Technical Data and Specifications

Output Ratings

- Horsepower;
  - 200 – 240V: 0.75 – 37 kW
  - 380 – 480V: 0.75 – 75 kW
  - 500 – 600V: 0.75 – 75 kW
- Frequency Range: 0.1 – 400 Hz
- Overload Rating: 150% for 60 seconds
- Frequency Resolution:
  - Digital: 0.1 Hz
  - Analog: Max. (Set Frequency/ 1000) Hz
- Frequency Accuracy
  - Digital: ± 0.01% of max. frequency
  - Analog: ± 0.2% of max. frequency
- Undervoltage Carryover Limit: 0.3 to 25 seconds

Motor Performance

- Motor Control: Sensorless Vector
- Constant and Variable Torque: Standard
- Speed Regulation: 0.5% of base speed

Input Power

- Voltage at 50/60 Hz ± 3 Hz
  - 200V – 240V, -10% +5% / 3-phase
  - 380V – 480V, -10% +10% / 3-phase
  - 500V – 600V, -15% +10% / 3-phase
- Displacement Power Factor: Better than 0.95
- Efficiency: Typically greater than 95%

Design Type

- Microprocessor: 32-Bit
- Converter Type: Diode
- Inverter Type: Insulated Gate Bipolar Transistor
- Waveform: Sensorless Vector

Environment

- Operating Temperature:
  - -10°C to +50°C
- Humidity: 0 to 90% non-condensing
- Maximum Elevation: 1000 meters

Codes and Standards

- NEMA, IEEE, NEC: Design Standards
- UL Listed
- cUL Listed
- CE Marked (Requires EMI filter)

Enclosure

- Standard: Protected Chassis (IP20)

Protective Features

- Ground Fault: Standard
- Overload Protection: Standard
- Overcurrent: Standard
- Overvoltage: Standard
- Undervoltage: Standard
- Overtemperature: Standard
- Overload Limit: Standard

Set Up Adjustments, Performance Features, Operator Control and External Interface

Keypad

- Alphanumeric Display: Standard, 1 x 4 character
- Digital Indications: Frequency (Hz), Motor Current (amps), User-Defined RUN/STOP, FORWARD/REVERSE and Parameters
- Diagnostics: Last 3 trips with cause
- LED Status Indicators: 5 (RUN/STOP, FORWARD/REVERSE and LOCAL/REMOTE)
- Operator Functions: START/STOP, Speed control (digital) RESET, SETUP Keys, ENTER, FORWARD/REVERSE and LOCAL/ REMOTE

I/O Terminal Block

- Analog Inputs:
  - 3 Inputs: 0 – 10V DC, 4 – 20 mA
  - Analog Voltage: Nominal 10V DC (10K ohm input impedance)
  - Analog Current: Nominal 4 – 20 mA (250 ohm)
- Digital Inputs: 10 Programmable Inputs
- Digital Outputs: 2 Programmable
- Relay Outputs: 2 Programmable
- Analog Monitor Output:
  - Analog meter – frequency or output current
- Dynamic Brake Chopper

Programmable Parameters

- Out of the Box: Factory settings loaded for quick start-up.
- Accel. and Decel.: 2 separately adjustable Linear or S Curve times: 0.1 – 3000 seconds
- Auto Restart: Overcurrent, overvoltage and undervoltage with 4 selectable retry restart modes
- DC Injection Braking
- External Fault: Terminal input
- Jog: Terminal input
- Fault Reset: STOP/RESET or terminal input
- I/O: NO/NC Selectable
- Jump Frequencies: 3 (with adjustable width)
- Parameter Security: Programmable software lock
- Preset Speeds: 7 preset speeds
- PID Controller: PID process control
- Reversing: Keypad or terminal
- Speed Setting: Keypad, terminal or pot
- START/STOP Control: Keypad or terminal
- Stop Modes: Decel, coast or DC injection

Reliability

- Pretested Components: Standard
- Surface Mount Technology: Standard (PCBs)
- Computerized Testing: Standard
- Final Test with Full Load: Standard
- Eaton's Cutler-Hammer Engineering Systems and Service: National network of AF drive specialists

Table 1. Fuse Specifications — 575V

Model	I (A) Input	I (A) Output	Line Fuse		MMP	Recommend
			I (A)	Bussmann P/N		
GVX001A1-5	2.0	1.7	6	JJS-6	Consult factory	Consult factory
GVX002A1-5	3.6	3.5	6	JJS-6		
GVX003A1-5	4.9	4.5	10	JJS-10		
GVX005A1-5	9.9	7.5	20	JJS-20	Consult factory	Consult factory
GVX007A1-5	10.8	10	20	JJS-20		
GVX010A1-5	14.3	13.5	30	JJS-30		
GVX015A1-5	19.8	19	40	JJS-40	Consult factory	Consult factory
GVX020A1-5	22	22	40	JJS-40		
GVX025A1-5	27.7	27	50	JJS-50		
GVX030A1-5	37	34	70	JJS-70	Consult factory	Consult factory
GVX040A1-5	41	41	70	JJS-70		
GVX050A1-5	52	52	100	JJS-100		
GVX060A1-5	62	62	125	JJS-125	Consult factory	Consult factory
GVX075A1-5	95	80	175	JJS-175		
GVX100A1-5	117	100	200	JJS-200		

Note: Smaller fuses than those shown in the table are permitted.

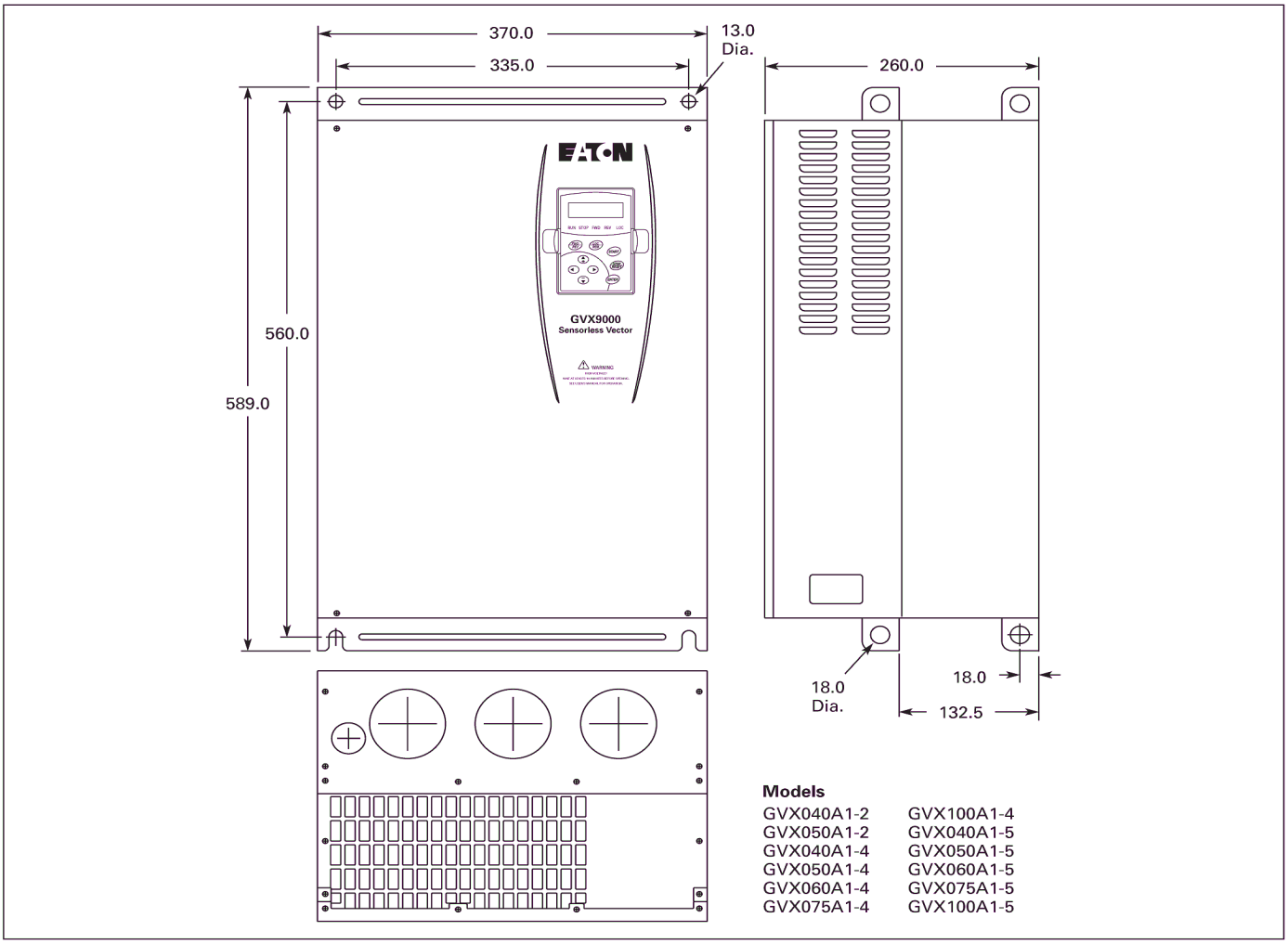


Figure 6. 30 – 75 kW — Approximate Dimensions in mm

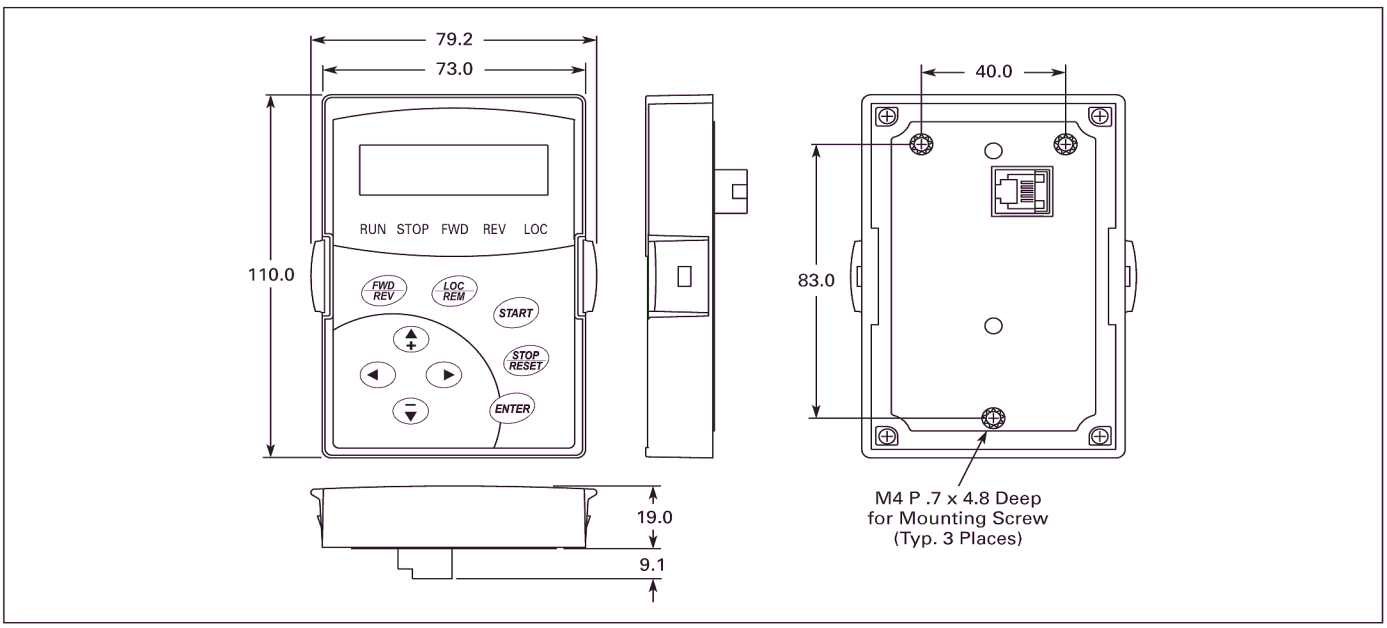
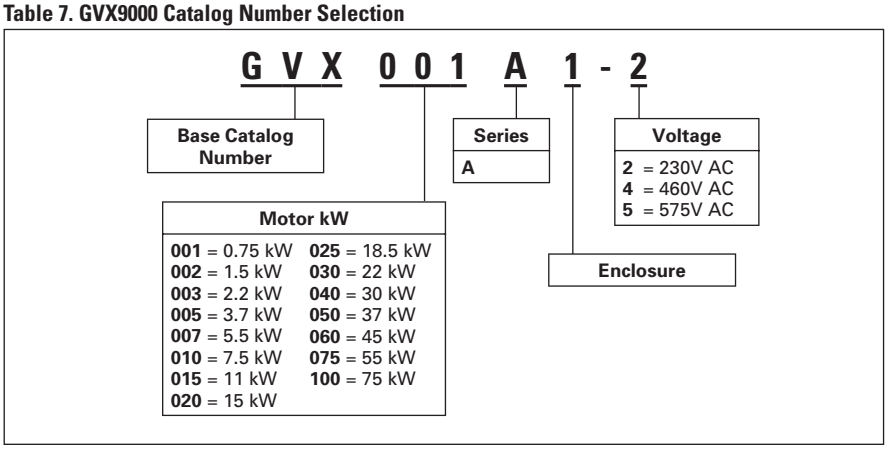


Figure 7. Digital Keypad — Approximate Dimensions in mm

Catalog Number Selection

Table 7. GVX9000 Catalog Number Selection



Product Selection

Table 8. GVX9000 Product Selection

kW	Input Amp. Single-/3-Phase Rating	Continuous Output Amp Rating	Catalog Number	*
230V				
0.75	11.9/7.0	5	**GVX-001A1-2**	
1.5	15.3/9.4	7	**GVX-002A1-2**	
2.2	22/14.0	11	**GVX-003A1-2**	
3.7	—/20.6	17	**GVX-005A1-2**	
5.5	—/26	25	**GVX-007A1-2**	
7.5	—/34	33	**GVX-010A1-2**	
11	—/50	49	**GVX-015A1-2**	
15	—/60	65	**GVX-020A1-2**	
18.5	—/75	75	**GVX-025A1-2**	
22	—/90	90	**GVX-030A1-2**	
30	—/110	120	**GVX-040A1-2**	
37	—/142	145	**GVX-050A1-2**	
460V				
0.75	—/3.2	2.7	**GVX-001A1-4**	
1.5	—/4.3	4.2	**GVX-002A1-4**	
2.2	—/5.9	5.5	**GVX-003A1-4**	
3.7	—/11.2	8.5	**GVX-005A1-4**	
5.5	—/19	13	**GVX-007A1-4**	
7.5	—/25	18	**GVX-010A1-4**	
11	—/33	24	**GVX-015A1-4**	
15	—/46	32	**GVX-020A1-4**	
18.5	—/56	38	**GVX-025A1-4**	
22	—/70	45	**GVX-030A1-4**	
30	—/75	60	**GVX-040A1-4**	
37	—/95	73	**GVX-050A1-4**	
45	—/110	91	**GVX-060A1-4**	
55	—/150	110	**GVX-075A1-4**	
75	—/180	150	**GVX-100A1-4**	
575V				
0.75	—/2.0	1.7	**GVX-001A1-5**	
1.5	—/3.6	3.5	**GVX-002A1-5**	
2.2	—/4.9	4.5	**GVX-003A1-5**	
3.7	—/9.9	7.5	**GVX-005A1-5**	
5.5	—/10.8	10	**GVX-007A1-5**	
7.5	—/14.3	13.5	**GVX-010A1-5**	
11	—/19.8	19	**GVX-015A1-5**	
15	—/22	22	**GVX-020A1-5**	
18.5	—/27.7	27	**GVX-025A1-5**	
22	—/37	34	**GVX-030A1-5**	
30	—/41	41	**GVX-040A1-5**	
37	—/52	52	**GVX-050A1-5**	
45	—/62	62	**GVX-060A1-5**	
55	—/95	80	**GVX-075A1-5**	
75	—/117	100	**GVX-100A1-5**	

* Consult Sales Office for Pricing.