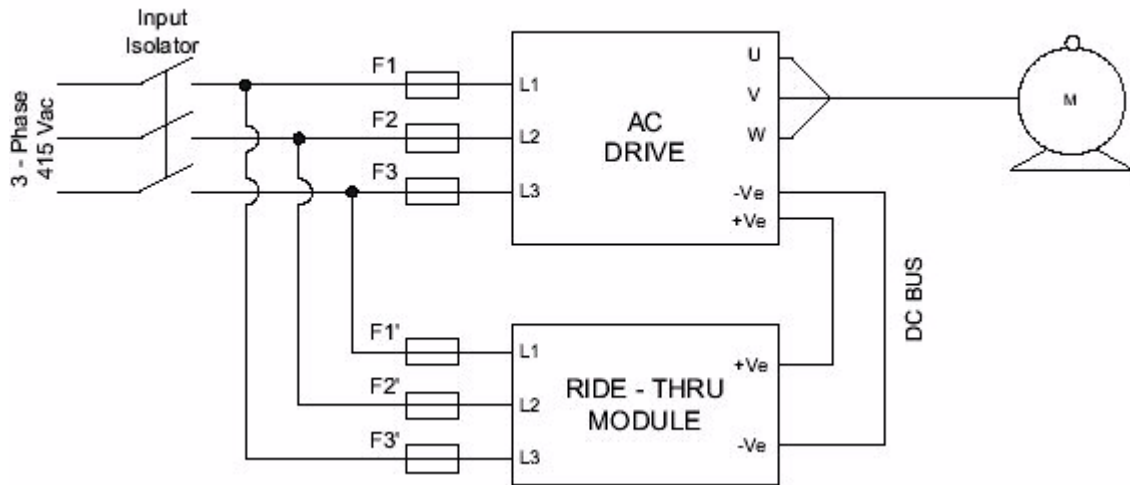


iDip – RIDE THROUGH POWER SAG PROTECTION

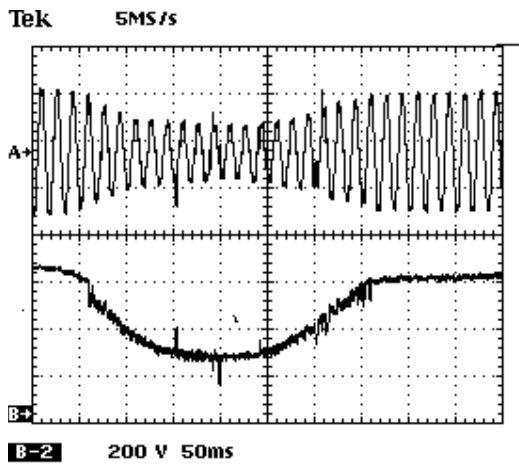
- ❖ Hi-Rel's Power Sag Ride-Thru provides protection from AC line voltage sags for AC drive systems that use a fixed DC bus, such as AC PWM adjustable speed drives (ASD). ASDs are commonly used in industry to improve control over processes where very accurate motor speed control is required. Unfortunately, ASDs are quite susceptible to problems when fluctuations in incoming power occur. Hi-Rel's Ride-Thru provides protection from line voltage sags or the momentary loss of one phase. This provides the security of "riding through" these events without motor speed control loss, drive shutdown, or the problems associated with other power supply backup methods.
- ❖ Many industrial continuous processes experience long downtime and large production losses when ASD shutdowns occur due to line voltage sags. Voltage sags are commonly caused by lightning strikes and heavy momentary current draw from other systems.
- ❖ The great majority (~90%) of line voltage sags occurring in three-phase distribution systems have a magnitude (decrease from nominal) less than 50% and duration under 0.5 seconds.
- ❖ Hi-Rel's Power Dip Ride-Thru provides 1 second OR 2 seconds of ride through capability for 3 phase voltage sags upto 50% dip, enabling the associated ASD to far exceed SEMI-47 specifications for industrial equipment.
- ❖ These modules are much more cost effective than Batteries, Capacitors, Uninterruptible Power Supplies (UPS) or Flywheel systems. The 200kW module uses less than 150 Watts in standby mode.
- ❖ Retrofitting to an existing ASD is easy. New power feeds are NOT needed. Only six electrical connections are required for operation (three-phase AC, \pm DC Bus, Ground) and can be made directly to the ASD.
- ❖ Status outputs are available for PLC control and monitoring. The absence of batteries in the iDip results in low maintenance and long life expectancy. The capability to load tests the Ride-Thru and drive while "on line" increases confidence in system reliability.
- ❖ 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 voltage to a nominal operating level without loss of control of motor speed. Ride-Thru units are available upto 200KW.

FIELD CONNECTION OF RIDE-THRU MODULE WITH AC DRIVE

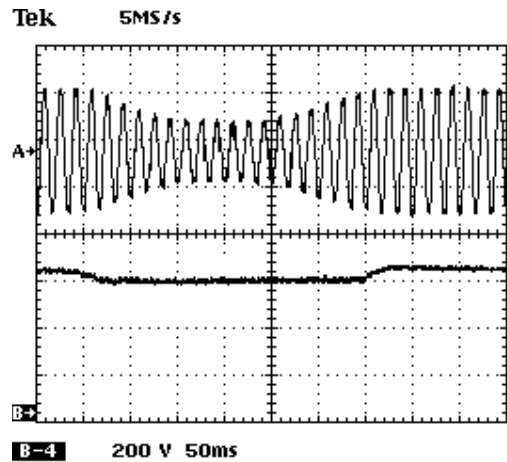


WAVEFORMS

DC Bus Without Ride-Thru



DC Bus With Ride-Thru



If you want any further details on iDip or Power Dip Ride Thru System please contact us.

We Care...

We Respond...

We Deliver...