

# Channel ACTION ALERT!



**NO: IDM-010**                      **PRODUCT: 3G3MX AC Drives**  
**DATE: February 2012**            **TYPE: Discontinuation Notice**

## 3G3MX AC Drives (Inverters) Discontinued March 2012; Replace with 3G3MX2 Models

In the continuing effort to streamline the product offering, Omron Industrial Automation will discontinue the compact multi-function 3G3MX series of AC drives March 30, 2012. It will be replaced by the more capable 3G3MX2 series.

### Affected Parts

Product Name	Product discontinuation	Recommended replacement
AC Drive (Inverter)	3G3MX-A2002	3G3MX2-A2002
	3G3MX-A2004	3G3MX2-A2004
	3G3MX-A2007	3G3MX2-A2007
	3G3MX-A2015	3G3MX2-A2015
	3G3MX-A2022	3G3MX2-A2022
	3G3MX-A2037	3G3MX2-A2037
	3G3MX-A2055	3G3MX2-A2055
	3G3MX-A2075	3G3MX2-A2075
	3G3MX-A4004	3G3MX2-A4004
	3G3MX-A4007	3G3MX2-A4007
	3G3MX-A4015	3G3MX2-A4015
	3G3MX-A4022	3G3MX2-A4022
	3G3MX-A4037	3G3MX2-A4040
	3G3MX-A4055	3G3MX2-A4055
	3G3MX-A4075	3G3MX2-A4075
	3G3MX-AE002	3G3MX2-AB002
	3G3MX-AE004	3G3MX2-AB004
	3G3MX-AE007	3G3MX2-AB007
	3G3MX-AE015	3G3MX2-AB015
	3G3MX-AE022	3G3MX2-AB022

### Key Differences

The dimensions and mounting dimensions are almost identical except for three models.  
The Operator Key used to enter into each mode is different:  
3G3MX: Mode key -> 3G3MX2: Enter key.

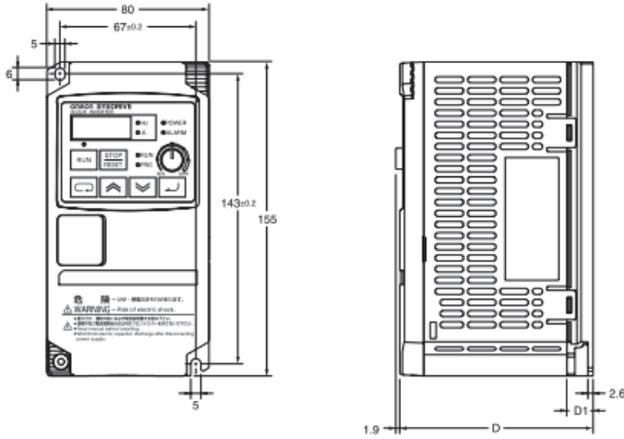
### Body Color

Product discontinuation 3G3MX-A□□□□	Recommended replacement 3G3MX2-A□□□□
Black	Black

## Dimensions/Mounting Dimensions (mm)

### Product discontinuation 3G3MX-A□□□□

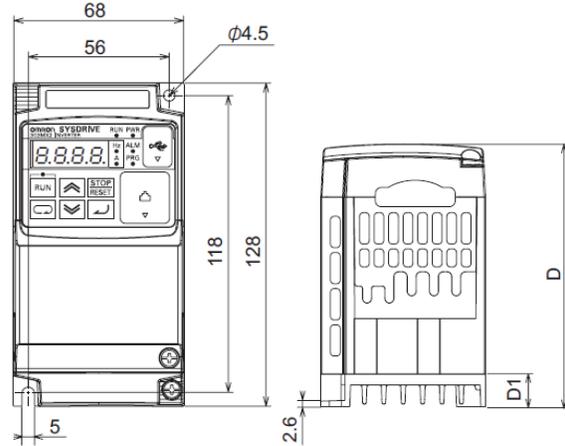
3G3MX-A2002 to A2007 (0.2 to 0.75kW)  
3G3MX-AE002 to AE004 (0.2 to 0.4 kW)



Rated voltage	Model 3G3JX-	Dimensions (mm)	
		D	D1
3phase 200 V AC	A2002	95.5	13
	A2004	109.5	27
	A2007	132.5	50
1/3phase 200 V AC	AE002	95.5	13
	AE004	109.5	27

### Recommended replacement 3G3MX2-A□□□□

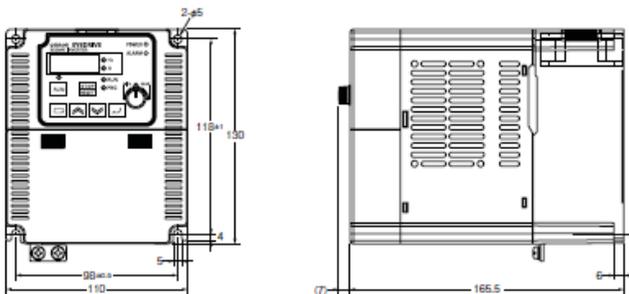
3G3MX2-A2002 to A2007 (0.2 to 0.75kW)  
3G3MX2-AB002 to AB004 (0.2 to 0.4 kW)



Power supply	Model	W [mm]	H [mm]	D [mm]	D1 [mm]
1-phase 200 V	3G3MX2-AB001	68	128	109	13.5
	3G3MX2-AB002			122.5	27
	3G3MX2-AB004				
3-phase 200 V	3G3MX2-A2001	68	128	109	13.5
	3G3MX2-A2002			122.5	27
	3G3MX2-A2004				
	3G3MX2-A2007				

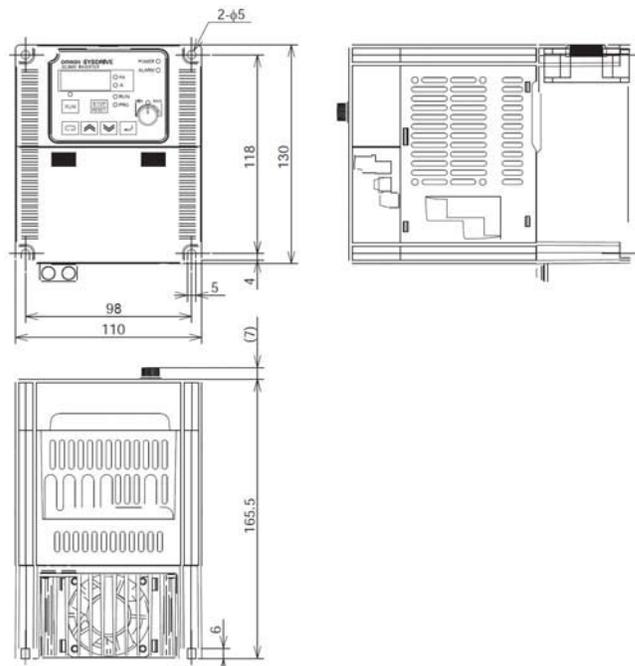
**Figure 1-1**

3G3MX-A2015 to A2037 (1.5 to 3.7kW)  
3G3MX-AE015 to AE022 (1.5 to 2.2kW)  
3G3MX-A4007 to A4037 (0.75 to 3.7kW)

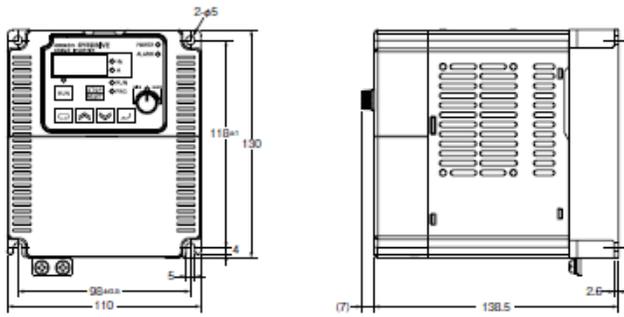


**Figure 2-1**

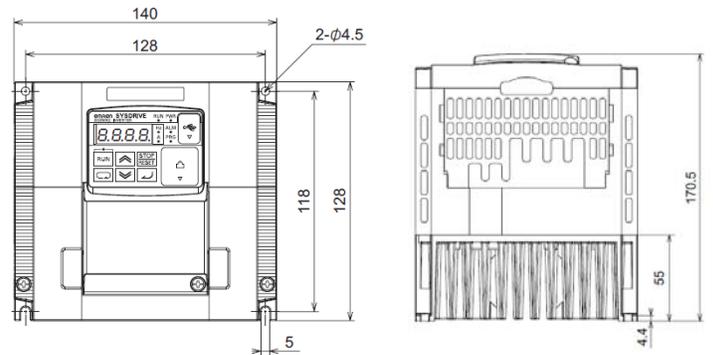
3G3MX2-A2015 to A2022 (1.5 to 2.2kW)  
3G3MX2-AB007 to AB002 (0.75 to 2.2kW)  
3G3MX2-A4004 to A4030 (0.4 to 3.0kW)



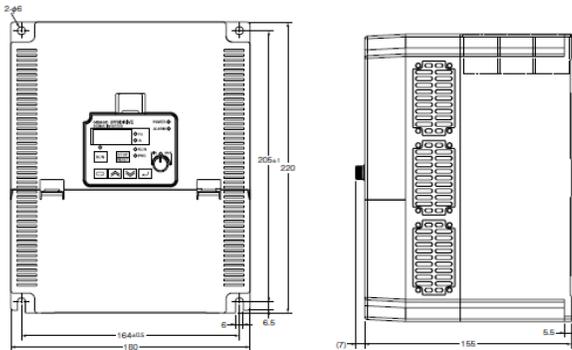
**Figure 1-2**  
 3G3MX-A4004 (0.4kW)  
 3G3MX-AE007 (0.75kW)



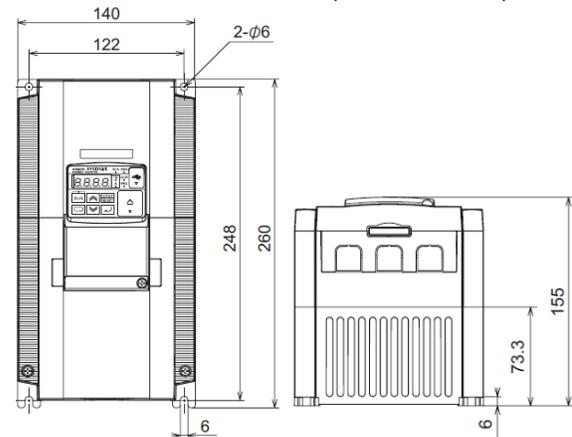
**Figure 2-2**  
 3G3MX2-A2037 (3.7kW)  
 3G3MX2-A4040 (4.0kW)



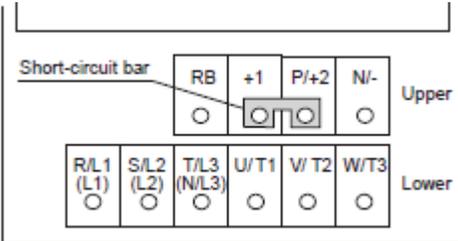
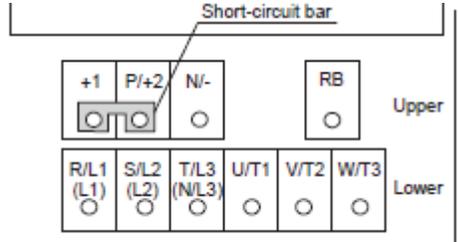
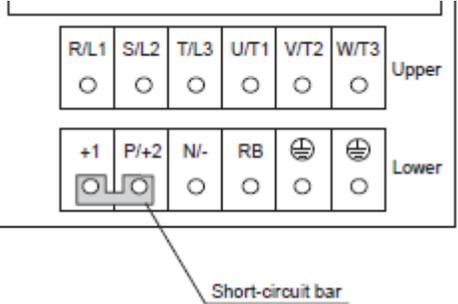
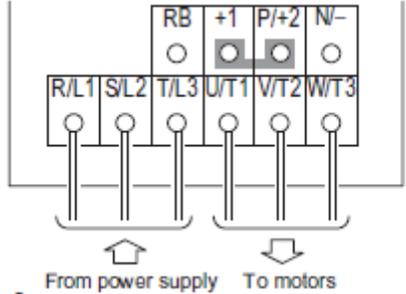
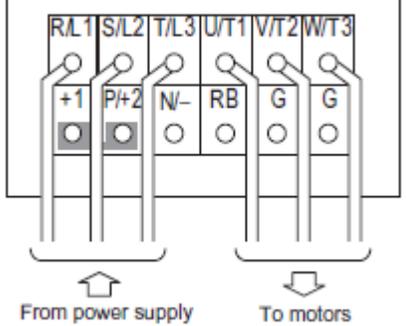
3G3MX-A2055 to A2075 (5.5 to 7.5kW)  
 3G3MX-A4055 to A4075 (5.5 to 7.5kW)



3G3MX2-A2055 to A2075 (5.5 to 7.5kW)  
 3G3MX2-A4055 to A4075 (5.5 to 7.5kW)



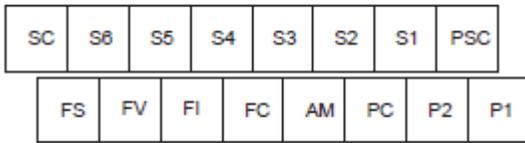
# Wire Connection

<b>Product discontinuation</b> <b>3G3MX-A□□□□</b>	<b>Recommended replacement</b> <b>3G3MX2-A□□□□</b>
<p>• <b>Main circuit terminal block</b>  <b>3G3MX-A2002 to A2007 (0.2 to 0.75kW)</b>  <b>3G3MX-AE002 to AE004 (0.2 to 0.4kW)</b></p>  <p>• <b>Main circuit terminal block</b>  <b>3G3MX-A2015 to A2037 (1.5 to 3.7kW)</b>  <b>3G3MX-AE007 to AE022(0.75 to 2.2kW)</b>  <b>3G3MX-A4004 to A4037 (0.4 to 3.7kW)</b></p>  <p>• <b>Main circuit terminal block</b>  <b>3G3MX-A2055 to A2075 (5.5 to 7.5kW)</b>  <b>3G3MX-A4055 to A4075 (5.5 to 7.5kW)</b></p>  <p>Note: Terminal name for 3G3MX-AE□□□□ is as follows:  R/L -&gt; L1,  S/L -&gt; L2,  T/L3 -&gt; N/L3</p>	<p>• <b>Main circuit terminal block</b>  <b>3G3MX2-A2002 to A2037 (0.2 to 3.7kW)</b>  <b>3G3MX2-AB002 to AB022 (0.2 to 2.2kW)</b>  <b>3G3MX2-A4004 to A4040 (0.4 to 4.0kW)</b></p>  <p>• <b>Main circuit terminal block</b>  <b>3G3MX2-A2055 to A2075 (5.5 to 7.5kW)</b>  <b>3G3MX2-A4055 to A4075 (5.5 to 7.5kW)</b></p> 

## Control Circuit Terminals

Terminal symbol					
Input signal	PSC				
	S1				
	S2	Monitor signal	AM		
	S3		SC		
	S4	Frequency reference input	FS	Output signal	P1
	S5		FV		P2
	S6		FI		PC
SC	FC		PC		

Control circuit terminal block A

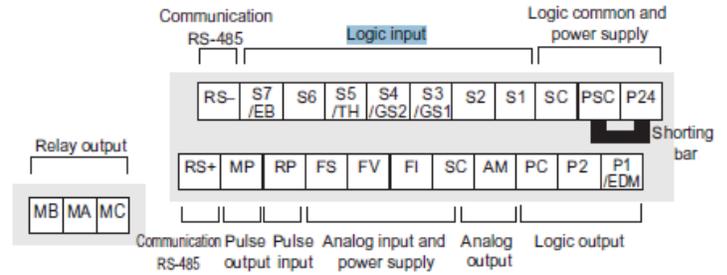


Control circuit terminal block B

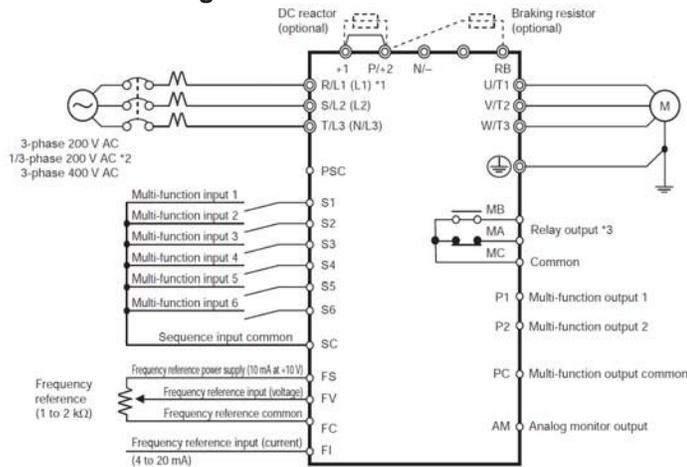
## Relay output



## Control Circuit Terminals

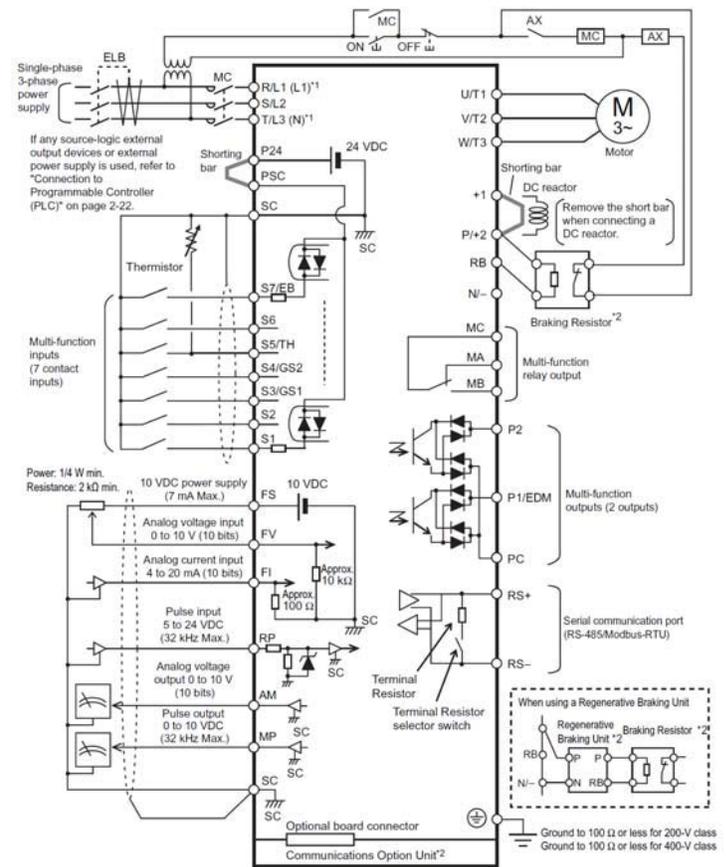


## Connection Diagram



- \*1. Terminal symbols for 3G3MX-AE□□□ are indicated in parentheses ( ).
- \*2. Connect a single-phase 200-V AC input to terminals L1 and N/L3.
- \*3. By factory default, MA is set to NC contact, and MB to NO contact in the relay output (MA, MB) selection (C036).

## Connection Diagram



- \*1 Connect to terminals L1 and N on a single-phase, 200-V inverter (3G3MX2-AB□□□).
- \*2 Optional.

## Rated Performance

Item	Product discontinuation 3G3MX-A□□□□	Recommended replacement 3G3MX2-A□□□□
Rated Input Voltage	3G3MX-A2□: Three-phase 200-240 VAC ±10%, 50/60 Hz ±5% 3G3MX-A4*: Three-phase 380-480 VAC ±10%, 50/60 Hz ±5% 3G3MX-AE□: Single-phase/Three-phase 200 VAC -10% to 240 VAC +10%, 50/60 Hz ±5%	3G3MX2-A2□: Three-phase 200 VAC -15% to 240 VAC +10%, 50/60 Hz ±5% 3G3MX2-A4*: Three-phase 380 VAC -15% to 480 VAC +10%, 50/60 Hz ±5% 3G3MX2-AB□: Single-phase 200 VAC -15% to 240 VAC +10%, 50/60 Hz ±5%
Ambient Operating Temperature	-10 to +50°C	-10 to +50°C
Ambient Operating Humidity	20-90%RH (with no condensation)	20-90%RH (with no condensation)
Protective structure	IP20	IP20
Weight	Vary according to the model Refer to User's Manual (Cat. No.I559)	Vary according to the model Refer to User's Manual (Cat. No.I570)

## Operation Ratings

Item	Product discontinuation 3G3MX-A□□□□	Recommended replacement 3G3MX2-A□□□□
Rated output current	Equivalent to 3G3MX2 though it differs according to the model. Example: 3G3MX-A2004 3.0 A Refer to User's Manual (Cat. No.I559)	Equivalent to 3G3MX though it differs according to the model. Example: 3G3MX2-A2004 3.0 A Refer to User's Manual (Cat. No.I570)
Maximum output frequency	400 Hz (Set it by the parameter).	400 Hz (Set it by the parameter).
Carrier frequency	2 to 14 kHz	2 to 15 kHz
Braking torque	About 20%-50% (Differ according to the model). (Adjustable to 80-150% by adding external braking resistor.)	About 20%-50% (Differ according to the model). (Adjustable to 80-150% by adding external braking resistor.)
Acceleration/deceleration time	0.01-3000 seconds	0.01-3600 seconds
Overload current rating	150% for 1 min	Heavy load rating (CT): 150%/60 s Light load rating (VT): 120%/60 s
Output frequency range	0.5 to 400 Hz	0.10 to 400 Hz (or 1,000 Hz in the high-frequency mode; restrictions apply)
Frequency precision (temperature fluctuation)	Digital command: ±0.01% of the max. frequency Analog command: ±0.2% of the max. frequency (25°C ± 10°C)	Digital command: ±0.01% of the max. frequency, Analog command: ±0.2% of the max. frequency (25°C±10°C)
Frequency setting resolution	Digital setting: 0.1 Hz Analog setting: Max. frequency/1000	Digital setting: 0.01 Hz, Analog setting: One-thousandth of the maximum frequency

## Functions and Specifications

Item	Product discontinuation 3G3MX-A□□□□	Recommended replacement 3G3MX2-A□□□□
Starting torque	200%/1Hz	200%/0.5 Hz
Modbus communications	Yes	Yes
PID control	Yes	Yes
Overload limit	Yes	Yes
Current suppression	Yes	Yes (Overcurrent suppression)
Multi-step speed	Yes (16 points)	Yes (16 points)
Sensor-less vector control	Yes (Auto-tuning)	Yes (Auto-tuning)

## Operation Methods

Product discontinuation 3G3MX-A□□□□	Recommended replacement 3G3MX2-A□□□□
Operated with the digital operator on the front panel. (LED type, with frequency adjuster volume)	Operated with the digital operator on the front panel. (LED type, without frequency adjuster volume. Optional digital operator with volume 3G3AX-OP01 is available).