



M3460UR

Ultra Capacitor Ride-Thru Power Protection for 75 - 1800hp Drives

UNDERVOLTAGE SOLUTIONS FOR AC DRIVES – SHORT TERM 100% OUTAGE



The Bonitron M3460UR series of DC Bus Ride-Thru Modules provide protection from line voltage outages for 208-600VAC Variable Speed PWM Drives that use a fixed rectifier and DC bus.

Industries with continuous processes can suffer huge losses from equipment downtime, loss of production, or damaged product when VSDs trip on undervoltage conditions. While many drives claim to have ride through capability such as auto restart or kinetic buffering, none are able to maintain complete control over the motor as called upon by the process during a complete loss of power.

While Bonitron Model 3460R is a small and cost effective method of protecting drives from voltage sags up to 50%, some sags are greater in depth, and some feeds with automatic re-closure systems may have up to 2 second complete outages.

Bonitron Power Source (BPS) M3460UR provides sufficient ride through capability to handle these deep sags and outages by storing energy in Ultra Capacitor banks and releasing it back into the drives DC bus when needed. This allows the drive to “ride through” these events while **MAINTAINING MOTOR SPEED and TORQUE** without experiencing drive shutdown.

BPS M3460UR is the most cost effective product to ride through short term outages with drive systems ranging from 75-1800hp. Adding M3460UR to a fixed bus drive allows the system to surpass SEMI-47 and 100% outage specifications.

FEATURES

- Electronic voltage boost switching scheme
- Simple 5 wire hook up directly to drive
- Single Cabinet packaged systems
- Parallel connection
- Ultra capacitor energy storage
- Low standby power loss (less than 0.5% of rating)
- Built in test with optional display and activity counter

ADVANTAGES

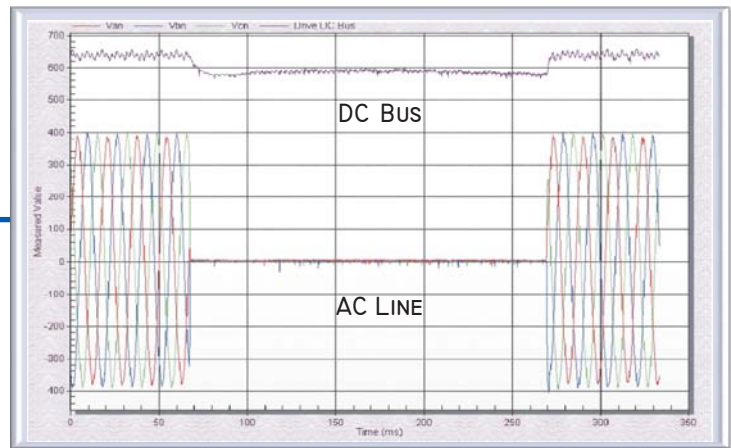
- Maximizes usage of capacitor bank - No batteries!
- Easy implementation, easy retrofit
- Minimal footprint
- Ride-Thru system failure will not affect process
- Maximum reliability with redundancy
- 10+ year, 500,000 cycle life expectancy
- Ability to activate and monitor system while on line

BENEFITS

- Small size and cost of complete ride thru system
- Low installation and operating cost
- Minimal floor space needed for installation
- Does not decrease drive system reliability
- Minimizes down time – stops major production losses
- No preventive maintenance required
- Gain confidence in systems ability to maintain control over process

DC BUS WITH RIDE-THRU

With Ride-Thru protection from Bonitron's M3460UR, when the AC line disappears, the drive DC Bus drops. When the drive bus drops to the "threshold," the BPS becomes active and holds up the DC bus, allowing the drive to maintain control.



Input AC Line Voltage.... 3-Phase, 208 - 460 VAC
Output DC Bus Voltage.. 270 - 585VDC minimum
kW / Horsepower..... 55 / 75 - 1342 / 1800
Outage Duration..... 0.5 - 2.0 seconds typical
 (hps / motor hp = time)
 (in seconds)

Duty Cycle..... 1% duty
Operating Temp..... 40° C
Sag Duration..... 2 Seconds at 50% across all phases
 or total loss of single phase with
 remaining 2 phases at rated voltage
Time..... 1 - 5 minutes typical
Panel Indicators..... Power, analog voltmeter, or optional
 display panel

SPECIFICATIONS

DIMENSIONS

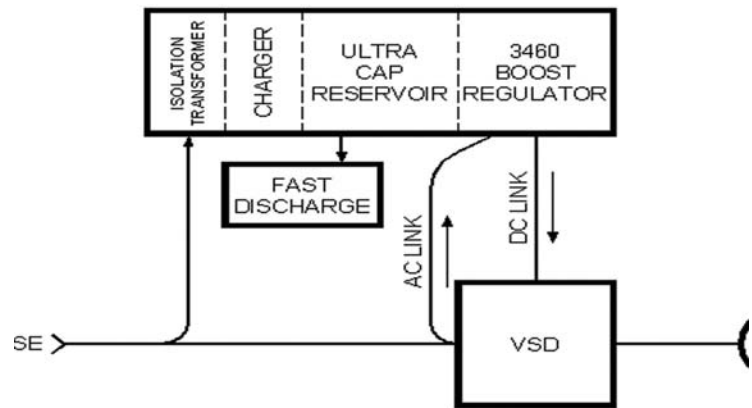
Code	Enclosure Size (H x W x D)
D34	60" x 37" x 16"
D40	72" x 27.5" x 18"
D43	72" x 61" x 18"

BPS 3460UR	2 Second Ultra Capacitor Ride-Thru Systems						
Model Number	kW	Hp	kJ	hps	Output Amps	Weight	Chassis Code
M3460UR-H075-150-D34-DP17,F,M5	75	101	150	201	127	621	D34
M3460UR-H100-200-D40-DP17,F,M5	100	134	200	268	170	706	D40
M3460UR-H150-300-D43-DP17,F,M5	150	201	300	402	255	1123	D43
M3460UR-H200-400-D43-DP17,F,M5	200	268	400	536	340	1188	D43
M3460UR-H250-500-D43-DP17,F,M5	250	335	500	670	425	1220	D43
M3460UR-H1350-2700-DP43-DP17,F,M5	1350	1800	2700	3600	2300	1220	D43

MODEL NUMBER SELECTION TABLE

INDUSTRY APPLICATIONS

Semiconductor..... Air Handling, Cooling Water
Oil..... Drilling, Extraction
Fiber Optics..... Wind/Unwind Tension Control
Food Storage..... Compressors
Pharmaceutical.... Compressors, Injection Pumps
Fibers..... Extruders, Wind/unwind,
 Injection Pumps
Printing..... Paper Roller
 Tension Controllers
 Extruders
Data Centers..... Cooling Water



ABOVE 50KW, 0.5 - 2 SECOND, 100% OUTAGE PROTECTION
 USING DC BOOSTER WITH ULTRA CAP RESERVOIR
 SINGLE CABINET POWERED FROM AC LINE