

IT

Electrical transformers and autotransformers

IT: Simple concepts, effective solutions

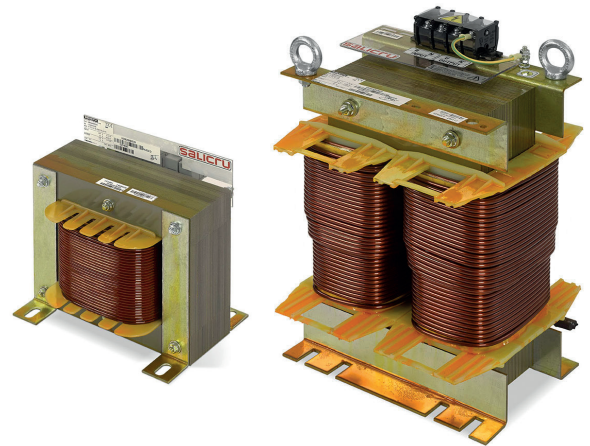
SALICRU has been designing and manufacturing low voltage electrical transformers and autotransformers for more than 50 years, for use as **IT series** standalone solutions, or integrated within its wide range of power electronics solutions (uninterruptible power supplies, voltage stabilisers, rectifiers, etc.). At the same time, we have continuously improved our own production methods and processes in order to meet the needs of our customers and also for special requirements.

Single-phase and three-phase transformers are used as electrical isolation for reducing mains disturbances or adjusting the level of voltage coming from the grid. Autotransformers, on the other hand, with their serially-connected coils that do not provide galvanic isolation, have the function of converting one voltage to another, and, as such, are a more economical solution than transformers.

The transformers and autotransformers from SALICRU's **IT series** are of the dry variety, made from low-loss magnetic plate and windings impregnated with class-H resin, and connected by means of clamp terminals or screws for pressure terminals. They can be manufactured with other voltages, regulation sockets, additional electrostatic screens, heat shields, etc., on request.

Features

- Class F insulators.
- Ventilation by natural convection (ANAN).
- Insulation class H windings.
- Power range: 1 kVA - 300 kVA.
- Single-phase Ii0 and three-phase Dyn11 ⁽¹⁾ connection configuration.
- Factors available: K-4, K-13 and K-20.
- Low magnetising current.
- Versions available: box or panel mounting.
- Eye bolts on units weighing more than 15 kg.
- Typical voltages up to 750 V.
- Low heat loss.
- Low weight and compact dimensions.
- Impregnation: Synthetic polymerised resin – oven at 130°C.



(1) Others available on request

IT series

Applications: Adaptation and/or filtering of the supply voltage

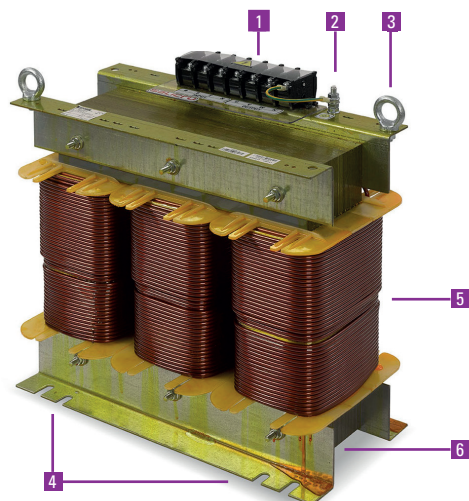
Transformers are used in different types of industry, construction, energy technology and marine applications, such as electric motors, compressors, converters, cooling systems, UPSs and IT/TN networks. On the request of the customer, transformers can be manufactured for different voltages and frequencies, and feature, for example, an electrostatic screen between the primary and secondary windings, different finishes, wheels or other attachments.

And autotransformers are used for adapting the voltage of the mains supply to the voltage required to power all kinds of load and machinery.



Versions

Panel mounting



1. Input/output terminal
2. Earth bolt
3. Eye bolts for elevation
4. Fixing point
5. Windings
6. Magnetic plate

Box



- Degree of protection: IP23
- Other degrees of protection available on request
- Colour RAL 7035

TECHNICAL SPECIFICATIONS

MODEL		IT series		
ELECTRICAL	Input/output	Single-phase	Three-phase	
	Power range	1 ÷ 100 kVA	3 ÷ 300 kVA	
	Power factor	1		
	Connection group	li0	Dyn11 ⁽¹⁾	
INPUT	Voltagess	100 ÷ 750 V	3 x 190 ÷ 750 V	
	Frequency	50 / 60 Hz		
	Magnetising current	< 6 In		
OUTPUT	Voltagess	100 ÷ 750 V	3 x 190 ÷ 750 V	
	Frequency	50 / 60 Hz		
	Performance	> 95%		
	Voltage drop (100% load)	< 4%	< 5%	
	Heat loss	Vacuum	< 1.5%	
		100% load	< 4.5%	< 5%
	Short-circuit voltage	< 2.6%	< 3.1%	
MANUFACTURE	Insulators	Insulation class F (155°C)		
	Windings	Insulation class H (180°C)		
	Windings material	Aluminium		
	Impregnation	Synthetic polymerised resin – oven at 130°C		
	Ventilation	ANAN		
GENERAL	Version	Panel mounting or metal box		
	Colour (box version)	RAL 7035		
	Eye bolts for elevation	Yes, on units weighing more than 15 kg		
	Degree of protection	IP00 panel mounted version - IP23 boxed version		
	Isolation voltage	3000 V input/output for 1 minute		
	Terminal type	Screw terminals		
	Maximum operating altitude	2,400 masl		
	Operating temperature	-25°C ÷ +40°C (climate class C2)		
	Storage temperature	-25°C ÷ +75°C		
	Relative humidity	Up to 95% non-condensing		
	OPTIONAL	K factor	K-4 / K-13 / K-20	
Windings material		Copper		
Wheels		For devices in box version		
STANDARDS	Safety	EN 61558-2-4 / EN 60076-11		
	Quality and Environmental Management	ISO 9001 and ISO 14001		

Information subject to change without notice.

(1) Others available on request

RANGE

MODEL	TYPE	POWER (kVA / kW)	VOLTAGE	PRESENTATION
IT-T	Transformer	1 ÷ 100	Single-phase/Single-phase	Panel mounting
IT-T	Transformer	1 ÷ 100	Single-phase/Single-phase	Box
IT-T	Transformer	1 ÷ 300	Three-phase/Three-phase	Panel mounting
IT-T	Transformer	1 ÷ 300	Three-phase/Three-phase	Box
IT-ATR	Autotransformer	1 ÷ 100	Single-phase/Single-phase	Panel mounting
IT-ATR	Autotransformer	1 ÷ 100	Single-phase/Single-phase	Box
IT-ATR	Autotransformer	1 ÷ 300	Three-phase/Three-phase	Panel mounting
IT-ATR	Autotransformer	1 ÷ 300	Three-phase/Three-phase	Box

For other powers and versions, please enquire.

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