Single-phase Autotransformer

Series ATM/200

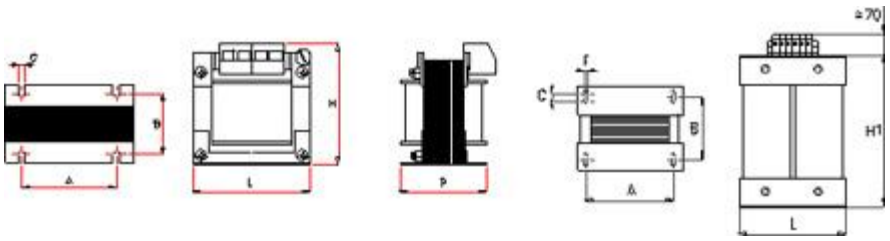
Power from 300VA to 30kVA
230/400V

Technical features

- Single-phase auto transformers with ratio 230/400V built according to CE standards CEI 96.1 for power up to 1000VA, and CEI- 14-8 for exceeding powers, or IEC 61558-1 and IEC 61558-2-13
- Dual terminals for winding "0"
- Insulation material group F
- Ambient temperature max. 40 °C
- Degree of protection IP 00
- Class F varnish dipped and oven dried
- Different minimum and maximum voltage ratios, dimensions and prices are available upon request

Dimensions and drillings

Reference Number	Rated Output	Dissipated Power (W)	Efficiency (%)	Dimensions			Drillings				Weight (Kg)	Fig.
				L	P	H	A	B	F	G		
ATM/201	300 VA	24	92	96	86	92	68	63	5	-	2	1
ATM/202	400 VA	30	92,5	96	101	92	68	78	5	-	3,2	1
ATM/203	500 VA	38	92,4	120	90	111	80	65	6,5	-	4	1
ATM/204	750 VA	48	93,6	120	105	111	80	80	6,5	-	5	1
ATM/205	1kVA	60	94	120	125	111	80	100	6,5	-	6,5	1
ATM/206	1,5 kVA	82	94,5	150	120	150	105	80	7	-	8	1
ATM/207	2 kVA	104	94,8	150	140	150	105	100	7	-	10,7	1
ATM/208	2,5 kVA	120	95,2	180	150	170	115	100	8	-	14,1	1
ATM/209	3 kVA	137	95,4	180	160	170	115	110	8	-	15,8	1
ATM/210	4 kVA	171	95,7	180	180	170	115	130	8	-	18,6	1
ATM/211	5 kVA	151	96,9	180	210	170	115	160	8	-	23,1	2
ATM/212	6 kVA	187	96,8	200	140	255	150	100	23	9	19,6	2
ATM/213	8 kVA	207	97,4	200	170	255	150	130	23	9	25,6	2
ATM/214	10 kVA	244	97,6	200	180	255	150	140	23	9	29,5	2
ATM/215	12,5 kVA	315	97,5	240	170	305	205	130	30	9	35,2	2
ATM/216	15 kVA	372	97,5	240	180	305	205	140	30	9	39,7	2
ATM/217	20 kVA	415	97,9	280	190	355	230	140	30	12	50	2
ATM/218	25 kVA	534	97,8	280	210	355	230	160	30	12	57,6	2
ATM/219	30 kVA	600	98	280	240	355	230	190	30	12	68,5	2



The data indicated could change without notice

Technical notes

Single and three-phase autotransformers mainly feature a single winding, which works either as a primary or a secondary; thus input/output galvanic insulation does not exist.
The more the ratio between minimum and maximum voltages nears the value 1, the more the autotransformers are inexpensive. Besides the economical aspect, compared to equivalently powered transformers, there are also high efficiency and low working losses to be considered.
To determine the physics dimension of the autotransformer, the core power must be considered:

PC = PO x (1 – Vm/VM)

(PO = rated output power / Vm = min. voltage / VM = max. voltage)

This value represents the power which is actually transformed, while the other is supplied directly from the mains supply.
The most frequent use is that which requests a voltage adaptation when a galvanic
insulation from mains is not required. A typical example is an apparatus built to work on 380V and the mains supply is 415V.
With all single-phase autotransformers, OV connection is repeated twice to facilitate the wiring and avoid having to insert two wires in the same terminal.
The three-phase auto transformers have a neutral connection in the terminal block, which is advisable to connect to the mains supply neutral (when present), thus avoiding over voltage in respect to earth on the line at a lower voltage.
The most frequently used and traditional is the star-connection, which is also the simplest to
make; although triangle, zigzag and other connections are possible.
It is possible to build three-phase auto transformers with special connections, which create a
neutral, if this is not already provided by the mains supply, but needed to connect single-phase units; in this case, please contact our technicians to define the exact parameters.