

Precision in Power, Pioneering Innovation: Our VFD Inverters, Your Solutions. APS TECHNOLOGY AUSTRALIA PTY. LTD

U 206/24 CARLINGFORD RD EPPING, 2121 NSW, AUSTRALIA Variable Frequency Driver Inverters

APS Technology's VFD inverters are sophisticated devices that precisely control electric motor speed and torque by converting AC power into adjustable frequency and voltage output. They offer energy efficiency, reduced machinery wear, and improved process control across various industries, including HVAC, industrial automation, and electric vehicles, ultimately enhancing operational efficiency and sustainability.

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## APPLICATIONS

**Industrial Automation:** VFDs control motor speed in machinery like conveyor systems, pumps, fans, compressors, and mixers, optimizing energy usage.

**HVAC Systems:** They regulate fan and pump speeds in heating, ventilation, and air conditioning systems, resulting in energy savings and precise climate control.

Water and Wastewater Treatment: VFDs manage pumps and blowers in water treatment, ensuring efficient water distribution and sewage treatment.

**Mining and Minerals Processing:** VFDs control crushers, conveyors, and mills in mining, enhancing efficiency and reducing maintenance costs.

**Oil and Gas Industry:** VFDs regulate motor speed in drilling rigs, pumps, and compressors, optimizing energy use in extraction and processing.

**Renewable Energy:** VFDs are used in wind turbines and solar tracking systems to adjust component speed and orientation, maximizing energy capture.

Designed and developed by APS Technology Australia. Specification subject to change without notice. Input : Single phase or Three Phase AC Voltage (220, 380, 460)

Voltage (V)	220 V	220 V	380 V	460 V
	(1F)	(240 V)	(415 V)	440 V
Power (kW)	Current (A)	Current (A)	Current (A)	Current (A)
0.40	2.5	2.5		
1.5	7	7	3.7	3.7
5.5	20	20	13	11
11	42	42	25	22
18.5	70	70	38	34
30	110	110	60	55

### Output: Single phase — 220 VAC or Three phase AC voltage

#### Input : Three Phase AC Voltage

#### **Output: Three phase AC voltage**

Voltage (V)	380 V	460 V	575 V	660 V
	(415 V)	440 V		
Power (kW)	Current (A)	Current (A)	Current (A)	Current (A)
37	75	65	52	45
55	110	100	76	63
83	170	147	117	98
132	250	216	173	150
187	340	300	230	198
220	415	358	287	240

### **SPECIFICATIONS**

Maximum frequency: Vector Control: 0 - 500 Hz, V/F control: 0 - 500 Hz

Carrier Frequency: 0.5 - 16 kHz (Automatically adjusted based on load features)

Input Frequency Resolution: Digital setting: 0.01 Hz; Analog setting: Max Freq x 0.025%

**Control Mode:** Sensorless flux vector control (SFVC), Closed-loop vector control (CLVC), Voltage/ Frequency (V/F) control

Startup torque: G type: 0.05 Hz/150% (SFVC); 0 Hz/180% (CLVC); P type: 0.5 Hz/100%

Speed Range: 1:100 (SVC)

Speed Stability Accuracy: +/- 0.5% (SVC); +/- 0.02% (FVC)

**Torque control accuracy:** +/- 5% (CLVC)

**Overload capacity:** G type: 60s for 150% of the rated current, 3s for 180% of the rated current

P type: 60s for 120% of the rated current, 3s for 150% of the rated current

Torque Boost: Fixed boost, customized boost 0.1% - 30.0%

V/F curve: Straight-line V/F, multipoint V/F, N-power V/F

Ramp mode: Straight-line ramp, S-curve ramp

**DC Braking:** DC braking frequency 0.00 Hz to the maximum frequency, time 0.0 to 36.0 sec

JOG control: Freq range 0.00 to 50.00 Hz, acceleration/deceleration time: 0.0 to 6500.0 sec

**Onboard PID:** Process-controlled closed-loop system

Auto voltage regulation: Constant output voltage for fluctuations in the main voltage

**Overcurrent/Overvoltage stall control:** Current and voltage are limited automatically when the main voltage changes

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