

Three-Phase Transformers

4BU Power Transformers

4BU transformers with selectable voltages

Overview

- 4BU power transformers and 4BU power transformers with **cULus** approval configured as matching, auto-¹⁾ or converter transformers with selectable input and output voltages from 100 V to 1000 V (line-to-line voltage U_L) Υ or Δ in the power range from 18 kVA to 400 kVA and additional options
- According to DIN VDE 0532-6
- **CE**, **cULus**²⁾ (see Selection and Ordering Data)
- $t_a = 40$ °C/H and optional $t_a = 55$ °C/H
- Standard vector group: Dyn5, for autotransformer: Ya0



4BU

¹⁾ For autotransformers = type rating.

²⁾ **cULus** approvals for voltages ≤ 600 V (incl. tappings) and degree of protection IP00. **cULus** approval for degrees of protection IP20 and IP23 is planned for 2007.

Selection and ordering data

4BU power transformers



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		DT ³⁾	Order No. stem	Basic price per PU	Additional price for standard options						Cu weight ⁵⁾ per PU approx.	Trans- former weight ⁵⁾ per PU approx.	Total weight ⁵⁾ incl. enclosure per PU approx.
IP00, IP20 ²⁾	IP23				Two tappings in the range ±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 ⁴⁾	One additional separate winding on the input or output side	Shield winding (connection routed to terminal). Not possible for autotransformers.	Installation in protective enclosures IP20, IP23	Rated ambient temperature t _a = 55 °C/H			
kVA	kVA									kg	kg	kg	
18	16	B	4BU43 32		x	x	x	x	x	21.000	101.000	145.000	
20	18	B	4BU43 42		x	x	x	x	x	27.000	105.000	149.000	
22.5	20	B	4BU43 52		x	x	x	x	x	36.000	115.000	159.000	
25	22.5	C	4BU45 32		x	x	x	x	x	26.000	131.000	175.000	
28	25	C	4BU45 42		x	x	x	x	x	34.000	139.000	183.000	
31.5	28	C	4BU47 32		x	x	x	x	x	30.500	166.000	210.000	
35.5	32	C	4BU47 42		x	x	x	x	x	40.000	174.000	218.000	
40	36	C	4BU47 52		x	x	x	x	x	52.500	188.000	232.000	
45	40.5	C	4BU52 32		x	x	x	x	x	49.000	185.000	236.000	
50	45	C	4BU53 32		x	x	x	x	x	52.000	205.000	256.000	
56	50	C	4BU53 42		x	x	x	x	x	67.000	219.000	270.000	
63	56.5	C	4BU54 32		x	x	x	x	x	46.500	262.000	323.000	
71	63.5	C	4BU54 42		x	x	x	x	x	60.500	276.000	337.000	
80	72	C	4BU55 32		x	x	x	x	x	65.000	306.000	367.000	
91	81.5	C	4BU56 32		x	x	x	x	x	68.000	343.000	404.000	
100	90	C	4BU56 42		x	x	x	x	x	84.500	359.000	420.000	
112	100.5	C	4BU58 32		x	x	x	x	x	60.500	425.000	530.000	
125	112.5	C	4BU58 42		x	x	x	x	x	76.500	440.000	545.000	
140	126	C	4BU58 52		x	x	x	x	x	97.500	462.000	567.000	
160	144	C	4BU59 32		x	x	x	x	x	104.000	516.000	621.000	
180	162	C	4BU60 32		x	x	x	x	x	106.000	579.000	684.000	
200	180	C	4BU62 32		x	x	x	x	x	112.000	678.000	813.000	
225	202.5	C	4BU62 42		x	x	x	x	x	146.000	711.000	846.000	
250	225	C	4BU62 52		x	x	x	x	x	185.000	751.000	886.000	
280	252	C	4BU63 32		x	x	x	x	x	187.000	834.000	969.000	
315	283.5	C	4BU63 42		x	x	x	x	x	244.000	891.000	1026.000	
355	319.5	C	4BU64 32		x	x	x	x	x	251.000	997.000	1132.000	
400	360	C	4BU65 32		x	x	x	x	x	280.000	1128.000	1263.000	

x = additional price

¹⁾ For autotransformers = type rating.

²⁾ No power reduction for ambient temperatures ≤ 40 °C.

³⁾ The delivery time class B depends on the quantity.

⁴⁾ With three-phase transformers, an additional price is charged for neutral point connected to terminal $1/3$.

⁵⁾ All weights are based on $t_a = 40$ °C/H, at $t_a = 55$ °C/H other weights apply.

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

Options see page 10/85.

Three-Phase Transformers

4BU Power Transformers

**4BU transformers
with selectable voltages**

4BU power transformers with **cAUs** approval¹⁾



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

Rated power ²⁾ P_N with degree of protection		DT ⁴⁾	Order No. stem	Basic price per PU	Additional price for standard options						Cu weight ⁶⁾ per PU approx. kg	Transformer weight ⁶⁾ per PU approx. kg	Total weight ⁶⁾ incl. enclosure per PU approx. kg
IP00, IP20 ³⁾	IP23				Two tappings 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 ⁵⁾	One additional separate winding on the input or output side	Shield winding (connection routed to terminal). Not possible for autotransformers.	Installation in protective enclosures IP20, IP23	Rated ambient temperature $t_a = 55^\circ\text{C/H}$			
kVA	kVA												
18	16	B	4BU43 33		x	x	x	x	x	x	21.500	102.000	146.000
20	18	B	4BU43 43		x	x	x	x	x	x	27.500	109.000	153.000
22.5	20	B	4BU43 53		x	x	x	x	x	x	37.000	118.000	162.000
25	22.5	C	4BU45 33		x	x	x	x	x	x	27.000	135.000	179.000
28	25	C	4BU45 43		x	x	x	x	x	x	35.000	143.000	187.000
31.5	28	C	4BU47 33		x	x	x	x	x	x	31.500	169.000	213.000
35.5	32	C	4BU47 43		x	x	x	x	x	x	41.000	179.000	223.000
40	36	C	4BU47 53		x	x	x	x	x	x	55.000	194.000	238.000
45	40.5	C	4BU52 33		x	x	x	x	x	x	50.500	191.000	242.000
50	45	C	4BU53 33		x	x	x	x	x	x	53.500	212.000	263.000
56	50	C	4BU53 43		x	x	x	x	x	x	69.500	229.000	280.000
63	56.5	C	4BU54 33		x	x	x	x	x	x	48.000	267.000	328.000
71	63.5	C	4BU54 43		x	x	x	x	x	x	62.000	282.000	343.000
80	72	C	4BU55 33		x	x	x	x	x	x	66.500	314.000	375.000
91	81.5	C	4BU56 33		x	x	x	x	x	x	70.500	353.000	414.000
100	90	C	4BU56 43		x	x	x	x	x	x	87.000	370.000	431.000
112	100.5	C	4BU58 33		x	x	x	x	x	x	61.500	430.000	535.000
125	112.5	C	4BU58 43		x	x	x	x	x	x	77.500	449.000	554.000
140	126	C	4BU58 53		x	x	x	x	x	x	99.000	470.000	575.000
160	144	C	4BU59 33		x	x	x	x	x	x	106.000	527.000	632.000
180	162	C	4BU60 33		x	x	x	x	x	x	108.000	590.000	695.000
200	180	C	4BU62 33		x	x	x	x	x	x	117.000	684.000	819.000
225	202.5	C	4BU62 43		x	x	x	x	x	x	152.000	732.000	867.000
250	225	C	4BU62 53		x	x	x	x	x	x	192.000	775.000	910.000
280	252	C	4BU63 33		x	x	x	x	x	x	209.000	872.000	1007.000
315	283.5	C	4BU63 43		x	x	x	x	x	x	253.000	920.000	1055.000
355	319.5	C	4BU64 33		x	x	x	x	x	x	281.000	1031.000	1166.000
400	360	C	4BU65 33		x	x	x	x	x	x	291.000	1154.000	1289.000

x = additional price

1) **cAUs** approvals for voltages ≤ 600 V (incl. tappings) and degree of protection IP00. **cAUs** approval for degrees of protection IP20 and IP23 is planned for 2007.

2) For autotransformers = type rating.

3) No power reduction for ambient temperatures $\leq 40^\circ\text{C}$.

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

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

6) All weights are based on $t_a = 40^\circ\text{C/H}$, at $t_a = 55^\circ\text{C/H}$ other weights apply.

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

Options

• Thermistor transformer protection for warning and/or disconnection
The 4BU power transformers can be supplied with thermistor transformer protection for warning and/or disconnection, see Technical Information LV 1 T "General Data" --> "Design".

PG = 104

For transformer Type	Additional price for Warning	Disconnection	Warning and disconnection
4BU	x	x	x

• Rating plates made of metal
One separately packed rating plate made of metal can be supplied per 4BU transformer.
Additional price on request.

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

Further versions with higher outputs up to 1250 kVA are available on request.