

Isolating transformer TT3



General Data

Rated input voltage 3 x 400 Vac
Rated output voltage 3 x 380 - 3 x 420 Vac
Rated power 1000 - 30000 VA
Insulation class F
Maximum ambient temperature 50 °C
Efficiency up to 97.5 %
Degree of protection IP 00
Optionally adapted package for higher degrees of protection (see data table)

Advantages

Safe galvanic isolation
Patented assembly technology to lower heat losses
Very good corrosion protection and low noise thanks to BLOCKIMPEX vacuum impregnation
Secondary side ± 5 % tapings for voltage adjustment
Fixed, contact protected screw connection terminals complying with UVV VBG3
Multifunctional fixing rails with 12 oval slots
Enlarged fixing rail for easy installation from above
Integrated crane eyes

Applications

Isolating transformer for the safe electrical isolation of the input and output sides. The transformer may be used to set up protective separation as a protective measure in accordance with VDE 0100.

Standards



Isolating transformer
to: VDE 0570 Teil 2-4, DIN EN 61558-2-4, EN 61558-2-4, IEC 61558-2-4,
UL 5085-1/-2, CSA 22.2 No.66

Certifications



UL 5085-1/-2, CSA 22.2 No.66



Isolating transformer TT3

Type	TT3 1-4-4	TT3 2,5-4-4	TT3 5-4-4	TT3 6,3-4-4	TT3 8-4-4	TT3 10-4-4
Electrical data						
Input						
Rated input Voltage	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac
Frequency range	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Output						
Rated output voltage	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac
Rated Power	1000 VA	2500 VA	5000 VA	6300 VA	8000 VA	10000 VA
Rated current	3 x 1.52 Aac (3 x 380 Vac) 3 x 1.44 Aac (3 x 400 Vac) 3 x 1.38 Aac (3 x 420 Vac)	3 x 3.8 Aac (3 x 380 Vac) 3 x 3.7 Aac (3 x 400 Vac) 3 x 3.5 Aac (3 x 420 Vac)	3 x 7.6 Aac (3 x 380 Vac) 3 x 7.2 Aac (3 x 400 Vac) 3 x 6.9 Aac (3 x 420 Vac)	3 x 9.6 Aac (3 x 380 Vac) 3 x 9.1 Aac (3 x 400 Vac) 3 x 8.6 Aac (3 x 420 Vac)	3 x 12.2 Aac (3 x 380 Vac) 3 x 11.5 Aac (3 x 400 Vac) 3 x 11 Aac (3 x 420 Vac)	3 x 15.1 Aac (3 x 380 Vac) 3 x 14.4 Aac (3 x 400 Vac) 3 x 13.8 Aac (3 x 420 Vac)
Short circuit voltage	6.4 %	3.7 %	3.6 %	2.8 %	2.2 %	1.9 %
Power loss	92.0 W	155.0 W	275.0 W	290.0 W	320.0 W	350.0 W
Tappings Output (±)	±5 %	±5 %	±5 %	±5 %	±5 %	±5 %
Vector group	Dyn 5	Dyn 5	Dyn 5	Dyn 5	Dyn 5	Dyn 5
Efficiency	91.5 %	94.3 %	94.7 %	95.5 %	96 %	96.5 %
Approvals						
Approvals	cURus	cURus	cURus	cURus	cURus	cURus
Environment						
Ambient temperature max.	50 °C	50 °C	50 °C	50 °C	50 °C	50 °C
Safety and protection						
Type	open type	open type	open type	open type	open type	open type
Class of Insulation System	VDE=F, UL=class 155	VDE=F, UL=class 155	VDE=F, UL=class 155	VDE=F, UL=class 155	VDE=F, UL=class 155	VDE=F, UL=class 155
Protection index	IP 00	IP 00	IP 00	IP 00	IP 00	IP 00
Safety class (prepared)	I	I	I	I	I	I
Short circuit strength	non-short-circuit proof	non-short-circuit proof	non-short-circuit proof	non-short-circuit proof	non-short-circuit proof	non-short-circuit proof
Order numbers						
Order Number without housing	TT3 1-4-4	TT3 2,5-4-4	TT3 5-4-4	TT3 6,3-4-4	TT3 8-4-4	TT3 10-4-4
Order Number in housing IP23	TT3 1-4-4-23	TT3 2,5-4-4-23	TT3 5-4-4-23	TT3 6,3-4-4-23	TT3 8-4-4-23	TT3 10-4-4-23

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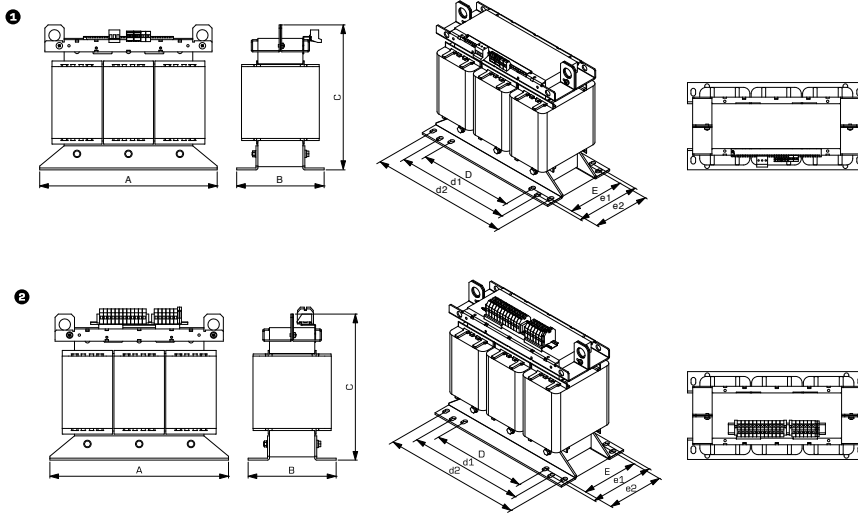
Type	TT3 12,5-4-4	TT3 16-4-4	TT3 20-4-4	TT3 25-4-4	TT3 30-4-4
Electrical data					
Input					
Rated input Voltage	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac
Frequency range	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Output					
Rated output voltage	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac
Rated Power	12500 VA	16000 VA	20000 VA	25000 VA	30000 VA
Rated current	3 x 19 Aac (3 x 380 Vac) 3 x 14.4 Aac (3 x 400 Vac) 3 x 19 Aac (3 x 420 Vac)	3 x 24.4 Aac (3 x 380 Vac) 3 x 23.1 Aac (3 x 400 Vac) 3 x 22 Aac (3 x 420 Vac)	3 x 30.4 Aac (3 x 380 Vac) 3 x 28.9 Aac (3 x 400 Vac) 3 x 27.5 Aac (3 x 420 Vac)	3 x 38.1 Aac (3 x 380 Vac) 3 x 36.1 Aac (3 x 400 Vac) 3 x 34.4 Aac (3 x 420 Vac)	3 x 45.7 Aac (3 x 380 Vac) 3 x 43.3 Aac (3 x 400 Vac) 3 x 41.3 Aac (3 x 420 Vac)
Short circuit voltage	1.65 %	1.5 %	1.5 %	1.2 %	1.7 %
Power loss	380.0 W	500.0 W	525.0 W	604.0 W	770.0 W
Tappings Output (±)	±5 %	±5 %	±5 %	±5 %	±5 %
Vector group	Dyn 5	Dyn 5	Dyn 5	Dyn 5	Dyn 5
Efficiency	97 %	97 %	97.5 %	97.5 %	97.5 %
Approvals					
Approvals	cURus	cURus	cURus	cURus	cURus
Environment					
Ambient temperature max.	50 °C	50 °C	50 °C	50 °C	50 °C
Safety and protection					
Type	open type	open type	open type	open type	open type
Class of Insulation System	VDE=F, UL=class 155	VDE=F, UL=class 155	VDE=F, UL=class 155	VDE=F, UL=class 155	VDE=F, UL=class 155
Protection index	IP 00	IP 00	IP 00	IP 00	IP 00
Safety class (prepared)	I	I	I	I	I
Short circuit strength	non-short-circuit proof	non-short-circuit proof	non-short-circuit proof	non-short-circuit proof	non-short-circuit proof
Order numbers					
Order Number without housing	TT3 12,5-4-4	TT3 16-4-4	TT3 20-4-4	TT3 25-4-4	TT3 30-4-4
Order Number in housing IP23	TT3 12,5-4-4-23	TT3 16-4-4-23	TT3 20-4-4-23	TT3 25-4-4-23	TT3 30-4-4-23



Isolating transformer
TT3

Typ	Terminals	Fixing method	Fixing screws	Weight	Core type	Dimension picture (in mm)	Dimension picture (in mm)									
							A	B	C	D	d1	d2	E	e1	e2	
TT3 1-4-4	Screw-type terminal	Fixing rail	M6	15.00 kg	3UI 114/40	1	267	125	215	176	180	249	71	79	98	
TT3 2,5-4-4	Screw-type terminal	Fixing rail	M8	32.00 kg	3UI 132/72	1	315	165	250	200	215	292	102	124	126	
TT3 5-4-4	Screw-type terminal	Fixing rail	M8	48.00 kg	3UI 180/63	2	410	155	355	264	310	388	125	125	115	
TT3 6,3-4-4	Screw-type terminal	Fixing rail	M8	55.00 kg	3UI 180/63	1	410	175	360	264	310	388	125	125	115	
TT3 8-4-4	Screw-type terminal	Fixing rail	M8	67.00 kg	3UI 180/78	1	410	180	360	264	310	388	140	140	130	
TT3 10-4-4	Screw-type terminal	Fixing rail	M10	87.00 kg	3UI 210/73	2	480	192	400	316	370	450	143	151	133	
TT3 12,5-4-4	Screw-type terminal	Fixing rail	M10	115.00 kg	3UI 210/103	1	480	222	400	316	370	450	173	181	163	
TT3 16-4-4	Screw-type terminal	Fixing rail	M12	150.00 kg	3UI 240/110	1	550	267	510	356	430	516	184	210	182	
TT3 20-4-4	Screw-type terminal	Fixing rail	M12	180.00 kg	3UI 240/140	1	550	297	510	356	430	516	214	240	212	
TT3 25-4-4	Screw-type terminal	Fixing rail	M12	205.00 kg	3UI 240/140	1	550	297	510	356	430	516	214	240	212	
TT3 30-4-4	Screw-type terminal	Fixing rail	M12	230.00 kg	3UI 240/170	2	550	320	480	356	430	516	244	270	242	

Dimension pictures



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