



Product Service

CERTIFICATE

No. B 022471 0038 Rev. 03

Holder of Certificate: Fuji Electric Co., Ltd.
5520, Minami Tamagaki-cho
Suzuka-shi, Mie
513-8633 JAPAN

Certification Mark:



Product: Servo Amplifier System
Inverter

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition, the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert

Test report no.: 73588943-03

Valid until: 2028-09-18
Date, 2023-09-19

(Shigehisa Ishikawa)

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Model(s): FRENIC-Ace (FRN-E3) series,
FRENIC-VP (FRN-F3) series

Nomenclature:

FRN 0.1 E3 S - 2 xxxxx
 I II III IV V

I. Motor output (kW or A)

Input voltage	Output kW	Output A	Input voltage	Output kW	Output		Input voltage	Output		
					A(E3)	A(F3)		kW	A(E3)	A(E3E)
Three-phase 200V class	0.1	0001	Three-phase 400V class	-	-	-	Single-phase 200V class	0.1	0001	0001
	0.2	0002		-	-	-		0.2	0002	0002
	0.4	0004		0.4	0002	-		0.4	0004	0003
	0.75	0006		0.75	0004	-		0.75	0006	0005
	1.5	0010		1.5	0006	-		1.5	0010	0008
	2.2	0012		2.2	0007	-		2.2	0012	0011
	3.7	0020		3.7	0012	0009		-	-	-
	5.5	0030		5.5	0022	0013		-	-	-
	7.5	0040		7.5	0029	0018		-	-	-
	11	0056		11	0037	0025		-	-	-
	15	0069		15	0044	0031		-	-	-
	18.5	0088		18.5	0059	0037		-	-	-
	22	0115		22	0072	0044		-	-	-
			30	-	0059	-	-	-		
			37	-	0072	-	-	-		

II. Applicable field

E3: FRENIC-Ace (E3)

F3: FRENIC-VP(F3)

III. Enclosure

S: Basic type (IP 20)

E: EMC Filter integrated type (IP 20)

N: Ethernet type (IP 20)

T: Finless type (IP 20)

IV. Input voltage

2: Three phase 200V to 240V class

4: Three phase 380V to 480V class

7: single phase 200V to 240V class

V. Shipping destination / Manual language

x: Blank, letter or numbers (*1)

*1: Not related to LVD, EMC and Functional safety

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FRN2.2E3D-7	FRN0012E3D-7	200 - 240	50 / 60	1	22.0	26.0	--	--	17.5	25.0	--	--
FRN2.2E3T-7	FRN0012E3T-7	200 - 240	50 / 60	1	22.0	26.0	--	--	17.5	25.0	--	--
FRN2.2E3E-7	FRN0011E3E-7	200 - 240	50 / 60	1	22.0	26.0	--	--	17.5	25.0	--	--

Output

Model		Max Voltage (V)	Phase	Frequency (Hz)	output								Frame
					Max Current (A)				Ambient temperature (°C)				
[kW]	[A]				HHD	HND	HD	ND	HHD	HND	HD	ND	
FRN0.1E3D-2	FRN0001E3D-2	240	3	0 - 599	1	1.3	--	--	55	50	--	--	1
FRN0.1E3T-2	FRN0001E3T-2	240	3	0 - 599	1	1.3	--	--	35***	35***	--	--	1
FRN0.1E3E-2	FRN0001E3E-2	240	3	0 - 599	1	1.3	--	--	55	50	--	--	1
FRN0.2E3D-2	FRN0002E3D-2	240	3	0 - 599	1.6	2	--	--	55	50	--	--	1
FRN0.2E3T-2	FRN0002E3T-2	240	3	0 - 599	1.6	2	--	--	35***	35***	--	--	1
FRN0.2E3E-2	FRN0002E3E-2	240	3	0 - 599	1.6	2	--	--	55	50	--	--	1
FRN0.4E3D-2	FRN0004E3D-2	240	3	0 - 599	3	3.5	--	--	55	50	--	--	1
FRN0.4E3T-2	FRN0004E3T-2	240	3	0 - 599	3	3.5	--	--	35***	35***	--	--	1
FRN0.4E3E-2	FRN0004E3E-2	240	3	0 - 599	3	3.5	--	--	55	50	--	--	1
FRN0.75E3D-2	FRN0006E3D-2	240	3	0 - 599	5	6	--	--	55	50	--	--	1
FRN0.75E3T-2	FRN0006E3T-2	240	3	0 - 599	5	6	--	--	35***	35***	--	--	1
FRN0.75E3E-2	FRN0006E3E-2	240	3	0 - 599	5	6	--	--	55	50	--	--	1
FRN1.5E3D-2	FRN0010E3D-2	240	3	0 - 599	8	9.6	--	--	55	55	--	--	2
FRN1.5E3T-2	FRN0010E3T-2	240	3	0 - 599	8	9.6	--	--	35***	35***	--	--	2
FRN1.5E3E-2	FRN0010E3E-2	240	3	0 - 599	8	9.6	--	--	55	55	--	--	2
FRN2.2E3D-2	FRN0012E3D-2	240	3	0 - 599	11	12	--	--	55	55	--	--	2
FRN2.2E3T-2	FRN0012E3T-2	240	3	0 - 599	11	12	--	--	35***	35***	--	--	2
FRN2.2E3E-2	FRN0012E3E-2	240	3	0 - 599	11	12	--	--	55	55	--	--	2
FRN3.7E3D-2	FRN0020E3D-2	240	3	0 - 599	17.5	19.6	--	--	55	55	--	--	3
FRN3.7E3T-2	FRN0020E3T-2	240	3	0 - 599	17.5	19.6	--	--	35***	35***	--	--	3
FRN3.7E3E-2	FRN0020E3E-2	240	3	0 - 599	17.5	19.6	--	--	55	55	--	--	3
FRN5.5E3D-2	FRN0030E3D-2	240	3	0 - 599	25	30	--	--	55	55	--	--	4
FRN5.5E3E-2	FRN0030E3E-2	240	3	0 - 599	25	30	--	--	55	55	--	--	4
FRN7.5E3D-2	FRN0040E3D-2	240	3	0 - 599	33	40	--	--	55	55	--	--	4
FRN7.5E3E-2	FRN0040E3E-2	240	3	0 - 599	33	40	--	--	55	55	--	--	4
FRN11E3D-2	FRN0056E3D-2	240	3	0 - 599	47	56	--	--	55	55	--	--	5
FRN11E3E-2	FRN0056E3E-2	240	3	0 - 599	47	56	--	--	55	55	--	--	5
FRN15E3D-2	FRN0069E3D-2	240	3	0 - 599	60	69	--	--	55	55	--	--	5
FRN15E3E-2	FRN0069E3E-2	240	3	0 - 599	60	69	--	--	55	55	--	--	5
FRN18.5E3D-2	FRN0088E3D-2	240	3	0 - 599	76	88	--	--	55	55	--	--	6
FRN18.5E3E-2	FRN0088E3E-2	240	3	0 - 599	76	88	--	--	55	55	--	--	6
FRN22E3D-2	FRN0115E3D-2	240	3	0 - 599	90	115	--	--	55	55	--	--	6
FRN22E3E-2	FRN0115E3E-2	240	3	0 - 599	90	115	--	--	55	55	--	--	6
FRN0.4E3D-4	FRN0002E3D-4	480	3	0 - 599	1.8	2.1	1.8	2.1	55	55	55	55	2
FRN0.4E3T-4	FRN0002E3T-4	480	3	0 - 599	1.8	2.1	1.8	2.1	35***	35***	35***	35***	2
FRN0.4E3E-4	FRN0002E3E-4	480	3	0 - 599	1.8	2.1	1.8	2.1	55	55	55	55	2
FRN0.75E3D-4	FRN0004E3D-4	480	3	0 - 599	3.4	4.1	3.4	4.1	55	55	55	55	2
FRN0.75E3T-4	FRN0004E3T-4	480	3	0 - 599	3.4	4.1	3.4	4.1	35***	35***	35***	35***	2
FRN0.75E3E-4	FRN0004E3E-4	480	3	0 - 599	3.4	4.1	3.4	4.1	55	55	55	55	2
FRN1.5E3D-4	FRN0006E3D-4	480	3	0 - 599	4.8	5.5	5	5.5	55	55	55	55	2
FRN1.5E3T-4	FRN0006E3T-4	480	3	0 - 599	4.8	5.5	5	5.5	35***	35***	35***	35***	2
FRN1.5E3E-4	FRN0006E3E-4	480	3	0 - 599	4.8	5.5	5	5.5	55	55	55	55	2
FRN2.2E3D-4	FRN0007E3D-4	480	3	0 - 599	5.5	6.9	6.3	6.9	55	45	45	45	2
FRN2.2E3T-4	FRN0007E3T-4	480	3	0 - 599	5.5	6.9	6.3	6.9	35***	35***	35***	35***	2
FRN2.2E3E-4	FRN0007E3E-4	480	3	0 - 599	5.5	6.9	6.3	6.9	55	45	45	45	2
FRN3.7E3D-4	FRN0012E3D-4	480	3	0 - 599	9.2	11.1	11.1	12	55	40**	40**	40**	3
FRN3.7E3T-4	FRN0012E3T-4	480	3	0 - 599	9.2	11.1	11.1	12	35***	35***	35***	35***	3
FRN3.7E3E-4	FRN0012E3E-4	480	3	0 - 599	9.2	11.1	11.1	12	55	40**	40**	40**	3
FRN3.7F3S-4	FRN0009F3S-4	480	3	0 - 599	--	7.2	--	9.4	--	40**	--	40**	3
FRN5.5E3D-4	FRN0022E3D-4	480	3	0 - 599	14.8	17.5	17.5	21.5	55	55	55	55	4
FRN5.5E3E-4	FRN0022E3E-4	480	3	0 - 599	14.8	17.5	17.5	21.5	55	55	55	55	4
FRN5.5F3S-4	FRN0013F3S-4	480	3	0 - 599	--	9.4	--	12.5	--	55	--	55	4
FRN7.5E3D-4	FRN0029E3D-4	480	3	0 - 599	18	23	23	28.5	55	55	55	55	4
FRN7.5E3E-4	FRN0029E3E-4	480	3	0 - 599	18	23	23	28.5	55	55	55	55	4
FRN7.5F3S-4	FRN0018F3S-4	480	3	0 - 599	--	12.5	--	17.5	--	55	--	55	4
FRN11F3S-4	FRN0025F3S-4	480	3	0 - 599	--	17.5	--	25	--	55	--	55	4
FRN11E3D-4	FRN0037E3D-4	480	3	0 - 599	24	35	35	37	55	55	55	55	5
FRN11E3E-4	FRN0037E3E-4	480	3	0 - 599	24	35	35	37	55	55	55	55	5

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FRN15E3□-4	FRN0044E3□-4	480	3	0 – 599	31	41	41	44	55	55	55	55	5
FRN15E3E-4	FRN0044E3E-4	480	3	0 – 599	31	41	41	44	55	55	55	55	5
FRN15F3S-4	FRN0031F3S-4	480	3	0 – 599	--	25	--	31	--	55	--	55	5
FRN18.5F3S-4	FRN0037F3S-4	480	3	0 – 599	--	31	--	37	--	55	--	55	5
FRN22F3S-4	FRN0044F3S-4	480	3	0 – 599	--	38	--	44	--	55	--	55	5
FRN18.5E3□-4	FRN0059E3□-4	480	3	0 – 599	39	45	45	59	55	55	55	55	6
FRN18.5E3E-4	FRN0059E3E-4	480	3	0 – 599	39	45	45	59	55	55	55	55	6
FRN22E3□-4	FRN0072E3□-4	480	3	0 – 599	45	60	60	72	55	55	55	55	6
FRN22E3E-4	FRN0072E3E-4	480	3	0 – 599	45	60	60	72	55	55	55	55	6
FRN30F3S-4	FRN0059F3S-4	480	3	0 – 599	--	45	--	59	--	55	--	55	6
FRN37F3S-4	FRN0072F3S-4	480	3	0 – 599	--	60	--	72	--	55	--	55	6
FRN0.1E3□-7	FRN0001E3□-7	240	3	0 – 599	1	1.2	--	--	55	55	--	--	1
FRN0.1E3T-7	FRN0001E3T-7	240	3	0 – 599	1	1.2	--	--	35***	35***	--	--	1
FRN0.1E3E-7	FRN0001E3E-7	240	3	0 – 599	1	--	--	--	55	--	--	--	1
FRN0.2E3□-7	FRN0002E3□-7	240	3	0 – 599	1.6	1.9	--	--	55	55	--	--	1
FRN0.2E3T-7	FRN0002E3T-7	240	3	0 – 599	1.6	1.9	--	--	35***	35***	--	--	1
FRN0.2E3E-7	FRN0002E3E-7	240	3	0 – 599	1.6	--	--	--	55	--	--	--	1
FRN0.4E3□-7	FRN0004E3□-7	240	3	0 – 599	3	3.5	--	--	55	55	--	--	1
FRN0.4E3T-7	FRN0004E3T-7	240	3	0 – 599	3	3.5	--	--	35***	35***	--	--	1
FRN0.4E3E-7	FRN0003E3E-7	240	3	0 – 599	3	--	--	--	55	--	--	--	1
FRN0.75E3□-7	FRN0006E3□-7	240	3	0 – 599	5	6	--	--	55	45	--	--	1
FRN0.75E3T-7	FRN0006E3T-7	240	3	0 – 599	5	6	--	--	35***	35***	--	--	1
FRN0.75E3E-7	FRN0005E3E-7	240	3	0 – 599	5	--	--	--	55	--	--	--	1
FRN1.5E3□-7	FRN0010E3□-7	240	3	0 – 599	8	9.6	--	--	55	45	--	--	2
FRN1.5E3T-7	FRN0010E3T-7	240	3	0 – 599	8	9.6	--	--	35***	35***	--	--	2
FRN1.5E3E-7	FRN0008E3E-7	240	3	0 – 599	8	--	--	--	55	--	--	--	2
FRN2.2E3□-7	FRN0012E3□-7	240	3	0 – 599	11	12	--	--	55	45	--	--	3
FRN2.2E3T-7	FRN0012E3T-7	240	3	0 – 599	11	12	--	--	35***	35***	--	--	3
FRN2.2E3E-7	FRN0011E3E-7	240	3	0 – 599	11	--	--	--	55	--	--	--	3

Remarks:

Derating operation

** : For FRN3.7E3S-4 and FRN3.7E3E-4, the operation temperature is up to 45°C, when using under reduced 90% current rating condition.

*** : For E3T type, the operation temperature is up to 55°C, when using under external cooling and/or reduced ratings condition.

* : □ = S or N

Parameters:

Rated input voltage: 200 V-240 V3ac, 200 V-240 Vac, 50/60 Hz for 200 V
380 V-480 V3ac, 50/60 Hz for 400 V

Rated output current: 1 A-115 A for 200 V
2 A-72 A for 400 V

Protection class: I

Overvoltage category: III

Pollution degree: 2

Remark:

When installing / inserting the equipment, all requirements of the mentioned test standard must be fulfilled.

Tested according to: EN 61800-5-1:2007/A11:2021