

- 1-phase and 3-phase doubled filters
- High attenuation in the 150 kHz - 30 MHz band
- Low escape current
- Outlets by busbars – protection class IP 00 (3-phase + N on special request)

Use:

Noise suppression according to ČSN EN 50081-1, 50081-2 for:

- frequency converters of asynchronous motors
- DC and AC thyristor converters
- individual sources of noise



Basic Technical Data:

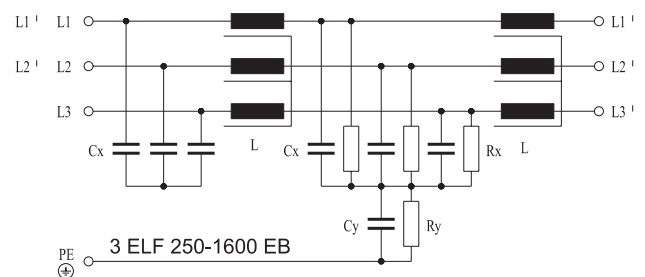
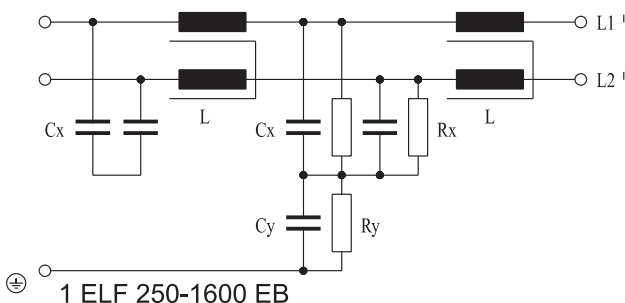
Rated current I_n : cf. Table
 Rated voltage U_n : max. 440 V AC for **EB** types
 max. 760 V AC for **EBV** types
 Frequency: DC up to 60 Hz
 Protection class: IP 20
 Overload capacity: 4 x I_n at switch-on; 1.5 x I_n for 1 minute once per hour
 Operating temperature: -25°C to +40°C

Test Voltage

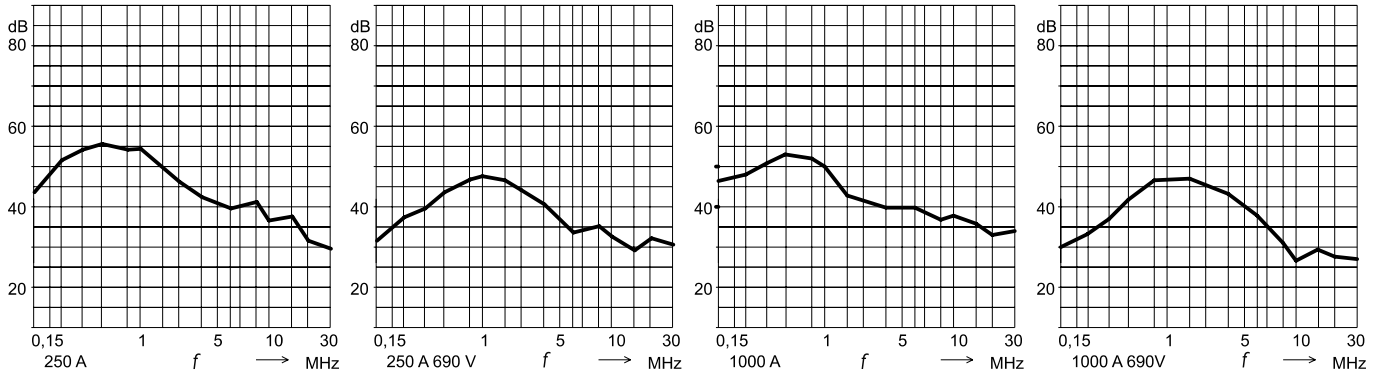
| | | |
|-----------|--------|--------------------------------|
| L, N - PE | 1F, 3F | EB: 350 VAC/1 min, 2000 VDC/2s |
| | 1F, 3F | EB: 500 VAC 1 min, 2200 VDC/2s |
| L - L, N | 1F, 3F | EB: 1600 VDC/2s |
| | 1F, 3F | EBV: 1600 VDC/2s |

| I_n [A] | U_n [V] | 1-phase filters 1F | I_{esc} [mA] | loss [W] | 3-phase filters 3F | I_{esc} [mA] | loss [W] | ΣL [mH] | ΣC_x [mF] | ΣC_y [mF] | R_x [MΩ] | R_y [MΩ] |
|-----------|-----------|--------------------|----------------|----------|--------------------|----------------|----------|-----------------|-------------------|-------------------|------------|------------|
| 250 | 440 | 1ELF250EB | 5,7 | 9,5 | 3ELF250EB | 1,9 | 14,25 | 0,32 | 4 | 0,88 | 1 | 0,88 |
| | 760 | 1ELF250EBV | 3,6 | | 3ELF250EBV | 1,2 | | | | | | |
| 400 | 440 | 1ELF400EB | 5,7 | 18 | 3ELF400EB | 1,9 | 27 | 0,42 | 4 | 0,88 | 1 | 0,88 |
| | 760 | 1ELF400EBV | 3,6 | | 3ELF400EBV | 1,2 | | | | | | |
| 603 | 440 | 1ELF630EB | 5,7 | 31 | 3ELF630EB | 1,9 | 46,5 | 0,39 | 4 | 0,88 | 1 | 0,88 |
| | 760 | 1ELF630EBV | 3,6 | | 3ELF630EBV | 1,2 | | | | | | |
| 1000 | 440 | 1ELF1000EB | 5,7 | 33 | 3ELF1000EB | 1,9 | 49,5 | 0,22 | 4 | 0,88 | 1 | 0,88 |
| | 760 | 1ELF1000EBV | 3,6 | | 3ELF1000EBV | 1,2 | | | | | | |
| 1600 | 440 | 1ELF1600EB | 5,7 | 55 | 3ELF1600EB | 1,9 | 82,5 | 0,22 | 4 | 0,88 | 1 | 0,88 |
| | 760 | 1ELF1600EBV | 3,6 | | 3ELF1600EBV | 1,2 | | | | | | |

The stated values of escape current are valid for U_n and 50 Hz. In the least favourable case (only one phase on) the maximum values of the escape current are doubled for 1-phase filters and multiplied by six for 3-phase filters.



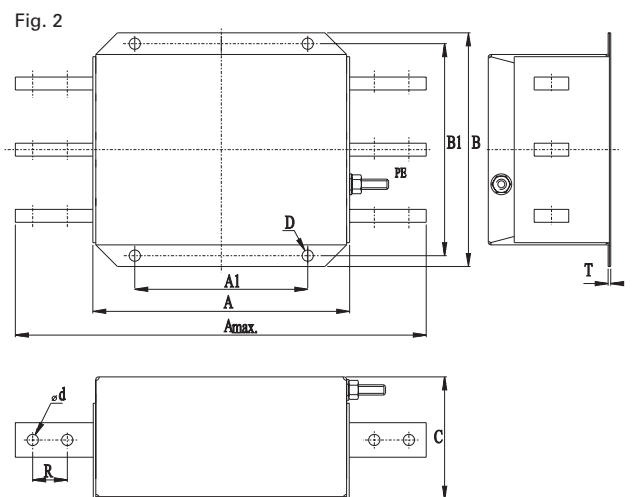
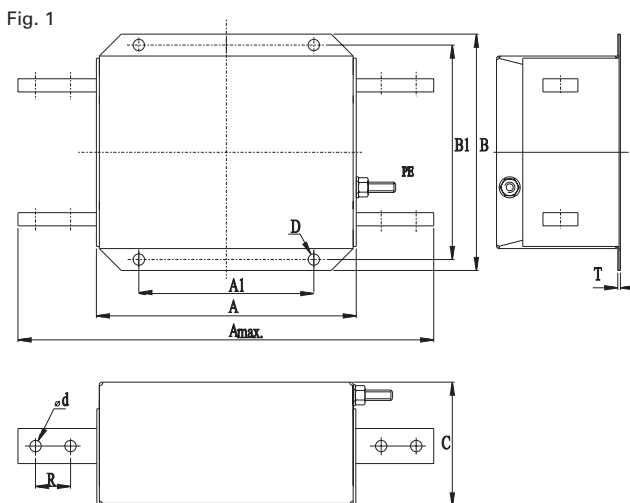
**Attenuation Characteristics
insertion loss 50Ω/50Ω asymm.**



OVERVIEW OF TYPES – TECHNICAL PARAMETERS

| Type code | Strips [mm] | PE bolt | Basic dimensions | | | | | | Securing openings | | | | Weight [kg] | Fig.. | | |
|--|-------------|---------|------------------|--------|--------|--------|--------|--------|-------------------|---------|---------|---------|-------------|-------|----|---|
| | | | Amax [mm] | A [mm] | B [mm] | C [mm] | R [mm] | T [mm] | A1 [mm] | B1 [mm] | ∅d [mm] | ∅D [mm] | | | | |
| One-phase noise suppression filters | | | | | | | | | | | | | | | | |
| 1ELF250EB(V) | 20 x 5 | M8 | 345 | 257 | 235 | 135 | 0 | 3 | 200 | 210 | 11 | 9 | 8,5 | 1 | | |
| 1ELF400EB(V) | 25 x 5 | | 375 | 277 | | | | | | 200 | | | 10,5 | 1 | | |
| 1ELF630EB(V) | 30 x 6 | | 210 | 13 | | | | | | 11 | | | 11 | 1 | | |
| 1ELF1000EB(V) | 40 x 10 | M10 | 475 | 297 | 270 | 140 | 40 | 245 | | 13 | 11 | 18,5 | 1 | | | |
| 1ELF1600EB(V) | 40 x 15 | | | | | | | 20,5 | | | | 1 | | | | |
| Three-phase noise suppression filters | | | | | | | | | | | | | | | | |
| 3ELF250EB(V) | 20 x 5 | M8 | 345 | 257 | 235 | 135 | 0 | 3 | 200 | 210 | 11 | 9 | 9 | 2 | | |
| 3ELF400EB(V) | 25 x 5 | | 375 | 277 | | | | | | 200 | | | 11 | 9 | 11 | 2 |
| 3ELF630EB(V) | 30 x 6 | | 210 | 13 | | | | | | 11 | | | 12 | 2 | | |
| 3ELF1000EB(V) | 40 x 10 | M10 | 475 | 297 | 270 | 140 | 40 | 245 | | 13 | 11 | 20 | 2 | | | |
| 3ELF1600EB(V) | 40 x 15 | | | | | | | 23 | | | | 2 | | | | |

Comment: (V) – for rated voltage $U_n = 760$ V



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