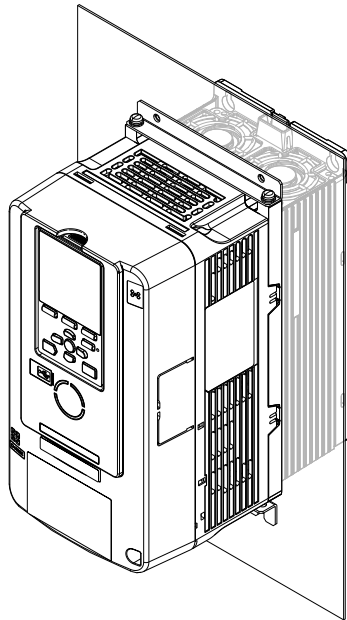


YASKAWA AC Drive GA700/GA800/CH700/CR700/LA700/  
ES700

## External Heatsink Installation Installation Manual

To properly use the product, read this manual thoroughly and retain for easy reference, inspection, and maintenance. Ensure the end user receives this manual.



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## Table of Contents

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1.	Receiving . . . . .	4
	Applicable Documentation . . . . .	4
	Glossary . . . . .	4
2.	General Safety . . . . .	4
	Supplemental Safety Information . . . . .	4
	Section Safety . . . . .	5
3.	Overview . . . . .	5
	Compatible Products . . . . .	5
4.	Receiving . . . . .	6
	Option Package Contents . . . . .	6
5.	Install the Attachment . . . . .	6
	Necessary Tools . . . . .	6
	Drive Mounting Dimensions and Panel Cut-out Dimensions . . . . .	7
	Drive External Dimensions . . . . .	9
	Panel Cut-Out Dimensions . . . . .	12
	Kit Models and Installation Procedure . . . . .	14
	Use the External Heatsink Installation Kit (Procedure A) . . . . .	16
	Use the Mounting Bracket Supplied with the Drive (Procedure B) . . . . .	18
	Use the Mounting Bracket Supplied with the Drive (Procedure C) . . . . .	22
	Gasket and Sealant . . . . .	24
	Revision History . . . . .	26

# 1 Receiving

## ◆ Applicable Documentation


Document	Description
YASKAWA AC Drive GA700/GA800/CH700/CR700/LA700/ES700 External Heatsink Installation Instruction Manual	Read this manual before you install the drive. The manual contains information about how to install the drive heatsink external to the enclosure panel.
YASKAWA AC Drive Manuals	Refer to the manual packaged with the drive for basic information about the drive. Refer to the Technical Manual for more information about programming and parameter settings. You can download drive manuals from the Yaskawa product and technical information website shown on the back cover of this manual.


## ◆ Glossary


Terminology Used in this Document	Description
Drive	<ul style="list-style-type: none"><li>• YASKAWA AC Drive GA700</li><li>• YASKAWA AC Drive GA800</li><li>• YASKAWA AC Drive CH700</li><li>• YASKAWA AC Drive CR700</li><li>• YASKAWA AC Drive LA700</li><li>• YASKAWA AC Drive ES700</li></ul>
Kit	YASKAWA AC Drive Option External Heatsink Installation Kit


# 2 General Safety

## ◆ Supplemental Safety Information

-  **DANGER**

*This signal word identifies a hazard that will cause serious injury or death if you do not prevent it.*
-  **WARNING**

*This signal word identifies a hazard that can cause death or serious injuries if you do not prevent it.*
-  **CAUTION**

*This signal word identifies a hazard that can cause minor or moderate injuries if you do not prevent it.*
-  **NOTICE**

*This signal word identifies a property damage message that is not related to personal injury.*

## ◆ Section Safety

### General Precautions

- Some figures in the instructions include options and drives without covers or safety shields to more clearly show the inside of the drive. Replace covers and shields before operation. Use options and drives only as specified by the instructions.
- The figures in this manual are examples only. All figures do not apply to all products included in this manual.
- Yaskawa can change the products, specifications, and content of the instructions without notice to make the product and/or the instructions better.
- If you damage or lose these instructions, contact a Yaskawa representative or the nearest Yaskawa sales office on the rear cover of the manual, and tell them the document number on the front cover to order new copies.

**⚠ DANGER** *Electrical Shock Hazard. Do not examine, connect, or disconnect wiring on an energized drive. Before servicing, disconnect all power to the equipment and wait for the time specified on the warning label at a minimum. The internal capacitor stays charged after the drive is de-energized. The charge indicator LED extinguishes when the DC bus voltage decreases below 50 Vdc. When all indicators are OFF, remove the covers before measuring for dangerous voltages to make sure that the drive is safe. If you do work on the drive when it is energized, it will cause serious injury or death from electrical shock.*

**⚠ WARNING** *Electrical Shock Hazard. Only let approved personnel install, wire, maintain, examine, replace parts, and repair the drive. If personnel are not approved, it can cause serious injury or death.*

**⚠ WARNING** *Sudden Movement Hazard. Tighten the screws to the specified tightening torque. Incorrect tightening torques can cause damage to equipment and cause serious injury or death from falling equipment.*

**⚠ CAUTION** *Burn Hazard. Do not touch a hot drive heatsink. De-energize the drive, wait for a minimum of 15 minutes, then make sure that the heatsink is cool before you replace the cooling fans. If you touch a hot drive heatsink, it can burn you.*

**NOTICE** *Damage to Equipment. When you touch the drive and circuit boards, make sure that you observe correct electrostatic discharge (ESD) procedures. If you do not follow procedures, it can cause ESD damage to the drive circuitry.*

## 3 Overview

You can install the drive with the heatsink external, which are the main heat-dissipating component of the drive, to the enclosure panel. This installation method is "external heatsink installation". The External Heatsink Installation Kit Option is an attachment that lets you install drives that do not have mounting brackets on the heatsink with external heatsink installation. When you use the kit to install the drive with the heatsink external, the drive will release its heat external to the enclosure panel. This will let you install the drive in a smaller enclosure panel and prevent too much heat in the enclosure panel.

This manual tells you how to use the kit to do an external heatsink installation and how to use the mounting brackets supplied with the drive to do an external heatsink installation.

## ◆ Compatible Products

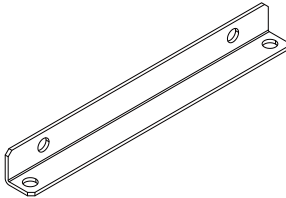

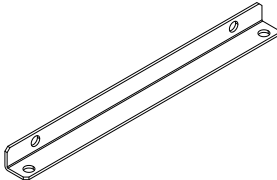

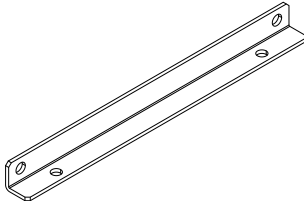

This installation kit is compatible with these drives:

- GA700
- GA800
- CH700
- CR700
- LA700
- ES700

## 4 Receiving

1. Examine the products for damage.  
If there is damage to the products, contact the shipping company immediately. The Yaskawa warranty does not include damage from shipping.
2. Verify the product model number to make sure that you received the correct model.  
If you have problems with the products, contact the distributor where you purchased the products or the Yaskawa sales office immediately.

### ◆ Option Package Contents

Kit Model	Kit	Mounting Screw
900-193-209-001	 #1	 M5 × 14 pan head screw: #2
900-193-209-002	 #1	 M5 × 14 pan head screw: #2
900-193-209-003	 #1	 M6 × 14 pan head screw: #2

## 5 Install the Attachment

### ◆ Necessary Tools

To install the attachment, use a Phillips screwdriver #2.

## ◆ Drive Mounting Dimensions and Panel Cut-out Dimensions

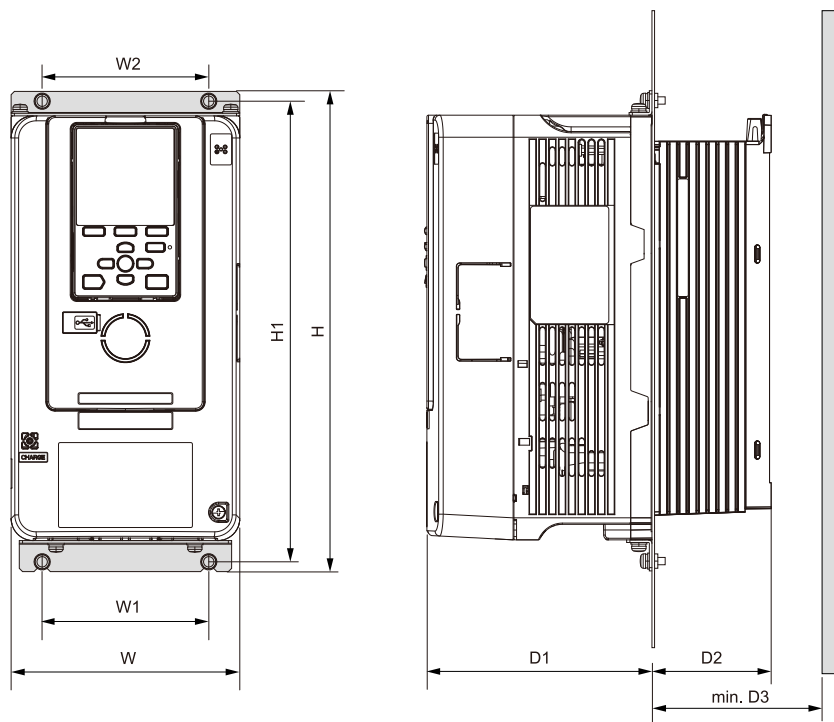
Drive Model		Model Group	Drive Exterior and Mounting Dimensions	Panel Cut-Out Dimensions
GA700 GA800	2004, 2006, 2008, 2010, 2012 4002, 4004, 4005	A	Table 5.1	Table 5.4
	2018, 2021, 2030, 2042 4007, 4009, 4012, 4018, 4023	B		
	2056 4031, 4038	C		
	2070, 2082 4044	D		
	4060	E		
	2110 4075	F		
	2138 4089, 4103	G		
	2169, 2211 4140, 4168 5062, 5077, 5099	H		
	2257, 2313 4208, 4250, 4296, 4302 5125, 5144	I		
	2360, 2415 4371, 4389, 4414 5192, 5242, 5289	J		
	4453, 4477, 4568, 4605, 4675, 4720 5382, 5412, 5472	K	Table 5.2	Table 5.5
	4810, 4930, 4H11, 4H12	L	Table 5.3	Table 5.6
CH700 CR700	2003, 2005, 2008, 2011 4002, 4003, 4005	A	Table 5.1	Table 5.4
	2014, 2018, 2025, 2033 4006, 4007, 4009, 4015, 4018	B		
	2047 4024, 4031	C		
	2060, 2075 4039	D		
	4045	E		
	2088 4060	F		
	2115	G		

5 Install the Attachment

Drive Model		Model Group	Drive Exterior and Mounting Dimensions	Panel Cut-Out Dimensions
	4075, 4091	H		
	2145, 2180 4112, 4150			
	2215, 2283 4180, 4216, 4260	I		
	2346, 2415 4304, 4371	J		
	4414, 4515, 4543, 4605	K	Table 5.2	Table 5.5
	4720 , 4810 , 4930 , 4H11	L	Table 5.3	Table 5.6
LA700 ES700	2022, 2031, 2041 4012, 4019, 4023	B	Table 5.1	Table 5.4
	2059 4030, 4039	C		
	2075, 2094 4049	D		
	4056	E		
	2110 4075	F		
	2144 4094, 4114	G		
	2181, 2225 4140, 4188	H		
	2269, 2354 4225, 4270, 4325	I		
	2432, 2519 4380	J		



## ■ Drive External Dimensions



**Figure 5.1 Drive External Dimensions**

**Table 5.1 Drive External Dimensions (Model Groups A to J)**

Model Group	Dimensions mm (in)							
	W	H	D1	D2	D3	W1	W2	H1
A	140 (5.51)	294 (11.57)	138 (5.43)	38 (1.50)	43 (1.69)	102 (4.02)	102 (4.02)	282 (11.10)
B	140 (5.51)	294 (11.57)	138 (5.43)	73 (2.87)	78 (3.07)	102 (4.02)	102 (4.02)	282 (11.10)
C	180 (7.09)	329 (12.95)	134 (5.28)	68 (2.68)	73 (2.87)	140 (5.51)	140 (5.51)	318 (12.52)
D	220 (8.66)	384 (15.12)	140 (5.51)	87 (3.43)	92 (3.62)	192 (7.56)	192 (7.56)	371 (14.61)
E	220 (8.66)	384 (15.12)	140 (5.51)	106 (4.17)	111 (4.37)	192 (7.56)	192 (7.56)	371 (14.61)
F	240 (9.45)	400 (15.75)	166 (6.54)	114 (4.49)	119 (4.69)	195 (7.68)	204 (8.03)	385 (15.16)
G	255	450	166	114	119	170	210	436

5 Install the Attachment

Model Group	Dimensions mm (in)							
	W	H	D1	D2	D3	W1	W2	H1
	(10.04)	(17.72)	(6.54)	(4.49)	(4.69)	(6.69)	(8.27)	(17.17)
H	264 (10.39)	543 (21.38)	186 (7.32)	149 (5.87)	154 (6.06)	190 (7.48)	220 (8.66)	527 (20.75)
I	312 (12.28)	700 (27.56)	260 (10.24)	160 (6.30)	165 (6.50)	218 (8.58)	263 (10.35)	675 (26.56)
J	440 (17.32)	800 (31.50)	254 (10.00)	218 (8.58)	223 (8.78)	370 (14.57)	310 (12.20)	773 (30.43)

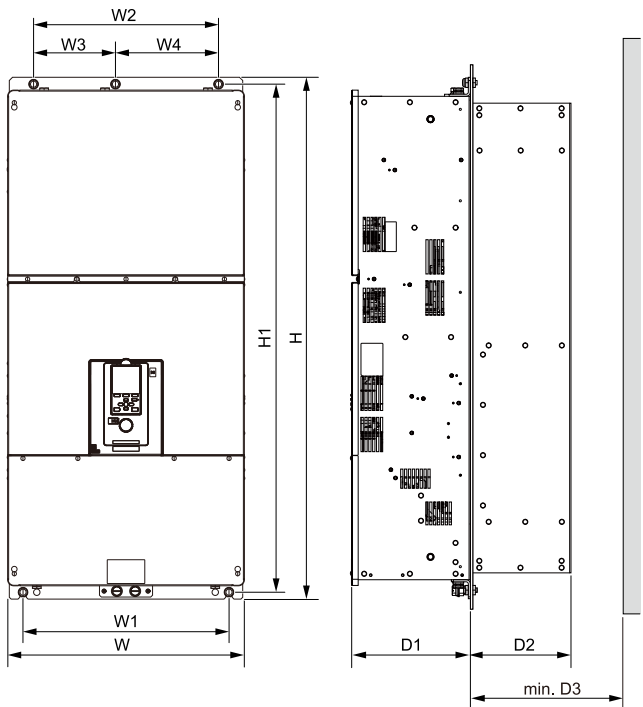


Figure 5.2 Drive External Dimensions

Table 5.2 Drive External Dimensions (Model Group K)

Model Group	Dimensions mm (in)									
	W	H	D1	D2	D3	W1	W2	W3	W4	H1
K	510 (20.08)	1140 (44.88)	260 (10.24)	220 (8.66)	225 (8.86)	450 (17.72)	404 (15.91)	179 (7.05)	225 (8.86)	1110 (43.70)

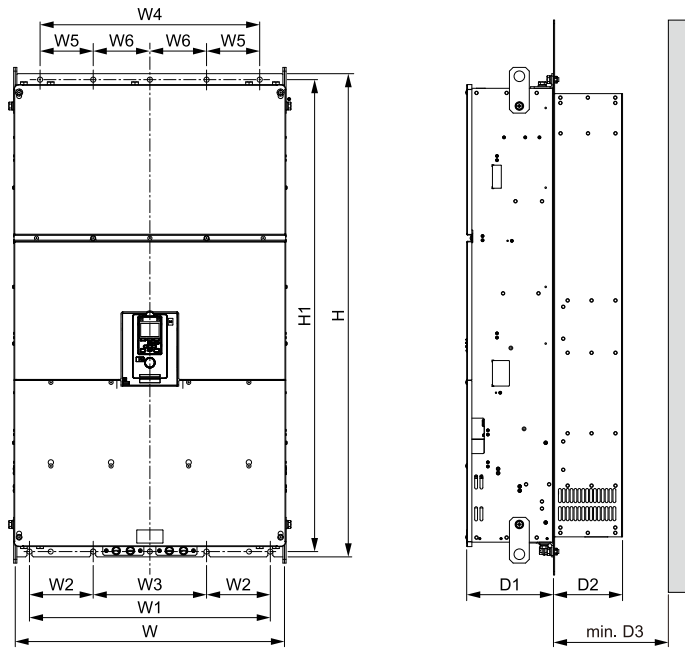
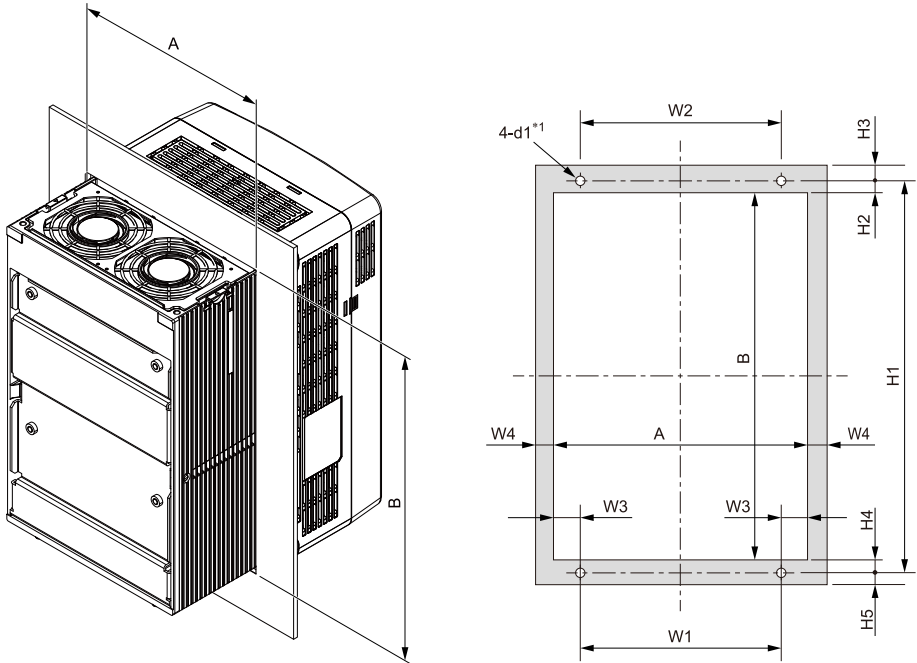


Figure 5.3 Drive External Dimensions

Table 5.3 Drive External Dimensions (Model Group L)

Model Group	Dimensions mm (in)											
	W	H	D1	D2	D3	W1	W2	W3	W4	W5	W6	H1
L	760 (29.9)	1363.8 (53.7)	245 (9.65)	195 (7.67)	200 (7.87)	680 (26.8)	180 (7.09)	320 (12.6)	620 (24.4)	150 (5.91)	160 (6.3)	1332 (52.4)

# ■ Panel Cut-Out Dimensions



**Figure 5.4 Panel Cut-Out Dimensions**

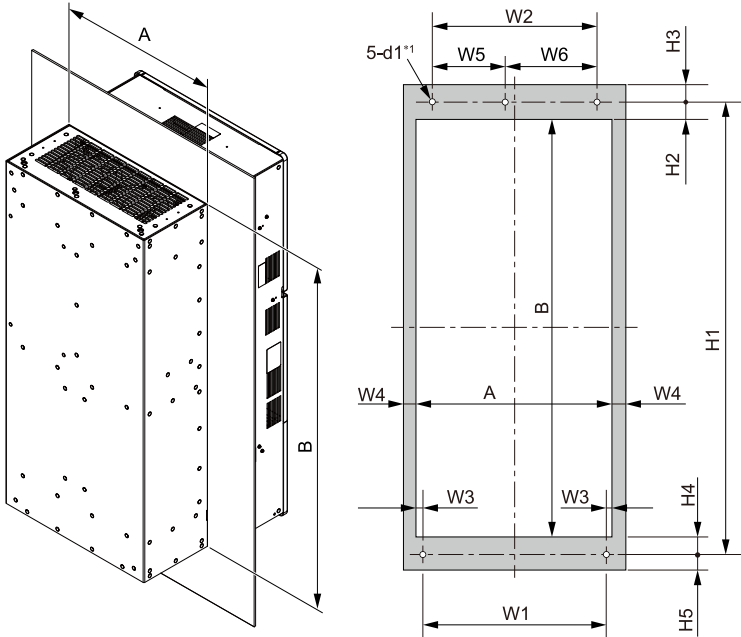
\*1 Make threads inside the mounting screw holes on the panel.

**Table 5.4 Panel Cut-Out Dimensions (Model Groups A to J)**

Model Group	Dimensions mm (in)											
	W1	W2	W3	W4 *1	H1	H2 *1	H3 *1	H4 *1	H5 *1	A	B	d1
A	102 (4.02)	102 (4.02)	16 (0.63)	3 (0.12)	282 (11.10)	23 (0.91)	6 (0.24)	26 (1.02)	6 (0.24)	134 (5.28)	233 (9.17)	M5
B	102 (4.02)	102 (4.02)	16 (0.63)	3 (0.12)	282 (11.10)	23 (0.91)	6 (0.24)	26 (1.02)	6 (0.24)	134 (5.28)	233 (9.17)	M5
C	140 (5.51)	140 (5.51)	17 (0.67)	3 (0.12)	318 (12.52)	23.5 (0.93)	5 (0.20)	24.5 (0.97)	6 (0.24)	174 (6.85)	270 (10.63)	M5
D	192 (7.56)	192 (7.56)	11 (0.43)	3 (0.12)	371 (14.61)	27 (1.06)	7 (0.28)	25 (0.98)	6 (0.24)	214 (8.43)	319 (12.56)	M6
E	192 (7.56)	192 (7.56)	11 (0.43)	3 (0.12)	371 (14.61)	27 (1.06)	7 (0.28)	25 (0.98)	6 (0.24)	214 (8.43)	319 (12.56)	M6
F	195 (7.68)	204 (8.03)	14.5 (0.57)	8 (0.32)	385 (15.16)	19.5 (0.77)	7.5 (0.30)	19.5 (0.77)	7.5 (0.30)	224 (8.82)	346 (13.62)	M6
G	170 (6.69)	210 (8.27)	34.5 (1.36)	8 (0.32)	436 (17.17)	20 (0.79)	8 (0.32)	20 (0.79)	6 (0.24)	239 (9.41)	396 (15.59)	M6

Model Group	Dimensions mm (in)											
	W1	W2	W3	W4 *1	H1	H2 *1	H3 *1	H4 *1	H5 *1	A	B	d1
H	190 (7.48)	220 (8.66)	29 (1.14)	8 (0.32)	527 (20.75)	19.5 (0.77)	8.5 (0.34)	20.5 (0.81)	7.5 (0.30)	248 (9.76)	487 (19.17)	M8
I	218 (8.58)	263 (10.35)	39 (1.54)	8 (0.32)	675 (26.56)	33 (1.30)	12 (0.47)	32 (1.26)	13 (0.51)	296 (11.65)	610 (24.02)	M10
J	370 (14.57)	310 (12.20)	23 (0.91)	12 (0.47)	773 (30.43)	31.5 (1.24)	14 (0.55)	31.5 (1.24)	13 (0.51)	416 (16.38)	710 (27.95)	M12

\*1 Gasket dimensions. Make sure that the gasket is larger than the specified dimension.



**Figure 5.5 Panel Cut-Out Dimensions**

\*1 Make threads inside the mounting screw holes on the panel.

**Table 5.5 Panel Cut-Out Dimensions (Model Group K)**

Model Group	Dimensions mm (in)													
	W1	W2	W3	W4 <sup>*1</sup>	W5	W6	H1	H2 <sup>*1</sup>	H3 <sup>*1</sup>	H4 <sup>*1</sup>	H5 <sup>*1</sup>	A	B	d1
K	450 (17.72 )	404 (15.91 )	18 (0.71)	12 (0.47)	179 (7.05)	225 (8.86)	1110 (43.70 )	34 (1.34)	15 (0.59)	34 (1.34)	15 (0.59)	486 (19.13 )	1042 (41.02 )	M12

\*1 Gasket dimensions. Make sure that the gasket is larger than the specified dimension.

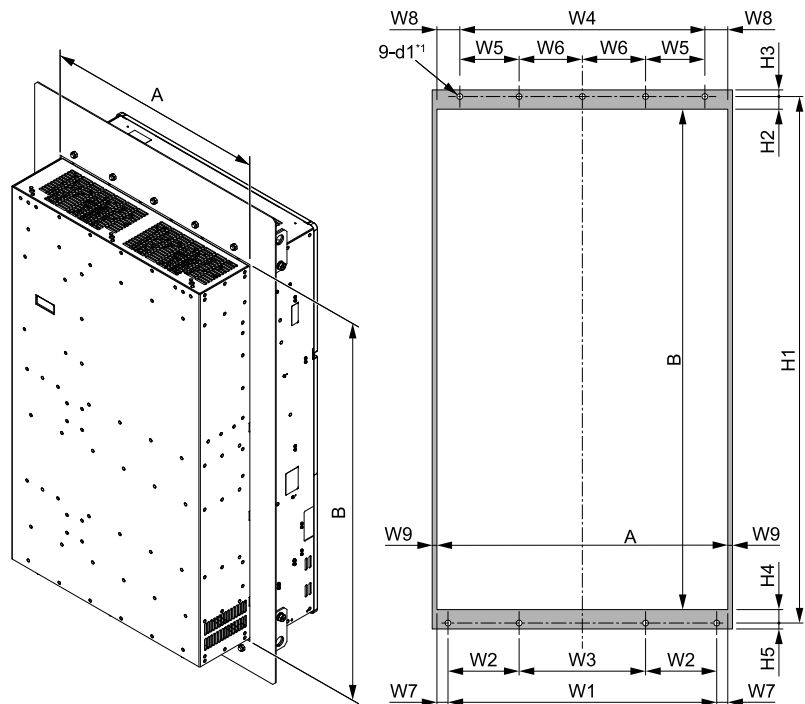


Figure 5.6 Panel Cut-Out Dimensions

\*1 Make threads inside the mounting screw holes on the panel.

Table 5.6 Panel Cut-Out Dimensions (Model Group L)

Mod el Gro up	Dimensions mm (in)															
	W1	W2	W3	W4 *1	W5	W6	W7	W8	W9	H1	H2 *1	H3 *1	H4 *1	H5 *1	A	B
L	680 (26.8 )	180 (7.09 )	320 (12.6 )	620 (24.4 )	150 (5.91 )	160 (6.3)	28 (1.1)	58 (2.28 )	12 (0.47 )	1332 (52.4 )	32 (1.26 )	16.8 (0.66 )	34 (1.34 )	15 (0.59 )	736 (29)	1266 (49.8 )

\*1 Gasket dimensions. Make sure that the gasket is larger than the specified dimension.

◆ Kit Models and Installation Procedure

**⚠ CAUTION** Crush Hazard. Tighten terminal cover screws and hold the case safely when you move the drive. If the drive or covers fall, it can cause moderate injury.

**⚠ WARNING** Crush Hazard. Before you hang the drive vertically, use screws to correctly attach the drive front cover and other drive components. If you do not secure the front cover, it can fall and cause minor injury.

**⚠ WARNING** Crush Hazard. When you use a crane or hoist to lift the drive during installation or removal, prevent more than 1.96 m/s<sup>2</sup> (0.2 G) vibration or impact. Too much vibration or impact can cause serious injury or death from falling equipment.

**⚠ WARNING**

*Crush Hazard. When you lift the drive during installation or removal, do not try to turn the drive over and do not ignore the hanging drive. If you move a hanging drive too much or if you ignore it, the drive can fall and cause serious injury or death.*

The installation procedure is different for different drive models. Refer to [Table 5.7](#).

**Table 5.7 Kit and Installation Method**

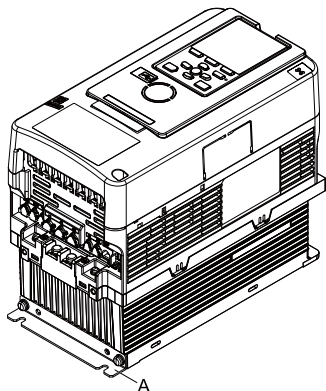
Drive Model		Kit Model	Installation Procedure	Ref.
GA700 GA800	2004, 2006, 2008, 2010, 2012, 2018, 2021, 2030, 2042 4002, 4004, 4005, 4007, 4009, 4012, 4018, 4023	900-193-209-001	Procedure A	16
	2056 4031, 4038	900-193-209-002		
	2070, 2082 4044, 4060	900-193-209-003		
	2110, 2138, 2169, 2211, 2257, 2313, 2360, 2415 4075, 4089, 4103, 4140, 4168, 4208, 4250, 4296, 4302, 4371, 4389, 4414 5062, 5077, 5099, 5125, 5144, 5192, 5242, 5289	*/	Procedure B	18
	4453, 4477, 4568, 4605, 4675, 4720, 4810, 4930, 4H11, 4H12 5382, 5412, 5472		Procedure C	22
CH700 CR700	2003, 2005, 2008, 2011, 2014, 2018, 2025, 2033 4002, 4003, 4005, 4006, 4007, 4009, 4015, 4018	900-193-209-001	Procedure A	16
	2047 4024, 4031	900-193-209-002		
	2060, 2075 4039, 4045	900-193-209-003		
	2088, 2115, 2145, 2180, 2215, 2283, 2346, 2415 4060, 4075, 4091, 4112, 4150, 4180, 4216, 4260, 4304, 4371	*/	Procedure B	18
	4414, 4515, 4543, 4605, 4720, 4810, 4930, 4H11		Procedure C	22
LA700 ES700	2022, 2031, 2041 4012, 4019, 4023	900-193-209-001	Procedure A	16
	2059 4030, 4039	900-193-209-002		
	2075, 2094 4049, 4056	900-193-209-003		
	2110, 2144, 2181, 2225, 2269, 2354, 2432, 2519 4075, 4094, 4114, 4140, 4188, 4225, 4270, 4325, 4380	*/	Procedure B	18

\*1 Use the mounting bracket supplied with the drive.

### ■ Use the External Heatsink Installation Kit (Procedure A)

Cut an opening in the enclosure panel before you install the kit. Refer to [Panel Cut-Out Dimensions on page 12](#) for more information.

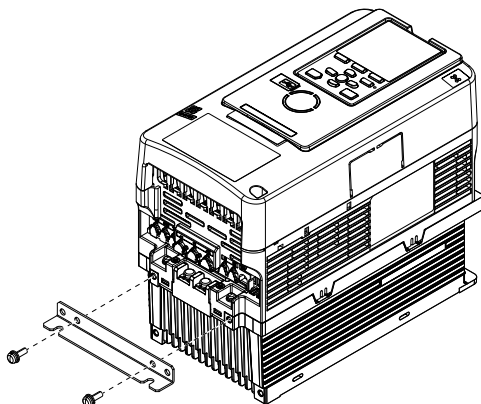
1. Remove the mounting bracket from the bottom of the drive.



A - Mounting bracket

**Figure 5.7 Remove the Mounting Bracket**

2. Install the mounting bracket in the position shown in [Figure 5.8](#).  
Tighten the screws to a correct tightening torque:
  - M5 × 14 pan head screws: 1.96 N·m to 2.53 N·m (17.35 lbf·in to 22.39 lbf·in)
  - M6 × 14 pan head screws: 3.92 N·m to 4.90 N·m (34.70 lbf·in to 43.37 lbf·in)

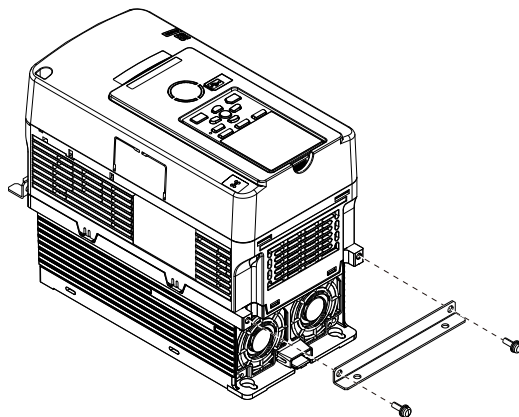


**Figure 5.8 Attach the Mounting Bracket**

3. Use the screws supplied in the kit to install the attachment in the position shown in [Figure 5.9](#).  
Tighten the screws to a correct tightening torque:
  - M5 × 14 pan head screws: 1.96 N·m to 2.53 N·m (17.35 lbf·in to 22.39 lbf·in)

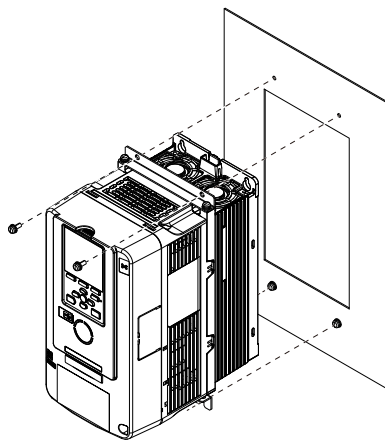


- M6 × 14 pan head screws: 3.92 N·m to 4.90 N·m (34.70 lbf·in to 43.37 lbf·in)



**Figure 5.9 Install the Attachment**

4. Install the drive in the cut opening of the enclosure panel and use screws to safety it to the enclosure panel.

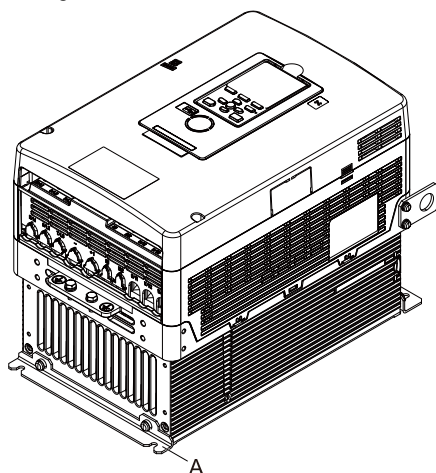


**Figure 5.10 Install the Drive into the Opening of the Enclosure Panel**

■ **Use the Mounting Bracket Supplied with the Drive (Procedure B)**

Cut an opening in the enclosure panel before you install the kit. Refer to [Panel Cut-Out Dimensions on page 12](#) for more information.

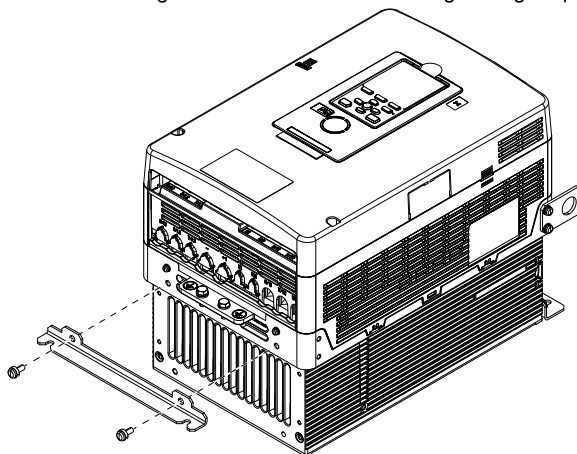
1. Remove the mounting bracket from the bottom of the drive.



A - Mounting bracket

**Figure 5.11 Remove the Mounting Bracket**

2. Install the mounting bracket in the position shown in [Figure 5.12](#).  
Refer to [Table 5.8](#) and tighten the screws to a correct tightening torque.

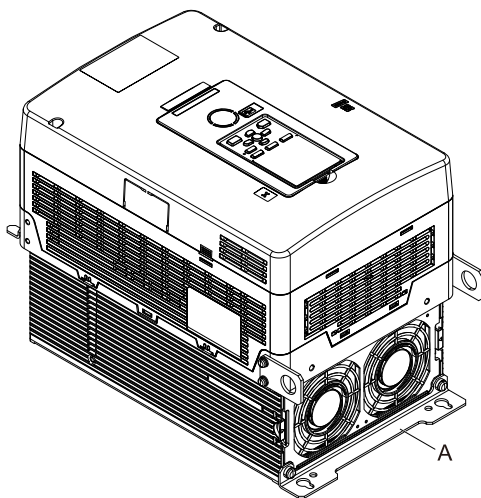


**Figure 5.12 Attach the Mounting Bracket**

**Table 5.8 Drive Model and Tightening Torque**

Drive Model	Mounting Screw	Tightening Torque
GA70x2110, 4075 GA80x2110, 4075 CH70x2088, 4060 CR70x2088, 4060 LA70x2110, 4075 ES70x2110, 4075	M6 × 14 pan head screws + S + W (× 4)	3.92 N·m to 4.90 N·m (34.70 lbf·in to 43.37 lbf·in)
GA70x2138, 4089 - 4103 GA80x2138, 4089 - 4103 CH70x2115, 4075 - 4091 CR70x2115, 4075 - 4091 LA70x2144, 4094 - 4114 ES70x2144, 4094 - 4114	M6 × 16 hex bolts + S + W (× 4)	3.92 N·m to 4.90 N·m (34.70 lbf·in to 43.37 lbf·in)
GA70x2169 - 2211, 4140 - 4168 GA80x2169 - 2211, 4140 - 4168, 5062 - 5099 CH70x2145 - 2180, 4112 - 4150 CR70x2145 - 2180, 4112 - 4150 LA70x2181 - 2225, 4140 - 4188 ES70x2181 - 2225, 4140 - 4188	M8 × 16 hex bolts + S + W (× 4)	8.83 N·m to 10.79 N·m (78.15 lbf·in to 95.49 lbf·in)
GA70x2257 - 2313, 4208 - 4296 GA80x2257 - 2313, 4208 - 4302, 5125 - 5144 CH70x2215 - 2283, 4180 - 4260 CR70x2215 - 2283, 4180 - 4260 LA70x2269 - 2354, 4225 - 4325 ES70x2269 - 2354, 4225 - 4325	M10 × 20 hex bolts + S + W (× 4)	17.65 N·m to 22.56 N·m (156.22 lbf·in to 199.67 lbf·in)
GA70x2360 - 2415, 4371 - 4389 GA80x2360 - 2415, 4371 - 4414, 5192 - 5289 CH70x2346 - 2415, 4304 - 4371 CR70x2346 - 2415, 4304 - 4371 LA70x2432 - 2519, 4380 ES70x2432 - 2519, 4380	M12 × 30 hex bolts + S + W (× 4)	31.38 N·m to 39.23 N·m (277.74 lbf·in to 347.21 lbf·in)

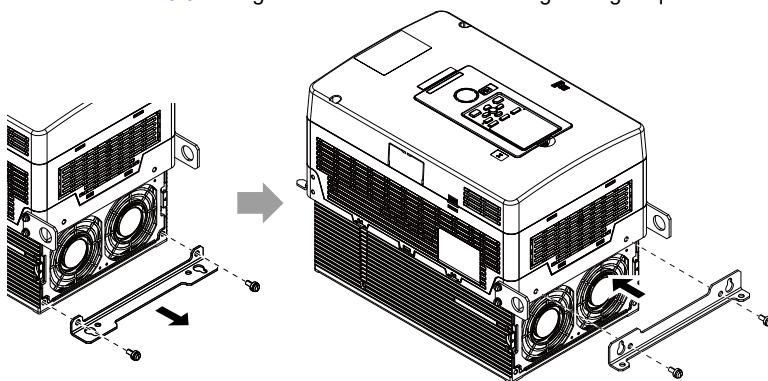
3. Remove the mounting bracket from the top of the drive.



A - Mounting bracket

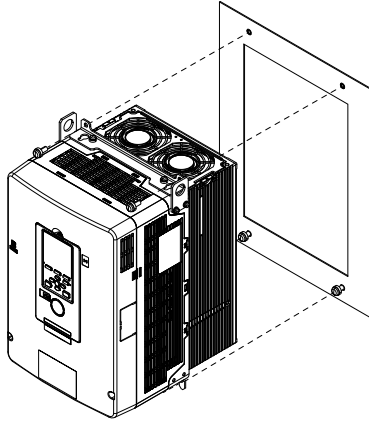
**Figure 5.13 Remove the Mounting Bracket**

4. Change the position of the mounting bracket and install it in the position shown in [Figure 5.14](#). Refer to [Table 5.8](#) and tighten the screws to a correct tightening torque.



**Figure 5.14 Attach the Mounting Bracket**

5. Install the drive in the cut opening of the enclosure panel and use screws to safety it to the enclosure panel.

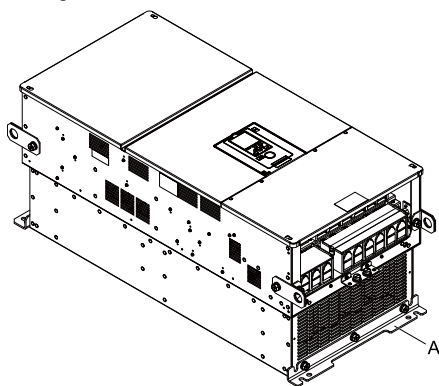


**Figure 5.15 Install the Drive into the Opening of the Enclosure Panel**

## ■ Use the Mounting Bracket Supplied with the Drive (Procedure C)

Cut an opening in the enclosure panel before you install the kit. Refer to [Panel Cut-Out Dimensions on page 12](#) for more information.

1. Remove the mounting bracket from the bottom of the drive.

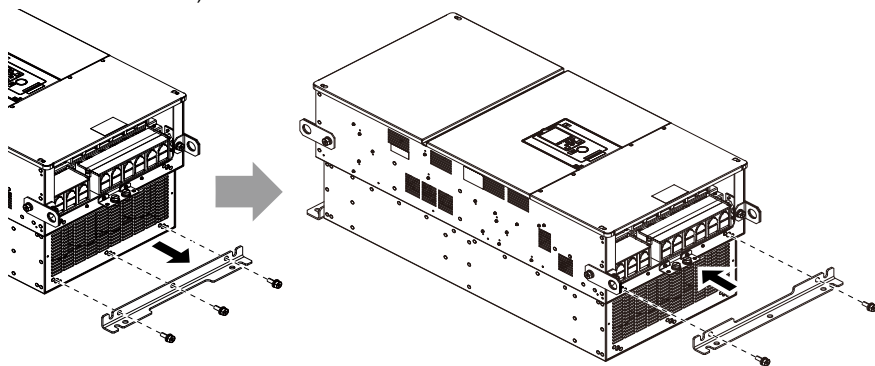


A - Mounting bracket

**Figure 5.16 Remove the Mounting Bracket**

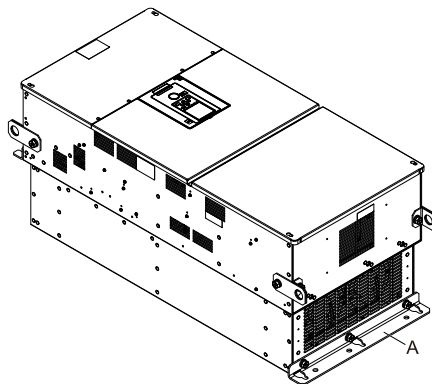
2. Change the position of the mounting bracket and install it in the position shown in [Figure 5.17](#).

Tighten the screws to a tightening torque of 31.38 N·m to 39.23 N·m (277.74 lbf·in to 347.21 lbf·in).



**Figure 5.17 Attach the Mounting Bracket**

3. Remove the mounting bracket from the top of the drive.

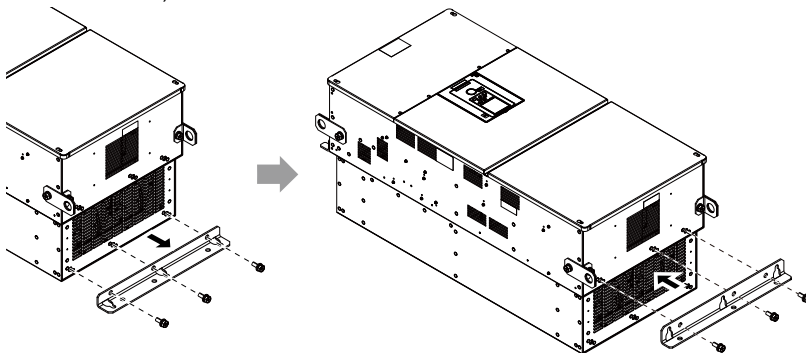


A - Mounting bracket

**Figure 5.18 Remove the Mounting Bracket**

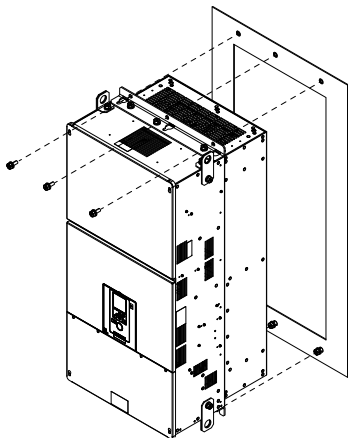
4. Change the position of the mounting bracket and install it in the position shown in [Figure 5.19](#).

Tighten the screws to a tightening torque of 31.38 N·m to 39.23 N·m (277.74 lbf·in to 347.21 lbf·in).



**Figure 5.19 Attach the Mounting Bracket**

5. Install the drive in the cut opening of the enclosure panel and use screws to safety it to the enclosure panel.



**Figure 5.20 Install the Drive into the Opening of the Enclosure Panel**

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### ◆ Gasket and Sealant

If the environment around the heatsink does not align with the recommendations for the drive installation environment, install a gasket or apply sealant as shown in [Figure 5.21](#) and [Figure 5.22](#). Make sure that the drive is safe from unsatisfactory environmental conditions.

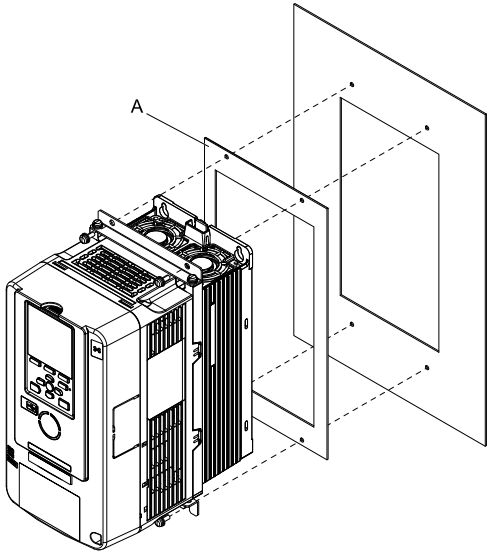
Use a gasket that is approximately 2 mm (0.08 in) thick and made from CR or an EPDM-based rubber sponge.

Yaskawa recommends these products:

- Gasket: INOAC CORPORATION C-4205
- Sealant: Shin-Etsu Silicone KE-3494 from Shin-Etsu Chemical Co., Ltd.

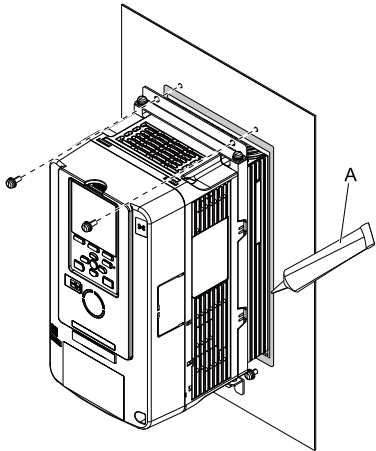
Refer to [Panel Cut-Out Dimensions on page 12](#) for the gasket dimensions.





A - Gaskets

Figure 5.21 Install a Gasket



A - Sealant

Figure 5.22 Apply Sealant

# Revision History

Date of Publication	Revision Number	Section	Revised Content
September 2024	6	5	Addition: GA800 600 V class drives and corresponding data. GA800 Three-Phase 600 V Class: CIPR-GA80U5062 to 5099
July 2024	5	All	Revision: Reviewed and corrected entire documentation Addition: Larger drive capacities added along with corresponding data. <ul style="list-style-type: none"> <li>CH700 Three-Phase 400 V Class: CIPR-CH70x4720 to 4H11</li> <li>CR700 Three-Phase 400 V Class: CIPR-CR70x4720 to 4H11</li> <li>ES700 Three-Phase 400 V Class: CIPR-ES70x4720 to 4H11</li> </ul>
January 2024	4	All	Revision: Reviewed and corrected entire documentation Addition: Larger drive capacities added along with corresponding data. <ul style="list-style-type: none"> <li>GA700 Three-Phase 400 V Class: CIPR-GA70x4810 to 4H12</li> <li>GA800 Three-Phase 400 V Class: CIPR-GA80U4810 to 4H12</li> <li>GA800 Three-Phase 600 V Class: CIPR-GA80U5125 to 5242</li> <li>LA700 Three-Phase 200 V Class: CIPR-LA70x2022 to 2519</li> <li>LA700 Three-Phase 400 V Class: CIPR-LA70x4012 to 4380</li> </ul>
July 2021	3	All	Revision: Reviewed and corrected entire documentation
		5	Addition: GA800 600 V class drives and corresponding data. GA800 Three-Phase 600 V Class: CIPR-GA80U5289
August 2020	2	5	Addition: GA800 600 V class drives and corresponding data. GA800 Three-Phase 600 V Class: CIPR-GA80U5382 to 5472
January 2020	1	-	Revision: Format size changed.
		Back Cover	Revision: Address
August 2018	-	-	First Edition



# YASKAWA AC Drive GA700/GA800/CH700/CR700/LA700/ES700

## External Heatsink Installation

## Installation Manual

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## YASKAWA

### YASKAWA ELECTRIC CORPORATION

In the event that the end user of this product is to be the military and said product is to be employed in any weapons systems or the manufacture thereof, the export will fall under the relevant regulations as stipulated in the Foreign Exchange and Foreign Trade Regulations. Therefore, be sure to follow all procedures and submit all relevant documentation according to any and all rules, regulations and laws that may apply.

Specifications are subject to change without notice for ongoing product modifications and improvements.

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