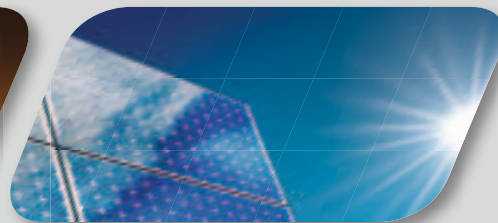
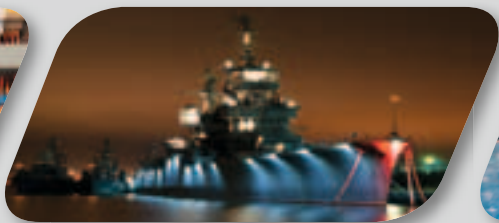
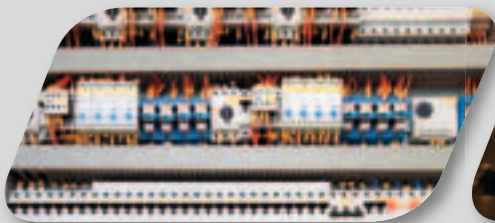
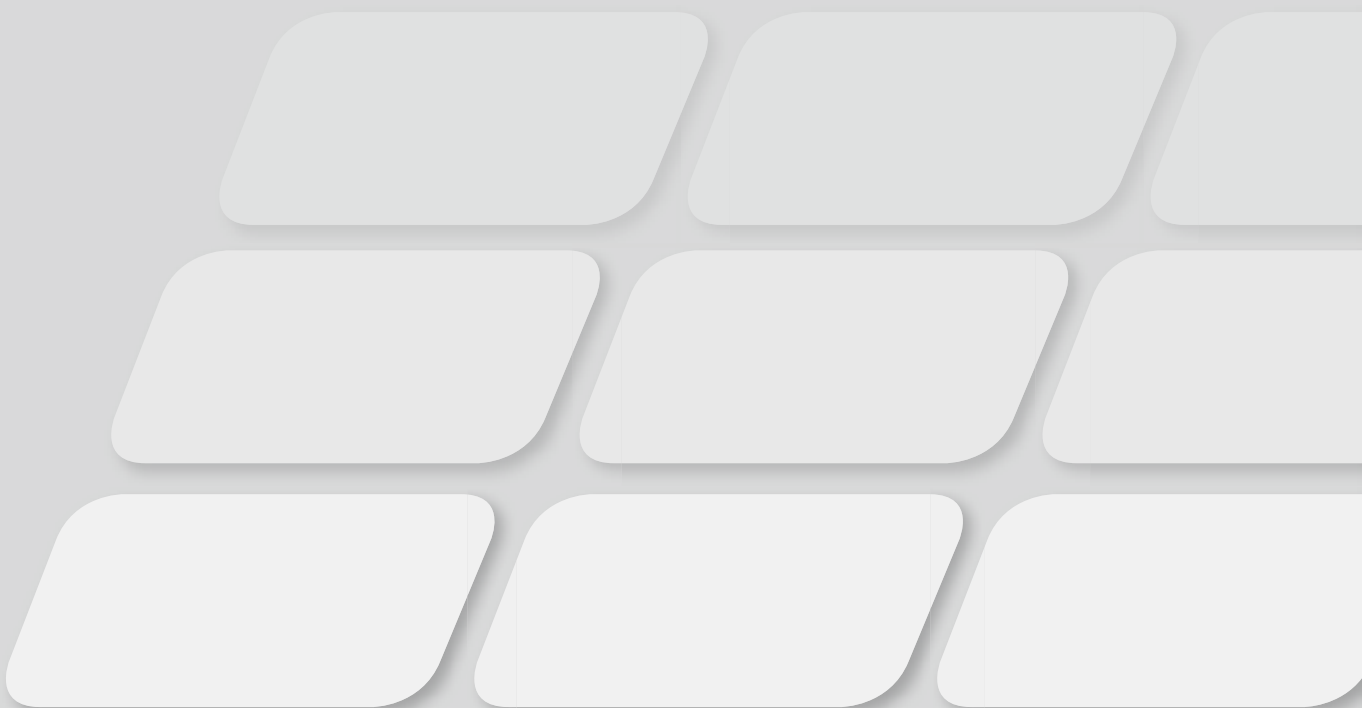




TRASFORMATORI ELETTRICI DAL 1980
ELECTRIC TRANSFORMERS SINCE 1980



METH s.a.s. progetta e costruisce trasformatori elettrici dal 1980, puntando sempre alla qualità delle prestazioni del prodotto, grazie all'esperienza trentennale e alle certificazioni di prodotto e qualità ottenute a partire dal 1998 e che costantemente vengono aggiornate e ampliate.

In particolare Meth produce trasformatori monofase da 3,2VA a 80kVA e trasformatori trifase da 100VA a 630kVA in varie soluzioni costruttive, con diversi tipi di applicazione (industriale, civile e per energie alternative) e con la possibile applicazione del marchio di prodotto europeo e nord-americano.

La tecnologia e l'esperienza accumulata permette di sviluppare in breve tempo prodotti secondo le richieste del cliente e di puntare su programmi per nuovi prodotti.

METH s.a.s. designs and manufactures electric transformers since 1980 focusing on the quality of its product performance, thanks to 30 years of experience in this business. Since 1998 multiple national and international certifications are the result of a continuous effort in updating our products to meet worldwide standards and requirements.

Meth is specialized in manufacturing single-phase electric transformers from 3,2VA to 80kVA and three-phase transformers from 100VA to 630kVA, for applications in different fields from industrial to automation to photovoltaic to marine.

Depending on the configuration, METH transformers bear the European or North American Approvals such as UL, KEMA and ENEC.

Meth experience and technology allow to develop and manufacture in a short time new products to meet any customers' requests and to improve new products programs.

PROGETTAZIONE

La nostra azienda si avvale di programmi di calcolo "RALE" in grado di ottenere tutti i parametri della macchina da produrre, che vengono verificati successivamente in sala prove. Tra i principali: sovratemperatura, perdite, rendimenti, rigidità, isolamento, tensione indotta, ecc. Nel calcolo sono dimensionati opportunamente i distanziatori e i canali di raffreddamento.

PRODUZIONE

L'intero processo produttivo è realizzato all'interno dell'azienda: controlli all'ingresso, avvolgimento su macchine automatiche per i piccoli trasformatori, su macchine avvolgitrici di piallina e nastro di rame o alluminio per i trasformatori più grandi. Seguono l'assemblaggio dei nuclei e l'impregnazione o la resinatura. Al termine del processo produttivo tutti i trasformatori sono testati in sala prove con strumenti secondo prescrizioni ISO tarati regolarmente in centri SIT.

COLLAUDO

Tutti i trasformatori (100% della produzione) sono sottoposti a collaudo finale registrato e disponibile. Meth è attrezzata per poter effettuare tutti i collaudi previsti dalle norme. Attualmente è disponibile la strumentazione per le seguenti prove: perdite a vuoto, perdite a carico, analisi delle armoniche, misura di resistenza, misura di temperatura, misura di rigidità, misura di isolamento, tensione indotta, corrente di inserzione.

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, ecc., 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 on machine for flat cable, copper or aluminium strip for bigger transformers, core-assembly and soaking or resin. At the end of production all transformers are tested internally with instruments according to ISO specifications and regularly calibrated in SIT centres.

TEST

Meth transformers are 100% tested and test results are stored in Meth database and available on customers request. Meth test equipment allows to carry out all tests required by the standards. At the moment the equipment is available for the following tests: no-load losses, load losses, harmonic analysis, resistance, rigidity and insulation measurement, induced voltage, inrush current.



IL SISTEMA DI QUALITÀ

Il Sistema di Qualità, certificato dal 1998, regola tutte le fasi aziendali: gestione ordini clienti e fornitori, controlli in entrata, cicli produttivi, collaudi, gestione reclami, ecc.

Ad ulteriore conferma della costante ricerca della qualità nel corso degli anni abbiamo ottenuto le seguenti certificazioni di prodotto:

- UL-CSA per i trasformatori monofase fino a 10kVA e per i trasformatori trifase fino a 25kVA. Segnaliamo che METH è l'unico costruttore in Europa con il marchio UL-CSA LISTED.
- UL-CSA Insulation System classe F e classe B.
- ENEC-KEMA per i trasformatori monofasi fino a 2kVA.
- RINA e GL per alcuni tipi di trasformatori monofasi navali fino a 1kVA.

Tutto ciò determina, a seguito anche di ispezioni trimestrali da parte degli Enti di Certificazione, una completa e continua assicurazione di qualità sui prodotti da noi forniti.

QUALITY

Meth Quality System, certified since 1998, rules all the processes: customers and suppliers orders management, preliminary controls, manufacturing cycles, final tests, handling of non conformity.

As further confirmation of the constant quality-research over the years, Meth has obtained the following certifications:

- UL-CSA for single phase transformers up to 10KVA and for three-phase transformers up to 25KVA.
 - Meth is the only manufacturer in Europe with UL-CSA LISTED certification.
 - UL-CSA Insulation System class F and B.
 - ENEC-KEMA for single phase transformers up to 2KVA.
 - RINA and 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.



MEGATRON

SINGLE-PHASE TRANSFORMERS	
TRASFORMATORI MONOFASE	
T1Q-T1Q(O) T1ULF-T1UL	Low-voltage single-phase isolating and safety transformers ENEC and UL-CSA marked <i>Trasformatori monofase di isolamento e sicurezza a marchio ENEC e UL-CSA</i> pag. 4-6
T1B	Low-voltage single-phase isolating and safety transformers – class F <i>Trasformatori monofase di isolamento e sicurezza – classe F</i> pag. 7
T1C	Low-voltage single-phase isolating and safety transformers – class F <i>Trasformatori monofase di isolamento e sicurezza – classe F</i> pag. 8
T1U	Universal input low-voltage single-phase isolating and safety transformers <i>Trasformatori monofase di isolamento e sicurezza multi-entrata</i> pag. 9
T1L	Isolating and safety single-phase transformers for screw or DIN bar installation IP20 <i>Trasformatori monofase di isolamento e sicurezza per inserzione a vite o su barra DIN</i> pag. 10
T2	Low-voltage single-phase dry-type transformers from 11 to 80 kVA <i>Trasformatori monofase di potenza da 11 a 80 kVA</i> pag. 11
T2H	Single-phase transformers for medical locations <i>Trasformatori monofase per ambienti medicali</i> pag. 12
T1Q-GL	Single-phase transformers for marine applications <i>Trasformatori monofase per impiego navale</i> pag. 13
T5-T6-T7	PCB transformers <i>Trasformatori per circuito stampato</i> pag. 14-15
	Other transformers / <i>Trasformatori vari</i> pag. 16
THREE-PHASE TRANSFORMERS & AUTOTRANSFORMERS	
TRASFORMATORI TRIFASE E AUTOTRASFORMATORI	
T3TULF-T3TUL	Three-phase industrial control transformers UL-CSA marked up to 25 kVA <i>Trasformatori trifase di controllo a marchio UL-CSA fino a 25 kVA</i> pag. 18-19
T3T	Low-voltage three-phase isolating and safety transformers up to 40kVA <i>Trasformatori trifase B/BT di isolamento e sicurezza fino a 40kVA</i> pag. 20-21
T3T	Low-voltage dry-type three-phase power transformers up to 630kVA <i>Trasformatori trifase B/BT di potenza a secco fino a 630kVA</i> pag. 22-23
T3X	Low-voltage dry-type three-phase power transformers with protection degree IP55 <i>Trasformatori trifase di potenza a secco BT/BT con protezione IP55</i> pag. 24
T3SL	LOW-LOSSES three-phase SLIM-LINE transformers ECO DESIGN <i>Trasformatori trifase SLIM-LINE a basse perdite ECO DESIGN</i> pag. 25
T3T-FTV	Low-voltage isolating three-phase transformers for “Renewable Energies” class B <i>Trasformatori trifase di isolamento BT/BT per Energie rinnovabili classe B</i> pag. 26-27
AT3	Low-voltage three-phase autotransformers <i>Autotrasformatori trifase</i> pag. 28
REACTORS	
REATTANZE	
R3F	Three-phase filter reactors <i>Reattanze trifase di filtro</i> pag. 30
R3L	Three-phase smoothing reactors <i>Reattanze trifase di commutazione</i> pag. 31
STEEL ENCLOSURE	
BOX METALLICI	
IP21-IP23-IP55	Steel enclosure for three-phase transformers <i>Box metallici di protezione per trasformatori trifase</i> pag. 32
TECHNICAL NOTES / NOTE TECNICHE pag. 33-36	

SINGLE-PHASE TRANSFORMERS

www.meth.it



SINGLE-PHASE TRANSFORMERS



Low-voltage single-phase isolating and safety transformers
 ENEC and UL-CSA marked
T1Q-T1ULF-T1UL



T1Q - T1ULF - T1UL



T1Q(0)



T1ULF - T1UL

General data	
Input voltage	T1Q-T1Q(0) : 200-440 V T1ULF-T1UL : 100-600 V
Output voltage	T1Q-T1Q(0) : 12-440 V T1ULF-T1UL : 12-600 V
Rated power	T1Q-T1Q(0) : 30-2000 VA T1ULF : 30-5000 VA T1UL : >5 KVA - 10 KVA
Insulation class	class F
Temperature class	T1Q-T1Q(0) : class B T1ULF-T1UL : class F
Ambient temperature	T _a =40°C
Protection degree	IP 00
Test voltage	4,2 KV/1'
Terminals	terminal blocks
Applications	
Isolating transformer with secondary voltage > 50 V Safety transformer with secondary voltage ≤ 50 V safety transformer They are suitable for any industrial/civil use for the electrical isolation of the input and output sides. Construction in accordance with the below standards.	
Standards	
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	
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

T1Q and T1Q(0) are ENEC marked
T1ULF and T1UL are UL-CSA marked

Note: T1Q(0) is the previous version of the current T1Q, with different terminal blocks and dimensions.

SINGLE-PHASE TRANSFORMERS

Low-voltage single-phase isolating and safety transformers ENEC marked
T1Q-T1Q(0)

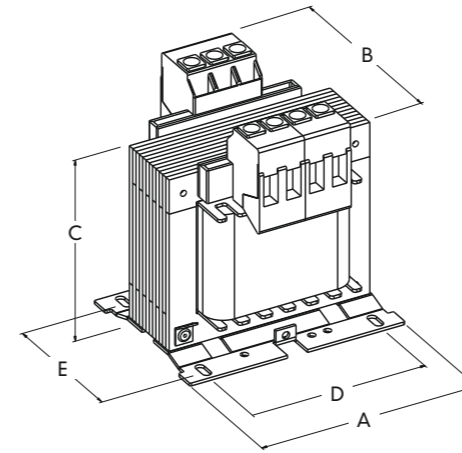


fig. 1

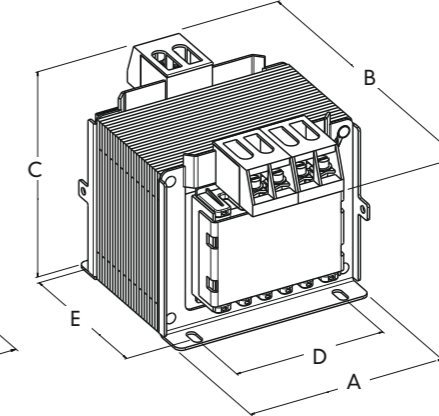


fig. 2

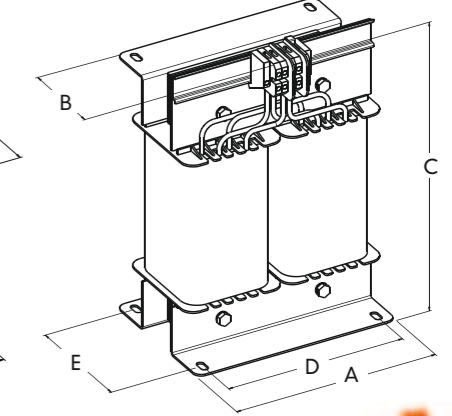


fig. 3



Technical data T1Q

CODE	RATED POWER	APPROVALS	DIMENSIONS (mm)					WEIGHT	FIG.
			A	B	C	D	E		
T1Q-30...	30		76	72	89	56	45	1,1	fig. 1
T1Q-50...	50		76	78	89	56	50	1,2	fig. 1
T1Q-75...	75		85	85	98	64	54	1,45	fig. 1
T1Q-100...	100		85	94	98	64	64	2	fig. 1
T1Q-150...	150		96	92	109	84	70	2,6	fig. 1
T1Q-200...	200		96	107	109	84	85	3,1	fig. 1
T1Q-250...	250		121	95	123	90	70	3,6	fig. 1
T1Q-300...	300		121	105	123	90	80	4,4	fig. 1
T1Q-400...	400		121	115	123	90	90	5,7	fig. 1
T1Q-500...	500		121	135	123	90	110	7	fig. 1
T1Q-600...	600		151	117	140	122	90	7,4	fig. 1
T1Q-800...	800		151	137	140	122	110	9,8	fig. 1
T1Q-1000...	1000		151	157	140	122	130	12,1	fig. 1
T1Q-1250...	1250		193	125	182	160	96	14	fig. 1
T1Q-1500...	1500		193	131	182	160	102	16	fig. 1
T1Q-2000...	2000		193	151	182	160	122	20	fig. 1



Technical data T1Q(0) - Previous version of T1Q available upon request

CODE	RATED POWER	APPROVALS	DIMENSIONS (mm)					WEIGHT	FIG.
			A	B	C	D	E		
T1Q(0)-30...	30		77	81	77	60	43	1,1	fig. 2
T1Q(0)-50...	50		77	85	77	60	48	1,2	fig. 2
T1Q(0)-75...	75		86	85	82	70	55	1,45	fig. 2
T1Q(0)-100...	100		86	95	82	70	65	2	fig. 2
T1Q(0)-150...	150		98	98	95	80	69	2,6	fig. 2
T1Q(0)-200...	200		98	113	95	80	84	3,1	fig. 2
T1Q(0)-250...	250		122	103	110	100	75	3,6	fig. 2
T1Q(0)-300...	300		122	108	110	100	80	4,4	fig. 2
T1Q(0)-400...	400		122	118	110	100	90	5,7	fig. 2
T1Q(0)-500...	500		122	138	110	100	110	7	fig. 2
T1Q(0)-600...	600		153	116	136	125	93	7,4	fig. 2
T1Q(0)-800...	800		153	136	136	125	113	9,8	fig. 2
T1Q(0)-1000...	1000		153	156	136	125	133	12,1	fig. 2
T1Q(0)-1250...	1250		193	125	176	160	96	14	fig. 2
T1Q(0)-1500...	1500		193	131	176	160	102	16	fig. 2
T1Q(0)-2000...	2000		193	151	176	160	122	20	fig. 2

SINGLE-PHASE TRANSFORMERS

Low-voltage single-phase isolating and safety transformers ULCSA marked **T1ULF-T1UL**



Technical data T1ULF-T1UL

CODE	RATED POWER	APPROVALS	DIMENSIONS (mm)					WEIGHT	FIG.
	VA		A	B	C	D	E	Kg	
T1ULF-30...	30		76	80	89	56	45	1,1	fig. 1
T1ULF-50...	50		76	86	89	56	50	1,2	fig. 1
T1ULF-75...	75		85	93	98	64	54	1,45	fig. 1
T1ULF-100...	100		85	102	98	64	64	2	fig. 1
T1ULF-150...	150		96	100	109	84	70	2,6	fig. 1
T1ULF-200...	200		96	113	109	84	85	3,1	fig. 1
T1ULF-250...	250		121	101	123	90	70	3,6	fig. 1
T1ULF-300...	300		121	111	123	90	80	4,4	fig. 1
T1ULF-400...	400		121	121	123	90	90	5,7	fig. 1
T1ULF-500...	500		121	135	123	90	110	7	fig. 1
T1ULF-600...	600		151	117	140	122	90	7,4	fig. 1
T1ULF-800...	800		151	137	140	122	110	9,8	fig. 1
T1ULF-1000...	1000		151	157	140	122	130	12,1	fig. 1
T1ULF-1250...	1250		193	125	182	122	96	14	fig. 1
T1ULF-1500...	1500		193	131	182	160	102	16	fig. 1
T1ULF-2000...	2000		193	151	182	160	122	20	fig. 1
T1ULF-2500...	2500		193	171	182	160	142	22	fig. 1
T1ULF-3000...	3000		200	155	300	150	126	31	fig. 3
T1ULF-4000...	4000		240	175	357	205	104	37	fig. 3
T1ULF-5000...	5000		240	185	357	205	114	40	fig. 3
T1UL-6000...	6000		240	205	357	205	134	47	fig. 3
T1UL-7500...	7500		280	228	410	233	152	57	fig. 3
T1UL-10000...	10000		280	252	410	233	175	75	fig. 3



Electrical data - Suitable for T1Q - T1Q(0) - T1ULF - T1UL

RATED POWER	LOSSES (W)		EFFICIENCY	U _{cc}	ΔV	INRUSH CURRENT
	VA	no-load				
30	3	3,2	82,8	9,5	9,6	22
50	3,5	6,7	83,1	11,8	11,8	20
75	4	8	86,2	10,6	10	19
100	5,2	6,8	86,9	8,4	8,2	26
150	6,5	12,5	88,9	9,4	8,1	22
200	8,2	16	89,5	9	7,7	21
250	9,1	17,5	90,5	10,2	7,2	21
300	10,5	18,7	91,2	9,2	6,4	21
400	12,5	28,5	91	10	7,1	20
500	15,6	29	91,9	8,6	5,9	22
600	17	36	92,3	5,6	5,6	25
800	20	46	92,4	5	5,4	24
1000	25	47	93,4	4,5	4,5	25
1250	32	48	93,9	3,9	3,8	28
1500	34	63	93,9	4,3	4,1	26
2000	41	79	94,3	4	3,8	25
2500	50	80	95	3,5	3,2	26
3000	60	97	95	3,4	3,2	26
4000	50	150	95,2	4,1	3,8	25
5000	55	170	95,6	3,7	3,4	25
6000	65	185	96	3,4	3,1	24
7500	75	220	96,2	3,2	2,4	24
10000	100	250	96,7	2,9	2,4	23

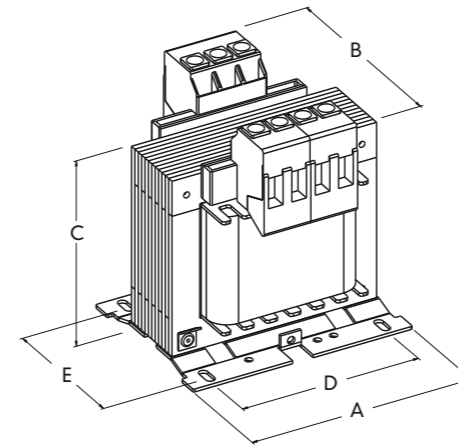


SINGLE-PHASE TRANSFORMERS

Low-voltage single-phase isolating and safety transformers – class F **T1B**



T1B



General data

2 INPUT VOLTAGE/1 OUTPUT VOLTAGE - OUTPUT IN TWO SIDES

Rated input voltage	230-400 V or others upon request
Rated output voltage	24 V/115 V or others upon request
Rated power	30-2000 VA
Insulation class	class F
Temperature class	class F
Ambient temperature	T _a =40°C
Protection degree	IP 00
Test voltage	4,2 KV/1'
Terminals	terminal blocks

Applications

Single-phase control, isolating and safety transformers designed combining **reliable performance and cost-effectiveness**. They are completely impregnated with resin and have faston or screw earth connection, 4 sqmm terminal blocks, input and output in the same side. Construction in accordance with the below standards:

Standards

CEI-EN 61558,2-4 – isolating transformers
CEI-EN 61558,2-6 – safety transformers
IEC 61558,2-4 and 2-6

Technical data T1B

Electrical data

CODE	RATED POWER	DIMENSIONS (mm)					WEIGHT	LOSSES (W)		U _{cc}	ΔV	INRUSH CURRENT
	VA	A	B	C	D	E		Kg	no-load			
T1B-30...	30	67	77	79	50	56	1	2	3,7	84,5	10,5	28
T1B-50...	50	76	72	89	56	45	1,1	2,5	8	83,2	13,4	27
T1B-75...	75	76	88	89	56	60	1,3	3	10,5	85	11,7	26
T1B-100...	100	85	89	98	64	60	1,8	4	11	87,1	9,8	25
T1B-150...	150	96	88	108	84	66	2,3	5	17	87,6	9,9	26
T1B-200...	200	108	88	115	84	88	3,1	6	21	88,4	9,4	21
T1B-250...	250	108	98	115	84	98	3,7	8	22	89,4	8,2	24
T1B-300...	300	121	95	123	90	70	4,1	7	27,5	89,8	8,3	21
T1B-400...	400	121	110	123	90	85	4,9	9,5	34,5	90,2	7,9	22
T1B-500...	500	121	125	123	90	100	6,2	11	34	91,7	6,4	23
T1B-600...	600	151	117	140	122	90	7,3	12	39	92,1	6,3	22
T1B-800...	800	151	137	140	122	110	9,3	17	41	93,3	4,9	25
T1B-1000...	1000	151	147	140	122	120	11,4	19	47	93,8	4,6	25
T1B-1500...	1500	192	125	176	160	96	14	25	80	93,5	5	24
T1B-2000...	2000	192	151	176	160	122	19	35	91	94,1	4,4	25

SINGLE-PHASE TRANSFORMERS

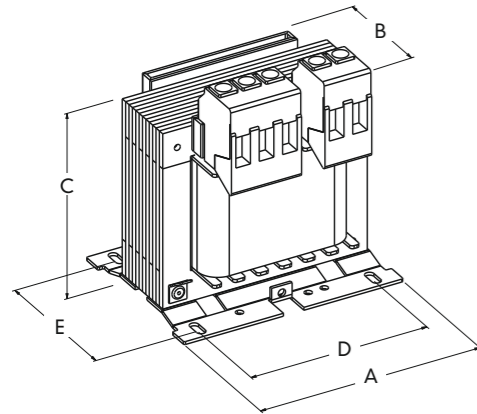


Low-voltage single-phase isolating and safety transformers – class F

T1C



T1C



General data

1 INPUT VOLTAGE/1 OUTPUT VOLTAGE - OUTPUT IN ONE SIDE

Rated input voltage	230 V or others upon request
Rated output voltage	24 V/115 V or others upon request
Rated power	30-250 VA
Insulation class	class F
Temperature class	class F
Ambient temperature	T _a =40°C
Protection degree	IP 00
Test voltage	4,2 KV/1'
Terminals	terminal blocks

Applications

Single-phase control, isolating and safety transformers designed combining **reliable performance and cost-effectiveness**. They are completely impregnated with resin and have faston or screw earth connection, 4 sqmm terminal blocks, input and output in the same side. Construction in accordance with the below standards:

Standards

CEI-EN 61558,2-4 – isolating transformers
CEI-EN 61558,2-6 – safety transformers
IEC 61558,2-4 and 2-6

Technical data T1C

Electrical data

CODE	RATED POWER		DIMENSIONS (mm)					WEIGHT Kg	LOSSES (W)		EFFICIENCY %	U _{cc} %	ΔV %	INRUSH CURRENT x I _n
	VA	A	B	C	D	E	no-load		load					
T1C-30...	30	67	68	79	50	47	0,85	2	5	82	13,7	14	26	
T1C-50...	50	76	67	89	56	40	1	2,5	8,5	82	13,8	14,1	26	
T1C-75...	75	76	88	89	56	60	1,3	3	9	86,3	10,5	11	25	
T1C-100...	100	85	89	98	64	60	1,7	4	12,5	86,4	10,8	11	25	
T1C-150...	150	96	83	109	84	61	2,1	4	17	88	9,9	10	26	
T1C-200...	200	96	98	109	84	76	2,7	5,6	20	88,7	9	9,1	24	
T1C-250...	250	96	108	109	84	86	3,1	7	25,7	88,6	9,2	9,3	23	



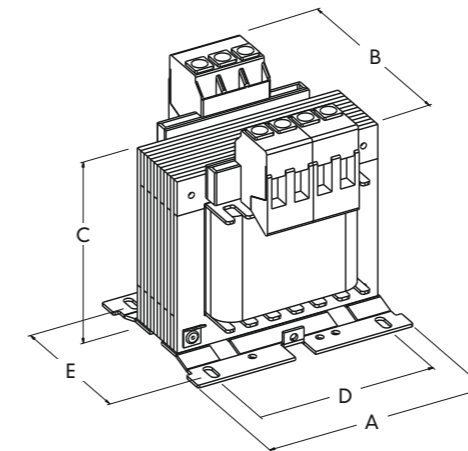
SINGLE-PHASE TRANSFORMERS

Universal input low-voltage single-phase isolating and safety transformers

T1U



T1U



General data

Rated input voltage (standard)	208-230-380-400-415-440-460-480-500-525-550 V
Rated output voltage	2x115 V or 2x12 V
Rated power	from 150 to 1000 VA
Insulation class	class F
Temperature class	class F
Ambient temperature	T _a =40°C
Protection degree	IP 00
Test voltage	4,2 KV/1'
Terminals	terminal blocks

Applications

Suitable for any industrial application, where different input voltages are required. Construction in accordance with the below standards:

Standards

CEI-EN 61558,2-4 and 2-6 – isolating and safety transformers
IEC 61558,2-4 and 2-6
UL 5085 1 and 2 – low voltage transformers
CSA 22.2 No.66

Certifications

FILE E169331-vol. 2-sec. 1-2
FILE E215141-vol. 1-sec. 1

Technical data T1U

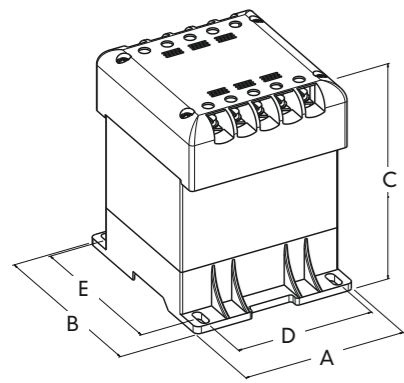
CODE	RATED POWER		DIMENSIONS (mm)					WEIGHT Kg
	VA	A	B	C	D	E		
T1U-150...	150	96	92	105	84	75	2,60	
T1U-250...	250	121	95	125	90	70	3,6	
T1U-400...	400	121	115	125	90	90	5,7	
T1U-500...	500	121	135	125	90	110	7	
T1U-630...	630	151	117	140	120	90	7,4	
T1U-800...	800	151	137	140	120	110	9,8	
T1U-1000...	1000	151	157	140	120	130	12,1	

Isolating and safety single-phase transformers for screw or DIN bar installation - IP20

T1L



T1L



General data	
Rated input voltage	230-400±15 V
Rated output voltage	T1L...A: 2x12 V
	T1L...B: 2x115 V
Rated power	50-75-100-160-200-250-300 VA
Insulation class	class F
Temperature class	class B
Ambient temperature	T _a =40°C
Protection degree	IP 20
Test voltage	4,2 KV/1'
Terminals	self-lifting screws
Applications	
Single-phase isolating (T1L...B) and safety (T1L...A) transformers suitable for DIN rail or floor screws installation. Multi-voltage input and output with protection degree IP20. Construction in accordance with the below standards:	
Standards	
CEI-EN 61558,2-4 and 2-6 – isolating and safety transformers	
IEC 61558,2-4 and 2-6	

T1L...A=230-400±15/2x12V (up to 200 VA)
T1L...B=230-400±15/2x115V (up to 300 VA)

Technical data T1L

CODE	RATED POWER		DIMENSIONS (mm)					HOLING Ø	WEIGHT
	VA		A	B	C	D	E	mm	Kg
T1L-50A/T1L-50B	50		90	106	87	68,5	90	4,5	1,5
T1L-75A/T1L-75B	75		90	106	106	68,5	90	4,5	1,9
T1L-100A/T1L-100B	100		90	106	116	68,5	90	4,5	2,35
T1L-160A/T1L-160B	160		126	136	117	96	121	5,5	3,9
T1L-200A/T1L-200B	200		126	136	117	96	121	5,5	4
T1L-250B	250		126	136	127	96	121	5,5	4,8
T1L-300B	300		126	136	127	96	121	5,5	4,92

Electrical data

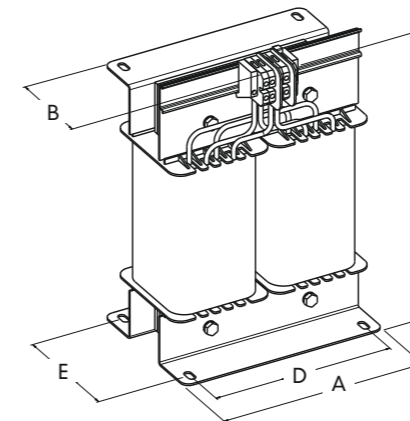
RATED POWER	LOSSES (W)		EFFICIENCY		U _{cc}
	VA	no-load	load	%	%
50		3,6	5,7	84	10,4
75		4,7	8,7	84,8	10,4
100		5,4	10,4	86,3	9,9
160		8,5	9,7	89,7	7,6
200		8,5	10,7	91	7,1
250		10	16,3	90,5	8,8
300		10	23,3	90	7,1

Low-voltage single-phase dry-type transformers

T2



T2



General data	
Rated input voltage	up to 600 V
Rated output voltage	up to 600 V
Rated power	from 11 to 80 KVA
Insulation class	class F
Temperature class	class B
Ambient temperature	T _a =40°C
Protection degree	IP 00
Test voltage	3 KV/1'
Terminals	terminal blocks / bars
Applications	
Suitable for any industrial applications for electrical isolation of the input and output side. Construction in accordance with the below standards:	
Standards	
CEI-EN 60076 – dry type transformers	
IEC -60076 – dry type transformers	
UL 5085 1 and 2 – low voltage transformers	
Certifications	
	Insulation System class F (upon request)

Technical data T2

CODE	RATED POWER		DIMENSIONS (mm)					WEIGHT
	kVA		A	B	C	D	E	Kg
T2-15...	15		280	270	408	235	170	72
T2-20...	20		320	280	440	265	320	88
T2-25...	25		320	310	440	265	198	110
T2-30...	30		400	330	550	300	200	125
T2-40...	40		400	360	550	300	220	155
T2-50...	50		400	410	550	300	240	190
T2-60...	60		400	440	550	300	280	225
T2-80...	80		400	480	550	300	320	275

Electrical data

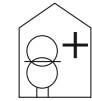
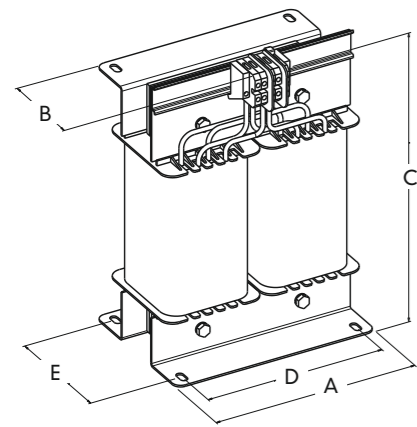
RATED POWER	LOSSES (W)		EFFICIENCY		U _{cc}	ΔV	INRUSH CURRENT
	kVA	no-load	load	%	%	%	x I _n
15		95	445	96,5	3,7	3,5	25
20		115	530	96	3,6	3,5	23
25		140	600	97,1	3,1	3,2	20
30		150	890	96,6	4,7	4,6	19
40		180	1010	97,1	4,6	4,5	18
50		230	1060	97,4	3,9	3,8	18
60		280	1080	97,8	3,4	3,4	17
80		335	1350	97,9	3,3	3,4	16

Single-phase transformers for medical locations

T2H



T2H



Isolating transformer for powering medical locations.

General data	
Rated input voltage	230 V
Rated output voltage	115-0-115 V
Rated power	from 2200 VA to 10000 VA
Insulation class	class F
Temperature class	class B
Ambient temperature	T _a =40°C
Protection degree	IP 00
Inrush current	12 x I _n
Short-circuit voltage	3%
Insulation voltage	5kV/1'
No-load current	3%
Leakage current of the output winding to earth	≤0,5 mA
Leakage current of the enclosure to earth	≤ 3,5 mA
Double screen between primary and secondary	
Equipped with a pocket for PT100 upon request	
Terminals	terminal blocks
Applications	
Suitable for galvanic separation between the net from the users in medical locations. Construction in accordance with the below standards:	
Standards	
CEI-EN 61558, 2-15	
IEC 61558, 2-15	

Technical data T2H

CODE	RATED POWER		DIMENSIONS (mm)					WEIGHT Kg
	VA		A	B	C	D	E	
T2H-2.2	2200		200	155	300	150	126	36
T2H-3.3	3300		240	175	355	180	104	46
T2H-4	4000		240	185	355	180	114	50
T2H-5.5	5500		280	195	355	180	124	56
T2H-7.5	7500		280	230	410	235	152	66,5
T2H-10	10000		280	240	410	235	162	75

Electrical data - Data referred to 230/115-0-115 V

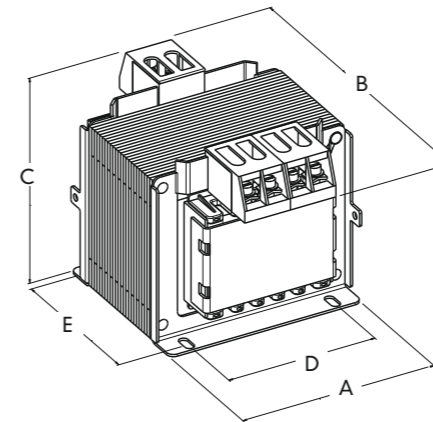
RATED POWER VA	LOSSES (W)		EFFICIENCY %	U _{cc} %	INRUSH CURRENT x I _n
	no-load	load			
2200	12	65	96,7	3	12
3300	15	90	96,9	3	12
4000	20	110	96,9	3	12
5500	25	130	97	3	12
7500	30	190	97,1	3	12
10000	35	230	97,4	3	12

Single-phase transformers for marine applications

T1Q-GL



T1Q-GL



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°C
Protection degree	IP 00
Test voltage	4,2 kV/1'
Terminals	terminal blocks
Applications	
Suitable for installation in switchboard and for "Marine" applications with RINA or GL approvals. Self-extinguishing isolating components.	
Standards	
Guideline for the Performances of Type Approvals Chapter 2 Ed. 2003 (GL)	
Rina rules PtC, CH 2, Sec.5 (RINA)	
Certifications	
	German Lloyd n.46566 - 12HH
	RINA n. ELE333811CS
	UL-CSA Listed FILE E169331 (upon request)

Technical data T1Q-GL

CODE	RATED POWER		APPROVALS	DIMENSIONS (mm)					WEIGHT Kg
	VA			A	B	C	D	E	
T1QGL-150...	150			96	92	105	84	75	2,6
T1QGL-250...	250			121	95	125	90	70	3,6
T1QGL-500...	500			121	135	125	90	110	7
T1QGL-800...	800			151	137	140	120	110	9,8
T1QGL-1000...	1000			151	157	140	120	130	12,1

Electrical data

RATED POWER VA	LOSSES (W)		EFFICIENCY %	U _{cc} %	ΔV %	INRUSH CURRENT x I _n
	no-load	load				
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

PCB transformers
T5-T6-T7



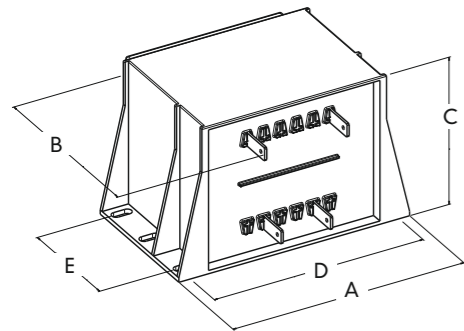
T5



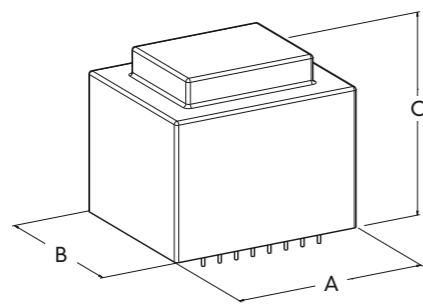
T6



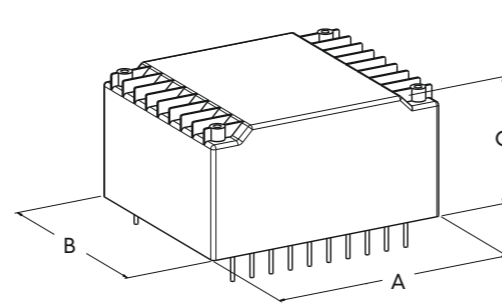
T7



T5



T6



T7

General data

Rated input voltage	from 100 to 250 V
Rated output voltage	from 12 to 42 V
Rated power	T5: from 12 to 70 VA
	T6: from 3,2 to 100 VA
	T7: from 4 to 60 VA
Insulation class	class B
Temperature class	class B
Ambient temperature	Ta=70°C
Protection degree	IP 00
Test voltage	4,2 KV/1'

Applications

Safety transformers encapsulated with epoxy resin suitable for PCB use (T6-T7) or use in critical ambients (T5).

T5: input and output with 6,3 mm faston

T6: for PCB insertion with pins with Ø 0,8 mm

T7: for PCB low profile with pins with Ø 0,8 mm

Standards

CEI-EN 61558, 2-6 – safety transformers

IEC 61558, 2-6 – safety transformers

UL-CSA 5085 1-2 – low voltage transformers

Certifications

ENEC-KEMA File: 3502609 03-04-05

UL Insulation System class B File E215141

PCB transformers
T5-T6-T7



Electrical data

Technical data T5

CODE	RATED POWER	APPROVALS	DIMENSIONS (mm)					WEIGHT	LOSSES (W)	EFFICIENCY	ΔV
	VA		A	B	C	D	E				
T5-12	12		82	48	50	68	11	0,42	1	76	15
T5-20	20		82	54	54	74	13	0,56	1,2	87	14
T5-30	30		94	59	60	82	13	0,76	1,5	82	14
T5-35	35		94	59	71	82	36	1,04	2,2	85	9
T5-55	55		105	66	73	93	38	1,32	2,7	86	9,9
T5-70	70		105	66	83	93	48	1,54	3,5	87	8,8

Technical data T6

Electrical data

CODE	RATED POWER	APPROVALS	DIMENSIONS (mm)								WEIGHT	LOSSES (W)	Efficiency	ΔV	FIG.
	VA		A	B	C	D	E	F	G	no-load					
T6-3,2	3,2		42	35,5	27,5	-	-	5	25	0,16	0,5	69	25	fig. 2	
T6-4	4		43	37	33	-	-	5	25	0,18	0,9	69	25	fig. 2	
T6-5	5		44,2	37,2	32	-	-	5	25	0,19	1	66	27	fig. 2	
T6-10	10		50,2	42,2	34,5	-	-	5	27,5	0,28	1,2	71	24	fig. 2	
T6-12	12		50,2	42,2	38,1	-	-	5	27,5	0,32	1,4	73	22	fig. 2	
T6-16	16		74	47,5	40	65	-	5	32,5	0,42	1,6	72	24	fig. 1	
T6-20	20		81,5	53,7	48	72,5	43,5	5	32,5	0,54	1,9	80	14	fig. 1	
T6-25	25		81,5	53,7	53	72,5	43,5	5	32,5	0,62	2,2	81	13	fig. 1	
T6-30	30		81,5	53,7	58	72,5	43,5	5	32,5	0,72	2,4	83	12	fig. 1	
T6-35	35		87,5	58,6	58	78	48	5	35	0,78	2,6	84	12	fig. 1	
T6-50	50		87,5	58,6	68	78	48	5	35	1,05	3,2	85	11	fig. 1	
T6-60	60		102	69	65	90	57	7,5	39	1,35	3,4	86	11	fig. 1	
T6-100	100		102	69	75	90	57	7,5	39	1,6	4,5	86	13	fig. 1	

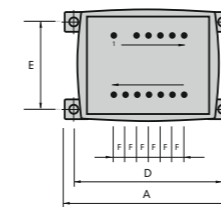


fig. 1

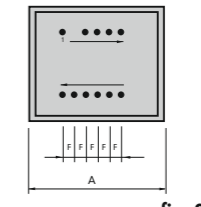
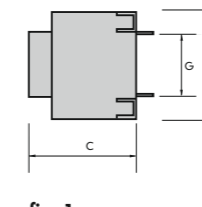


fig. 2

Technical data T7

Electrical data

CODE	RATED POWER	APPROVALS	DIMENSIONS (mm)			WEIGHT	LOSSES (W)	EFFICIENCY	ΔV	FIG.
	VA		A	B	C (H)					
T7-4	4		53	44	17,6	0,16	1,2	55	40	fig. 1
T7-6	6		53	44	22,6	0,18	1,1	63	33	fig. 1
T7-10	10		53	44	28,6	0,19	1,1	70	26	fig. 1
T7-14	14		68	57,5	24,2	0,28	1,6	70	26	fig. 2
T7-18	18		68	57,5	27,2	0,32	1,4	74	23	fig. 2
T7-24	24		68	57,5	31	0,42	1,7	76	21	fig. 2
T7-30	30		68	57,5	35,5	0,54	1,8	78	19	fig. 2
T7-40	40		83,5	69	37	0,62	2,2	78	19	fig. 3
T7-60	60		83,5	69	46	0,72	3,1	78	17	fig. 3

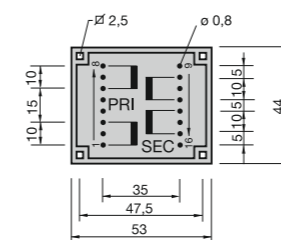


fig. 1

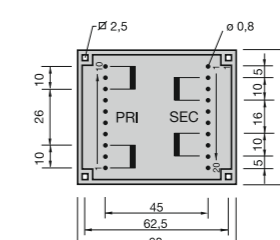


fig. 2

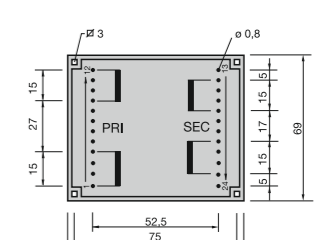
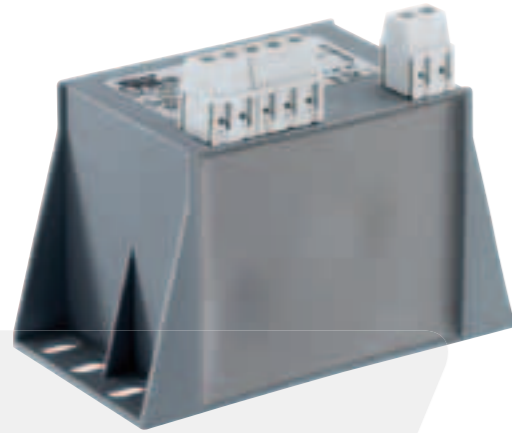


fig. 3

Other transformers



Single-phase transformers with vertical connectors



Single-phase UL transformers class 2



Single-phase transformers with fast-on terminals



AC/DC multi voltages power supplier

THREE-PHASE TRANSFORMERS

www.meth.it