

The sinusoidal current input

Of electrical equipment with a B6 rectifier as a front end has traditionally meant having complex external 'front end' compensation components to rectify the waveform, which are commonly located in a facility installations, until now.

The new **KEB COMBILINE HARMONIC FILTER** is the latest innovative solution designed by our team of highly skilled engineers to combat such problems. It can be designed in at the planning stage and simply replace the traditional line reactor. With this solution compliance to the following standards.

- IEEE 519 - 1992 (USA)
- G5/4 Engineering Recommendation (GB)
- EN 61000-3-2; bis 16 A
- EN 61000-3-12; 16 A bis 75 A
- EN 61000-3-4
- EN 12015 (lift norm Europa)
- AS 2279 (Australia)
- COP, supply rules (Hongkong)
- Quality of Electric Energy Supply, Harmonics in Public Supply Network (China)

Through this new concept of filter design 'network friendly' energy consumption is achieved at an affordable cost. In short,

the **KEB COMBILINE HARMONIC FILTER**

is the new universal product for all consumers with B6 inputs.



The unique characteristics are

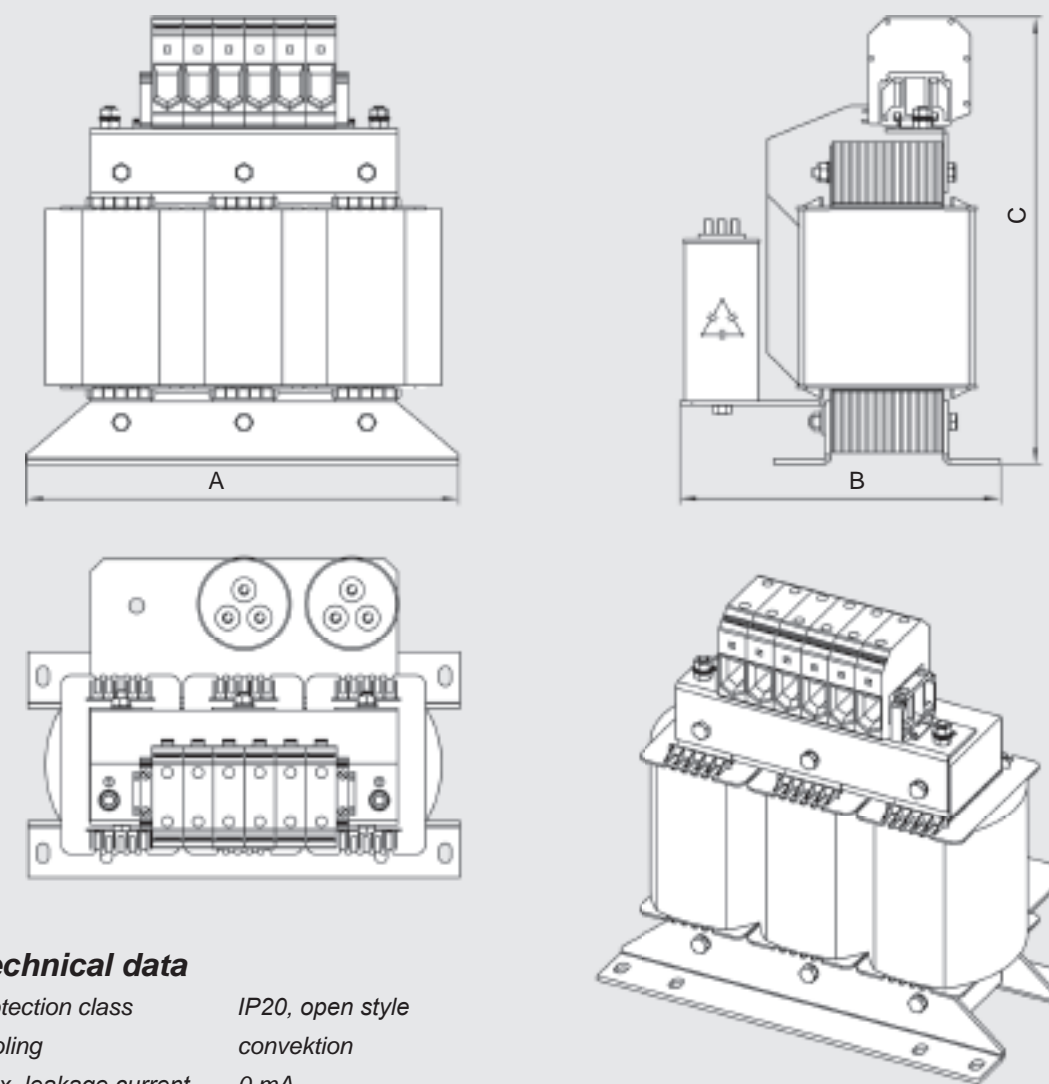
- compliance with the specified standards - sinusoidal current to the mains
- installation solution ready-for-connection, very small design
- no oscillation at load changes
- minor voltage drop compared to the line reactor
- unlimited number of parallel consumers per unit possible
- optimised design for generators in stand-alone operation
- protection of drives in case of „weak“ and „oscillating“ mains
- increased lifetime of inverter DC bus capacitors
- For plant modernization / upgrading
no further compensation equipment necessary

Rating Table 400V-class Harmonic Filter- THD ≤ 8 % / PWHD ≤ 15 %					
Part number	I_{rating} [A]	A [mm]	B [mm]	C [mm]	weight [kg]
09.Z1.C04-1000	4,3	178	142	170	5,8
12.Z1.C04-1000	10	219	170	233	11,5
13.Z1.C04-1000	12,6	243	195	230	13,4
14.Z1.C04-1000	17,3	291	192	256	18,2
15.Z1.C04-1000	25,2	291	214	257	25,5
16.Z1.C04-1000	34,7	352	240	324	38,5
17.Z1.C04-1000	44,1	352	261	324	47,1
18.Z1.C04-1000	52,5	352	260	337	54,6
19.Z1.C04-1000	63	352	307	326	63
20.Z1.C04-1000	79	388	296	360	72,8
21.Z1.C04-1000	95	412	320	405	96
22.Z1.C04-1000	121	412	378	404	108
23.Z1.C04-1000	158	480	416	475	162
24.Z1.C04-1000	189	552	481	472	172
25.Z1.C04-1000	221	552	550	520	244
26.Z1.C04-1000	263	552	567	545	242
27.Z1.C04-1000	315	552	635	550	294
28.Z1.C04-1000	390	651	530	629	252
29.Z1.C04-1000	460	660	670	650	513

- further ratings by parallel operation of similar sizes
- input voltage 460 V / 60 Hz: $I_{rating} \times 0,86$

Rating Table 400V-class Harmonic Filter- THD ≤ 15 % / PWHD ≤ 38 %					
Part number	I_{rating} [A]	A [mm]	B [mm]	C [mm]	weight [kg]
07.Z1.C04-1001	2,4	148	134	163	2,6
10.Z1.C04-1001	6,1	178	128	168	4,8
12.Z1.C04-1001	10	175	145	220	6,8
13.Z1.C04-1001	12,6	220	155	250	8,7
14.Z1.C04-1001	17,3	243	185	260	12,2
15.Z1.C04-1001	25,2	267	171	285	16,3
16.Z1.C04-1001	34,7	291	205	275	22,6
17.Z1.C04-1001	44,1	291	215	280	27
18.Z1.C04-1001	52,5	316	256	300	33
19.Z1.C04-1001	63	316	242	297	35,8

- further ratings by parallel operation of similar sizes
- input voltage 460 V / 60 Hz: $I_{rating} \times 0,86$



Technical data

protection class	IP20, open style
cooling	convection
max. leakage current	0 mA (option with HF Filter ≤ 7 mA)
efficiency	> 98 %
overload	150 % - 60 Sec.
temperature	storage -25 ...70 °C operation -10 ...45 °C
climatic category	3K3 (EN 60721-3-3)
enviroment (IEC 664-1)	degree of pollution 2
vibration / shock	Germanic Lloyd, EN 50155
installation position	vertical / horizontal with arrangement of the capacitor beneath the choke
techn. bases	EN 61558-2-20, VDE 0160
in preparation	UL-, cUL- acceptance

subject to technical changes

