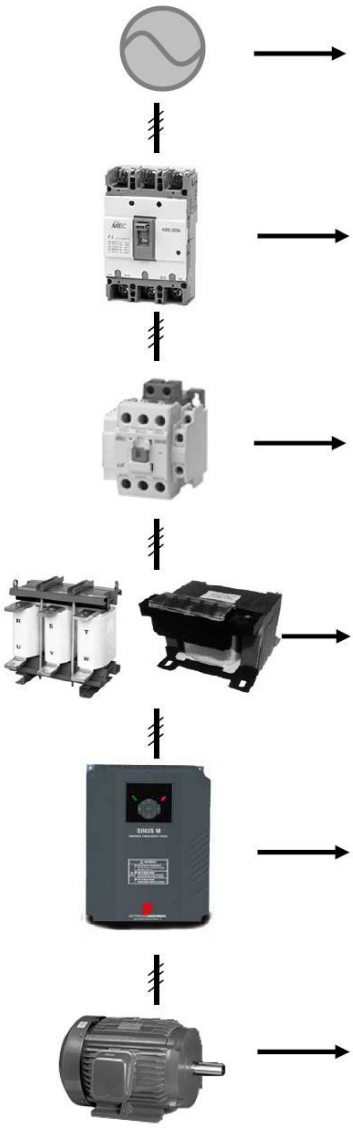
CHAPTER 4 - BASIC CONFIGURATION

4.1 Connection of peripheral devices to the inverter

The following devices are required to operate the inverter. Proper peripheral devices must be selected and correct connections made to ensure proper operation. An incorrectly applied or installed inverter may cause a system malfunction or reduction in product life as well as component damage. Must be red and understood this manual thoroughly before proceeding.



AC Source Supply	Use the power supply within the allowed range of inverter input power rating
MCCB or Earth leakage circuit breaker (ELB)	Select circuit breakers with care. A high current peak may flow in the inverter at power on.
Magnetic Contactor	Install it if necessary. When installed, do not use it for the purpose of starting or stopping. Otherwise, it could lead to reduction in product life.
AC and DC Reactors [*]	The reactors must be used when the power factor has to be improved or the inverter is installed near a large power supply system (1000kVA or more and wiring distance within 10m).
Installation and wiring	To operate the inverter with high performance for a long time, install the inverter in a proper place in the correct direction and with proper clearances. Incorrect terminals connection could damage the equipment .
To the motor	Do not connect any power factor capacitor, surge suppressor or radio noise filter to the output side of the inverter.

[*] Terminal block for DC reactor is available in more than 11kW capacity.

4.3 Recommended Fuses and Reactors

Model	AC Input Fuse (External Fuse)		AC Input Reactor	DC Reactor
	Current [A]	Voltage [V]		
Sinus M 0001 2S/T	10	500	IM0126004	–
Sinus M 0002 2S/T	10	500	IM0126004	–
Sinus M 0003 2S/T	15	500	IM0126004	–
Sinus M 0005 2S/T	25	500	IM0126044	–
Sinus M 0007 2S/T	40	500	IM0126044	–
Sinus M 0011 2S/T	40	500	IM0126084	–
Sinus M 0014 2S/T	50	500	IM0126124	–
Sinus M 0017 2S/T	70	500	IM0126144	IM0140254
Sinus M 0020 2S/T	100	500	IM0126164	IM0140254
Sinus M 0025 2S/T	100	500	IM0126164	IM0140274
Sinus M 0030 2S/T	125	500	IM0126164	IM0140274
Sinus M 0001 4T	5	500	IM0126004	–
Sinus M 0002 4T	10	500	IM0126004	–
Sinus M 0003 4T	10	500	IM0126004	–
Sinus M 0005 4T	10	500	IM0126004	–
Sinus M 0007 4T	20	500	IM0126004	–
Sinus M 0011 4T	20	500	IM0126044	–
Sinus M 0014 4T	30	500	IM0126044	–
Sinus M 0017 4T	35	500	IM0126084	IM0140154
Sinus M 0020 4T	45	500	IM0126124	IM0140204
Sinus M 0025 4T	60	500	IM0126124	IM0140204
Sinus M 0030 4T	70	500	IM0126144	IM0140254

- **Short Circuit Rating**

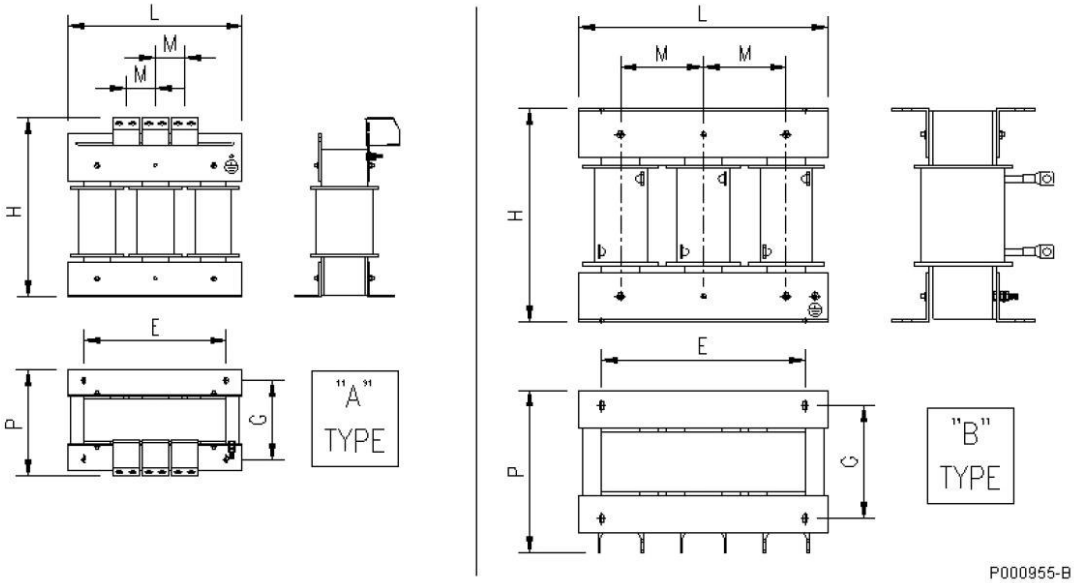
Suitable for use on a circuit capable of delivering not more than 65kA symmetrical Amperes. 240V drives or 480V drives Volts Maximum.

- **Short Circuit FUSE/BREAKER Marking**

Use Class H or K5 UL Listed Input Fuses and UL Listed breakers only. See the table above for the voltage and current rating of the fuses and the breakers.

- **AC Reactors**

INDUCTANCE MODEL	INDUCTANCE RATINGS		DIMENSIONS							HOLE	WGT	LEAKAGE
	mH	A	TYPE	L	H	P	M	E	G	mm	kg	W
IM0126004	2.00	11	A	120	125	75	25	67	55	5	2.9	29
IM0126044	1.27	17	A	120	125	75	25	67	55	5	3	48
IM0126084	0.70	32	B	150	130	115	50	125	75	7x14	5.5	70
IM0126124	0.51	43	B	150	130	115	50	125	75	7x14	6	96
IM0126144	0.30	68	B	180	160	150	60	150	82	7x14	9	150
IM0126164	0.24	92	B	180	160	150	60	150	82	7x14	9.5	183



- **DC Reactors**

INDUCTANCE MODEL	INDUCTANCE RATINGS		DIMENSIONS					HOLE	WGT	LEAKAGE
	mH	A	L	H	P	E	G	mm	kg	W
IM0140154	2.8	32.5	160	140	120	100	100	7x10	8	50
IM0140204	2	47	160	210	160	97	120	7x14	13	80
IM0140254	1.2	69	160	210	160	97	120	7x14	13.5	90
IM0140274	0.96	94	contact Elettronica Santerno							