

# **Industry Applications**

# Bonitron Solutions for Industry

"Bonitron designs and manufactures electronic instruments and control systems with the highest degree of quality and reliability."

From agriculture to wastewater, Bonitron prides itself in providing quality electronics to solve problems in your industry. Drives running too hot? Need 3-phase power where it's typically unavailable? Need constant, uninterrupted power? Or is your organization simply trying to practice sustainability by "going green"? No matter what the situation may be, Bonitron wants to help! Discover some of our current solutions, or contact us and we may be able to create a new one together.



### – www.bonitron.com –

#### SATISFIED CUSTOMERS - SINCE 1962

Bonitron has products worldwide due not only to our reputation for quality, but because of our great sales team. The Bonitron sales team works in conjunction with engineers to ensure our customers receive the best and most cost efficient solution for their needs.

Bonitron production facilities are state of the art with experienced professionals taking an individual interest in product assembly. Bonitron technicians have the latest test equipment in extensive on-site testing laboratories, allowing engineers to have immediate access to testing and assuring quality, which is essential to providing only the best quality products to our customers.

# **AGRICULTURE**

#### **APPLICATIONS**

- Pumps -

#### **Filtering Modules**

• M3464

Sine Wave Filter

#### Ride-Thru Modules

- M3534 Low Power Series Below 67hp / 50kW
- M3460 High Power Series
  67hp / 50kW and Above

#### Single Phase Power Supply

• M3712

Single Phase Power Supply

# CHEMICAL PROCESSING

#### **APPLICATIONS**

- Mixers -
- Centrifuges -

#### **Line Regeneration Modules**

• M3345 Line Regen

#### **Braking Modules**

• M3452

**Heavy Duty Braking Transistor** 

• M3575T

**Standard Duty Braking Transistor** 

• M3775RK

Resistive Load Bank

• M3575R

Standard Duty UL Braking Resistor

- Pumps -

#### **Filtering Modules**

• M3464

Sine Wave Filter

#### Ride-Thru Modules

- M3534 Low Power Series Below 67hp / 50kW
- M3460 High Power Series
  67hp / 50kW and Above



#### **APPLICATIONS**

- Assembly Lines -
- Downhill Conveyors -
- Cranes -
- Automated Paint Booths -
- Pick & Place -

#### **Braking Modules**

• M3452

**Heavy Duty Braking Transistor** 

• M3575T

Standard Duty Braking Transistor

• M3775RK

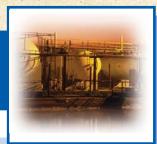
Resistive Load Bank

• M3575R

Standard Duty UL Braking Resistor

#### **Line Regeneration Modules**

• M3345 Line Regen



# **CRANES**

#### **APPLICATIONS**

- Hoist Motors -
- Axis Motors -
- Rail Drive -

#### **Braking Modules**

M3452

**Heavy Duty Braking Transistor** 

• M3575T

Standard Duty Braking Transistor

• M3775RK

Resistive Load Bank

• M3575R

Standard Duty UL Braking Resistor

#### **Line Regeneration Modules**

• M3345 Line Regen



# CRITICAL DATA



#### **APPLICATIONS**

- Data Center Ride-Thru Modules
  - M3534 Low Power Series Below 67hp / 50kW
  - M3460 High Power Series
    67hp / 50kW and Above

# **FIBER**

#### **APPLICATIONS**

- Extruders -

#### Ride-Thru Modules

- M3534 Low Power Series Below 67hp / 50kW
- M3460 High Power Series
  67hp / 50kW and Above
- Pumps -

#### **Filtering Modules**

• M3464

Sine Wave Filter

#### Ride-Thru Modules

- M3534 Low Power Series Below 67hp / 50kW
- M3460 High Power Series
  67hp / 50kW and Above

#### - Roller Tension Systems -

#### Ride-Thru Modules

- M3534 Low Power Series Below 67hp / 50kW
- M3460 High Power Series
  67hp / 50kW and Above

#### **Braking Modules**

• M3452

Heavy Duty Braking Transistor

• M3575T

Standard Duty Braking Transistor

• M3775RK

Resistive Load Bank

• M3575R

Standard Duty UL Braking Resistor

#### **Line Regeneration Modules**

• M3345 Line Regen

# FOOD PROCESSING

# 5-3

#### **APPLICATIONS**

- Mixers -
- Conveyors -
- Tumblers -

#### **Braking Modules**

• M3452

**Heavy Duty Braking Transistor** 

• M3575T

Standard Duty Braking Transistor

• M3775RK

Resistive Load Bank

• M3575R

Standard Duty UL Braking Resistor

#### **Line Regeneration Modules**

• M3345 Line Regen

# MATERIAL HANDLING

#### **APPLICATIONS**

- Cranes/Hoists -
- Downhill Conveyors -
- Palletizers -

#### **Braking Modules**

• M3452

**Heavy Duty Braking Transistor** 

M3575T

Standard Duty Braking Transistor

• M3775RK

Resistive Load Bank

• M3575R

Standard Duty UL Braking Resistor

#### **Line Regeneration Modules**

• M3345 Line Regen

# **METALS**

#### **APPLICATIONS**

- Mills - Presses -

#### Ride-Thru Modules

- M3534 Low Power Series Below 67hp / 50kW
- M3460 High Power Series
  67hp / 50kW and Above

#### **Braking Modules**

- M3452
  - **Heavy Duty Braking Transistor**
- M3575T
  - Standard Duty Braking Transistor
- M3775RK
  - Resistive Load Bank
- M3575R
  - Standard Duty UL Braking Resistor

#### **Line Regeneration**

- M3345 Line Regen
- Coilers/Decoilers -

#### **Braking Modules**

- M3452
  - **Heavy Duty Braking Transistor**
- M3575T
  - Standard Duty Braking Transistor
- M3775RK
  - **Resistive Load Bank**
- M3575R
  - Standard Duty UL Braking Resistor

#### **Line Regeneration**

- M3345 Line Regen
- Extruders -
- Rollformers -

#### Ride-Thru Modules

- M3534 Low Power Series Below 67hp / 50kW
- M3460 High Power Series
  67hp / 50kW and Above

#### **Braking Modules**

- M3452
  - **Heavy Duty Braking Transistor**
- M3575T
  - Standard Duty Braking Transistor
- M3775RK
  - Resistive Load Bank
- M3575R
  - Standard Duty UL Braking Resistor

# MINING



#### **APPLICATIONS**

- Product Lift -
- Drilling Rigs -

#### **Braking Modules**

- M3452
  - **Heavy Duty Braking Transistor**
- M3575T
  - Standard Duty Braking Transistor
- M3775RK
  - Resistive Load Bank
- M3575R
  - Standard Duty UL Braking Resistor
- Ventilation -

#### Ride-Thru Modules

- M3534 Low Power Series Below 67hp / 50kW
- M3460 High Power Series
  67hp / 50kW and Above

#### - Conveyors -

#### **Braking Modules**

- M3452
  - Heavy Duty Braking Transistor
- M3575T
  - Standard Duty Braking Transistor
- M3775RK
  - Resistive Load Bank
- M3575R
  - Standard Duty UL Braking Resistor

#### **Line Regeneration Modules**

• M3345 Line Regen

#### Single Phase Power Supply

• M3712

Single Phase Power Supply

# OIL

#### **APPLICATIONS**

- Hoists/Cranes -

#### Line Regeneration

• M3345 Line Regen

#### **Braking Modules**

• M3452

Heavy Duty Braking Transistor

M3575T

Standard Duty Braking Transistor

• M3775RK

Resistive Load Bank

• M3575R

Standard Duty UL Braking Resistor

#### - Pumps -

#### **Filtering**

• M3464

Sine Wave Filter

#### Ride-Thru Modules

- M3534 Low Power Series Below 67hp / 50kW
- M3460 High Power Series 67hp / 50kW and Above

#### Single Phase Power Supply

• M3712

Single Phase Power Supply

# **PACKAGING**

#### **APPLICATIONS**

- Pick & Place -
- Palletizers -

#### **Braking Modules**

• M3452

Heavy Duty Braking Transistor

• M3575T

Standard Duty Braking Transistor

• M3775RK

Resistive Load Bank

• M3575R

Standard Duty UL Braking Resistor

#### - Injection Molders -

#### Ride-Thru Modules

- M3534 Low Power Series Below 67hp / 50kW
- M3460 High Power Series 67hp / 50kW and Above



## **PAPER**

#### **APPLICATIONS**

#### - Mixers -

#### Ride-Thru Modules

- M3534 Low Power Series Below 67hp / 50kW
- M3460 High Power Series
  67hp / 50kW and Above

#### **Braking Modules**

• M3452

**Heavy Duty Braking Transistor** 

M3575T

Standard Duty Braking Transistor

• M3775RK

Resistive Load Bank

• M3575R

Standard Duty UL Braking Resistor

#### - Tension Systems -

#### **Braking Modules**

• M3452

**Heavy Duty Braking Transistor** 

M3575T

**Standard Duty Braking Transistor** 

• M3775RK

Resistive Load Bank

• M3575R

Standard Duty UL Braking Resistor

#### **Line Regeneration**

• M3345 Line Regen

#### Ride-Thru Modules

- M3534 Low Power Series Below 67hp / 50kW
- M3460 High Power Series 67hp / 50kW and Above

#### - Hoists/Cranes -

#### **Braking Modules**

• M3452

**Heavy Duty Braking Transistor** 

• M3575T

Standard Duty Braking Transistor

• M3775RK

Resistive Load Bank

M3575R

Standard Duty UL Braking Resistor

#### **Line Regeneration**

• M3345 Line Regen

# **PETROCHEMICAL**

#### **APPLICATIONS**

- Separators -

#### Ride-Thru Modules

- M3534 Low Power Series Below 67hp / 50kW
- M3460 High Power Series
  67hp / 50kW and Above
- Pumps -

#### **Filtering Modules**

• M3464

Sine Wave Filter

#### Ride-Thru Modules

- M3534 Low Power Series Below 67hp / 50kW
- M3460 High Power Series
  67hp / 50kW and Above
- Mixers -

#### Ride-Thru Modules

- M3534 Low Power Series Below 67hp / 50kW
- M3460 High Power Series
  67hp / 50kW and Above

#### **Braking Modules**

• M3452

**Heavy Duty Braking Transistor** 

• M3575T

Standard Duty Braking Transistor

- M3775RK
  - Resistive Load Bank
- M3575R

Standard Duty UL Braking Resistor

# RECYCLING

#### **APPLICATIONS**

- Conveyors -
- Cranes -
- Centrifuges -

Line Regeneration Modules

• M3345 Line Regen

# **PHARMACEUTICAL**

#### **APPLICATIONS**

- Centrifuges Line Regeneration
  - M3345 Line Regen

#### **Filtering Modules**

• M3464

Sine Wave Filter

#### - Pumps -

#### **Filtering Modules**

• M3464

Sine Wave Filter

#### Ride-Thru Modules

- M3534 Low Power Series Below 67hp / 50kW
- M3460 High Power Series
  67hp / 50kW and Above
- Mixers -

#### Ride-Thru Modules

- M3534 Low Power Series Below 67hp / 50kW
- M3460 High Power Series
  67hp / 50kW and Above

## SECURITY

#### **APPLICATIONS**

- Railroad Crossing -
- Security & Access Gates -

#### Ride-Thru Modules

- M3534 Low Power Series Below 67hp / 50kW
- M3460 High Power Series
  67hp / 50kW and Above

## **SEMICONDUCTOR**

#### **APPLICATIONS**

- Water & Vacuum -
- HVAC -

#### Ride-Thru Modules

- M3534 Low Power Series Below 67hp / 50kW
- M3460 High Power Series
  67hp / 50kW and Above







## **TIMBER**

#### **APPLICATIONS**

- Cranes/Hoists -
- Conveyors -

#### **Braking Modules**

- M3452
  - **Heavy Duty Braking Transistor**
- M3575T
  - Standard Duty Braking Transistor
- M3775RK
  - Resistive Load Bank
- M3575R
  - Standard Duty UL Braking Resistor

#### **Line Regeneration**

• M3345 Line Regen

#### Single Phase Power Supply

• M3712

Single Phase Power Supply

# TRANSPORTATION

#### **APPLICATIONS**

- Cranes/Hoists -
- Conveyors -
- Lifts -

#### **Braking Modules**

- M3452
  - Heavy Duty Braking Transistor
- M3575T
  - Standard Duty Braking Transistor
- M3775RK
  - Resistive Load Bank
- M3575R
  - Standard Duty UL Braking Resistor

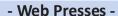
#### **Line Regeneration**

• M3345 Line Regen



## **TEXTILES**

#### **APPLICATIONS**



- Positional Fiber Lines -

#### **Line Regeneration Modules**

- M3345 Line Regen
- Spin Agent Injection Pumps -

#### Ride-Thru Modules

- M3534 Low Power Series Below 67hp / 50kW
- M3460 High Power Series 67hp / 50kW and Above
- Fabric Roller & Tension -

#### **Braking Modules**

- M3452
  - **Heavy Duty Braking Transistor**
- M3575T
  - Standard Duty Braking Transistor
- M3775RK
  - Resistive Load Bank
- M3575R

Standard Duty UL Braking Resistor

#### **Line Regeneration Modules**

• M3345 Line Regen

#### Ride-Thru Modules

- M3534 Low Power Series Below 67hp / 50kW
- M3460 High Power Series 67hp / 50kW and Above



# WATER /

# **APPLICATIONS**

- Centrifuges -

#### **Line Regeneration Modules**

- M3345 Line Regen
- Pumps -

#### **Filtering Modules**

M3464

Sine Wave Filter

#### Single Phase Power Supply

• M3712

Single Phase Power Supply





# Undervoltage

Variable frequency drives (VFDs) are susceptible fluctuations (undervoltage) in incoming AC line power. This could be caused by voltage sags or transients from the power utility, causing loss of a single phase, or creating a complete outage. The cost of damaged product, damaged equipment, hourly pay during downtime, and loss of customer confidence when deliveries can't be met can be disastrous for a company. These expenses could be prevented or minimized with the application of a Bonitron Undervoltage Solution!



# **OVERVOLTAGE**



The need for regenerated voltage control occurs in applications where the speed of the AC motor exceeds that of its variable frequency drive (VFD) and the motor acts as a generator. The energy generated by the motor must be dissipated as heat or returned to the power line as saved energy. If this energy is not controlled, the drive may trip on an overvoltage condition, the energy may be dissipated as heat in the motor, or the motor may run with an excessively high Volt/Hertz ratio. Either situation can cause extensive damage to the costly motors and result in loss of materials and stops in production. Bonitron offers solutions to these problems in our Overvoltage product line.

Over the past 45 years Bonitron has developed over 3,500 different modules and instruments for monitoring and controlling industrial electronics. Through ongoing research and development, Bonitron continues to work with OEMs and integrators in order to design the best solutions for today, as well as tomorrow.

For custom or application-specific solutions our design team will be glad to work with you in order to provide the absolute best solutions for your industrial electronic needs.

Bonitron Accessories are for Undervoltage, Overvoltage, or stand alone models. Please check out our Accessories brochure and website for more information, or contact us for more specific sales literature or manuals.

# **Accessories**

