

- * 7 Average braking torque for the motor running alone. (It varies with the efficiency of the motor.)
- * 8 Voltage unbalance (%) =(Max. voltage (V) - Min. voltage (V))/Three -phase average voltage (V) × 67 (IEC 61800 - 3) If this value is 2 to 3%, use an optional AC reactor (ACR).
- * 10 HND spec. of the type 0007 and 0012: allowable ambient temperature 40 °C (+104 °F) or less.
The rated output current at HND spec. is decreased 1% for every 1 °C (1.8 °F) when ambient temperature is +40 °C (+104 °F) or more.

Items			Specifications												
Type			FRN□□□□E2S-4C												
			0085	0105	0139	0168	0203	0240	0290	0361	0415	0520	0590		
Nominal applied motor ¹ [kW(HP)]		ND	45(60)	55(75)	75(100)	90(125)	110(150)	132(200)	160(250)	200(300)	220(350)	280(450)	315(500)		
		HD	37(50)	45(60)	55(75)	75(100)	90(125)	110(150)	132(200)	160(250)	200(300)	220(350)	250(400)		
		HND	37(50)	45(60)	55(75)	75(100)	90(125)	110(150)	132(200)	160(250)	200(300)	220(350)	280(450)		
		HHD	30(40)	37(50)	45(60)	55(75)	75(100)	90(125)	110(150)	132(200)	160(250)	200(300)	220(350)		
Output ratings	Rated capacity [kVA] ²	ND	65	80	106	128	155	183	221	275	316	396	450		
		HD	57	69	85	114	134	160	193	232	287	316	364		
		HND	57	69	85	114	134	160	193	232	287	316	396		
		HHD	46	57	69	85	114	134	160	193	232	287	316		
	Rated voltage [V] ³		Three-phase 380 to 480V (With AVR)												
	Rated current [A] ⁴	ND	85.0	105	139	168	203	240	290	361	415	520	590		
		HD	75.0	91.0	112	150	176	210	253	304	377	415	477		
		HND	75.0	91.0	112	150	176	210	253	304	377	415	520		
		HHD	60.0	75.0	91.0	112	150	176	210	253	304	377	415		
	Overload capability	ND, HND	120% of nominal current for 1min												
		HD	150% of nominal current for 1min												
		HHD	150% of nominal current for 1min or 200% of nominal current for 0.5s												
	Input ratings	Main power supply		Three-phase 380 to 480V, 50/60Hz					Three-phase 380 to 440V, 50Hz ⁵ Three-phase 380 to 480V, 60Hz						
Voltage/frequency variations		Voltage: +10 to -15% (Voltage unbalance:2% or less ⁶ , Frequency: +5 to -5%) ⁸													
Rated current without DCR ⁵ [A]		ND	114	140	-	-	-	-	-	-	-	-	-		
		HD	94.3	114	140	-	-	-	-	-	-	-	-		
		HND	94.3	114	140	-	-	-	-	-	-	-	-		
		HHD	77.9	94.3	114	140	-	-	-	-	-	-	-		
Rated current with DCR ⁶ [A]		ND	83.2	102	138	164	201	238	286	357	390	500	559		
		HD	68.5	83.2	102	138	164	201	238	286	357	390	443		
		HND	68.5	83.2	102	138	164	201	238	286	357	390	500		
		HHD	57.0	68.5	83.2	102	138	164	201	238	286	357	390		
Required power supply capacity ⁶ [kVA]		ND	58	71	96	114	139	165	199	248	271	347	388		
		HD	47	58	71	96	114	140	165	199	248	271	307		
		HND	47	58	71	96	114	140	165	199	248	271	347		
		HHD	39	47	58	71	96	114	140	165	199	248	271		
Braking		Braking torque ⁷ [%]	ND	5 to 9%											
			HD	7 to 12%											
			HND	7 to 12%											
	HHD		10 to 15%												
	DC braking		Starting frequency: 0.0 to 60.0Hz, Braking time: 0.0 to 30.0s, Braking level: 0 to 60% (ND spec.), 0 to 80% (HD/HND spec.), 0 to 100% (HHD spec.) of nominal current												
	Braking chopper		Option												
	Minimum connection resistance[ohm]		-	-	-	-	-	-	-	-	-	-	-		
Braking resistor		Option													
DC reactor (DCR)			Option												
Enclosure (IEC60529)			IP00, UL open type												
Cooling method			Fan cooling												
Mass [kg]			25	26	30	33	40	62	63	95	96	130	140		

- * 1 Fuji 4-pole standard motor. At the selection of the inverter rating, consider not only the rating capacity(kW) is enough but also inverter output current is larger than selected the motor's nominal current.
- * 2 Rated capacity is calculated by assuming the output rated voltage as 440 V.
- * 3 Output voltage cannot exceed the power supply voltage.
- * 4 When the carrier frequency (F26) is set to below value or higher, the inverter is sure to be necessary to derate their nominal current.
HHD spec.---type 0002 to 0012 : 8kHz, type 0022 to 0168 : 10kHz, type 0203 to 0590 : 6kHz
HND spec.---type 0002 to 0012 : 8kHz, type 0022 to 0059 : 10kHz, type 0072 to 0168 : 6kHz, type 0203 to 0590 : 4kHz
HD,ND spec.---All type : 4kHz
The rated output current at HD/ND spec. is decreased 2% for every 1 °C (1.8 °F) when ambient temperature is +40 °C (+104 °F) or more.
- * 5 The value is calculated assuming that the inverter is connected with a power supply with the capacity of 500 kVA (or 10 times the inverter capacity if the inverter capacity exceeds 50 kVA) and %X is 5%.
Be sure to use the DCR when applicable motor capacity is 75kW or above.
- * 6 Obtained when a DC reactor (DCR) is used.
- * 7 Average braking torque for the motor running alone. (It varies with the efficiency of the motor.)
- * 8 Voltage unbalance (%) =(Max. voltage (V) - Min. voltage (V))/Three -phase average voltage (V) × 67 (IEC 61800 - 3) If this value is 2 to 3%, use an optional AC reactor (ACR).
- * 9 The 400 V class series with type 0203 or above is equipped with a set of switching connectors (male) which should be configured according to the power source voltage and frequency.