

■ブレーカとヒューズ

UL 規格に対応される場合は、必ず電源側に UL 規格品のクラス J タイプのヒューズまたはブレーカを使用してください。

入力電圧	出力 (kW)	適用インバータ形式 (形 3G3RX-)	ブレーカまたはヒューズ	定格 (A)	
200V 級	0.4	A2004-V1	ヒューズ (Type J) または 逆時限回路ブレーカ	30	
	0.75	A2007-V1		30	
	1.5	A2015-V1		30	
	2.2	A2022-V1		30	
	3.7	A2037-V1		30	
	5.5	A2055-V1		100	
	7.5	A2075-V1		100	
	11	A2110-V1		100	
	15	A2150-V1		125	
	18.5	A2185-V1		125	
400V 級	22	A2220-V1	ヒューズ (Type J) または 逆時限回路ブレーカ	125	
	30	A2300-V1		225	
	37	A2370-V1		225	
	45	A2450-V1		250	
	55	A2550-V1		300	
	0.4	A4004-V1		ヒューズ (Type J) または 逆時限回路ブレーカ	20
	0.75	A4007-V1			20
	1.5	A4015-V1			20
	2.2	A4022-V1			20
	3.7	A4037-V1			20
	5.5	A4055-V1			40
	7.5	A4075-V1			40
	11	A4110-V1			40
15	A4150-V1	75			
18.5	A4185-V1	75			
22	A4220-V1	75			
30	A4300-V1	100			
37	A4370-V1	100			
45	A4450-V1	150			
55	A4550-V1	150			
75	B4750-V1	225			
90	B4900-V1	225			
110	B411K-V1	300			
132	B413K-V1	350			

■モータ過負荷保護

本インバータは、モータ過負荷保護機能を搭載しています。本機能は、以下のパラメータを適切に設定することにより機能します。

- ・b012：第1電子サーマルレベル設定
- ・b212：第2電子サーマルレベル設定
- ・b312：第3電子サーマルレベル設定

また、2台以上のモータをインバータに接続する場合は、上記の電子サーマルでモータを保護できません。それぞれのモータに外部サーマルリレーを設置してください。

EU指令対応

- ・EMC 指令に適合するための、接地・ケーブル選定・その他の条件については、該当するマニュアルを参照ください。
- ・この商品は「class A」（工業環境商品）です。住宅環境でご利用されると電波妨害の原因となる可能性があります。その場合には、電波妨害に対する適切な対策が必要となります。

■本インバータの規格

本インバータは以下の規格に適合しています。

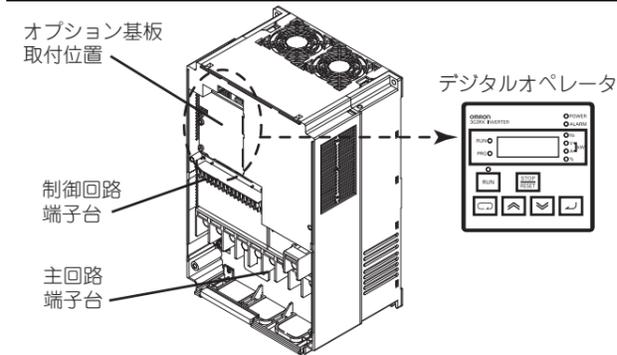
- ・200V 級：EN61800-3 category C3
- ・400V 級：EN61800-3 category C3

■製造者およびEU代理人

製造者：OMRON Corporation
京都市下京区塩小路堀川東入

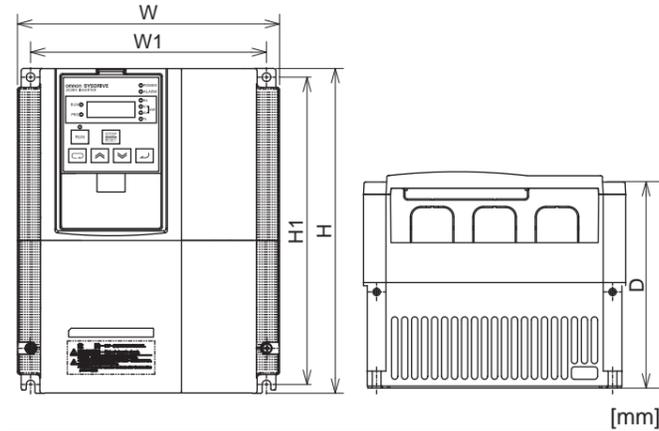
EU 代理人：Omron Europe B.V.
Wegalaan 67-69, NL-2132 JD Hoofddorp,
The Netherlands

各部の名称



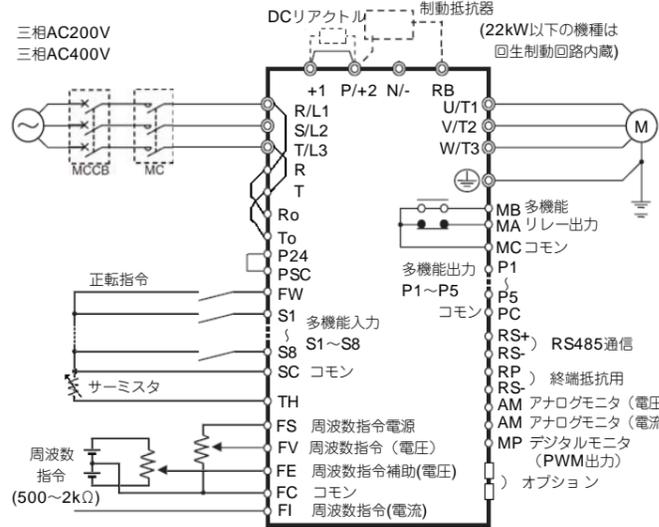
取付と配線

■外形寸法



形 3G3RX-□-V1	W	W1	H	H1	D
A2004 ~ A2037 A4004 ~ A4037	150	130	255	241	140
A2055, A2075, A2110 A4055, A4075, A4110	210	189	260	246	170
A2150, A2185, A2220 A4150, A4185, A4220	250	229	390	376	190
A2300, A4300	310	265	540	510	195
A2370, A2450 A4370, A4450, A4550	390	300	550	520	250
A2550	480	380	700	670	250
B4750, B4900	390	300	700	670	270
B411K, B413K	480	380	740	710	270

■標準接続図



※多機能リレー出力の工場出荷時設定は、MA が b 接点、MB が a 接点です。

■端子記号、ねじサイズ、締め付けトルク

形式 (形 3G3RX-□-V1)	主回路		オプション	制御回路	リレー
	R/L1, S/L2, T/L3, U/T1, V/T2, W/T3	Ro, To	アース (記号)	N/-, P/+2, +1, RB	
A2004 ~ A2037 A4004 ~ A4037	M4	M4	M4	M3	M3
A2055, A2075 A4055, A4075	M5		M5		
A2110, A4110	M6		M6		
A2150, A2185 A4150 ~ A4220	M6		M6		
A2220	M8		M8		
A2300	M8		M8		
A4300	M6		M6		
A2370	M8		M8		
A4370	M8		M8		
A2450	M8		M8		
A4450, A4550	M8	M8			
A2550 B4750 ~ B413K	M10	M8	M10		

ねじサイズ	M3	M4	M5
締め付けトルク	0.7N・m (max. 0.8)	1.2N・m (max. 1.4)	2.4N・m (max. 4.0)
ねじサイズ	M6	M8	M10
締め付けトルク	4.5N・m (max. 4.9)	8.1N・m (max. 8.8) *(max. 20.0)	20.0N・m (max. 22.0)

キーの説明

	名称	内容
	モードキー	各機能モード間を移行します。また、変更途中の設定データをキャンセルしてパラメータ No. の表示に移行します。※モードキーを 3 秒間押し続けると、d001 にジャンプします。
	インクリメントキー	パラメータ No. や設定データの変更を行います。
	デクリメントキー	
	RUN キー	オペレータでの運転を選択時に、運転を開始します。正転・逆転は、F004 の設定に従います。
	STOP/RESET キー	STOP/RESET キーが有効設定時、運転を停止します。異常発生時はリセットキーになります。
	エンターキー	パラメータ No. から設定データ表示に移行します。また、設定データを確定し記憶します。

関連マニュアル

名称	マニュアル番号
回生制動ユニット 形 3G3AX-RBU □□ ユーザーズマニュアル	SBCE-350
PG ボード 形 3G3AX-PG □□ ユーザーズマニュアル	SBCE-351
CX-Drive オペレーションマニュアル	SBCE-375
LCD デジタルオペレータ 形 3G3AX-OP05 ユーザーズマニュアル	SBCE-368
DriveProgramming ユーザーズマニュアル	SBCE-369
DeviceNet 通信ユニットユーザーズマニュアル	SBCE-370
CompoNet 通信ユニット ユーザーズマニュアル	SBCE-371

パラメーター一覧

パラメータ No.	機能名称	モニタまたはデータ範囲
d001	出力周波数モニタ	0.0~400.0
d002	出力電流モニタ	0.0 ~ 9999
F001	出力周波数設定/モニタ	始動 [b082] ~最高周波数 [A004]

パラメータ No.	機能名称	モニタまたはデータ範囲
F002	第1加速時間 1	0.01 ~ 3600.
F003	第1減速時間 1	0.01 ~ 3600.
F004	運転方向選択	00：正転/01：逆転
A001	周波数指令選択	00：オペレータ (ボリューム) 形 3G3AX-OP01 接続時に有効) / 01：制御回路端子台 / 02：オペレータ (F001) / 03：Modbus 通信 04：オプション1 / 05：オプション2 / 06：パルス列周波数 / 07：DriveProgramming 10：周波数演算結果
A002	運転指令選択	01：制御回路端子台 / 02：オペレータ (F001) 03：Modbus 通信 / 04：オプション1 05：オプション2
A003	第1基底周波数	30. ~最高周波数 [A004]
A004	第1最高周波数	30. ~ 400.
A019	多段速選択	00：バイナリ (4 端子で 16 段可) 01：ビット (7 端子で 8 段可)
A020	第1多段速指令 0	0.0, / 始動 [b082] ~最高周波数 [A004]
A021 ~ A035	多段速指令 1 ~ 15	0.0, / 始動 [b082] ~最高周波数 [A004]
b012	第1電子サーマルレベル	0.00 ~ 定格出力電流
b037	表示選択	00：全表示 / 01：機能個別表示 / 02：ユーザ設定 +b037 / 03：データコンペア表示 / 04：ベーシック表示
b084	初期化選択	00：初期化無効 / 01：異常モニタクリア 02：データ初期化 / 03：異常モニタクリア + データ初期化 / 04：異常モニタクリア + データ初期化 + DriveProgramming クリア
b180	初期化実行	00：機能無効 / 01：初期化・モード選択実行
C001 ~ C008	多機能入力 S1 ~ S8 選択	01：RV (逆転) / 02 ~ 05：CF1 ~ 4 (多段速バイナリ 1 ~ 4) など
C021 ~ C025	多機能出力 P1 ~ P5 選択	00：RUN (運転中) / 01：FA1 (定速到達時) / 02：FA2 (設定周波数以上到達)
C026	多機能リレー出力 (MA, MB) 機能選択	03：OL (過負荷予告) / 04：OD (PID 偏差過大) / 05：AL (アラーム) など
H003	第1モータ容量選択	0.20 ~ 160.0
H004	第1モータ極数選択	2/4/6/8/10

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(a) 高い安全性が必要とされる用途 (例：原子力制御設備、燃焼設備、航空・宇宙設備、鉄道設備、昇降設備、娯楽設備、医用機器、安全装置、その他生命・身体に危険が及ぶ用途)

(b) 高い信頼性が必要な用途 (例：ガス・水道・電気等の供給システム、24 時間連続運転システム、決済システムほか権利・財産を取扱う用途など)

(c) 厳しい条件または環境での用途 (例：屋外に設置する設備、化学的汚染を被る設備、電磁的妨害を被る設備、振動・衝撃を受ける設備など)

(d) カタログ等に記載のない条件や環境での用途

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オムロン株式会社

インダストリアルオートメーションビジネスカンパニー

●製品に関するお問い合わせ先
お客様相談室

フリー通話 **0120-919-066** クイック オムロン

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電話 **055-982-5015** (通話料がかかります)

■営業時間：8:00~21:00 ■営業日：365日

●FAXやWebページでもお問い合わせいただけます。
FAX **055-982-5051** / www.fa.omron.co.jp

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TYPE 3G3RX-□-V1 High-function General-purpose Inverter

INSTRUCTION MANUAL

Thank you for purchasing 3G3RX, V1 type Inverter.
To ensure safe operation, please be sure to read the safety precautions provided in this document along with all of the user manuals for the inverter. Please be sure you are using the most recent versions of the user manuals. Keep this instruction manual and all of the manuals in a safe location and be sure that they are readily available to the final user of the products.

Manual Name	Cat.No.
3G3RX User's Manual	I578-E1

OMRON Corporation

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Safety Precautions

■ Indications and Meanings of Safety Information

In this user's manual, the following precautions and signal words are used to provide information to ensure the safe use of the 3G3RX, V1 type Inverter. The information provided here is vital to safety. Strictly observe the precautions provided.

■ Meanings of Signal Words

WARNING Indicates an imminently hazardous situation which, if not avoided, is likely to result in serious injury or may result in death. Additionally there may be severe property damage.

CAUTION Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury or in property damage.

■ Alert Symbols in this Document

WARNING

Turn off the power supply and implement wiring correctly. Not doing so may result in a serious injury due to an electric shock.

Wiring work must be carried out only by qualified personnel. Not doing so may result in a serious injury due to an electric shock.

Do not change wiring and slide switches (SW1), put on or take off Operator and optional devices, replace cooling fans while the input power is being supplied. Doing so may result in a serious injury due to an electric shock.

Be sure to ground the unit. Not doing so may result in a serious injury due to an electric shock or fire. (200V class:type-D grounding, 400V class:type-C grounding)

Do not remove the terminal cover during the power supply and 10 minutes after the power shut off. Doing so may result in a serious injury due to an electric shock.

Do not operate the Operator or switches with wet hands. Doing so may result in a serious injury due to an electric shock.

Inspection of the Inverter must be conducted after the power supply has been turned off. Not doing so may result in a serious injury due to an electric shock.
The main power supply is not necessarily shut off even if the emergency shut off function is activated.

Do not touch the Inverter fins, braking resistors and the motor, which become too hot during the power supply and for some time after the power shut off. Doing so may result in a burn.

CAUTION

Do not connect resistors to the terminals (+1, P/+2, N/-) directly. Doing so might result in a small-scale fire, heat generation or damage to the unit.

Install a stop motion device to ensure safety. Not doing so might result in a minor injury. (A holding brake is not a stop motion device designed to ensure safety.)

Be sure to use a specified type of braking resistor/regenerative braking unit. In case of a braking resistor, install a thermal relay that monitors the temperature of the resistor. Not doing so might result in a moderate burn due to the heat generated in the braking resistor/regenerative braking unit. Configure a sequence that enables the Inverter power to turn off when unusual over heating is detected in the braking resistor/regenerative braking unit.

The Inverter has high voltage parts inside which, if short-circuited, might cause damage to itself or other property. Place covers on the openings or take other precautions to make sure that no metal objects such as cutting bits or lead wire scraps go inside when installing and wiring.

Take safety precautions such as setting up a molded-case circuit breaker (MCCB) that matches the Inverter capacity on the power supply side. Not doing so might result in damage to property due to the short circuit of the load.

Do not dismantle, repair or modify the product. Doing so may result in an injury.

Precautions for Safe Use

■ Installation and Storage

Do not store or use the product in the following places.

- Locations subject to direct sunlight.
- Locations subject to ambient temperature exceeding the specifications.
- Locations subject to relative humidity exceeding the specifications.
- Locations subject to condensation due to severe temperature fluctuations.
- Locations subject to corrosive or flammable gases.
- Locations subject to exposure to combustibles.
- Locations subject to dust (especially iron dust) or salts.
- Locations subject to exposure to water, oil, or chemicals.
- Locations subject to shock or vibration.

■ Transporting, Installation, and Wiring

- Do not drop or apply strong impact on the product. Doing so may result in damaged parts or malfunction.
- Do not hold by the front cover and terminal cover, but hold by the fins during transportation.
- Confirm that the rated input voltage of the Inverter is the same as AC power supply voltage.
- Do not connect an AC power supply voltage to the control input/ output terminals. Doing so may result in damage to the product.
- Be sure to tighten the screws on the terminal block securely. Wiring work must be done after installing the unit body.
- Do not connect any load other than a three-phase inductive motor to the U, V, and W output terminals.
- Take sufficient shielding measures when using the product in the following locations. Not doing so may result in damage to the product. Locations subject to static electricity or other forms of noise. Locations subject to strong magnetic fields. Locations close to power lines.
- If a parameter is set incorrectly when starting up, adjusting, maintaining, or replacing, an unexpected operation may occur. Perform the operation after enough confirmation.
- When using DriveProgramming, confirm that the program data is downloaded normally before starting the operation.

■ Operation and Adjustment

- Be sure to confirm the permissible range of motors and machines before operation because the inverter speed can be changed easily from low to high.
- Provide a separate holding brake if necessary.
- If DriveProgramming stops during multi-function output, the output status is held. Take safety precautions such as stopping peripheral devices.
- If the clock command is used in DriveProgramming, an unexpected operation may occur due to weak battery or removal of the LCD digital operator. Take measures such as detecting a weak battery or removal of the LCD digital operator (the clock data detects the initial setting and all zero), stopping the Inverter or programs.

■ Maintenance and Inspection

- Be sure to confirm safety before conducting maintenance, inspection or parts replacement.
- The capacitor service life is influenced by the ambient temperature. Refer to "Product Life Curve" described in the manual. When a capacitor reaches the end of its service life and does not work as the product, you need to replace the capacitor.

- When disposing of LCD digital operators and wasted batteries, follow the applicable ordinances of your local government. When disposing of the battery, insulate it using tape.



廢電池請回收

The following display must be indicated when products using lithium primary batteries (with more than 6 ppb of perchlorate) are transported to or through the State of California, USA.

Perchlorate Material - special handling may apply.
See www.dtsc.ca.gov/hazardouswaste/perchlorate

The 3G3AX-OP05 has the lithium primary battery (with more than 6 ppb of perchlorate). Label or mark the above display on the exterior of all outer shipping packages of your products when exporting your products which the 3G3AX-OP05 are installed to the State of California, USA.

- Do not short + and -, charge, disassemble, heat, put into the fire, or apply strong impact on the battery. The battery may leak, explode, produce heat or fire. Never use the battery which was applied strong impact due to such as fall on the floor, it may leak.
- UL standards establish that the battery shall be replaced by an expert engineer. The expert engineer must be in charge of the replacement and also replace the battery according to the method described in this manual.
- When the display of LCD digital operator can not be recognized due to the service life, replace the LCD digital operator.

Precautions for Safe Use

■ Installation

- Mount the product vertically on a wall the product's longer sides upright. The material of the wall has to be nonflammable such as a metal plate.

■ Restart Selection Function

- Do not come close to the machine when using the Restart Selection function (b001, b008) because the machine may abruptly start when stopped by an alarm.
- Be sure to confirm the RUN signal is turned off before resetting the alarm because the machine may abruptly start.

■ Deceleration Stop Function

- Do not come close to the machine when selecting reset in the Deceleration Stop Function (b050) because the machine may abruptly start after the power is turned on.

■ Operation Stop Command

- Provide a separate emergency stop switch because the STOP Key on the Operator is valid only when function settings are performed.
- When checking a signal during the power supply and the voltage is erroneously applied to the control input terminals, the motor may start abruptly. Be sure to confirm safety before checking a signal.

■ Maintenance and Parts Replacement

- Inverters contain components and will operate properly only when each component operates normally. Some of the electrical components require maintenance depending on application conditions. Periodic inspection and replacement are necessary to ensure proper long-term operation of Inverters. (Quoted from The Recommendation for Periodic Maintenance of a General-purpose Inverter published by JEMA.)
- When a cooling fan reaches the end of its service life, replace it.

■ Product Disposal

- Comply with the local ordinance and regulations when disposing of the product.

UL Cautions

The warnings and instructions in this section summarize the procedures necessary to ensure an inverter installation complies with Underwriters Laboratories guidelines.

These devices are open type AC Inverters with three phase input and three phase output. They are intended to be used in an enclosure. They are used to provide both an adjustable voltage and adjustable frequency to the AC motor. The inverter automatically maintains the required voltage-Hz ration allowing the capability through the motor speed range.

- Use 60/75°C Cu wire only. For models 3G3RX-V1 series except for models 3G3RX-A4055-V1, 3G3RX-A4075, 3G3RX-A4110-V1.
- Use 75°C Cu wire only. For models 3G3RX-V1 series for 3G3RX-A4055-V1, 3G3RX-A4075, 3G3RX-A4110-V1.
- Suitable for use on a circuit capable of delivering not more than 100k rms symmetrical amperes, 240 V maximum. (For models: 200 V class)
- Suitable for use on a circuit capable of delivering not more than 100k rms symmetrical amperes, 480 V maximum. (For models: 400 V class)
- Install device in pollution degree 2 environment.
- Maximum Surrounding Air Temperature 50°C (VT rating is 40°C).

- Caution -Risk of Electric Shock- Capacitor discharge time is at least 10 minutes.
- Solid state motor overload protection reacts with max. 120% of FLA.
- Integral solid state short circuit protection dose not provide branch circuit protection. Branch circuit protection must be provided in accordance with the NEC and any additional local codes.
- Motor over temperature protection is not provided by the drive.

AVERTISSEMENT: ne retirez pas le capot avant pendant l'alimentation et 10 minutes après l'arrêt de l'alimentation. Cela peut entraîner de grave blessure due à un choc électrique.

■ Terminal Tightening Torque and Wire Size

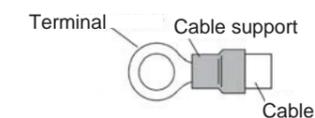
The wire size range and tightening torque for field wiring terminals are presented in the tables below.

Input Voltage	Motor Output (kW)	Inverter Model 3G3RX-	Power Terminal Wiring Size Range (AWG)	Torque (N·m)		
200V Class	0.4	A2004-V1	14(Stranded only)	1.8		
	0.75	A2007-V1				
	1.5	A2015-V1				
	2.2	A2022-V1				
	3.7	A2037-V1	10(Stranded only)	4.0		
	5.5	A2055-V1	8			
	7.5	A2075-V1	6			
	11	A2110-V1	6 or 4			
	15	A2150-V1	2		4.9	
	18.5	A2185-V1	1			
	22	A2220-V1	1 or 1/0	8.8		
	30	A2300-V1	2/0 or Parallel of 1/0			
37	A2370-V1	4/0 (Prepared wire only) or Parallel of 1/0	20.0			
45	A2450-V1					
55	A2550-V1	350 kcmil (Prepared wire only) or Parallel of 2/0 (Prepared wire only)	19.6			
400V Class	0.4	A4004-V1	14(Stranded only)	1.8		
	0.75	A4007-V1				
	1.5	A4015-V1				
	2.2	A4022-V1				
	3.7	A4037-V1	12	4.0		
	5.5	A4055-V1				
	7.5	A4075-V1			10	
	11	A4110-V1			8	
	15	A4150-V1			6	4.9
	18.5	A4185-V1			6 or 4	
	22	A4220-V1	3	20.0		
	30	A4300-V1	1			
	37	A4370-V1	2/0			
	45	A4450-V1				
55	A4550-V1	Parallel of 1/0	35.0			
75	B4750-V1					
90	B4900-V1	Parallel of 3/0				
110	B411K-V1					
132	B413K-V1					

Terminal Connector	Wiring Size Range(AWG)	Torque	
		Ft-lbs	(N·m)
Logic and Analog connectors	30~16	0.16~0.19	0.22~0.25
Relay connector	30~14	0.37~0.44	0.5~0.6

■ Wire Connectors

Field wiring connections must be made by a UL Listed and CSA certified closed-loop terminal connector sized for the wire gauge involved. Connector must be fixed using the crimp tool specified by the connector manufacturer.



■ Circuit breaker and Fuse Size

The device shall be connected with a Listed inverse time circuit breaker, rated 600 V with the current ratings or UL Listed fuses as shown in the table below.

Input Voltage	Motor Output (kW)	Inverter Model 3G3RX-	Circuit Breaker/ Fuse	Ratings (A)
200V Class	0.4	A2004-V1	Fuse (Type J)	30
	0.75	A2007-V1		30
	1.5	A2015-V1		30
	2.2	A2022-V1		30
	3.7	A2037-V1	Fuse (Type J) or Inverse time circuit Breaker	30
	5.5	A2055-V1		100
	7.5	A2075-V1		100
	11	A2110-V1		100
	15	A2150-V1		125
	18.5	A2185-V1		125
	22	A2220-V1	125	
	30	A2300-V1	225	
	37	A2370-V1	225	
	45	A2450-V1	250	
55	A2550-V1	300		
400V Class	0.4	A4004-V1	Fuse (Type J)	20
	0.75	A4007-V1		20
	1.5	A4015-V1		20
	2.2	A4022-V1		20
	3.7	A4037-V1	Fuse (Type J) or Inverse time circuit Breaker	20
	5.5	A4055-V1		40
	7.5	A4075-V1		40
	11	A4110-V1		40
	15	A4150-V1		75
	18.5	A4185-V1		75
	22	A4220-V1	75	
	30	A4300-V1	100	
	37	A4370-V1	100	
	45	A4450-V1	150	
	55	A4550-V1	150	
	75	B4750-V1	225	
	90	B4900-V1	225	
	110	B411K-V1	300	
132	B413K-V1	350		

■ Motor Overload Protection

RX Inverters provide solid state motor overload protection, which depends on the proper setting of the following parameters:

- b012 : electronic overload protection
- b212 : electronic overload protection, 2nd motor
- b312 : electronic overload protection, 3rd motor

Set the rated current [Amperes] of the motor(s) with the above parameters.

The setting range is 0.2 rated current to 1.0 rated current.

When two or more motors are connected to the Inverter, they cannot be protected by the electronic overload protection. Install an external thermal relay on each motor.

Conformance to EU Directives

- For earthing, selection of cable, and any other conditions for EMC-compliance, please refer to the manual for installation.
- This is a class A product in residential areas it may cause radio interference, in which case the user may be required to take adequate measures to reduce interference.

■ RX series Inverter has integrated EMC filter as shown below

- 200V class: EN61800-3 category C3
- 400V class: EN61800-3 category C3

■ OMRON Corporation

Shioikoji Horikawa, Shimogyo-ku, Kyoto, 600-8530, Japan

■ Omron Europe B.V.

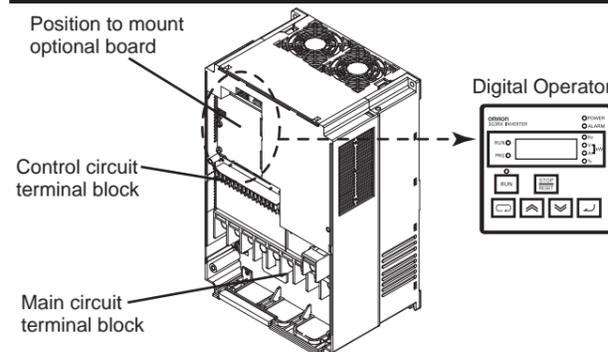
Wegalaan 67-69, NL-2132 JD Hoofddorp, The Netherlands

For KC Marking Only

A 급 기기 (업무용 방송통신기자재)

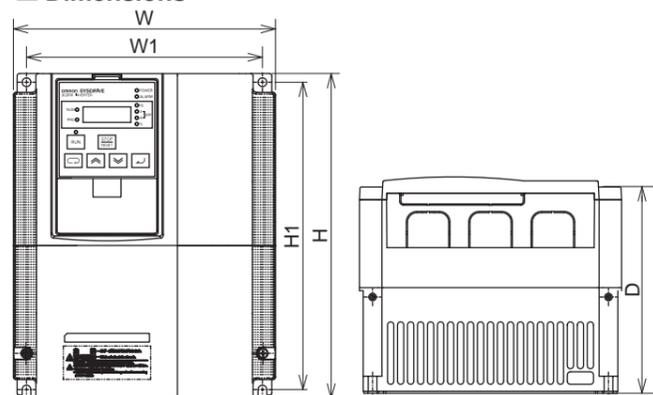
이 기기는 업무용(A급) 전자파적합기기로서 판매자 또는 사용자는 이 점을 주의하시기 바라며, 가정외의 지역에서 사용하는 것을 목적으로 합니다.

Names of Parts



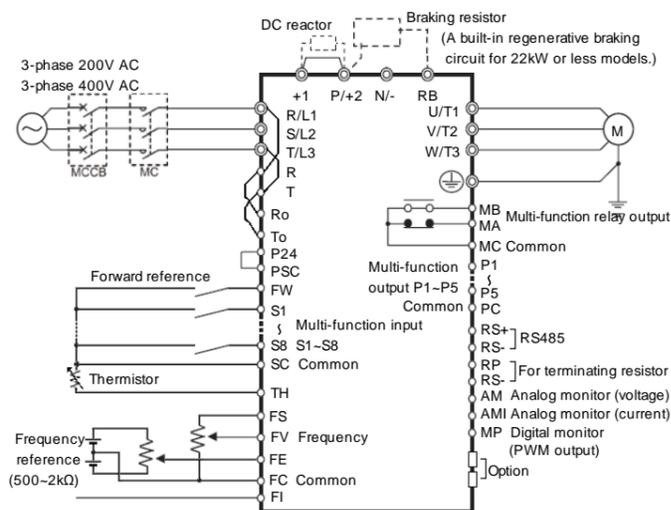
Installation and Wiring

■ Dimensions



3G3RX-□-V1	W	W1	H	H1	D
A2004~A2037 A4004~A4037	150	130	255	241	140
A2055, A2075, A2110 A4055, A4075, A4110	210	189	260	246	170
A2150, A2185, A2220 A4150, A4185, A4220	250	229	390	376	190
A2300, A4300	310	265	540	510	195
A2370, A2450 A4370, A4450, A4550	390	300	550	520	250
A2550	480	380	700	670	250
B4750, B4900	390	300	700	670	270
B411K, B413K	480	380	740	710	270

■ Standard Connection Diagram



* Factory default settings for multi-function relay output are NC contact for MA and NO contact for MB.

■ Terminal symbols, Screw size and Tightening Torque

TYPE	Main Circuit		Option	Control Circuit	Relay
	R/L1, S/L2, T/L3, U/T1, V/T2, W/T3	Ro, To	Ground (symbol)	N/-, P/+2, +1, RB	AM, AMI, FS, FV, FE, FI, FC, MP, FW, S8, S7, S6, S5, S4, S3, S2, S1, SC, PSC, P24, PC, P5, P4, P3, P2, P1, TH
A2004~A2037 A4004~A4037	M4	M4	M4	M3	MA, MB, MC
A2055, A2075 A4055, A4075	M5		M5		
A2110, A4110	M6		M6		
A2150, A2185 A4150~A4220	M6		M6		
A2220	M8		M8		
A2300	M8		M8		
A4300	M6		M6		
A2370	M8		M8		
A4370	M8		M8		
A2450	M8		M8		
A4450, A4550	M8		M8		
A2550 B4750~B413K	M10		M10		

Screw Size	M3	M4	M5
Torque	0.7N·m (max. 0.8)	1.2N·m (max. 1.4)	2.4N·m (max. 4.0)
Screw Size	M6	M8	M10
Torque	4.5N·m (max. 4.9)	8.1N·m (max. 8.8) *(max. 20.0)	20.0N·m (max. 22.0)

Keys

Name	Description
Mode key	Switches between each function mode. Also cancels the set data in process of change and displays a parameter No. * Hold down the Mode key for 3 seconds to jump to 'd001'.
Increment key	Changes a parameter No., set data, etc.
Decrement key	
RUN key	Starts the operation when Digital Operator is selected in RUN Command Selection. Forward/Reverse rotation depends on the 'F004' setting.
STOP/RESET key	Stops the operation when STOP/RESET key is enabled. Functions as the Reset key if an error occurs.
Enter key	Switches the display from parameter No. to set data. Enters and stores the set data.

Related Manuals

Name	Manual No.
Regenerative Braking Unit 3G3AX-RBU User's Manual	I563-E1
Encoder Feedback Board 3G3AX-PG User's Manual	I564-E1
CX-Drive Operation Manual	W453-E1
LCD Digital Operator 3G3AX-OP05 User's Manual	I579-E1
DriveProgramming User's Manual	I580-E1
DeviceNet Communication Unit User's Manual	I581-E1
CompoNet Communication Unit User's Manual	I582-E1

Related Manuals

Parameter No.	Function name	Monitor or data range
d001	Output Frequency Monitor	0.0 to 400.0
d002	Output Current Monitor	0.0 to 9999
F001	Output Frequency Setting/Monitor	Starting frequency [b082] to maximum frequency [A004]
F002	Acceleration Time 1	0.01 to 3600.
F003	Deceleration Time 1	0.01 to 3600.

Parameter No.	Function name	Monitor or data range
F004	Operator Rotation Direction Selection	00: (Forward)/ 01: (Reverse)
A001	Frequency Reference Selection	00: Digital Operator (volume) (Enabled when 3G3AX-OP01 is used.) / 01: Control circuit terminal block / 02: Digital Operator (F001) / 03: ModBus communication / 04: Option 1/05: Option 2 / 06: Pulse train frequency / 07: DriveProgramming / 10: Operation function result
A002	RUN Command Selection	01: Control circuit terminal block / 02: Digital Operator (F001) / 03: ModBus communication / 04: Option 1 / 05: Option 2
A003	1st Base Frequency	30. to maximum frequency [A004]
A004	1st Maximum Frequency	30. to 400.
A019	Multi-step Speed Selection	00: Binary (16-step selection with 4 terminals) / 01: Bit (8-step selection with 7 terminals)
A020	1st Multi-step Speed Reference 0	0.0. /Starting frequency [b082] to maximum frequency [A004]
A021 to A035	Multi-step Speed Reference 1 to 15	0.0. /Starting frequency [b082] to maximum frequency [A004]
b012	1st Electronic Thermal Level	0.00 to Rated current
b037	Display Selection	00: Complete display / 01: Individual display of functions / 02: User setting + b037 / 03: Data comparison display / 04: Basic display
b084	Initialization Selection	00: Initialization disabled / 01: Fault monitor clear / 02: Initializes data / 03: Fault monitor clear + Data initialization / 04: Fault monitor clear + Data initialization + DriveProgramming clear
b180	Perform Initialization / Mode Selection	00: Initialization disabled / 01: Perform initialization/mode selection
C001 to C008	Multi-function Input S1 to S8 Selection	01: RV (reverse) / 02 to 05: CF1 to 4 (multi-step speed setting binary 1 to 4), etc.
C021 to C025	Multi-function Output Terminal P1 to P5 Selection	00: RUN (signal during RUN) / 01: FA1 (constant speed arrival signal) / 02: FA2 (over set frequency arrival signal) / 03: OL (overload warning) / 04: OD (excessive PID deviation) / 05: AL (alarm output), etc.
C026	Multi-function Relay Output (MA, MB) Function Selection	
H003	1st Motor Capacity	0.20 to 160.0
H004	1st Motor Pole Number	2/4/6/8/10

SUITABILITY FOR USE

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NEVER USE THE PRODUCT FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY OR IN LARGE QUANTITIES WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE OMRON PRODUCT(S) IS PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.

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Note: Specifications subject to change without notice.