

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 are the voltage ratings for the M3452 Complete Braking Kit?

VOLTAGE CODE	NOMINAL AC LINE VOLTAGE	DC TURN ON VOLTAGE	DC TURN OFF VOLTAGE
L	230 VAC	375 VDC	360 VDC
H	460 VAC	750 VDC	720 VDC
C	575 VAC	910 VDC	880 VDC

2) What are the voltages that the M3452 Complete Braking Kit begins to shunt power?

VOLTAGE CODE	NOMINAL AC LINE VOLTAGE	DC TURN ON VOLTAGE	DC TURN OFF VOLTAGE
L	230 VAC	375 VDC	360 VDC
H	460 VAC	750 VDC	720 VDC
C	575 VAC	910 VDC	880 VDC

3) What is the duty cycle for the M3452 Complete Braking Kit?

The M3452 Complete Braking Kit is rated for 20% duty cycle for braking loads and 10% duty cycle for overhauling loads.

4) What are the dimensions of the M3452 Complete Braking Kit?

CHASSIS CODE	RESISTORS	TYPE	DIMENSIONS (H x W x D)
B	2, 3, 6	Type 1	18.25 x9.50 x 8.50
C	8, 9	Type 1	18.25 x11.50 x 10.50

5) The Braking light Flickers?

During motor deceleration, the braking LED may flicker if the braking cycle energy is low. This is normal.

If the braking light flickers when the inverter is idle, this may indicate high voltage, excessive noise, or harmonics on the main system rectifier input AC voltage. Check the incoming AC line for these problems. Consult the project engineer for the appropriate corrective action.

Frequently Asked Questions

6) Blown DC Bus Fuse?



*Do not replace a blown DC bus fuse and reapply power to the system without determining the cause.
This usually indicates serious problems exist and proceeding in this manner carries a high risk of creating additional equipment damage!
Contact Bonitron before changing the fuse.*

Possible causes for a blown fuse are:

- Shorted heatsink IGBT power transistor
- Shorted heatsink commutation diode
- Shorted load bank
- Crowbar circuit has activated. In this case, there has been a severe over temperature or other fault.

7) The attached drive trips on overvoltage?

Make sure the DC+ and DC- connections are made directly to the drive system bus. They should not be connected to terminals dedicated to an internal transistor circuit, on the inverter.

If the drive trips on overvoltage and the module is ready to operate, watch the “Active Braking” light on the front of the module. If it never illuminates, check the connections to the DC bus of the drive system. Check the DC Bus voltage and make sure the bus voltage at the braking module exceeds the Turn on Voltage of the module, i.e. 750VDC for a 460VAC nominal system.

If the “Active Braking” light comes on, check to make sure that the module is sized properly for the system. If the resistance of the load bank is too large, not enough current will flow to allow for the braking energy to be dissipated. Check the system design to make sure the braking requirements are matched with the braking module capacity.

Frequently Asked Questions

8) The braking light stays on all the time?

System voltage is too high or high harmonic content is present. Check main system rectifier input AC voltage. Refer to the DC Turn On Level found below

VOLTAGE CODE	NOMINAL AC LINE VOLTAGE	DC TURN ON VOLTAGE	DC TURN OFF VOLTAGE
L	230 VAC	375 VDC	360 VDC
H	460 VAC	750 VDC	720 VDC
C	575 VAC	910 VDC	880 VDC

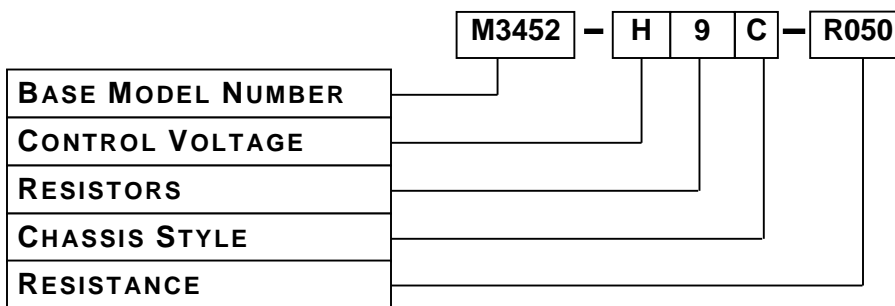
Note: If the measured DC bus voltage (in standby) is greater than the RMS line voltage*1.414,
 $V_{DC} > 1.414 * V_{rms}$

Then the harmonic distortion may be raising the DC bus voltage above the measured RMS reading of a standard meter. Consult the project engineer for the appropriate corrective action.

Setpoint too low. The DC Bus Setpoint pot on the main control board may have been tampered with. If this is a possibility, then the module needs to be sent in for recalibration.

Main control board has gone bad. Module needs to be sent in for repair.

9) What is the part number breakdown of the M3452 Complete Braking Kit?



BASE MODEL NUMBER

The Base Model Number for the Complete Braking Module is **M3452**.

Frequently Asked Questions

VOLTAGE RATING

The Voltage Rating indicates the AC voltage level for the drives in the system.

AC Voltage Rating

RATING CODE	NOMINAL AC LINE
L	230VAC
H	460VAC
C	575VAC

RESISTORS

The Resistor Quantity is indicated by a numeric code.

Resistors

RATING CODE	RESISTOR QUANTITY
2	2 Resistors
3	3 Resistors
6	6 Resistors
8	8 Resistors
9	9 Resistors

CHASSIS SIZE

The Chassis code represents the chassis size of the Complete Braking Module.

Chassis Codes

CHASSIS CODE	RESISTORS	TYPE	DIMENSIONS (H x W x D)
B	2, 3, 6	Type 1	18.25 x9.50 x 8.50
C	8, 9	Type 1	18.25 x11.50 x 10.50

RESISTANCE

The Resistance is indicated by an "R" followed by the 3-digit number representing the ohmic value of the internal load bank,