

**Features :**

- ▶ **V/F Control**
- ▶ **Automatic Voltage Regulation**
- ▶ **150% Rated Current**
- ▶ **PI Control**
- ▶ **Provides protection against, Over Voltage, Under Voltage, Over Temperature, Over Load, Under Current, Over Current**
- ▶ **RS485 Modbus Communication**

Single Phase

Model VFD-L-1	005	010
Applicable motor output (kW)	0.4	0.75
Applicable motor output (HP)	0.5	1

Technical specifications**Input rating**

Rated voltage / Frequency	Single Phase 230VAC 50/60Hz	
Maximum input current	5A	10A
Voltage tolerance	±15% (195~265VAC)	
Frequency tolerance	±5% (47~63Hz)	

Output rating

Rated output capacity (kVA)	0.8	1.5
Rated output current	2.5A	5A
Maximum output voltage (V)	Proportional to Input Voltage	
Output frequency	0.1~400 Hz	
Carrier frequency	2~10 kHz	

Control characteristics

Control system	Space Vector PWM Based Scalar Control	
Frequency setting resolution (Hz)	0.1Hz	
Overload endurance	150 % for 1 min, 180 % for 10 sec., 200 % for 1 sec.	
Skip frequency	2 bands available	
DC Injection braking	Up to 150% of rated current for 0 to 50.0s during starting and stopping cycles	
Accel. / Decel. time	0.0 ~ 3600 Sec. Four acceleration/deceleration time settings available	
Braking torque	Maximum 150%	
V/f Mode	4 pre-set V/f mode and 1 User defined V/f program	

Operating characteristics

Frequency setting	Keypad	Set by Up & Down Keys Set by Panel Potentiometer
	External signal	Potentiometer – 10 kΩ, 0 to 10 VDC Analog Input – 0-20 mA/4-20 mA/0-10 VDC Communication – Modbus RS485 Multifunction Terminal – 1 to 4 (8 Steps, JOG, UP & DOWN)
Operation setting	Keypad	By RUN & STOP Keys
	External signal	Multifunction Terminal 1 to 4 (RUN, STOP, Fwd/Rev, Jog) Communication – Modbus RS485

Control Inputs / Outputs

Digital Input	Programmable digital inputs	4
	Logic	PNP or NPN
	Voltage level	0 – 24 VDC
	Input resistance	6KΩ

Analog input	Analog input	2
	Modes	Voltage or Current
	Voltage level	0 to +10V
	Current level	0/4 to 20 mA
Relay Output	Relay Output	1
	Max. terminal load (AC)	250V, 5A

Operation function

AVR (Automatic Voltage Regulation), Fault Records, Adjustable Carrier Frequency, DC Braking, Frequency Limit, Parameter Lock/Reset, Counter, PI Control, PLC Program, Modbus Communication

Protection function

Over voltage, Under voltage, Over current, Over temperature, Over load, Under current, System error

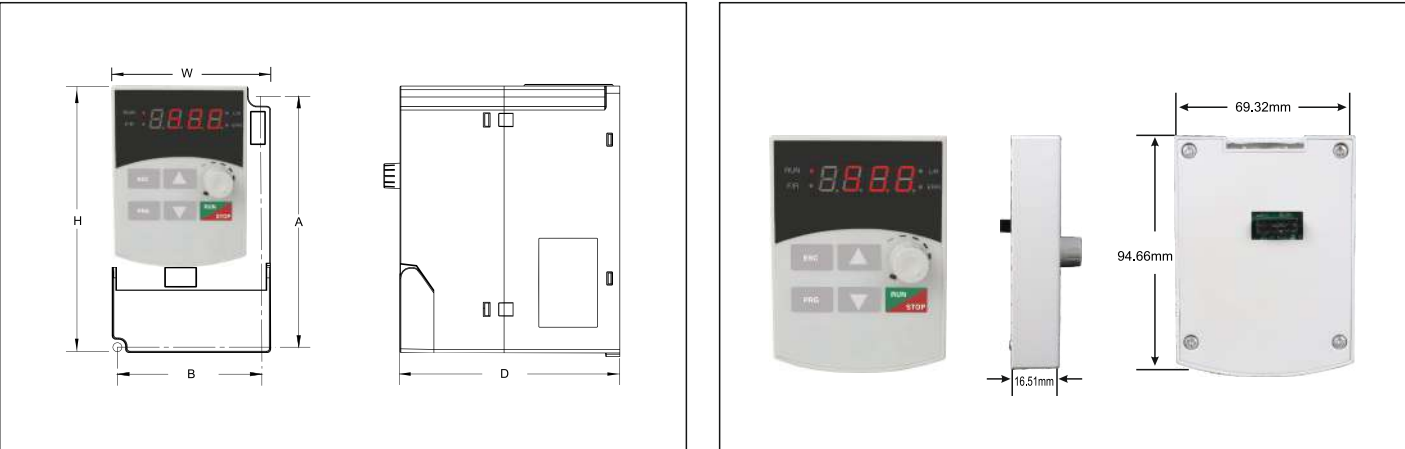
Display / Keypad

Inbuilt HMI with 5 keys, Potentiometer, 4 digit, 7 Segment LED display and 4 status, Set Frequency, Output Frequency, Custom Units, Parameter Values for Setup, Review and Faults
PRG, ESC, UP, DOWN, START/STOP

Enviromental conditions

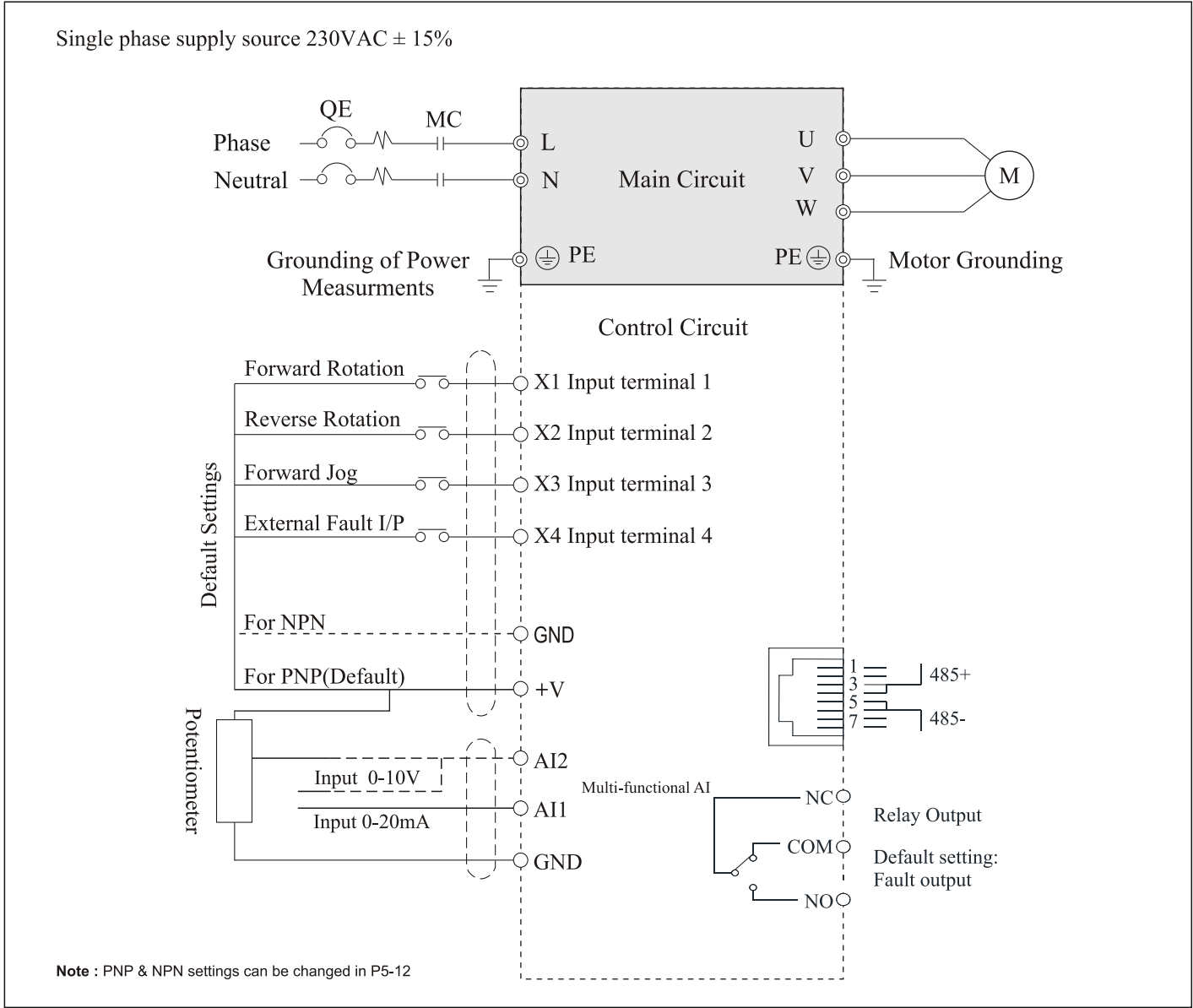
Protection level	IP20
Pollution degree	2
Installation location	Indoor, <1000 m altitude above sea level
Ambient temperature	-10°C ~ +55°C
Storage/ transportation temperature	-20°C ~ +60°C
Ambient humidity	<90 % No condensation
Vibration	<5.9 m/s2 (0.6 g)

Dimensions

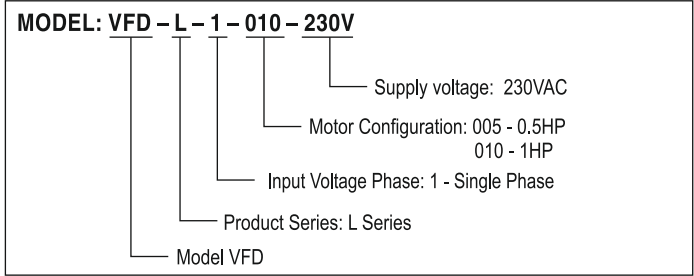


Product Code	Mounting Dimension		Dimension			Pore Diameter (mm)	Weight (kg)
	A (mm)	B (mm)	H (mm)	W (mm)	D (mm)		
VFD-L-1-005-230V	141	80.5	150	89	123	φ4.6	0.85
VFD-L-1-010-230V							

Connection diagram



Model description



Ordering information

Product code	Description	Output current
VFD-L-1-005-230V	1 Phase 230V, 0.5HP 0.4 KW	2.5 A
VFD-L-1-010-230V	1 Phase 230V, 1 HP 0.7 KW	5 A

Applications : Suitable For Fans, Pumps, Conveyor, Food & Drink Packaging Machinery And Most General Purpose Industries Etc.