



US Drives, Inc.

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# **ENGINEERING DATA**

## **REGEN MODULE**

## **Electrical Specifications:**

Rated Input Voltage: 200-250Vac, 380-500Vac, 500-600Vac

-10% of minimum, +10% of maximum.

Frequency Tolerance: 47-63 Hz

Number of Phases: 3

Efficiency: 99% or greater

Max. Short Circuit Current Rating: 200,000A rms symmetrical, 600 volts (when used with AC input line fuses

specified in tables 1 to 3).

Noise Immunity: IEEE C62.41-1991 Category B (Formerly known as IEEE 587) - 6000V tests

EN50082-1, 2 Generic Immunity Standards

#### **Environmental Specifications:**

Ambient Temperature:  $-10^{\circ}\text{C}$  to  $55^{\circ}\text{C}$  ( $14^{\circ}\text{F}$  to  $131^{\circ}\text{F}$ ) Nema type 1 enclosed. Storage Temperature:  $-40^{\circ}\text{C}$  to  $70^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$  to  $158^{\circ}\text{F}$ ) Nema type 1 enclosed. Altitude: Sea level to 3000 Feet [1000m] without derating.

Humidity: 95% relative humidity non-condensing.

Vibration:  $9.8 \text{m/sec}^2 (1.0 \text{G}) \text{ peak}.$ 

#### **Physical attributes:**

Mounting: Though hole or panel mount.

Nema Rating: Type 1 (IP20) as standard, Type 12 (IP54) optional.

Construction: Steel construction (reduces E.M.I.)

## **Control I/O:**

2 Digital Inputs: Regen Enable & Regen Reset

2 Digital Outputs: Dry contacts rated 115Vac @ 5A; 30Vdc @ 3.5A.

• 24Vdc source: Use to power operator pushbuttons and US Drives, Inc. option boards: 24Vdc @ 100 mA max.

#### **Protective Features:**

- Peak output current monitoring to protect against line-to-line shorts and line-to-ground shorts.
- Ground fault monitoring.
- Heatsink over-temperature monitoring.
- AC line & DC bus over-voltage protection.
- AC line & DC bus under-voltage protection.
- Control power supply power ride-thru.
- Internal power supply monitoring.
- AC phase loss detection.

### **Standard Regen Features**

- Latest generation IBGT.
- Nema Type 1 (IP20) as standard for all models.
- 55°C ambient with standard Nema Type 1 (IP20) enclosure.
- High voltage ratings: 250Vac+10%, 500Vac+10% models and 600Vac+10% models
- Input line suppression: Metal oxide varistors for line-to-line and line-to-ground voltage surge protection.
- No programming or hardware jumper for all voltages.