

3G3RX AC Drives

Customized to your machine



» High motor-control performance

» Built-in know-how functionality

» Uncompromising Omron quality

High performance to match your application

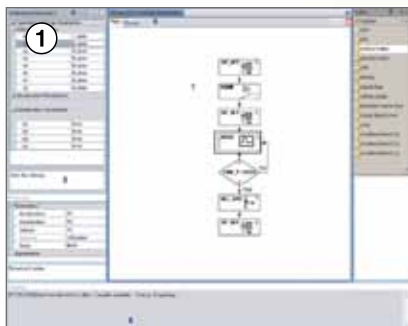
Omron realizes that you need quality and reliability, plus the ability to easily and quickly customize your inverter to the application at hand. And with the 3G3RX, you have the perfect tool for the job.

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:

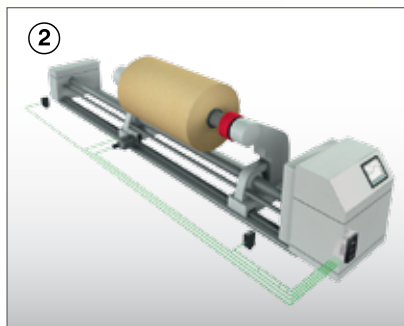
- Up to 132 kW (200 HP)
- Built-in EMC filter
- Sensor-less and vector closed-loop control
- High starting torque in open loop (200% at 0.3 Hz)
- Full torque at 0 Hz in closed loop
- Built-in logic programmability
- Built-in application functionality
- Automatic energy saving
- Micro-surge voltage suppression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





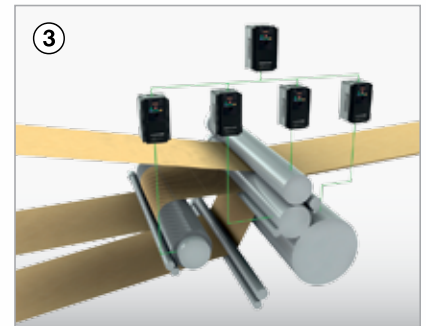
Customize your inverter

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.

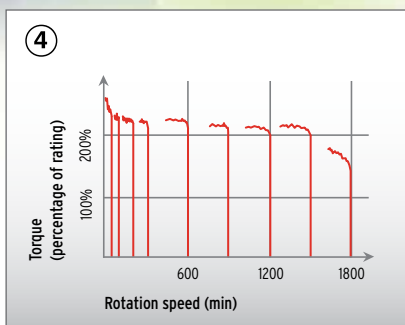
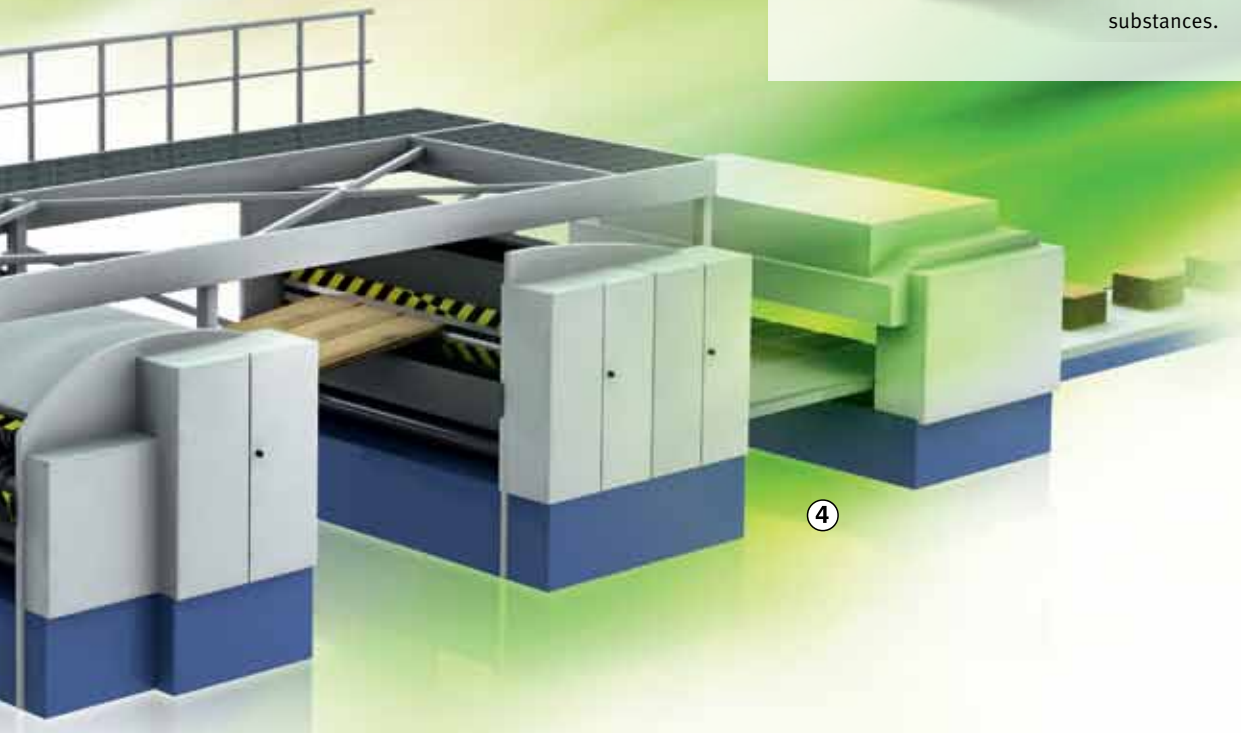
From high torque to
high motor efficiency...





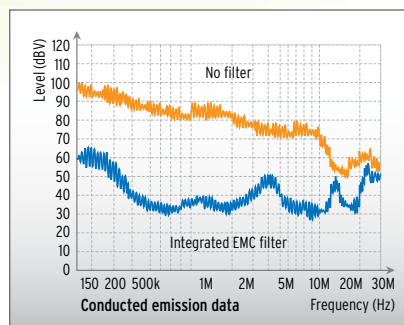
Reliability with environmental responsibility

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



Sensor-less vector control at 0 Hz domain

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



Cost and space saving filter

The 3G3RX 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 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

Customized to your machine

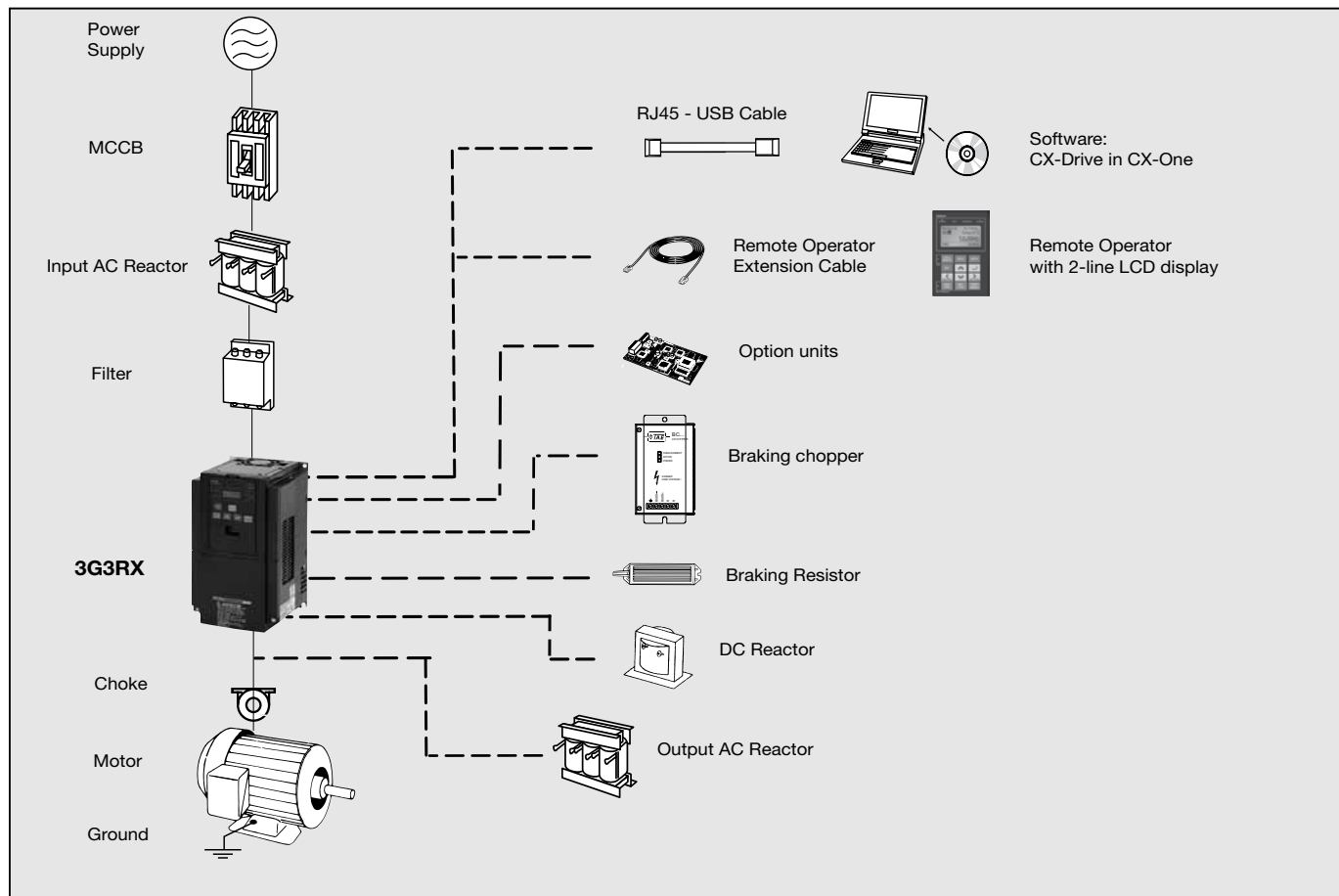
- Up to 132 kW (200 HP)
- High starting torque in open loop: 200% at 0.3 Hz
- Full torque at 0 Hz in closed loop
- Sensor-less and vector closed-loop control
- Built-in EMC filter
- Built-in logic programmability
- Built-in application functionality
- Positioning functionality
- Automatic energy saving
- 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)

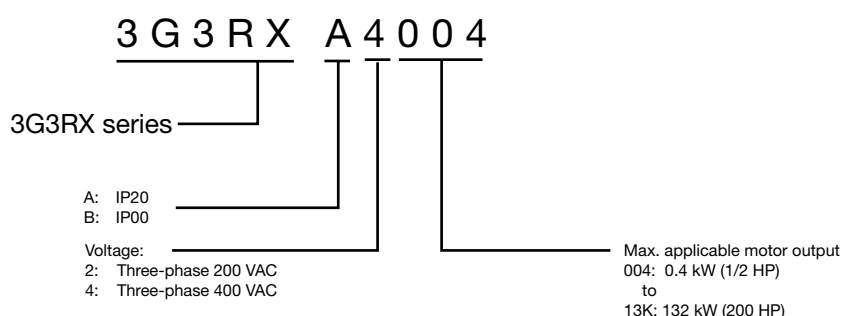


System Configuration



Specifications

Type Designation



200 V class

Three-phase 3G3RX-□			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-□			A4004	A4007	A4015	A4022	A4037	A4055	A4075	A4110	A4150	A4185	A4220	A4300	A4370	A4450	A4550	B4750	B4900	B411K	B413K	
Applicable motor capacity¹	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-□		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: $\pm 0.01\%$ of the max. frequency Analog set value: $\pm 0.2\%$ of the max. frequency (25 $\pm 10^{\circ}\text{C}$)
	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 (10K Ω), 4 to 20 mA (100 Ω), 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), MI1~MI7 (general purpose inputs for EzSQ), AHD (analog command hold), CP1~CP3 (multistageposition 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), Fin 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 (10K Ω), 4 to 20 mA (100 Ω)
	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
Protection functions	Overload	150% for 1 minute
	Overvoltage	800 V for 400 V type and 400 V for 200 V type
	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 conditions	Ambient humidity	90% RH or less (without condensation)
	Storage temperature	-20 $^{\circ}\text{C}$ to +65 $^{\circ}\text{C}$ (short-term temperature during transportation)
	Ambient temperature	-10 $^{\circ}\text{C}$ to 50 $^{\circ}\text{C}$
	Installation	Indoor (no corrosive gas, dust, etc.)
	Installation height	Max. 1000 m
	Vibration	3G3RX-A□004 to A□220, 5.9 m/s ² (0.6G), 10 to 55 Hz 3G3RX-A□300 to B□13K, 2.94 m/s ² (0.3G), 10 to 55 Hz

Dimensions

Figure 1

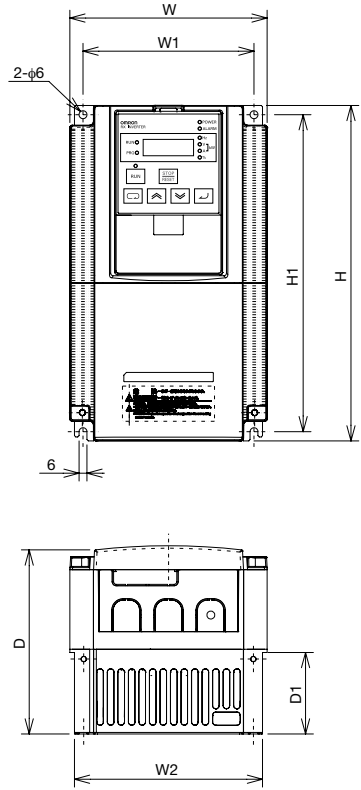


Figure 2

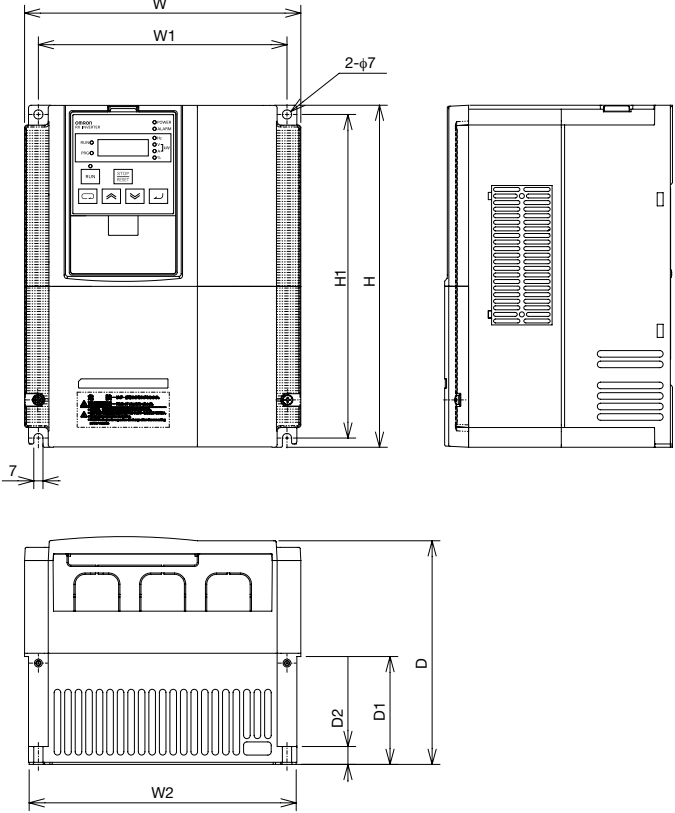


Figure 3

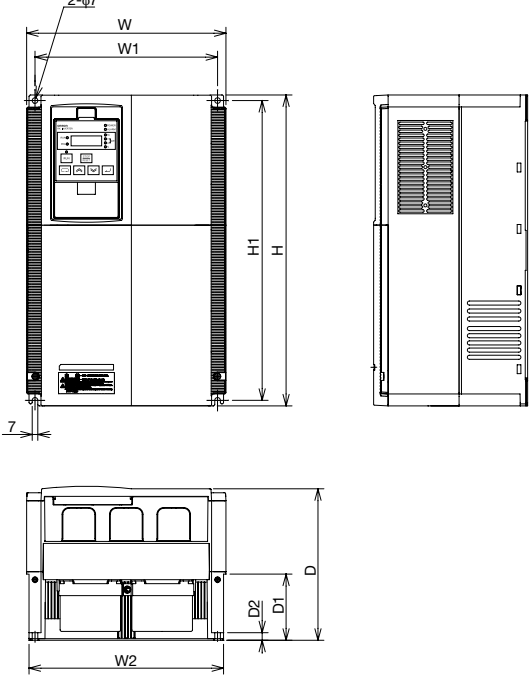
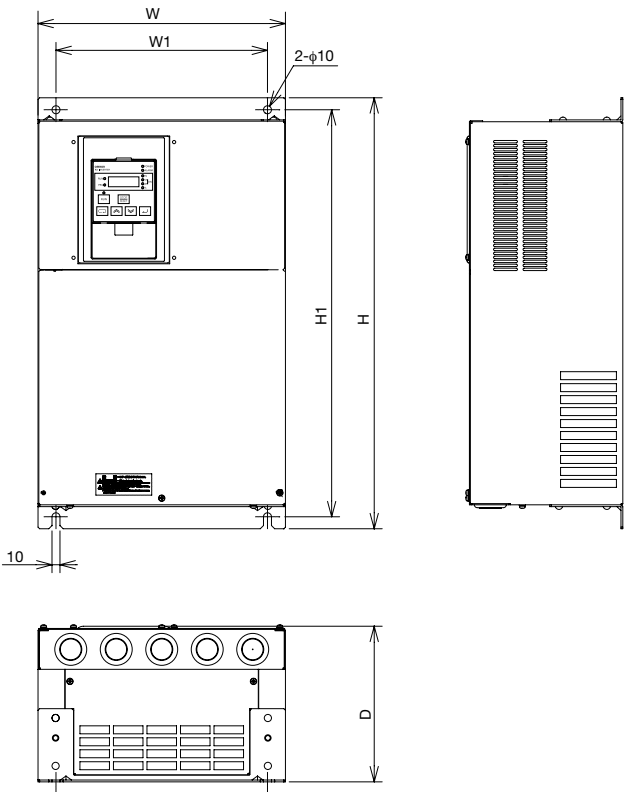
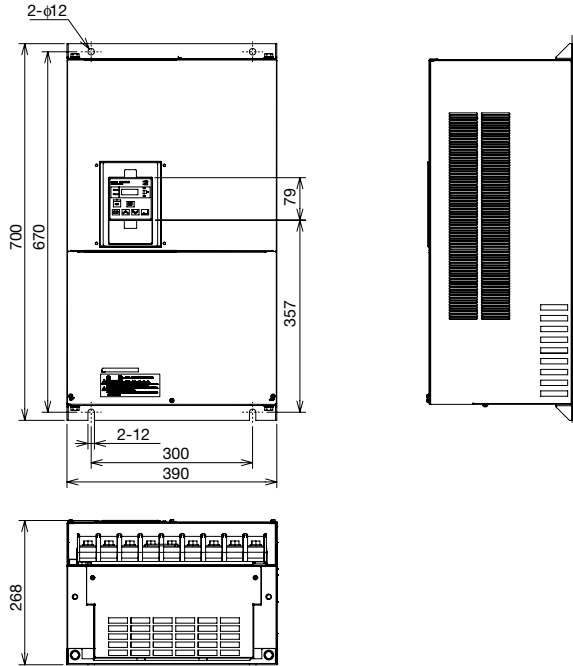


Figure 4



Dimensions

Figure 5



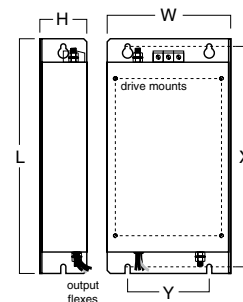
Voltage class	Inverter model 3G3RX-□	Figure	Dimensions (Unit: mm)								Weight (kg)
			W	W1	W2	H	H1	D	D1	D2	
Three-phase 200 V	A2004	1	150	130	143	255	241	140	62	-	3.5
	A2007										
	A2015										
	A2022										
	A2037	2	210	189	203	260	246	170	82	13.6	6
	A2055										
	A2075										
	A2110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

Dimensions

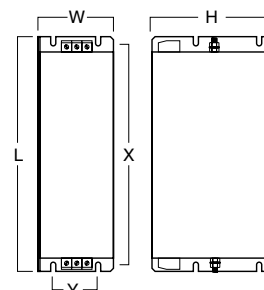
Rasmi Line Filters

Voltage	Inverter model	Line filter	Dimensions (Unit: mm)						Filter type	Weight (kg)							
			L	W	H	X	Y	M									
3x200 V	3G3RX-A2004	3G3AX-FIR2018-RE	305	125	45	290	110	M5	Footprint	2.0							
	3G3RX-A2007																
	3G3RX-A2015																
	3G3RX-A2022																
	3G3RX-A2037																
	3G3RX-A2055	3G3AX-FIR2053-RE	312	212	56	296	189	M6		2.5							
	3G3RX-A2075																
	3G3RX-A2110																
	3G3RX-A2150	3G3AX-FIR2110-RE	455	110	240	414	80	-	Book type	8.0							
	3G3RX-A2185																
	3G3RX-A2220									3G3AX-FIR2145-RE	8.6						
	3G3RX-A2300	3G3AX-FIR3250-RE	386	260	135	240	235	-	Block type	13							
3G3RX-A2370	13.2																
3G3RX-A2450																	
3G3RX-A2550	3G3AX-FIR3320-RE																
3x400 V	3G3RX-A4004	3G3AX-FIR3010-RE	305	125	45	290	110	M5	Footprint	1.9							
	3G3RX-A4007																
	3G3RX-A4015																
	3G3RX-A4022																
	3G3RX-A4037																
	3G3RX-A4055	3G3AX-FIR3030-RE	312	212	50	296	189	M6		2.2							
	3G3RX-A4075																
	3G3RX-A4110																
	3G3RX-A4150	3G3AX-FIR3053-RE	451	252	60	435	229	M6		4.5							
	3G3RX-A4185																
	3G3RX-A4220																
	3G3RX-A4300	3G3AX-FIR3064-RE	598	310	70	578	265	M8	7.0								
	3G3RX-A4370	3G3AX-FIR3100-RE								455	110	240	414	80	-	Book type	8.6
	3G3RX-A4450	3G3AX-FIR3130-RE															
	3G3RX-A4550																
	3G3RX-B4750	3G3AX-FIR3250-RE	386	260	135	240	235	-	Block type	13.0							
	3G3RX-B4900																
	3G3RX-B411K										3G3AX-FIR3320-RE	13.2					
3G3RX-B413K																	

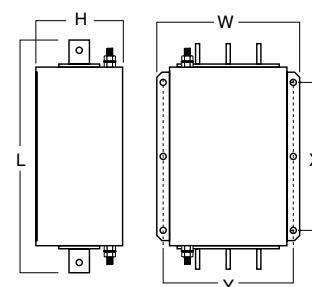
Footprint Dimensions



Book Type Dimensions



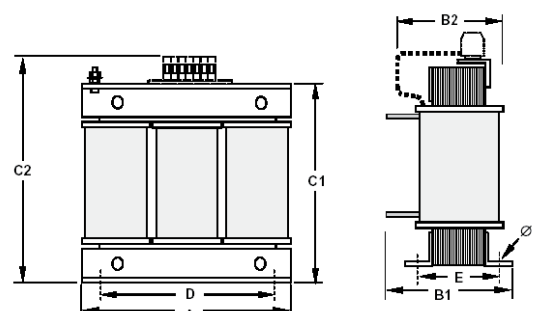
Block Type Dimensions



Dimensions

Input AC Reactor

Voltage class	Model 3G3AX-□	Dimensions (Unit: mm)								Weight (kg)
		A	B1	B2	C1	C2	D	E	F	
200 V	RAI02800100-DE	120	-	80	-	120	80	62	5.5	2.35
	RAI00880200-DE									
	RAI00350335-DE									
	RAI00180670-DE	180		85		190	140	55	6	5.5
	RAI00091000-DE									6.5
	RAI00071550-DE			105		205		85		11.7
400 V	RAI00042300-DE	240	130	-	210	-	200	75		16.0
	RAI07700050-DE			70				52		1.75
	RAI03500100-DE	120	-	80		120	80	62	5.5	2.35
	RAI01300170-DE									2.5
	RAI00740335-DE	180		85		190	140	55	6	5.5
	RAI00360500-DE									6.5
	RAI00290780-DE			105		205		85		11.7
	RAI00191150-DE	240		110		275	200	75		16.0



DC Reactor

Voltage class	Model 3G3AX-RC	Figure	Dimensions (Unit: mm)								Weight (kg)
			A	B	C	D	E	F	G	H	
3-Phase 200 VAC	21400016-DE	1	84	113	96	101	66	5	7.5	2	1.22
	10700032-DE				105						1.60
	06750061-DE				116						1.95
	03510093-DE										
	02510138-DE										
	01600223-DE										
	01110309-DE	2	120	152	136	135	94	7	9.5	-	3.20
	00840437-DE				146						5.20
	00590614-DE				160						6.00
	00440859-DE				182.6						11.4
	00301275-DE				161						14.3
	00231662-DE				196						17.0
	00192015-DE				188						25.5
	00162500-DE				200						34.0
3-Phase 400 VAC	00133057-DE	1	84	113	228	200	228	119	12	-	38.0
	43000020-DE				96						42.0
	27000030-DE				105						1.22
	14000047-DE				101						1.60
	10100069-DE				116						1.95
	06400116-DE	2	108	135	133	120	82	6.5	9.5	-	3.70
	04410167-DE				136						5.20
	03350219-DE				146						6.00
	02330307-DE				160						11.4
	01750430-DE				182.6						14.3
	01200644-DE				161						17.0
	00920797-DE				196						25.5
	00741042-DE				188						34.0
	00611236-DE	2	240	198	200	228	119	12	-	-	38.0
	00501529-DE				228						42.0

Figure 1

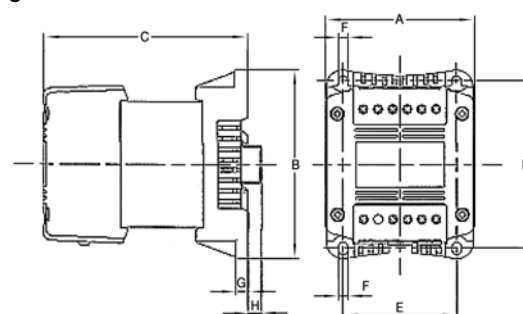
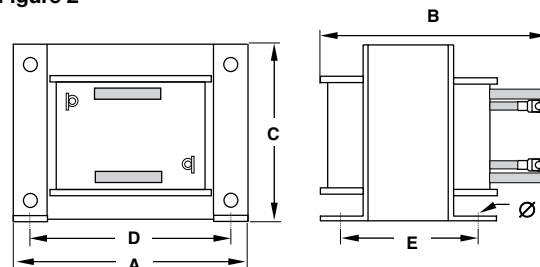
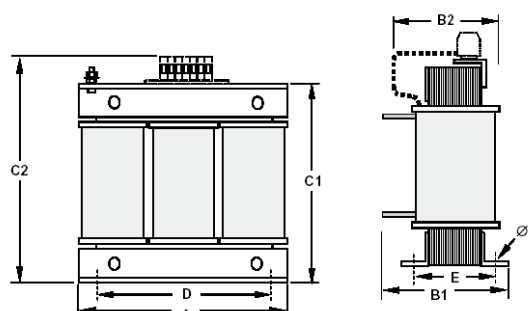


Figure 2



Output AC Reactor

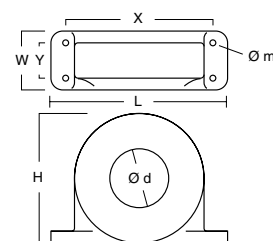
Model 3G3AX-□	Dimensions (Unit: mm)						Weight (kg)
	A	B2	C2	D	E	F	
RAO11500026-DE	120	70	120	80	52	5.5	1.78
RAO07600042-DE	120	70	120	80	52	5.5	1.78
RAO04100075-DE	120	80	120	80	62	5.5	2.35
RAO03000105-DE	120	80	120	80	62	5.5	2.35
RAO01830180-DE	180	85	190	140	55	6	5.5
RAO01150220-DE	180	85	190	140	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
RAO07300080-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

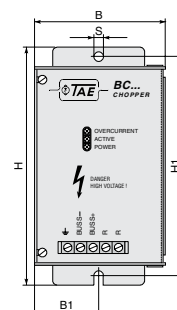
Chokes

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)					
	B	B1	H	H1	T	S
BCR4015045-TE	82.5	40.5	150	138	220	6
BCR4017068-TE						
BCR2035090-TE						
BCR2070130-TE	130	64.5	205	193	208	6
BCR4035090-TE						
BCR4070130-TE						
BCR4090240-TE	131	64.5	298	280	300	9



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								
3G3AX-REM00K2200-IE								
3G3AX-REM00K4075-IE		200	27	36	189	-		0.425
3G3AX-REM00K4035-IE								
3G3AX-REM00K4030-IE								
3G3AX-REM00K5120-IE	2	260	27	36	249	-		0.58
3G3AX-REM00K6100-IE		320	27	36	309	-		0.73
3G3AX-REM00K6035-IE								
3G3AX-REM00K9070-IE	3	200	62	100	74	-		1.41
3G3AX-REM00K9020-IE								
3G3AX-REM00K9017-IE								
3G3AX-REM01K9070-IE	4	365	73	105	350	70		4
3G3AX-REM01K9017-IE								
3G3AX-REM02K1070-IE		310	100	240	295	210		7
3G3AX-REM02K1017-IE	5	365	100	240	350	210		8
3G3AX-REM03K5035-IE								
3G3AX-REM03K5010-IE								
3G3AX-REM19K0006-IE	5	140	350	180	100	160		6
3G3AX-REM19K0008-IE								
3G3AX-REM19K0020-IE								
3G3AX-REM19K0030-IE								
3G3AX-REM38K0012-IE		240	350	180	200	160		11

3G3AX-REM00K1□□□

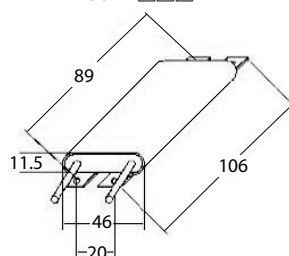


Figure 1

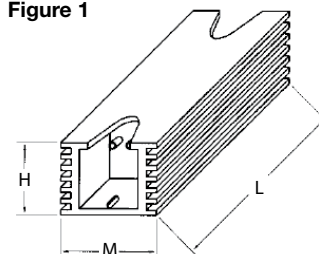


Figure 2

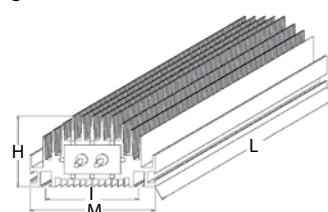


Figure 3

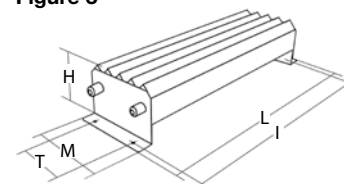


Figure 4

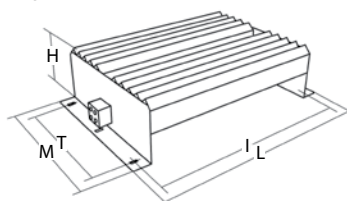
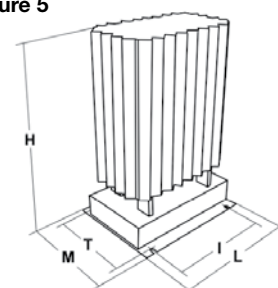
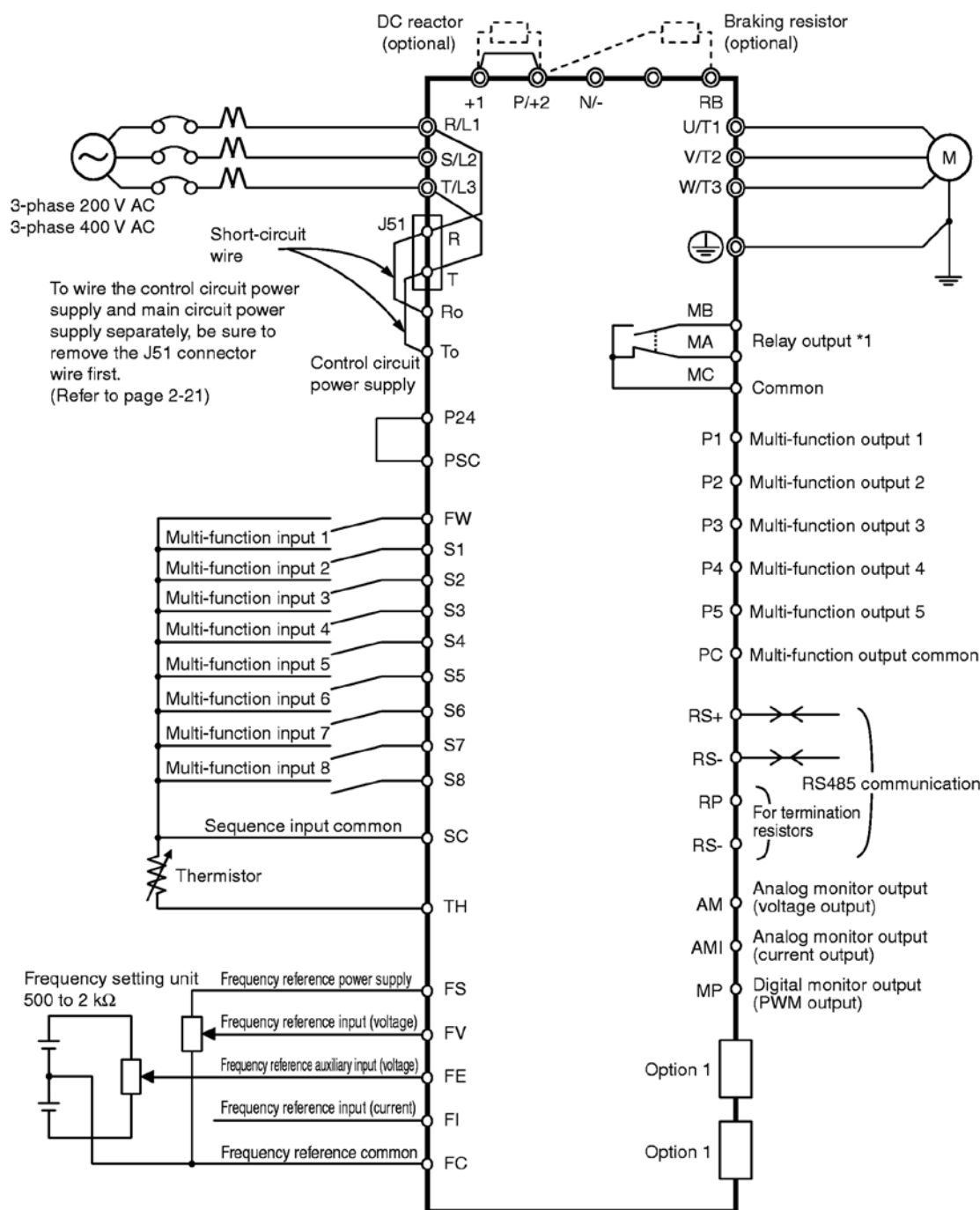


Figure 5



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 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.
	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.	–
Digital (contact)	Contact input	RUN command	FW	Forward rotation command terminal	When the FW signal is ON, the motor runs forward. When it is OFF, the motor decelerates and stops.
		Function / Selection	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.
			PSC	Multi-function input common	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	Status / Factor	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.
			PC	Multi-function output common	Common terminals for multi-function output terminals P1 to P5.
	Relay output	Status, alarm, etc.	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.
			MC	Relay output common	
	Relay output				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
	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.



Heat Loss and Braking Units

Three-phase 200 V class

Model 3G3RX-□		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-□		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																		

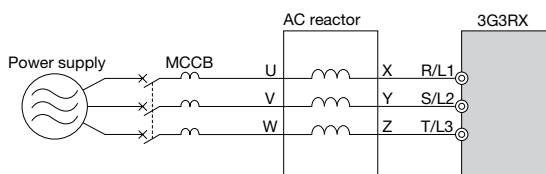
Braking Unit

Voltage	Model 3G3AX-□	Specifications				
		Permanent		Peak (5s max)		Minimum connectable resistor (Ohms)
		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

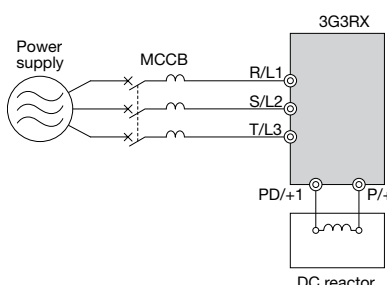
Input AC Reactor

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

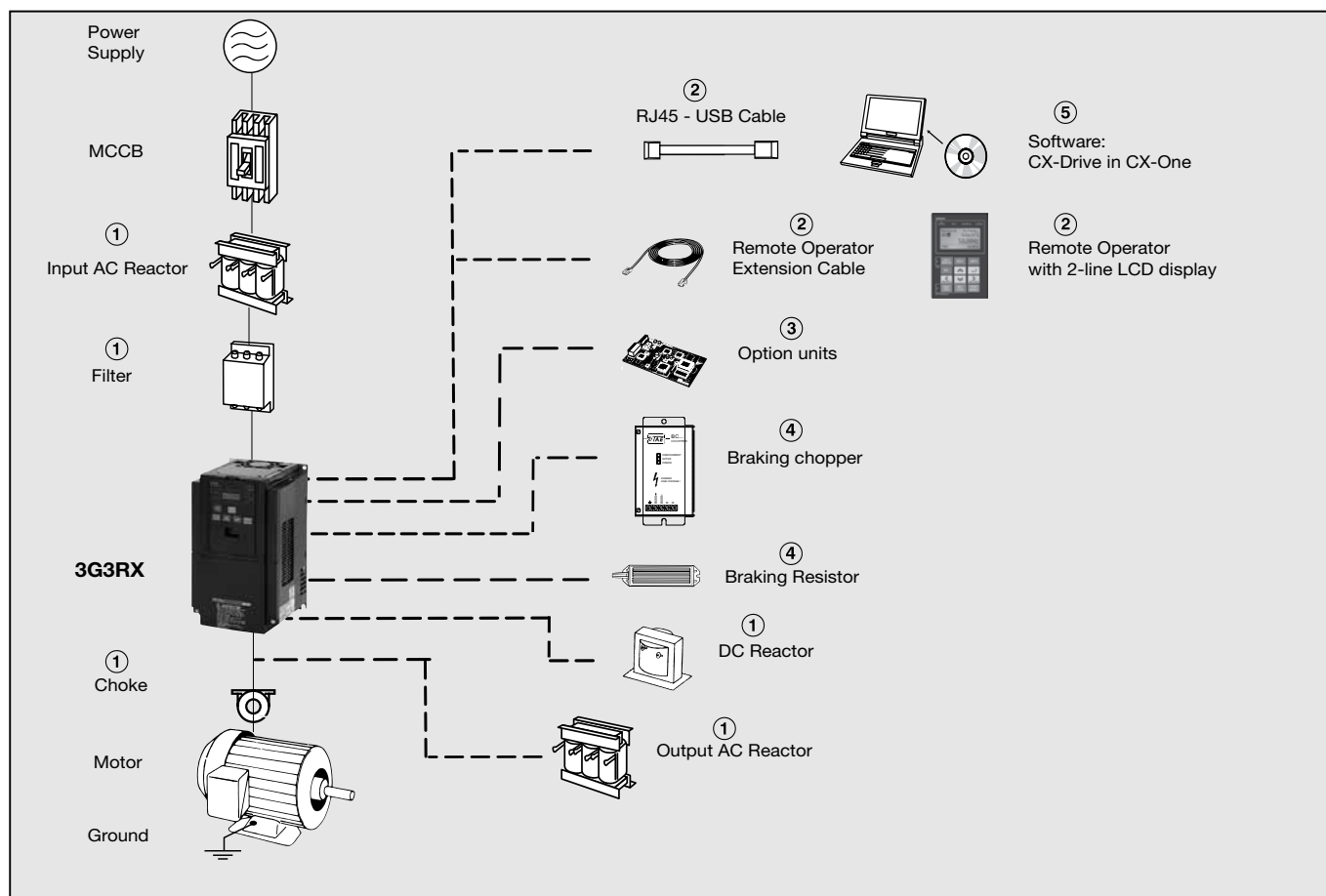
200 V class				400 V class			
Max. applicable motor output	Model 3G3AX-□	Current value	Inductance mH	Max. applicable motor output	Model 3G3AX-□	Current value	Inductance mH
0.4 kW (1/2 HP)	RC10700032-DE	3.2 A	10.7	0.4 kW (1/2 HP)	RC43000020-DE	2.0 A	43
0.75 kW (1 HP)	RC06750061-DE	6.1 A	6.75	0.75 kW (1 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 AC Drives

Specifications				Model 3G3RX-□	Specifications				Model 3G3RX-□
Voltage class	Max. motor capacity		Rated current		Voltage class	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-□	Model 3G3AX-□	Rated current (A)	Leakage Nom / Max	Weight (kg)	Model 3G3RX-□	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-□	AC Reactor Model	Inverter Model 3G3RX-□	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-□	DC Reactor Model	Inverter Model 3G3RX-□	DC Reactor Model
A2004	3G3AX-RC10700032-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-□	Output AC Reactor Model	Inverter Model 3G3RX-□	Output AC Reactor Model
A2004	3G3AX-RAO11500026-DE	A4004 / A4007 / A4015	3G3AX-RAO16300038-DE
A2007	3G3AX-RAO07600042-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-□	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	
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					40	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				80
A2300	30	40	2035090-TE	4	-	-	REM19K0006-IE	6	80	
A2370	37	50			-	-		6	60	
A2450	45	60	2070130-TE	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-□	Max. motor capacity		Braking Unit Model	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					200			200
A4015	1.5	2			REM00K1200-IE	200	190	REM00K2200-IE	200	190
A4022	2.2	3			REM00K2200-IE	200	130	REM00K5120-IE	120	200
A4037	3.7	5		70	REM00K2120-IE	120	120	REM00K6100-IE	100	140
A4055	5.5	7 1/2			REM00K4075-IE	75	140	REM00K9070-IE	70	150
A4075	7.5	10		35			100	REM01K9070-IE	70	110
A4110	11	15			REM00K6100-IE	100	50	REM02K1070-IE	70	75
A4150	15	20		24	REM00K9070-IE	70	55	REM03K5035-IE	35	110
A4185	18.5	25			REM03K5035-IE	35	90			100
A4220	22	30		20			75	REM19K0030-IE	30	85
A4300	30	40	4015045-TE	16				REM19K0020-IE	20	95
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						125
B413K	132	200						3 x REM38K0012-IE	4	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.