



# M3534UR

## Ultra Capacitor Ride-Thru Power Protection for 15 - 67hp Drives

### UNDERVOLTAGE SOLUTIONS FOR AC DRIVES – SHORT TERM 100% OUTAGE

The Bonitron Power Source (BPS) M3534UR series of DC Bus Ride-Thru Modules provide protection from line voltage outages for 208-460VAC 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 under voltage conditions. While many drives claim to have ride thru 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 3534RT 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. The BPS M3534UR modules provide 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.

The BPS M3534UR series is the most cost effective product to ride through short term outages with drive systems ranging from 15-67hp.

#### FEATURES

- Electronic voltage boost switching scheme
- Simple 5 wire hook up directly to drive
- Single cabinet packaged system
- Parallel connection
- Ultra capacitor energy storage
- Very low standby power losses (less than .3% of rating)
- Built in test with optional display and activity counter

#### ADVANTAGES

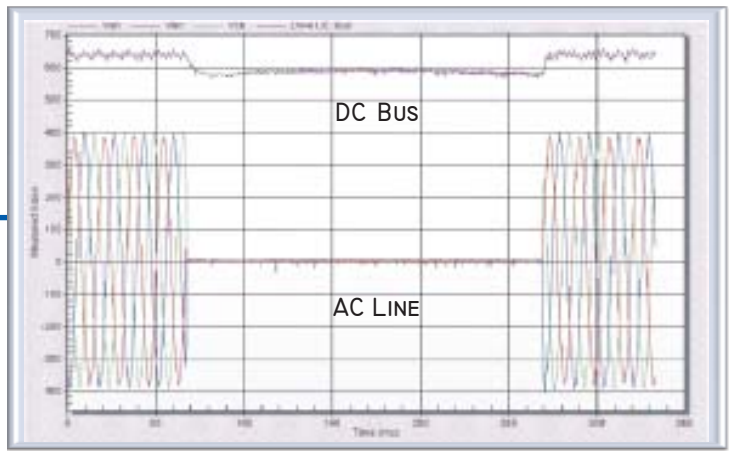
- Maximizes usage of capacitor bank - No Batteries!
- Easy implementation, easy retrofit
- Minimal footprint
- Ride-Thru system failure will not affect process
- 10+ year, 500,000 cycle life expectancy
- Ability to activate and monitor system while on line
- Allows connected drive to exceed SEMI-47 spec and meet Samsung vaccine specs

#### 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
- Long maintenance cycle
- Gain confidence in systems ability to maintain control over process
- Minimizes down time – stops major production losses

## DC BUS WITH RIDE-THRU

With Ride-Thru protection from Bonitron's M3534UR, 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 - 585 minimum
- kW / Horsepower**.....12 / 16 - 50 / 67
- Outage Duration**.....0.5-2.0 seconds typical  
(hps/motor hp = actual 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 minute typical
- Panel Indicators**.....Power, analog voltmeter, or optional display panel

## SPECIFICATIONS

## DIMENSIONS

Code	Enclosure Size (H x W x D)
E66	36" x 30" x 12"
E67	36" x 36" x 12"
E69	42" x 36" x 12"
CAB3	1200mm x 600mm x 600mm

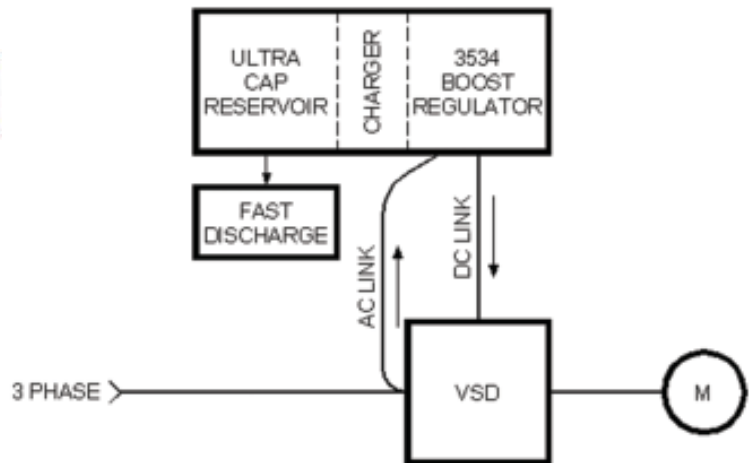
## 460V M3534UR Ultra Capacitor Cabinet Systems

Model Number	Max kW / hp	Time @ Max Power	kJ / hps	Cabinet Type	Output Voltage	Output Current
M3534UR-H012-04.6-E66	12 / 16	0.38	4.6 / 6.2	E66	640 / 585	20
M3534UR-H012-024-E67	12 / 16	2.06	24 / 33	E67	640 / 585	20
M3534UR-H024-018-E69	24 / 32	0.77	18 / 24	E67	640 / 585	40
M3534UR-H024-033-E69	24 / 32	1.42	33 / 45	E69	640 / 585	40
M3534UR-H050-033-CAB3	50 / 67	0.67	33 / 45	CAB3	640 / 585	85
M3534UR-H050-063-CAB3	50 / 67	1.27	63 / 85	CAB3	640 / 585	85

## MODEL NUMBER SELECTION TABLE

## INDUSTRY APPLICATIONS

- Semiconductor**.....Air Handling
- Personnel Movers**...Escalators & Elevators
- 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



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