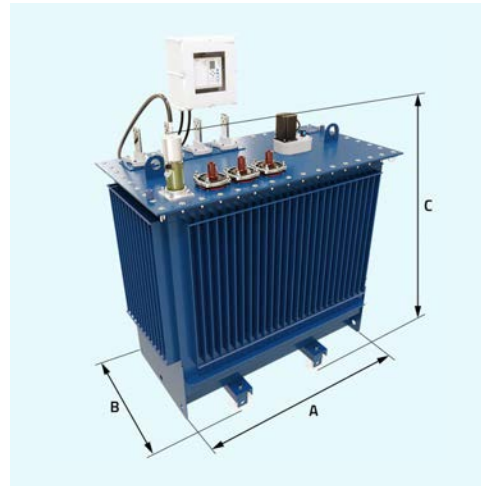


TRANSFORMERS

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Distribution transformer for smart grids



Distribution transformer with on-load tap changer (OLTC) combined with the ekor.tsm control unit.
Option to operate the tap changer manually or automatically in order to adjust LV voltage to a setpoint value. The ekor.tsm control unit is scalable, from standalone solutions with local control, through to communicable solutions with the option of remote control.
This solves LV grid stability problems caused by load imbalances, seasonal loads, long lines or the integration of electric mobility or distributed generation in the grid.

General characteristics

General design	oil-filled sealed transformer
Rated power	250-630 kVA*
Primary rated voltage	up to 36 kV
Secondary rated voltage, no-load	400-420 V
Cooling	ONAN - KNAN
Tank	elastic with corrugated walls (fins)
Tap changer	on load (OLTC)
Coolant	mineral oil**
Windings material	aluminium or copper
Ferromagnetic core material	grain oriented magnetic steel

(*) Other powers ratings and characteristics on request.

(**) other dielectrics available with the option Organic / Organic Synth

Optional characteristics available



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Transformers designed according to the requirements of the European Commission's Ecodesign Directive (Regulations 548/2014, 2016/2282 and 2019/1783, Tier 2), valid for the European Economic Area (EEA: European Union, Iceland, Liechtenstein and Norway) and the rest of the world where they are accepted.

Electrical characteristics (Rated primary voltage 24 kV)				
Rated power	[kVA]	250	400	630
Secondary rated voltage (U ₂)	[V]		420	
Vector group			Dyn11	
No-load losses P ₀	[W]	297	426	594
Load losses P _k	[W]	2350	3250	4600
Short-circuit impedance at 75°C	(%)		4	
Acoustic power level L _{wA}	[dB]	46	50	52
Dimensions				
Maximum length (level A)	(mm)	1290	1330	1350
Maximum width (level B)	(mm)	810	910	910
Maximum height (level C)	(mm)	1715	1885	2015
Magnetic core weight	(kg)	790	925	1300
Aluminium conductors weight	(kg)	230	330	450
Dielectric liquid weight	(kg)	448	470	496
Dielectric liquid volume	(L)	515	540	570
Total weight	(kg)	1850	2250	2850

Electrical characteristics (Rated primary voltage 36 kV)				
Rated power	[kVA]	250	400	630
Secondary rated voltage (U ₂)	[V]		420	
Vector group			Dyn11	
No-load losses P ₀	[W]	342.1	489.5	683
Load losses P _k	[W]	2585	3575	5060
Short-circuit impedance at 75°C	(%)		4.5	
Acoustic power level L _{wA}	[dB]	51	54	56
Dimensions				
Maximum length (level A)	(mm)	1286	1286	1300
Maximum width (level B)	(mm)	812	832	890
Maximum height (level C)	(mm)	1815	1945	2065
Magnetic core weight	(kg)	605	800	1045
Aluminium conductors weight	(kg)	185	285	365
Dielectric liquid weight	(kg)	483	505	506
Dielectric liquid volume	(L)	555	580	582
Total weight	(kg)	1800	2200	2700

NOTE: The data in this document are for guidance only. For further information, please ask Ormazabal.

