

General

A mains choke is an inductive resistor which can be connected between the mains supply and the frequency inverter.

Function:

- Less effects on the mains – the wave form of the mains supply is a closer approximation of a sine wave.
- Reduced mains current – reduction of the r.m.s. current (i.e. reduction of mains, cable and fuse load).
- Increased service life of the 8200 vector – The service life of electrolytic capacitors in the DC bus can be increased considerably by reducing the AC load.

Note:

- Mains chokes can be used without restrictions in conjunction with RFI filters and/or motor filters.
- A mains filter (combination of inductance and RFI filters in one housing) replaces the function of a mains choke (mains filters available for the 8200 vector, 15.0...90.0 kW).

Please note:

- Some 8200 vector frequency inverter models must always be equipped with a mains choke (see ¹⁾ and ²⁾ in the selection table)
- When using a mains choke, the maximum possible output voltage does not reach the value of the mains voltage – the typical mains voltage drop at the rated value is around 6%.

Mains chokes (0.25 kW...90 kW)

8200 vector				Mains choke			
Type	Voltage [V]	Mains current [A] with mains choke for operation at		Order ref.	Inductance [mH]	I _r [A]	m [kg]
		150% overload ³⁾	120% overload ⁴⁾				
E82EV251K2C	1~230	3.0	3.5	ELN1-0900H005	9	5	2.3
E82EV371K2C		4.2	–				
E82EV551K2C		5.2	6.2	ELN1-0500H009	5	9	1
E82EV751K2C		7.5	9.0 ²⁾				
E82EV152K2C		12.5	15.0	ELN1-0250H018	2.5	18	2.3
E82EV222K2C		18.0 ¹⁾	–				
E82EV551K2C	3~230	2.7	3.3	E82ZL75132B	5.8	4.5	0.9
E82EV751K2C		3.6	4.4 ²⁾				
E82EV152K2C		6.3	7.6	E82ZL22232B	2.8	9.5	1.5
E82EV222K2C		9.0	–				
E82EV302K2C		12.0	14.4	ELN3-0120H017	1.2	17	3
E82EV402K2C		16.0	–				
E82EV552K2C		21.0	25.2 ²⁾	ELN3-0120H025 ELN3-0088H035 ⁴⁾	1.2 0.88	25 35	6 10
E82EV752K2C		28.0 ¹⁾	–				
E82EV551K4C	3~400	2.0	2.1	EZN3A1500H003	15	3	1.1
E82EV751K4C		2.3	2.8 ²⁾				
E82EV152K4C		3.9	–	E82ZL22234B	6.8	6.1	2
E82EV222K4C		5.1	6.1 ²⁾				
E82EV302K4C		7.0	8.4	EZN3A0500H007 EZN3A0300H013 ⁴⁾	5 3	7 13	2.5 5.2
E82EV402K4C		8.8	10.6 ²⁾				
E82EV552K4C		12.0	–	EZN3A0300H013	3	13	5.2
E82EV752K4C		15.0	18.0 ²⁾				
E82EV113K4C		21.0 ¹⁾	–	ELN3-0120H017 ELN3-0150H024 ⁴⁾	1.2 1.5	17 24	3 8.2
E82EV153K4C		29.0	39.0 ²⁾				
E82EV223K4C		42.0 ¹⁾	50.0 ²⁾	ELN3-0088H035 ELN3-0075H045 ⁴⁾	0.88 0.75	35 45	10 10
E82EV303K4C		55.0 ¹⁾	60.0 ²⁾				
E82EV453K4C		80.0 ¹⁾	97.0 ²⁾	ELN3-0075H045 ELN3-0055H055 ⁴⁾	0.75 0.55	45 55	10 19
E82EV553K4C		100.0 ¹⁾	119.0 ²⁾				
E82EV753K4C		135.0 ¹⁾	144.0 ²⁾	ELN3-0055H055	0.55	55	19
E82EV903K4C		165.0 ¹⁾	185.0 ²⁾				
				ELN3-0038H085 ELN3-0027H105 ⁴⁾	0.38 0.27	85 105	19.5 20
				ELN3-0027H105 ELN3-0020H130	0.27 0.27	105 130	20 20
				ELN3-0022H130 ELN3-0017H170 ⁴⁾	0.22 0.17	130 170	20 32
				ELN3-0017H170 ELN3-0014H200	0.17 0.14	170 200	32 32

¹⁾ Always use a mains choke

²⁾ Always use a mains choke when operating the system with increased power rating

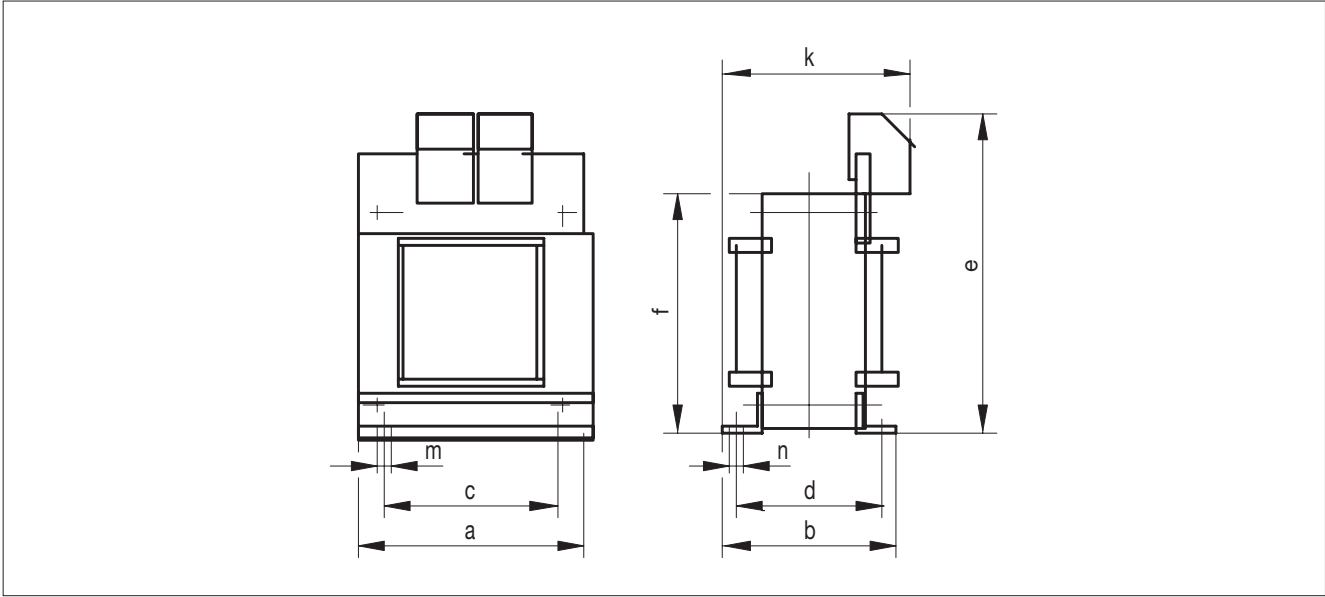
³⁾ Standard operation (150% overload) with a mains rating of 230 V or 400 V

⁴⁾ Operation with increased power rating (120% overload)



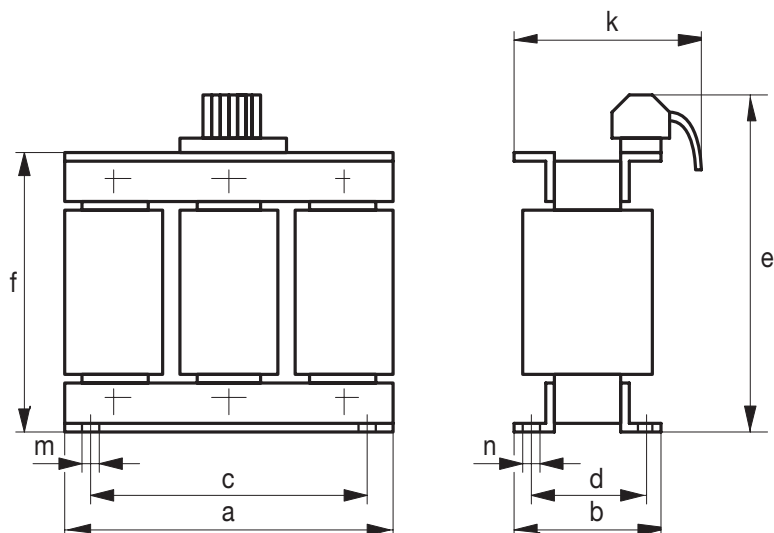
Dimensions

Order ref.	Dimensions [mm]								
	a	b	c	d	e	f	k	m	n
ELN1-0900H005	66	67	50	53	80	62	80	4.8	9
ELN1-0500H009	66	67	50	53	80	62	80	4.8	9
ELN1-0250H018	97	–	84	61.3	98	–	90	5.8	9



Dimensions

Order ref.	Dimensions [mm]								
	a	b	c	d	e	f	k	m	n
ELN3-0120H017	120	65	109	51	162	110	80	5	10
ELN3-0120H025	150	76	140	61	180	140	95	5	10
ELN3-0088H035	180	91	161	74	225	165	120	6.3	11
ELN3-0075H045	180	91	161	74	225	165	120	6.3	11
ELN3-0055H055	228	88	206	69	263	205	120	6.3	11
ELN3-0038H085	228	111	206	94	263	205	140	6.3	11
ELN3-0027H105	228	111	206	94	273	205	150	6.3	11
ELN3-0022H130	264	102	240	81	265	237	135	6.3	11
ELN3-0017H170	264	128	240	107	257	237	166	8.3	16
ELN3-0014H200	300	114	274	88	290	265	135	8.3	16



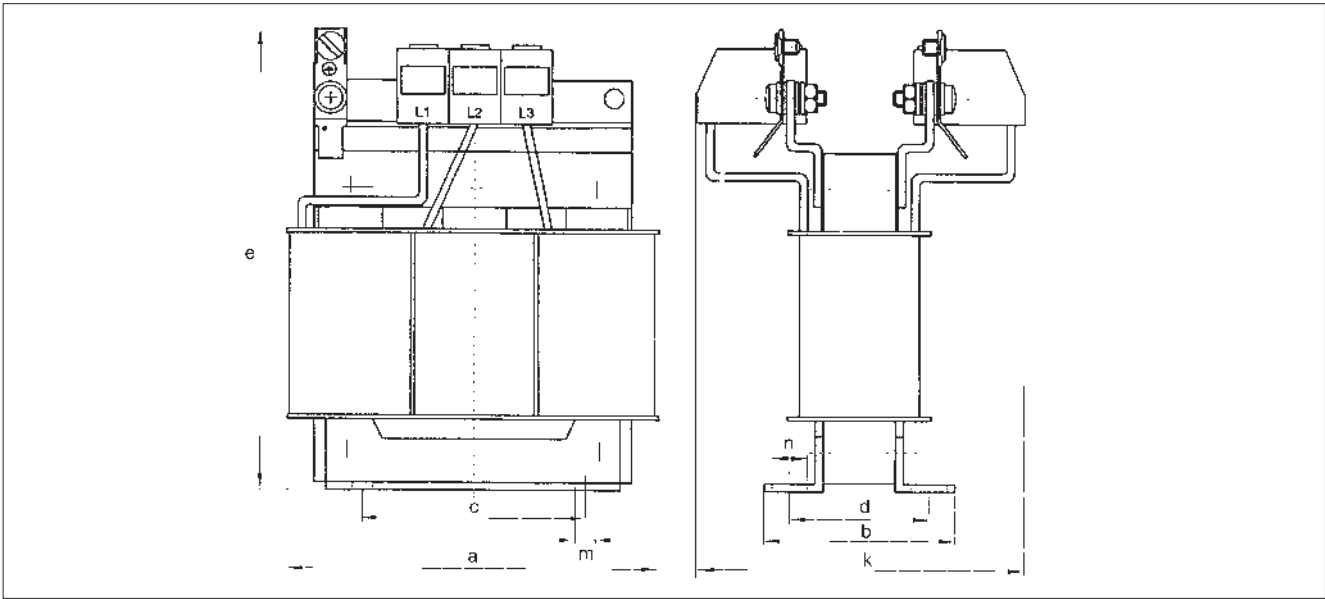
Terminal assignment

L1	L1.1	L2	L2.1	L3	L3.1
↑	↓	↑	↓	↑	↓



Dimensions

Order ref.	Dimensions [mm]								
	a	b	c	d	e	f	k	m	n
E82ZL75132B	95	49	56	36	113	–	–	4.8	9
E82ZL22232B	120	63	84	47	120	–	–	5.8	11
E82ZL22234B	120	61	84	45	126	–	70	5.8	11
EZN3A1500H003	95	48	56	35	115	–	82	5	9
EZN3A0500H007	119	63	90	49	138	–	95	5	9
EZN3A0300H013	150	81	113	64	162	–	106	6	11
ELN3-0150H024	180	86	136	67	192	–	120	7	12



Terminal assignment

L1	L2	L3	L3.1	L2.1	L1.1
↑	↑	↑	↓	↓	↓

