

Standard Specifications

3-phase, 400V series (0.75 to 710kW)

Item		Specifications															
Model	FRN□□□□ AQ1 # -4E : FRENIC-AQUA	0.75	1.5	2.2	4.0	5.5	7.5	11	15	18.5	22	30	37	45	55		
Applicable standard motor (rated output) [kW] ^{*1}		0.75	1.5	2.2	4.0	5.5	7.5	11	15	18.5	22	30	37	45	55		
Output ratings	Rated capacity [kVA] ^{*2}	1.9	3.1	4.1	6.8	10	14	18	24	29	34	45	57	69	85		
	Voltage [V] ^{*3}	3-phase, 380 to 480V (with AVR function)															
	Rated current [A]	2.5	4.1	5.5	9.0	13.5	18.5	24.5	32	39	45	60	75	91	112		
	Overload current rating	110%-1min (Overload tolerated interval: compliant with IEC 61800-2)															
	Rated frequency [Hz]	50, 60Hz															
Input Power Supply	Main power supply (No. of phase, voltage, frequency)	3-phase, 380 to 440V, 50Hz / 3-phase 390 to 480V, 60Hz															
	Control power supply auxiliary-input (No. of phase, voltage, frequency)	Single phase, 380 to 480V, 50/60Hz															
	Voltage, frequency variations	Voltage: +10 to -15% (Unbalance rate between phases is within 2%) ^{*4} Frequency : +5 to -5%															
	Rated input current [A]	1.6	3.0	4.3	7.4	10.3	13.9	20.7	27.9	34.5	41.1	55.7	69.4	83.1	102		
	Required power supply capacity [kVA]	1.2	2.1	3.0	5.2	7.2	9.7	15	20	24	29	39	49	58	71		
Braking	Braking torque [%] ^{*5}	20										10 to 15					
	DC braking	Braking starting frequency: 0.0 to 60.0Hz, Braking time: 0.0 to 30.0s, Braking level: 0 to 60%															
EMC filter		Built-in [Compliant with EMC standard (IEC/EN61800-3:2004)]															
DC reactor (DCR)		Built-in (IEC/EN61000-3-2, IEC/EN61000-3-12)															
Compliant with Electrical Safety Standards		UL508C, C22.2No.14, IEC/EN61800-5-1:2007															
"#" Enclosure (IEC/EN60529)		IP21/IP55															
Cooling method		Natural cooling					Fan cooling										
Weight/Mass [kg]		IP21/IP55		10	10	10	10	10	10	18	18	18	18	23	23	50	50

Item		Specifications															
Model	FRN□□□□ AQ1 # -4E : FRENIC-AQUA	75	90	110	132	160	200	220	280	315	355	400	500	630	710		
Applicable standard motor (rated output) [kW] ^{*1}		75	90	110	132	160	200	220	280	315	355	400	500	630	710		
Output ratings	Rated capacity [kVA] ^{*2}	114	134	160	192	231	287	316	396	445	495	563	731	891	1044		
	Voltage [V] ^{*3}	3-phase, 380 to 480V (with AVR function)															
	Rated current [A]	150	176	210	253	304	377	415	520	585	650	740	960	1170	1370		
	Overload current rating	110%-1min (Overload tolerated interval: compliant with IEC 61800-2)															
	Rated frequency [Hz]	50, 60Hz															
Input Power Supply	Main power supply (No. of phase, voltage, frequency)	3-phase, 380 to 440V, 50Hz / 3-phase 390 to 480V, 60Hz															
	Control power supply auxiliary-input (No. of phase, voltage, frequency)	Single phase, 380 to 480V, 50/60Hz															
	Voltage, frequency variations	Voltage: +10 to -15% (Unbalance rate between phases is within 2%) ^{*4} Frequency : +5 to -5%															
	Rated input current [A]	136	162	201	238	286	357	390	500	559	628	705	881	1115	1256		
	Required power supply capacity [kVA]	95	113	140	165	199	248	271	347	388	436	489	611	773	871		
Braking	Braking torque [%] ^{*5}	10 to 15															
	DC braking	Braking starting frequency: 0.0 to 60.0Hz, Braking time: 0.0 to 30.0s, Braking level: 0 to 60%															
EMC filter		Built-in [Compliant with EMC standard (IEC/EN61800-3:2004)]															
DC reactor (DCR)		Built-in		Standard accessory (IEC/EN61000-3-2, IEC/EN61000-3-12)													
Compliant with Electrical Safety Standards		UL508C, C22.2No.14, IEC/EN61800-5-1:2007															
"#" Enclosure (IEC/EN60529)		IP21/IP55		IP00													
Cooling method		Fan cooling															
Weight/Mass [kg]		IP21/IP55		70	70												
		IP00				62	64	94	98	129	140	245	245	245	330	530	530

*1) Applicable standard motors are the case of Fuji Electric's 4-pole standard motors.

*2) The rated capacity indicates the case of 440V ratings.

*3) Output voltage cannot exceed the power supply voltage.

*4) Interphase voltage unbalance ratio [%] = (max. voltage [V] - min. voltage [V]) / 3-phase average voltage [V] × 67 (See IEC61800-3.) When unbalance ratio is between 2 and 3% please use optional AC reactor (ACR).

*5) Average braking torque obtained by use of a motor. (Varies with the efficiency of the motor)