

Frequently Asked Questions

BEFORE YOU CALL

If technical help is required, please have the following information when calling:

- Model number of unit
- Serial number of unit
- Name of original equipment supplier (if available)
- Record the line voltage
- Record the DC Bus voltage immediately after the AC voltage
- Brief description of the application
- Drive and motor HP or kW
- kVA rating of power source
- Source configuration and grounding

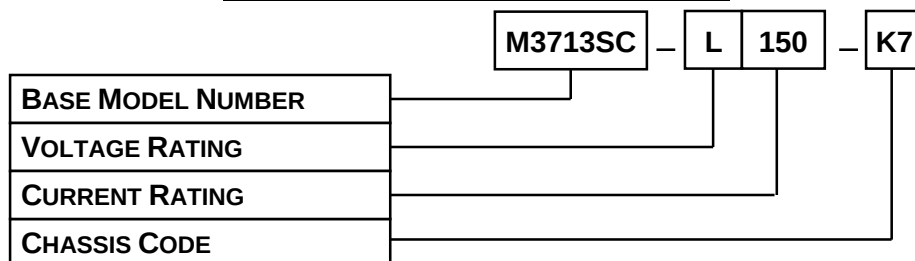
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Frequently Asked Questions

1) What is the part number breakdown for the M3713SC, Power Supply with Precharge?

Example of Part Number Breakdown



BASE MODEL NUMBER

The Base Model Number for the 3-Phase Power Supply with precharge is **M3713SC**.

VOLTAGE RATING

A 1-character code represents the 3-phase AC line input voltage to the M3713SC module. The voltage rating must be selected for the system voltage that will be applied.

Table Error! No text of specified style in document.-1: Voltage Rating

RATING CODE	VOLTAGE
L	208 – 240 VAC ±10%
E	380 – 415 VAC ±10%
H	440 - 480VAC ±10%
C	540 – 575 VAC ±10%

CURRENT RATING

A 3-digit code represents the maximum current that the M3713SC is intended to support. Exceeding this limit may cause poor performance and possible failure.

Table Error! No text of specified style in document.-2: Current Ratings

RATING CODE	NOMINAL DRIVE CURRENT
030	30A
075	75A
150	150A
225	225A
375	375A

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CHASSIS CODE

An alphanumeric code represents the chassis style as defined below.

Table Error! No text of specified style in document.-3: Chassis Style

CHASSIS CODE	CURRENT	DIMENSIONS (H x W x D)
B5	30-75	17.75 x 5.50 x 7.80
K7	150-225	20.00 x 7.12 x 10.35
K10	375	20.00 x 10.00 x 10.50

2) What are the voltage ratings for the M3713SC?

Voltage Rating

RATING CODE	VOLTAGE
L	208 – 240 VAC ±10%
E	380 – 415 VAC ±10%
H	440 - 480VAC ±10%
C	540 – 575 VAC ±10%

3) What are the I/O wiring specifications for the M3713SC?

Table Error! No text of specified style in document.-4: I/O Wiring Specifications

TERMINAL	FUNCTION	ELECTRICAL SPECIFICATIONS	MIN WIRE AWG	MAX WIRE AWG	TORQUE LB-IN
TB2-1	NC				
TB2-2&3	PRECHARGE COMPLETE	250VAC / 120mA max	26	16	4.5 lb-in
TB2-4&5	READY	250VAC / 120mA max	26	16	4.5 lb-in
TB2-6	24V	(24V, 100mA)	26	16	4.5 lb-in
TB2-7	PRECHARGE ENABLE	(24V, 100mA)	26	16	4.5 lb-in
TB2-8	24V	(24V, 100mA)	26	16	4.5 lb-in
TB2-9	RUN ENABLE	(24V, 100mA)	26	16	4.5 lb-in
TB2-10	Com	(24V, 100mA)	26	16	4.5 lb-in

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4) How do you Enable the M3713SC?

The unit will be enabled for precharge when a +24VDC signal is placed on TB2-7, and the return is placed on TB2-6.

The M3713SC will ramp up to the set voltage in approximately 2.5 seconds.

If the current during the ramp exceeds the current limit, the ramp will take longer.

If the precharge takes longer than 10 seconds the unit will stop charging and go into a fault mode.

If there is no voltage placed on TB2-7 the unit will remain in standby mode.

If there is a fault, it may be cleared by toggling the enable input.

5) How does the Precharge feature operate?

The M3713SC DC Bus Supply has a precharge function that slowly ramps the capacitor bank to full voltage before going into full operation to minimize the inrush currents during bus charging. This function is an automatic current controlled ramp that allows the unit to go into full conduction as soon as the full voltage is sensed on the output.

While the unit is in Precharge mode the Status Indicator will be a fast blink.

If the unit cannot charge the output, the unit will not go into operation and a fault will be shown.

6) What are the Fault Codes when the Status Indicator blinks on the M3713SC?

When the unit has a fault there will be no output from the converter and the power supply will shut down. All faults are cleared by cycling the power or toggling the PRECHARGE ENABLE input.

When the PRECHARGE ENABLE input is low, the blink code will show the condition of the last fault.

Blink Patterns

BLINK PATTERN	FAULT CONDITION
Fast Blink	Precharging
Off	No Fault
On	Missing Run Input
On – Off	Ramp Limit
On – On – Off	Overcurrent
On – On – On – Off	Overtemperature
On – On – On – On – Off	Undervoltage
On – On – On – On – On- Off	Phase Loss

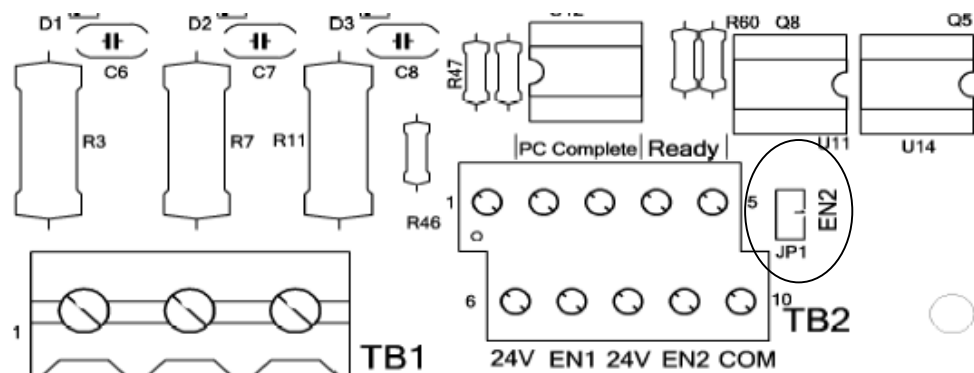
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7) What is Stand-Alone Operation feature on the M3713SC?

Stand-Alone Operation occurs when the RUN Input is forced high. When the unit finishes precharging after startup the M3713SC will immediately go into full conduction operation.

Stand-Alone Operation is accomplished when a jumper, JP1, is installed between TB2-8 and TB2-9 or on the circuit board at the site marked JP1.

K7 and K10 Chassis Jumper 1 Location



B5 Chassis Jumper 1 Location

