

# UMR-HPC QUICK START GUIDE

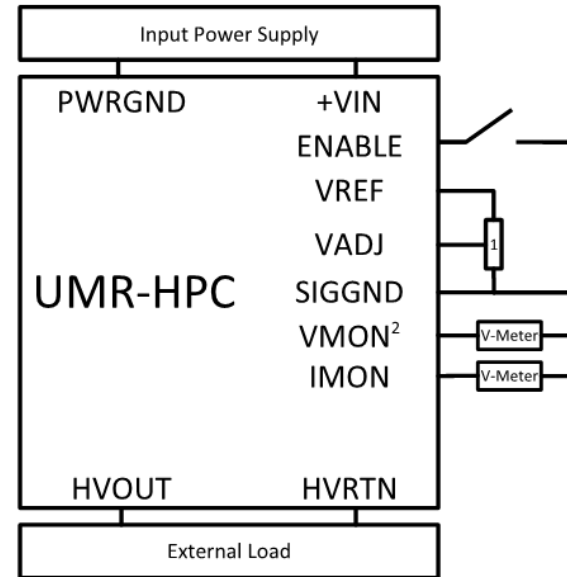
## REQUIRED CONNECTIONS

- Connect Input Power Supply to **PWRGND** and **+VIN**
  - 60W & 125W Units - use 24VDC, 7A
  - 250W Units – use 24VDC, 13A
- Connect **VADJ** to control the **HVOUT** voltage
  - Connect a Potentiometer<sup>1</sup> between **VREF** and **SIGGND** and the wiper to **VADJ** or
  - Connect a variable DC Power Supply to **VADJ** and **SIGGND**
    - Positive Models - 0.0V to +4.64V is 0% to 100% Rated Voltage
    - Negative Models - +5.0V to +0.36V is 0% to 100% Rated Voltage

## OPTIONAL CONNECTIONS

- Apply an external load across **HVOUT** and **HVRTN**
- Enabling the Output
  - HVOUT** is Enabled when **ENABLE** not connected or
  - Connect DC Power Supply to **VREF** and **SIGGND**
    - GND to +0.5V = Disabled
    - +2.4V to 32V = Enabled
- Monitor output voltage using a meter across **VMON** and **SIGGND**
  - Use 10 M $\Omega$  Meter
  - See note 2 for Scaling
- Current Monitor Using a Meter Across **IMON** to **SIGGND**
  - Use 10 M $\Omega$  Meter
  - See Datasheet for Scaling

## CONNECTION DIAGRAM

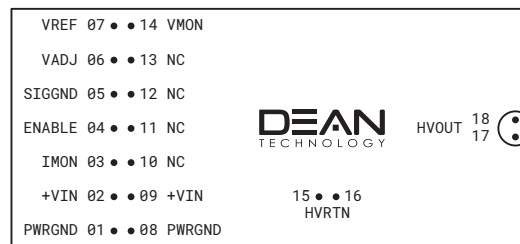


<sup>1</sup>10k to 100k $\Omega$  Potentiometer

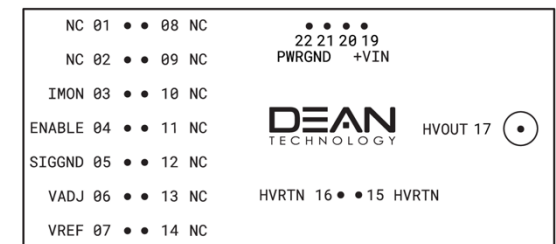
<sup>2</sup>100:1 Scaling for <8kV  
1000:1 Scaling for  $\geq$ 8kV

## PIN LAYOUT

### 60W & 125W Models



### 250W Models



**NOTE:** Units >6kV use a LGH style connector in place of pins 17, 18. Models 8kV to 15kV use LGH-1, 20kV to 30kV use LGH-3

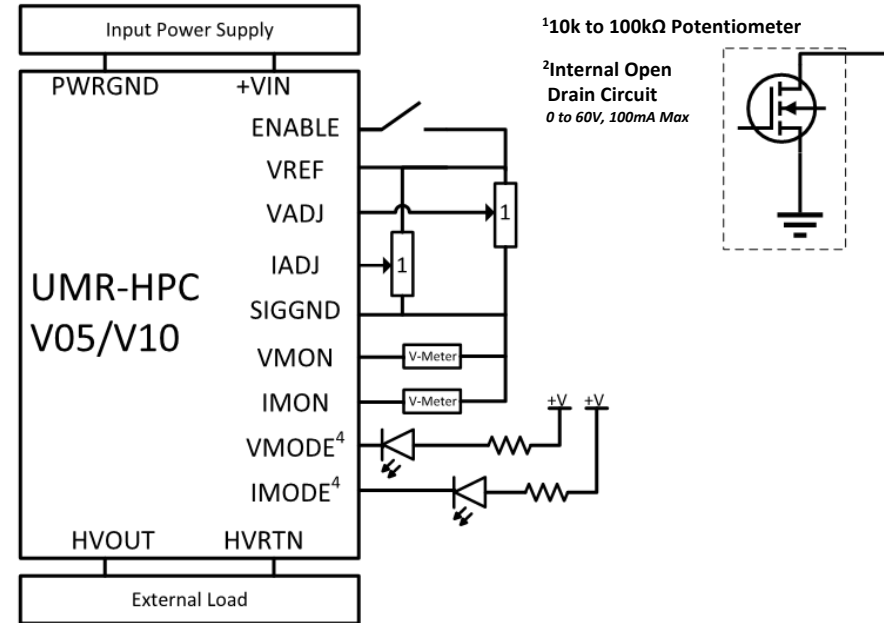
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## V05/V10 OPTION

### REQUIRED CONNECTIONS

- Connect Input Power Supply to **PWRGND** and **+VIN**
  - 60W & 125W Units - use 24VDC, 7A
  - 250W Units – use 24VDC, 13A
- Connect **VADJ** to Control the **HVOUT** voltage
  - Connect a Potentiometer<sup>1</sup> between **VREF** and **SIGGND** and the wiper to **VADJ** or
  - Connect a variable DC Power Supply to **VADJ** and **SIGGND**<sup>3</sup>
- Connect **IADJ** to control the **HVOUT** current
  - Connect a Potentiometer<sup>1</sup> between **VREF** and **SIGGND** and the wiper to **IADJ** or
  - Connect a variable DC Power Supply to **IADJ** and **SIGGND**<sup>3</sup>
- Enabling the Output
  - Connect **ENABLE** to **VREF** using a switch or
    - Open Switch = HVOUT Disabled
    - Closed Switch = HVOUT Enabled
  - Connect DC Power Supply to **VREF** and **SIGGND**
    - GND to +0.5V = Disabled
    - +2.4V to 32V = Enabled

### CONNECTION DIAGRAM

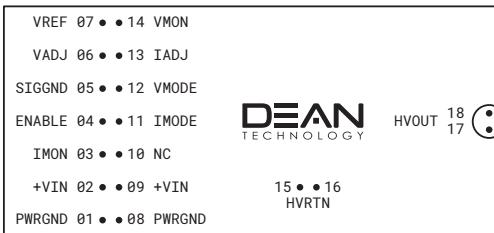


### OPTIONAL CONNECTIONS

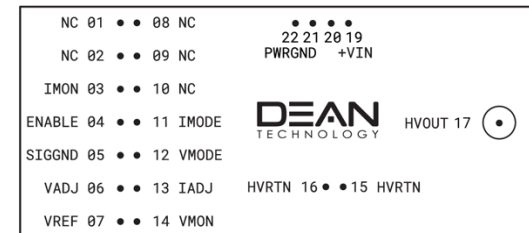
- Apply an external load across **HVOUT** and **HVRTN**
- Voltage Mode Indicator **VMODE**<sup>4</sup>
  - Connect +V Source, resistor, and indicator LED to **VMODE**
- Current Mode Indicator **IMODE**<sup>4</sup>
  - Connect +V Source, resistor, and indicator LED to **IMODE**
- Voltage Monitor using a meter across **VMON** to **SIGGND**<sup>3</sup>
- Current Monitor using a meter across **IMON** to **SIGGND**<sup>3</sup>

### PIN LAYOUT

#### 60W & 125W Models



#### 250W Models



#### Note:

Units >6kV use a LGH style connector in place of pins 17, 18. Models 8kV to 15kV use LGH-1, 20kV to 30kV use LGH-3  
 -V05 Option - 0.0V to 5.0V is 0% to 100% Rated Voltage  
 -V10 Option - 0.0V to 10.0V is 0% to 100% Rated Voltage