Dreiphasenfilter
Three-phase filters

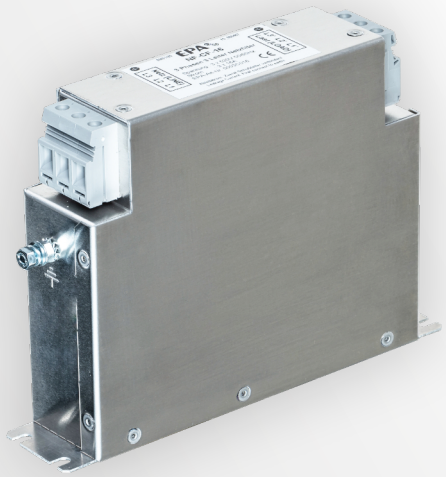
www.epa.de

KOMPAKTFILTER FÜR FREQUENZUMRICHTER UND ANTRIEBSSYSTEME

- → Nennströme von 10 A bis 230 A
- → Sehr kleine Grundfläche (Buchform)
- → Sehr gute Dämpfungseigenschaften
- → Berührungssichere Klemmen

COMPACT FILTERS FOR FREQUENCY INVERTERS AND POWER DRIVE SYSTEMS

- → Current ratings from 10 A up to 230 A
- → Very small dimensions (bookstyle)
- → Very good attenuation properties
- → Fingerproof terminals



cULus
E504515

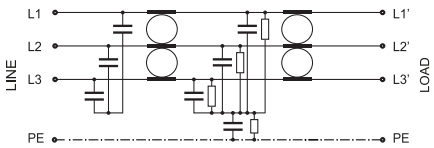
Netzfilter NF-HCF | Line filters NF-HCF

Stand | Release: 10/2026

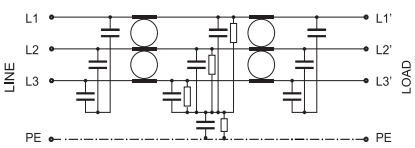
	Nennstrom (A) Nom. current (A)	Nennspannung (VAC) Nom. voltage (VAC)	[1] Ableitstrom kalk. min./max. (mA) [1] Leakage current calc. min./max. (mA)	Gewicht (kg) Weight (kg)	Verlustleistung (W) Power loss (W)	Prüfzeichen Approval	Abmessungen (mm) Dimensions (mm) A	B	C	D	E	F	G	H	I	K	L	M	[2] Anschluss | Netz-Last [2] Connection | Line-Load	Anzugsdrehmoment (Nm) Tightening torque (Nm) [3] PE [3] Earth	*
NF-HCF-10	10	520/300	1,4/63	0,5	6	cURus	185	40	120	175	20	4,5	157	120	84	20,0	76	101,5	6 mm²	1,5 - 1,8	M5	[4]
NF-HCF-16	16		1,2/64	0,7	7		195	45	140	180	25	5,4	164	125	103	22,5	93	121,0	6 mm²	1,5 - 1,8	M5	[4]
NF-HCF-25	25		1,2/63	1,0	7		210	45	145	195	25	5,4	174	135	108	22,5	96	126,0	6 mm²	1,5 - 1,8	M5	[4]
NF-HCF-40	40		1,6/83,5	1,5	17		235	50	168	220	30	5,4	207	135	129	25,0	115	148,0	6 mm²	1,5 - 1,8	M6	[4]
NF-HCF-63	63		1,3/102	1,9	27		255	65	180	240	45	5,4	226	155	136	32,5	120	153,0	16 mm²	2,0 - 2,2	M6	[4]
NF-HCF-80	80		1,8/100	3,4	31		290	80	205	270	50	6,5	250	170	144	40,0	110	164,0	35 mm²	4,0 - 4,5	M6	[4]
NF-HCF-100	100		1,3/100	4,2	45		300	90	210	280	60	6,5	260	170	149	45,0	112	172,0	50 mm²	6,0 - 8,0	M8	[4]
NF-HCF-125	125		1,5/100	4,3	52		300	90	210	280	60	6,5	260	170	149	45,0	112	172,0	50 mm²	6,0 - 8,0	M8	[4]
NF-HCF-160	160		1,5/100	5,2	69		310	100	225	290	70	6,5	270	170	119	52,5	100	161,0	95 mm²	15,0 - 20,0	M10	[4]
NF-HCF-230	230		1,3/105	8,7	74		350	105	240	330	70	6,5	310	210	134	52,5	115	176,0	95 mm²	15,0 - 20,0	M10	[4]

[1] Ableitstrom berechnet nach IEC 60939-3 | Leakage current calculated according to IEC 60939-3
[2] Schraubklemmen (Größenangabe der Klemmen für flexible Drähte) | Screw terminals (Size of terminals for flexible wires)
[3] Anzugsmoment der Erdungsschraube: M5: 2,0 – 2,3 Nm; M6: 4,0 – 4,5 Nm; M8: 6,0 – 8,0 Nm; M10: 18 – 20 Nm
Tightening torque for earth screw: M5: 2.0–2.3 Nm; M6: 4.0–4.5 Nm; M8: 6.0–8.0 Nm; M10: 18–20 Nm
[4] Isolationswiderstand >1MΩ | Insulation resistance >1MΩ
* Bemerkungen | Remarks

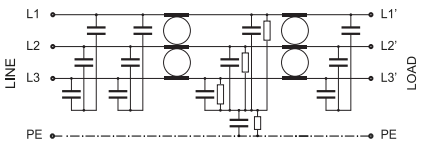
Prinzipschaltbild | Schematic circuit



10 – 63 A



80 – 160 A



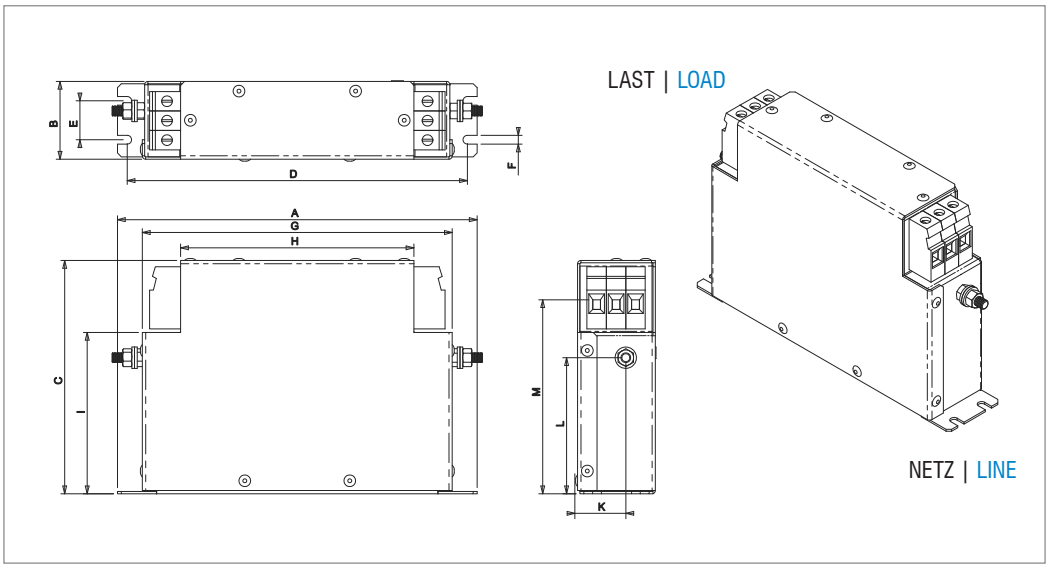
230 A

Technische Daten | Technical specifications

Nennspannung | Nominal voltage	520 VAC (±10 %), 3-phasig | 520 VAC (±10 %), 3-phase
Frequenzbereich | Frequency range	48 bis 63 Hz | 48 up to 63 Hz
Nennstrom | Nominal current	16 A bis 230 A @ 50 °C (siehe Tabelle) | 16 A up to 230 A @ 50 °C (see table)
Überlastbarkeit Overload capability	6-facher Nennstrom beim Einschalten, danach 1,5-facher Nennstrom für 1 Minute, einmal pro Stunde 6 times rated current at switch on, then 1.5 times rated current for 1 minute, once per hour
SCCR* | SCCR*	5 kA: 10 A bis 40 A, 10 kA: 63 A bis 230 A | 5 kA: 10 A up to 40 A, 10 kA: 63 A up to 230 A
MTBF | MTBF	>200.000 h (50 °C / 520 V, MIL-HDBK-217F) | >200,000 h (50 °C / 520 V, MIL-HDBK-217F)
Bauart | Chassis	Metallgehäuse | Metal case style
Befestigung | Mounting	Befestigungslaschen mit Löchern | Chassis mounting with holes
Anschlüsse Connection	Schraubklemmen, Anschlussquerschnitt siehe Tabelle, PE (Erdung des Gehäuses) mittels Gewindebolzen Screw terminals, dimensions see table, PE (earth) via thread bolt
Schutzart | Degree of protection	IP20 | IP20
Entflammbarkeitsklasse Class of flammability	UL 94V-2 oder besser UL 94V-2 or better
IEC-Klimakategorie | IEC-Climate category	40/100/21 (-40 °C bis +100 °C) | 40/100/21 (-40 °C up to +100 °C)
Überspannungskategorie Overvoltage category	III III
Verschmutzungsgrad | Degree of pollution	2 | 2
Aufstellhöhe | Installation altitude	<2000 m | <2000 m
Zulassungen | Approvals	CE, UL, cUL | CE, UL, cUL
Gefertigt nach | Built according to	EN 60939, UL 60939-3, CSA 22.2 No. 8-13, RoHS | EN 60939, UL 60939-3, CSA 22.2 No. 8-13, RoHS
Lagerung, Transport und Betrieb Storage, transport and operation	EN 60721-3-1: 1K3, EN 60721-3-2: 2K3, EN 60721-3-3: 3K3 EN 60721-3-1: 1K3, EN 60721-3-2: 2K3, EN 60721-3-3: 3K3

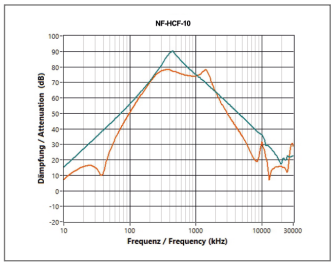
* Höhere SCCR-Werte mit geeigneten strombegrenzenden Class-J-Sicherungen gemäß UL 248-8 möglich.
* Higher SCCR values are possible with suitable current-limiting Class J fuses in accordance with UL 248-8.

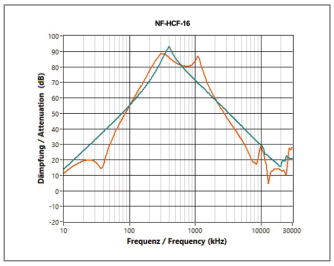
Abmessungen (Zeichnung nicht maßstabsgerecht) | Dimensions (Drawing not scaled)

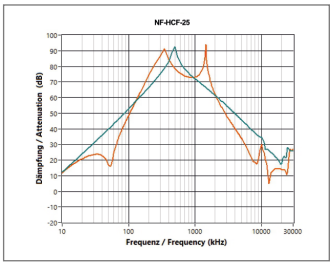


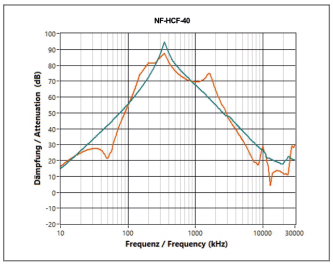
Typische Einfügungsdämpfung nach CISPR 17 | Typical insertion loss as per CISPR 17

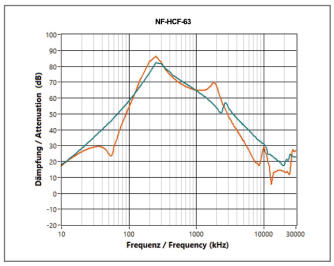
50 Ω/50 Ω asym. 50 Ω/50 Ω sym.

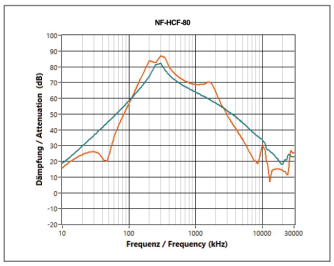


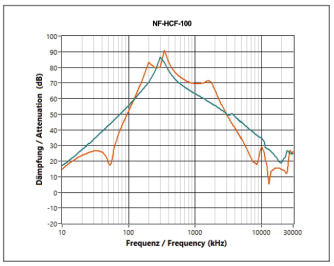


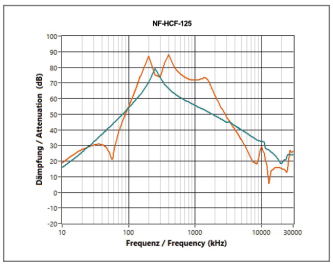


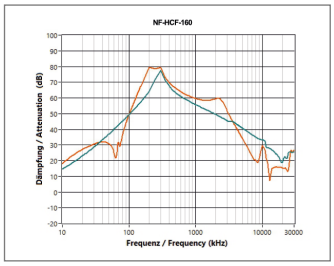


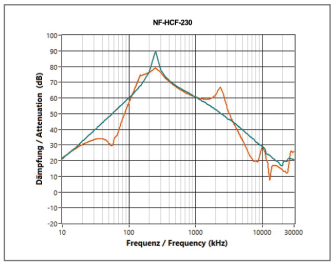




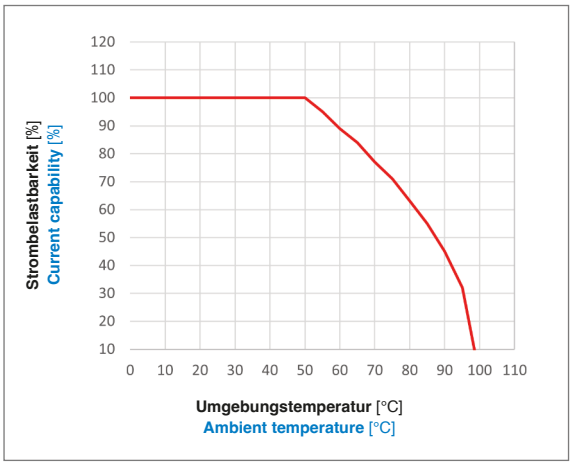








Leistungsreduzierung | Derating



$$I_{amb} = I_n \sqrt{\frac{\partial_{max} - \partial_{amb}}{\partial_{max} - \partial_n}}$$

I_n	Nennstrom @∂_n [A] Rated current @∂_n [A]
I_{amb}	Zulässiger Strom @∂_{amb} [A] Permissible current @∂_{amb} [A]
∂_n	Nennumgebungstemperatur [°C] Rated ambient temperature [°C]
∂_{amb}	Umgebungstemperatur [°C] Ambient temperature [°C]
∂_{max}	Maximal zulässige Temperatur [°C] Maximum allowed temperature [°C]