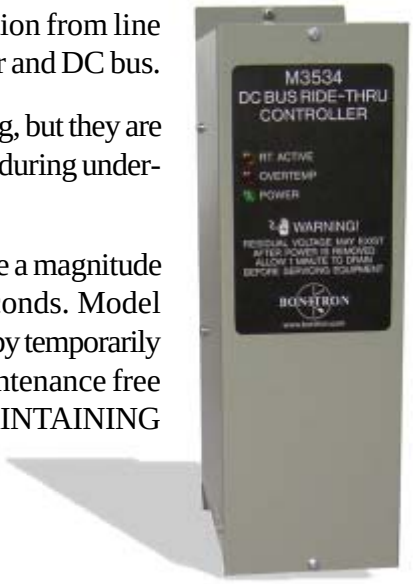
M3534RT

Boost Regulator Ride-Thru Power Protection for 1 - 67 hp Drives

Undervoltage Solutions for AC Drives – 50% 2 Seconds Sag



Bonitron's Model M3534RT series of DC Bus Ride-Thru Modules provides protection from line voltage sags for 208-460VAC Adjustable Speed PWM Drives that use a fixed rectifier and DC bus.

Many drives claim to have ride through capability, such as auto restart or kinetic buffering, but they are not able to maintain complete control over the motor as called upon by a critical process during under-voltage power disturbances.

The majority of AC line voltage sags that occur in three-phase distribution systems have a magnitude (decrease from nominal voltage) of less than 50% and duration of less than .5 seconds. Model M3534RT provides sufficient ride through capability to handle these types of voltage sags by temporarily storing energy in an inductor and releasing it back into the drive's DC bus using maintenance free IGBT switching technology. This allows the drive to "ride through" these events, MAINTAINING MOTOR SPEED and TORQUE, without experiencing drive shutdown.

The M3534RT connects in parallel with drives so it does not decrease system reliability. Modules are tested and certified to exceed Semi-47 requirements.

Features

- Electronic switching scheme - Does NOT use batteries or capacitors
- Simple 5 wire hook up directly to drive
- Parallel connection
- Very low standby power losses (less than .2% of rating)
- Built in test with optional display and activity counter
- External DC input

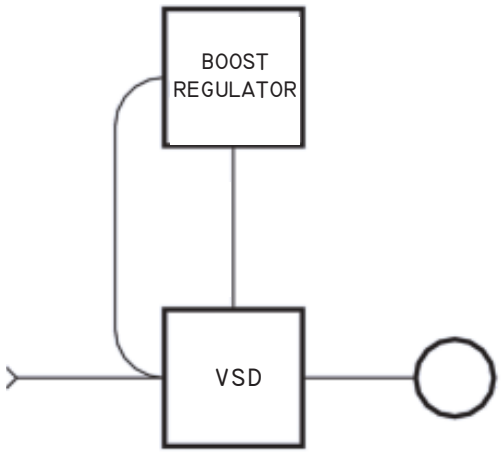
Advantages

- No maintenance - 50% sag 2 second spec does not decrease over time
- Easy implementation, easy retrofit
- Ride-Thru system failure will not affect process
- No heat losses to remove
- Ability to activate system while on line, monitor status and record events
- Can add outage protection as need arises

Benefits

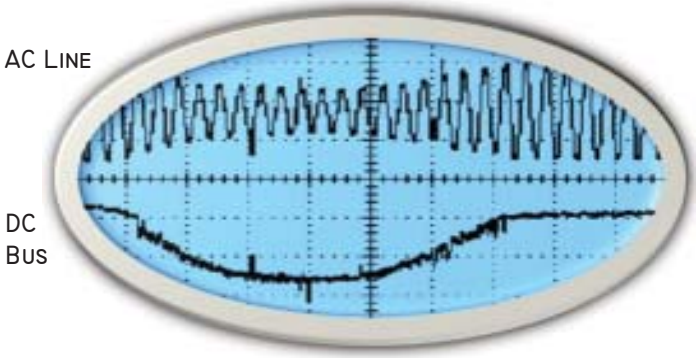
- Minimizes down time - stops major production losses
- Low installation and operating cost
- Does not decrease drive system reliability
- Gain confidence in system's ability to maintain control over process
- Adding on caps later can make implementing outage protection easier on budget
- Allows connected drive to far exceed SEMI-47 specifications

50% Sag Protection

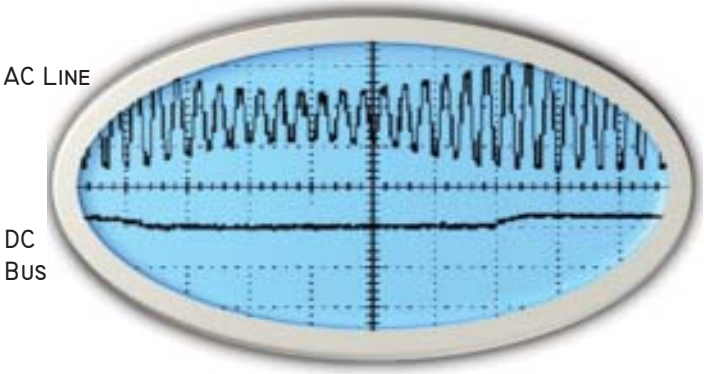


2 SECOND 50% SAG PROTECTION USING DC BOOSTER
----------MAKES VSD SEMI-47 COMLIANT----------

Without Ride-Thru



With Ride-Thru



Specifications

Input AC Line Voltage.....230, 400, 460 VAC
Output DC Bus Voltage...285, 485, 585 VDC
Horsepower Up To.....67 hp Nominal, 134 hp Master/Slave
Max Sag Duration..... Full load for 2 seconds at 50% on all 3 phases
Package..... Enclosed
Panel Indicators..... Power, Over-Temp, and RT Active
Duty Cycle.....1% duty
Operating Temp.....40° Celsius

Industry Applications

Semiconductor..... Cooling Water
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

Chassis	Max Output	Dimensions (H x W x D)	Weight
A5	20 A	18.60 x 5.10 x 9.40"	20 lbs
K6	40 A	20.00 x 7.12 x 10.50"	33 lbs
A9	85 A	22.00 x 8.70 x 10.30"	55 lbs

Model Number	AC Input	kW	Max. Output Power	Internal Fuse Ratings (AC Input / DC Output)	Max. DC Output Current	Chassis
M3534RT-E010-A5	400VAC	10 kW	13 hp	A60Q30-2 / A70Q25-2	20 ADC	A5
M3534RT-E020-A8	400VAC	20 kW	26 hp	A60Q40-2 / A70QS50-14F	40 ADC	K6
M3534RT-E043-A9	400VAC	43 kW	57 hp	N / A	85 ADC	A9
M3534RT-H012-A5	460VAC	12 kW	16 hp	A60Q30-2 / A70Q25-2	20 ADC	A5
M3534RT-H024-A8	460VAC	24 kW	32 hp	A60Q40-2 / A70QS50-14F	40 ADC	K6
M3534RT-H050-A9	460VAC	50 kW	67 hp	N / A	85 ADC	A9

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