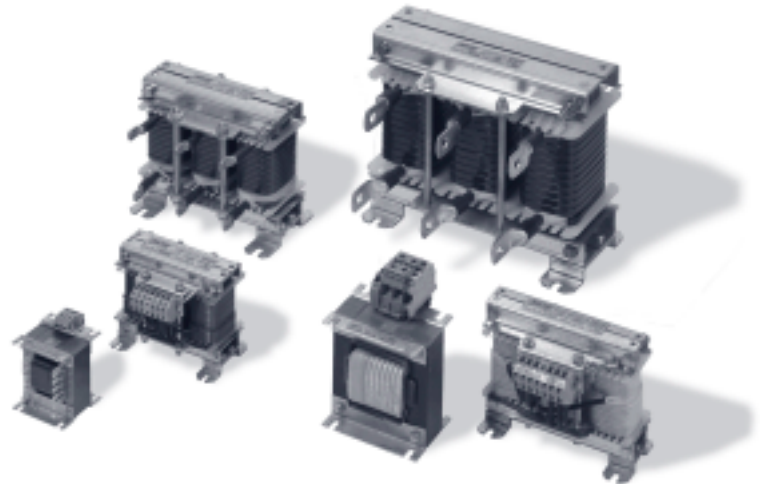


- One- and three-phase models
- Product series from 6 to 630 A
- Design respecting converter's status
- Compact construction
- Easy installation

Use:

Suppression of certain adverse effects generated by some appliances in the network or other appliances



TS Line Reactors serve for suppression of adverse effects generated by some appliances in the electric network. Typical examples of such appliances are controlled and uncontrolled rectifiers, switched sources and frequency converters. By inserting a reactor on the line between the appliance and the network connection we suppress commutation and current surges caused by capacitance in DC circuits, and also suppress electromagnetic noise generated by switch-on of power semiconductor components. Use of line reactors also enhances the effect of noise suppressing filters. The line reactors are designed so that they are equivalent to supply transformers with $e_k = 4\%$ at voltage $3 \times 400\text{V}/230\text{V}$ and frequency 50 Hz. The design also respects all (both static and dynamic) operational statuses of converters, rated output voltage at voltage $3 \times 400\text{V}/230\text{V}$ and frequency 50 Hz. For standard design, the limit for modulation frequency of converters is 3 kHz. If higher modulation frequency values are required, please contact the manufacturer.

Special Reactance Coils

Reactance coils may be custom-made to meet special requirements of our customers. The most often made special reactors are line and motor reactors for parameters outside the standard series (higher voltage or frequency, smoothing filter reactors for DC converters).

TM Motor Reactors are used in drive motors with frequency converters, and are connected to the frequency converter's output if the cables between the converter and the

regulated motor are long. They suppress adverse effects of capacitance represented by long cables. The capacitance component of the cable impedance may, with respect to the switching frequency of power transistors in the converter, cause overload on the converter's output, failing to supply the rated current to the load. In addition to suppression of these effects, radiation of electromagnetic noise is suppressed both on the converter's output and in the electric network. Depending on the type of the converters used, their manufacturers recommend application of the reactors if the cables to the motor are longer than 20 to 50 m. Motor reactors are designed so that the voltage loss on them is not higher than 2% of the

Basic Technical Data

Network operating voltage:	max. 500 V AC
Range of operating frequencies f_n (for I_n):	
line reactors	50-60 Hz
motor reactor	0-60 Hz
Rated inductance L_n :	cf. Table
Rated current values I_n :	cf. Table
Current overload capacity:	50% I_n
Heat class:	F
Protection class:	IP 00
Operating temperature range:	-10° to +40° C
Altitude:	up to 1000 m above sea level

Overview of Types – Technical Parameters

Type code	Basic el. parameters		claps S [mm ²] or eyes ∅ d [mm]	PE clamp or bolt	Basic dimensi- ons			Securing open- ings			Weight [kg]	Fig.
	I_n [A]	L_n [mH]			A [mm]	B [mm]	C [mm]	A1 [mm]	B1 [mm]	∅ D [mm]		
One-phase line reactors												
1TS006/00	6	5	1,5 mm ²	1,5 mm ²	65	70	100	50	50	∅4,5	~1	1
1TS010/00	10	3	2,5 mm ²	2,5 mm ²	65	75	100	50	55	∅4,5	~1,5	1
1TS016/00	16	1,8	4 mm ²	4 mm ²	85	110	130	64	50	∅5,5	~2	1
1TS025/00	25	1,2	∅6	M5	85	125	105	64	65	∅5,5	~2,5	2
1TS032/00	32	1	∅6	M5	85	140	105	64	80	∅5,5	~3	2
One-phase motor reactors												
1TM006/00	6	2,5	1,5 mm ²	1,5 mm ²	65	65	100	50	45	∅4,5	~0,8	1
1TM010/00	10	1,5	2,5 mm ²	2,5 mm ²	65	70	100	50	45	∅4,5	~1	1
1TM016/00	16	0,9	4 mm ²	4 mm ²	85	110	130	64	50	∅5,5	~1,5	1
1TM025/00	25	0,6	∅6	M5	85	115	105	64	55	∅5,5	~2	2
1TM032/00	32	0,5	∅6	M5	85	115	105	64	55	∅5,5	~2,5	2
Three-phase line reactors												
3TS006/00	6	5	1,5 mm ²	1,5 mm ²	120	90	120	100	55	∅5,5	~2	3
3TS010/00	10	3	2,5 mm ²	2,5 mm ²	120	90	120	100	55	∅5,5	~3,5	3
3TS016/00	16	1,8	4 mm ²	4 mm ²	150	95	145	125	55	∅7	~4,5	3
3TS025/00	25	1,2	∅7	M6	150	130	145	125	70	∅7	~6	4
3TS032/00	32	1	∅9	M8	180	140	175	150	80	∅9	~9,5	4
3TS040/00	40	0,75	∅9	M8	180	150	175	150	90	∅9	~10,5	4
3TS063/00	63	0,46	∅9	M8	180	150	175	150	90	∅9	~12	4
3TS100/00	100	0,29	∅9	M8	225	190	230	190	100	∅9	~20,5	4
3TS160/00	160	0,18	∅11	M10	260	210	260	220	120	∅11	~29	4
3TS250/00	250	0,12	∅11	M10	260	210	260	220	120	∅11	~31	4
3TS320/00	300	0,1	∅13	M12	350	200	355	220	110	∅13	~50	4
3TS400/00	400	0,08	∅13	M12	350	200	355	220	110	∅13	~60	4
3TS630/00	600	0,05	∅17	M16	350	200	355	220	110	∅13	~70	4
Three-phase motor reactors												
3TM006/00	6	2,5	1,5 mm ²	1,5 mm ²	100	75	95	80	45	∅4,5	~1,5	3
3TM010/00	10	1,5	2,5 mm ²	2,5 mm ²	120	90	120	100	55	∅5,5	~3	3
3TM016/00	16	0,9	4 mm ²	4 mm ²	150	95	145	125	55	∅7	~4	3
3TM025/00	25	0,6	∅7	M6	150	130	145	125	70	∅7	~5,5	4
3TM032/00	32	0,5	∅9	M8	180	140	175	150	80	∅9	~8,5	4
3TM040/00	40	0,37	∅9	M8	180	140	175	150	90	∅9	~9	4
3TM063/00	63	0,23	∅9	M8	180	150	175	150	90	∅9	~11	4
3TM100/00	100	0,15	∅9	M8	225	190	230	190	100	∅9	~19	4
3TM160/00	160	0,09	∅11	M10	260	200	260	220	120	∅11	~28	4
3TM250/00	250	0,06	∅11	M10	260	200	260	220	120	∅11	~30	4
3TM320/00	300	0,05	∅13	M12	350	200	355	220	110	∅13	~45	4
3TM400/00	400	0,04	∅13	M12	350	200	355	220	110	∅13	~50	4
3TM630/00	600	0,025	∅17	M16	350	200	355	220	110	∅13	~60	4

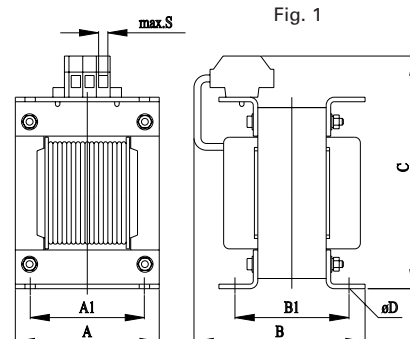


Fig. 1

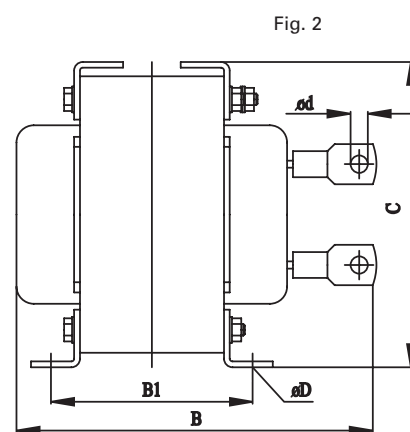


Fig. 2

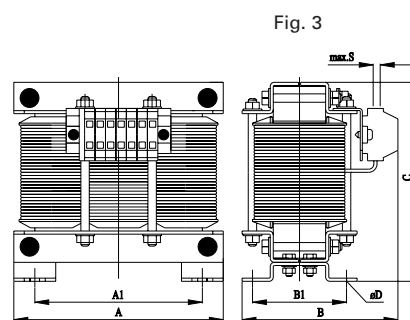


Fig. 3

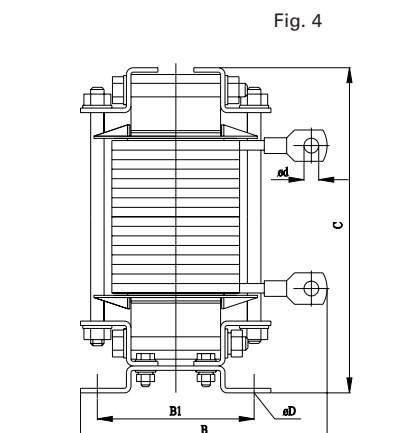


Fig. 4

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