



M3534EC

Electrolytic Capacitor Ride-Thru Power Protection for Fractional - 3hp Drives

UNDERVOLTAGE SOLUTIONS FOR AC DRIVES – SHORT TERM 100% OUTAGE

Bonitron M3534EC series of DC Bus Ride-Thru Modules provide protection from line voltage outages for 208-460 VAC 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 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 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. Bonitron Power Source M3534EC provides sufficient ride through capability to handle these deep sags and outages by storing energy in Electrolytic capacitor banks and releasing it back into the drives DC bus when needed. This allows the drive to “ride through” these events without experiencing drive shutdown.



BPS model 3534EC is the most cost effective product to ride through short term outages with drive systems ranging from fractional to 3hp.

FEATURES

- Simple 5 wire hook up directly to drive
- Single Cabinet packaged system
- Parallel connection
- Electrolytic capacitor energy storage
- Very low standby power losses (less than 0.1% of rating)

ADVANTAGES

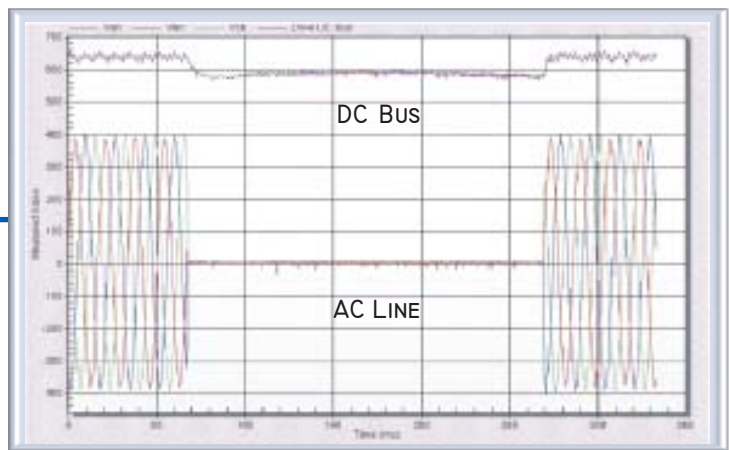
- Easy implementation, easy retrofit
- Minimal footprint
- Ride-Thru system failure will not affect process
- 10+ year, 500,000 cycle life expectancy
- No heat losses to remove
- Allows connected drive to exceed SEMI-47 spec and meet Samsung vaccine specs

BENEFITS

- Low installation and operation cost
- Minimal floor space needed for installation
- Does not decrease drive system reliability
- Long maintenance cycle
- Minimizes down time – stops major production losses

DC BUS WITH RIDE-THRU

With Ride-Thru protection from Bonitron's M3534EC, when the AC line disappears, the drive bus drops at a slow rate due to the additional capacitance. Units are sized to keep DC above 85% nominal for the specified time.



Storage Capacitance.....10,000 uF - 100,000uF
Input AC Line Voltage...3-Phase, 208 - 460 VAC
Output DC Bus Voltage...272 - 544V Minimum,
kW / Horsepower.....0.18 / 0.25 to 2.2 / 3.0
Precharge Time.....10 Seconds Typical
Power Indicator.....DC Voltmeter
Operating Temp.....50°C
Storage Temp.....-20°C to +65°C
Max Outage Duration.....hps / motor hp = time (in seconds)
 (See Model # Table)
Humidity.....Below 90% Noncondensing
Atmosphere.....Free of Corrosive Gas and Dust
Connections.....AC Line Input, Ground, and DC Bus Output

SPECIFICATIONS

DIMENSIONS

Chassis	(H x W x D)
E61	24 x 20 x 12"
E63	30 x 24 x 12"

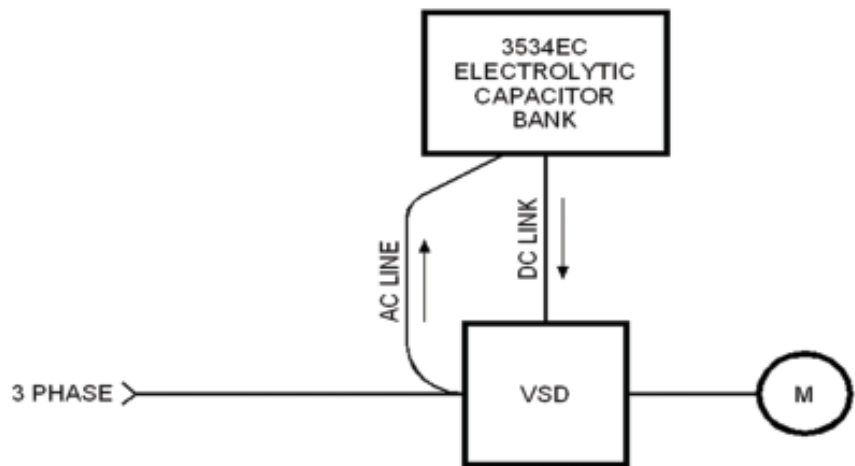
460V M3534EC Electrolytic Capacitor Cabinet Systems

BPS Part Number	Max kW / hp	Time at Max Power	kJ / hps	Cabinet Type	Output Voltage	Output Current
M3534EC-H02.2-00.5-E61	2.2 / 3	0.23	.5 / 0.7	E61	640 / 544	4
M3534EC-H02.2-00.8-E61	2.2 / 3	0.35	.8 / 1.1	E61	640 / 544	4
M3534EC-H02.2-01.0-E61	2.2 / 3	0.47	1.0 / 1.4	E61	640 / 544	4
M3534EC-H02.2-01.3-E63	2.2 / 3	0.58	1.3 / 1.7	E63	640 / 544	4
M3534EC-H02.2-01.6-E63	2.2 / 3	0.7	1.6 / 2.1	E63	640 / 544	4

MODEL NUMBER SELECTION TABLE

INDUSTRY APPLICATIONS

Fiber Optics.....Wind/Unwind tension control
Pharmaceutical...Injection pumps
Fibers.....Metering pumps, wind/unwind, injection pumps
Printing.....Kiss Rolls
 Tension Controllers
Part Fabrication...CNC Machines



2.5KW & BELOW, 0 - 0.5 SECOND, 100% OUTAGE PROTECTION
 USING ELECTROLYTIC CAP RESERVOIR
 SINGLE CABINET POWERED FROM AC LINE