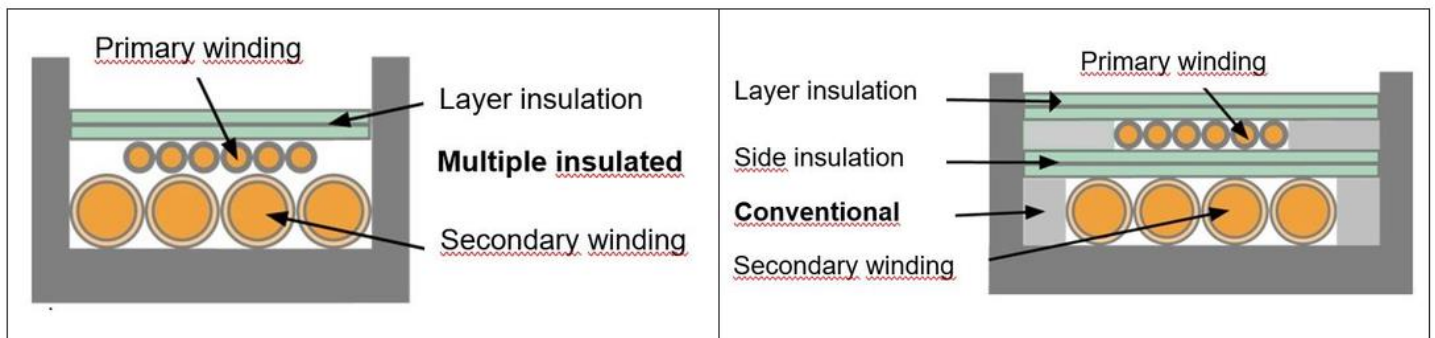


WINDING WIRES AND HIGH FREQUENCY LITZ WIRES / MULTIPLE INSULATED WIRES

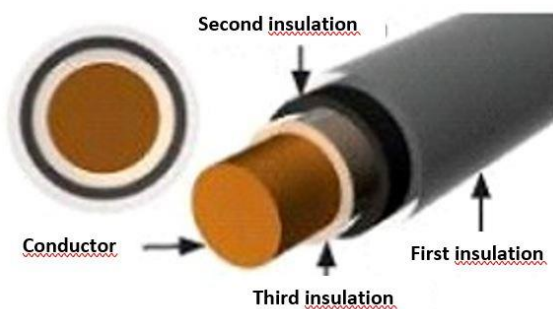


Due to their dielectric strength, wires insulated several times with fluoroplastics allow the construction of compact transformers without intermediate insulation between the primary and secondary windings. This results in better magnetic coupling between the windings, which results in lower leakage inductances.

These wires are also ideally suited for applications in medical electrical equipment, as the breakdown voltage of the insulation is greater than 4250 volts, which is required by UL for the protection of persons.



Solid- and stranded wires, triple insulated with ETFE TEFZEL®, class F



Conductor material:	tinned copper
Insulation:	Tefzel® (ETFE)
Number of layers:	3
Standard color:	----
Temperature class:	F (155° C)
Operating voltage:	1000 V

Tensile strength:	45 N/mm2 (6500 psi)		
Insulation thickness per layer:	0.025mm (0.001")	Insulation thickness per layer:	0.038mm (0.0015")
Operating voltage:	1000 V	Operating voltage:	UL: 1500 V (707 V medical), VDE: 1000 V
Breakdown voltage:	approx. 4500 V	Breakdown voltage:	approx. 7000 V
Flammability:	---	Flammability:	V-0
Conformity:	UL OBJT2 File No. E206198 UL/IEC60950-1 (Ed.2), Annex U	Conformity:	ULOBJT2FileNo.E206198 UL/IEC60950-1(Ed.2) AnnexU.UL2601, IEC61558-2-16, 60601-1(Ed.3), 61010-1(Ed.3), VDE-ApprovalNo.136743:ClassF

Dimensional tolerances			Dimensional tolerances		
AWG	---	----	AWG	18 -24	+ 0.038 / - 0.025 mm
AWG	30 - 40	+ 0.025 /- 0.013 mm	AWG	25 -40	+ 0.025 /- 0.025 mm

Dimensions					Dimensions				
AWG	Type	Conduct or Ø	Outer Ø	Weight *	AWG	Type	Conduct or Ø	Outer Ø	Weight*
		[mm]	[mm]	[kg/km]			[mm]	[mm]	[kg/km]
18	---	---	---	---	18	T18A01TXX X-1.5	1,024	1,252	8,02
19	---	---	---	---	19	---	---	---	---
20	T20A01TXX X-1	0,813	0,965	4,95	20	T20A01TXX X-1.5	0,813	1,041	5,16
21	T21A01TXX X-1	0,724	0,876	3,98	21	T21A01TXX X-1.5	0,724	0,953	4,16
22	T22A01TXX X-1	0,643	0,795	3,18	22	T22A01TXX X-1.5	0,643	0,871	3,34
23	T23A01TXX X-1	0,574	0,726	2,57	23	T23A01TXX X-1.5	0,574	0,803	2,72
24	T24A01TXX X-1	0,511	0,663	2,05	24	T24A01TXX X-1.5	0,511	0,739	2,20
25	T25A01TXX X-1	0,455	0,607	1,67	25	T25A01TXX X-1.5	0,455	0,683	1,78
26	T26A01TXX X-1	0,404	0,556	1,34	26	T26A01TXX X-1.5	0,404	0,632	1,46

Type	Conductor Ø	Type	Conduct or Ø	Type	Conduct or Ø	Type	Conduct or Ø	Type	Conduct or Ø
	[mm]		[mm]		[mm]		[mm]		[mm]
27	T27A01TXX X-1	0,361	0,513	1.09	27	T27A01TXX X-1.5	0,361	0,58 9	1,19
28	T28A01TXX X-1	0,320	0,472	0,88	28	T28A01TXX X-1.5	0,320	0,54 9	0,98
29	T29A01TXX X-1	0,287	0,439	0,73	29	T29A01TXX X-1.5	0,287	0,51 6	0,82
30	T30A01TXX X-1	0,254	0,406	0,58	30	T30A01TXX X-1.5	0,254	0,48 3	0,68
31	T31A01TXX X-1	0,226	0,378	0,48	31	T31A01TXX X-1.5	0,226	0,45 5	0,57
32	T32A01TXX X-1	0,203	0,356	0,41	32	T32A01TXX X-1.5	0,203	0,43 2	0,48
33	T33A01TXX X-1	0,180	0,333	0,34	33	T33A01TXX X-1.5	0,180	0,40 9	0,40
34	T34A01TXX X-1	0,160	0,312	0,28	34	T34A01TXX X-1.5	0,160	0,38 9	0,34
35	T35A01TXX X-1	0,142	0,295	0,23	35	T35A01TXX X-1.5	0,142	0,37 1	0,30
36	T36A01TXX X-1	0,127	0,279	0,20	36	T36A01TXX X-1.5	0,127	0,35 6	0,25
37	T37A01TXX X-1	0,114	0,267	0,17	37	T37A01TXX X-1.5	0,114	0,34 3	0,24
38	T38A01TXX X-1	0,102	0,254	0,15	38	T38A01TXX X-1.5	0,102	0,33 0	0,20
39	T39A01TXX X-1	0,089	0,241	0,12	39	T39A01TXX X-1.5	0,089	0,31 8	0,18
40	T40A01TXX X-1	0,079	0,231	0,11	40	T40A01TXX X-1.5	0,079	0,30 7	0,16

* approximate weight

Item number:

Example: FLT20A01TXXX-1

FL= Prefix

T = = triple insulated

20 = AWG

A = Conductor material Cu tinned

01 = Conductor 01 = Wire

Conductor material:	tinned copper		
Insulation:	Tefzel® (ETFE)		
Number of layers:	3		
Standard color:	---		
Temperature class:	F (155° C)		
Operating voltage:	UL: 1500 V (707V medical), VDE: 1000 V		
Tensile strength:	45 N/mm2 (6500 psi)		
Flammability:	V-0		
Thickness/position:	0.051 mm (0.002")	Thickness/layer:	0.076 mm (0.003")
Breakdown voltage:	approx. 9000 V	Breakdown voltage:	approx. 13000 V

Dimensional tolerances			Dimensional tolerances		
AWG	---	---	AWG	10 - 17	+ 0.076 / - 0.051 mm
AWG	18 - 24	+ 0.038 / - 0.025 mm	AWG	18 - 24	+ 0.051 / - 0.025 mm
AWG	25 - 40	+ 0.025 / - 0.025 mm	AWG	25 - 40	+ 0.025 / - 0.025 mm

Dimensions					Dimensions				
AWG	Type	Conductor Ø [mm]	Outer Ø [mm]	Weight* [kg/km]	AWG	Type	Conductor Ø [mm]	Outer Ø [mm]	Weight* [kg/km]
14	T14A01TXXX-2	1,628	1,93	19,95	10	T10A01TXXX-3	2,588	3,045	50,21
15	T15A01TXXX-2	1,45	1,76	16,03	10(37/26)	T10A37TXXX-3	2,718	3,175	46,58
16	T16A01TXXX-2	1,290	1,595	12,80	12	T12A01TXXX-3	2,052	2,510	32,25
17	T17A01TXXX-2	1,151	1,455	10,30	12(19/25)	T12A19TXXX-3	2,189	2,647	30,92
18	T18A01TXXX-2	1,024	1,328	8,27	14	T14A01TXXX-3	1,628	2,085	20,72
19	T19A01TXXX-2	0,912	1,217	6,67	14(19/27)	T14A19TXXX-3	1,725	2,182	19,94
20	T20A01TXXX-2	0,813	1,118	5,39	16	T16A01TXXX-3	1,290	1,748	13,48
21	T21A01TXXX-2	0,724	1,029	3,53	16(19/29)	T16A19TXXX-3	1,369	1,826	13,05
22	T22A01TXXX-2	0,643	0,947	2,90	18	T18A01TXXX-3	1,024	1,481	8,86
23	T23A01TXXX-2	0,574	0,879	2,35	18(19/30)	T18A19TXXX-3	1,209	1,666	10,49
24	T24A01TXXX-2	0,511	0,815	1,93	20	T20A01TXXX-3	0,813	1,270	5,86
25	T25A01TXXX-2	0,455	0,759	1,59	20(19/32)	T20A19TXXX-3	0,978	1,435	7,05
26	T26A01TXXX-2	0,404	0,709	1,32	22	T22A01TXXX-3	0,643	1,100	3,94
27	T27A01TXXX-2	0,361	0,665	1,10	22(19/34)	T22A19TXXX-3	0,749	1,207	4,66
28	T28A01TXXX-2	0,320	0,625	0,94	24	T24A01TXXX-3	0,511	0,968	2,72
AWG	Type	Conductor Ø [mm]	Outer Ø [mm]	Weight* [kg/km]	AWG	Type	Conductor Ø [mm]	Outer Ø [mm]	Weight* [kg/km]

29	T29A01TXXX-2	0,287	0,592	0,79	24(19/36)	T24A19TXXX-3	0,615	1,072	3,21
30	T30A01TXXX-2	0,254	0,559	0,67	26	T26A01TXXX-3	0,404	0,861	1,91
31	T31A01TXXX-2	0,226	0,531	0,58	28	T28A01TXXX-3	0,320	0,777	1,38
32	T32A01TXXX-2	0,203	0,508	0,49	30	T30A01TXXX-3	0,254	0,711	1,04
33	T33A01TXXX-2	0,180	0,485	0,43	32	T32A01TXXX-3	0,203	0,660	0,82

- approximate weight

