > Non-flammable and non-explosive design ideal for Oil and Gas and Coal Mining applications



TYPICAL SPECIFICATIONS DRY TYPE TRANSFORMERS

Item	Unit	Specification
Primary Voltage	kV	4.16, 6.3, 10, 13.8, 24.7, 35
Secondary Voltage	V	120, 208, 240, 400, 600
Rated Capacity	kVA	≤4000
Frequency	Hz	50, 60
Connection of Winding		Dyn11;Yyn0
Tapping Range	%	±2.5/5.0
Full Load Efficiency	%	≥98
Insulation Class		F
Temperature Rise	°C	100
Altitude	metres above sea level*	≤ 1000
Ambient Temperature	°C	≤ 40

*Higher altitudes available with suitable de-rating.



OIL FILLED TRANSFORMERS

KEY FEATURES

- > Integral part of power distribution networks; also an ideal choice for wind power generation projects
- > Cold-rolled silicon electrical steel core
- > Conservator tanks available
- > Fan cooled configurations available



TYPICAL SPECIFICATIONS OIL FILLED TRANSFORMERS

Item	Unit	Specification
Primary Voltage	kV	4.16, 6.3, 10, 13.8, 24.7, 35
Secondary Voltage	V	120, 208, 240, 400, 600
Rated Capacity	kVA	≤31,500
Frequency	Hz	50, 60
Connection of Winding		Yyno; Dyn11; Yd11; Ynd11
Tapping Range	%	±2.5/5.0
Full Load Efficiency	%	≥98
Insulation Class		A
Temperature Rise	°C	60
Cooling Method		ONAN/ONAF
Altitude	metres above sea level*	≤1000
Ambient Temperature	°C	-30** to +40

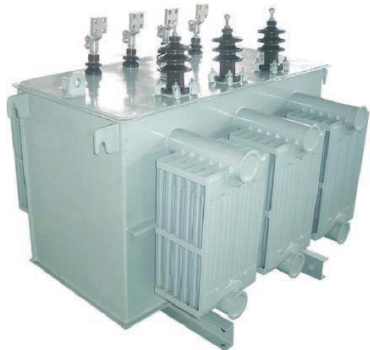
*Higher altitudes available with suitable de-rating.
**Lower temperatures available with arctic-grade insulating oil.



AMORPHOUS ALLOY CORE TRANSFORMERS

KEY FEATURES

- › Oil cooled design
- › Fully sealed structure reduces maintenance and prolongs life
- › Manufactured under vacuum to completely eliminate air bubbles
- › Low voltage winding utilizes copper foil to increase short-circuit withstand time



TYPICAL SPECIFICATIONS AMORPHOUS ALLOY CORE TRANSFORMERS

Item	Unit	Specification
Primary Voltage	kV	4.16, 6.3, 10, 13.8, 24.7, 35
Secondary Voltage	V	120, 208, 240, 400, 600
Rated Capacity	kVA	≤2500
Frequency	Hz	50, 60
Connection of Winding		Dyn11
Tapping Range	%	±2.5/5.0
Full Load Efficiency	%	≥98.5
Insulation Class		A
Temperature Rise	°C	60
Cooling Method		ONAN
Altitude	metres above sea level*	≤ 1000
Ambient Temperature	°C	-30** to +40

*Higher altitudes available with suitable de-rating.
**Lower temperatures available with arctic-grade insulating oil.



PADMOUNT TRANSFORMERS

KEY FEATURES

- Integral part of power distribution networks, also an ideal choice for wind power generation projects
- Superior overload capabilities allow transformer to operate for 2 hours under 1.6x overload and 90 minutes under 2x overload
- Affordable dual protection-fuse design: one plug-in fuse to manage overload and one standby fuse to manage short circuit



TYPICAL SPECIFICATIONS PADMOUNT TRANSFORMERS

Item	Unit	Specification
Primary Voltage	kV	4.16, 6.3, 10, 13.8, 24.7, 35
Secondary Voltage	V	120, 208, 240, 400, 600
Rated Capacity	kVA	100, 125, 160, 200, 315, 400, 500, 630, 800, 1000
Frequency	Hz	50, 60
Connection of Winding		Dyn11;Yyn0
Tapping Range	%	±2.5/5.0
Full Load Efficiency	%	≥98
Withstand Voltage, 1 min (phase-to-phase/phase-to-ground)	kV	35/85
Lighting Impulse Voltage (phase-to-phase/phase-to-ground)	kV	75/135
Secondary Withstand Voltage, 1 min (phase-to-phase/phase-to-ground)	kV	2.5 (main circuit)
		2.0 (control and metering circuit)
Cooling Method		ONAN
Noise Level	dB	50
Protection Level		IP34

*Higher altitudes available with suitable de-rating.



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