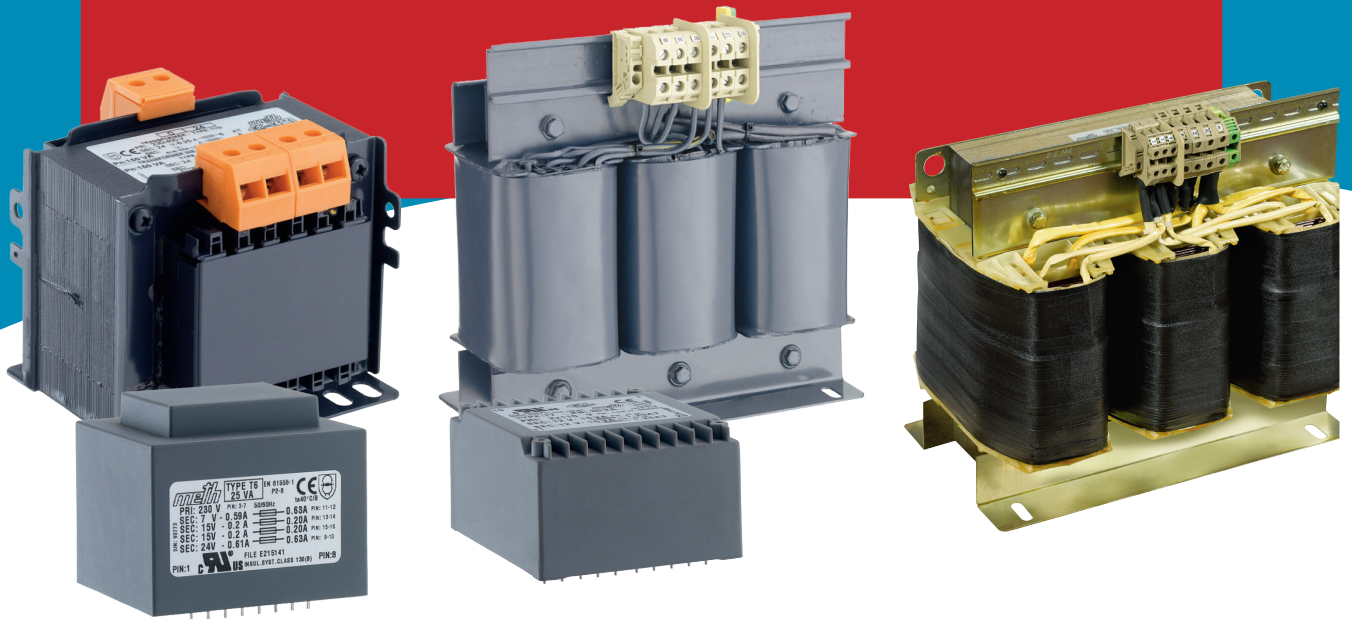


CONTROL TRANSFORMERS



TECNOMATIC CORP.

www.tecnomatic.com

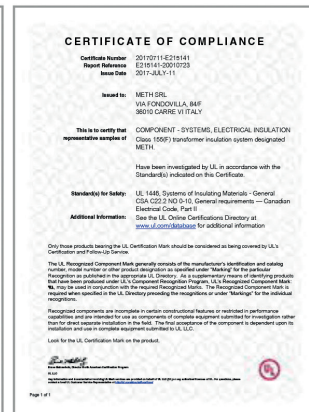
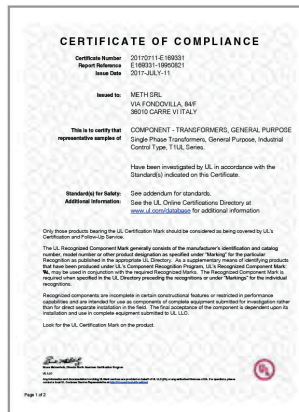


Meth operates with a quality system in compliance with ISO 9001:2008 standards. This means that all production processes follow different quality standards to improve efficiency and effectiveness in products development and manufacturing in order to have the highest customer satisfaction.



UL is one of several companies approved to perform safety testing by the US federal agency Occupational Safety and Health Administration (OSHA)

www.ul.com



CE marking is the manufacturer's declaration that the product meets the requirements of the applicable EC directives. The CE marking is a symbol of free marketability in the European Economic Area (Internal Market)



GL is the abbreviation for "German Llyod", which certifies the products compliance with marine standards



ENEC-KEMA is an abbreviation for "European Norms Electrical Certification". It gives customers the assurance that a product has been certified by one of the national certification institutes in Europe and it complies with the relevant European safety standards



Coc Certification (ex SASO) allows the company to export in Saudi Arabia market, as the products passed strict technical test in a certified laboratory

www.tecnomatic.com



TECNOMATIC CORP. www.tecnomatic.com

Tecnomatic introduced Meth transformers to the US market 20 years ago. Meth Srl has designed and manufactured electric transformers since 1980. With 30 years of experience, Meth's focus has been on Quality and Performance. Since 1998 Meth has acquired multiple national and international certifications, the result of our continuous efforts in updating the

product line to meet the demand for worldwide standards. Meth specializes in manufacturing single-phase electric transformers from 3.2VA to 80kVA, three-phase transformers from 100VA to 1000kVA, for various application from industrial and automation, to photovoltaic and marine. Meth also manufactures three-phase auto-transformers and three-

phase reactors. Depending on the configuration, Meth transformers bear either European or North American Approvals such as UL, KEMA and ENEC and Middle East Approvals (CoC - ex SASO). Meth's experience and technology allows them to develop quickly custom manufactured new products, to meet any customers' requests.



QUALITY

Meth Quality System, ISO 9001:2008 certified since 1998, governs all the processes: customer and supplier order management, preliminary controls, manufacturing cycles, final tests, and handling of non-conformity. As further confirmation of the constant quality-research over the years, Meth has obtained the following certifications:

- cUL for single phase transformers up to 10KVA and for three-phase transformers up to 80KVA. Meth is one of the few manufactures in Europe with cUL LISTED certification.
- cUL Insulation System class B-F-H.
- cUL Insulation System for Three-Phase auto-transformers up to 250 KVA.
- ENEC-KEMA for single phase transformers up to 2KVA.
- GL for some single-phase transformers for marine use up to 1kVA.

Certification companies inspections are regularly scheduled, ensuring a constant quality level of the products.

PLANNING

Meth obtains the transformers parameters that will be tested at the end of production, such as over-temperature, losses, performance, rigidity, insulation, induced voltage, etc., using "RALE" calculation programs. During the calculation spacers and cooling channels are properly sized to assure a long and reliable service life.

PRODUCTION

The entire manufacturing process is carried out internally: preliminary controls, automatic winding for small transformers and winding machine for flat cable, copper or aluminum strip for larger transformers, core-assembly and soaking or resin. At the completion of production all transformers are tested internally with instruments that meet all appropriate ISO specifications and calibration requirements, in SIT centers.

TEST

Meth transformers are 100% tested, with test results stored in the Meth database and are available on customers request. Meth test equipment allows Meth to carry out all tests required by the standards.

Equipment is available for the following tests: no-load losses, load losses, harmonic analysis, resistance, rigidity and insulation measurement, induced voltage, and inrush current.

T1UL and T1ULF SINGLE-PHASE TRANSFORMERS

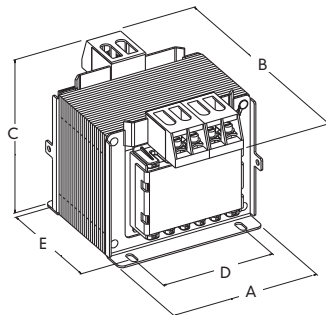
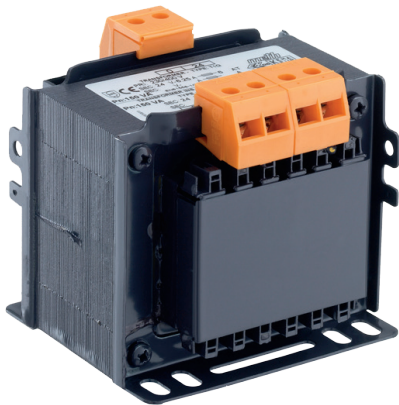


Fig. 1

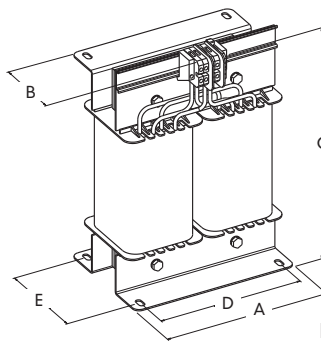


Fig. 2

CoC
certified products



Application

Isolating transformer with secondary voltage > 50 V
 Safety transformer with secondary voltage ≤ 50 V
 They are suitable for any industrial/civil use for the electrical isolation of the input and output sides.

Standard

- CEI-EN 61558,2-4 - isolating transformers

- IEC 61558,2-4 - isolating transformers

- UL 5085 1-2 - low-voltage transformers

- CEI-EN 61558,2-6 - safety transformers

- IEC 61558,2-6 - safety transformers

- CSA 22.2, No66

General data

Input voltage _____ 100-600 V
 Output voltage _____ 12-600 V
 Rated power T1ULF: _____ 30 to 5000VA
 T1UL: _____ > 5KVA to 10KVA
 Insulation class class _____ F
 Ambient temperature _____ Ta=40°C
 Protection degree _____ IP 00 - class I
 Test voltage _____ 4.2 KV/min.
 Terminals _____ terminal blocks

Certifications



KEMA FILE 3502609.01-02-03-04-05



FILE E169331-vol. 2-sec. 1-2



FILE E169331-vol. 1-sec. 1-2



FILE E215141-vol. 1-sec. 1 (insulation system)



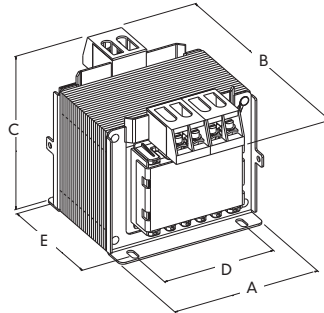
Dimensional data

RATED POWER	APPROVALS	APPROX. GENERAL DIMENSIONS (mm)					WEIGHT	FIG.
		A	B	C	D	E		
VA							Kg	
30		77	81	77	60	43	1,1	1
50		77	85	77	60	48	1,2	1
75		86	85	82	70	55	1,45	1
100		86	95	82	70	65	2	1
150		98	98	95	80	69	2,6	1
200		98	113	95	80	84	3,1	1
250		122	103	110	100	75	3,6	1
300		122	108	110	100	80	4,4	1
400		122	118	110	100	90	5,7	1
500		122	138	110	100	110	7	1
600		153	116	136	125	93	7,4	1
800		153	136	136	125	113	9,8	1
1000		153	156	136	125	133	12,1	1
1250		193	125	182	122	96	14	1
1500		193	131	182	160	102	16	1
2000		193	151	182	160	122	20	1
2500		193	171	182	160	142	22	1-2
3000		200	155	300	150	126	31	2
4000		240	175	357	205	104	37	2
5000		240	185	357	205	114	40	2
6000		240	205	357	205	134	47	2
7500		280	228	410	233	152	57	2
10000		280	252	410	233	175	75	2

Electrical data

RATED POWER	LOSSES (W)		EFFICIENCY	U _{CC}	ΔV	INRUSH CURRENT
	no-load	load				
VA			%	%	%	x I _n
30	3	3,2	82,8	9,5	9,6	20
50	3,5	6,7	83,1	11,8	11,8	18
75	4	8	86,2	10,6	10	17
100	5,2	6,8	86,9	8,4	8,2	24
150	6,5	12,5	88,9	9,4	8,1	20
200	8,2	16	89,5	9	7,7	19
250	9,1	17,5	90,5	10,2	7,2	19
300	10,5	18,7	91,2	9,2	6,4	19
400	12,5	28,5	91	10	7,1	18
500	15,6	29	91,9	8,6	5,9	20
600	17	36	92,3	5,6	5,6	23
800	20	46	92,4	5	5,4	22
1000	25	47	93,4	4,5	4,5	23
1250	32	48	93,9	3,9	3,8	22
1500	34	63	93,9	4,3	4,1	22
2000	41	79	94,3	4	3,8	21
2500	50	80	95	3,5	3,2	21
3000	60	97	95	3,4	3,2	20
4000	60	150	95,2	4,1	3,8	20
5000	65	170	95,6	3,7	3,4	18
6000	65	185	96	3,4	3,1	18
7500	75	220	96,2	3,2	2,4	17
10000	100	250	96,7	2,9	2,4	17

T1Q-GL SINGLE-PHASE TRANSFORMERS FOR MARINE APPLICATIONS



Application

Suitable for control panels and " Marine applications with GL approval.

Self-extinguishing isolating components.

Standard

GL: Guideline for the Performances of Type Approvals Chapter 2 Ed. 2003

General data

Rated input voltage _____ 400-440 V
 Rated output voltage _____ 24-230 V
 Rated power _____ 150-250-400-800-1000 VA
 Insulation class _____ class F self-extinguishing
 Temperature class _____ class F
 Ambient temperature _____ $T_a=45^{\circ}\text{C}$
 Protection degree _____ IP 00 - class I
 Test voltage _____ 4.2KV/min.
 Terminals _____ terminal blocks

Dimensional data

RATED POWER	APPROVALS	DIMENSIONS (mm)					WEIGHT
VA		A	B	C	D	E	Kg
150	GL	96	92	105	84	75	2,6
250	GL	121	95	125	90	70	3,6
500	GL	121	135	125	90	110	7
800	GL	151	137	140	120	110	9,8
1000	GL	151	157	140	120	130	12,1

Electrical data

RATED POWER	LOSSES (W)		EFFICIENCY	U_{cc}	ΔV	INRUSH CURRENT
VA	no-load	load	%	%	%	x I_n
150	6,6	12,5	88,9	9,5	8,1	20
250	9,1	17,6	90,5	10	7,2	19
500	15,6	28,9	91,9	8,5	5,9	20
800	20	46	92,4	5	5	24
1000	25	47	93,4	4,5	4,5	24

Certifications

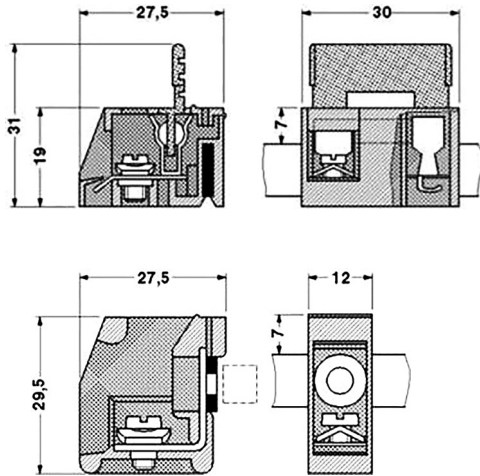


German Lloyd n.46566 - 12HH



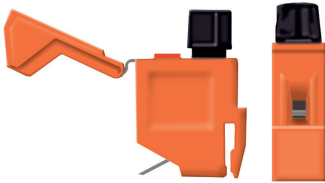
cUL Listed FILE E169331 (upon request)

T1 Fuse block holder for glass/ceramic fuses



Technical data

	Unit	TRK 2.5 SI
Glass Fuse	-	5x20 and 5x25
Rated cross section	mm ²	2.5
Max. current carrying capacity	A	6.3
Rated insulation voltage	V	250
AWG	kcmil	18-14



Technical data

	Unit	TRK 4/SI 5x20	TKS 4/SI 6.3X32
Ceramic Fuse	-	5x20	6.3x32
Rated cross section	mm ²	2.5	2.5
Max. current carrying capacity	A	6.3	16
Rated insulation voltage	V	250	600
AWG	kcmil	24-10	24-10

Data in accordance with IEC / DIN VDE



HOW TO ORDER

FOLLOW THE DIAGRAM BELOW TO ORDER OUR SINGLE PHASE TRANSFORMERS.

T1 - VA - PRIMARY/SECONDARY - F

VA			PRIMARY VOLTAGE	SECONDARY VOLTAGE	F
30	400	2500	SINGLE VOLTAGE FROM 100 TO 600V	SINGLE VOLTAGE FROM 12 TO 600V	SECONDARY FUSE ONLY (optional)
50	500	3000	OR CUSTOM MULTITAP UP TO 3 MAIN PRIMARIES + ADDITIONAL TAPS	OR CUSTOM MULTITAP UP TO 2 SECONDARIES + ADDITIONAL TAPS	
75	600	4000			
100	800	5000			
150	1000	6000			
200	1250	7500			
250	1500	10000			
300	2000				

(TAPS=PERCENTAGE OF PRIMARY / SECONDARY VOLTAGE)

EXAMPLE FOR ORDERING

MODEL	VA	PRIMARY	SECONDARY	PART NUMBER
T1	100	380-480-577	120	= T1-100-380-480-577/120
T1	100	575	120 WITH FUSE	= T1-100-575/120F
T1	500	230-460-500	2X115	= T1-500-230-460-500/2X115
T1	800	230-460-500	2X115	= T1-500-230-460-500/2X115

CONTACT US FOR ORDERING:	STANDARD TRANSFORMERS	MULTITAP TRANSFORMERS
<ul style="list-style-type: none"> - non-stock custom transformers - our 3 phase, auto transformers - complete part numbers 	Group A and B, many available from stock. Please see pag 10-13.	Group C and H available from stock. Please see pag 14-15

Group A 208-240-480/120 & 208-240-480/24V, WITH OR WITHOUT FUSE BLOCK

208-240-480 / 120V

PART #	VA	PRIMARY	SECONDARY
T1-30-208-240-480 /120	30	208-240-480	120
T1-50-208-240-480 /120	50	208-240-480	120
T1-75-208-240-480 /120	75	208-240-480	120
T1-100-208-240-480 /120	100	208-240-480	120
T1-150-208-240-480 /120	150	208-240-480	120
T1-200-208-240-480 /120	200	208-240-480	120
T1-250-208-240-480 /120	250	208-240-480	120
T1-300-208-240-480 /120	300	208-240-480	120
T1-400-208-240-480 /120	400	208-240-480	120
T1-500-208-240-480 /120	500	208-240-480	120
T1-600-208-240-480 /120	600	208-240-480	120
T1-800-208-240-480 /120	800	208-240-480	120
T1-1000-208-240-480 /120	1000	208-240-480	120
T1-1250-208-240-480 /120	1250	208-240-480	120
T1-1500-208-240-480 /120	1500	208-240-480	120
T1-2000-208-240-480 /120	2000	208-240-480	120
T1-2500-208-240-480 /120	2500	208-240-480	120
T1-3000-208-240-480 /120	3000	208-240-480	120
T1-4000-208-240-480 /120	4000	208-240-480	120
T1-5000-208-240-480 /120	5000	208-240-480	120
T1-6000-208-240-480 /120	6000	208-240-480	120
T1-7500-208-240-480 /120	7500	208-240-480	120
T1-10000-208-240-480 /120	10000	208-240-480	120

208-240-480/24V

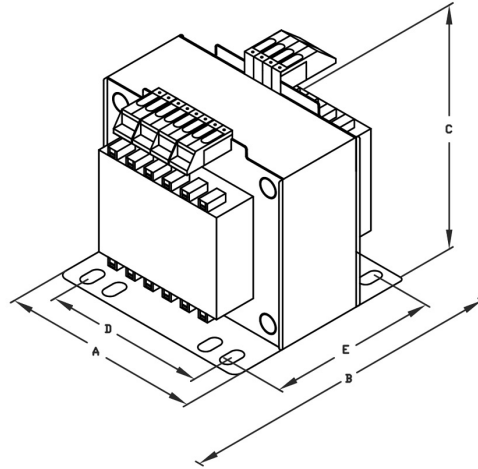
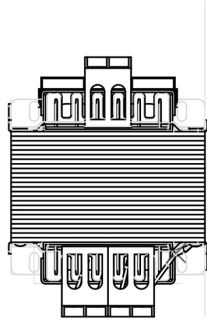
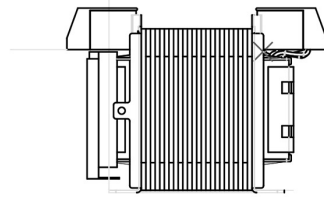
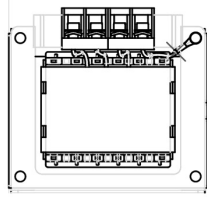
PART #	VA	PRIMARY	SECONDARY
T1-30-208-240-480 /24	30	208-240-480	24
T1-50-208-240-480 /24	50	208-240-480	24
T1-75-208-240-480 /24	75	208-240-480	24
T1-100-208-240-480 /24	100	208-240-480	24
T1-150-208-240-480 /24	150	208-240-480	24
T1-200-208-240-480 /24	200	208-240-480	24
T1-250-208-240-480 /24	250	208-240-480	24
T1-300-208-240-480 /24	300	208-240-480	24
T1-400-208-240-480 /24	400	208-240-480	24
T1-500-208-240-480 /24	500	208-240-480	24
T1-600-208-240-480 /24	600	208-240-480	24
T1-800-208-240-480 /24	800	208-240-480	24
T1-1000-208-240-480 /24	1000	208-240-480	24
T1-1250-208-240-480 /24	1250	208-240-480	24
T1-1500-208-240-480 /24	1500	208-240-480	24
T1-2000-208-240-480 /24	2000	208-240-480	24

208-240-480 / 120V FUSED

PART #	VA	PRIMARY	FUSED SECONDARY
T1-30-208-240-480 /120F	30	208-240-480	120
T1-50-208-240-480 /120F	50	208-240-480	120
T1-75-208-240-480 /120F	75	208-240-480	120
T1-100-208-240-480 /120F	100	208-240-480	120
T1-150-208-240-480 /120F	150	208-240-480	120
T1-200-208-240-480 /120F	200	208-240-480	120
T1-250-208-240-480 /120F	250	208-240-480	120
T1-300-208-240-480 /120F	300	208-240-480	120
T1-400-208-240-480 /120F	400	208-240-480	120
T1-500-208-240-480 /120F	500	208-240-480	120
T1-600-208-240-480 /120F	600	208-240-480	120
T1-800-208-240-480 /120F	800	208-240-480	120
T1-1000-208-240-480 /120F	1000	208-240-480	120

208-240-480 / 24V FUSED

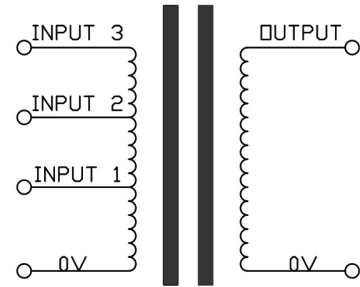
PART #	VA	PRIMARY	FUSED SECONDARY
T1-30-208-240-480 /24F	30	208-240-480	24
T1-50-208-240-480 /24F	50	208-240-480	24
T1-75-208-240-480 /24F	75	208-240-480	24
T1-100-208-240-480 /24F	100	208-240-480	24
T1-150-208-240-480 /24F	150	208-240-480	24
T1-200-208-240-480 /24F	200	208-240-480	24
T1-250-208-240-480 /24F	250	208-240-480	24



WIRING DIAGRAM

FOR 3 PRIMARIES AND 1 SECONDARY

(e.g. 208-240-480/120V)



POWER	INPUT		OUTPUT	DIMENSIONS (inch)					DIMENSIONS (mm)					DIMENSION C WITH FUSE (mm)	DIMENSION C WITH FUSE (inch)	APPROX. WEIGHT	
	VA	V		V	A	B	C	D	E	A	B	C	D				E
30	208	240	480	120	3.03	3.19	3.03	2.36	1.69	77	81	77	60	43	97	3.82	2.43
50	208	240	480	120	3.03	3.35	3.03	2.36	1.89	77	85	77	60	48	97	3.82	2.65
75	208	240	480	120	3.39	3.35	3.23	2.76	2.17	86	85	82	70	55	102	4.02	3.20
100	208	240	480	120	3.39	3.74	3.23	2.76	2.56	86	95	82	70	65	102	4.02	4.41
150	208	240	480	120	3.86	3.86	3.74	3.15	2.72	98	98	95	80	69	115	4.53	5.73
200	208	240	480	120	3.86	4.45	3.74	3.15	3.31	98	113	95	80	84	115	4.53	6.83
250	208	240	480	120	4.80	4.06	4.33	3.94	2.95	122	103	110	100	75	130	5.12	7.94
300	208	240	480	120	4.80	4.25	4.33	3.94	3.15	122	108	110	100	80	130	5.12	9.70
400	208	240	480	120	4.80	4.65	4.33	3.94	3.54	122	118	110	100	90	130	5.12	12.57
500	208	240	480	120	4.80	5.43	4.33	3.94	4.33	122	138	110	100	110	130	5.12	15.43
600	208	240	480	120	6.02	4.57	5.35	4.92	3.66	153	116	136	125	93	156	6.14	16.31
800	208	240	480	120	6.02	5.35	5.35	4.92	4.45	153	136	136	125	113	156	6.14	21.61
1000	208	240	480	120	6.02	6.14	5.35	4.92	5.24	153	156	136	125	133	156	6.14	26.68
1250	208	240	480	120	7.60	4.92	7.17	4.80	3.78	193	125	182	122	96			30.86
1500	208	240	480	120	7.60	5.16	7.17	6.30	4.02	193	131	182	160	102			35.27
2000	208	240	480	120	7.60	5.94	7.17	6.30	4.80	193	151	182	160	122			44.09
2500	208	240	480	120	7.60	6.73	7.17	6.30	5.59	193	171	182	160	142			48.50
3000	208	240	480	120	7.87	6.10	11.81	5.91	4.96	200	155	300	150	126			68.34
4000	208	240	480	120	9.45	6.89	14.06	8.07	4.09	240	175	357	205	104			81.57
5000	208	240	480	120	9.45	7.28	14.06	8.07	4.49	240	185	357	205	114			88.18
6000	208	240	480	120	9.45	8.07	14.06	8.07	5.28	240	205	357	205	134			103.62
7500	208	240	480	120	11.02	8.98	16.14	9.17	5.98	280	228	410	233	152			125.66
10000	208	240	480	120	11.02	9.92	16.14	9.17	6.89	280	252	410	233	175			165.35

RATING: 30/1000 VA - 50/60 HZ
 PRIM. VOLTAGE: 208-240-480 V - SEC. VOLTAGE 0-120 V
 CLASS 155°C - INSULATION 100°C MAX RISE
 cUL LISTED FILE E 169331

Group B 240-480/120 & 240-480/24V, WITH OR WITHOUT FUSE BLOCK

240-480/120V

PART #	VA	PRIMARY	SECONDARY
T1-30-240-480 /120	30	240-480	120
T1-50-240-480 /120	50	240-480	120
T1-75-240-480 /120	75	240-480	120
T1-100-240-480 /120	100	240-480	120
T1-150-240-480 /120	150	240-480	120
T1-200-240-480 /120	200	240-480	120
T1-250-240-480 /120	250	240-480	120
T1-300-240-480 /120	300	240-480	120
T1-400-240-480 /120	400	240-480	120
T1-500-240-480 /120	500	240-480	120
T1-600-240-480 /120	600	240-480	120
T1-800-240-480 /120	800	240-480	120
T1-1000-240-480 /120	1000	240-480	120
T1-1250-240-480 /120	1250	240-480	120
T1-1500-240-480 /120	1500	240-480	120
T1-2000-240-480 /120	2000	240-480	120
T1-2500-240-480 /120	2500	240-480	120
T1-3000-240-480 /120	3000	240-480	120
T1-4000-240-480 /120	4000	240-480	120
T1-5000-240-480 /120	5000	240-480	120
T1-6000-240-480 /120	6000	240-480	120
T1-7500-240-480 /120	7500	240-480	120
T1-10000-240-480 /120	10000	240-480	120

240-480/24V

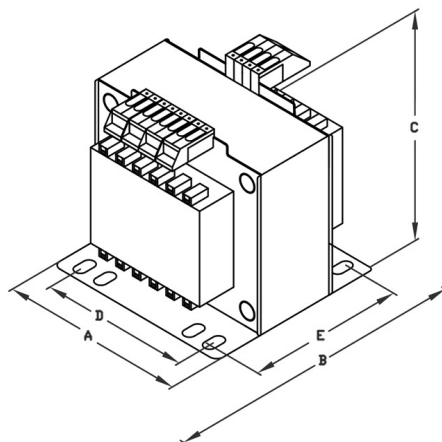
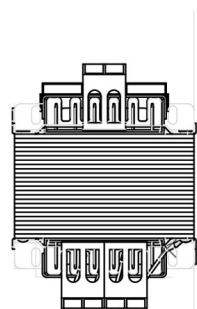
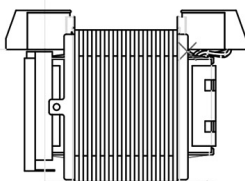
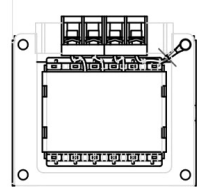
PART #	VA	PRIMARY	SECONDARY
T1-30-240-480 /24	30	240-480	24
T1-50-240-480 /24	50	240-480	24
T1-75-240-480 /24	75	240-480	24
T1-100-240-480 /24	100	240-480	24
T1-150-240-480 /24	150	240-480	24
T1-200-240-480 /24	200	240-480	24
T1-250-240-480 /24	250	240-480	24
T1-300-240-480 /24	300	240-480	24
T1-400-240-480 /24	400	240-480	24
T1-500-240-480 /24	500	240-480	24
T1-600-240-480 /24	600	240-480	24
T1-800-240-480 /24	800	240-480	24
T1-1000-240-480 /24	1000	240-480	24
T1-1250-240-480 /24	1250	240-480	24
T1-1500-240-480 /24	1500	240-480	24
T1-2000-240-480 /24	2000	240-480	24

240-480/120V FUSED

PART #	VA	PRIMARY	FUSED SECONDARY
T1-30-240-480 /120F	30	240-480	120
T1-50-240-480 /120F	50	240-480	120
T1-75-240-480 /120F	75	240-480	120
T1-100-240-480 /120F	100	240-480	120
T1-150-240-480 /120F	150	240-480	120
T1-200-240-480 /120F	200	240-480	120
T1-250-240-480 /120F	250	240-480	120
T1-300-240-480 /120F	300	240-480	120
T1-400-240-480 /120F	400	240-480	120
T1-500-240-480 /120F	500	240-480	120
T1-600-240-480 /120F	600	240-480	120
T1-800-240-480 /120F	800	240-480	120
T1-1000-240-480 /120F	1000	240-480	120

240-480/24V FUSED

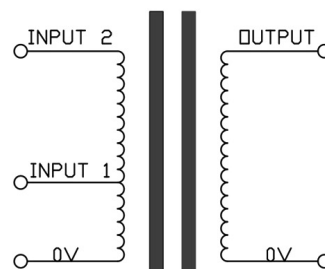
PART #	VA	PRIMARY	FUSED SECONDARY
T1-30-240-480 /24F	30	240-480	24
T1-50-240-480 /24F	50	240-480	24
T1-75-240-480 /24F	75	240-480	24
T1-100-240-480 /24F	100	240-480	24
T1-150-240-480 /24F	150	240-480	24
T1-200-240-480 /24F	200	240-480	24
T1-250-240-480 /24F	250	240-480	24



WIRING DIAGRAM

FOR 2 PRIMARIES AND 1 SECONDARY

(e.g. 240-480/120V)

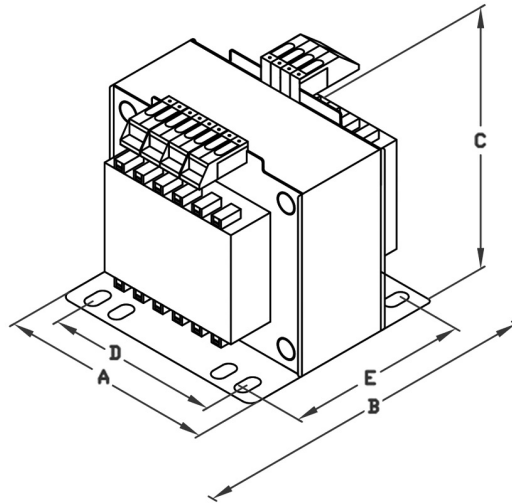
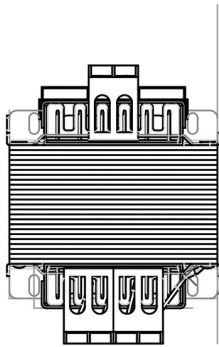
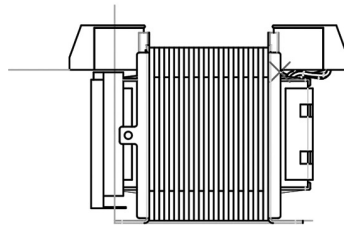
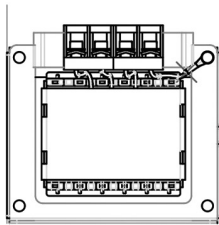


POWER VA	INPUT		OUTPUT V	DIMENSIONS (inch)					DIMENSIONS (mm)					DIMENSION C WITH FUSE (mm)	DIMENSION C WITH FUSE (inch)	APPROX. WEIGHT Lbs
	V	V		A	B	C	D	E	A	B	C	D	E			
30	240	480	120	3.03	3.19	3.03	2.36	1.69	77	81	77	60	43	97	3.82	2.43
50	240	480	120	3.03	3.35	3.03	2.36	1.89	77	85	77	60	48	97	3.82	2.65
75	240	480	120	3.39	3.35	3.23	2.76	2.17	86	85	82	70	55	102	4.02	3.20
100	240	480	120	3.39	3.74	3.23	2.76	2.56	86	95	82	70	65	102	4.02	4.41
150	240	480	120	3.86	3.86	3.74	3.15	2.72	98	98	95	80	69	115	4.53	5.73
200	240	480	120	3.86	4.45	3.74	3.15	3.31	98	113	95	80	84	115	4.53	6.83
250	240	480	120	4.80	4.06	4.33	3.94	2.95	122	103	110	100	75	130	5.12	7.94
300	240	480	120	4.80	4.25	4.33	3.94	3.15	122	108	110	100	80	130	5.12	9.70
400	240	480	120	4.80	4.65	4.33	3.94	3.54	122	118	110	100	90	130	5.12	12.57
500	240	480	120	4.80	5.43	4.33	3.94	4.33	122	138	110	100	110	130	5.12	15.43
600	240	480	120	6.02	4.57	5.35	4.92	3.66	153	116	136	125	93	156	6.14	16.31
800	240	480	120	6.02	5.35	5.35	4.92	4.45	153	136	136	125	113	156	6.14	21.61
1000	240	480	120	6.02	6.14	5.35	4.92	5.24	153	156	136	125	133	156	6.14	26.68
1250	240	480	120	7.60	4.92	7.17	4.80	3.78	193	125	182	122	96			30.86
1500	240	480	120	7.60	5.16	7.17	6.30	4.02	193	131	182	160	102			35.27
2000	240	480	120	7.60	5.94	7.17	6.30	4.80	193	151	182	160	122			44.09
2500	240	480	120	7.60	6.73	7.17	6.30	5.59	193	171	182	160	142			48.50
3000	240	480	120	7.87	6.10	11.81	5.91	4.96	200	155	300	150	126			68.34
4000	240	480	120	9.45	6.89	14.06	8.07	4.09	240	175	357	205	104			81.57
5000	240	480	120	9.45	7.28	14.06	8.07	4.49	240	185	357	205	114			88.18
6000	240	480	120	9.45	8.07	14.06	8.07	5.28	240	205	357	205	134			103.62
7500	240	480	120	11.02	8.98	16.14	9.17	5.98	280	228	410	233	152			125.66
10000	240	480	120	11.02	9.92	16.14	9.17	6.89	280	252	410	233	175			165.35

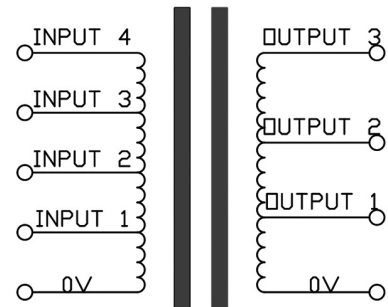
RATING: 30/1000 VA - 50/60 HZ
 PRIM. VOLTAGE: 240-480 V - SEC. VOLTAGE 0-120 V
 CLASS 155°C - INSULATION 100°C MAX RISE
 cUL LISTED FILE E 169331

Group C

PART #	VA	PRIMARY	SECONDARY
T1-100-C	100	208-230-400-460	24-120
T1-200-C	200	208-230-400-460	24-120
T1-500-C	500	208-230-400-460	24-120
T1-250-C	250	220-400-460	24-120-220
T1-800-C	800	220-400-460	24-120-220



WIRING DIAGRAM



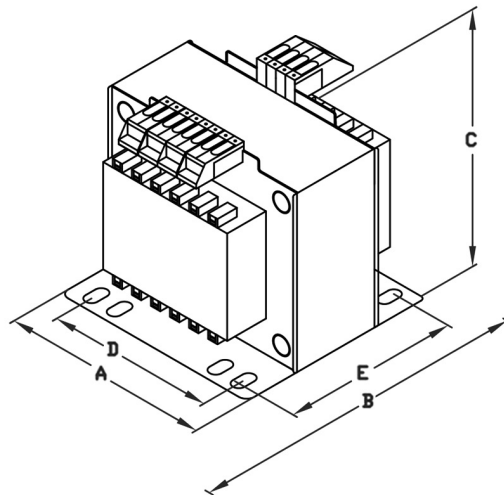
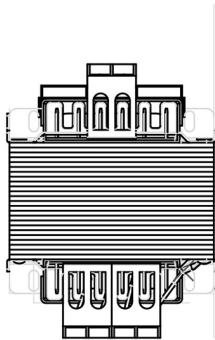
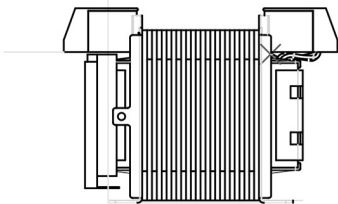
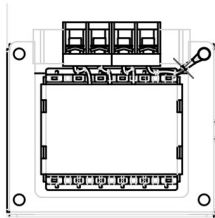
POWER	INPUT					OUTPUT			DIMENSIONS (inch)					DIMENSIONS (mm)					DIMENSION C WITH FUSE (mm)	DIMENSION C WITH FUSE (inch)	APPROX. WEIGHT
	VA	V				V			A	B	C	D	E	A	B	C	D	E	C	C	Lbs
100	208	230	400	460	24	120	-	3.86	3.66	3.74	3.15	2.52	98	93	95	80	64	115	4.53	4.85	
200	208	230	400	460	24	120	-	3.86	4.45	3.74	3.15	3.31	98	113	95	80	84	115	4.53	6.83	
250	208	230	400	460	24	120	-	4.80	4.06	4.33	3.94	2.95	122	103	110	100	75	130	5.12	7.94	
500	220	400	460	-	24	120	220	4.80	5.43	4.33	3.94	4.33	122	138	110	100	110	130	5.12	15.43	
800	220	400	460	-	24	120	220	6.02	6.14	5.35	4.92	5.24	153	156	136	125	133	156	6.14	26.67	

CLASS 155°C - INSULATION 100°C MAX RISE
cUL LISTED FILE E 169331

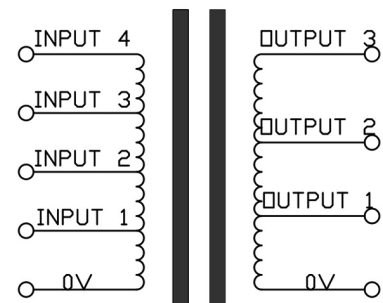


PART #	VA	PRIMARY	SECONDARY
T1-200-H	200	120-220	24-48
T1-560-H	560	120-230-480	24-48-50
T1-805-H	805	120-230-480	24-48-50
T1-1170-H	1170	120-220-480	24-48-50

PART #	VA	PRIMARY	SECONDARY
T1-1440-H	1440	120-230-480	24-48-50
T1-2210-H	2210	120-230-480	24-48-50
T1-2880-H	2880	120-230-480-600	24-48-50
T1-2980-H	2980	120-277	24-48-50



WIRING DIAGRAM



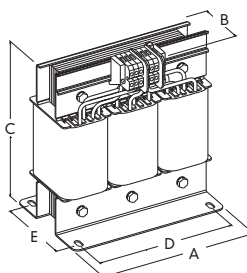
POWER	INPUT				OUTPUT			DIMENSIONS (inch)					DIMENSIONS (mm)					DIMENSION C WITH FUSE (mm)	DIMENSION C WITH FUSE (inch)	APPROX. WEIGHT
	VA	V			V			A	B	C	D	E	A	B	C	D	E			
200	120	220	-	-	24	48	-	3.86	4.45	3.74	3.15	3.31	98	113	95	80	84	115	4.53	6.83
560	120	230	480	-	24	48	50	4.80	5.43	4.33	3.94	4.33	122	138	110	100	110			15.43
805	120	230	480	-	24	48	50	6.02	5.35	5.35	4.92	4.45	153	136	136	125	113			21.61
1170	120	230	480	-	24	48	50	6.02	6.14	5.35	4.92	5.24	153	156	136	125	133			26.67
1440	120	230	480	-	24	48	50	7.60	5.16	6.93	6.30	4.02	193	131	176	160	102			35.27
2210	120	230	480	-	24	48	50	7.60	5.94	6.93	6.30	4.80	193	151	176	160	122			44.09
2880	120	230	480	600	24	48	50	7.60	7.52	6.93	6.30	6.38	193	191	176	160	162			57.32
2980	120	277	-	-	24	48	50	7.60	7.52	6.93	6.30	6.38	193	191	176	160	162			57.32

CLASS 155°C - INSULATION 100°C MAX RISE
cUL LISTED FILE E 169331

T3TULF THREE-PHASE TRANSFORMERS - 0.1 kVA to 5 kVA



Aluminium windings



General data

Rated input voltage _____ 100-600 V
 Rated output voltage _____ 10-600 V
 Rated power _____ from 100 to 5kVA
 Insulation class _____ class F
 Temperature class _____ class F
 Ambient temperature _____ Ta=40°C
 Protection degree _____ IP 00
 Test voltage _____ 4.2KV/min.
 Terminals _____ terminal blocks

Application

Three-phase transformers cUL marked suitable for any industrial application. In particular

- up to 5kVA: cUL Listed marked

Standard

UL 5085 1 and 2 - Low voltage transformers
 CSA 22.2 No 66

Certifications

(Listed) FILE E169331
 vol. 2-sec. 1- industrial control transformers

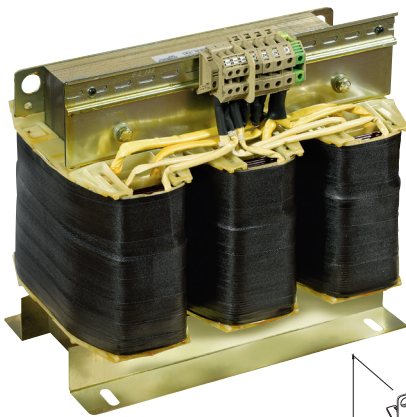
Dimensional data

PART#	RATED POWER kVA	APPROVALS	INSULATION CLASS	DIMENSIONS (mm)					WEIGHT Kg
				A	B	C	D	E	
T3TULF-0,1...	0,1		F	120	75	110	100	50	2,1
T3TULF-0,16...	0,16		F	120	85	110	100	60	2,8
T3TULF-0,25...	0,25		F	151	95	150	125	60	3,8
T3TULF-0,4...	0,4		F	151	110	150	125	75	5,5
T3TULF-0,5...	0,5		F	180	120	190	150	72	6,7
T3TULF-0,75...	0,75		F	180	140	190	150	92	10,9
T3TULF-1...	1		F	240	145	260	200	80	15
T3TULF-1,5...	1,5		F	240	155	260	200	90	17,6
T3TULF-2...	2		F	240	170	260	200	100	24,8
T3TULF-2,5...	2,5		F	240	185	260	200	115	28,1
T3TULF-3...	3		F	300	160	315	250	91	33
T3TULF-4...	4		F	300	170	315	250	101	39
T3TULF-5...	5		F	300	190	315	250	121	49

Electrical data

RATED POWER kVA	LOSSES (W)			EFFICIENCY %	Ucc %			INRUSH CURRENT x In
	no-load	load (75°C)	total		Ucc X	Ucc R	Ucc tot	
0,1	5	15	20	83	-	-	13,5	24
0,16	6,5	19,5	26	85,8	-	-	10,9	25
0,25	7,5	24	31,5	88,4	-	-	9	26
0,4	11,5	38	49,5	88,6	-	-	8,8	28
0,5	15	26,5	41,5	92,2	-	-	5,1	28
0,75	22,5	30	52,5	93,3	-	-	3,9	29
1	25,8	42	67,8	93,6	-	-	4	20
1,5	30	64,5	94,5	93,9	-	-	4,2	18
2	37,5	102	139,5	93,4	-	-	4,8	18
2,5	46	114	160	93,9	-	-	4,4	16
3	47	129	176	94,3	-	-	4,2	16
4	58	186	244	94,2	-	-	4,5	16
5	76	169	245	95,3	-	-	3,4	18

T3TAH-UL THREE-PHASE TRANSFORMERS - 7.5 kVA to 80 kVA



Aluminium
windings

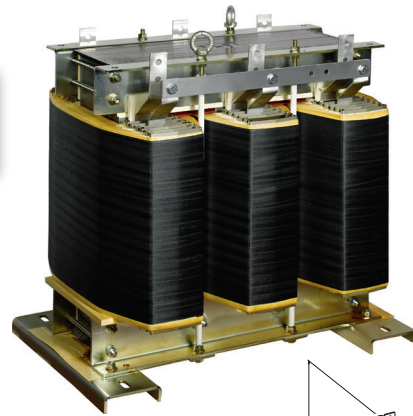


Fig. 1

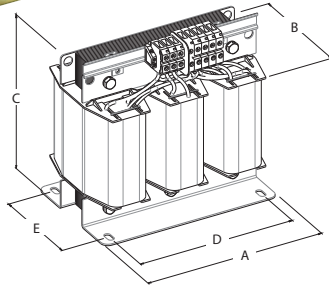
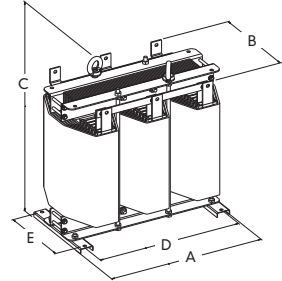


Fig. 2



General data

Rated input voltage _____ up to 1000 V
 Rated output voltage _____ up to 1000 V
 Rated power _____ 7,5 to 80 kVA
 Insulation class _____ class H
 Temperature class _____ class F/H
 Ambient temperature _____ Ta=40°C
 Protection degree _____ IP 00
 Standard vector group _____ Dyn11 (others upon request)
 Test voltage _____ 4.2KV/min.
 Terminals _____ terminal blocks or bard

Application

Three-phase transformers suitable for any industrial application where it is required the isolation or voltage variation between the load and the net.

Suitable for UL labeled industrial control panels according to UL guideline UL 5085.

Standard

CEI-EN 60076

IEC 60076

UL 5085 1 and 2 Low Voltage Transformers

CSA 22.2 No. 66

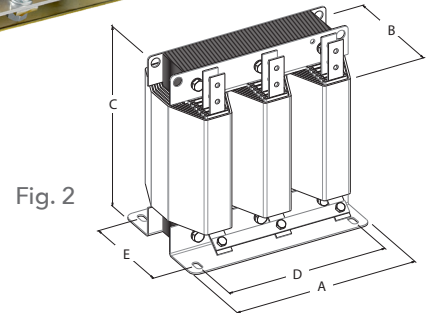
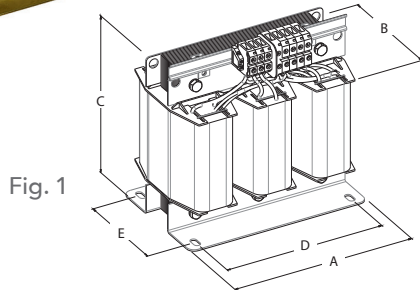
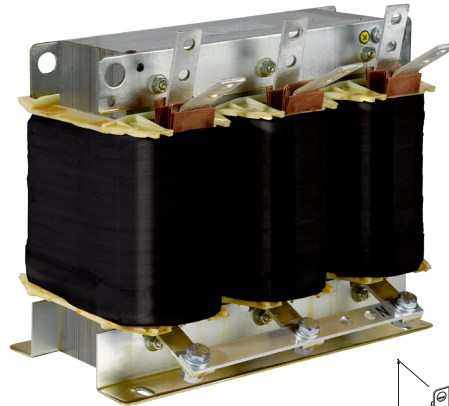
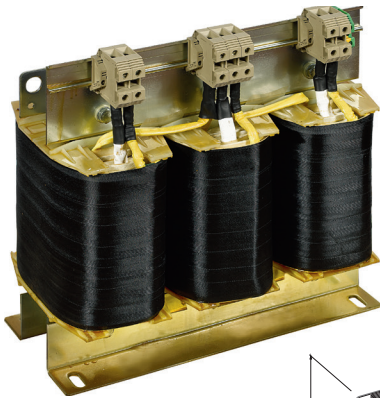
Dimensional data

PART#	RATED POWER	INSULATION CLASS	DIMENSIONS (mm)					WEIGHT Kg	FIG.
	KVA		A	B	C	D	E		
T3TAHUL-3...	3	H	300	170	315	250	110	30	1
T3TAHUL-5...	5	H	300	190	315	250	140	40	1
T3TAHUL-7,5...	7,5	H	360	200	356	325	150	62	1
T3TAHUL-10...	10	H	360	230	356	325	180	80	1
T3TAHUL-15...	15	H	420	250	415	375	170	91	1
T3TAHUL-20...	20	H	420	270	415	375	200	135	1
T3TAHUL-25...	25	H	480	300	445	425	190	145	1
T3TAHUL-30...	30	H	480	320	445	425	210	155	1
T3TAHUL-35...	35	H	480	340	445	425	230	180	1
T3TAHUL-40...	40	H	480	350	445	425	240	190	1-2
T3TAHUL-45...	45	H	600	350	600	540	220	200	1-2
T3TAHUL-50...	50	H	600	360	600	540	230	220	1-2
T3TAHUL-60...	60	H	600	380	600	540	250	250	1-2
T3TAHUL-70...	70	H	600	390	600	540	260	270	1-2
T3TAHUL-80...	80	H	600	410	600	540	280	305	1-2

Electrical data

RATED POWER	LOSSES (W)			EFFICIENCY	UCC	INRUSH CURRENT
	no-load	load	total			
KVA				%	%	x In
3	60	210	270	91,7	5,8	20
5	85	280	365	93,2	5,2	18
7,5	115	330	445	94,4	4,6	17
10	125	350	475	95,4	4,2	17
15	125	540	665	95,7	4,2	18
20	205	500	705	96,6	3,7	18
25	190	710	900	96,5	3,5	18
30	210	760	970	96,8	3,4	17
35	235	860	1095	96,9	3,2	17
40	250	970	1220	97	3,2	17
45	250	1430	1680	96,5	4,8	10
50	270	1480	1750	96,6	5,5	9
60	320	1565	1885	97	4,7	9
70	340	1830	2170	97	4,9	9
80	390	1950	2340	97,2	4,6	9

AT3TH-UL THREE-PHASE AUTOTRANSFORMERS



General data

Three-phase auto-transformers are transformers with one single common wiring, where the primary and secondary are not galvanically separated. Autotransformers have a more compact design than similarly kva rated isolating transformers.

Typical applications are speed control for Fans, reduce voltage starting of three-phase Electric Motors, etc...

Auto-transformers do not protect devices from ground /earth failure. The primary benefit of an auto transformer is that the nearer the values of the input and output voltage, the more cost-effective autotransformers are.

Auto-transformers are application specific therefore care should be taken to calculate and design each auto-transformer to the customers needs.

In each application the input and output voltages are critical to determine the correct electrical sizing and design characteristics.

Standard

CEI-EN 61558; p. 2-13

UL 5058 1-2 up to 345Amps (generally equivalent to 250kVA of nominal power and core power up to 80kVA)

The design rating power could be calculated by the following formula:

$$P_n m \left(1 - \frac{V_1}{V_2}\right)$$

P_{nom} = rated power (VA)
 V_1 = lower voltage (V)
 V_2 = higher voltage (V)

Example:

$P_{nom} = 100 \text{ kVA}$

$V_1 = 380 \text{ V}$

$V_2 = 480 \text{ V}$

$$\text{Design rating} = 100 \times \left(1 - \frac{380}{480}\right) = 21 \text{ kVA}$$

In this case technical data are referred to AT3TH-UL-20kVA

Dimensional data

PART#	DESIGN RATING	INSUL. CLASS	DIMENSIONS (mm)					WEIGHT Kg	FIG
	KVA		A	B	C	D	E		
AT3TH-UL-...	3	H	300	170	315	250	110	30	1
	5	H	300	190	315	250	140	40	1
	7,5	H	360	200	356	325	150	62	1
	10	H	360	230	356	325	180	80	1
	15	H	420	250	415	375	170	91	1
	20	H	420	270	415	375	200	135	1
	25	H	480	300	445	425	190	145	1
	30	H	480	320	445	425	210	155	1
	35	H	480	340	445	425	230	180	1
	40	H	480	350	445	425	240	190	2
	45	H	600	350	600	540	220	200	2
	50	H	600	360	600	540	230	220	2
	60	H	600	380	600	540	250	250	2
	70	H	600	390	600	540	260	270	2
	80	H	600	410	600	540	280	305	2

Electrical data

DESIGN RATING	LOSSES (W)			EFFICIENCY %	UCC %	INRUSH CURRENT x I _n
	no-load	load	total			
KVA						
3	60	210	270	91,7	5,8	20
5	85	280	365	93,2	5,2	18
7,5	115	330	445	94,4	4,6	17
10	125	350	475	95,4	4,2	17
15	125	540	665	95,7	4,2	18
20	205	500	705	96,6	3,7	18
25	190	710	900	96,5	3,5	18
30	210	760	970	96,8	3,4	17
35	235	860	1095	96,9	3,2	17
40	250	970	1220	97	3,2	17
45	250	1430	1680	96,5	4,8	10
50	270	1480	1750	96,6	5,5	9
60	320	1565	1885	97	4,7	9
70	340	1830	2170	97	4,9	9
80	390	1950	2340	97,2	4,6	9



TECNOMATIC CORP.

TECNOMATIC CORP
130 LENOX AVE, UNIT 6
STAMFORD, CT 06906
TEL 203-359-9036
FAX 203-967-9026
EFAX: 203-724-2075
www.tecnomatic.com