

ACB530 +L502 AC Vector Drive



3/4 thru 40 Hp
1.5 thru 100 Hp
1.5 thru 550 Hp
1 1/2 thru 150 Hp

230 Vac
230 Vac
460 Vac
600 Vac

1 Phase - 50/60 Hz
3 Phase - 50/60 Hz
3 Phase - 50/60 Hz
3 Phase - 50/60 Hz

Applications: Variable torque, constant torque or constant horsepower applications. New installation, replacement and original equipment manufacture (OEM) use.

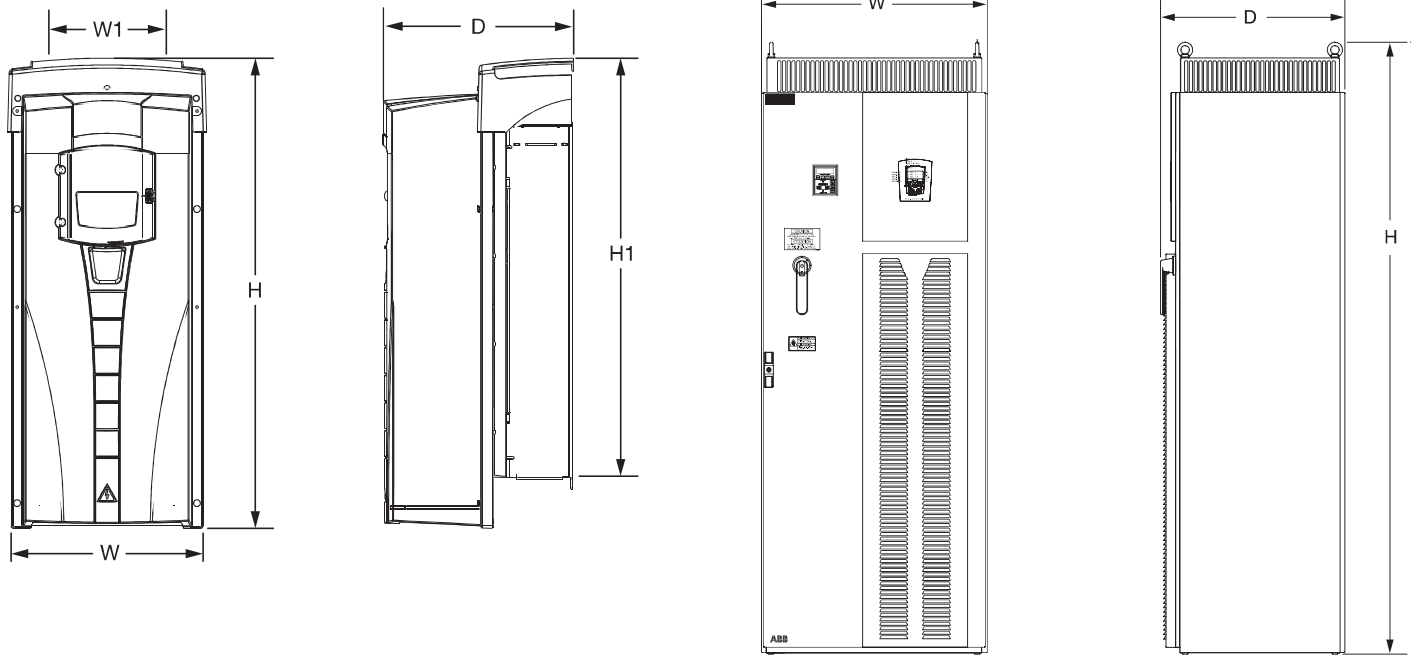
Features: Closed-Loop Vector, Volts per Hertz or Sensorless Vector Control with peak overload capacity of 150% and PID capability. Flexible mounting options include both UL type 1 & 12 enclosures. Removable keypad with operator interface and local speed control. Programming by Groups makes it easy to navigate and find parameters. A quick start assistant enables users to program and start using the drive in minutes without need of the User Manual. Built-in braking transistor allows connection to remote braking resistor for enhanced performance needs.

Patented swinging choke for superior harmonic reduction (R1-R6 frames) and AC line reactor (R8 frame)

Input Ratings	Voltage	230	460	600
	Input Voltage Range	208-240	380-480	500-600
	Input Voltage Tolerance	+10% / -15%		
	Phase	Three Phase (Single-Phase 230V with derating)		
	Frequency	50/60Hz +5%		
Output Ratings	Horsepower	3/4-40 HP @ 230VAC, 1PH; 1.5-100 HP @ 230VAC, 3PH; 1.5-550 HP @ 460VAC, 3PH; 1-150 HP @ 600VAC, 3PH		
	Overload Capacity	Heavy Duty (Constant Torque) = 150% for 60 seconds, 175% for 3 seconds Normal Duty (Variable Torque) = 110% for 60 seconds		
	Frequency	0-500Hz		
	Voltage	0 to maximum input voltage (RMS)		
Protective Features	Overcurrent	Excessive Output Current		
	DC Overvoltage	High DC Bus		
	Overtemp	Drive heatsink above operating temperature		
	Short Circuit	Short on motor output terminals		
	Undervoltage	Low Voltage on Drive Input		
	Loss of Reference	Analog Input programmed for 4-20ma but signal less than 4ma		
	Motor Overtemp	Excessive estimated Motor Temperature		
	Loss of Keypad	Drive will trip if under keypad control and keypad communication is lost		
	Motor Model Calc Fail	Drive will trip if Motor Model cannot be determined - Sensorless Vector Control		
	Motor Stall	Motor cannot achieve commanded speed due to excessive load		
	Ground Fault	Ground Fault detected in motor or motor cabling		
	Motor Phase Fault	Loss of one of the motor phases		
Environmental Conditions	Temperature	-10 to 40°C, -10 to 50°C w/ derate		
	Cooling	Forced air		
	Enclosure	UL Type 1 UL Type 12		
	Altitude	Sea level to 3300 ft. (1000 m) Derate 1% per 330 ft. (100 m) up to 6600 ft. (2000 m)		
	Humidity	0 to 95% RH Non-Condensing		
Keypad Display	Display	LCD Graphical		
	Keys	8 key keypad with tactile response		
	Functions	Output status monitoring, Digital speed control, Parameter setting and display, Diagnostic and Fault log display, Motor run, Local/Remote toggle		
	Remote Mount	Keypad may be mounted up to 10 ft. using appropriate cable (see Options for kit)		
	Trip	Last three faults stored in Fault History		
Control Specifications	PWM Frequency	Adjustable 1.5-5kHz STD, 5-16 kHz quiet		
	Frequency Setting	1, 4, 8, 12kHz (up to 150HP); 1 or 4kHz (over 150HP)		
	Accel/Decel	0-1800 seconds		
	V/Hz Ratio	Linear or squared reduced		
	Speed Control Accuracy	20% of motor slip		
	Skip Frequency	Three zones 0-Max frequency		
	PC Setup Software	Drive Window Lite		
	Maximum Output Frequency	500 Hz		
	Selectable Operating Modes	2-Wire, 3-Wire, Baldor 3-Wire, Motor Potentiometer, Hand/Auto, PID		
Analog Inputs	Two Single-ended	0 (2) to 10 V, Rin > 312 kΩ single-ended 0 (4) to 20 mA, Rin = 100 Ω single-ended		
	Accuracy	±1%		
Analog Outputs	Two Current Outputs	0 (4) to 20 mA, load < 500 Ω		
	Accuracy	±3%		
Motor Feedback	Type	Digital Pulse Encoder		
	Pulses/Rev.	Up to 16,384; 1024 standard; 200 kHz max		
	Input	2 Channels in Quadrature, 24Vdc, single-ended or differential		
	Marker Pulse	Required for orientation		

Digital Inputs	Six Digital Inputs	12 V... 24 V DC with internal or external supply Pull-up or Pull-down (PNP or NPN)
	Input Impedance	2.4 kΩ
	Maximum delay	5 ms ± 1ms
	Maximum switching voltage	250 V AC/30 V DC
	Maximum switching current	6 A/30 V DC; 1500 V A/230 V AC
	Maximum continuous current	2 A rms

Dimensions and Weights



Wall Mount (R1-R6)

Floor Mount (R7-R8)

Frame	Product Dimensions						
	H1	W1	Mounting Hardware	H	W	D	Weight
R1	12.5	3.9	#10	14.5	4.9	8.3	14.3
R2	16.4	3.9	#10	18.5	4.9	8.7	19.5
R3	18.6	6.3	#10	23	8	9.1	35
R4	22.8	6.3	#10	27.1	8	10.3	53
R5	23.2	9.4	0.25	29	10.5	11.3	75
R6	26.6	10.4	0.25	35	11.9	15.8	152
R7	Free Standing		NA	59.2	24	19.5	430
R8	Free Standing		NA	83.9	31.5	23	827