

# Standard Model

## Specifications

### Three-phase 200V series

Item	Specifications											
Input power source	Three-phase 200V											
Type (FRN □□□□C2S-2△, △=A, U)	FRN □□□□C2S-2A, FRN □□□□C2S-2U											
	0001	0002	0004	0006	0010	0012	0020	0025	0033	0047	0060	
Nominal applied motor[kW](△=A)	0.1	0.2	0.4	0.75	1.5	2.2	3.7	5.5	7.5	11	15	
Nominal applied motor[HP](△=U)	1/8	1/4	1/2	1	2	3	5	7.5	10	15	20	
Output ratings	Rated capacity[kVA]	0.30	0.57	1.3	2.0	3.5	4.5	7.2	9.5	12	17	22
	Rated voltage[V]	Three-phase 200 to 240V (With AVR)										
	Rated current[A]( <sup>*</sup> 1)	0.8(0.7)	1.5(1.4)	3.5(2.5)	5.5(4.2)	9.2(7.0)	12.0(10.0)	19.1(16.5)	25.0(23.5)	33.0(31.0)	47.0(44.0)	60.0(57.0)
	Overload capability	150% of rated current for 1min 150% of rated current for 1min or 200% of rated current for 0.5s (If the rated current is in parenthesis)							150% of rated current for 1min or 200% of rated current for 0.5s			
Rated frequency[Hz]	50, 60Hz											
Input ratings	Phases, Voltage, Frequency	Three-phase, 200 to 240V, 50/60Hz										
	Voltage/Frequency variations	Voltage: +10 to -15% (Voltage unbalance : 2% or less), Frequency: +5 to -5%										
	Rated current[A] (with DCR)	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	80.0
Required power supply capacity[kVA]	0.2	0.3	0.6	1.1	2.0	2.9	4.9	7.4	10	15	20	
Braking	Torque[%]	150		100		50		30		20		
	DC injection braking	Starting frequency: 0.0 to 60.0Hz, Braking time: 0.0 to 30.0s Braking level: 0 to 100%										
	Braking transistor	-		Built-in								
Applicable safety standards	UL508C, EN 61800-5-1:2007											
Enclosure (IEC 60529)	IP20 (IEC 60529:1989) / UL open type (UL50)											
Cooling method	Natural cooling					Fan cooling						
Weight / Mass[kg(lbs)]	0.6(1.3)	0.6(1.3)	0.7(1.5)	0.8(1.8)	1.7(3.7)	1.7(3.7)	2.5(5.5)	3.1(6.8)	3.1(6.8)	4.5(9.8)	4.5(9.8)	

<sup>\*</sup>1 The load shall be reduced so that the continuous operating current is the rated current in parenthesis or less if the carrier frequency is set to 3kHz or above or ambient temperature exceeds 40°C (104°F).

### Three-phase 400V series

Item	Specifications										
Input power source	Three-phase 400V										
Type (FRN □□□□C2S-4△, △=A, C, E, U)	FRN □□□□C2S-4A, FRN □□□□C2S-4C FRN □□□□C2S-4E, FRN □□□□C2S-4U										
	0002	0004	0005	0007	0011	0013	0018	0024	0030		
Nominal applied motor[kW] (△=A, C, E)	0.4	0.75	1.5	2.2	3.7(△=A, C) 4.0(△=E)	5.5	7.5	11	15		
Nominal applied motor[HP](△=U)	1/2	1	2	3	5	7.5	10	15	20		
Output ratings	Rated capacity[kVA]	1.3	2.3	3.2	4.8	8.0	9.9	13	18	22	
	Rated voltage[V]	Three-phase 380 to 480V (With AVR)									
	Rated current[A]( <sup>*</sup> 1)	1.8(1.5)	3.1(2.5)	4.3(3.7)	6.3(5.5)	10.5(9.0)	13.0	18.0	24.0	30.0	
	Overload capability	150% of rated current for 1min 150% of rated current for 1min or 200% of rated current for 0.5s (If the rated current is in parenthesis)						150% of rated current for 1min or 200% of rated current for 0.5s			
Rated frequency[Hz]	50, 60Hz										
Input ratings	Phases, Voltage, Frequency	Three-phase, 380 to 480V, 50/60Hz									
	Voltage/Frequency variations	Voltage: +10 to -15% (Voltage unbalance : 2% or less), Frequency: +5 to -5%									
	Rated current[A] (with DCR)	0.85	1.6	3.0	4.4	7.3	10.6	14.4	21.1	28.8	
	(without DCR)	1.7	3.1	5.9	8.2	13.0	17.3	23.2	33.0	43.8	
Required power supply capacity[kVA]	0.6	1.1	2.0	2.9	4.9	7.4	10	15	20		
Braking	Torque[%]	100		50		30		20			
	DC injection braking	Starting frequency: 0.0 to 60.0Hz, Braking time: 0.0 to 30.0s Braking level: 0 to 100%									
	Braking transistor	Built-in									
Applicable safety standards	UL508C, EN 61800-5-1:2007										
Enclosure (IEC 60529)	IP20 (IEC 60529:1989) / UL open type (UL50)										
Cooling method	Natural cooling				Fan cooling						
Weight / Mass[kg(lbs)]	1.2(2.6)	1.3(2.9)	1.7(3.7)	1.7(3.7)	2.5(5.5)	3.1(6.8)	3.1(6.8)	4.5(9.8)	4.5(9.8)		

<sup>\*</sup>1 The load shall be reduced so that the continuous operating current is the rated current in parenthesis or less if the carrier frequency is set to 3kHz or above or ambient temperature exceeds 40°C (104°F).

## Specifications

### Single-phase 200V/100V series

Item	Specifications										
Input power source	Single-phase 200V						Single-phase 100V				
Type (FRN □□□□C2S-□△, △=A, C, E, U)	FRN □□□□C2S-7A, FRN □□□□C2S-7C FRN □□□□C2S-7E, FRN □□□□C2S-7U						FRN □□□□C2S-6U				
Nominal applied motor[kW] (△=A, C, E)	0.1	0.2	0.4	0.75	1.5	2.2	0.1	0.2	0.4	0.75	
Nominal applied motor[HP](△=U)	1/8	1/4	1/2	1	2	3	1/8	1/4	1/2	1	
Output ratings	Rated capacity[kVA]	0.30	0.57	1.3	2.0	3.5	4.5	0.26	0.53	0.95	1.6
	Rated voltage[V]	Three-phase 200 to 240V (With AVR)									
	Rated current[A]( <sup>*1</sup> )	0.8(0.7)	1.5(1.4)	3.5(2.5)	5.5(4.2)	9.2(7.0)	12.0(10.0)	0.7	1.4	2.5	4.2
	Overload capability	150% of rated current for 1min 150% of rated current for 1min or 200% of rated current for 0.5s (If the rated current is in parenthesis)						150% of rated current for 1min or 200% of rated current for 0.5s			
Rated frequency[Hz]	50, 60Hz										
Input ratings	Phases, Voltage, Frequency	Single-phase, 200 to 240V, 50/60Hz						Single-phase 100 to 120V, 50/60Hz			
	Voltage/Frequency variations	Voltage: +10 to -10%, Frequency: +5 to -5%									
	Rated current[A] (with DCR)	1.1	2.0	3.5	6.4	11.6	17.5	2.2	3.8	6.4	12.0
	Rated current[A] (without DCR)	1.8	3.3	5.4	9.7	16.4	24.0	3.6	5.9	9.5	16.0
Required power supply capacity[kVA]	0.3	0.4	0.7	1.3	2.4	3.5	0.3	0.5	0.7	1.3	
Braking	Torque[%]	150		100		50	30	150		100	
	DC injection braking	Starting frequency: 0.0 to 60.0Hz, Braking time: 0.0 to 30.0s, Braking level: 0 to 100%									
	Braking transistor	-		Built-in				-		Built-in	
Applicable safety standards	UL508C, EN 61800-5-1:2007						UL508C				
Enclosure (IEC 60529)	IP20 (IEC 60529:1989) / UL open type (UL50)										
Cooling method	Natural cooling					Fan cooling		Natural cooling			
Weight / Mass[kg(lbs)]	0.6(1.3)	0.6(1.3)	0.7(1.5)	0.9(2)	1.8(4)	2.5(5.5)	0.7(1.5)	0.7(1.5)	0.8(1.8)	1.3(2.9)	

\*1 The load shall be reduced so that the continuous operating current is the rated current in parenthesis or less if the carrier frequency is set to 3kHz or above or ambient temperature exceeds 40°C (104°F).