Standard specifications

Three-phase 230V

Item				Specifications										
Type (FRN___E1S-2U)				F12	F25	F50	001	002	003	005	007	010	015	020
Applicable motor rating *1)			HP	1/8	1/4	1/2	1	2	3	5	7.5	10	15	20
Output ratings	Rated capacity *2)		kVA	0.30	0.57	1.1	1.9	3.0	4.1	6.4	9.5	12	17	22
	Rated voltage *3)		V	Three-phase 200V to 240V (with AVR function)										
	Rated current *4)		A	0.8 (0.7)	1.5 (1.4)	3.0 (2.5)	5.0 (4.2)	8.0 (7.0)	11 (10)	17 (16.5)	25 (23.5)	33 (31)	47 (44)	60 (57)
	Overload capability			150% of rated current for 1min, 200% - 0.5s										
	Rated frequency		Hz	50, 60Hz										
Input power	Phases, voltage, frequency			Three-phase, 200 to 240V, 50/60Hz										
	Voltage/frequency variations			Voltage: +10 to -15% (Voltage unbalance (*8): 2% or less) Frequency: +5 to -5%										
	Rated current *9)	(with DCR)	A	0.57	0.93	1.6	3.0	5.7	8.3	14.0	21.1	28.8	42.2	57.6
		(without DCR)		1.1	1.8	3.1	5.3	9.5	13.2	22.2	31.5	42.7	60.7	80
	Required power supply capacity *5)		kVA	0.2	0.3	0.6	1.1	2.0	2.9	4.9	7.4	10	15	20
Braking	Torque *6)		%	150		100		70	40		20			
	Torque *7)		%	—		150								
	DC injection braking			Starting frequency: 0.1 to 60.0Hz, Braking time: 0.0 to 30.0s, Braking level: 0 to 100% of rated current										
	Braking transistor			Built-in										
Applicable safety standards				UL508C, C22.2No.14, EN50178:1997										
Enclosure (IEC60529)				IP20, UL open type										
Cooling method				Natural cooling				Fan cooling						
Weight			lbs.(kg)	1.3(0.6)	1.3(0.6)	1.5(0.7)	1.8(0.8)	3.7(1.7)	3.7(1.7)	5.1(2.3)	7.5(3.4)	7.9(3.6)	13(6.1)	16(7.1)

*1) Fuji's 4-pole standard motor
*2) Rated capacity is calculated by assuming the output rated voltage as 220V for three-phase 230V series and 440V for three-phase 460V series.
*3) Output voltage cannot exceed the power supply voltage.
*4) When setting the carrier frequency (F26) to 3 kHz or less. Use the current ( ) or below when the carrier frequency setting is higher than 4kHz and continuously operating at 100%.
*5) Obtained when a DC REACTOR is used.
*6) Average braking torque obtained when reducing the speed from 60Hz with AVR control OFF (Varies with the efficiency of the motor.)
*7) Average braking torque obtained by use of external braking resistor (standard type available as option)
*8) Voltage unbalance [%] = $\frac{\text{Max voltage [V] - Min voltage [V]}}{\text{Three-phase average voltage [V]}}$ x 67 (IEC 61800-3)
If this value is 2 to 3%, use AC REACTOR (ACR: option).
*9) The value is calculated on assumption that the inverter is connected with a power supply capacity of 500kVA (or 10 times the inverter capacity if the inverter capacity exceeds 50kVA) and %X is 5%.

External Dimensions

Inverter main body (Standard type)

Fig. a

Unit:inch (mm)

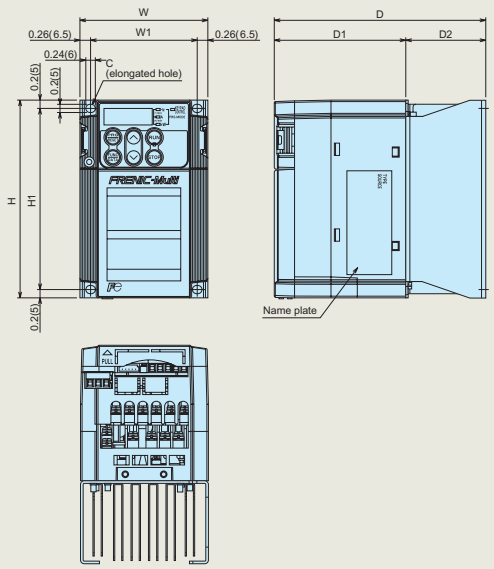
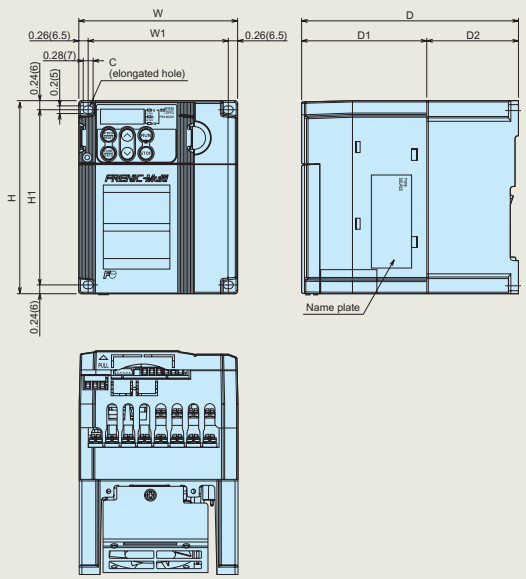


Fig.b

Unit:inch (mm)



Power supply voltage	Inverter type	Fig.	Dimensions [Unit: inch (mm)]							
			W	W1	H	H1	D	D1	D2	C
Three-phase 230V	FRNF12E1S-2U	a	3.15(80)	2.64(67)	4.72(120)	4.33(110)	3.62(92)	3.23(82)	0.39(10)	4-0.20x0.24 (4-5x6) (elongated hole)
	FRNF25E1S-2U						4.21(107)		0.98(25)	
	FRNF50E1S-2U						5.20(132)		1.97(50)	
	FRN001E1S-2U									
	FRN002E1S-2U	b	4.33(110)	3.82(97)	5.12(130)	4.65(118)	5.91(150)	3.39(86)	2.52(64)	4-0.20x0.28 (4-5x7) (elongated hole)
	FRN003E1S-2U									

Safety Precautions

Before using this inverter, carefully read the instruction manual, specifications, etc. or consult us or the shop of purchase to fully understand the correct usage of the inverter.

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