

Specifications

System AC Voltage.....208 - 480 VAC
 3-Phase 50/60Hz
Output DC Voltage.....290 - 640 VDC
 (Input Voltage Dependent)
Ride-Thru Capability.....Sag:
(at full load) 50% 3-Phase or
 100% 1-phase loss
 for 2 seconds
Capacitor:
 100% loss for
 up to 2 seconds
Battery:
 100% loss for
 up to 15 minutes

UPD Lite

Some processes may not require uninterruptible power, but just enough power to shut down safely or reset the equipment to a default position during an outage. For these low speed applications the UPD can be undersized to 10-20% of the motor HP, greatly reducing the cost. This is possible because:

$$\text{Power} = \text{Speed} \times \text{Torque}$$

So theoretically, if you run at one half of the regular speed with the same torque, it will use half of the regular power.

Applications:

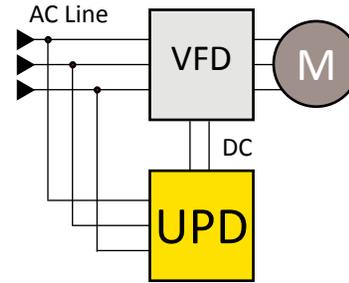
- Elevators - Move to nearest floor
- Ovens - Move system before product or conveyor damaged by heat.
- Extruders - Purge system before solidification
- Hoists - Lower load to a safe position
- Stamping - Retract feeder mechanisms



Configuration

UPD Advantages

- Parallel Connection**
High Reliability
Seamless power transfer
- Increased Efficiency**
Ultra low standby power
Sized to drive systems
Few AC/DC conversions



Ride-Thru Voltage Regulator

The voltage regulator alone can support a voltage drop, but not a complete outage.

Charger

The charger, as its name suggests, charges the capacitor or battery for energy storage.

Energy Storage

Energy storage is of bank of capacitors for brief outages or batteries for longer outages.

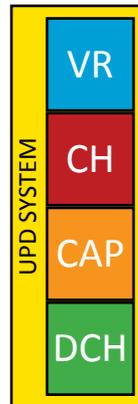
Discharger

The discharger uses a transistor and resistor to deplete the energy storage quickly.

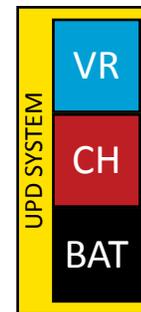
Sag
No Energy Storage
2 second
100% outage



Brief Outage
Capacitor
2 second
100% outage



Extended Outage
Battery
15 minute
100% outage



Up to 500kW

Ride-Thru Systems

- *Protect critical processes from power fluctuations*
- *Reduce production equipment damage*
- *Maximize uptime and increase profit*



Undervoltage Solutions

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Sag

Deep Sag Correction - Up to 2 Seconds

Bang for Your Buck!

Bonitron Sag Solutions are the cost effective way to make sure your critical process never sees power disturbances. While some applications experience complete power outages, in most parts of the world sags are the **most common culprit of process power disturbances**.

Sag Solutions include a voltage booster that allow your process to **continue running at full power** during a voltage sag. If future needs require energy storage, a simple add-on can easily be installed.



Capacitor

Blackout Protection - Up to 2 Seconds

Increased Confidence!

While many power disturbances are only caused by sags, there are those complete outages that can wreak havoc on a critical process. **Bonitron Capacitor Solutions allow your process to continue to run at full speed for up to 2 seconds during a complete power outage.**

Bonitron Capacitor Solutions use long-life capacitors and include a discharger for increased safety and quick cabinet access.

What is Ride-Thru?

Bonitron Undervoltage Ride-Thru Solutions include a DC voltage conditioner that monitors the AC line. If the AC line voltage sags or disappears, the Ride-Thru system becomes active and provides power to the DC bus. Therefore, critical processes never see the disturbance and can continue operating at full power. Thanks to Bonitron's parallel connection, low standby power and long product life can be expected. Plus, process reliability isn't compromised like with in-line UPS systems.

Battery

Blackout Protection - Up to 15 Minutes

No Power? No Problem!

Bonitron Battery Solutions are the economical method of providing DC bus back-up power for up to 15 minutes. Bonitron Battery Solutions are ideal for dark starts where no initial power is available or to hold up processes until there's time for generators to start.



Features

- No energy storage necessary
- Provides full-load power for up to 2 seconds for:
 - 50% 3-phase sags
 - 1-phase sag to 0v

- Electrolytic or ultracapacitor energy storage for reduced maintenance and long lifespan
- Provides full-load power for up to 2 seconds for 100%, 3-phase outages
- Built in discharger for increased safety

- Battery energy storage for long durations
- Provides full-load power for up to 15 minutes for 100%, 3-phase outages
- Ideal for *dark starts* or to maintain process before generator starts

