

ST Series

Switching Transient Filters



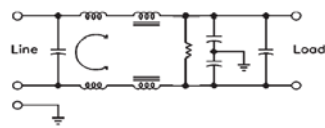
UL File No. E62459
 CSA File No. LR56661
 TUV approvals for STC-10 & STC-6L (File #R70479),
 TUV approvals for STD-20 (File #R50389),
 TUV approvals for STC-20, STB-20
 TUV approvals for STA-20 (File #R60555)
 TUV approvals for STA, B, C, D-30 (File #R50389)



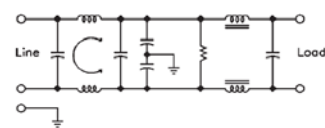
Applications

These filters reduce switching transients to acceptable levels by combining common and differential mode rejection characteristics, providing optimum performance at minimum leakage current. They are particularly effective for reducing interference from line to equipment (i.e., susceptibility problems). They are also effective in reducing equipment interference to meet VDE, FCC and CISPR requirements. Switching power supplies require much higher filter rejection characteristics to enable these devices to comply with requirements of VDE 0875. Circuit D filters are designed to provide this high attenuation without impeding peak switching currents. They assist in meeting UL and IEC standards.

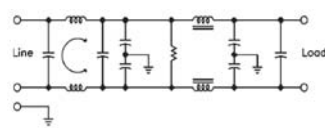
Electrical Schematic A



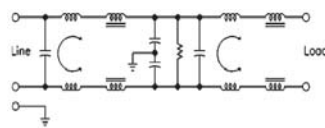
Electrical Schematic B



Electrical Schematic C



Electrical Schematic D



How to define a part number:

ST

Series

A

Electrical
Schematic

3

Current
Rating

Specifications

Voltage rating:	115/250 VAC
Line frequency:	50/60 Hz
Leakage current:* (line-to-ground)	0.50 mA max at 115 V, 60 Hz (A,B,D Circuits) 1.00 mA max at 250 V, 50 Hz (A,B,D Circuits) 2.00 mA max at 115 V, 60 Hz (C Circuit) 3.00 mA max at 250 V, 50 Hz (C Circuit)
Test voltage:	Line to ground, 2250 VDC Line to line, 1450 VDC
Peak Currents:	3 Amp Models = 17 Amp Peak Ratings 6 Amp Models = 23 Amp Peak Ratings 10 Amp Models = 34 Amp Peak Ratings

* Low leakage current models (<0.5ma@250VAC / 50Hz) may be ordered by adding the prefix "L", e.g. LSTA-3. These units offer 6dB lower insertion loss.

Common Mode

Models	Frequency (MHz)					
	.15	.5	1	5	10	30
STA (3,6,10 A)	15	30	39	30	50	42 (dB)
STA (10,20 A)	15	30	38	23	43	40 (dB)
STB (3,6,10 A)	15	30	43	60	55	46 (dB)
STB (10,20 A)	15	30	41	60	46	30 (dB)
STC (3,6,10 A)	13	25	34	65	65	63 (dB)
STC (10,20 A)	13	30	35	65	65	53 (dB)
STD (3,6,10 A)	65	70	70	70	65	55 (dB)
STD (10,20 A)	30	60	60	50	45	45 (dB)

Differential Mode

Current Rating	Frequency (MHz)					
	.15	.5	1	5	10	30
STA (3,6,10 A)	40	65	65	55	50	50 (dB)
STA (10,20 A)	40	65	65	65	53	50 (dB)
STB (3,6,10 A)	25	65	65	60	55	50 (dB)
STB (10,20 A)	40	65	65	65	60	55 (dB)
STC (3,6,10 A)	25	65	65	62	55	38 (dB)
STC (10,20 A)	28	65	65	65	65	65 (dB)
STD (3,6,10 A)	60	70	70	70	60	60 (dB)
STD (10,20 A)	50	70	70	70	60	60 (dB)

Minimum Insertion loss in 50 ohm system per MIL-STD-220A

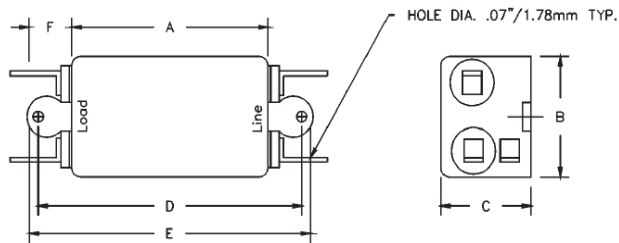
ST Series

Ordering Information

Current Rating	Part Number	A	B	C	D	E
3	STA-3	50.8	44.45	28.7	60.45	69.85
	STB-3	50.8	44.45	28.7	60.45	69.85
	STC-3	50.8	44.45	28.7	60.45	69.85
	STD-3	133.35	50.8	44.45	143.0	152.15
6	STA-6	50.8	44.45	28.7	60.45	69.85
	STB-6	50.8	44.45	28.7	60.45	69.85
	STC-6	50.8	44.45	28.7	60.45	69.85
	STA-6L	63.5	50.8	38.1	74.68	84.32
	STB-6L	63.5	50.8	38.1	74.68	84.32
	STC-6L	63.5	50.8	38.1	74.68	84.32
	STD-6	133.35	63.5	57.15	143.0	152.15

0.250 Tab Terminals extend 14.73mm. Mounting Hole Diameters are 4.78mm.

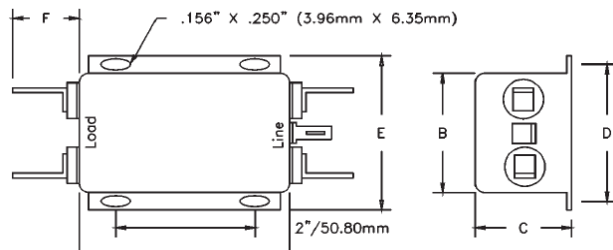
STA-3, STB-3, STC-3, STA-6, STB-6 and STC-6



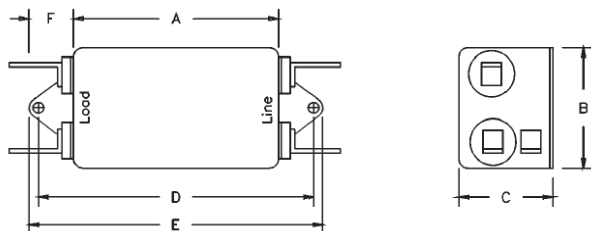
Ordering Information

Current Rating	Part Number	A	B	C	D	E
10	STA-10	63.5	50.8	38.1	74.68	84.32
	STB-10	63.5	50.8	38.1	74.68	84.32
	STC-10	63.5	50.8	38.1	74.68	84.32
	STD-10	133.35	63.5	69.85	143.0	152.15
20	STA-20	98.55	84.07	38.1	95.25	104.65
	STB-20	98.55	84.07	38.1	95.25	104.65
	STC-20	98.55	84.07	38.1	95.25	104.65
	STD-20	133.35	76.2	76.2	143.0	152.15
30	STA-30	133.35	76.2	76.2	143.0	152.15
	STB-30	133.35	76.2	76.2	143.0	152.15
	STC-30	133.35	76.2	76.2	143.0	152.15
	STD-30	203.20	101.6	88.9	219.2	233.17

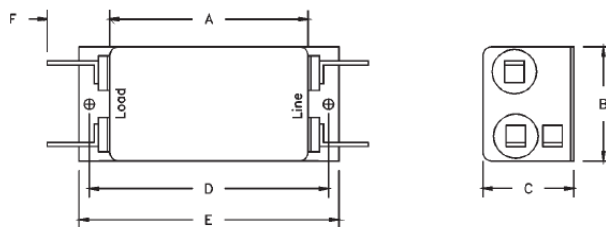
STA-20, STB-20 and STC-20



STA-6L, STB-6L, STC-6L, STA-10, STB-10 and STC-10



STD-3, STD-6 and STD-10



STD-20, STA-30, STB-30, STC-30 and STD-30

