

APPLICATION NOTE	FECA-AN-175
Frenic-Mini C2 Single Phase Ratings	

Inverter type	Frenic-Mini C2
Software version	All
Required options	None
Related documentation	Frenic-Mini Instruction Manual
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Revision	None

Introduction

The Frenic-Mini C2 has been approved by UL for a single phase input. This Application note will list the single phase input and output ratings of the Frenic-Mini C2. The 230V models will be listed first, followed by the 460V rated drives.

UL File Number

UL File Number	E132902
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Conformity to UL Standards

When applying single-phase to a three-phase drive, the applied motor must not exceed the specifications in the table below.

Function Code Settings

The Mini C2 has built in protection from input phase loss. To use single phase input and to shut off this protection. Set function code H98 Bit 1 Off.

Due to extra ripple on the DC bus, the performance of Mini C2 may not be as accurate as with 3 phase. Therefore, set function code F2 – 0 for “V/F control with slip compensation inactive”.

Wiring

Connect the wiring to L1 & L3.

Refer to the 3 phase wiring gauges for the related drive model number for all wiring.

Refer to the MCCB or RCD/ELCB ratings for the same 3 phase drive model number.

***Note:** The Frenic-Mini C2 also offers a single phase 230V model from the factory. These models range from 1/8-3HP model. The model numbers follow this format: FRN_ _ _ _ C2S-7U.

Single-phase 230 V series

Item		Specifications										
Type (FRN____C2S-2U)		0001	0002	0004	0006	0010	0012	0020	0025	0033	0047	0060
Nominally applied motor (HP) (output rating) *1		-	1/8	1/4	1/2	1	1.5	2	3	5	7.5	7.5
Output Ratings	Rated capacity (kVA) *2	-	0.32	0.67	1.15	1.83	2.62	3.9	5.6	7.6	11.0	11.0
	Rated current (A)	-	0.8	1.7	2.8	4.6	6.6	9.7	14.0	19.0	26.0	27.0
Input ratings	Voltage, Frequency	-	Single-phase, 200 to 240 V, 50/60Hz									
	Allowable voltage/frequency	-	Voltage: +10 to -10%, Frequency: +5 to -5%									

Single-phase 460 V series

Item		Specifications									
Type (FRN____C2S-2U)		0002	0004	0005	0007	0011	0013	0018	0024	0030	
Nominally applied motor (HP) (output rating) *1		1/4	1/2	1	1.5	3	3	5	7.5	10	
Output Ratings	Rated capacity (kVA) *2	0.71	1.2	1.9	2.4	4.5	6.0	8.0	11.2	12.8	
	Rated current (A)	0.9	1.5	2.3	3	5.6	7.2	10.0	14.0	16.0	
Input ratings	Voltage, Frequency	Single-phase, 380 to 480 V, 50/60Hz									
	Allowable voltage/frequency	Voltage: +10 to -10%, Frequency: +5 to -5%									

*1 US 4P-standard induction motor

*2 Rated capacity is calculated assuming the rated voltage as 230 V for 230 V and 460 V for 460 V series

For further information:
Refer to the **Frenic-Mini C2** Instruction Manual.