

# Uninterruptible Power for Drives



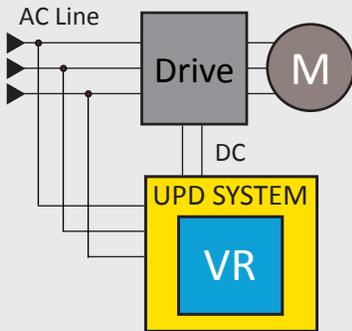
*Sag Protection*



## Undervoltage Solutions



### Sag Systems



Bonitron Sag UPD Systems (Uninterruptible Power for Drives) are the cost effective way to ensure your critical process never sees power disturbances from voltage **sags**. While some applications experience complete power outages, in many parts of the world, sags are the most common culprit of process power disturbances. Sag UPD Systems include a voltage regulator that monitors the drive's DC bus voltage. If drive voltage sags, even minimally, the system becomes active immediately and provides power to the DC bus so that the process is not affected. If future needs require energy storage, a simple energy storage add-on can easily be installed.

### Product Highlights

#### No energy storage required

- Full-load power for up to 2-seconds
  - 50% 3-phase sags
  - 1-phase sag to 0V

#### Sized to drive system process

- Typically much lower cost than plant-wide UPS
- Support single or multiple drives with one UPD System

#### Parallel Connection

- High reliability
- Test system with no effect on process
- Very low standby power

#### 208 – 480VAC systems



	Maximum Current	Sag Duration	Cabinet	Voltage Regulator	Energy Storage	Interactive Display
S3534SR SERIES	85A	2 sec	●	●	N/A	●
S3460SR SERIES	610A	2 sec	●	●	N/A	●



[www.bonitron.com](http://www.bonitron.com)



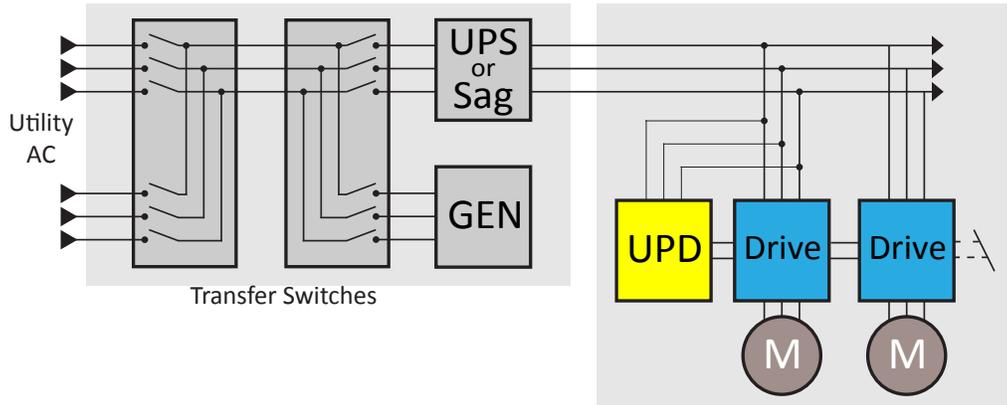
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# The Bonitron UPD Advantage

Electricity travels miles to reach the drives and motors that control your process. While outdoor power lines and substations are vulnerable to power outages caused by cars, weather, and even animals, the lines inside your plant are susceptible to power quality events as well.

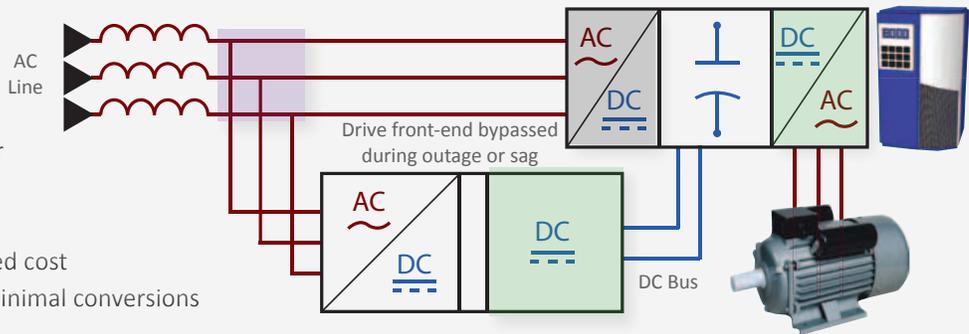


Unlike typical plant wide solutions, Bonitron designed its UPD solutions to connect directly to the DC terminals of one or multiple drives. If drive voltage sags, the Bonitron UPD immediately provides power so motor speed is not affected and the process never sees a disturbance. When properly sized, Bonitron UPD systems provide drives with full-load power until the AC line is restored or generators are online.

*Bonitron Sag UPD Systems boost remaining AC power to power the DC bus of the drive via DC bus connection terminals on the drive. This eliminates an unnecessary and energy-wasting DC to AC conversion.*

## Bonitron UPD Advantages

- Parallel Connection
  - High reliability
  - Seamless power source transfer
- Increased efficiency
  - Ultra-low standby power
  - Sized to drive system for reduced cost
  - Power supplied to DC bus for minimal conversions



*Competitors' double conversion UPS systems convert DC voltage that is stored in batteries or capacitors back to AC voltage in order to power the drive, which in turn converts it back to DC. Variable frequency drives are not recommended for use with UPS Systems, as the drive input reactance interacts negatively with UPS inverters.*

## In-line UPS Disadvantages

- Series Connection
  - Decreased reliability
- Decreased efficiency
  - Unnecessary conversions
  - Converts energy storage back to AC

