

3G3RX-V1 AC Drives

Customized to your machine



- » High motor-control performance
- » Built-in know-how functionality
- » Uncompromising Omron quality

High performance to match your application

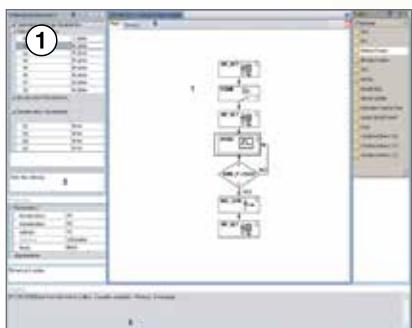
Omron realizes that you need quality and reliability, plus the ability to easily and quickly customize your inverter to the application at hand. And with the 3G3RX-V1, you have the perfect tool for the job.

Naturally, it combines the same high level of quality and performance for which Omron is renowned. It also has abundant application functionality on board and you can customize it yourself to match your precise requirements.

Key features include:

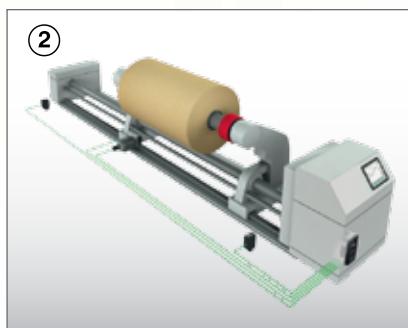
- Up to 132 kW (200 HP)
- Built-in EMC filter
- Sensor-less and vector closed-loop control
- High starting torque in open loop (200% at 0.3 Hz)
- Full torque at 0 Hz in closed loop
- Built-in logic programmability
- Built-in application functionality
- Automatic energy saving
- Micro-surge voltage suppression
- Built-in Modbus RS485 (options for other networks)





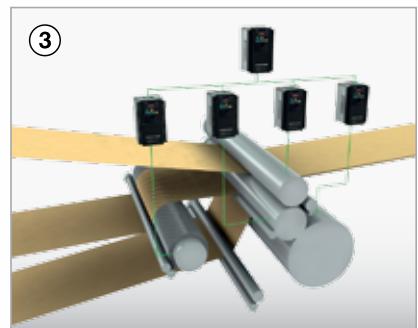
Customize your inverter

CX-Drive enables you to make your own programs to suit your machine, e.g., for an unwinding application.



Positioning functionality

Simple positioning is handled by the inverter itself without the need for an external motion controller. Functions include pulse trace position control mode, homing and position teaching.



Focused on application

The inverter is pre-programmed with special application functionality, e.g., brake control, by-pass motor control, orientation stop, interruption filling and switching from speed to positioning control, etc.

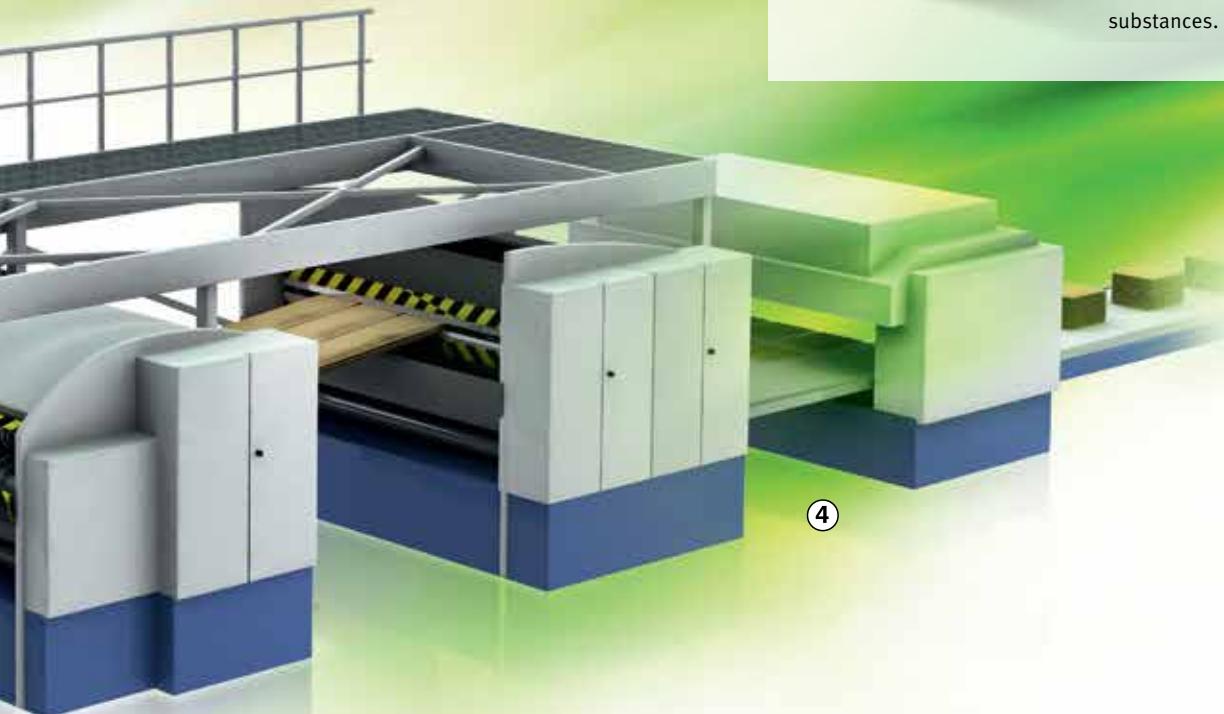
**From high torque to
high motor efficiency...**



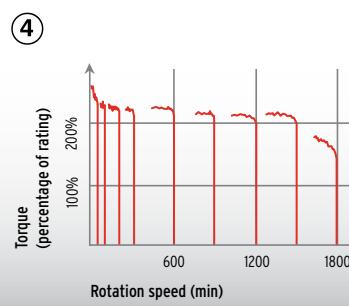


Reliability with environmental responsibility

Omron is renowned for the reliability of its products. Moreover, Omron's policy is to offer environmentally safe products free from any banned substances.

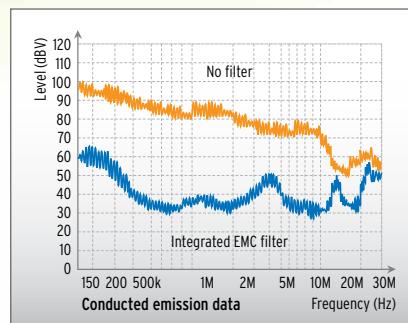


④



Sensor-less vector control at 0 Hz domain

With the benefit of patented 0 Hz domain open-loop control mode, the 3G3RX-V1 can develop 150% torque at 0 Hz allowing zero speed load holding. Moreover, an improved sensor-less vector control algorithm enables the 3G3RX-V1 to develop more than 200% starting torque at 0.3 Hz.



Cost and space saving filter

The 3G3RX-V1 has a built-in EMC filter that saves on cost and space compared with the standard external filter solution.

3 ph : EN61800-3 cat. C2



Long life design

3G3RX-V1 has been designed with high quality components to guarantee a long operation life and minimize downtime. It includes a versatile maintenance function that warns the user in the event of DC bus capacitor temperature rise or cooling speed reduction.

3G3RX-V1

Customized to your machine

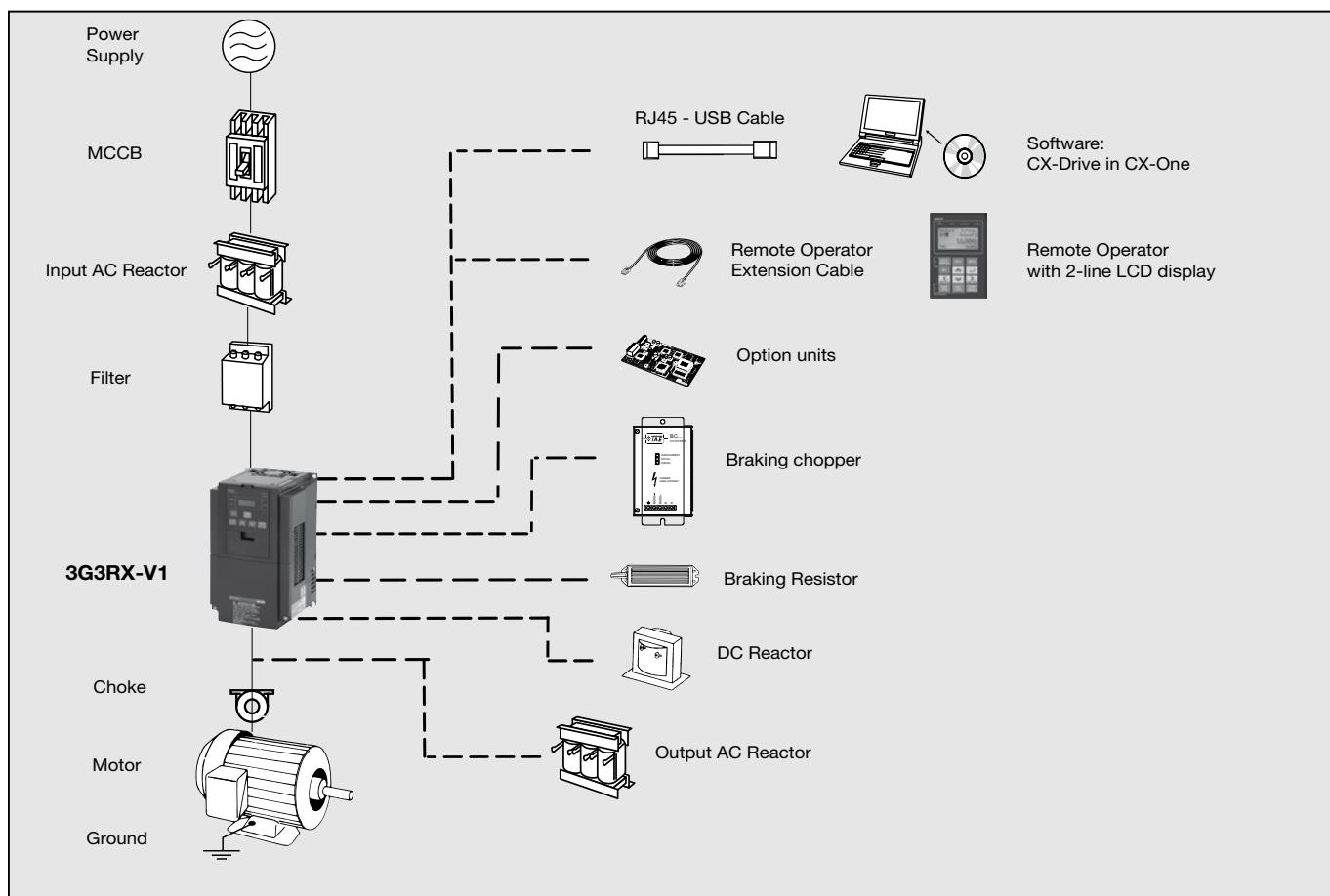
- Up to 132 kW (200 HP)
- High starting torque in open loop: 200% at 0.3 Hz
- Full torque at 0 Hz in closed loop
- Sensor-less and vector closed-loop control
- Built-in EMC filter
- Built-in logic programmability
- Built-in application functionality
- Positioning functionality
- Automatic energy saving
- Micro-surge voltage suppression
- Modbus RS485 (options for other networks)
- CE, cULus, RoHS

Ratings

- 200 V Class three-phase, 0.4 to 55 kW (1/2 to 75 HP)
- 400 V Class three phase, 0.4 to 132 kW (1/2 to 200 HP)



System Configuration



Specifications

Type Designation

3 G 3 R X A 4 0 0 4 - V 1

3G3RX-V1 series

A: IP20
B: IP00

Voltage:
2: Three-phase 200 VAC
4: Three-phase 400 VAC

Max. applicable motor output
004: 0.4 kW (1/2 HP)
to
13K: 132 kW (200 HP)

200 V class

| Three-phase 3G3RX-□-V1 | | | A2004 | A2007 | A2015 | A2022 | A2037 | A2055 | A2075 | A2110 | A2150 | A2185 | A2220 | A2300 | A2370 | A2450 | A2550 | |
|--|-----------------------------------|-------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------------------------------|-------|-------|-------|-------|--|
| Applicable motor capacity ¹ | kW | | 0.4 | 0.75 | 1.5 | 2.2 | 3.7 | 5.5 | 7.5 | 11 | 15 | 18.5 | 22 | 30 | 37 | 45 | 55 | |
| | HP | | 1/2 | 1 | 2 | 3 | 5 | 7 1/2 | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 75 | |
| Output characteristics | Inverter capacity kVA | 200 V | 1.0 | 1.7 | 2.5 | 3.6 | 5.7 | 8.3 | 11.0 | 15.9 | 22.1 | 26.3 | 32.9 | 41.9 | 50.2 | 63.0 | 76.2 | |
| | | 240 V | 1.2 | 2.0 | 3.1 | 4.3 | 6.8 | 9.9 | 13.3 | 19.1 | 26.6 | 31.5 | 39.4 | 50.2 | 60.2 | 75.6 | 91.4 | |
| | Rated output current (A) | | 3.0 | 5.0 | 7.5 | 10.5 | 16.5 | 24 | 32 | 46 | 64 | 76 | 95 | 121 | 145 | 182 | 220 | |
| | Max. output voltage | | Proportional to input voltage: 0 to 240 V | | | | | | | | | | | | | | | |
| | Max. output frequency | | 400 Hz | | | | | | | | | | | | | | | |
| Power supply | Rated input voltage and frequency | | 3-phase 200 to 240 V 50/60 Hz | | | | | | | | | | | | | | | |
| | Allowable voltage fluctuation | | -15% to +10% | | | | | | | | | | | | | | | |
| | Allowable frequency fluctuation | | 5% | | | | | | | | | | | | | | | |
| Braking | Regenerative braking | | Internal BRD circuit (external discharge resistor) | | | | | | | | | | External regenerative braking unit | | | | | |
| | Minimum connectable resistance | | 50 | 50 | 35 | 35 | 35 | 16 | 10 | 10 | 7.5 | 7.5 | 5 | | | | | |
| Protective structure | | | IP20 | | | | | | | | | | | | | | | |
| Cooling method | | | Forced air cooling | | | | | | | | | | | | | | | |

Note: 1. Based on a standard 3-Phase standard motor.

400 V class

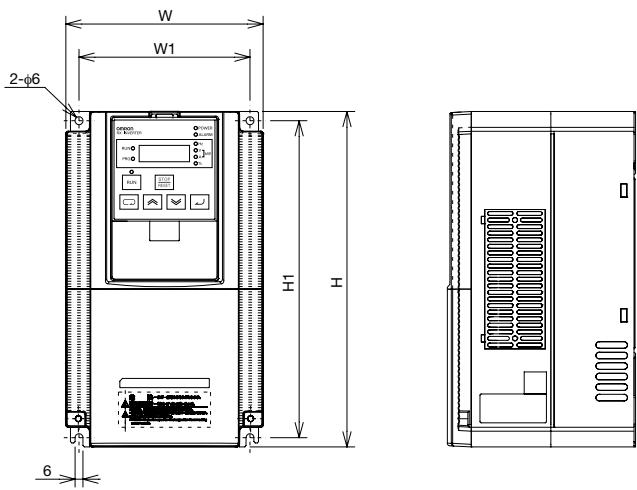
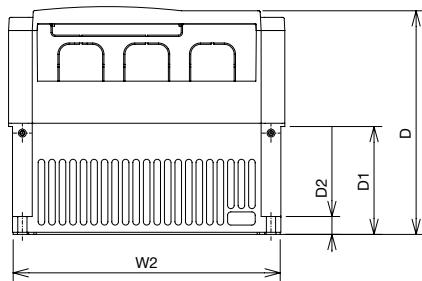
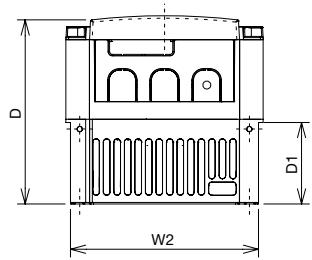
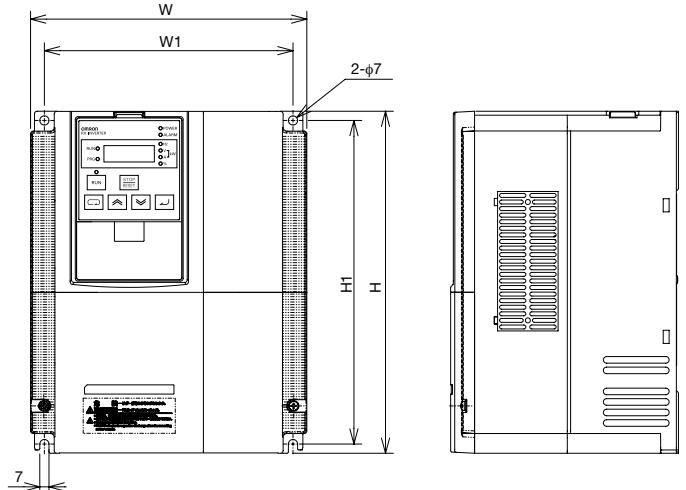
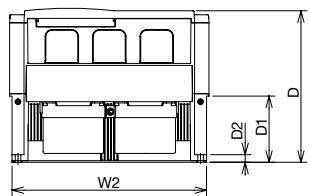
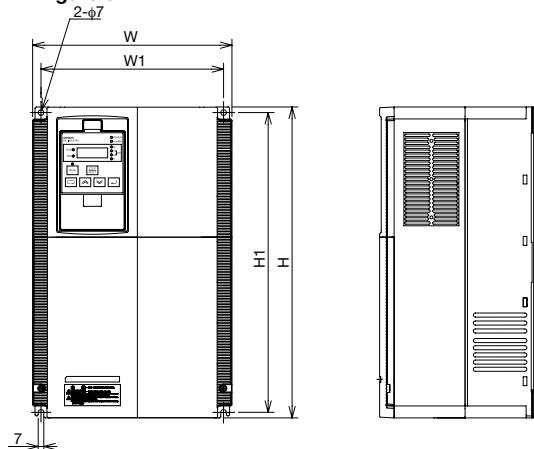
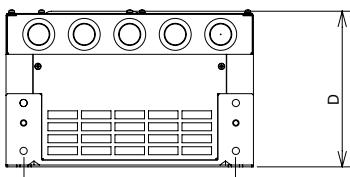
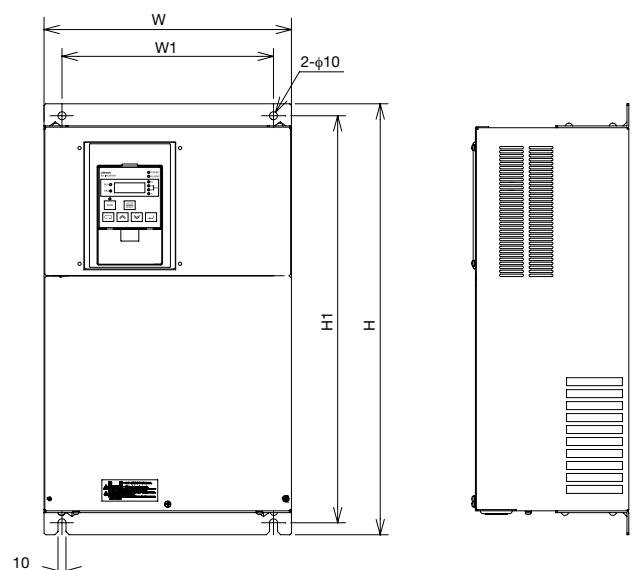
| Three-phase 3G3RX-□-V1 | | | A4004 | A4007 | A4015 | A4022 | A4037 | A4055 | A4075 | A4110 | A4150 | A4185 | A4220 | A4300 | A4370 | A4450 | A4550 | B4750 | B4900 | B411K | B413K |
|--|-----------------------------------|--|---|-------|-------|-------|-------|-------|-------|-------|-------|------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Applicable motor capacity ¹ | kW | | 0.4 | 0.75 | 1.5 | 2.2 | 4.0 | 5.5 | 7.5 | 11 | 15 | 18.5 | 22 | 30 | 37 | 45 | 55 | 75 | 90 | 110 | 132 |
| | HP | | 1/2 | 1 | 2 | 3 | 5 | 7 1/2 | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 75 | 100 | 125 | 150 | 200 |
| Output characteristics | Inverter capacity kVA | 400 V | 1.0 | 1.7 | 2.5 | 3.6 | 6.2 | 9.7 | 13.1 | 17.3 | 22.1 | 26.3 | 33.2 | 40.1 | 51.9 | 63.0 | 77.6 | 103.2 | 121.9 | 150.3 | 180.1 |
| | | 480 V | 1.2 | 2.0 | 3.1 | 4.3 | 7.4 | 11.6 | 15.8 | 20.7 | 26.6 | 31.5 | 39.9 | 48.2 | 62.3 | 75.6 | 93.1 | 123.8 | 146.3 | 180.4 | 216.1 |
| | Rated output current (A) | 1.5 | 2.5 | 3.8 | 5.3 | 9.0 | 14 | 19 | 25 | 32 | 38 | 48 | 58 | 75 | 91 | 112 | 149 | 176 | 217 | 260 | |
| | Max. output voltage | | Proportional to input voltage: 0 to 480 V | | | | | | | | | | | | | | | | | | |
| | Max. output frequency | | 400 Hz | | | | | | | | | | | | | | | | | | |
| Power supply | Rated input voltage and frequency | | 3-phase 380 to 480 V 50/60 Hz | | | | | | | | | | | | | | | | | | |
| | Allowable voltage fluctuation | | -15% to +10% | | | | | | | | | | | | | | | | | | |
| | Allowable frequency fluctuation | | 5% | | | | | | | | | | | | | | | | | | |
| Braking | Regenerative braking | Internal BRD circuit (external discharge resistor) | | | | | | | | | | External regenerative braking unit | | | | | | | | | |
| | Minimum connectable resistance | 100 | 100 | 100 | 100 | 70 | 70 | 35 | 35 | 24 | 24 | 20 | | | | | | | | | |
| Protective structure | | | IP20 | | | | | | | | | | | | | | IP00 | | | | |
| Cooling method | | | Forced air cooling | | | | | | | | | | | | | | | | | | |

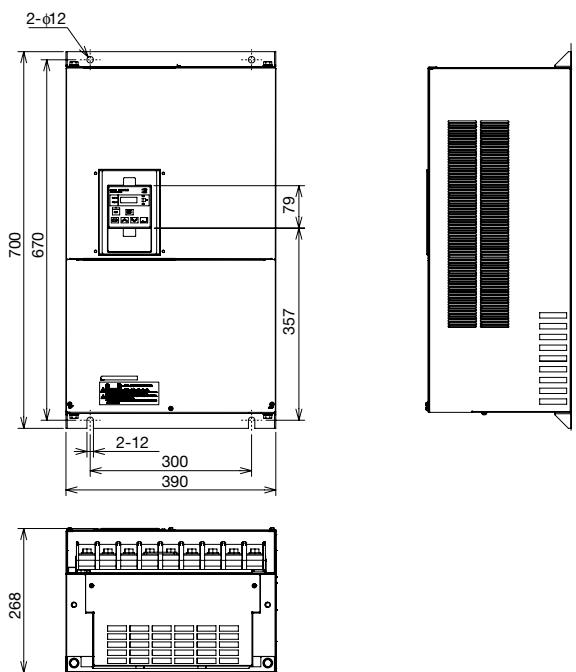
Note: 1. Based on a standard 3-Phase standard motor.

Specifications

Common specifications

| Model number 3G3RX-□-V1 | Specifications |
|-------------------------|---|
| Control functions | Control methods Phase-to-phase sinusoidal pulse with modulation PWM (Sensorless vector control, V/F) |
| | Output frequency range 0.10..1000.00 Hz (with restrictions above 400 Hz) |
| | Frequency precision Digital set value: ±0.01% of the max. frequency Analog set value: ±0.2% of the max. frequency (25 ±10°C) |
| | Resolution of frequency set value Digital set value: 0.01 Hz Analog set value: 1/1000 of maximum frequency |
| | Resolution of output frequency 0.01 Hz |
| | Starting torque 200% / 0.5 Hz |
| | Overload capability Dual rating: Heavy duty (CT): 150% for 1 minute Normal Duty (VT): 120% for 1 minute |
| | Frequency set value 0 to 10 VDC (10KΩ), 4 to 20 mA (100Ω), RS485 Modbus, Network options |
| | V/f Characteristics V/f optionally changeable at base frequencies of 30 to 400 Hz, V/f braking constant torque, reduction torque, sensor-less vector control, sensor-less vector control at 0 Hz |
| | |
| Functionality | Inputs signals FW (forward run command), RV (reverse run command), CF1~CF4 (multi-stage speed setting), JG (jog command), DB (external braking), SET (set second motor), 2CH (2-stage accel./decel. command), FRS (free run stop command), EXT (external trip), USP (startup function), CS (commercial power switchover), SFT (soft lock), AT (analog input selection), RS (reset), PTC (thermistor thermal protection), STA (start), STP (stop), F/R (forward/reverse), PID (PID disable), PIDC (PID reset), UP (remote control up function), DWN (remote control down function), UDC (remote control data clear), OPE (operator control), SF1~SF7 (multi-stage speed setting; bit operation), OLR (overload restriction), TL (torque limit enable), TRQ1 (torque limit changeover1), TRQ2 (torque limit changeover2), BOK (Braking confirmation), LAC (LAD cancellation), PCLR (position deviation clear), ADD (add frequency enable), F-TM (force terminal mode), ATR (permission of torque command input), KHC (Cumulative power clear), M11~M17 (general purpose inputs for EzSQ), AHD (analog command hold), CP1~CP3 (multistage position switches), ORL (limit signal of zero-return), ORC (trigger signal of zero-return), SPD (speed/position changeover), GS1~GS2 (STO inputs, safety related signals), 485 (Starting communication signal), PRG (executing EzSQ program), HLD (retain output frequency), ROK (permission of run command), EB (rotation direction detection of B-phase), DISP (display limitation), OP (option control signal), NO (no function) |
| | Output signals 5 open collector output terminals: NO/NC switchable, sink/source logic switchable 1 relay (SPDT contact) output terminal: NO/NC switchable [Terminal function] 6 functions can be selected from among 45. Signal during RUN (RUN), Constant speed arrival signal (FA1), Over set frequency arrival signal (FA2), Overload warning (OL), Excessive PID deviation (OD), Alarm signal (AL), Set-frequency-only arrival signal (FA3), Overtorque (OTQ), Signal during momentary power interruption (IP), Signal during undervoltage (UV), Torque limit (TRQ), RUN time exceeded (RNT), Power ON time exceeded (ONT), Thermal warning (THM), Brake release (BRK), Brake error (BER), 0-Hz signal (ZS), Excessive speed deviation (DSE), Position ready (POK), Set frequency exceeded 2 (FA4), Set frequency only 2 (FA5), Overload warning 2 (OL2), Analog FV disconnection detection (FVDc), Analog FI disconnection detection (FIDc), Analog FE disconnection detection (FEDc), PID FB status output (FBV), Network error (NDc), Logic operation output 1 (LOG1), Logic operation output 2 (LOG2), Logic operation output 3 (LOG3), Logic operation output 4 (LOG4), Logic operation output 5 (LOG5), Logic operation output 6 (LOG6), Capacitor life warning (WAC), Cooling fan life warning (WAF), Starting contact signal (FR), Fan overheat warning (OHF), Light load detection signal (LOC), Operation ready (IRDY), Forward run (FWR), Reverse run (RVR), Fatal fault (MJA), Window comparator FV (WCFV), Window comparator FI (WCFI), Window comparator FE (WCFE), Alarm codes 0 to 3 (AC0 to AC3) |
| | Standard functions V/f free setting (7), Upper/lower frequency limit, Frequency jump, Curve acceleration/deceleration, Manual torque boost level/break, Energy-saving operation, Analog meter adjustment, Starting frequency, Carrier frequency adjustment, Electronic thermal function, (free setting available), External start/end (frequency/rate), Analog input selection, Trip retry, Restart during momentary power interruption, Various signal outputs, Reduced voltage startup, Overload limit, Initialization value setting, Automatic deceleration at power-off, AVR function, Automatic acceleration/deceleration, Auto tuning (Online/Offline), High torque multi-motor operation control (sensor-less vector control of two monitors with one Inverter) |
| | Analog inputs Analog inputs 0 to 10 V and -10 to 10 V (10KΩ), 4 to 20 mA (100Ω) |
| | Analog outputs Analog voltage output, Analog current output, Pulse train output |
| | Accel/Decel times 0.01 to 3600.0s (line/curve selection) |
| | Display Status indicator LED's Run, Program, Power, Alarm, Hz, Amps , Volts, % Digital operator: Available to monitor 23 items, output current, output frequency, etc. |
| | Motor overload protection Electronic Thermal overload relay and PTC thermistor input |
| | Instantaneous overcurrent 200% of rated current for 3 seconds |
| | Overload 150% for 1 minute |
| | Overvoltage 800 V for 400 V type and 400 V for 200 V type |
| Protection functions | Momentary power loss Decelerates to stop with DC bus controlled, coast to stop |
| | Cooling fin overheat Temperature monitor and error detection |
| | Stall prevention level Stall prevention during acceleration/deceleration and constant speed |
| | Ground fault Detection at power-on |
| | Power charge indication On when voltage between P and N is higher than 45V |
| | Degree of protection IP20 / IP00 |
| | Ambient humidity 90% RH or less (without condensation) |
| | Storage temperature -20 °C to +65°C (short-term temperature during transportation) |
| Ambient conditions | Ambient temperature -10°C to 50°C |
| | Installation Indoor (no corrosive gas, dust, etc.) |
| | Installation height Max. 1000 m |
| | Vibration 3G3RX-A□004-v1 to A□220, 5.9 m/s ² (0.6G), 10 to 55 Hz 3G3RX-A□300-v1 to B□13K, 2.94 m/s ² (0.3G), 10 to 55 Hz |
| | |

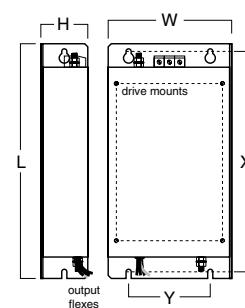
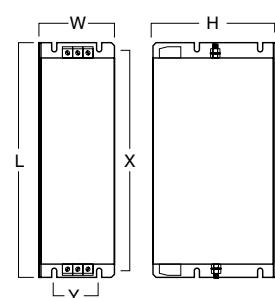
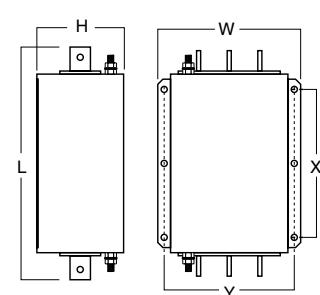
Dimensions**Figure 1****Figure 2****Figure 3****Figure 4**

Dimensions**Figure 5**

| Voltage class | Inverter model 3G3RX-□-V1 | Figure | Dimensions (Unit: mm) | | | | | | | | Weight (kg) |
|----------------------|------------------------------|--------|-----------------------|-----|-----|-----|-----|-----|----|------|-------------|
| | | | W | W1 | W2 | H | H1 | D | D1 | D2 | |
| Three-phase 200 V | A2004 | 1 | 150 | 130 | 143 | 255 | 241 | 140 | 62 | - | 3.5 |
| | A2007 | | | | | | | | | | |
| | A2015 | | | | | | | | | | |
| | A2022 | | | | | | | | | | |
| | A2037 | | | | | | | | | | |
| | A2055 | 2 | 210 | 189 | 203 | 260 | 246 | 170 | 82 | 13.6 | 6 |
| | A2075 | | | | | | | | | | |
| | A2110 | 3 | | | | | | | | | |
| | A2150 | | 250 | 229 | 244 | 390 | 376 | 190 | 83 | 9.5 | 14 |
| | A2185 | | | | | | | | | | |
| Three-phase 400 V | A2220 | 4 | | | | | | | | | |
| | A2300 | | 310 | 265 | - | 540 | 510 | 195 | - | - | 20 |
| | A2370 | | | | | | | | | | |
| | A2450 | | 390 | 300 | - | 550 | 520 | 250 | - | - | 30 |
| | A2550 | | | | | | | | | | |
| | A4004 | 1 | 150 | 130 | 143 | 255 | 241 | 140 | 62 | - | 3.5 |
| | A4007 | | | | | | | | | | |
| | A4015 | | | | | | | | | | |
| | A4022 | | | | | | | | | | |
| | A4037 | | | | | | | | | | |
| Three-phase 400 V | A4055 | 2 | 210 | 189 | 203 | 260 | 246 | 170 | 82 | 13.6 | 6 |
| | A4075 | | | | | | | | | | |
| | A4110 | | | | | | | | | | |
| | A4150 | 3 | 250 | 229 | 244 | 390 | 376 | 190 | 83 | 9.5 | 14 |
| | A4185 | | | | | | | | | | |
| | A4220 | | | | | | | | | | |
| | A4300 | 4 | 310 | 265 | - | 540 | 510 | 195 | - | - | 22 |
| | A4370 | | | | | | | | | | |
| | A4450 | | 390 | 300 | - | 550 | 520 | 250 | - | - | 30 |
| | A4550 | | | | | | | | | | |
| B4750 | B4900 | 5 | 390 | 300 | - | 700 | 670 | 268 | - | - | 60 |
| | B411K | | | | | | | | | | |
| | B413K | | 480 | 300 | - | 740 | 710 | 270 | - | - | 80 |

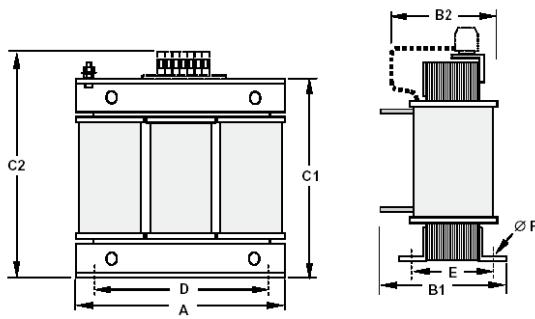
Dimensions**Rasmi Line Filters**

| Voltage | Inverter model 3G3RX-□-V1 | Line filter | Dimensions (Unit: mm) | | | | | | Filter type | Weight (kg) |
|---------|------------------------------|------------------|-----------------------|-----|-----|-----|-----|----|-------------|-------------|
| | | | L | W | H | X | Y | M | | |
| 3x200 V | A2004 | 3G3AX-FIR2018-RE | 305 | 125 | 45 | 290 | 110 | M5 | Footprint | 2.0 |
| | A2007 | | | | | | | | | 2.5 |
| | A2015 | | | | | | | | Book type | 8.0 |
| | A2022 | | | | | | | | | 8.6 |
| | A2037 | | | | | | | | Block type | 13 |
| | A2055 | 3G3AX-FIR2053-RE | 312 | 212 | 56 | 296 | 189 | M6 | | 13.2 |
| | A2075 | | | | | | | | Book type | 13.2 |
| | A2110 | 3G3AX-FIR2110-RE | 455 | 110 | 240 | 414 | 80 | - | | 1.9 |
| | A2150 | | | | | | | | Footprint | 2.2 |
| | A2185 | | | | | | | | | 4.5 |
| | A2220 | | | | | | | | Block type | 7.0 |
| | A2300 | | | | | | | | | 8.0 |
| 3x400 V | A2370 | 3G3AX-FIR3250-RE | 386 | 260 | 135 | 240 | 235 | - | Book type | 8.6 |
| | A2450 | | | | | | | | | 13.0 |
| | A2550 | 3G3AX-FIR3320-RE | | | | | | | Block type | 13.2 |
| | A4004 | 3G3AX-FIR3010-RE | 305 | 125 | 45 | 290 | 110 | M5 | Footprint | 2.2 |
| | A4007 | | | | | | | | | 4.5 |
| | A4015 | | | | | | | | Book type | 7.0 |
| | A4022 | | | | | | | | | 8.0 |
| | A4037 | | | | | | | | Block type | 8.6 |
| | A4055 | 3G3AX-FIR3030-RE | 312 | 212 | 50 | 296 | 189 | M6 | | 13.0 |
| | A4075 | | | | | | | | Book type | 13.2 |
| | A4110 | 3G3AX-FIR3053-RE | 451 | 252 | 60 | 435 | 229 | M6 | | 13.2 |
| | A4150 | | | | | | | | Footprint | 1.9 |
| | A4185 | | | | | | | | | 2.2 |
| | A4220 | | | | | | | | Book type | 4.5 |
| | A4300 | | 598 | 310 | 70 | 578 | 265 | M8 | | 7.0 |
| | A4370 | 3G3AX-FIR3100-RE | | | | | | | Block type | 8.0 |
| | A4450 | 3G3AX-FIR3130-RE | 455 | 110 | 240 | 414 | 80 | - | | 8.6 |
| | A4550 | | | | | | | | Footprint | 13.0 |
| | B4750 | 3G3AX-FIR3250-RE | | | | | | | | 13.2 |
| | B4900 | 3G3AX-FIR3320-RE | 386 | 260 | 135 | 240 | 235 | - | Book type | 1.9 |
| | B411K | | | | | | | | | 2.2 |
| | B413K | | | | | | | | Book type | 4.5 |

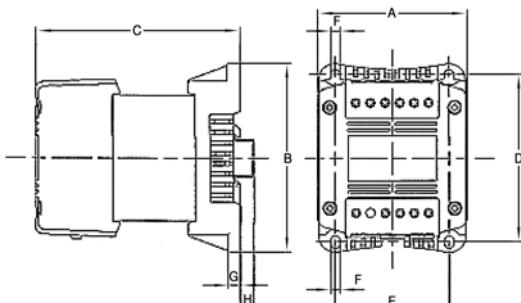
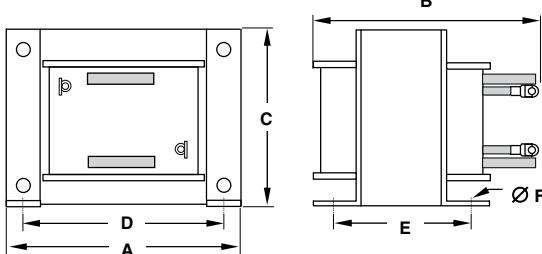
Footprint Dimensions**Book Type Dimensions****Block Type Dimensions**

Dimensions**Input AC Reactor**

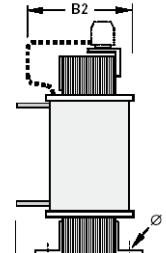
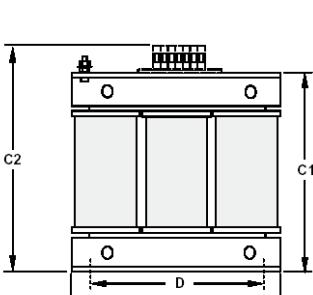
| Voltage class | Model 3G3AX-□ | Dimensions (Unit: mm) | | | | | | | Weight (kg) | |
|---------------|----------------|-----------------------|-----|----|-----|-----|-----|-----|-------------|------|
| | | A | B1 | B2 | C1 | C2 | D | E | | |
| 200 V | RAI02800100-DE | 120 | - | 80 | - | 120 | 80 | 62 | 5.5 | 2.35 |
| | RAI00880200-DE | | | | | 190 | 140 | 55 | 6 | 5.5 |
| | RAI00350335-DE | | | | | 205 | | | | 6.5 |
| | RAI00180670-DE | | | | | 85 | | | | 11.7 |
| | RAI00091000-DE | | | | | 105 | | | | 16.0 |
| | RAI00071550-DE | | | | | 210 | - | 200 | | 16.0 |
| 400 V | RAI00042300-DE | 240 | 130 | - | 210 | - | 200 | 75 | 5.5 | 1.75 |
| | RAI07700050-DE | | | | | | 120 | 80 | | 2.35 |
| | RAI03500100-DE | | | | | | 190 | 140 | | 2.5 |
| | RAI01300170-DE | | | | | | 205 | 140 | | 5.5 |
| | RAI00740335-DE | | | | | | 110 | 275 | 6 | 6.5 |
| | RAI00360500-DE | | | | | | 200 | 75 | | 11.7 |
| | RAI00290780-DE | | | | | | 275 | 200 | | 16.0 |
| | RAI00191150-DE | | | | | | 240 | 110 | | 16.0 |

**DC Reactor**

| Voltage class | Model 3G3AX-RC | Figure | Dimensions (Unit: mm) | | | | | | | Weight (kg) | | |
|--------------------|----------------|--------|-----------------------|-----|-----|-------|-----|-----|-----|-------------|------|------|
| | | | A | B | C | D | E | F | G | | | |
| 3-Phase 200 VAC | 21400016-DE | 1 | 84 | 113 | 96 | 101 | 66 | 5 | 7.5 | 1.22 | | |
| | 10700032-DE | | | | 105 | | | | | 1.60 | | |
| | 06750061-DE | | | | 116 | | | | | 1.95 | | |
| | 03510093-DE | | | | 108 | 135 | 124 | 120 | 82 | 6.5 | | |
| | 02510138-DE | | | | 120 | 152 | 136 | 135 | 94 | 9.5 | 3.20 | |
| | 01600223-DE | | | | 150 | 177 | 160 | 160 | 115 | | 5.20 | |
| | 01110309-DE | 2 | 120 | 152 | 146 | 185 | 88 | 10 | 9.5 | 6.00 | | |
| | 00840437-DE | | | | 195 | | | | | 11.4 | | |
| | 005900614-DE | | | | 196 | | | | | 14.3 | | |
| | 00440859-DE | | | | 188 | 200 | 228 | 109 | 7 | - | 17.0 | |
| | 00301275-DE | | | | 240 | | | | | | 25.5 | |
| | 00231662-DE | | | | 198 | | | | | | 34.0 | |
| | 00192015-DE | | | | 228 | | | | | | 38.0 | |
| | 00162500-DE | 1 | 84 | 113 | 96 | 101 | 66 | 5 | 7.5 | 1.22 | | |
| | 00133057-DE | | | | 105 | | | | | 1.60 | | |
| | 43000020-DE | | | | 116 | | | | | 1.95 | | |
| 3-Phase 400 VAC | 27000030-DE | | | | 108 | 135 | 133 | 120 | 82 | 6.5 | 9.5 | 3.70 |
| | 14000047-DE | | | | 120 | 152 | 136 | 135 | 94 | 5.20 | | |
| | 10100069-DE | | | | 150 | 177 | 160 | 160 | 115 | 6.00 | | |
| | 06400116-DE | | | | 195 | 162.5 | 185 | 88 | 10 | 7 | - | 11.4 |
| | 04410167-DE | | | | 196 | | | | | | | 14.3 |
| | 03350219-DE | | | | 188 | | | | | | | 17.0 |
| | 02330307-DE | | | | 240 | 200 | 228 | 109 | 12 | - | - | 25.5 |
| | 01750430-DE | | | | 198 | | | | | | | 34.0 |
| | 01200644-DE | | | | 228 | | | | | | | 38.0 |
| | 00920797-DE | | | | 196 | | | | | | | 42.0 |
| | 00741042-DE | | | | 188 | | | | | | | 42.0 |
| | 00611236-DE | | | | 198 | | | | | | | 42.0 |
| | 00501529-DE | | | | 228 | | | | | | | 42.0 |

Figure 1**Figure 2****Output AC Reactor**

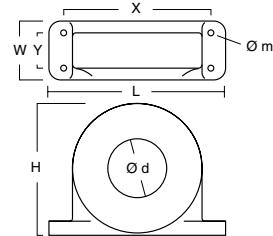
| Model 3G3AX-□ | Dimensions (Unit: mm) | | | | | | | Weight (kg) |
|-----------------|-----------------------|-----|-----|-----|----|-----|------|-------------|
| | A | B2 | C2 | D | E | F | | |
| RAO1150026-DE | 120 | 70 | 120 | 80 | 52 | 5.5 | 1.78 | |
| RAO07600042-DE | 120 | 70 | 120 | 80 | 52 | 5.5 | 1.78 | |
| RAO04100075-DE | 120 | 80 | 120 | 80 | 62 | 5.5 | 2.35 | |
| RAO03000105-DE | 120 | 80 | 120 | 80 | 62 | 5.5 | 2.35 | |
| RAO01830180-DE | 180 | 85 | 190 | 140 | 55 | 6 | 5.5 | |
| RAO01150220-DE | 180 | 85 | 190 | 140 | 55 | 6 | 5.5 | |
| RAO00950320-DE | 180 | 85 | 205 | 140 | 55 | 6 | 6.5 | |
| RAO00630430-DE | 180 | 95 | 205 | 140 | 65 | 6 | 9.1 | |
| RAO00490640-DE | 180 | 95 | 205 | 140 | 65 | 6 | 9.1 | |
| RAO16300038-DE | 120 | 70 | 120 | 80 | 52 | 5.5 | 1.78 | |
| RAO11800053-DE | 120 | 80 | 120 | 80 | 52 | 5.5 | 2.35 | |
| RAO007300080-DE | 120 | 80 | 120 | 80 | 62 | 5.5 | 2.35 | |
| RAO04600110-DE | 180 | 85 | 190 | 140 | 55 | 6 | 5.5 | |
| RAO03600160-DE | 180 | 85 | 205 | 140 | 55 | 6 | 6.5 | |
| RAO02500220-DE | 180 | 95 | 205 | 140 | 55 | 6 | 9.1 | |
| RAO02000320-DE | 180 | 105 | 205 | 140 | 85 | 6 | 11.7 | |



Dimensions

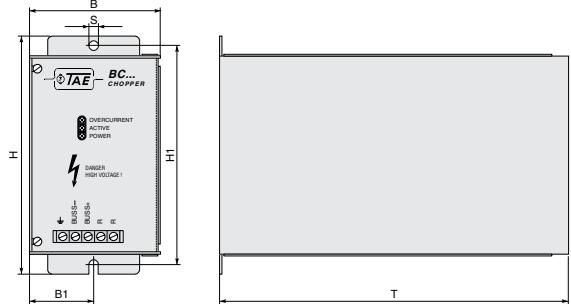
Chokes

| Model 3G3AX-□ | Diameter | Motor | | Dimensions (Unit: mm) | | | | | | Weight (kg) |
|---------------|----------|-------|------|-----------------------|----|-----|-----|----|---|-------------|
| | d | kW | HP | L | W | H | X | Y | m | |
| FER2102-RE | 21 | < 2.2 | < 3 | 85 | 22 | 46 | 70 | - | 5 | 0.1 |
| FER2515-RE | 25 | < 15 | < 20 | 105 | 25 | 62 | 90 | - | 5 | 0.2 |
| FER5045-RE | 50 | < 45 | < 60 | 150 | 50 | 110 | 125 | 30 | 5 | 0.7 |
| FER6055-RE | 60 | > 45 | > 60 | 200 | 65 | 170 | 180 | 45 | 6 | 1.7 |



Braking Unit Dimensions

| Model 3G3AX-□ | Dimensions (Unit: mm) | | | | | | Weight (kg) |
|---------------|-----------------------|------|-----|-----|-----|---|-------------|
| | B | B1 | H | H1 | T | S | |
| BCR4015045-TE | 82.5 | 40.5 | 150 | 138 | 220 | 6 | |
| BCR4017068-TE | | | | | | | |
| BCR2035090-TE | 130 | 64.5 | 205 | 193 | 208 | 6 | |
| BCR4035090-TE | | | | | | | |
| BCR4070130-TE | 131 | 64.5 | 298 | 280 | 300 | 9 | |
| BCR4090240-TE | | | | | | | |



Resistor

| Model | Figure | Dimensions (Unit: mm) | | | | | Weight (kg) |
|---------------------|--------|-----------------------|-----|-----|-----|-----|-------------|
| | | L | H | M | I | T | |
| 3G3AX-REM00K2070-IE | 1 | 105 | 27 | 36 | 94 | - | 0.2 |
| 3G3AX-REM00K2120-IE | | 200 | 27 | 36 | 189 | - | 0.425 |
| 3G3AX-REM00K2200-IE | | 260 | 27 | 36 | 249 | - | 0.58 |
| 3G3AX-REM00K4075-IE | | 320 | 27 | 36 | 309 | - | 0.73 |
| 3G3AX-REM00K4035-IE | | 200 | 62 | 100 | 74 | - | 1.41 |
| 3G3AX-REM00K4030-IE | | 365 | 73 | 105 | 350 | 70 | 4 |
| 3G3AX-REM00K5120-IE | 2 | 310 | 100 | 240 | 295 | 210 | 7 |
| 3G3AX-REM00K6100-IE | | 365 | 100 | 240 | 350 | 210 | 8 |
| 3G3AX-REM00K6035-IE | | 140 | 350 | 180 | 100 | 160 | 6 |
| 3G3AX-REM00K9070-IE | | 240 | 350 | 180 | 200 | 160 | 11 |
| 3G3AX-REM00K9020-IE | | | | | | | |
| 3G3AX-REM00K9017-IE | | | | | | | |
| 3G3AX-REM01K9070-IE | | | | | | | |
| 3G3AX-REM01K9017-IE | | | | | | | |
| 3G3AX-REM02K1070-IE | | | | | | | |
| 3G3AX-REM02K1017-IE | | | | | | | |
| 3G3AX-REM03K5035-IE | | | | | | | |
| 3G3AX-REM03K5010-IE | | | | | | | |
| 3G3AX-REM19K0006-IE | | | | | | | |
| 3G3AX-REM19K0008-IE | | | | | | | |
| 3G3AX-REM19K0020-IE | | | | | | | |
| 3G3AX-REM19K0030-IE | | | | | | | |
| 3G3AX-REM38K0012-IE | | | | | | | |

3G3AX-REM00K1□□□

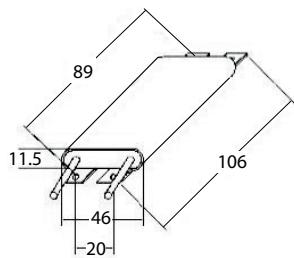


Figure 1

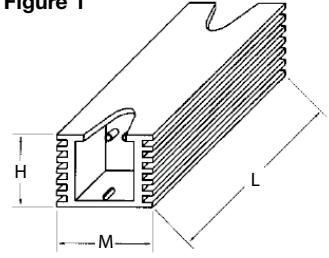


Figure 2

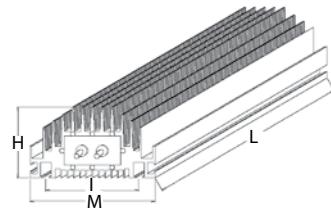


Figure 3

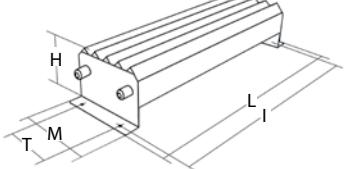


Figure 4

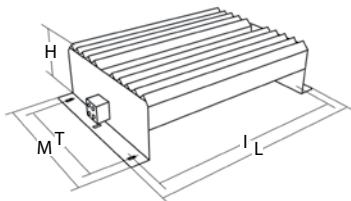
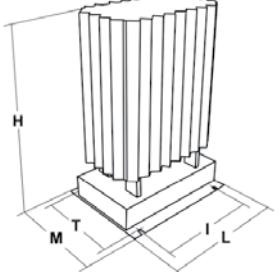
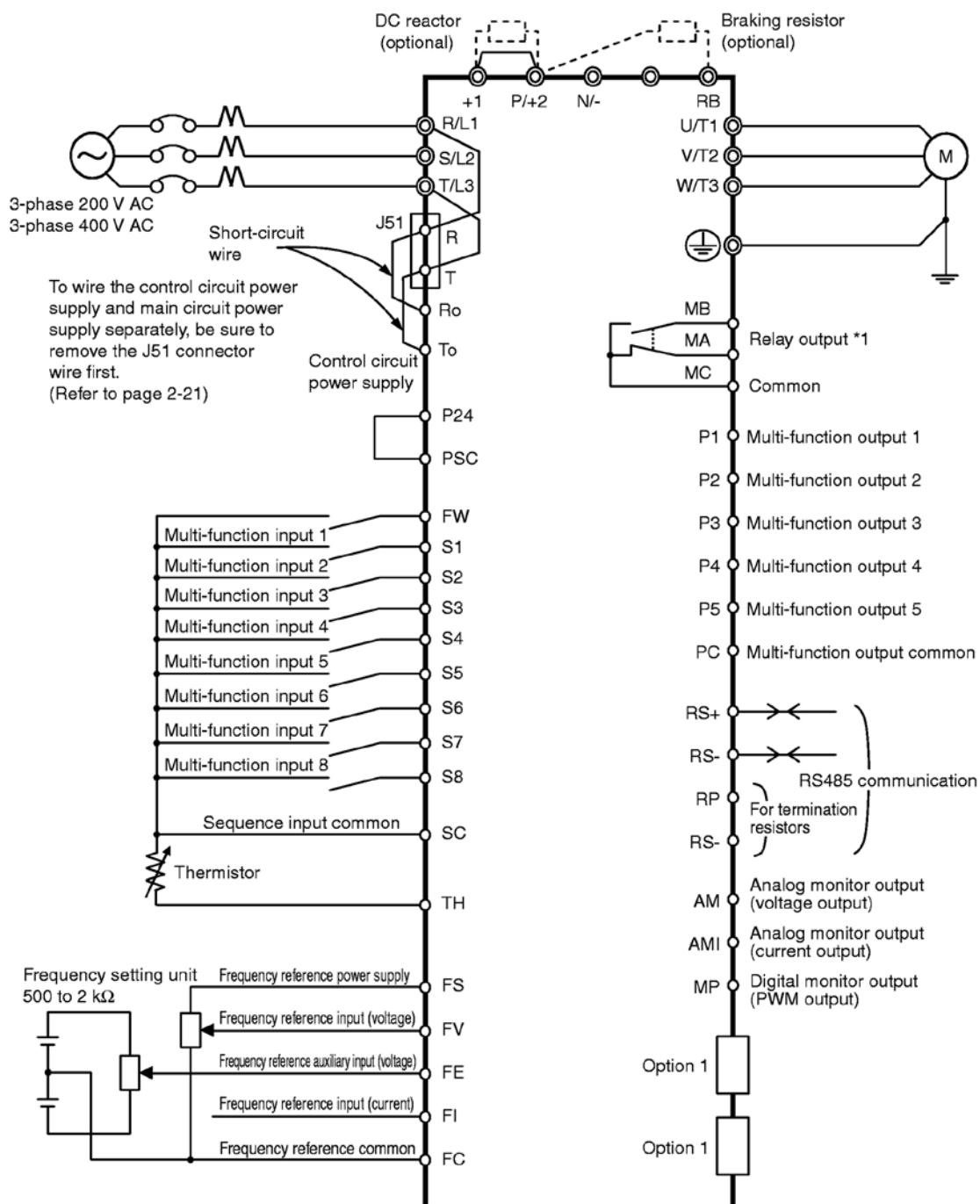


Figure 5



Standard Connections

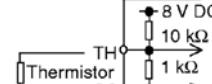


*1. By default, MA is set to NC contact, and MB to NO contact in the relay output (MA, MB) contact selection (C036).

Main Circuit Terminals

| Terminal symbol | Terminal name | Description |
|------------------|---|---|
| R/L1, S/L2, T/L3 | Main power supply input terminal | Connect the input AC power supply. |
| U/T1, V/T2, W/T3 | Inverter output terminal | Used to connect a 3-phase motor. |
| +1, P/+2 | DC Reactor connection terminal | Remove the shorting bar between terminals +1 and P/+2, and connect the optional DC reactor. |
| P/+2, RB | Braking Resistor connection terminal | Connect optional braking resistors. (If a braking torque is required.) The RB terminal is provided for the Inverters with 22 kW (30 HP) or lower capacity. |
| P/+2, N/- | Regenerative Braking unit connection terminal | Connect optional regenerative braking units. (When braking torque is required or the built-in braking circuit is not sufficient.) |
| (Ground symbol) | Ground terminal | This is a ground terminal. Connect this terminal to the ground. Provide Class D grounding for 200 V class models, and class C grounding for 400 V class models. |

Control Circuit Terminals

| Analog | Frequency reference input | FS | Frequency reference power supply output | +10 V DC power supply for the FV terminal. | Allowable load current: 20 mA max. |
|-------------------|---------------------------|--|---|--|---|
| | | FV | Frequency reference input (Voltage directive) | With a 0 to 10 V DC voltage input, the frequency reaches the maximum at 10 V. Set at A014 if the maximum frequency needs to be achieved at lower than 10 V. | Input impedance 10 kΩ Allowable input voltage range: -0.3 to +12 V DC |
| | | FE | Auxiliary frequency reference input (Voltage directive) | With a 0 to ±10 V DC voltage input, the FE signal is added to the frequency reference signal of the FV or FI terminal. By changing the setting, the frequency reference can be input even with the FE terminal independently. | Input impedance 10 kΩ Allowable input voltage range: 0 to ±12 V DC |
| | | FI | Frequency reference input (Current directive) | With a 4 to 20 mA DC current input, the maximum frequency is set at 20 mA. The FI signal is only active when the AT terminal is ON. Allocate the AT function to the multifunction input terminal. | Input impedance 100 Ω Allowable max. current: 24 mA |
| | | FC | Frequency reference common | Common terminal for the frequency setting signals (FV, FE and FI) and the analog output terminals (AM and AMI). Do not connect this terminal to the ground. | - |
| | Monitor output | AM | Multi-function analog output (Voltage) | This terminal outputs a signal selected from the "0 to 10 V DC Voltage Output" monitor items: Output frequency, Output current, Output torque (with/without sign), Output voltage, Input power, Electronic thermal load rate, LAD frequency, Motor temperature, and Fin temperature. | Allowable max. current: 2 mA |
| | | AMI | Multi-function analog output (Current) | This terminal outputs a signal selected from the "4 to 20 mA DC Current Output" monitor items: Output frequency, Output current, Output torque (without sign), Output voltage, Input power, Electronic thermal load rate, LAD frequency, Motor temperature, and Fin temperature. | Allowable load impedance: 250 Ω max. |
| Digital (contact) | Monitor output | MP | Multi-function digital output | This terminal outputs a signal selected from the "0 to 10 V DC Voltage Output (PWM)" monitor items: Output frequency, Output current, Output torque (without sign), Output voltage, Input power, Electronic thermal load rate, LAD frequency, Motor temperature, Fin temperature, Digital output frequency, and Digital current monitor. "Digital output frequency", and "Digital current monitor" output a digital pulse at 0/10 V DC pulse voltage and 50% duty ratio. | Allowable max. current: 1.2 mA Max. frequency: 3.6 kHz |
| | | P24 | Internal 24 V DC | 24 V DC power supply for contact input signal. When the source logic is selected, this terminal functions as the contact input common terminal. | Allowable max. output current: 100 mA |
| | Power supply | SC | Input common | Common terminal for the interface power supply P24 terminal, thermistor input TH terminal and digital monitor MP terminal. When the sink logic is selected, this terminal functions as the contact input common terminal. Do not connect this terminal to the ground. | - |
| | | FW | Forward rotation command terminal | When the FW signal is ON, the motor runs forward. When it is OFF, the motor decelerates and stops. | [Contact input ON condition] Voltage between each input terminal and the PSC terminal: 18 V DC or more Input impedance between each input terminal and the PSC terminal: 4.7 kΩ Allowable max. voltage: Voltage between each input terminal and the PSC terminal: 27 V DC Load current at 27 V DC power supply voltage: Approx. 5.6 mA |
| | Contact input | S1 S2 S3 S4 S5 S6 S7 S8 | Multi-function input | Select 8 functions from among the 61 functions and allocate them to terminals S1 to S8. Note: Only terminals S1 and S3 can be used for the emergency shutoff function. | [Contact input ON condition] Voltage between each input terminal and the PSC terminal: 18 V DC or more Input impedance between each input terminal and the PSC terminal: 4.7 kΩ Allowable max. voltage: Voltage between each input terminal and the PSC terminal: 27 V DC Load current at 27 V DC power supply voltage: Approx. 5.6 mA |
| | | | | The sink and source logic for contact input can be switched by connecting a short-circuit bar on the control terminal block. Short-circuiting P24 and SC → Sink logic, Short-circuiting SC and PSC → Source logic To activate contact input via an external power supply, remove the short-circuit bar and connect PSC terminal to the external interface circuit. | |
| | Open collector output | P1 P2 P3 P4 P5 | Multi-function output | Select 5 functions from among 45, and allocate them to terminals P1 through P5. If an alarm code is selected in C062, terminals P1 to P3, or terminals P1 to P4 always output an alarm factor code (e.g. Inverter trip). The signal between each terminal and PC always corresponds to the sink or source logic. | Between each terminal and PC Voltage drop 4 V max. at power-on Max. allowable voltage: 27 V DC Max. allowable current: 50 mA |
| | | | PC | Multi-function output common | |
| | Relay output | MA MB | Relay output | Select the desired functions from among 45 functions, and allocate them. SPDT contact output. By factory default, the relay output (MA, MB) contact selection (C036) is set at NC contact between MA-MC, and NO contact between MBMC. | Contact max. capacity MA-MC 250 V AC, 2 A (Resistance) 0.2 A (Induction) MB-MC 250 V AC, 1 A (Resistance) 0.2 A (Induction) Contact min. capacity 100 V AC, 10 mA 5 V DC, 100 mA |
| | | | MC | Relay output common | |
| Analog | Analog input | Sensor | TH | External thermistor input terminal Connect an external thermistor to this terminal, to trip the Inverter when a temperature error occurs. The SC terminal functions as the common terminal. [Recommended thermistor characteristics] Allowable rated power: 100 mW min. Impedance at temperature error: 3 kΩ Temperature error detection level is adjustable between 0 and 9999 °Ω. | Allowable input voltage range 0 to 8 V DC [Input circuit]  |

Heat Loss and Braking Units

Three-phase 200 V class

| Model 3G3RX-□-V1 | | A2004 | A2007 | A2015 | A2022 | A2037 | A2055 | A2075 | A2110 | A2150 | A2185 | A2220 | A2300 | A2370 | A2450 | A2550 |
|----------------------------|---------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Inverter capacity kVA | 200 V | 1.0 | 1.7 | 2.5 | 3.6 | 5.7 | 8.3 | 11.0 | 15.9 | 22.1 | 26.3 | 32.9 | 41.9 | 50.2 | 63.0 | 76.2 |
| | 240 V | 1.2 | 2.0 | 3.1 | 4.3 | 6.8 | 9.9 | 13.3 | 19.1 | 26.6 | 31.5 | 39.4 | 50.2 | 60.2 | 75.6 | 91.4 |
| Rated current (A) | | 3.0 | 5.0 | 7.5 | 10.5 | 16.5 | 24 | 32 | 46 | 64 | 76 | 95 | 121 | 145 | 182 | 220 |
| Heat loss W | Losses at 70% load | 64 | 76 | 102 | 127 | 179 | 242 | 312 | 435 | 575 | 698 | 820 | 1100 | 1345 | 1625 | 1975 |
| | Losses at 100% load | 70 | 88 | 125 | 160 | 235 | 325 | 425 | 600 | 800 | 975 | 1150 | 1550 | 1900 | 2300 | 2800 |
| Efficiency at rated output | | 85.1 | 89.5 | 92.3 | 93.2 | 94.0 | 64.4 | 94.6 | 94.8 | 94.9 | 95.0 | 95.0 | 95.0 | 95.1 | 95.1 | 95.1 |
| Cooling method | | Forced-air-cooling | | | | | | | | | | | | | | |

Three-phase 400 V class

| Model 3G3RX-□-V1 | | A4004 | A4007 | A4015 | A4022 | A4037 | A4055 | A4075 | A4110 | A4150 | A4185 | A4220 | A4300 | A4370 | A4450 | A4550 | B4750 | B4900 | B411K | B413K |
|----------------------------|---------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Inverter capacity kVA | 400 V | 1.0 | 1.7 | 2.5 | 3.6 | 6.2 | 9.7 | 13.1 | 17.3 | 22.1 | 26.3 | 33.2 | 40.1 | 51.9 | 63.0 | 77.6 | 103.2 | 121.9 | 150.3 | 180.1 |
| | 480 V | 1.2 | 2.0 | 3.1 | 4.3 | 7.4 | 11.6 | 15.8 | 20.7 | 26.6 | 31.5 | 39.9 | 48.2 | 62.3 | 75.6 | 93.1 | 123.8 | 146.3 | 180.4 | 216.1 |
| Rated current (A) | | 1.5 | 2.5 | 3.8 | 5.3 | 9.0 | 14 | 19 | 25 | 32 | 38 | 48 | 58 | 75 | 91 | 112 | 149 | 176 | 217 | 260 |
| Heat loss W | Losses at 70% load | 64 | 76 | 102 | 127 | 179 | 242 | 312 | 435 | 575 | 698 | 820 | 1100 | 1345 | 1625 | 1975 | 2675 | 3375 | 3900 | 4670 |
| | Losses at 100% load | 70 | 88 | 125 | 160 | 235 | 325 | 425 | 600 | 800 | 975 | 1150 | 1550 | 1900 | 2300 | 2800 | 3800 | 4800 | 5550 | 6650 |
| Efficiency at rated output | | 85.1 | 89.5 | 92.3 | 93.2 | 94.0 | 64.4 | 94.6 | 94.8 | 94.9 | 95.0 | 95.0 | 95.0 | 95.1 | 95.1 | 95.1 | 95.2 | 95.2 | 95.2 | 95.2 |
| Cooling method | | Forced-air-cooling | | | | | | | | | | | | | | | | | | |

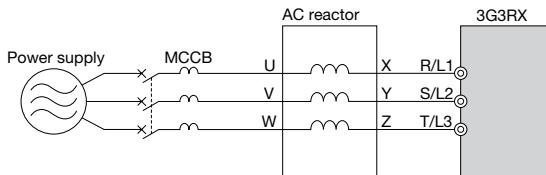
Braking Unit

| Voltage | Model 3G3AX-□ | Specifications | | | | | | | | Minimum connectable resistor (Ohms) | |
|---------|---------------|----------------|-------------------|---------------|-------------------|--|--|--|--|-------------------------------------|--|
| | | Permanent | | Peak (5s max) | | | | | | | |
| | | Current (A) | Brake power (kVA) | Current (A) | Brake power (kVA) | | | | | | |
| 200 V | BCR2035090-TE | 35 | 13 | 90 | 32 | | | | | 4 | |
| | BCR2070130-TE | 70 | 25 | 130 | 47 | | | | | 2.8 | |
| 400 V | BCR4015045-TE | 15 | 11 | 45 | 33 | | | | | 16 | |
| | BCR4017068-TE | 17 | 13 | 68 | 51 | | | | | 11 | |
| | BCR4035090-TE | 35 | 26 | 90 | 67 | | | | | 8.5 | |
| | BCR4070130-TE | 70 | 52 | 130 | 97 | | | | | 5.5 | |
| | BCR4090240-TE | 90 | 67 | 240 | 180 | | | | | 3.2 | |

Reactors

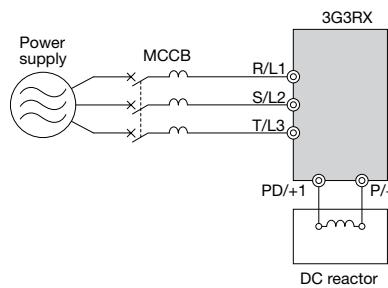
Input AC Reactor

| 3-phase 200 V class | | | | 3-phase 400 V class | | | |
|--------------------------------|----------------|---------------|---------------|--------------------------------|----------------|---------------|---------------|
| Max. applicable motor output | Model 3G3AX-□ | Current value | Inductance mH | Max. applicable motor output | Model 3G3AX-□ | Current value | Inductance mH |
| 0.4 to 1.5 kW (1/8 to 2 HP) | RAI02800100-DE | 10.0 A | 2.8 | 0.4 to 1.5 kW (1/2 to 2 HP) | RAI07700050-DE | 5.0 A | 7.7 |
| 2.2 to 3.7 kW (3 to 5 HP) | RAI00880200-DE | 20.0 A | 0.88 | 2.2 to 3.7 kW (3 to 5 HP) | RAI03500100-DE | 10.0 A | 3.5 |
| 5.5 to 7.5 kW (7 1/2 to 10 HP) | RAI00350335-DE | 33.5 A | 0.35 | 5.5 to 7.5 kW (7 1/2 to 10 HP) | RAI01300170-DE | 17.0 A | 1.3 |
| 11 to 15 kW (15 to 20 HP) | RAI00180670-DE | 67.0 A | 0.18 | 11 to 15 kW (15 to 20 HP) | RAI00740335-DE | 33.5 A | 0.74 |
| 18.5 to 22 kW (25 to 30 HP) | RAI00091000-DE | 100.0 A | 0.09 | 18.5 to 22 kW (25 to 30 HP) | RAI00360500-DE | 50.0 A | 0.36 |
| 30 to 37 kW (40 to 50 HP) | RAI00071550-DE | 155.0 A | 0.07 | 30 to 37 kW (40 to 50 HP) | RAI00290780-DE | 78.0 A | 0.29 |
| 45 to 55 kW (60 to 75 HP) | RAI00042300-DE | 230.0 A | 0.04 | 45 to 55 kW (60 to 75 HP) | RAI00191150-DE | 115.0 A | 0.19 |



DC Reactor

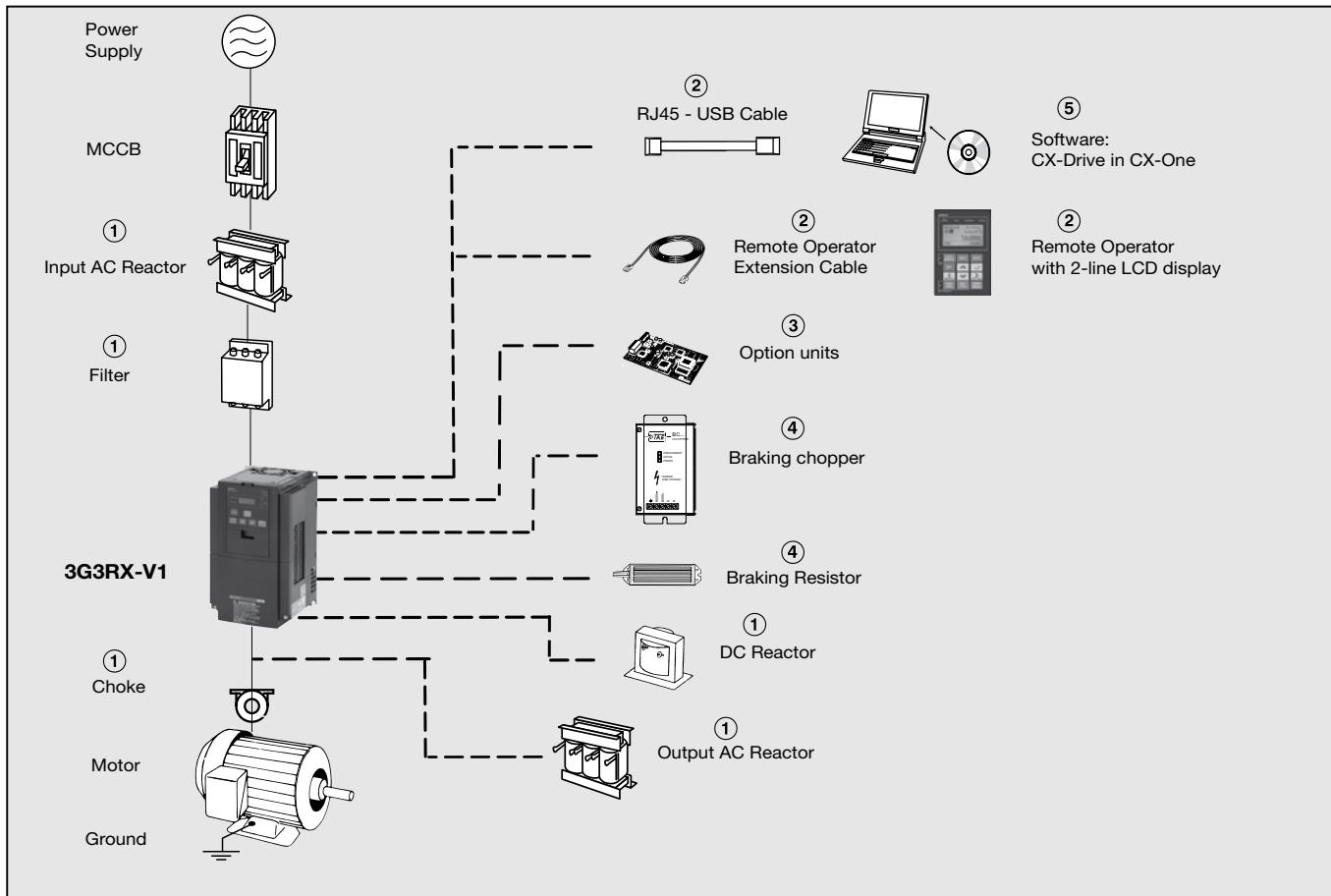
| 200 V class | | | | 400 V class | | | |
|------------------------------|---------------|---------------|---------------|------------------------------|---------------|---------------|---------------|
| Max. applicable motor output | Model 3G3AX-□ | Current value | Inductance mH | Max. applicable motor output | Model 3G3AX-□ | Current value | Inductance mH |
| 0.4 kW (1/2 HP) | RC10700032-DE | 3.2 A | 10.7 | 0.4 kW (1/2 HP) | RC43000020-DE | 2.0 A | 43 |
| 0.75 kW (1 HP) | RC06750061-DE | 6.1 A | 6.75 | 0.75 kW (1 HP) | RC27000030-DE | 3.0 A | 27 |
| 1.5 kW (2 HP) | RC03510093-DE | 9.3 A | 3.51 | 1.5 kW (2 HP) | RC14000047-DE | 4.7 A | 14 |
| 2.2 kW (3 HP) | RC02510138-DE | 13.8 A | 2.51 | 2.2 kW (3 HP) | RC10100069-DE | 6.9 A | 10.1 |
| 3.7 kW (5 HP) | RC01600223-DE | 22.3 A | 1.6 | 3.7 kW (5 HP) | RC06400116-DE | 11.6 A | 6.4 |
| 5.5 kW (7 1/2 HP) | RC01110309-DE | 30.9 A | 1.11 | 5.5 kW (7 1/2 HP) | RC04410167-DE | 16.7 A | 4.41 |
| 7.5 kW (10 HP) | RC00840437-DE | 43.7 A | 0.84 | 7.5 kW (10 HP) | RC03350219-DE | 21.9 A | 3.35 |
| 11.0 kW (15 HP) | RC00590614-DE | 61.4 A | 0.59 | 11.0 kW (15 HP) | RC02330307-DE | 30.7 A | 2.33 |
| 15.0 kW (20 HP) | RC00440859-DE | 85.9 A | 0.44 | 15.0 kW (20 HP) | RC01750430-DE | 43.0 A | 1.75 |
| 18.5 to 22 kW (25-30 HP) | RC00301275-DE | 127.5 A | 0.3 | 18.5 to 22 kW (25-30 HP) | RC01200644-DE | 64.4 A | 1.2 |
| 30 kW (40 HP) | RC00231662-DE | 166.2 A | 0.23 | 30 kW (40 HP) | RC00920797-DE | 79.7 A | 0.92 |
| 37 kW (50 HP) | RC00192015-DE | 201.5 A | 0.19 | 37 kW (50 HP) | RC00741042-DE | 104.2 A | 0.74 |
| 45 kW (60 HP) | RC00162500-DE | 250.0 A | 0.16 | 45 kW (60 HP) | RC00611236-DE | 123.6 A | 0.61 |
| 55 kW (75 HP) | RC00133057-DE | 305.7 A | 0.13 | 55 kW (75 HP) | RC00501529-DE | 152.9 A | 0.5 |



Output AC Reactor

| 200 V class | | | | 400 V class | | | |
|------------------------------|----------------|---------------|---------------|------------------------------|----------------|---------------|---------------|
| Max. applicable motor output | Model 3G3AX-□ | Current value | Inductance mH | Max. applicable motor output | Model 3G3AX-□ | Current value | Inductance mH |
| 0.4 kW (1/2 HP) | RAO11500026-DE | 2.6 A | 11.5 | 0.4 to 1.5 kW (1/2 to 2 HP) | RAO16300038-DE | 3.8 A | 16.3 |
| 0.75 kW (1 HP) | RAO07600042-DE | 4.2 A | 7.6 | 2.2 kW (3 HP) | RAO11800053-DE | 5.3 A | 11.8 |
| 1.5 kW (2 HP) | RAO04100075-DE | 7.5 A | 4.1 | 4.0 kW (5 HP) | RAO07300080-DE | 8 A | 7.3 |
| 2.2 kW (3 HP) | RAO03000105-DE | 10.5 A | 3 | 5.5 kW (7 1/2 HP) | RAO04600110-DE | 11 A | 4.6 |
| 3.7 kW (5 HP) | RAO01830160-DE | 16 A | 1.83 | 7.5 kW (10 HP) | RAO03600160-DE | 16 A | 3.6 |
| 5.5 kW (7 1/2 HP) | RAO01150220-DE | 22 A | 1.15 | 11 kW (15 HP) | RAO02500220-DE | 22 A | 2.5 |
| 7.5 kW (10 HP) | RAO00950320-DE | 32 A | 0.95 | 15 kW (20 HP) | RAO02500220-DE | 32 A | 2 |
| 11 kW (15 HP) | RAO00630430-DE | 34 A | 0.63 | | | | |
| 15 kW (20 HP) | RAO00490640-DE | 64 A | 0.49 | | | | |

Ordering Information



3G3RX-V1 AC Drives

| Voltage class | Specifications | | | Model 3G3RX-□-V1 | Specifications | | | Model 3G3RX-□-V1 | |
|----------------------|---------------------|-------|---------------|---------------------|----------------------|------|---------------|---------------------|-------|
| | Max. motor capacity | | Rated current | | Max. motor capacity | | Rated current | | |
| | kW | HP | A | | kW | HP | A | | |
| Three-phase 200 V | 0.4 | 1/2 | 3.0 | A2004 | Three-phase 400 V | 0.4 | 1/2 | 1.5 | A4004 |
| | 0.75 | 1 | 5.0 | A2007 | | 0.75 | 1 | 2.5 | A4007 |
| | 1.5 | 2 | 7.5 | A2015 | | 1.5 | 2 | 3.8 | A4015 |
| | 2.2 | 3 | 10.5 | A2022 | | 2.2 | 3 | 5.3 | A4022 |
| | 3.7 | 5 | 16.5 | A2037 | | 4.0 | 5 | 9.0 | A4037 |
| | 5.5 | 7 1/2 | 24 | A2055 | | 5.5 | 7 1/2 | 14 | A4055 |
| | 7.5 | 10 | 32 | A2075 | | 7.5 | 10 | 19 | A4075 |
| | 11 | 15 | 46 | A2110 | | 11 | 15 | 25 | A4110 |
| | 15 | 20 | 64 | A2150 | | 15 | 20 | 32 | A4150 |
| | 18.5 | 25 | 76 | A2185 | | 18.5 | 25 | 38 | A4185 |
| | 22 | 30 | 95 | A2220 | | 22 | 30 | 48 | A4220 |
| | 30 | 40 | 121 | A2300 | | 30 | 40 | 58 | A4300 |
| | 37 | 50 | 145 | A2370 | | 37 | 50 | 75 | A4370 |
| | 45 | 60 | 182 | A2450 | | 45 | 60 | 91 | A4450 |
| | 55 | 75 | 200 | A2550 | | 55 | 75 | 112 | A4550 |
| | - | - | - | - | | 75 | 100 | 149 | B4750 |
| | - | - | - | - | | 90 | 125 | 176 | B4900 |
| | - | - | - | - | | 110 | 150 | 217 | B411K |
| | - | - | - | - | | 132 | 200 | 260 | B413K |

Ordering Information

① Rasmi Line Filters

| 3-Phase 200 VAC | | | | | 3-Phase 400 VAC | | | | |
|---------------------------------------|---------------|-------------------|-------------------|-------------|---------------------------------------|---------------|-------------------|-------------------|-------------|
| Model 3G3RX-□-V1 | Model 3G3AX-□ | Rated current (A) | Leakage Nom / Max | Weight (kg) | Model 3G3RX-□-V1 | Model 3G3AX-□ | Rated current (A) | Leakage Nom / Max | Weight (kg) |
| A2004 / A2007 / A2015 / A2022 / A2037 | FIR2018-RE | 18 | 0.7/40 mA | 2.0 | A4004 / A4007 / A4015 / A4022 / A4037 | FIR3010-RE | 10 | 0.3/40 mA | 1.9 |
| A2055 / A2075 / A2110 | FIR2053-RE | 53 | 0.7/40 mA | 2.5 | A4055 / A4075 / A4110 | FIR3030-RE | 30 | 0.3/40 mA | 2.2 |
| A2150 / A2185 / A2220 | FIR2110-RE | 110 | 1.2/70 mA | 8.0 | A4150 / A4185 / A4220 | FIR3053-RE | 53 | 0.8/70 mA | 4.5 |
| A2300 | FIR2145-RE | 145 | 1.2/70 mA | 8.6 | A4300 | FIR3064-RE | 64 | 3/160 mA | 7.0 |
| A2370 / A2450 | FIR3250-RE | 250 | 6/300 mA | 13.0 | A4370 | FIR3100-RE | 100 | 2/130 mA | 8.0 |
| A2550 | FIR3320-RE | 320 | 6/300 mA | 13.2 | A4450 / A4550 | FIR3130-RE | 130 | 2/130 mA | 8.6 |
| - | | | | | A4750 / A4900 | FIR3250-RE | 250 | 10/500 mA | 13.0 |
| - | | | | | A411K / A413K | FIR3320-RE | 320 | 10/500 mA | 13.2 |

① Input AC Reactors

| 3-Phase 200 VAC | | 3-Phase 400 VAC | |
|---------------------------|----------------------|---------------------------|----------------------|
| Inverter Model 3G3RX-□-V1 | AC Reactor Model | Inverter Model 3G3RX-□-V1 | AC Reactor Model |
| A2004 / A2007 / A2015 | 3G3AX-RAI02800100-DE | A4004 / A4007 / A4015 | 3G3AX-RAI07700050-DE |
| A2022 / A2037 | 3G3AX-RAI00880200-DE | A4022 / A4037 | 3G3AX-RAI03500100-DE |
| A2055 / A2075 | 3G3AX-RAI00350335-DE | A4055 / A4075 | 3G3AX-RAI01300170-DE |
| A2110 / A2150 | 3G3AX-RAI00180670-DE | A4110 / A4150 | 3G3AX-RAI00740335-DE |
| A2185 / A2220 | 3G3AX-RAI00091000-DE | A4185 / A4220 | 3G3AX-RAI00360500-DE |
| A2300 / A2370 | 3G3AX-RAI00071550-DE | A4300 / A4370 | 3G3AX-RAI00290780-DE |
| A2450 / A2550 | 3G3AX-RAI00042300-DE | A4450 / A4550 | 3G3AX-RAI00191150-DE |

① DC Reactors

| 3-Phase 200 VAC | | 3-Phase 400 VAC | |
|---------------------------|---------------------|---------------------------|---------------------|
| Inverter Model 3G3RX-□-V1 | DC Reactor Model | Inverter Model 3G3RX-□-V1 | DC Reactor Model |
| A2004 | 3G3AX-RC01700032-DE | A4004 | 3G3AX-RC43000020-DE |
| A2007 | 3G3AX-RC06750061-DE | A4007 | 3G3AX-RC27000030-DE |
| A2015 | 3G3AX-RC03510093-DE | A4015 | 3G3AX-RC14000047-DE |
| A2022 | 3G3AX-RC02510138-DE | A4022 | 3G3AX-RC10100069-DE |
| A2037 | 3G3AX-RC01600223-DE | A4037 | 3G3AX-RC06400116-DE |
| A2055 | 3G3AX-RC01110309-DE | A4055 | 3G3AX-RC04410167-DE |
| A2075 | 3G3AX-RC00840437-DE | A4075 | 3G3AX-RC03350219-DE |
| A2110 | 3G3AX-RC00590614-DE | A4110 | 3G3AX-RC02330307-DE |
| A2150 | 3G3AX-RC00440859-DE | A4150 | 3G3AX-RC01750430-DE |
| A2185 / A2220 | 3G3AX-RC00301275-DE | A4185 / A4220 | 3G3AX-RC01200644-DE |
| A2300 | 3G3AX-RC00231662-DE | A4300 | 3G3AX-RC00920797-DE |
| A2370 | 3G3AX-RC00192015-DE | A4370 | 3G3AX-RC00741042-DE |
| A2450 | 3G3AX-RC00162500-DE | A4450 | 3G3AX-RC00611236-DE |
| A2550 | 3G3AX-RC00133057-DE | A4550 | 3G3AX-RC00501529-DE |

① Chokes

| Model | Diameter (mm) | Description |
|------------------|---------------|-----------------------------------|
| 3G3AX-FER2102-RE | 21 | For 2.2 kW (3 HP) motors or below |
| 3G3AX-FER2515-RE | 25 | For 15 kW (20 HP) motors or below |
| 3G3AX-FER5045-RE | 50 | For 45 kW (60 HP) motors or below |
| 3G3AX-FER6055-RE | 60 | For 55 kW (75 HP) motors or above |

① Output AC Reactor

| 3-Phase 200 VAC | | 3-Phase 400 VAC | |
|---------------------------|-------------------------|---------------------------|-------------------------|
| Inverter Model 3G3RX-□-V1 | Output AC Reactor Model | Inverter Model 3G3RX-□-V1 | Output AC Reactor Model |
| A2004 | 3G3AX-RAO11500026-DE | | |
| A2007 | 3G3AX-RAO07600042-DE | A4004 / A4007 / A4015 | 3G3AX-RAO16300038-DE |
| A2015 | 3G3AX-RAO04100075-DE | | |
| A2022 | 3G3AX-RAO03000105-DE | A4022 | 3G3AX-RAO11800053-DE |
| A2037 | 3G3AX-RAO01830160-DE | A4037 | 3G3AX-RAO07300080-DE |
| A2055 | 3G3AX-RAO01150220-DE | A4055 | 3G3AX-RAO04600110-DE |
| A2075 | 3G3AX-RAO00950320-DE | A4075 | 3G3AX-RAO03600160-DE |
| A2110 | 3G3AX-RAO00630430-DE | A4110 | 3G3AX-RAO02500220-DE |
| A2150 | 3G3AX-RAO00490640-DE | A4150 | 3G3AX-RAO02000320-DE |

Ordering Information

② Accessories

| Types | Model | Description | Functions |
|------------------|-------------------|---------------------------|--|
| Digital operator | 3G3AX-OP05 | LCD remote operator | 2 Line LCD remote operator with copy function, cable length max. 3m. |
| | 3G3AX-CAJOP300-EE | Remote operator cable | 3 meters cable for connecting remote operator |
| Accessories | 3G3AX-CONV1 | USB converter / USB cable | RJ45 to USB connection cable |

③ Option Boards

| Types | Model | Description | Functions |
|----------------------------|------------|---------------------------------|---|
| Encoder feedback | 3G3AX-PG01 | PG speed controller option card | Phase A,B and Z pulse (differential pulse) inputs (RS-422) Pulse train position command input (RS-422) Pulse monitor output (RS-422) PG frequency range: 100 kHz max |
| Communication option board | SJ-DN | DeviceNet option card | Used for running or stopping the inverter or give frequency reference through DeviceNet |
| | SJ-PB | Profibus option card | Used for running or stopping the inverter or give frequency reference through Profibus |
| Digital input | 3G3AX-DI01 | Digital input option card | Allows to set frequency reference from a digital selection |

④ Braking Unit, Braking Resistor Unit

| Single-/Three-Phase 200 V class | | | | Braking resistor unit | | | | | | |
|---------------------------------|---------------------|-------|----------------------------------|---|---------------|------------------|--|-------------------|------------------|-----|
| Model 3G3RX-□-V1 | Max. motor capacity | | Braking Unit Model 3G3AX-BCR□ | Inverter mounted type (3%ED, 10 sec max) | | Braking torque % | Inverter mounted type (10%ED, 10 sec max) | | Braking torque % | |
| | kW | HP | | Model 3G3AX-□ | Resistance Ω | | Model 3G3AX-□ | Resistance Ω | | |
| A2004 | 0.4 | 1/2 | Built-in | 50 | REM00K1200-IE | 200 | 180 | REM00K1200-IE | 200 | 180 |
| A2007 | 0.75 | 1 | | | | | 100 | REM00K2070-IE | 70 | 200 |
| A2015 | 1.5 | 2 | | 35 | REM00K2070-IE | 70 | 140 | REM00K4075-IE | 75 | 130 |
| A2022 | 2.2 | 3 | | | | | 90 | REM00K4035-IE | 35 | 180 |
| A2037 | 3.7 | 5 | | 16 | REM00K4075-IE | 75 | 50 | REM00K6035-IE | 35 | 100 |
| A2055 | 5.5 | 7 1/2 | | | | | 75 | REM00K9020-IE | 20 | 150 |
| A2075 | 7.5 | 10 | | 10 | REM00K4035-IE | 35 | 55 | REM01K9017-IE | 17 | 110 |
| A2110 | 11 | 15 | | | | | 35 | REM02K1017-IE | 17 | 75 |
| A2150 | 15 | 20 | | 7.5 | REM00K9017-IE | 17 | 55 | REM03K5010-IE | 10 | 95 |
| A2185 | 18.5 | 25 | | | | | 75 | REM19K0008-IE | 8 | 95 |
| A2220 | 22 | 30 | | 5 | REM03K5010-IE | 10 | 65 | | 8 | 80 |
| A2300 | 30 | 40 | 2035090-TE | 4 | - | - | - | REM19K0006-IE | 6 | 80 |
| A2370 | 37 | 50 | | | - | - | - | 6 | 60 | |
| A2450 | 45 | 60 | | 2.8 | - | - | - | 2 x REM19K0006-IE | 3 | 105 |
| A2550 | 55 | 75 | | | - | - | - | | 3 | 85 |

Ordering Information

④ Braking Unit, Braking Resistor Unit

| Three-phase 400 V class | | | | Braking resistor unit | | | | | | | | | | |
|-------------------------|------------------------|-------|-------------------------------------|-------------------------------------|---|-----------------|---------------------|--|-------------------|---------------------|-----|--|--|--|
| Model 3G3RX-□-V1 | Max. motor capacity | | Braking Unit Model 3G3AX-BCR□ | Connectable min. resistance Ω | Inverter mounted type (3%ED, 10 sec max) | | Braking torque % | Inverter mounted type (10%ED, 10 sec max) | | Braking torque % | | | | |
| | kW | HP | | | Model 3G3AX-□ | Resistance Ω | | Model 3G3AX-□ | Resistance Ω | | | | | |
| A4004 | 0.4 | 1/2 | Built-in | 100 | REM00K1400-IE | 400 | 200 | REM00K1400-IE | 400 | 200 | | | | |
| A4007 | 0.75 | 1 | | | REM00K1200-IE | 200 | 200 | | 200 | 200 | | | | |
| A4015 | 1.5 | 2 | | 70 | REM00K2200-IE | 200 | 130 | REM00K5120-IE | 120 | 200 | | | | |
| A4022 | 2.2 | 3 | | | REM00K2120-IE | 120 | 120 | REM00K6100-IE | 100 | 140 | | | | |
| A4037 | 3.7 | 5 | | 35 | REM00K4075-IE | 75 | 140 | REM00K9070-IE | 70 | 150 | | | | |
| A4055 | 5.5 | 7 1/2 | | | REM00K6100-IE | 100 | 50 | REM01K9070-IE | 70 | 110 | | | | |
| A4075 | 7.5 | 10 | | 24 | REM00K9070-IE | 70 | 55 | REM02K1070-IE | 70 | 75 | | | | |
| A4110 | 11 | 15 | | | REM03K5035-IE | 35 | 90 | REM19K0030-IE | 30 | 100 | | | | |
| A4150 | 15 | 20 | | | | 75 | 75 | | 85 | 85 | | | | |
| A4185 | 18.5 | 25 | | 20 | REM03K5035-IE | 35 | REM19K0030-IE | 30 | 100 | 105 | | | | |
| A4220 | 22 | 30 | | | | | | | | | | | | |
| A4300 | 30 | 40 | 4015045-TE | | | | | | | | | | | |
| A4370 | 37 | 50 | 4017068-TE | 11 | | | | | REM38K0012-IE | 15 | 125 | | | |
| A4450 | 45 | 60 | | | | | | | | | 100 | | | |
| A4550 | 55 | 75 | 4035090-TE | 8.5 | | | | | 2 x REM19K0020-IE | 10 | 100 | | | |
| B4750 | 75 | 100 | | | | | | | 3 x REM19K0030-IE | 10 | 75 | | | |
| B4900 | 90 | 125 | 4070130-TE | 5.5 | | | | | 2 x REM38K0012-IE | 6 | 105 | | | |
| B411K | 110 | 150 | 4090240-TE | 3.2 | | | | | 3 x REM38K0012-IE | 4 | 125 | | | |
| B413K | 132 | 200 | | | | | | | | | 105 | | | |

⑤ Computer Software

| Item | Description | Functions |
|----------|-------------------------------------|---|
| CX-Drive | AC Drive/Servo Programming software | Set, transfer and compare parameters; perform test runs and adjustment; perform monitoring and data tracing for Omron inverters and servos included in CX-One software. |
| CX-One | All-in-one Automation software | Program, configure and simulate operations for PLCs, HMIs, networks, motion control systems, temperature and process controllers. |

Note: Software runs on the following OS: Windows 2000 (Service Pack 3a or higher), XP, Vista or Windows 7.

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.

To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

Specifications are subject to change without notice.



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