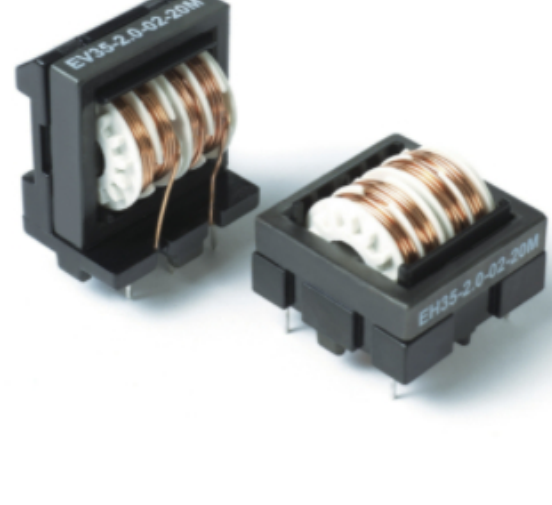


Common-mode Suppression Chokes



- Rated currents up to 5 A
- Broadband attenuation characteristics
- Low magnetic leakage flux
- UL rated materials
- RoHS compliant



Technical specifications

Maximum continuous operating voltage	250 VAC @ 50°C
Operating frequency	DC to 400 Hz
Rated currents	0.3 to 5 A
Overcurrent	1.5x Inominal for 1 minute, once per hour
Winding-to-winding @ 25°C	3000 VAC, 60 sec, guaranteed
Temperature range (operating and storage)	2000V, 50 Hz, 2 sec, factory test
Flammability corresponding to	-25°C to +100°C (25/100/21)
Measuring frequency	UL 94 V-0
Resistance	10 kH z 5 mA <16 µH 500 µA >16 µH <160 µH 50 µA >160 µH >16 mH 50 mH >16 mH <160 mH Inductance tolerance ±30%
Electrical characteristics	Tolerance max. ±15% @ 25°C; <20 mΩ, 1 A >20 mΩ <200 mΩ, 100 mA; >200 mΩ <2 V, 10 mA
MTBF @ 40°C/230 V (MIL-HB-217F)	>5,000,000 hours

Approvals & Compliances

ROHS

Common-mode suppression chokes are mainly used to filter noise on AC power lines. Noise on commercial power lines could enter the equipment and disturb the proper function. Noise generated by the equipment for example from switch mode power supplies need to be filtered and the spread of such generated noise need to be suppressed. Common-mode suppression chokes together with line bypass capacitors building an AC EMI suppression filter device.

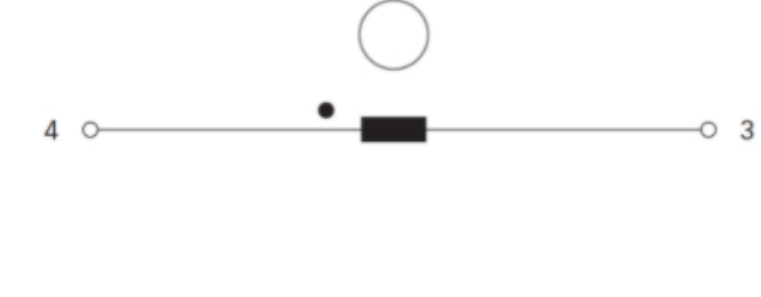
Features and benefits

- Rated currents up to 5 A
- Compact and light weight
- Low magnetic leakage flux
- Sectional winding
- Standard foot print
- Broad range of available inductances and current ratings
- Custom-specific versions
- Schaffner offers you also EMI measurement service to verify that your design will pass the required safety standards

Typical applications

- Input filters for switch mode power supplies
- Filters to reduce leaking noise
- TVs, VCRs, multimedia and audio equipment
- Office automation, communications and other electronic devices
- Electric ballast
- AC/AC converters

Typical electrical schematic



Choke selection table

EH choke	Buy (EH)	EV choke	Buy (EV)	L nominal (±30%) [mH]	DC resistance R [mΩ]	Rated current I [50°C] [A]	Weight [g]
EH20-0.3-02-33M	✓	EV20-0.3-02-33M	✓	33	1780	0.3	10
EH20-0.5-02-18M	✓	EV20-0.5-02-18M	✓	18	725	0.5	10
EH20-0.8-02-5M6	✓	EV20-0.8-02-5M6	✓	5.6	245	0.8	10
EH20-1.0-02-3M9	✓	EV20-1.0-02-3M9	✓	3.9	168	1.0	10
EH20-1.2-02-3M3	✓	EV20-1.2-02-3M3	✓	3.3	127	1.2	10
EH20-1.5-02-1M8	✓	EV20-1.5-02-1M8	✓	1.8	72	1.5	10
EH20-2.0-02-0M8	✓	EV20-2.0-02-0M8	✓	0.82	38	2.0	10
EH24-0.5-02-44M	✓	EV24-0.5-02-44M	✓	44	1250	0.5	18
EH24-0.8-02-18M	✓	EV24-0.8-02-18M	✓	18	438	0.8	18
EH24-1.0-02-10M	✓	EV24-1.0-02-10M	✓	10	244	1.0	18
EH24-1.5-02-4M5	✓	EV24-1.5-02-4M5	✓	4.5	116	1.5	18
EH24-2.0-02-2M5	✓	EV24-2.0-02-2M5	✓	2.5	62	2.0	18
EH24-3.0-02-1M2	✓	EV24-3.0-02-1M2	✓	1.2	29	3.0	18
EH24-4.0-02-0M5	✓	EV24-4.0-02-0M5	✓	0.5	16	4.0	18
EH28-1.0-02-75M-X	✓	EV28-1.0-02-75M-X	✓	75	880	1.0	31
EH28-1.0-02-36M	✓	EV28-1.0-02-36M	✓	36	591	1.0	31
EH28-1.5-02-27M-X	✓	EV28-1.5-02-27M-X	✓	27	282	1.5	31
EH28-1.5-02-20M	✓	EV28-1.5-02-20M	✓	20	282	1.5	31
EH28-2.0-02-15M-X	✓	EV28-2.0-02-15M-X	✓	15	196	2.0	33
EH28-2.0-02-11M	✓	EV28-2.0-02-11M	✓	11	162	2.0	31
EH28-3.0-02-9M6-X	✓	EV28-3.0-02-9M6-X	✓	9	115	3.0	31
EH28-3.0-02-5M0	✓	EV28-3.0-02-5M0	✓	5	79	3.0	31
EH28-4.0-02-3M5-X	✓	EV28-4.0-02-3M5-X	✓	3.5	52	4.0	31
EH28-4.0-02-2M3	✓	EV28-4.0-02-2M3	✓	2.3	40	4.0	31
EH28-5.0-02-1M1	✓	EV28-5.0-02-1M1	✓	1.1	27	5.0	31
EH35-1.0-02-90M	✓	EV35-1.0-02-90M	✓	90	628	1.0	70
EH35-2.0-02-20M	✓	EV35-2.0-02-20M	✓	20	150	2.0	70
EH35-3.0-02-10M	✓	EV35-3.0-02-10M	✓	10	72	3.0	70
EH35-4.0-02-5M0	✓	EV35-4.0-02-5M0	✓	5	53	4.0	70
EH35-5.0-02-3M6	✓	EV35-5.0-02-3M6	✓	3.6	33	5.0	70

All wires rated 130°C or higher.

Distribution inventory

Up-to-date inventory levels for global distributors is available at

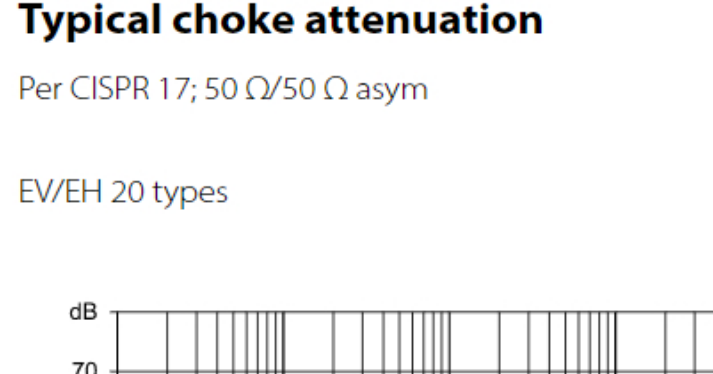
<https://products.schaffner.com/stock>



Typical choke attenuation

Per CISPR 17, 50 Ω/50 Ω asym

EV/EH 20 types



A = 33 mH; B = 18 mH; C = 5.6 mH

D = 3.9 mH; E = 3.3 mH; F = 1.8 mH

G = 0.8 mH

EV/EH 24 types



A = 44 mH; B = 18 mH; C = 10 mH

D = 5.5 mH; E = 2.5 mH; F = 1.2 mH

G = 0.5 mH

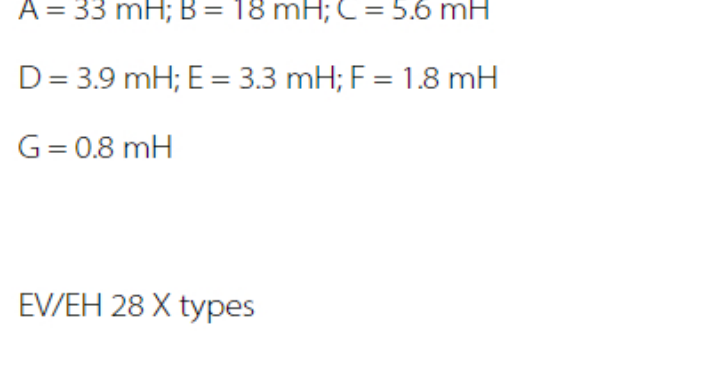
EV/EH 28 types



A = 36 mH; B = 20 mH; C = 11 mH

D = 5 mH; E = 2.3 mH; F = 1.1 mH

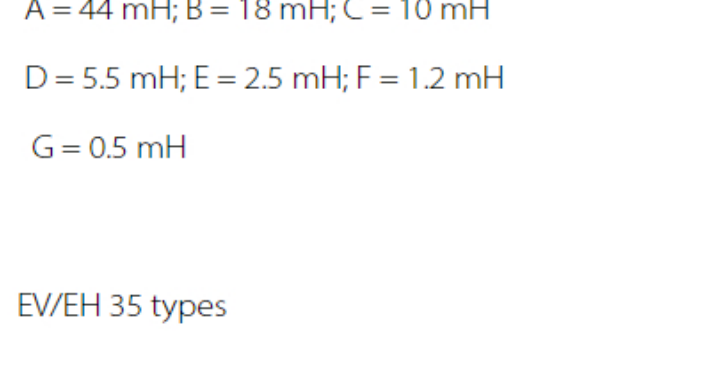
EV/EH 28 X types



A = 75 mH; B = 27 mH; C = 15 mH

D = 9 mH; E = 3.5 mH

EV/EH 35 types

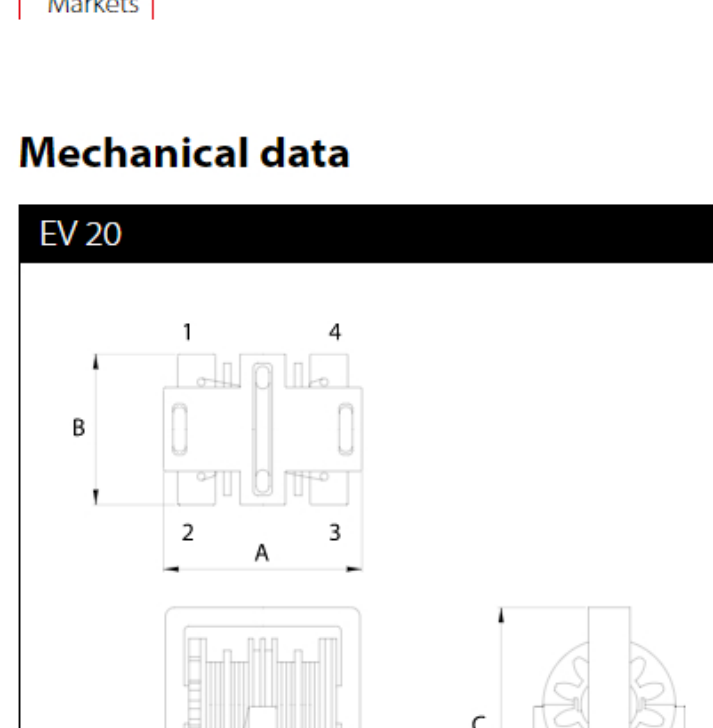


A = 90 mH; B = 20 mH; C = 10 mH

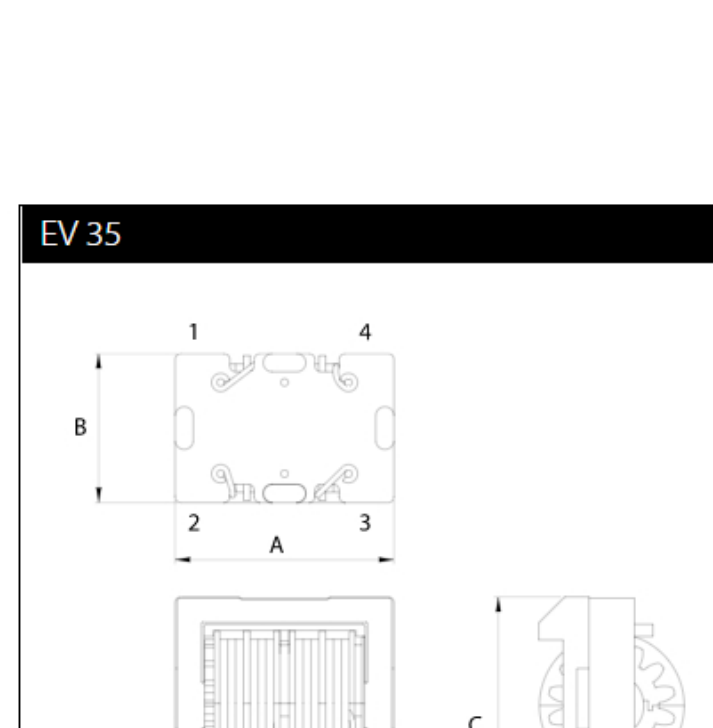
D = 5 mH; E = 3.6 mH

Mechanical data

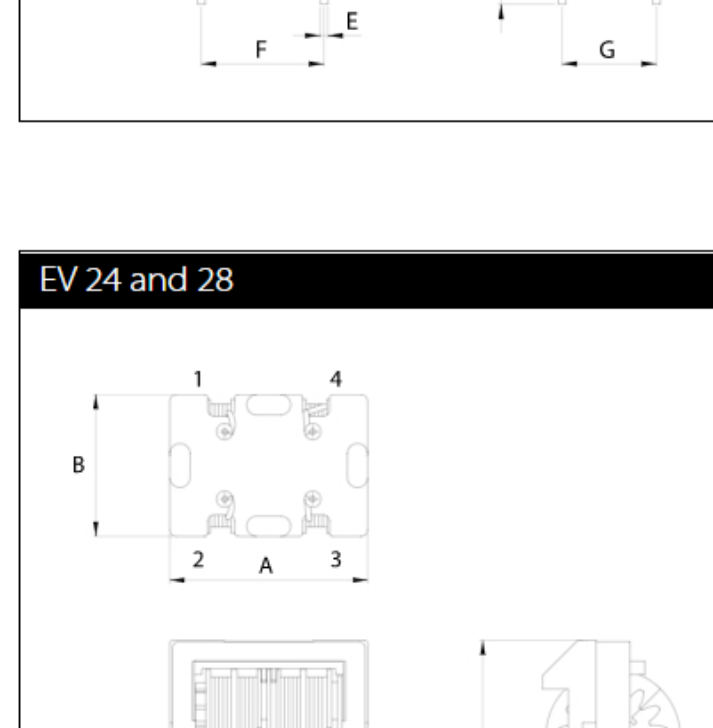
EV 20



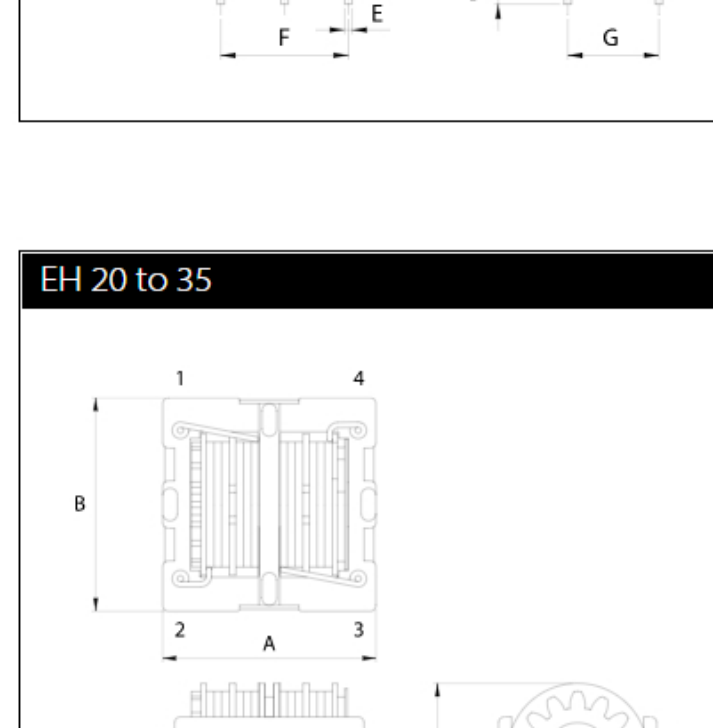
EV 35



EV 24 and 28



EH 20 to 35



Dimensions

	EV 20	EV 24	EV 28	EV 35	EH 20	EH 24	EH 28	EH35	Tolerances
A	21	246	292	36	21	24	28	36	±1
B	16	174	34.7	25.7	21	24	28	36	±1
C	25*	19.1	21	42.7	17.8	24	22.9	27.7	±1
D	4	4	4	4	4	4	4	4	±1
E	∅0.8	∅0.8	∅0.8	∅1.2	∅0.8	∅0.8	∅0.8	∅1.0	±0.1
F	13	13	13	21	13	21	24	30	±0.5
G	10	10	10	15	10	15	20	25	±0.5

* All dimensions in mm; 1 inch = 25.4 mm

∅ Tolerance is +1/-2 mm

Please visit www.schaffner.com to find more details on filter connectors.

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