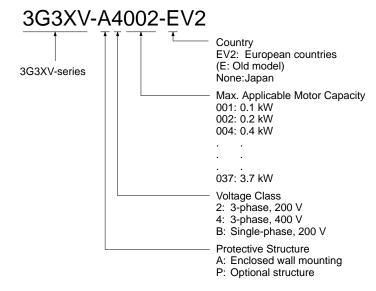
#### **Inverter Model Numbers**



## 

- 1, 2, 3...1. After turning off the main circuit power supply, do not touch circuit components until the "CHARGE" indicator is extinguished. The capacitors are still charged and can be quite dangerous.
  - 2. Do not change the wiring while power is applied to the circuit.
  - 3. Do not check signals during operation.
  - 4. Be sure to ground 3G3XV using the ground terminal G (E).
  - 5. Never connect main circuit output terminals, T1 (U), T2 (V), T3 (W), to AC main circuit supply.

#### **Caution**

- *1, 2, 3...* 1. All the constants of 3G3XV have been adjusted at the factory. Do not change their settings unnecessarily.
  - Do not perform withstand voltage test on any part of the 3G3XV Unit. This electronic equipment uses semi-conductors and is vulnerable to high voltage.

## 1-3 Installation

### 1-3-1 Location

Location of the equipment is important to achieve proper performance and normal operating life.

The 3G3XV Units should be installed in areas where the following conditions exist.

- Ambient temperature:
  - $-10^{\circ}$  to  $40^{\circ}$ C,  $14^{\circ}$  to  $104^{\circ}$ F (with top cover on)
  - $-10^{\circ}$  to  $45^{\circ}$ C,  $14^{\circ}$  to  $113^{\circ}$ F (with top cover off)
- Protected from rain or moisture.

# 1-6 Specifications

## 1-6-1 200-V-class Specifications

Inverter Model 3G3XV-		3-phase	A2001	A2002	A2004	A2007	A2015	A2022	A2037
		Single-phase	AB001	AB002	AB004	AB007	AB015	AB022	AB037
Max. applicable motor output Hp (kW) (see note 1)		0.13 (0.1)	0.25 (0.2)	0.5 (0.4)	1 (0.75)	2 (1.5)	3 (2.2)	5 (3.7)	
Output char-	Inverter capacity (kVA)		0.3	0.6	1.1	1.9	2.5	4.2	6.7
acteristics	Rated output current (A)		0.8	1.5	3	5	6.5	11	17.5
	Max. output voltage		3-phase, 200 to 230 V (proportional to input voltage)						
	Max. output frequency		400 Hz (available with constant setting)						
Power supply	Rated input voltage and fre- quency		3-phase: 200 to 230 V, 50/60 Hz Single-phase: 200 to 240 V, 50/60 Hz						
	Allowable voltage fluctua- tion		±10%						
	Allowable frequency fluctua- tion		±5%						
Control char- acteristics	Control method		Sine wave PWM						
	Frequency control range		0.1 to 400 Hz						
	Frequency accuracy		Digital command: 0.01% +14° to 104°F, −10° to 40°C Analog command: 0.1% 77°±18°F, 25°±10°C						
	Frequency resolution		Digital Operator reference: 0.1 Hz. Analog reference: 0.06 Hz/60 Hz						
	Output frequency resolution		0.1 Hz						
	Overload capacity		150% rated output current for one minute						
	Frequency setting signal		0 to 10 VDC (20 kΩ), 4-20 mA (250 Ω)						
	Accel/decel time		0.1 to 600 sec (accel/decel time setting independently)						
	Braking torque		Approx. 20% (up to 150% possible with optional braking resistor externally mounted)						
	V/f characteristic		Possible to set any program of V/f pattern						
	Stall prevention level		Effective by current limiting at start and during running.						
Protective	Instantaneous overcurrent		Motor coasts to a stop at approx. 200% rated current.						
functions	Overload		Motor coasts to stop in 60 sec. at 150% rated output current						
	Ground fault		Provided by electronic circuit.						
	Motor overload protection		Electronic thermal overload relay						
	Overvoltage		Motor coasts to stop if main circuit DC voltage exceeds 410 V						
	Undervoltage		Motor coasts to a stop if the main circuit DC voltage of a 3-phase Model drops to 210 V or below and that of a Single-phase Model drops to 170 V or below.						
	Momentary power loss		Immediately stops if 15 ms or more momentary power loss. Resumes operating after a power loss period of approxi- mately 2 s if the input is 1.5 kW or more and approximately 1 s if the input is 0.75 kW or less in a certain mode.						
	Cooling fin overheat		Protected by thermoswitch (only for forced cooling method)						
	Power charge indication		CHARGE indicator stays ON until main circuit DC voltage drops below 50 V.						