MITSUBISHI ELECTRIC Inverter Sales and Service

No. 726EE

Discontinuation of the FR-E700 Series General-Purpose Inverters

Thank you for your continued patronage of Mitsubishi Electric drive control products, FA products, and power distribution control products.

In December 2019, we released the FR-E800 series inverters with compatibility as successors to the FR-E700 series inverters. Due to this, we are discontinuing the production of FR-E700 series inverters according to the following schedule.

We ask for your understanding in this matter.

1. Models to be Discontinued

- FR-E700 series (273 models in total)
- Related options (23 models in total)

2. Schedule

Production continues on orders received by the last day of October 2023.

Made-by-order production starts on April 1, 2023 in advance of the discontinuation.

Requests for repair service will be accepted by the last day of October 2030.

Note) Repairs are subject to the supply of service parts and may not be possible even within the repair service period.

3. Products Affected

(1) FR-E700 series

1) Three-phase 200 V

Model						
FR-E720-0.1K	FR-E720-0.1KSC	FR-E720-008-NA	FR-E720-008SC-NA			
FR-E720-0.2K	FR-E720-0.2KSC	FR-E720-015-NA	FR-E720-015SC-NA			
FR-E720-0.4K	FR-E720-0.4KSC	FR-E720-030-NA	FR-E720-030SC-NA			
FR-E720-0.75K	FR-E720-0.75KSC	FR-E720-050-NA	FR-E720-050SC-NA			
FR-E720-1.5K	FR-E720-1.5KSC	FR-E720-080-NA	FR-E720-080SC-NA			
FR-E720-2.2K	FR-E720-2.2KSC	FR-E720-110-NA	FR-E720-110SC-NA			
FR-E720-3.7K	FR-E720-3.7KSC	FR-E720-175-NA	FR-E720-175SC-NA			
FR-E720-5.5K	FR-E720-5.5KSC	FR-E720-240-NA	FR-E720-240SC-NA			
FR-E720-7.5K	FR-E720-7.5KSC	FR-E720-330-NA	FR-E720-330SC-NA			
FR-E720-11K	FR-E720-11KSC	FR-E720-470-NA	FR-E720-470SC-NA			
FR-E720-15K	FR-E720-15KSC	FR-E720-600-NA	FR-E720-600SC-NA			
	M	odel				
FR-E720-0.1K-NE	FR-E720-008SC-NNE	FR-E720-0.1KSC-TM	FR-E720-0.1K-EA			
FR-E720-0.2K-NE	FR-E720-015SC-NNE	FR-E720-0.2KSC-TM	FR-E720-0.2K-EA			
FR-E720-0.4K-NE	FR-E720-030SC-NNE	FR-E720-0.4KSC-TM	FR-E720-0.4K-EA			
FR-E720-0.75K-NE	FR-E720-050SC-NNE	FR-E720-0.75KSC-TM	FR-E720-0.75K-EA			
FR-E720-1.5K-NE	FR-E720-080SC-NNE	FR-E720-1.5KSC-TM	FR-E720-1.5K-EA			
FR-E720-2.2K-NE	FR-E720-110SC-NNE	FR-E720-2.2KSC-TM	FR-E720-2.2K-EA			
FR-E720-3.7K-NE	FR-E720-175SC-NNE	FR-E720-3.7KSC-TM	FR-E720-3.7K-EA			
FR-E720-5.5K-NE	FR-E720-240SC-NNE	FR-E720-5.5KSC-TM	FR-E720-5.5K-EA			
FR-E720-7.5K-NE	FR-E720-330SC-NNE	FR-E720-7.5KSC-TM	FR-E720-7.5K-EA			
FR-E720-11K-NE	FR-E720-470SC-NNE	FR-E720-11KSC-TM	FR-E720-11K-EA			
FR-E720-15K-NE	FR-E720-600SC-NNE	FR-E720-15KSC-TM	FR-E720-15K-EA			

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2) Three-phase 400 V

2) Three-phase 400	V	Model						
FR-E740-0.4K	FR-E740-0.4KSC	FR-E740-016-NA	FR-E740-016SC-NA					
FR-E740-0.75K	FR-E740-0.75KSC	FR-E740-026-NA	FR-E740-026SC-NA					
FR-E740-1.5K	FR-E740-1.5KSC	FR-E740-040-NA	FR-E740-040SC-NA					
FR-E740-2.2K	FR-E740-2.2KSC	FR-E740-060-NA	FR-E740-060SC-NA					
FR-E740-3.7K	FR-E740-3.7KSC	FR-E740-095-NA	FR-E740-095SC-NA					
FR-E740-5.5K	FR-E740-5.5KSC	FR-E740-120-NA	FR-E740-120SC-NA					
FR-E740-7.5K	FR-E740-7.5KSC	FR-E740-170-NA	FR-E740-170SC-NA					
FR-E740-11K	FR-E740-11KSC	FR-E740-230-NA	FR-E740-230SC-NA					
FR-E740-15K	FR-E740-15KSC	FR-E740-300-NA	FR-E740-300SC-NA					
		Model						
FR-E740-016-EC	FR-E740-016SC-EC	FR-E740-0.4K-CHT	-					
FR-E740-026-EC	FR-E740-026SC-EC	FR-E740-0.75K-CHT	-					
FR-E740-040-EC	FR-E740-040SC-EC	FR-E740-1.5K-CHT	-					
FR-E740-060-EC	FR-E740-060SC-EC	FR-E740-2.2K-CHT	-					
FR-E740-095-EC	FR-E740-095SC-EC	FR-E740-3.7K-CHT	-					
FR-E740-120-EC	FR-E740-120SC-EC	FR-E740-5.5K-CHT	-					
FR-E740-170-EC	FR-E740-170SC-EC	FR-E740-7.5K-CHT	-					
FR-E740-230-EC	FR-E740-230SC-EC	FR-E740-11K-CHT	-					
FR-E740-300-EC	FR-E740-300SC-EC	FR-E740-15K-CHT	-					
		Model						
FR-E740-0.4K-NE	FR-E740-016SC-NNE	FR-E740-016SC-ENE	FR-E740-0.4K-CNE					
FR-E740-0.75K-NE	FR-E740-026SC-NNE	FR-E740-026SC-ENE	FR-E740-0.75K-CNE					
FR-E740-1.5K-NE	FR-E740-040SC-NNE	FR-E740-040SC-ENE	FR-E740-1.5K-CNE					
FR-E740-2.2K-NE	FR-E740-060SC-NNE	FR-E740-060SC-ENE	FR-E740-2.2K-CNE					
FR-E740-3.7K-NE	FR-E740-095SC-NNE	FR-E740-095SC-ENE	FR-E740-3.7K-CNE					
FR-E740-5.5K-NE	FR-E740-120SC-NNE	FR-E740-120SC-ENE	FR-E740-5.5K-CNE					
FR-E740-7.5K-NE	FR-E740-170SC-NNE	FR-E740-170SC-ENE	FR-E740-7.5K-CNE					
FR-E740-11K-NE	FR-E740-230SC-NNE	FR-E740-230SC-ENE	FR-E740-11K-CNE					
FR-E740-15K-NE	FR-E740-300SC-NNE	FR-E740-300SC-ENE	FR-E740-15K-CNE					
		Model						
FR-E740-0.4KSC-TM	FR-E740-0.4K-EA	-	-					
FR-E740-0.75KSC-TM	FR-E740-0.75K-EA	-	-					
FR-E740-1.5KSC-TM	FR-E740-1.5K-EA	-	-					
FR-E740-2.2KSC-TM	FR-E740-2.2K-EA	-	-					
FR-E740-3.7KSC-TM	FR-E740-3.7K-EA	-	-					
FR-E740-5.5KSC-TM	FR-E740-5.5K-EA	-	-					
FR-E740-7.5KSC-TM	FR-E740-7.5K-EA	-	-					
FR-E740-11KSC-TM	FR-E740-11K-EA	-	-					
FR-E740-15KSC-TM	FR-E740-15K-EA	-	-					

3) Single-phase 200 V

3) Single-phase 200 V							
Model							
FR-E720S-0.1K	FR-E720S-0.1KSC	FR-E720S-008-NA	FR-E720S-008-EC				
FR-E720S-0.2K	FR-E720S-0.2KSC	FR-E720S-015-NA	FR-E720S-015-EC				
FR-E720S-0.4K	FR-E720S-0.4KSC	FR-E720S-030-NA	FR-E720S-030-EC				
FR-E720S-0.75K	FR-E720S-0.75KSC	FR-E720S-050-NA	FR-E720S-050-EC				
FR-E720S-1.5K	FR-E720S-1.5KSC	FR-E720S-080-NA	FR-E720S-080-EC				
FR-E720S-2.2K	FR-E720S-2.2KSC	FR-E720S-110-NA FR-E720S-110-EC					
		Model					
FR-E720S-008SC-EC	FR-E720S-0.1K-CHT	FR-E720S-0.1K-NE	-				
FR-E720S-015SC-EC	FR-E720S-0.2K-CHT	FR-E720S-0.2K-NE	-				
FR-E720S-030SC-EC	FR-E720S-0.4K-CHT	FR-E720S-0.4K-NE	-				
FR-E720S-050SC-EC	FR-E720S-0.75K-CHT	FR-E720S-0.75K-NE	-				
FR-E720S-080SC-EC	FR-E720S-1.5K-CHT	FR-E720S-1.5K-NE	-				
FR-E720S-110SC-EC	FR-E720S-2.2K-CHT	FR-E720S-2.2K-NE	-				

Model							
FR-E720S-008SC-ENE	FR-E720S-0.1K-CNE	FR-E720S-0.1K-EA	-				
FR-E720S-015SC-ENE	FR-E720S-0.2K-CNE	FR-E720S-0.2K-EA	-				
FR-E720S-030SC-ENE	FR-E720S-0.4K-CNE	FR-E720S-0.4K-EA	-				
FR-E720S-050SC-ENE	FR-E720S-0.75K-CNE	FR-E720S-0.75K-EA	-				
FR-E720S-080SC-ENE	FR-E720S-1.5K-CNE	FR-E720S-1.5K-EA	-				
FR-E720S-110SC-ENE	FR-E720S-2.2K-CNE	FR-E720S-2.2K-EA	-				

4) Single-phase 100 V

Model						
FR-E710W-0.1K	FR-E710W-008-NA	-	-			
FR-E710W-0.2K	FR-E710W-015-NA	-	-			
FR-E710W-0.4K	FR-E710W-030-NA	-	-			
FR-E710W-0.75K	FR-E710W-050-NA	-	-			

(2) Related options

Model	
Plug-in option (enhanced control function, extension input/output)	FR-A7AX E kit FR-A7AY E kit
Plug-in option E kit cover (enhanced control function, extension input/output)	FR-A7AR E kit FR-A7AX E kit cover FR-A7AY E kit cover FR-A7AR E kit cover FR-A7A E kit cover SC
Plug-in option (for communication)	FR-A7ND E kit FR-A7NP E kit FR-A7NL E kit
Plug-in option E kit cover(for communication)	FR-A7NC E kit cover FR-A7ND E kit cover FR-A7NP E kit cover FR-A7NL E kit cover FR-A7NC E kit cover SC FR-A7ND E kit cover SC FR-A7NP E kit cover SC FR-A7NL E kit cover SC
FR-E700 series totally-enclosed structure attachment	FR-E7CV01 FR-E7CV02 FR-E7CV03 FR-E7CV04

Model	
FR-E700 series	FR-E7CN03
heatsink protrusion attachment	FR-E7CN03

4. Successor Models

Classification	Voltage class	Discontinued model (FR-E700)	Successor model (FR-E800)
	Three-phase 200 V	FR-E720-[]K	FR-E820-[]K-1
	Three-phase 400 V	FR-E740-[]K	FR-E840-[]K-1
	Single-phase 200 V	FR-E720S-[]K	FR-E820S-[]K-1
	Single-phase 100 V	FR-E710W-[]K	FR-E810W-[]K-1
Standard control	Three-phase 200 V	FR-E720-[][][]-NA	FR-E820-[][][][]-5-60
	Three-phase 400 V	FR-E740-[][][]-NA	FR-E840-[][][][]-5-60
	Single-phase 200 V	FR-E720S-[][][]-NA	FR-E820S-[][][][]-5-60
circuit terminal model	Single-phase 100 V	FR-E710W-[][][]-NA	FR-E810W-[][][][-5-60
circuit terminai modei	Three-phase 400 V	FR-E740-[][][]-EC	FR-E840-[][][][]-4-60
	Single-phase 200 V	FR-E720S-[][][]-EC	FR-E820S-[][][][]-4-60
	Three-phase 400 V	FR-E740-[]K-CHT	FR-E840-[][][][]-4-60
	Single-phase 200 V	FR-E720S-[]K-CHT	FR-E820S-[][][][]-4-60
	Three-phase 200 V	FR-E720-[]K-EA	FR-E820-[][][][]-5-60
	Three-phase 400 V	FR-E740-[]K-EA	FR-E840-[][][][]-5-60
	Single-phase 200 V	FR-E720S-[]K-EA	FR-E820S-[][][][]-5-60
	Three-phase 200 V	FR-E720-[]KSC	FR-E820-[]K-1
	Three-phase 400 V	FR-E740-[]KSC	FR-E840-[]K-1
	Single-phase 200 V	FR-E720S-[]KSC	FR-E820S-[]K-1
Safety stop function	Single-phase 100 V	FR-E710W-[]KSC	FR-E810W-[]K-1
model	Three-phase 200 V	FR-E720-[][][]SC-NA	FR-E820-[][][][]-5-60
	Three-phase 400 V	FR-E740-[][][]SC-NA	FR-E840-[][][][]-5-60
	Three-phase 400 V	FR-E740-[][][]SC-EC	FR-E840-[][][][]-4-60
	Single-phase 200 V	FR-E720S-[][][]SC-EC	FR-E820S-[][][][]-4-60
	Three-phase 200 V	FR-E720-[]K-NE	FR-E820-[]KEPA
	Three-phase 400 V	FR-E740-[]K-NE	FR-E840-[]KEPA
	Single-phase 200 V	FR-E720S-[]K-NE	FR-E820S-[]KEPA
Ethernet	Three-phase 200 V	FR-E720-[][][]SC-NNE	FR-E820-[]KEPA
communication	Three-phase 400 V	FR-E740-[][][]SC-NNE	FR-E840-[]KEPA
function model	Three-phase 400 V	FR-E740-[][][]SC-ENE	FR-E840-[]KEPB
	Single-phase 200 V	FR-E720S-[][][]SC-ENE	FR-E820S-[]KEPB
	Three-phase 400 V	FR-E740-[]K-CNE	FR-E840-[]KEPB
	Single-phase 200 V	FR-E720S-[]K-CNE	FR-E820S-[]KEPB
Dedicated EtherCAT	Three-phase 200 V	FR-E720-[]KSC-TM	FR-E820-[]KEPC
communication model	Three-phase 400 V	FR-E740-[]KSC-TM	FR-E840-[]KEPC

For precautions for replacement, refer to "5. Precautions for Replacement".

5. Precautions for Replacement

(1) For all models

(1) For all models									
Item	FR-E700	FR-E800	Supplemental information						
	Available	Available	Depending on the operating conditions and load conditions, overload may occur						
Torque boost (Dr. 0)			at start even when the torque boost value						
Torque boost (Pr.0)			is the same as that set in FR-E700.						
			Adjust the torque boost value.						
	Pr.37 is used to change the	Pr.53 is used to change the	Adjust the torque boost value.						
	display to the frequency /	display to the frequency /							
	machine speed. The Pr.37	machine speed. The Pr.37							
Speed display (Pr.37)	setting value is used for	setting value is used only for							
	machine speed conversion	machine speed conversion							
	formula.	formula.							
	SF-JRCA (thermal: constant-	SF-JRCA (thermal: constant-	-						
Applied motor (Pr.71)	torque) setting value: "1"	torque) setting value: "10"							
Offline auto tuning	Setting Pr.96 = "21" enables	Setting Pr.96 = "11" enables	-						
(Pr.96) (V/F control	offline auto tuning for V/F	offline auto tuning for V/F							
(frequency search for the	control.	control.							
automatic restart after									
instantaneous power									
failure))									
,,	Available	Not available	Adjusting slip compensation under						
			Advanced magnetic flux vector control						
General-purpose			can adjust the motor speed fluctuation						
magnetic flux vector			when the load torque is applied as is the						
control (Pr.800)			case under General-purpose magnetic						
			flux vector control.						
C DM record mater	Available	Not available	To drive an S-PM geared motor, use the						
S-PM geared motor			FR-E700-EX or FR-D700-G inverter.						
	Available	Not available	FR-PA07 is available.						
			Use the setting dial as a potentiometer by						
FR-PA02			setting Pr.161 Frequency setting/key lock						
			operation selection = "1" (setting dial						
			potentiometer).						
Terminal response	8.3 ms on average	6.9 ms on average	Adjust the setting of Pr.699 Input terminal						
Terrimar response			filter as required.						
	When terminal FG is not used	Terminal FG is not provided.	However, separate earthing (grounding)						
	for earthing (grounding),	As the installed option	is available when the SLD (drain) wire						
Earthing (grounding) of	separate earthing (grounding)	structurally uses the inverter	with shield stripped is not connected to						
the communication	is available (the	earth (ground) terminal,	the one-touch CC-Link communication						
option	programmable controller and	separate earthing (grounding)	connector plug and instead the SLD						
	the inverter are earthed	is unavailable.	(shielded) wire is connected near the						
	(grounded) separately).		connector.						
LONWORKS	Available	Not available	-						
communication									

(2) Standard control circuit terminal model

(2) Standard Co	ontroi circuit terminai mode					
Item	FR-E700 standard control circuit terminal model (FR-E700-[]K, FR-E700-[][]]-NA, FR-E700-[][]]-EC, FR-E700-[]K-CHT, FR-E700-[]K-EA)		FR-E800 standard model (FR-E800-[]K-1, FR-E800-[]]]]]-4-60, FR-E800-[]]]]]-5-60)		1, -60,	Supplemental information
Outline dimension	· ·	FR-E800 and FR-E700 inverters for some capacity ity Width (mm) Height (mm) 170 → 140 -		-		
Installation size	· ·	le. As some capacity models of the d, their installation size are different from available. Changed installation size (mm) Width: $158 \rightarrow 128$ FR-E8AT03 Width: $128 \rightarrow 96$ FR-E7AT02 Height: $138 \rightarrow 118$ FR-E8AT04				
Control circuit terminals	Screw type terminal type FR-E700-[]K (FM type) FR-E700-[][]-NA (AM type) FR-E700-[][]-PA (AM type) FR-E700-[][-EC (AM type) FR-E700-[]K-CHT (AM type) FR-E700-[K-EA (AM type) FR-E700-[K-EA (AM type)		Spring clamp terminal type FR-E800-[]K-1 (FM type) FR-E800-[][][]-4-60 (AM type) FR-E800-[][][]-5-60 (AM type)		type)	For the FR-E800 series, terminal PC is not available as jumpers are connected to the terminal. Remove the jumpers, then connect two cables to terminal PC using a crimp terminal for two cables as shown in the following figure. S1 S2 PC External transistor common When a screw type terminal type is replaced, the recommended crimp terminal differs.

(3) Safety stop function model

(3) Safety stop fu	inction model						
Item	FR-E700 safety stop function model (FR-E700-[]KSC, FR-E700-[][][SC-NA, FR-E700-[][][SC-EC)		FR-E800 standard model (FR-E800-[]K-1, FR-E800-[][][]-4-60, FR-E800-[][][]]-5-60)		, 60,	Supplemental information	
Outline dimension	The outline dimension is compatible. The product width and height are different between the FR-E800 and FR-E700 inverters for some capacity models.				-		
Installation size	The installation size is compatil FR-E800 inverters are downsiz the FR-E700 inverters. Intercompatibility attachment is Voltage/capacity 3-phase 200 V, 3.7K 3-phase 400 V, 0.4K to 1.5K 1-phase 200 V, 2.2K	available of insta	ole. As some capacity models or ed, their installation size are different available. Changed installation size (mm) Width: 158 → 128 FR-E Width: 128 → 96 FR-E			ent from eatibility ment AT03 AT02	-
Control circuit terminals	Spring clamp terminal type FR-E700-[]KSC (FM type) FR-E700-[][][SC-NA (AM type) FR-E700-[][][SC-NA (AM type)	Spring clamp 1 FR-E800-[]K-1 (I		(FM type)	3)	For the FR-E800 series, terminal PC is not available as jumpers are connected to the terminal. Remove the jumpers, then connect two cables to terminal PC using a crimp terminal for two cables as shown in the following figure. External transistor common	

(4) Ethernet co	ommunication function mode	el				
Item	FR-E700 Ethernet communica function model (FR-E700-[]K-NE, FR-E700-[][][SC-NNE, FR-E700-[][][SC-ENE, FR-E700-[]K-CNE)		(F	800 Ethernet R-E800-[]KE R-E800-[]KEI	PA,	Supplemental information
Outline dimension	3-phase 200 V, 3.7K	•	for some on Height	-		-
Installation size	3-phase 400 V, 0.4K to 1.5K W	heir instal ilable. Chan installati (mr Vidth: 158	' '		atibility sent T03 T02	-
Control circuit terminals	Screw type terminal type FR-E700-[]K-NE R 1		Spring cla	A B C	type	For the FR-E800 series, terminal PC is not available as jumpers are connected to the terminal. Remove the jumpers, then connect two cables to terminal PC using a crimp terminal for two cables as shown in the following figure. External transistor common When a screw type terminal type is replaced, the recommended crimp terminal differs.
Terminals FM and AM	FR-E700-[]K-NE: Terminal FM only. FR-E700-[]K-CNE: Terminal AM only. FR-E700-[][][]SC-NNE: Terminal AM only. FR-E700-[][][]SC-ENE: Terminal AM only.		Not available			-
FR-PU07 and FR-PA07	Available	Not available (Available in standard models)			-	

(5) Dedicated EtherCAT communication model										
Item	FR-E700 Dedicated EtherCAT communication model (FR-E700-[]KSC-TM)		hernet model 0-[]KEPC)	Supplemental information						
Outline dimension	The outline dimension is compa different between the FR-E800 amodels. Voltage/capacity 3-phase 200 V, 3.7K 3-phase 400 V, 0.4K to 1.5K	and FR-E700 inverte	ŭ	-						
Installation size	The installation size is compatib E800 inverters are downsized, t FR-E700 inverters. Intercompatibility attachment is Voltage/capacity 3-phase 200 V, 3.7K 3-phase 400 V, 0.4K to 1.5K	heir installation size a		-						
Control circuit terminals	Spring clamp terminal type +24 SD S1 S2 PC Y0 SE	Spring clamp terminal type		For the FR-E800 series, terminal PC is not available as jumpers are connected to the terminal. Remove the jumpers, then connect two cables to terminal PC using a crimp terminal for two cables as shown in the following figure. S1 S2 PC External transistor common						