



M3460B4

4-15 Minute Battery Regulator

Ride-Thru with 3460M5 Status Interface

UNDERVOLTAGE SOLUTIONS FOR AC DRIVES



Bonitron M3460B4 series of DC Bus Ride-Thru Modules, in conjunction with a battery bank, provide protection from power outages for 230-575VAC fixed bus Adjustable Speed PWM Drives. Industries with critical systems or continuous processes can suffer huge losses from equipment downtime, loss of production, or damaged product when ASDs 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 control over the motor as called upon by the process during deep sags or a complete loss of power.

A cost effective method of storing energy for power outages between a few seconds and several minutes are battery banks. Since a battery bank cannot be placed directly on a drives DC bus due to its wide 30% regulation range, model 3460B4 Bonitron boost regulator module is used to interface the changing battery voltage to the drive bus voltage level. This allows the drive to “ride through” these events while, MAINTAINING MOTOR SPEED and TORQUE, without experiencing drive shutdown.

A complete Bonitron Power Source system includes batteries, isolated charger, and a voltage boost regulator. Standard systems are designed to provide 4-15 minutes of power to the drive DC bus allowing sufficient time for controlled system shutdown or generator start up and transfer to auxiliary power. Longer Ride Thru times are available upon request. Short Ride Thru times should consider Ultra Capacitor storage technology. This parallel method of Ride Thru does not decrease the existing drive systems reliability. Adding the optional M3528BB battery bypass system can increase Ride Thru reliability by allowing the system to provide full power even when a battery opens.

BPS model 3460B4 is designed for regulating battery banks during 4-15 minute outages, with drive systems ranging from 53hp to 1500hp.

FEATURES

- Electronic voltage boost switching scheme
- Simple 5 wire hook up directly to drive, Single Cabinet packaged system available
- Parallel connection
- User choice of battery energy storage
- Very low standby power losses (less than .2% of rating)
- Built in test with optional display and activity counter
- Open battery bypass option available

ADVANTAGES

- Maximizes usage of battery bank
- Easy implementation, easy retrofit, minimal footprint
- Ride Thru system failure will not affect process
- Choice of cycle life expectancy, local vendor, standard available batteries
- No heat losses to remove
- Ability to activate and monitor system while on line
- Can continue to run with open battery, indicate which battery is open

BENEFITS

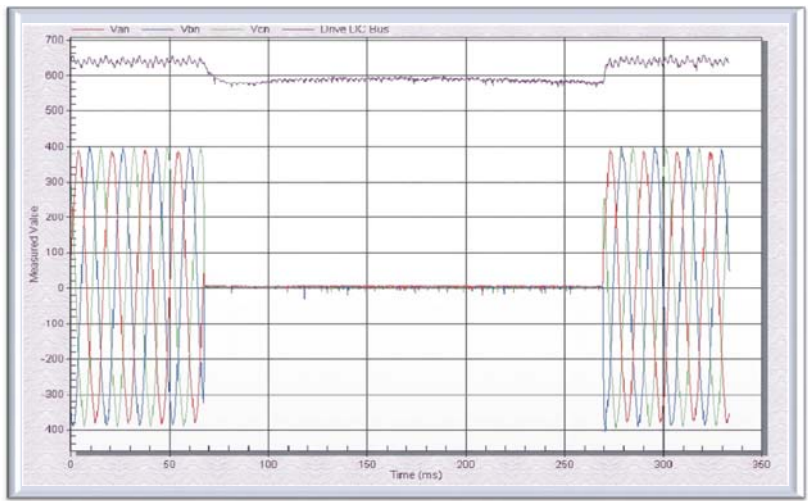
- Small size and cost of complete ride thru system
- Low installation cost, minimal floor space needed for installation
- Does not decrease drive system reliability
- Ability to self determine maintenance cycle, outsource maintenance locally
- Low operating cost, environmentally friendly
- Gain confidence in systems ability to maintain control over process
- Superb reliability, less maintenance cost to replace single battery

M3460B4 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 575 VAC
- Horsepower.....53 - 1500hp
- Duty Cycle.....1% Duty
- Operating Temp.....40° Celcius
- Storage Temp.....-20° C to +65° C
- Max Outage Duration... 4 Minutes
- Package.....Open Chassis to TYPE-12
- Atmosphere.....Free of Corrosive Gas & Dust
- Connections.....Ground
DC Bus Output
External Energy Reservoir
24V Run and Command
- Certifications.....Awaiting UL Recognition

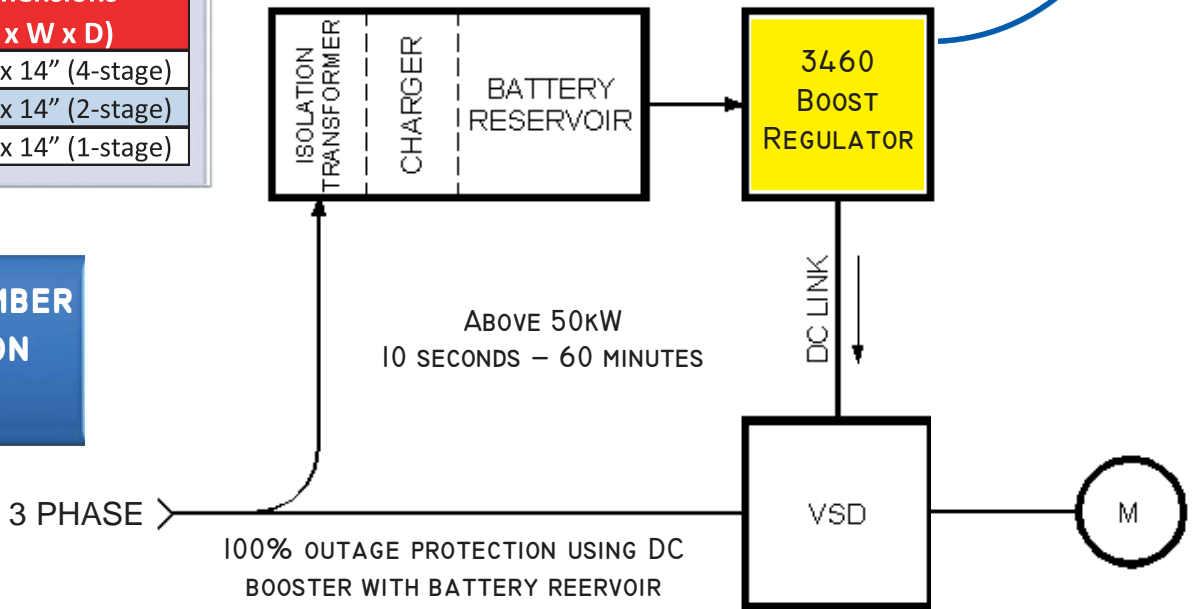


OPTIONS

Option Code	Description
M5	Status Interface / Logic DCS Platform
D	Dual Output
DP17	Diagnostic Display Panel

Chassis	Dimensions (H x W x D)
R2	52 x 24 x 14" (4-stage)
R9	34 x 16 x 14" (2-stage)
R10	28 x 16 x 14" (1-stage)

MODEL NUMBER SELECTION TABLE



Model Number	Input Voltage	Power Rating	Boost Config.	Amps	Output
M3460B4-4R2-150-M5	400 – 640VDC	150kW	4-Stage	255	Single
M3460B4-4R2-200-M5	400 – 640VDC	100kW	4-Stage	340	Single
M3460B4-4R9-075-M5	400 – 640VDC	75kW	2-Stage	127	Single
M3460B4-4R9-100-M5	400 – 640VDC	100kW	2-Stage	170	Single
M3460B4-4R10-050-M5	400 – 640VDC	50kW	1-Stage	85	Single
M3460B4-4R2-200-D,M5	400 – 640VDC	100kW	2-Stage	170	Dual
M3460B4-4R9-100-D,M5	400 – 640VDC	100kW	2-Stage	170	Dual