

Three-Phase Transformers

4AP, 4AU Safety, Isolating, Control and Mains Transformers

4AP, 4AU transformers
with selectable voltages

Overview

- 4AP and 4AU transformers configured as isolating, control and mains transformers according to EN 61558-2-4, -2-2, -2-1, or as safety, control and mains transformers according to EN 61558-2-6, -2-2, -2-1, or as autotransformers according to EN 61558-2-13 with selectable input and output voltages in the power range from 0.025 kVA to 16 kVA (for autotransformers = type rating) and additional options

• CE, cULus

- 4AP: $t_a = 40\text{ °C/B}$, 4AU: $t_a = 55\text{ °C/H}$

- Standard vector group: Dyn5, for autotransformer: Ya0



4AP20 (figure on the left) and 4AU (figure on the right)



Selection and ordering data



PU (UNIT, SET, M) = 1
PS = 1 unit (You can order this quantity or a multiple thereof.)
PG = 104

Rated power ¹⁾ P_n with degree of protection			Short-time rating P_{short}	Selectable rated voltages U_{1N} , U_{2N}	DT ²⁾	Order No. stem	Basic price per PU	Additional price for standard options					Cu weight per PU approx.	Transformer weight per PU approx.	Total weight incl. enclosure per PU approx.
IP00	IP23	IP54						Two tapplings in the range $\pm 5\%$ of the rated input or output voltage for constant power	One tapping on the input or output side for falling power; neutral point connected to terminal ³⁾	One additional separate winding on the input or output side	Shield winding (connection routed to terminal). This is not possible for autotransformers.				
kVA	kVA	kVA	kVA								kg	kg	kg		
4AP transformers															
0.16	0.14	0.11	--	12 ... 690 V, (line-to-line voltage U_L)	B	4AP17 4		x	x	x	x	0.700	3.100	6.000	
0.25	0.23	0.2	--		B	4AP18 4		x	x	x	x	1.250	4.400	7.300	
0.4	0.35	0.32	--		B	4AP19 4		x	x	x	x	1.100	5.400	8.300	
0.63	0.57	0.44	1.8	Y or Δ for cULus max. 600 V (including tapplings)	B	4AP20 4		x	x	x	x	2.800	7.100	15.100	
1	0.9	0.8	3.5		B	4AP21 4		x	x	x	x	3.300	10.700	18.700	
1.6	1.44	1.12	6.9		B	4AP25 4		x	x	x	x	3.700	17.700	25.700	
2.5	2.25	2	11		B	4AP27 4		x	x	x	x	4.800	23.800	31.800	
4	3.2	2.8	20		B	4AP30 4		x	x	x	x	8.000	34.300	42.300	
5	4	3.5	25		B	4AP30 5		x	x	x	x	12.700	39.700	47.700	
4AU transformers															
6.3	5	4.4	28	24 ... 690 V, (line-to-line voltage U_L)	B	4AU30 3		x	x	x	x	11.600	42.000	50.000	
8	6.8	5.6	31.5		B	4AU36 1		x	x	x	x	10.000	52.000	66.000	
10	8	7.1	39		B	4AU36 3		x	x	x	x	15.000	57.000	71.000	
12.5	10	8.8	49	Y or Δ for cULus max. 600 V (including tapplings)	B	4AU39 1		x	x	x	x	17.200	67.000	81.000	
16	12.5	11.2	55		B	4AU39 3		x	x	x	x	30.000	81.000	95.000	

Additional prices for degree of protection IP00, IP23 and IP54 see page 10/62.

Before ordering, please ask for the complete Order No. (see page 10/4 for the inquiry/order address).

x = additional price

¹⁾ For autotransformers = type rating.

²⁾ The delivery time class B depends on the quantity.

³⁾ With three-phase transformers, an additional price is charged for neutral point connected to terminal $1/3$.

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Options for the enclosures of three-phase transformers ≤ 16 kVA in degree of protection IP00, IP23 or IP54



Order No. stem	Rated power ¹⁾			Short-time rating <i>P</i> _{shortt.} kVA	Additional price for the options			PU (UNIT, SET, M)	PS*	PG
	Degree of protection IP00, standard version	Degree of protection IP23	Degree of protection IP54		Degree of protection IP00, standard version	Degree of protection IP23	Degree of protection IP54			
	<i>P</i> _n kVA	<i>P</i> _n kVA	<i>P</i> _n kVA							
4AP transformers										
4AP17 4	0.16	0.14	0.11	--	without	x	x	1	1 unit	104
4AP18 4	0.25	0.23	0.2	--	without	x	x	1	1 unit	104
4AP19 4	0.4	0.35	0.32	--	without	x	x	1	1 unit	104
4AP20 4	0.63	0.57	0.44	1.8	without	x	x	1	1 unit	104
4AP21 4	1	0.9	0.8	3.5	without	x	x	1	1 unit	104
4AP25 4	1.6	1.44	1.12	6.9	without	x	x	1	1 unit	104
4AP27 4	2.5	2.25	2	11	without	x	x	1	1 unit	104
4AP30 4	4	3.2	2.8	20	without	x	x	1	1 unit	104
4AP30 5	5	4	3.5	25	without	x	x	1	1 unit	104
4AU transformers										
4AU30 3	6.3	5	4.4	28	without	x	x	1	1 unit	104
4AU36 1	8	6.8	5.6	31.5	without	x	x	1	1 unit	104
4AU36 3	10	8	7.1	39	without	x	x	1	1 unit	104
4AU39 1	12.5	10	8.8	49	without	x	x	1	1 unit	104
4AU39 3	16	12.5	11.2	55	without	x	x	1	1 unit	104

Please inquire about other transformer enclosures.

x = additional price

¹⁾ For autotransformers = type rating.

Options

- Rating plates made of metal
One separately packed rating plate made of metal can be supplied per 4AP transformer.

Additional price on request.

- Deviations from the standard vector groups Dyn5 or Ya0 for autotransformers must be specified when ordering.