

# AC - DC Rectifier Transformer



## General Data

Rectifier transformers supply the required AC voltage to rectifier units in AC-to-DC systems. Their isolated windings provide electrical separation, reduce waveform distortion, and improve rectifier performance. Available in single-phase, three-phase, 6-pulse or 12-pulse configurations, they can be customized for specific voltage and current requirements.

## Features

- Separate primary and secondary windings for electrical isolation and safer rectification
- Designed to handle high harmonic currents and non-linear rectifier loads
- Supports 6-pulse, 12-pulse and custom rectifier configurations
- Optional AC input tapping for voltage compensation or specific DC output requirements

## Technical Data

Product	AC - DC Rectifier Transformer
Series	SDC (Single Phase) / TDC (Three Phase)
Power (Capacity)	1 KVA – 300 KVA
Input Voltage (Primary)	AC 100 – 1000 V
Input Frequency	50 / 60 Hz
Output Voltage (Secondary)	DC 12 – 500 V
Insulation Class	Class F (155°C), Class H (180°C)
Ambient Temperature (Max)	40°C
Cooling type	Natural Air Cool, Focred Air Cool
Test/Insulating Voltage	3 KVac
Insulation Resistance	> 300 MΩ
Duty Cycle	100% (Continuous)

## Construction / Protection

Protection Class	Class I
Short-Circuit Protection	Non short-circuit proof

## Enclosure

Protection Type	IP 22 (Indoor)
Enclosure Material	Electro Galvanized Steel Sheet
Enclosure Finishing	RAL 7032 (Powder Coated)

## Standards & Compliance

Compliance	IEC 61558-1, IEC 60076-1
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# Marine & Offshores Transformer



## General Data

Marine and offshore transformers are engineered for reliable performance in harsh maritime environments. Built with high-quality insulation materials and corrosion-resistant components, they ensure stable operation under vibration, humidity, and salt-laden conditions. Varnish impregnation improves mechanical strength, reduces noise, and protects against moisture and corrosion.

## Features

- Dry-type construction with low maintenance requirements
- Rugged construction for continuous duty and dependable performance
- Moisture-resistant varnish impregnation to protect windings and extend service lifespan
- Designed to withstand vibration, humidity, and salt-air exposure in marine environments

## Technical Data

Product	Marine & Offshores Transformer
Series	TMO
Power (Capacity)	10 KVA – 1000 KVA
Phase	Three Phase
Input Voltage (Primary)	100 – 1000 Vac (Delta)
Output Voltage (Secondary)	100 – 1000 Vac (Delta)
Vector Group	Dd0 (Default) / Dyn11 (Upon Request)
Frequency	50 / 60 Hz
Insulation Class	Class H (180°C)
Ambient Temperature (Max)	45°C
Cooling type	Natural Air Cool (Capacity: < 250 KVA) Forced Air Cool (Capacity: ≥ 250 KVA)
Winding Material	Copper
Test/Insulating Voltage	3 KVac
Insulation Resistance	> 1000 MΩ
Duty Cycle	100% (Continuous)

## Construction / Protection

Protection Class	Class I
Short-Circuit Protection	Non short-circuit proof

## Enclosure

Protection Type	IP 22 / IP 23
Enclosure Material	Electro Galvanized Steel Sheet
Enclosure Finishing	RAL 7032 (Powder Coated)

## Standards & Compliance

Compliance	IEC 60076-11
Marine class certification available upon request	DNV, ABS, NK, LR, BV, KR, CR, CCS

# Marine Transformer Bank



## General Data

Transformer banks are designed for marine three-phase systems using three single-phase transformers. In the event of a transformer failure, the system can continue operating in an open-delta (V–V) configuration at approximately 57% of full capacity, allowing critical loads to remain online and maintaining system reliability.

## Features

- Dry-type construction with low maintenance requirements
- Open-delta capability allows continued operation if one transformer fails
- Rugged construction for continuous duty and dependable performance
- Moisture-resistant varnish impregnation to protect windings and extend service lifespan

## Technical Data

Product	Marine & Offshores Transformer
Series	TMO
Power (Capacity)	10 KVA – 300 KVA (3 Pcs x Single Phase Transformer)
Phase	Three Phase
Input Voltage (Primary)	100 – 1000 Vac (Delta)
Output Voltage (Secondary)	100 – 1000 Vac (Delta)
Vector Group	Dd0 (Default) / Dyn11 (Upon Request)
Frequency	50 / 60 Hz
Insulation Class	Class H (180°C)
Ambient Temperature (Max)	45°C
Cooling type	Natural Air Cool
Winding Material	Copper
Test/Insulating Voltage	3 KVac
Insulation Resistance	> 1000 MΩ
Duty Cycle	100% (Continuous)

## Construction / Protection

Protection Class	Class I
Short-Circuit Protection	Non short-circuit proof

## Enclosure

Protection Type	IP 22 / IP 23
Enclosure Material	Electro Galvanized Steel Sheet
Enclosure Finishing	RAL 7032 (Powder Coated)

## Standards & Compliance

Compliance	IEC 60076-11
Marine class certification available upon request	DNV, ABS, NK, LR, BV, KR, CR, CCS

# Auto Transformer For Motor / Pump Starting



## General Data

Auto transformers are used in motor and pump starter applications to reduce the voltage supplied to the motor during startup. This controlled voltage drop lowers inrush current, reduces mechanical stress, and helps extend equipment lifespan. The dry-type design ensures reliable performance with minimal maintenance.

## Features

- Limits high inrush current during motor or pump startup
- Reduces mechanical stress on shafts, bearings, and couplings
- Compact, dry-type construction with minimal maintenance
- Moisture-resistant varnish impregnation to protect windings and extend service lifespan

## Technical Data

Product	Auto Transformer For Motor / Pump Starting
Series	ATMS
Power (Capacity)	100 KW – 1500 KW
Phase	Three Phase
Duty Cycle	60 Seconds / Hour
Rated Voltage	380V / 415 / 440 / 480 / 690V
Tapping	50%, 65%, 75% (Default)
Vector Group	Open Star
Frequency	50 / 60 Hz
Insulation Class	Class H (180°C)
Ambient Temperature (Max)	40°C
Cooling type	Natural Air Cool
Winding Material	Copper
Test/Insulating Voltage	3 KVac
Insulation Resistance	> 1000 MΩ

## Construction / Protection

Degree of Protection	IP 00
Protection Class	Class I
Short-Circuit Protection	Non short-circuit proof

## Standards & Compliance

Compliance	IEC 60076-11
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