

**TECHNICAL FEATURES**  
**MCSV-20 HEAVY DUTY**

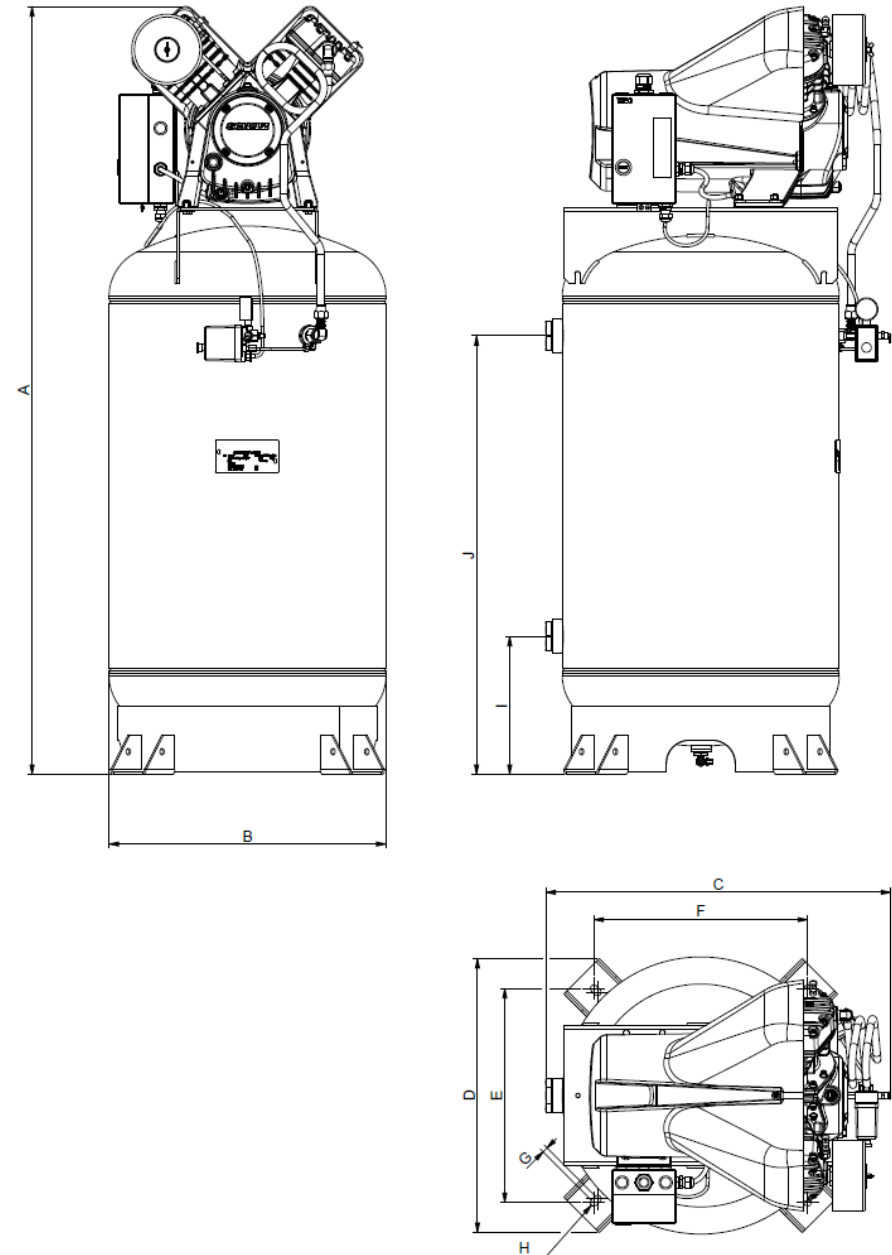
**SCHULZ**

Model	Displacement		Maximum Pressure		Air Receiver tank	Rpm	Electric motor				
	cfm	l/min.	psig	bar	Geometric Volume (liters / gal)		hp	kW	Hz	Polos	Voltage (V)
MCSV-20 AP Three-phase	20	566,4	175	12	300 / 80	1710	5	3,7	60	4	230
MCSV-20 AP Single-phase						1750					

Dimensions ( inch / mm )										Air discharge connection	Lubricant ( ml )	Weight with electric motor ( Kg )	Painting
A	B	C	D	E	F	G	H	I	J				
66.38 / 1686	23.97 / 609	29.88 / 759	23.7 / 602	18.5 / 470	18.5 / 470	0.47 / 12	0.63 / 16	11.96 / 304	37.95 / 964	3/4"	1200	165	Black (Pump)
												175	Gray (Tank)

**NOTE:**

1- When using this product, basic safety precautions described in the chapter "SAFETY INSTRUCTIONS" in the instruction manual must be followed in order to reduce risks of damage to your equipment, and prevent physical or material damages.



# MAIN COMPONENTS AND THEIR FUNCTIONS

## MCSV-20 HEAVY DUTY

# SCHULZ

- 1- Compressor (Bare pump) unit** - Sucks and compresses atmospheric air.
- 2- Oil level sight** - Show the lubricant oil level.
- 3- Oil plug** - Allows the removal of lubricant oil.
- 4- Identification Plate/Information Sticker** - They show the air compressor and air receiver technical data.
- 5- Aftercooler** - Carries and cools down compressed air.
- 6- Pressure Gauge** - Shows manometrical pressure inside the air receiver in, psig, bar, or kgf/cm<sup>2</sup>.
- 7- Check Valve** - Retains the compressed air inside the air receiver, preventing the air returning to the compressor pump when it stops.
- 8- ASME Safety valve** - Depressurizes the air receiver in case the pressure rises above the maximum allowed level.
- 9- Pressure Switch** - Controls the compressor's operation to avoid that the maximum working pressure is surpassed.
- 10- Air receiver** - Stores compressed air.
- 11- Electric Starter** - Allows the equipment on/off.
- 12- Air Filter** - Retains impurities contained in the atmospheric air sucked by the air compressor.
- 13- Plug oil** - Allows the replacement of oil.
- 14- Electric Motor** - Drives the compressor.
- 15- Cover** - Protection from the rotating parts.
- 16- Air discharge connection** - Compressed air discharge.
- 17- Drain** - Used to remove the condensed water retained inside the air receiver.

Attention.



1; 5; 7.

Hot parts.



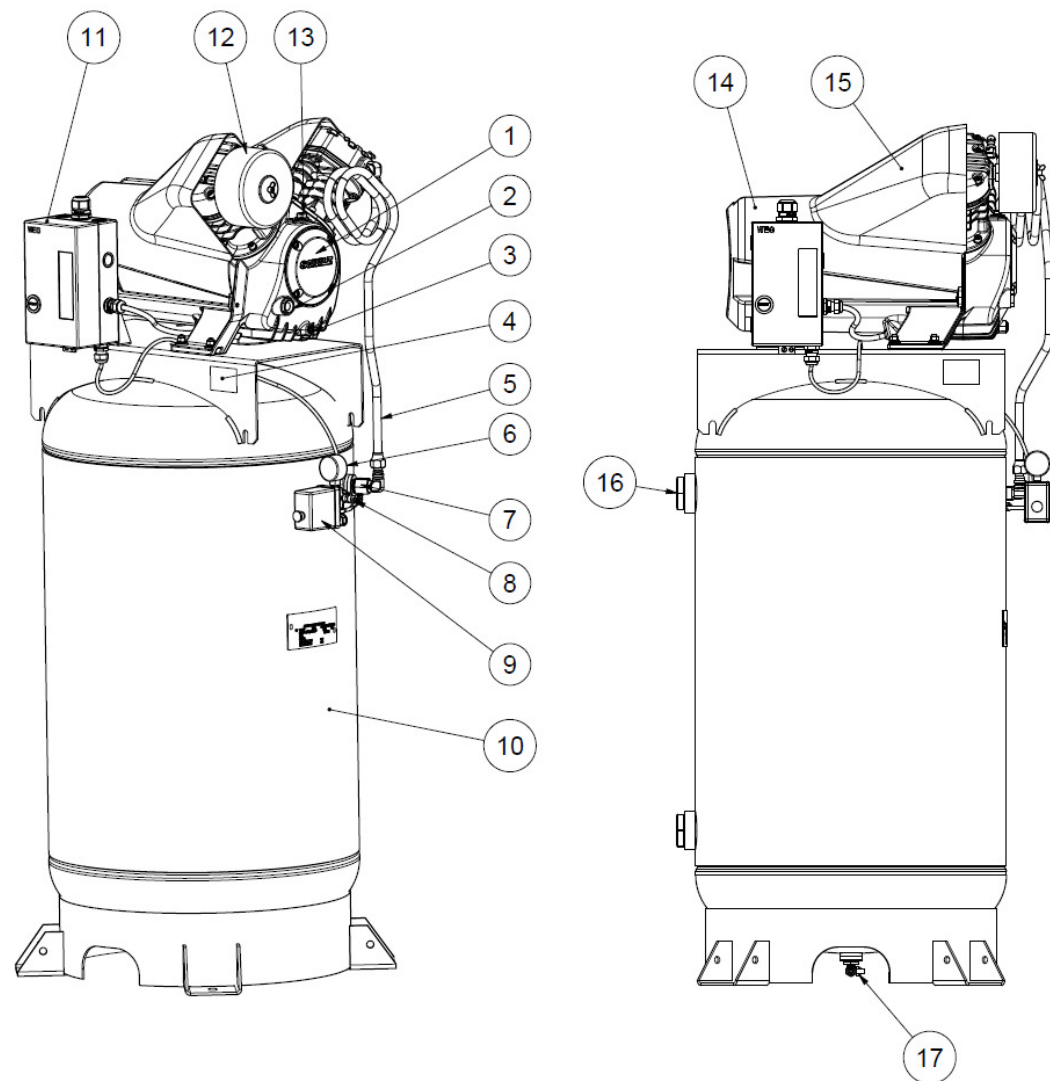
9; 11; 14.

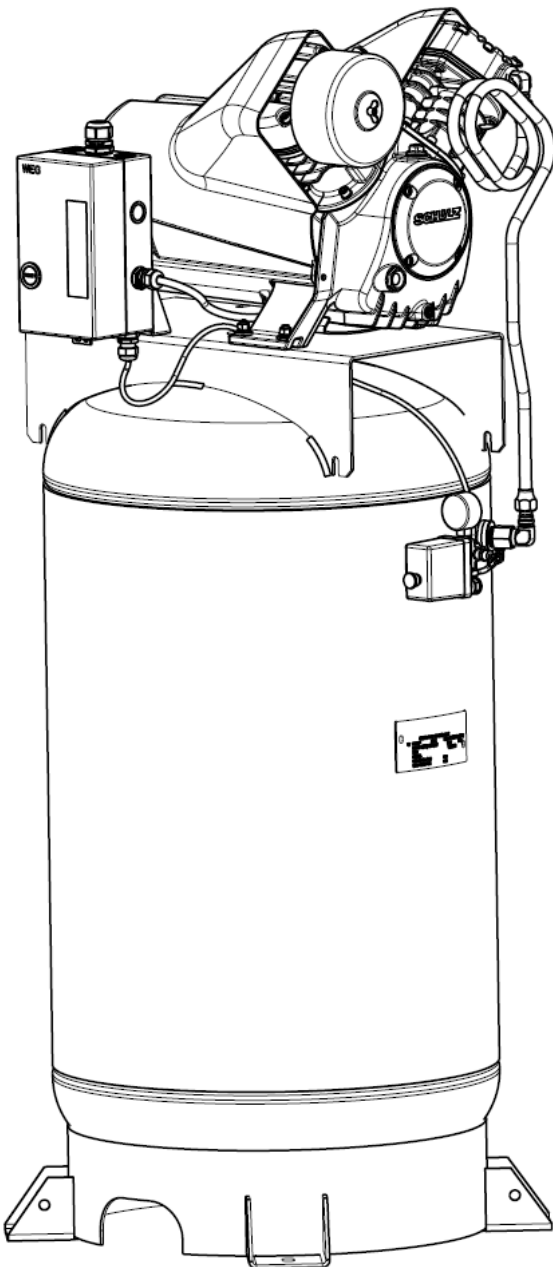
Power Parts.



14.

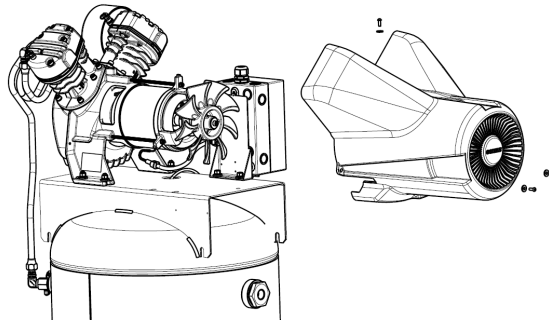
Mobile Parts. (Fan)



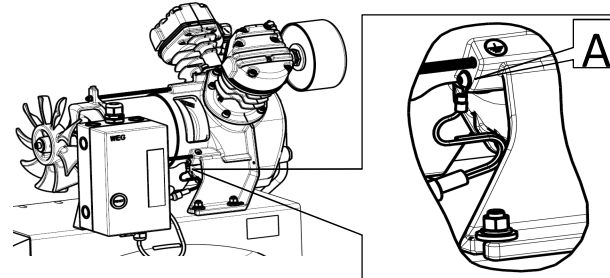


Follow the guideline for proper installation of the product, the electrical installation is the responsibility of the user (owner)

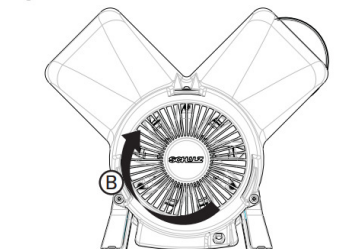
1 - Remove the three fixing screws on the protective cover as shown bellow.



2 - The motor must be grounded in accordance with national regulations to prevent electric shock. Make the electrical connection according to the electrical diagram on the next pages and connect the grounding cable as indicated in the point (A).

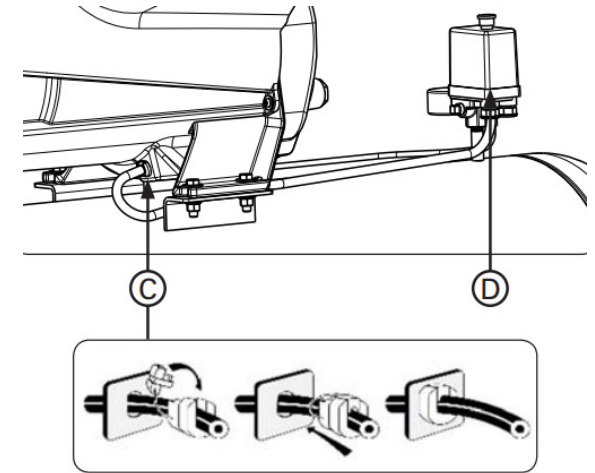


3 - Check the fan direction, which should be clockwise as shown in the figure (B).



4 - For the motor connecting, feed the cable through the hole in the protection cover and use the cable gland to clamping it. (Figure C)

Then connect the cable to the pressure switch according indicated in the point (D).



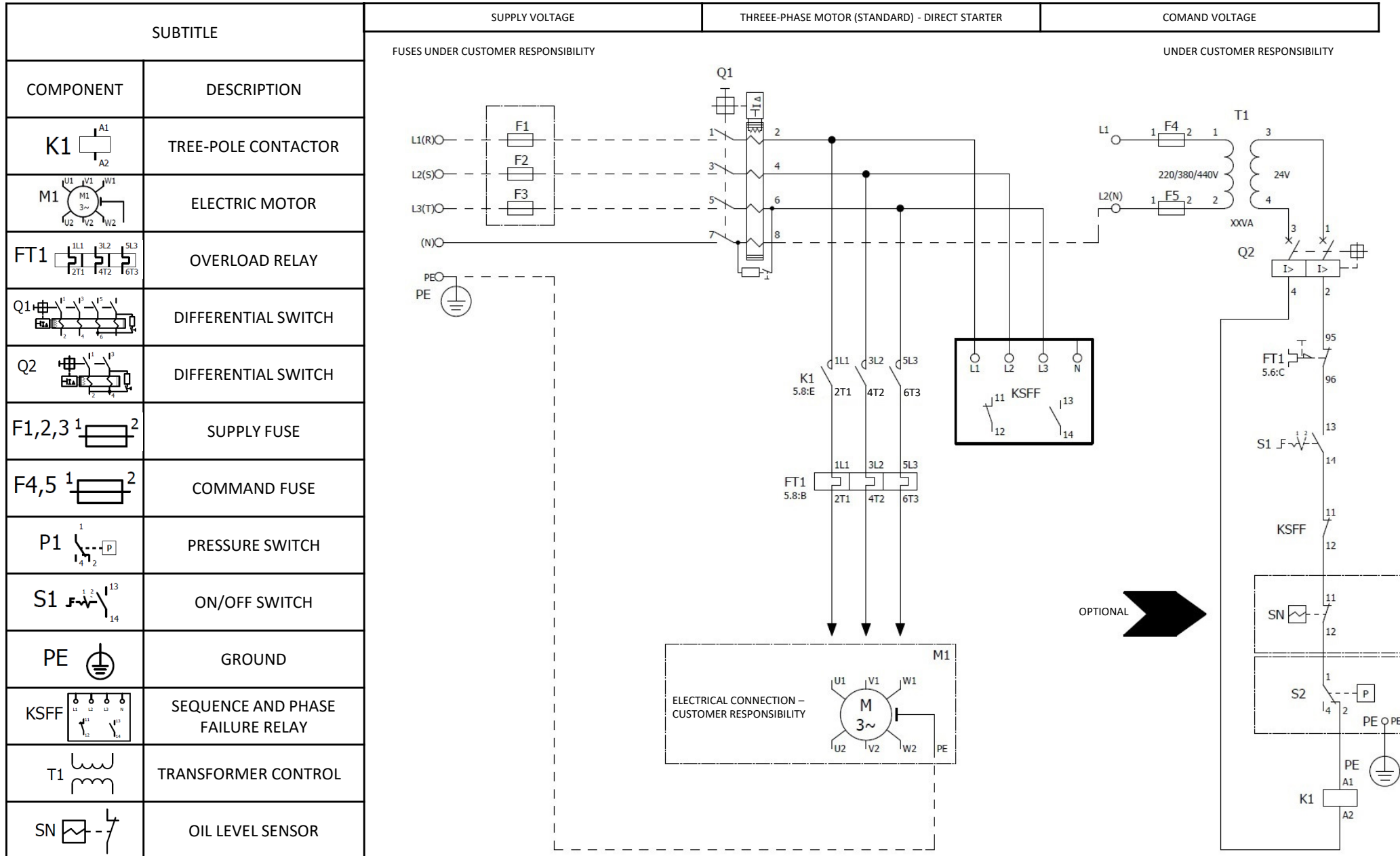
5 - Three-phase electric motor connections.

1710 rpm	1 SF	230 V	T6	T4	T5
5 cv - hp	3 ~	16.5 A	T1	T2	T3
3,7 kW	60 Hz	△	L1	L2	L3
S3 70% Duty	1000 Alt. Max.				

6 - Single-phase electric motor connections.

1750 rpm	1.2 SF	230 V	T5	T8	T2
5 cv - hp	1 ~	16.5 A	T1	T3	7P2
3,7 kW	60 Hz	△	L1		L2
S3 70% Duty	1000 Alt. Max.				

**ELETRICAL THREE-PHASE DIAGRAM WITH STARTER SWITCH**



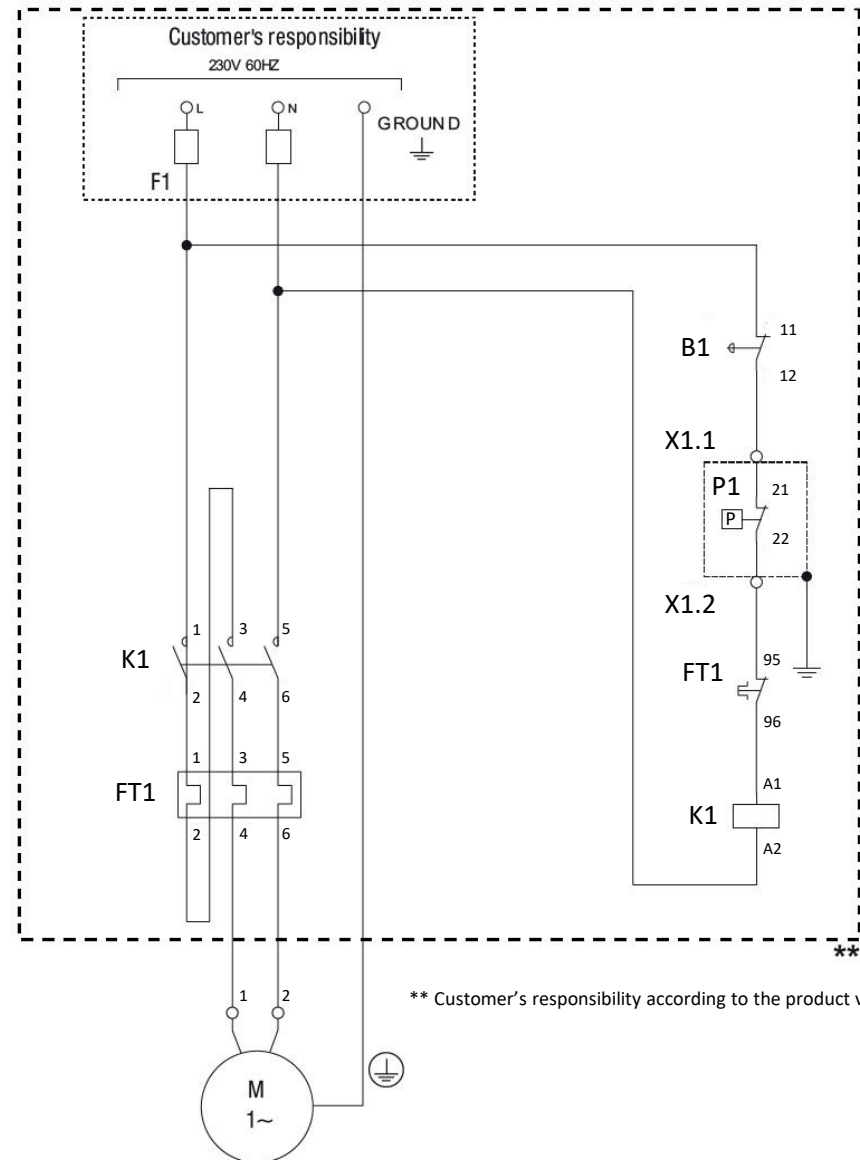
**ELETRICAL SINGLE-PHASE DIAGRAM WITH STARTER SWITCH**

SUBTITLE		SUPPLY VOLTAGE	SINGLE-PHASE MOTOR (STANDARD) - DIRECT STARTER	COMMAND VOLTAGE
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TAG	DESCRIPTION
F1 F2 F3	FUSES
P1	PRESSURE SWITCH
T	TRANSFORMER CONTROL
K1	MAIN CONTACTOR
FT1	OVERLOAD RELAY
M	ELECTRIC MOTOR
B1	EMERGENCY BUTTON
X1	TERMINAL BLOCK

FUSES UNDER CUSTOMER RESPONSIBILITY

UNDER CUSTOMER RESPONSIBILITY



\*\* Customer's responsibility according to the product version.