



M3460C

Ultra Capacitor Bank

Add on Module

UNDERVOLTAGE SOLUTIONS FOR AC DRIVES

Bonitron's Model M3460B4 Battery Regulator Ride-Thru Module, in conjunction with a backup battery bank, provides protection from AC line voltage sags and/or outages for AC drive systems that use a fixed bus as with AC PWM adjustable speed drives (ASDs). ASDs are commonly used in industry to improve control over continuous processes where highly accurate motor speed control is required. Unfortunately, ASDs are quite susceptible to problems when fluctuations in incoming power occur.

One solution to this problem is to support the drive system's fixed DC bus with a string or bank of backup batteries. However, this solution is not without its own problems. When using batteries for backup in this fashion, the charge voltage of the battery bank cannot exceed the DC bus voltage. Then, when the batteries are loaded supporting the DC bus, their voltage drops and quickly becomes too low to be useful.

Bonitron's M3460B4 Battery Regulator Ride-Thru Module solves the "voltage drop" problem associated with battery banks in backup situations. The Ride-Thru module regulates the battery bank voltage, boosting it as it drops. This is done by temporarily storing energy in specialized "boost" circuits and releasing it into the DC bus as needed.



Bonitron's M3460C is an enclosed Super Capacitor energy storage module. By adding the M3460C to a M3460 Ride-Thru module's energy storage capability, a 100% outage for a full 1/2, 1, 2, or 3 second spec can be achieved.

This covers virtually all short term power quality issues and exceeds SEMI 47 specifications.

Ultra caps require NO MAINTENANCE!

FEATURES

- Open battery bypass option available
- Open battery detection option available
- AC input option available

ADVANTAGES

- Connects parallel to existing system
- Instant response with no "switch over time"
- Easy retrofit installation - Works with most any fixed bus PWM drive

BENEFITS

- Minimizes down time – stops major production losses
- Low installation cost
- Does not decrease drive system reliability
- No RF interference
- No Maintenance!

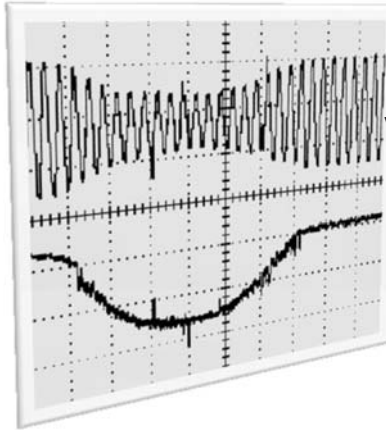
M3460 RIDE-THRU

The Ride-Thru module is factory set to become active (begin supplying power) if the DC bus voltage drops to a preset level. Once active the Ride-Thru boosts the DC bus voltage to a nominal operating level without loss of control of motor speed for up to 4 minutes.

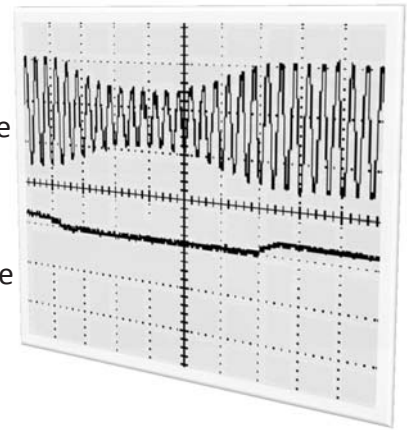
SPECIFICATIONS

Voltages..... 230 to 460 VAC +/- 10% @ 50-60Hz
Power Rating..... 42kW - 200kW
Dip Ride-Thru..... At rated kW for up to 2 seconds with 50% incoming dip
Optional Indicators... Precharge Complete
 Ride-Thru Ready
 Ride-Thru Active
 Voltage Sag Sensor
 Temperature Sensor
Operating Temp..... 40°C

UNPROTECTED DC BUS DURING POWER SAG



DC BUS WITH RIDE-THRU PROTECTION



Chassis	Dimensions
D33	48 x 38 x 16"
D34	60 x 38 x 16"
CAB1	800 x 600 x 2000mm
CAB3	800 x 600 1600mm

DIMENSIONS

Model Number	Max Hp	Amps	Capacity (Farads)	Hp Sec.	Min. DC Bus Voltage	Enclosure
380 - 415 VAC Drives						
M3460C-E090-200D33	75	200	1.16	90	490 - 520	D33
M3460C-E180-400-D34	150	400	2.33	180	490 - 520	D34
M3460C-E180-400-CAB3	150	400	2.33	180	491 - 520	CAB3
M3460C-E270-600-CAB3	225	600	3.49	270	492 - 520	CAB3
M3460C-E360-800-CAB1	300	800	4.66	360	493 - 520	CAB1
M3460C-E450-800-CAB1	300	800	5.82	450	494 - 520	CAB1
460 VAC Drives						
M3460C-H120-200-D33	90	200	1	120	590	D33
M3460C-H240-400-D34	175	400	2	240	590	D34
M3460C-H240-400-CAB3	175	400	2	240	590	CAB3
M3460C-H360-600-CAB1	260	600	3	360	590	CAB1
M3460C-H480-800-CAB1	350	800	4	480	590	CAB1
M3460C-H600-800CAB1	350	800	5	600	590	CAB1

MODEL NUMBER SELECTION TABLE