



4160V Specification

MODEL RANGE	300 to 600 HP				700 to 1000 HP				1250 to 2000 HP				2250 to 3000 HP				3000 to 4000 HP				4000 to 6000 HP				7000 to 8000 HP		8000 to 11000 HP**			
Voltage Rating	4160 VAC																													
Dimensions (H x W x D)	103.7 x 48 x 48 in.				103.7 x 60 x 48 in.				103.7 x 90 x 48 in.				103.7 x 154 x 49.5 in.				103.7 x 174 x 49.5 in.				103.7 x 222 x 49.5 in.				103.7 x 307.5 x 605 in.		103.7 x 402.5 x 60 in.			
Weight	6,000 lbs.				7,600 lbs.				11,200 lbs.				18,800 lbs.				23,300 lbs.				33,000 lbs.				47,000 lbs.		68,500 lbs.			
Current Rating (A):	37	50	62	74	87	99	112	124*	155	188	217	248*	279	310	372*	372	434	496*	496	558	620	682	744*	868	992*	992	1110	1240	1364	
Nominal HP*** (4160 V)	300	400	500	600	700	800	900	1000*	1250	1500	1750	2000*	2250	2500	3000	3000	3500	4000	4000	4500	5000	5500	6000	7000	8000	8000	9000	10000	11000	
POWER REQUIREMENTS																														
Input Tolerance	Voltage: ±10%; Frequency: ±5%																													
Main Circuit	Three-Phase 4160 V; Integrated 24-Pulse Copper-Wound Isolation Transformer; Multi-Level NPC Medium Voltage IGBT Output																													
Control Circuit	Integral to Main Transformer; Includes 460 V for Cooling Fans & PT for 120 V Control																													
CONTROL SPECIFICATIONS INPUT																														
Control Method	Five-Level Pulse-Width Modulation (PWM) Output Control with Neutral-Point Clamping (NPC)																													
V/Hz Control	V/Hz, Sensorless Vector Control, Variable Torque, Closed-Loop Vector Control, & Constant Torque																													
Output Frequency	0 to 120 Hz																													
PWM Carrier Frequency	Fixed at 2 kHz																													
Frequency Setting	4 to 20 mA, 0 to 10 VDC Serial Communication Input, & Rotary Encoder Integrated into EOI																													
Speed Regulation	Open Loop: Up to 0.5%; Closed Loop: Up to 0.1%																													
Main Protective Functions	Current Limit, Overcurrent, Overload, Undervoltage, Overvoltage, Ground Fault, CPU Error, & Soft Stall																													
Overload Current Rating	100% Continuous; 115% for One Minute Every 20 Minutes (1000 HP, 2000 HP, 3000 HP, 4000 HP, 6000 HP, & 8000 HP 110% for One Minute)																													
CONTROL INTERFACE																														
Digital Input	Ten Discrete Inputs with Programmable Functions																													
Digital Output	Ten Available Digital Programmable Outputs																													
Analog Input	Three Selectable Currents (0/4 to 20 mA) or Voltage (0 to 10 VDC) Input Signals																													
Analog Output	Three Selectable Outputs Current (0/4 to 20 mA) or Voltage (0 to 10 VDC) (Optional up to Eight Maximum)																													
Communication Ports	Profibus, Modbus RTU & TCP, TOSLINE-S20, TCNet, Ethernet Global Data (EGD), DeviceNet & EtherNet/IP																													
SAFETY FEATURES																														
	Standard Pad-Lockable Input Fuse Disconnect Switch with Vacuum Contactor, Interlocked Doors, & Viewing Window																													
ELECTRONIC OPERATOR INTERFACE (EOI)																														
Display	4-Digit, 7-Segment LED Display and 4x20 Character Graphical Plain English Back-Lit LCD Display for Programming, Monitoring & Diagnostics																													
LED Indicators	Run (Red)/Stop (Green) & Local (Green)																													
Keys	Local/Remote, Enter, Mon/Prg, Esc, Run, & Stop/Reset																													
Monitoring	Frequency Command Screen; Multiple Parameters Displayed: Motor Current, Motor Speed, Motor Voltage, DC Voltage, Input Voltage, Output Voltage, Run Time, Output Power, Motor kW, Motor kWh, Motor kVAH, Motor kVAR, & On-Time Control Power																													
CONSTRUCTION																														
Enclosure	ANSI-61 Gray; NEMA 1 Ventilated, & IP20 Per IEC-60529; Gasket & Filter; Free-Standing; Front-Access Only																													
Power Cables	Top/Bottom Access for Input/Motor Cables																													
Cooling	Forced-Air Cooled (Redundant Fan Option)																													
Standards & Compliances	NEC, NEMA, UL, cUL, ANSI, & American Recovery & Reinvestment Act Compliant																													
AMBIENT CONDITIONS																														
Ambient Temperature	0 to 40°C (50°C Option Available)																													
Altitude	3,281 ft. Above Sea Level (Up to 14,764 ft. Option Available With Derate)																													
Humidity	95% Maximum (Non-Condensing)																													
Installation	Indoor; No Direct Sunlight																													
	*110% Overload for One Minute Every 20 Minutes																													
	**Models not UL Listed Presently																													
	***Typical HP Rating of a 4-Pole Motor; Contact Factory for Applications on Constant Torque Loads																													