

# PWM Automatic Voltage Regulator



### | Three Phase 6 kVA - 173 kVA |

TSI



The VRP is a highly sophisticated automatic precision AC voltage regulator that ensures maintenance free operation of electronic equipment over a very wide input voltage range.

TSI Power's VRP series is designed to provide high precision power with industry leading response time of one-half line cycle (10 ms or less).

### **Features and Benefits**

Standby operation minimizes interaction with existing loads or power distribution systems, while being compatible with most loads

Wide input range  $(\pm 20\%)^*$  and precise output regulation  $(\pm 3\%)$  provides superior performance.

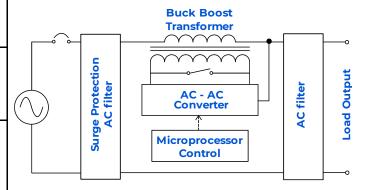
Various AC input/output connector type wiring terminals facilitate specific applications.

Internal surge protection and noise filtering assures trouble-free operation.

AC input circuit breakers and load over-current protection prevents costly equipment damage.

Customizable for unique and challenging applications.

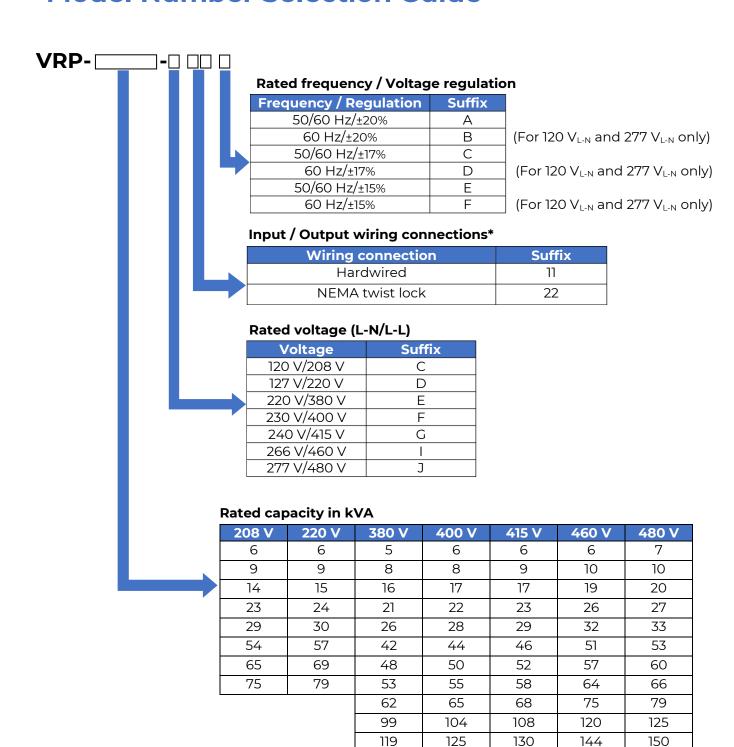
### How the VRP works



The high frequency Insulated Gate Bi-polar Transistor (IGBT) driven converter takes the incoming AC power, measures it against the nominal voltage reference and adds or subtracts voltage to achieve a precisely regulated output voltage. The automatic bypass will be activated when there is a fault condition. Green LEDs are used to indicate Normal (regulating mode) operation.

<sup>\*</sup>Note: Speciality high power modules have a reduced input range of 15% and 17%.

### **Model Number Selection Guide**



#### **Example:**

Model  $\underline{VRP-20k-J11B}$  will have rated capacity of  $\underline{20~kVA}$ , rated voltage of three phase  $\underline{480V}$ , with  $\underline{hard}$  wired input and output connectors, rated frequency of  $\underline{60~Hz}$ , and regulation of  $\underline{\pm20\%}$  from rated voltage.

137

144

150

166

173

\*Note 1: For custom build models, please contact TSI Power. Contact information can be found on the last page of this document.

 $[208 V_{L-L} / 120 V_{L-N}]$ 

| Model                        | VRP-6k-C11B  | VRP-9k-C11B  |  |  |
|------------------------------|--|--|--|--|
| Electrical                   |  |  |  |  |
| Capacity / (kVA)             | 5.76   | 8.64   |  |  |
| Design topology              | High-performance PWM vo  | oltage regulator operating at 20 kHz                                       |  |  |
| Voltage correction time      | 8 ms   | (½ line cycle)   |  |  |
| AC Input                     |  |  |  |  |
| Input voltage range          | Three phase wye 208 V  | / <sub>L-L</sub> / 120 V <sub>L-N</sub> ± 20% (96 – 144 V <sub>L-N</sub> ) |  |  |
| Frequency                    |  | 60 Hz  |  |  |
| Input circuit breaker rating | 20 A   | 30 A   |  |  |
| AC Input connector           | F  | lardwired  |  |  |
| Surge protection             |  | ector protects both the VRP and<br>ment from surges & spikes               |  |  |
| AC Output                    |  |  |  |  |
| Output voltage               | 208 V <sub>L</sub> .   | <sub>-L</sub> / 120 V <sub>L-N</sub> ± 3%                                  |  |  |
| Power efficiency             | 97% typical (f   | or load of 50 to 100%)   |  |  |
| Maximum rated output current | 16.0 A   | 24.0 A   |  |  |
| System status indicator      | Green LED ON-Normal operation - Yellow LED ON-Bypass operation<br>Red LED ON-Fault |  |  |  |
| Output connector             | Hard-wired   |  |  |  |
| Physical                     |  |  |  |  |
| Dimension <sup>†</sup>       |  | Type 1   |  |  |
| Weight                       | 220 lbs (100 kg)   | 230 lbs (104 kg)   |  |  |
| Mounting                     | Casters standard, option   | nal C-channel floor mounting kit   |  |  |
| Max wire size (hard-wired)   | 8 AV   | NG (10 mm²)  |  |  |
| Environmental                |  |  |  |  |
| Operating temperature range  | 32° to +10   | 4° F (0° to +40° C)  |  |  |
| Operating humidity range     |  | numidity (non-condensing)  |  |  |
| Operating altitude range     | •  | s (6,600 ft) above sea level<br>rating output power)                       |  |  |
| Storage temperature range    | -4° to +140  | 0° F (-20° to +60°C)   |  |  |
| Safety                       |  |  |  |  |
| Agency approvals             | Designed to meet UL 6  | 60950 (UL/cUL listing pending)   |  |  |

#### Warranty

<sup>\*</sup>Note 1: For continuous product improvement, specifications are subject to change without notice.

**<sup>†</sup>Note 2**: Refer to Page 29 and Page 30 for cabinet illustrations and detailed dimensions.

 $[208 V_{L-L}/120 V_{L-N}]$ 

| Model                        | VRP-14k-C11B     | VRP-23k-C11B                     | VRP-29k-C11B                                   | VRP-54k-C11B          |
|------------------------------|------------------|----------------------------------|--|-----------------------|
| Electrical                   |                  |                                  |  |                       |
| Capacity / (kVA)             | 14.4             | 23.0                             | 28.8   | 54.1                  |
| Design topology              | High-perfo       | rmance PWM voltag                | e regulator operatin                           | g at 20 kHz           |
| Voltage correction time      |                  | 8 ms (½ l                        | ine cycle)                                     |                       |
| AC Input                     |                  |                                  |  |                       |
| Input voltage range          | Three            | phase wye 208 V <sub>L-L</sub> / | 120 V <sub>L-N</sub> ± 20% (96 – 14            | 44 V <sub>L-N</sub> ) |
| Frequency                    |                  | 60                               | Hz   |                       |
| Input Circuit breaker rating | 50 A             | 80 A                             | 100 A  | None                  |
| AC Input connector           |                  | Hard                             | wired  |                       |
| Surge protection             |                  |                                  | r protects both the V<br>t from surges & spike |                       |
|                              |                  | omiceted equipmen                | t nom sarges a spike                           |                       |
| AC Output                    |                  |                                  |  |                       |
| Output voltage               |                  | 208 V <sub>L-L</sub> / 12        |  |                       |
| Power efficiency             |                  | 97% typical (for lo              | oad of 50 to 100%)                             | T                     |
| Maximum rated output current | 40.0 A           | 64.0 A                           | 80.0 A   | 150 A                 |
| System status indicator      | Green LED OI     | •                                | - Yellow LED ON-Byp<br>ON-Fault                | pass operation        |
| Output connector             |                  | Hard-                            | wired  |                       |
| Physical                     |                  |                                  |  |                       |
| Dimension <sup>†</sup>       |                  | Type 1                           |  | Type 2                |
| Weight                       | 260 lbs (118 kg) | 325 lbs (147 kg)                 | 340 lbs (154 kg)                               | 600 lbs (272 kg)      |
| Mounting                     | Casters          | standard, optional C             | C-channel floor mour                           | nting kit             |
| Max wire size (hard-wired)   | 8 AWG (10 mm²)   | 2 AWG (35 mm²)                   | 2 AWG (35 mm²)                                 | 4/0 AWG<br>(95 mm²)   |
| Environmental                |                  |                                  |  |                       |
| Operating Temperature Range  |                  | 32° to +104° F                   | (0° to +40° C)                                 |                       |
| Operating Humidity Range     | 10               | to 90% relative hum              | idity (non-condensin                           | ng)                   |
| Operating altitude range     | (                |                                  | 500 ft) above sea leve<br>g output power)      | el                    |
| Storage temperature range    |                  | •                                | (-20° to +60°C)                                |                       |
| Safety                       |                  |                                  |  |                       |
| Agency approvals             | Desia            | ned to meet UL 6095              | 50 (UL/cUL listing per                         | nding)                |

#### Warranty

<sup>\*</sup>Note 1: For continuous product improvement, specifications are subject to change without notice.

**<sup>†</sup>Note 2**: Refer to Page 29 and Page 30 for cabinet illustrations and detailed dimensions.

[208 V<sub>L-L</sub> / 120 V<sub>L-N</sub>]

| Model                        | VRP-65k-C11D  | VRP-75k-C11F   |  |  |
|------------------------------|---|--|--|--|
| Electrical                   |   |  |  |  |
| Capacity / (kVA)             | 65.0  | 74.9   |  |  |
| Design topology              | High-performance PWM voltag   | e regulator operating at 20 kHz  |  |  |
| Voltage correction time      | 8 ms (½ l   | ine cycle)   |  |  |
| AC Input                     |   |  |  |  |
| Input voltage range          | Three phase wye<br>208 V <sub>L-L</sub> / 120 V <sub>L-N</sub> ± 17% (99.6 – 140 V <sub>L-N</sub> ) | Three phase wye<br>208 V <sub>L-L</sub> / 120 V <sub>L-N</sub> ± 15% (102 – 138 V <sub>L-N</sub> ) |  |  |
| Frequency                    | 60  | Hz   |  |  |
| Input circuit breaker rating | None  | None   |  |  |
| AC Input connector           | Hard  | wired  |  |  |
| Surge protection             |   | r protects both the VRP and<br>t from surges & spikes  |  |  |
| AC Output                    | ,   |  |  |  |
| Output voltage               | 208 V <sub>L-L</sub> / 12   | 20 V <sub>L-N</sub> ± 3%   |  |  |
| Power efficiency             | 97% typical (for Id   | pad of 50 to 100%)   |  |  |
| Maximum rated output current | 181 A   | 208 A  |  |  |
| System status indicator      | Green LED ON-Normal operation – Yellow LED ON-Bypass operation<br>Red LED ON-Fault                  |  |  |  |
| Output connector             | Hard-wired  |  |  |  |
| Physical                     |   |  |  |  |
| Dimension <sup>†</sup>       | Тур   | pe 2   |  |  |
| Weight                       | 900 lbs (408 kg)  | 900 lbs (408 kg)   |  |  |
| Mounting                     | Casters standard, optional C  | -channel floor mounting kit  |  |  |
| Max wire size (hard-wired)   | 300 kcmil   | (150mm²)   |  |  |
| Environmental                |   |  |  |  |
| Operating temperature range  | 32° to +104° F  | (0° to +40° C)   |  |  |
| Operating humidity range     |   | idity (non-condensing)   |  |  |
| Operating altitude range     |   | 500 ft) above sea level<br>g output power)   |  |  |
| Storage temperature range    | -4° to +140° F  | (-20° to +60°C)  |  |  |
| Safety                       |   |  |  |  |
| Agency approvals             | Designed to meet UL 6095  | 50 (UL/cUL listing pending)  |  |  |

#### Warranty

<sup>\*</sup>Note 1: For continuous product improvement, specifications are subject to change without notice.

**<sup>†</sup>Note 2**: Refer to Page 29 and Page 30 for cabinet illustrations and detailed dimensions.

### [220 V<sub>L-L</sub> / 127 V<sub>L-N</sub>]

| Model                        | VRP-6k-D11B       | VRP-9k-D11B  | VRP-9k-D22B                   |
|------------------------------|-------------------|--|-------------------------------|
| Electrical                   |                   |  |                               |
| Capacity / (kVA)             | 6.10              | 9.14   | 9.14                          |
| Design topology              | High-performanc   | e PWM voltage regulator o                                | perating at 20 kHz            |
| Voltage correction time      |                   | 8 ms (½ line cycle)                                      |                               |
| AC Input                     |                   |  |                               |
| Input voltage range          | Three phase v     | wye 220 V <sub>L-L</sub> / 127 V <sub>L-N</sub> ± 20%    | (102 – 152 V <sub>L-N</sub> ) |
| Frequency                    |                   | 60 Hz  |                               |
| Input circuit breaker rating | 20 A              | 30 A   | 30 A                          |
| AC Input connector           | Hardwired         | Hardwired  | NEAM L21-30P                  |
| Surge protection             |                   | urge protector protects bot<br>ed equipment from surges  |                               |
| AC Output                    |                   |  |                               |
| Output voltage               |                   | 220 V <sub>L-L</sub> / 127 V <sub>L-N</sub> ± 3%         |                               |
| Power efficiency             | 97%               | 6 typical (for load of 50 to 10                          | 00%)                          |
| Maximum rated output current | 16.0 A            | 24.0 A   | 24.0 A                        |
| System status indicator      | Green LED ON-Norn | nal operation - Yellow LED<br>Red LED ON-Fault           | ON-Bypass operation           |
| Output connector             | Hardwired         | Hardwired  | NEAM L21-30R                  |
| Physical                     |                   |  |                               |
| Dimension <sup>†</sup>       |                   | Type 1   |                               |
| Weight                       | 220 lbs (100 kg)  | 230 lbs (104 kg)   | 230 lbs (104 kg)              |
| Mounting                     | Casters standa    | ard, optional C-channel floo                             | or mounting kit               |
| Max wire size (hard-wired)   |                   | 8 AWG (10 mm²)   |                               |
| Environmental                |                   |  |                               |
| Operating temperature range  |                   | 32° to +104° F (0° to +40° C                             | )                             |
| Operating humidity range     |                   | relative humidity (non-co                                |                               |
| Operating altitude range     |                   | 00 meters (6,600 ft) above<br>ithout derating output pov |                               |
| Storage temperature range    |                   | -4° to +140° F (-20° to +60°C                            | <u> </u>                      |
| Safety                       |                   |  |                               |
| Agency approvals             | Designed to       | meet UL 60950 (UL/cUL lis                                | tina pendina)                 |

#### Warrantv

<sup>\*</sup>Note 1: For continuous product improvement, specifications are subject to change without notice.

**<sup>†</sup>Note 2**: Refer to Page 29 and Page 30 for cabinet illustrations and detailed dimensions.

### [220 $V_{L-L}/127 V_{L-N}$ ]

| Model                        | VRP-15k-D11B     | VRP-24k-D11B                      | VRP-30k-D11B                                   | VRP-57k-D11B          |
|------------------------------|------------------|-----------------------------------|--|-----------------------|
| Electrical                   |                  |                                   |  |                       |
| Capacity / (kVA)             | 15.2             | 24.4                              | 30.5   | 57.3                  |
| Design topology              | High-perfo       | rmance PWM voltag                 | e regulator operatin                           | g at 20 kHz           |
| Voltage correction time      |                  | 8 ms (½ l                         | ine cycle)                                     |                       |
| AC Input                     |                  |                                   |  |                       |
| Input voltage range          | Three            | phase wye 220 V <sub>L-L</sub> /1 | 127 V <sub>L-N</sub> ± 20% (102 – 15           | 52 V <sub>L-N</sub> ) |
| Frequency                    |                  | 60                                | Hz   |                       |
| Input Circuit breaker rating | 50 A             | 80 A                              | 100 A  | None                  |
| AC Input connector           |                  | Hard                              | wired  |                       |
| Surge protection             |                  |                                   | r protects both the V<br>t from surges & spike |                       |
| AC Output                    |                  |                                   |  |                       |
| Output voltage               |                  | 220 V <sub>L-L</sub> / 12         | 27 V <sub>L-N</sub> ± 3%                       |                       |
| Power efficiency             |                  | 97% typical (for lo               | oad of 50 to 100%)                             |                       |
| Maximum rated output current | 40.0 A           | 64.0 A                            | 80.0 A   | 150 A                 |
| System status indicator      | Green LED Of     | •                                 | - Yellow LED ON-Byp<br>ON-Fault                | ass operation         |
| Output connector             |                  | Hard-                             | wired  |                       |
| Physical                     |                  |                                   |  |                       |
| Dimension <sup>†</sup>       |                  | Type 1                            |  | Type 2                |
| Weight                       | 260 lbs (118 kg) | 325 lbs (147 kg)                  | 340 lbs (154 kg)                               | 600 lbs (272 kg)      |
| Mounting                     | Casters          | standard, optional C              | -channel floor moun                            | iting kit             |
| Max wire size (hard-wired)   | 8 AWG (10 mm²)   | 2 AWG (35 mm²)                    | 2 AWG (35 mm²)                                 | 4/0 AWG<br>(95 mm²)   |
| Environmental                |                  |                                   |  |                       |
| Operating Temperature Range  |                  | 32° to +104° F                    | (0° to +40° C)                                 |                       |
| Operating Humidity Range     | 10               | to 90% relative hum               | idity (non-condensin                           | ıg)                   |
| Operating altitude range     | (                | •                                 | 600 ft) above sea leve<br>g output power)      | <u> </u>              |
| Storage temperature range    |                  | -4° to +140° F                    | (-20° to +60°C)                                |                       |
| Safety                       |                  |                                   |  |                       |
| Agency approvals             | Desig            | ned to meet UL 6095               | 50 (UL/cUL listing per                         | nding)                |

### Warranty

<sup>\*</sup>Note 1: For continuous product improvement, specifications are subject to change without notice.

**<sup>†</sup>Note 2**: Refer to Page 29 and Page 30 for cabinet illustrations and detailed dimensions.

### $[220 \ V_{L-L} / 127 \ V_{L-N}]$

| Model                        | VRP-69k-D11D  | VRP-79k-D11F   |
|------------------------------|---|--|
| Electrical                   |   |  |
| Capacity / (kVA)             | 68.8  | 79.2   |
| Design topology              | High-performance PWM voltag   | ge regulator operating at 20 kHz   |
| Voltage correction time      | 8 ms (½ l   | line cycle)  |
| AC Input                     |   |  |
| Input voltage range          | Three phase wye<br>220 V <sub>L-L</sub> / 127 V <sub>L-N</sub> ± 17% (105 – 149 <sub>VL-N</sub> ) | Three phase wye<br>220 V <sub>L-L</sub> / 127 V <sub>L-N</sub> ± 15% (108 – 146 V <sub>L-N</sub> ) |
| Frequency                    | 60  | Hz   |
| Input circuit breaker rating | None  | None   |
| AC Input connector           | Hard-wired  | Hard-wired   |
| Surge protection             |   | r protects both the VRP and<br>t from surges & spikes  |
| AC Output                    |   |  |
| Output voltage               | 220 V <sub>L-L</sub> / 12   | 27 V <sub>L-N</sub> ± 3%   |
| Power efficiency             | 97% typical (for lo   | oad of 50 to 100%)   |
| Maximum rated output current | 181 A   | 208 A  |
| System status indicator      | · ·   | - Yellow LED ON-Bypass operation<br>ON-Fault   |
| Output connector             | Hardwired   | Hardwired  |
| Physical                     |   |  |
| Dimension <sup>†</sup>       | Тур   | pe 2   |
| Weight                       | 900 lbs (408 kg)  | 900 lbs (408 kg)   |
| Mounting                     | Casters standard, optional C  | C-channel floor mounting kit   |
| Max wire size (hard-wired)   | 300 kcmil   | (150mm²)   |
| Environmental                |   |  |
| Operating temperature range  | 32° to +104° F  | (0° to +40° C)   |
| Operating humidity range     |   | idity (non-condensing)   |
| Operating altitude range     | · ·   | 500 ft) above sea level<br>ig output power)  |
| Storage temperature range    | -4° to +140° F  | (-20° to +60°C)  |
| Safety                       |   |  |
| Agency approvals             | Designed to meet UL 6095  | 50 (UL/cUL listing pending)  |

#### Warranty

<sup>\*</sup>Note 1: For continuous product improvement, specifications are subject to change without notice.

**<sup>†</sup>Note 2**: Refer to Page 29 and Page 30 for cabinet illustrations and detailed dimensions.

### $[380 \ V_{L-L}/220 \ V_{L-N}]$

| Model                        | VRP-5k-E11A  | VRP-8k-E11A  | VRP-16k-E11A                 |  |  |
|------------------------------|--|--|------------------------------|--|--|
| Electrical                   |  |  |                              |  |  |
| Capacity / (kVA)             | 5.28   | 7.92   | 15.8                         |  |  |
| Design topology              | High-performanc  | e PWM voltage regulator op                                 | erating at 20 kHz            |  |  |
| Voltage correction time      |  | 10 ms (½ line cycle)                                       |                              |  |  |
| AC Input                     |  |  |                              |  |  |
| Input voltage range          | Three phase v  | ye 380 V <sub>L-L</sub> / 220 V <sub>L-N</sub> ± 20% (     | 176 – 264 V <sub>L-N</sub> ) |  |  |
| Frequency                    |  | 50 / 60 Hz   |                              |  |  |
| Input Circuit breaker rating | 10 A   | 15 A   | 30 A                         |  |  |
| AC Input connector           |  | Hardwired  |                              |  |  |
| Surge protection             | _  | urge protector protects both<br>ed equipment from surges 8 |                              |  |  |
|                              | Connect  | ed equipment nom sarges t                                  | х эрікез                     |  |  |
| AC Output                    |  |  |                              |  |  |
| Output voltage               |  | 380 V <sub>L-L</sub> / 220 V <sub>L-N</sub> ± 3%           |                              |  |  |
| Power efficiency             |  | 6 typical (for load of 50 to 100                           | •                            |  |  |
| Maximum rated output current | 8.00 A   | 12.0 A   | 24.0 A                       |  |  |
| System status indicator      | Green LED ON-Normal operation - Yellow LED ON-Bypass operation<br>Red LED ON-Fault |  |                              |  |  |
| Output connector             |  | Hardwired  |                              |  |  |
| Physical                     |  |  |                              |  |  |
| Dimension <sup>†</sup>       |  | Type 1   |                              |  |  |
| Weight                       | 220 lbs (100 kg)   | 230 lbs (104 kg)   | 260 lbs (118 kg)             |  |  |
| Mounting                     | Casters standa   | ard, optional C-channel floor                              | mounting kit                 |  |  |
| Max wire size (hard-wired)   |  | 8 AWG (10 mm²)   |                              |  |  |
| Environmental                |  |  |                              |  |  |
| Operating Temperature Range  |  | 32° to +104° F (0° to +40° C)                              |                              |  |  |
| Operating Humidity Range     | 10 to 90%  | relative humidity (non-con                                 | densing)                     |  |  |
| Operating altitude range     |  | 00 meters (6,600 ft) above seithout derating output powe   |                              |  |  |
| Storage temperature range    |  | -4° to +140° F (-20° to +60°C)                             | ,                            |  |  |
| Safaty                       |  |  |                              |  |  |
| Safety Agency approvals      | Designed to  | meet UL 60950 (UL/cUL listi                                | na nendina)                  |  |  |
| Agency approvais             | Designed to  | THESE OF 00330 (OF) COF list!                              | ng pending)                  |  |  |

#### Warranty

<sup>\*</sup>Note 1: For continuous product improvement, specifications are subject to change without notice.

**<sup>†</sup>Note 2**: Refer to Page 29 and Page 30 for cabinet illustrations and detailed dimensions.

 $[380 \ V_{L-L} / 220 \ V_{L-N}]$ 

| Model                            | VRP-21k-E11A                                 | VRP-26k-E11A                      | VRP-42k-E11A                                   | VRP-48k-E11A          |  |
|----------------------------------|--|-----------------------------------|--|-----------------------|--|
| Electrical                       |  |                                   |  |                       |  |
| Capacity / (kVA)                 | 21.1   | 26.4                              | 42.2   | 47.5                  |  |
| Design topology                  | High-perfo                                   | rmance PWM voltag                 | e regulator operating                          | g at 20 kHz           |  |
| Voltage correction time          |  | 10 ms (½                          | line cycle)                                    |                       |  |
| AC Input                         |  |                                   |  |                       |  |
| Input voltage range              | Three p                                      | hase wye 380 V <sub>L-L</sub> / 2 | 220 V <sub>L-N</sub> ± 20% (176 – 2            | 64 V <sub>L-N</sub> ) |  |
| Frequency                        |  | 50 / 6                            | 50 Hz  |                       |  |
| Input Circuit breaker rating     | 40 A   | 50 A                              | 80 A   | 90 A                  |  |
| AC Input connector               |  | Hard                              | wired  |                       |  |
| Surge protection                 |  |                                   | r protects both the V<br>t from surges & spike |                       |  |
| AC Output                        |  |                                   |  |                       |  |
| Output voltage                   |  | 380 V <sub>L-L</sub> / 22         | 20 V <sub>L-N</sub> ± 3%                       |                       |  |
| Power efficiency                 |  | 97% typical (for lo               | oad of 50 to 100%)                             |                       |  |
| Maximum rated output current     | 32.0 A                                       | 40.0 A                            | 64.0 A   | 72.0 A                |  |
| System status indicator          | Green LED Of                                 | •                                 | - Yellow LED ON-Byp<br>ON-Fault                | ass operation         |  |
| Output connector                 |  | Hard                              | wired  |                       |  |
| Physical                         |  |                                   |  |                       |  |
| Dimension <sup>†</sup>           |  | Тур                               | pe 1   |                       |  |
| Weight                           | 325 lbs (147 kg)                             | 340 lbs (154 kg)                  | 360 lbs (163 kg)                               | 380 lbs (172 kg)      |  |
| Mounting                         | Casters                                      | standard, optional C              | C-channel floor moun                           | iting kit             |  |
| Max wire size (hard-wired)       | 8 AWG (                                      | 10 mm²)                           | 2 AWG (  | 35 mm²)               |  |
| Environmental                    |  |                                   |  |                       |  |
| Operating Temperature Range      |  | 32° to +104° F                    | (0° to +40° C)                                 |                       |  |
| Operating Humidity Range         | 10 to 90% relative humidity (non-condensing) |                                   |  |                       |  |
| Operating altitude range         | (  |                                   | 500 ft) above sea leve<br>g output power)      | <b>b</b>              |  |
|                                  | -4° to +140° F (-20° to +60°C)               |                                   |  |                       |  |
| Storage temperature range        |  | -4 (0+140 F                       | ( 20 10 100 0)                                 |                       |  |
| Storage temperature range Safety |  | -4 to +140 F                      | (20 to 100 c)                                  |                       |  |

#### Warranty

<sup>\*</sup>Note 1: For continuous product improvement, specifications are subject to change without notice.

**<sup>†</sup>Note 2**: Refer to Page 29 and Page 30 for cabinet illustrations and detailed dimensions.

[380 V<sub>L-L</sub> / 220 V<sub>L-N</sub>]

| Model                        | VRP-53k-E11A                   | VRP-62k-E11A   | VRP-99k-E11A                  |  |
|------------------------------|--------------------------------|--|-------------------------------|--|
| Electrical                   |                                |  |                               |  |
| Capacity / (kVA)             | 52.8                           | 62.4   | 99.3                          |  |
| Design topology              | High-performand                | e PWM voltage regulator or                                   | perating at 20 kHz            |  |
| Voltage correction time      |                                | 10 ms (½ line cycle)   |                               |  |
| AC Input                     |                                |  |                               |  |
| Input voltage range          | Three phase v                  | wye 380 V <sub>L-L</sub> / 220 V <sub>L-N</sub> ± 20%        | (176 – 264 V <sub>L-N</sub> ) |  |
| Frequency                    |                                | 50 / 60 Hz   |                               |  |
| Input Circuit breaker rating | 100 A                          | None   | None                          |  |
| AC Input connector           |                                | Hardwired  |                               |  |
| Surge protection             | _                              | urge protector protects bot<br>ted equipment from surges     |                               |  |
| AC Output                    |                                |  |                               |  |
| Output voltage               |                                | $380  V_{L\text{-}L}  /  220  V_{L\text{-}N}  \pm  3\%$      |                               |  |
| Power efficiency             | 979                            | % typical (for load of 50 to 10                              | 0%)                           |  |
| Maximum rated output current | 80.0 A                         | 94.5 A   | 150 A                         |  |
| System status indicator      | Green LED ON-Norr              | mal operation - Yellow LED (<br>Red LED ON-Fault             | DN-Bypass operation           |  |
| Output connector             |                                | Hardwired  |                               |  |
| Physical                     |                                |  |                               |  |
| Dimension <sup>†</sup>       | Type 1                         | Type 2   | Type 2                        |  |
| Weight                       | 400 lbs (181 kg)               | 900 lbs (408 kg)   | 900 lbs (408 kg)              |  |
| Mounting                     | Casters stand                  | ard, optional C-channel floo                                 | r mounting kit                |  |
| Max wire size (hard-wired)   | 2 AWG (35 mm²)                 | 4/0 AWG (95 mm²)   | 4/0 AWG (95 mm²)              |  |
| Environmental                |                                |  |                               |  |
| Operating Temperature Range  |                                | 32° to +104° F (0° to +40° C)                                |                               |  |
| Operating Humidity Range     |                                | % relative humidity (non-cor                                 | -,                            |  |
| Operating altitude range     |                                | 000 meters (6,600 ft) above s<br>vithout derating output pow |                               |  |
|                              | -4° to +140° F (-20° to +60°C) |  |                               |  |

#### Warranty

<sup>\*</sup>Note 1: For continuous product improvement, specifications are subject to change without notice.

**<sup>†</sup>Note 2**: Refer to Page 29 and Page 30 for cabinet illustrations and detailed dimensions.

 $[380 \ V_{L-L} / 220 \ V_{L-N}]$ 

| Model                        | VRP-119k-E11C  |                          | ٧                               | 'RP-137k-E11E  |  |
|------------------------------|--|--------------------------|---------------------------------|--|--|
| Electrical                   |  |                          |                                 |  |  |
| Capacity / (kVA)             | 119 137  |                          |                                 | 137  |  |
| Design topology              | High-performance F   | PWM voltag               | e regulator op                  | perating at 20 kHz   |  |
| Voltage correction time      |  | 10 ms (½                 | ine cycle)                      |  |  |
| AC Input                     |  |                          |                                 |  |  |
| Input voltage range          | Three phase wye 380 V <sub>L-L</sub> / 220 V <sub>L-N</sub> ± 17% (183 :           | – 257 V <sub>L-N</sub> ) |                                 | hree phase wye<br>0 V <sub>L-N</sub> ± 15% (187 – 253 V <sub>L-N</sub> ) |  |
| Frequency                    |  | 50 / 60 I                | Hz ± 5 %                        |  |  |
| Input Circuit breaker rating | None   |                          |                                 | None   |  |
| AC Input connector           |  | Hard                     | wired                           |  |  |
| Surge protection             | Three-stage surg<br>connected  |                          | protects bot<br>t from surges   |  |  |
| AC Output                    |  |                          |                                 |  |  |
| Output voltage               | 380 V <sub>L-L</sub> / 220 V <sub>L-N</sub> ± 3%                                   |                          |                                 |  |  |
| Power efficiency             | 97% ty   | ypical (for lo           | ad of 50 to 10                  | 0%)  |  |
| Maximum rated output current |  |                          |                                 | 72.0 A   |  |
| System status indicator      | Green LED ON-Normal operation - Yellow LED ON-Bypass operation<br>Red LED ON-Fault |                          |                                 |  |  |
| Output connector             | Hardwired  |                          |                                 |  |  |
| Physical                     |  |                          |                                 |  |  |
| Dimension <sup>†</sup>       |  | Тур                      | e 2                             |  |  |
| Weight                       | 900 lbs (408 kg)   |                          | 9                               | 00 lbs (408 kg)  |  |
| Mounting                     | Casters standard   | d, optional C            | -channel floo                   | r mounting kit   |  |
| Max wire size (hard-wired)   | 300 kcmil (150mm²  | 2)                       | 300                             | ) kcmil (150mm²)   |  |
| Environmental                |  |                          |                                 |  |  |
| Operating Temperature Range  | 32   | 2° to +104° F            | (0° to +40° C)                  |  |  |
| Operating Humidity Range     |  |                          | idity (non-cor                  |  |  |
| Operating altitude range     | · ·  | •                        | 500 ft) above s<br>g output pow |  |  |
| Storage temperature range    | -4°  | ° to +140° F (           | -20° to +60°C                   | )  |  |
| Safety                       |  |                          |                                 |  |  |
| Agency approvals             | Designed to me   | eet UL 6095              | 0 (UL/cUL list                  | ing pending)   |  |

#### Warranty

<sup>\*</sup>Note 1: For continuous product improvement, specifications are subject to change without notice.

**<sup>†</sup>Note 2**: Refer to Page 29 and Page 30 for cabinet illustrations and detailed dimensions.

 $[400 V_{L-L}/230 V_{L-N}]$ 

| Model                            | VRP-6k-F11A                     | VRP-8k-F11A   | VRP-17k-F11A                  |  |  |
|----------------------------------|---------------------------------|---|-------------------------------|--|--|
| Electrical                       |                                 |   |                               |  |  |
| Capacity / (kVA)                 | 5.52                            | 8.28  | 16.6                          |  |  |
| Design topology                  | High-performance                | e PWM voltage regulator op                              | perating at 20 kHz            |  |  |
| Voltage correction time          |                                 | 10 ms (½ line cycle)                                    |                               |  |  |
| AC Input                         |                                 |   |                               |  |  |
| Input voltage range              | Three phase w                   | ye 400 V <sub>L-L</sub> / 230 V <sub>L-N</sub> ± 20%    | (184 – 276 V <sub>L-N</sub> ) |  |  |
| Frequency                        |                                 | 50 / 60 Hz  |                               |  |  |
| Input Circuit breaker rating     | 10 A                            | 15 A  | 30 A                          |  |  |
| AC Input connector               |                                 | Hardwired   |                               |  |  |
| Surge protection                 |                                 | urge protector protects bot<br>ed equipment from surges |                               |  |  |
|                                  | connecti                        | ed equipinient nom surges                               | α ομικέο                      |  |  |
| AC Output                        |                                 |   |                               |  |  |
| Output voltage                   |                                 | 380 V <sub>L-L</sub> / 220 V <sub>L-N</sub> ± 3%        |                               |  |  |
| Power efficiency                 | 97%                             | 5 typical (for load of 50 to 10                         | 0%)                           |  |  |
| Maximum rated output current     | 8.00 A                          | 12.0 A  | 24.0 A                        |  |  |
| System status indicator          | Green LED ON-Norm               | nal operation - Yellow LED (<br>Red LED ON-Fault        | N-Bypass operation            |  |  |
| Output connector                 |                                 | Hardwired   |                               |  |  |
| Physical                         |                                 |   |                               |  |  |
| Dimension <sup>†</sup>           |                                 | Type 1  |                               |  |  |
| Weight                           | 220 lbs (100 kg)                | 230 lbs (104 kg)  | 260 lbs (118 kg)              |  |  |
| Mounting                         | Casters standa                  | ard, optional C-channel floo                            | r mounting kit                |  |  |
| Max wire size (hard-wired)       |                                 | 8 AWG (10 mm²)  |                               |  |  |
| Environmental                    |                                 |   |                               |  |  |
| Operating Temperature Range      |                                 | 32° to +104° F (0° to +40° C)                           |                               |  |  |
| Operating Humidity Range         |                                 | relative humidity (non-cor                              |                               |  |  |
| Operating altitude range         | 0 to 2,00                       | 00 meters (6,600 ft) above s                            | sea level                     |  |  |
| operating attitude larige        | (without derating output power) |   |                               |  |  |
| C1                               | -4° to +140° F (-20° to +60°C)  |   |                               |  |  |
| Storage temperature range        | -                               | .4° to +140° F (-20° to +60°C                           |                               |  |  |
| Storage temperature range Safety | -                               | 4° to +140° F (-20° to +60°C                            | )                             |  |  |

#### Warrantv

<sup>\*</sup>Note 1: For continuous product improvement, specifications are subject to change without notice.

**<sup>†</sup>Note 2**: Refer to Page 29 and Page 30 for cabinet illustrations and detailed dimensions.

 $[400 V_{L-L}/230 V_{L-N}]$ 

| Model                        | VRP-22k-F11A     | VRP-28k-F11A                      | VRP-44k-F11A                                   | VRP-50k-F11A           |
|------------------------------|------------------|-----------------------------------|--|------------------------|
| Electrical                   |                  |                                   |  |                        |
| Capacity / (kVA)             | 22.1             | 27.6                              | 44.2   | 49.7                   |
| Design topology              | High-perfo       | rmance PWM voltag                 | e regulator operatin                           | g at 20 kHz            |
| Voltage correction time      |                  | 10 ms (½                          | line cycle)                                    |                        |
| AC Input                     |                  |                                   |  |                        |
| Input voltage range          | Three p          | hase wye 400 V <sub>L-L</sub> / 2 | 230 V <sub>L-N</sub> ± 20% (184 – 2            | 276 V <sub>L-N</sub> ) |
| Frequency                    |                  | 50/6                              | 50 Hz  |                        |
| Input Circuit breaker rating | 40 A             | 50 A                              | 80 A   | 90 A                   |
| AC Input connector           |                  | Hard                              | wired  |                        |
| Surge protection             |                  |                                   | r protects both the V<br>t from surges & spike |                        |
| AC Output                    |                  |                                   |  |                        |
| Output voltage               |                  | 400 V <sub>L-L</sub> / 2          | 30 V <sub>L-N</sub> ± 3%                       |                        |
| Power efficiency             |                  | 97% typical (for lo               | oad of 50 to 100%)                             |                        |
| Maximum rated output current | 32.0 A           | 40.0 A                            | 64.0 A   | 72.0 A                 |
| System status indicator      | Green LED OI     | '                                 | - Yellow LED ON-Byp<br>ON-Fault                | ass operation          |
| Output connector             |                  | Hard                              | wired  |                        |
| Physical                     |                  |                                   |  |                        |
| Dimension <sup>†</sup>       |                  | Тур                               | pe 1   |                        |
| Weight                       | 325 lbs (147 kg) | 340 lbs (154 kg)                  | 360 lbs (163 kg)                               | 380 lbs (172 kg)       |
| Mounting                     | Casters          | standard, optional C              | C-channel floor moun                           | iting kit              |
| Max wire size (hard-wired)   | 8 AWG (          | (10 mm²)                          | 2 AWG (  | 35 mm²)                |
| Environmental                |                  |                                   |  |                        |
| Operating Temperature Range  |                  | 32° to +104° F                    | (0° to +40° C)                                 |                        |
| Operating Humidity Range     |                  |                                   | idity (non-condensin                           | 0,                     |
| Operating altitude range     |                  |                                   | 500 ft) above sea leve<br>g output power)      | ·I                     |
| Storage temperature range    |                  | -4° to +140° F                    | (-20° to +60°C)                                |                        |
| Safety                       |                  |                                   |  |                        |
| Agency approvals             | Desig            | ned to meet UL 6095               | 50 (UL/cUL listing per                         | nding)                 |
|                              | •                |                                   |  |                        |

#### Warranty

<sup>\*</sup>Note 1: For continuous product improvement, specifications are subject to change without notice.

**<sup>†</sup>Note 2**: Refer to Page 29 and Page 30 for cabinet illustrations and detailed dimensions.

[400 V<sub>L-L</sub> / 230 V<sub>L-N</sub>]

| Model                        | VRP-55k-F11A                   | VRP-65k-F11A   | VRP-104k-F11A                 |  |
|------------------------------|--------------------------------|--|-------------------------------|--|
| Electrical                   |                                |  |                               |  |
| Capacity / (kVA)             | 55.2                           | 65.2   | 104                           |  |
| Design topology              | High-performanc                | e PWM voltage regulator op   | perating at 20 kHz            |  |
| Voltage correction time      |                                | 10 ms (½ line cycle)   |                               |  |
| AC Input                     |                                |  |                               |  |
| nput voltage range           | Three phase w                  | vye 400 V <sub>L-L</sub> / 230 V <sub>L-N</sub> ± 20%                              | (184 – 276 V <sub>L-N</sub> ) |  |
| Frequency                    |                                | 50 / 60 Hz ± 5 %   |                               |  |
| nput Circuit breaker rating  | 100 A                          | None   | None                          |  |
| AC Input connector           |                                | Hardwired  |                               |  |
| Surge protection             | _                              | urge protector protects bot<br>ed equipment from surges                            |                               |  |
| AC Output                    |                                |  |                               |  |
| Output voltage               |                                | $400  V_{L\text{-}L} /  230  V_{L\text{-}N} \pm 3\%$                               |                               |  |
| Power efficiency             | 97%                            | % typical (for load of 50 to 10  | O%)                           |  |
| Maximum rated output current | 80.0 A                         | 94.5 A   | 150 A                         |  |
| System status indicator      | Green LED ON-Norn              | Green LED ON-Normal operation - Yellow LED ON-Bypass operation<br>Red LED ON-Fault |                               |  |
| Output connector             |                                | Hardwired  |                               |  |
| Physical                     |                                |  |                               |  |
| Dimension <sup>†</sup>       | Type 1                         | Type 2   | Type 2                        |  |
| Weight                       | 400 lbs (181 kg)               | 900 lbs (408 kg)   | 900 lbs (408 kg)              |  |
| Mounting                     | Casters standa                 | ard, optional C-channel floo   | r mounting kit                |  |
| Max wire size (hard-wired)   | 2 AWG (35 mm²)                 | 4/0 AWG (95 mm²)   |                               |  |
| Environmental                |                                |  |                               |  |
| Operating Temperature Range  |                                | 32° to +104° F (0° to +40° C)  |                               |  |
| Operating Humidity Range     |                                | 6 relative humidity (non-cor   | -,                            |  |
| Operating altitude range     |                                | 00 meters (6,600 ft) above s<br>ithout derating output pow                         |                               |  |
|                              | -4° to +140° F (-20° to +60°C) |  |                               |  |

#### Warranty

<sup>\*</sup>Note 1: For continuous product improvement, specifications are subject to change without notice.

**<sup>†</sup>Note 2**: Refer to Page 29 and Page 30 for cabinet illustrations and detailed dimensions.

 $[400 V_{L-L} / 230 V_{L-N}]$ 

| Model                        | VRP-125k-F11C  | VRP-144k-F11E  |  |  |
|------------------------------|--|--|--|--|
| Electrical                   |  |  |  |  |
| Capacity / (kVA)             | 125  | 144  |  |  |
| Design topology              | High-performance PWM voltag  | e regulator operating at 20 kHz  |  |  |
| Voltage correction time      | 10 ms (½   | line cycle)  |  |  |
| AC Input                     |  |  |  |  |
| Input voltage range          | Three phase wye<br>400 V <sub>L-L</sub> / 230 V <sub>L-N</sub> ± 17% (191 – 269 V <sub>L-N</sub> ) | Three phase wye<br>400 V <sub>L-L</sub> / 230 V <sub>L-N</sub> ± 15% (196 – 265 V <sub>L-N</sub> ) |  |  |
| Frequency                    | 50/6   | 50 Hz  |  |  |
| Input Circuit breaker rating | None   | None   |  |  |
| AC Input connector           | Hard   | wired  |  |  |
| Surge protection             |  | r protects both the VRP and<br>t from surges & spikes  |  |  |
| AC Output                    |  |  |  |  |
| Output voltage               | 400 V <sub>L-L</sub> / 2   | 30 V <sub>L-N</sub> ± 3%   |  |  |
| Power efficiency             | 97% typical (for lo  | oad of 50 to 100%)   |  |  |
| Maximum rated output current | 181 A  | 208 A  |  |  |
| System status indicator      | · ·  | - Yellow LED ON-Bypass operation<br>ON-Fault   |  |  |
| Output connector             | Hard   | wired  |  |  |
| Physical                     |  |  |  |  |
| Dimension <sup>†</sup>       | Type 2   | Type 2   |  |  |
| Weight                       | 900 lbs (408 kg)   | 900 lbs (408 kg)   |  |  |
| Mounting                     | Casters standard, optional C   | C-channel floor mounting kit   |  |  |
| Max wire size (hard-wired)   | 300 kcmil (150mm²)   | 300 kcmil (150mm²)   |  |  |
| Environmental                |  |  |  |  |
| Operating Temperature Range  | 32° to +104° F   | (0° to +40° C)   |  |  |
| Operating Humidity Range     | 10 to 90% relative hum   | idity (non-condensing)   |  |  |
| Operating altitude range     | 0 to 2,000 meters (6,600 ft) above sea level<br>(without derating output power)                    |  |  |  |
| Storage temperature range    | -4° to +140° F (-20° to +60°C)   |  |  |  |
| Safety                       |  |  |  |  |
| Agency approvals             | Designed to meet UL 6095   | 50 (UL/cUL listing pending)  |  |  |

#### Warranty

<sup>\*</sup>Note 1: For continuous product improvement, specifications are subject to change without notice.

**<sup>†</sup>Note 2**: Refer to Page 29 and Page 30 for cabinet illustrations and detailed dimensions.

 $[415 V_{L-L} / 240 V_{L-N}]$ 

| Model                        | VRP-6k-G11A  | VRP-9k-G11A   | VRP-17k-G11A                  |  |
|------------------------------|--|---|-------------------------------|--|
| Electrical                   |  |   |                               |  |
| Capacity / (kVA)             | 5.76   | 8.64  | 17.3                          |  |
| Design topology              | High-performance   | e PWM voltage regulator op                              | perating at 20 kHz            |  |
| Voltage correction time      |  | 10 ms (½ line cycle)                                    |                               |  |
| AC Input                     |  |   |                               |  |
| Input voltage range          | Three phase v  | vye 415 V <sub>L-L</sub> / 240 V <sub>L-N</sub> ± 20%   | (192 – 288 V <sub>L-N</sub> ) |  |
| Frequency                    |  | 50 / 60 Hz  |                               |  |
| Input Circuit breaker rating | 10 A   | 15 A  | 30 A                          |  |
| AC Input connector           |  | Hardwired   |                               |  |
| Surge protection             | _  | urge protector protects bot<br>ed equipment from surges |                               |  |
| AC Output                    |  |   |                               |  |
| Output voltage               |  | 415 V <sub>L-L</sub> / 240 V <sub>L-N</sub> ± 3%        |                               |  |
| Power efficiency             | 97%  | 6 typical (for load of 50 to 10                         | O%)                           |  |
| Maximum rated output current | 8.00 A   | 12.0 A  | 24.0 A                        |  |
| System status indicator      | Green LED ON-Norm  | nal operation - Yellow LED (<br>Red LED ON-Fault        | DN-Bypass operation           |  |
| Output connector             |  | Hardwired   |                               |  |
| Physical                     |  |   |                               |  |
| Dimension†                   |  | Type 1  |                               |  |
| Weight                       | 220 lbs (100 kg)   | 230 lbs (104) kg  | 260 lbs (118 kg)              |  |
| Mounting                     | Casters standa   | ard, optional C-channel floo                            | r mounting kit                |  |
| Max wire size (hard-wired)   |  | 8 AWG (10 mm²)  |                               |  |
| Environmental                |  |   |                               |  |
| Operating Temperature Range  |  | 32° to +104° F (0° to +40° C)                           |                               |  |
| Operating Humidity Range     | 10 to 90%  | relative humidity (non-cor                              | ndensing)                     |  |
| Operating altitude range     | 0 to 2,000 meters (6,600 ft) above sea level (without derating output power) |   |                               |  |
| Storage temperature range    |  | -4° to +140° F (-20° to +60°C                           |                               |  |
| Safety                       |  |   |                               |  |
| Agency approvals             | Designed to  | meet UL 60950 (UL/cUL list                              | ing pending)                  |  |

#### Warrantv

<sup>\*</sup>Note 1: For continuous product improvement, specifications are subject to change without notice.

**<sup>†</sup>Note 2**: Refer to Page 29 and Page 30 for cabinet illustrations and detailed dimensions.

 $[415 V_{L-L} / 240 V_{L-N}]$ 

| Model                        | VRP-23k-G11A                                 | VRP-29k-G11A                       | VRP-46k-G11A                                   | VRP-52k-G11A          |  |
|------------------------------|--|------------------------------------|--|-----------------------|--|
| Electrical                   |  |                                    |  |                       |  |
| Capacity / (kVA)             | 23.0   | 28.8                               | 46.1   | 51.8                  |  |
| Design topology              | High-perfo                                   | rmance PWM voltag                  | e regulator operatin                           | g at 20 kHz           |  |
| Voltage correction time      |  | 10 ms (½                           | line cycle)                                    |                       |  |
| AC Input                     |  |                                    |  |                       |  |
| Input voltage range          | Three p                                      | ohase wye 415 V <sub>L-L</sub> / 2 | 40 V <sub>L-N</sub> ± 20% (192 – 2             | 88 V <sub>L-N</sub> ) |  |
| Frequency                    |  | 50 / 6                             | 50 Hz  |                       |  |
| Input Circuit breaker rating | 40 A   | 50 A                               | 80 A   | 90 A                  |  |
| AC Input connector           |  | Hard                               | wired  |                       |  |
| Surge protection             |  |                                    | r protects both the V<br>t from surges & spike |                       |  |
| AC Output                    |  |                                    |  |                       |  |
| Output voltage               |  | 415 V <sub>L-L</sub> / 24          | 40 V <sub>L-N</sub> ± 3%                       |                       |  |
| Power efficiency             |  | 97% typical (for lo                | oad of 50 to 100%)                             |                       |  |
| Maximum rated output current | 32.0 A                                       | 40.0 A                             | 64.0 A   | 72.0 A                |  |
| System status indicator      | Green LED Of                                 | •                                  | - Yellow LED ON-Byp<br>ON-Fault                | ass operation         |  |
| Output connector             | Hardwired                                    |                                    |  |                       |  |
| Physical                     |  |                                    |  |                       |  |
| Dimension <sup>†</sup>       |  | Тур                                | pe 1   |                       |  |
| Weight                       | 325 lbs (147 kg)                             | 340 lbs (154 kg)                   | 360 lbs (163 kg)                               | 380 lbs (172 kg)      |  |
| Mounting                     | Casters                                      | standard, optional C               | C-channel floor mour                           | nting kit             |  |
| Max wire size (hard-wired)   | 8 AWG (                                      | 10 mm²)                            | 2 AWG (  | 35 mm²)               |  |
| Environmental                |  |                                    |  |                       |  |
| Operating Temperature Range  |  | 32° to +104° F                     | (0° to +40° C)                                 |                       |  |
| Operating Humidity Range     | 10 to 90% relative humidity (non-condensing) |                                    |  |                       |  |
| Operating altitude range     | (  |                                    | 500 ft) above sea leve<br>g output power)      | <u> </u>              |  |
| Storage temperature range    | -4° to +140° F (-20° to +60°C)               |                                    |  |                       |  |
|                              |  |                                    |  |                       |  |
| Safety                       |  |                                    |  |                       |  |

#### Warrantv

<sup>\*</sup>Note 1: For continuous product improvement, specifications are subject to change without notice.

**<sup>†</sup>Note 2**: Refer to Page 29 and Page 30 for cabinet illustrations and detailed dimensions.

 $[415 V_{L-L} / 240 V_{L-N}]$ 

| Model                        | VRP-58k-G11A      | VRP-68k-G11A   | VRP-108k-G11A                 |  |  |
|------------------------------|-------------------|--|-------------------------------|--|--|
| Electrical                   |                   |  |                               |  |  |
| Capacity / (kVA)             | 57.6              | 68.0   | 108                           |  |  |
| Design topology              | High-performanc   | e PWM voltage regulator op                                 | perating at 20 kHz            |  |  |
| Voltage correction time      |                   | 10 ms (½ line cycle)                                       |                               |  |  |
| AC Input                     |                   |  |                               |  |  |
| Input voltage range          | Three phase v     | vye 415 V <sub>L-L</sub> / 240 V <sub>L-N</sub> ± 20%      | (192 – 288 V <sub>L-N</sub> ) |  |  |
| Frequency                    |                   | 50 / 60 Hz   |                               |  |  |
| Input Circuit breaker rating | 100 A             | None   | None                          |  |  |
| AC Input connector           |                   | Hardwired  |                               |  |  |
| Surge protection             |                   | urge protector protects botl<br>ed equipment from surges   |                               |  |  |
| AC Output                    |                   |  |                               |  |  |
| Output voltage               |                   | 415 V <sub>L-L</sub> / 240 V <sub>L-N</sub> ± 3%           |                               |  |  |
| Power efficiency             | 979               | % typical (for load of 50 to 10                            | 0%)                           |  |  |
| Maximum rated output current | 80.0 A            | 94.5   | 150 A                         |  |  |
| System status indicator      | Green LED ON-Norn | nal operation - Yellow LED C<br>Red LED ON-Fault           | DN-Bypass operation           |  |  |
| Output connector             | Hardwired         |  |                               |  |  |
| Physical                     |                   |  |                               |  |  |
| Dimension <sup>†</sup>       | Type 1            | Type 2   | Type 2                        |  |  |
| Weight                       | 400 lbs (181 kg)  | 900 lbs (408 kg)   | 900 lbs (408 kg)              |  |  |
| Mounting                     | Casters stand     | ard, optional C-channel floo                               | r mounting kit                |  |  |
| Max wire size (hard-wired)   | 2 AWG (35 mm²)    | 4/0 AWG (95 mm²)   | 4/0 AWG (95 mm²)              |  |  |
| Environmental                |                   |  |                               |  |  |
| Operating Temperature Range  |                   | 32° to +104° F (0° to +40° C)                              |                               |  |  |
| Operating Humidity Range     |                   | 6 relative humidity (non-con                               | <u> </u>                      |  |  |
| Operating altitude range     |                   | 00 meters (6,600 ft) above s<br>ithout derating output pow |                               |  |  |
| Storage temperature range    |                   | -4° to +140° F (-20° to +60°C                              | )                             |  |  |
| Safety                       |                   |  |                               |  |  |
| Agency approvals             | Designed to       | meet UL 60950 (UL/cUL list                                 | ing pending)                  |  |  |

#### Warranty

<sup>\*</sup>Note 1: For continuous product improvement, specifications are subject to change without notice.

**<sup>†</sup>Note 2**: Refer to Page 29 and Page 30 for cabinet illustrations and detailed dimensions.

 $[415 V_{L-L} / 240 V_{L-N}]$ 

| Model                        | VRP-130k-G11C  | VRP-150k-G11E  |  |  |
|------------------------------|--|--|--|--|
| Electrical                   |  |  |  |  |
| Capacity / (kVA)             | 130  | 150  |  |  |
| Design topology              | High-performance PWM voltag  | ge regulator operating at 20 kHz   |  |  |
| Voltage correction time      | 10 ms (½   | line cycle)  |  |  |
| AC Input                     |  |  |  |  |
| Input voltage range          | Three phase wye<br>415 V <sub>L-L</sub> / 240 V <sub>L-N</sub> ± 17% (199 – 281 V <sub>L-N</sub> ) | Three phase wye<br>415 V <sub>L-L</sub> / 240 V <sub>L-N</sub> ± 15% (204 – 276 V <sub>L-N</sub> ) |  |  |
| Frequency                    | 50/6   | 60 Hz  |  |  |
| Input Circuit breaker rating | None   | None   |  |  |
| AC Input connector           | Hard   | wired  |  |  |
| Surge protection             |  | r protects both the VRP and<br>It from surges & spikes   |  |  |
| AC Output                    |  |  |  |  |
| Output voltage               | 415 V <sub>L-L</sub> / 24  | 40 V <sub>L-N</sub> ± 3%   |  |  |
| Power efficiency             | 97% typical (for Id  | oad of 50 to 100%)   |  |  |
| Maximum rated output current | 181 A  | 208 A  |  |  |
| System status indicator      | Green LED ON-Normal operation - Yellow LED ON-Bypass operation  Red LED ON-Fault                   |  |  |  |
| Output connector             | Hardwired  |  |  |  |
| Physical                     |  |  |  |  |
| Dimension <sup>†</sup>       | Type 2   | Type 2   |  |  |
| Weight                       | 900 lbs (408 kg)   | 900 lbs (408 kg)   |  |  |
| Mounting                     | Casters standard, optional C   | C-channel floor mounting kit   |  |  |
| Max wire size (hard-wired)   | 300 kcmil (150mm²)   | 300 kcmil (150mm²)   |  |  |
| Environmental                |  |  |  |  |
| Operating Temperature Range  | 32° to +104° F (0° to +40° C)  |  |  |  |
| Operating Humidity Range     |  | nidity (non-condensing)  |  |  |
| Operating altitude range     | · ·  | 600 ft) above sea level<br>ng output power)  |  |  |
| Storage temperature range    | -4° to +140° F (-20° to +60°C)   |  |  |  |
| Safety                       |  |  |  |  |
| Agency approvals             | Designed to meet UL 6095   | 50 (UL/cUL listing pending)  |  |  |

#### Warranty

<sup>\*</sup>Note 1: For continuous product improvement, specifications are subject to change without notice.

**<sup>†</sup>Note 2**: Refer to Page 29 and Page 30 for cabinet illustrations and detailed dimensions.

 $[460 \ V_{L-L} \ / \ 266 \ V_{L-N}]$ 

| Model                        | VRP-6k-II1B       | VRP-10k-111B   | VRP-19k-111B                  |  |
|------------------------------|-------------------|--|-------------------------------|--|
| Electrical                   |                   |  |                               |  |
| Capacity / (kVA)             | 6.38              | 9.58   | 19.2                          |  |
| Design topology              | High-performance  | e PWM voltage regulator op                                 | perating at 20 kHz            |  |
| Voltage correction time      |                   | 8 ms (½ line cycle)  |                               |  |
| AC Input                     |                   |  |                               |  |
| Input voltage range          | Three phase v     | vye 460 V <sub>L-L</sub> / 266 V <sub>L-N</sub> ± 20%      | (213 – 319 V <sub>L-N</sub> ) |  |
| Frequency                    |                   | 60 Hz  |                               |  |
| Input Circuit breaker rating | 10 A              | 15 A   | 30 A                          |  |
| AC Input connector           |                   | Hardwired  |                               |  |
| Surge protection             |                   | urge protector protects both<br>ed equipment from surges   |                               |  |
| AC Output                    |                   |  |                               |  |
| Output voltage               |                   | 460 V <sub>L-L</sub> / 266 V <sub>L-N</sub> ± 3%           |                               |  |
| Power efficiency             | 97%               | 6 typical (for load of 50 to 10                            | 0%)                           |  |
| Maximum rated output current | 8.0 A             | 12.0 A   | 24.0 A                        |  |
| System status indicator      | Green LED ON-Norn | nal operation - Yellow LED C<br>Red LED ON-Fault           | N-Bypass operation            |  |
| Output connector             | Hardwired         |  |                               |  |
| Physical                     |                   |  |                               |  |
| Dimension <sup>†</sup>       |                   | Type 1   |                               |  |
| Weight                       | 220 lbs (100 kg)  | 230 lbs (104 kg)   | 260 lbs (118 kg)              |  |
| Mounting                     | Casters standa    | ard, optional C-channel flooi                              | r mounting kit                |  |
| Max wire size (hard-wired)   | 8 AWG (10 mm²)    |  |                               |  |
| Environmental                |                   |  |                               |  |
| Operating Temperature Range  |                   | 32° to +104° F (0° to +40° C)                              |                               |  |
| Operating Humidity Range     |                   | relative humidity (non-con                                 | <del>-</del> ,                |  |
| Operating altitude range     |                   | 00 meters (6,600 ft) above s<br>ithout derating output pow |                               |  |
| Storage temperature range    |                   | -4° to +140° F (-20° to +60°C)                             |                               |  |
| Safety                       |                   |  |                               |  |
| Agency approvals             | Designed to       | meet UL 60950 (UL/cUL listi                                | ing pending)                  |  |

#### Warranty

<sup>\*</sup>Note 1: For continuous product improvement, specifications are subject to change without notice.

**<sup>†</sup>Note 2**: Refer to Page 29 and Page 30 for cabinet illustrations and detailed dimensions.

[460 V<sub>L-L</sub> / 266 V<sub>L-N</sub>]

| Model                        | VRP-26k-IIIB     | VRP-32k-IIIB                               | VRP-51k-I11B                              | VRP-57k-IIIB           |  |
|------------------------------|------------------|--|---|------------------------|--|
| Electrical                   |                  |  |   |                        |  |
| Capacity / (kVA)             | 25.5             | 31.9                                       | 51.1                                      | 57.5                   |  |
| Design topology              | High-perfo       | rmance PWM voltag                          | e regulator operatin                      | g at 20 kHz            |  |
| Voltage correction time      |                  | 8 ms (½ l                                  | ine cycle)                                |                        |  |
| AC Input                     |                  |  |   |                        |  |
| Input voltage range          | Three            | ohase wye 460 V <sub>L-L</sub> / 2         | 266 V <sub>L-N</sub> ± 20% (213 – 3       | 319 V <sub>L-N</sub> ) |  |
| Frequency                    |                  | 60   | Hz  |                        |  |
| Input Circuit breaker rating | 40 A             | 50 A                                       | 80 A                                      | 90 A                   |  |
| AC Input connector           |                  | Hard                                       | wired                                     |                        |  |
| Surge protection             |                  | stage surge protector<br>onnected equipmen | •   |                        |  |
| AC Output                    |                  |  |   |                        |  |
| Output voltage               |                  | 460 V <sub>L-L</sub> / 20                  | 66 V <sub>L-N</sub> ± 3%                  |                        |  |
| Power efficiency             |                  | 97% typical (for lo                        | oad of 50 to 100%)                        |                        |  |
| Maximum rated output current | 32.0 A           | 40.0 A                                     | 64.0 A                                    | 72.0 A                 |  |
| System status indicator      | Green LED OI     | N-Normal operation<br>Red LED              | - Yellow LED ON-Byp<br>ON-Fault           | oass operation         |  |
| Output connector             | Hardwired        |  |   |                        |  |
| Physical                     |                  |  |   |                        |  |
| Dimension <sup>†</sup>       |                  | Тур  | pe 1                                      |                        |  |
| Weight                       | 325 lbs (147 kg) | 340 lbs (154 kg)                           | 360 lbs (163 kg)                          | 380 lbs (172 kg)       |  |
| Mounting                     | Casters          | standard, optional C                       | c-channel floor mour                      | nting kit              |  |
| Max wire size (hard-wired)   | 8 AWG (          | 10 mm²)                                    | 2 AWG (                                   | 35 mm²)                |  |
| Environmental                |                  |  |   |                        |  |
| Operating Temperature Range  |                  | 32° to +104° F                             | (0° to +40° C)                            |                        |  |
| Operating Humidity Range     |                  | to 90% relative hum                        | 3 (                                       | 0,                     |  |
| Operating altitude range     | (                | to 2,000 meters (6,6)<br>(without deratin  | 500 ft) above sea leve<br>g output power) | el                     |  |
| Storage temperature range    |                  | -4° to +140° F                             | (-20° to +60°C)                           |                        |  |
| Safety                       |                  |  |   |                        |  |
| Agency approvals             | Desig            | ned to meet UL 6095                        | 50 (UL/cUL listing per                    | nding)                 |  |

#### Warrantv

<sup>\*</sup>Note 1: For continuous product improvement, specifications are subject to change without notice.

**<sup>†</sup>Note 2**: Refer to Page 29 and Page 30 for cabinet illustrations and detailed dimensions.

 $[460 \ V_{L-L} \ / \ 266 \ V_{L-N}]$ 

| Model                        | VRP-64k-IIIB                                       | VRP-75k-IIIB  | VRP-120k-111B                 |  |  |
|------------------------------|--|---|-------------------------------|--|--|
|                              |  |   |                               |  |  |
| Capacity / (kVA)             | 63.8   | 75.4  | 120                           |  |  |
| Design topology              | High-performand                                    | e PWM voltage regulator op                                  | perating at 20 kHz            |  |  |
| Voltage correction time      |  | 8 ms (½ line cycle)   |                               |  |  |
| AC Input                     |  |   |                               |  |  |
| Input voltage range          | Three phase  | wye 460 V <sub>L-L</sub> / 266 V <sub>L-N</sub> ± 20%       | (213 – 319 V <sub>L-N</sub> ) |  |  |
| Frequency                    |  | 60 Hz   |                               |  |  |
| Input Circuit breaker rating | 100 A  | None  | None                          |  |  |
| AC Input connector           |  | Hardwired   |                               |  |  |
| Surge protection             |  | urge protector protects botl<br>ted equipment from surges   |                               |  |  |
| AC Output                    |  |   |                               |  |  |
| Output voltage               |  | 460 V <sub>L-L</sub> / 266 V <sub>L-N</sub> ± 3%            |                               |  |  |
| Power efficiency             | 979  | % typical (for load of 50 to 10                             | 0%)                           |  |  |
| Maximum rated output current | 80.0 A   | 94.5 A  | 150 A                         |  |  |
| System status indicator      | Green LED ON-Norr                                  | nal operation - Yellow LED C<br>Red LED ON-Fault            | DN-Bypass operation           |  |  |
| Output connector             | Hardwired  |   |                               |  |  |
| Physical                     |  |   |                               |  |  |
| Dimension <sup>†</sup>       | Type 1   | Type 2  | Type 2                        |  |  |
| Weight                       | 400 lbs (181 kg)                                   | 900 lbs (408 kg)  | 900 lbs (408 kg)              |  |  |
| Mounting                     | Casters stand                                      | ard, optional C-channel floo                                | r mounting kit                |  |  |
| Max wire size (hard-wired)   | 2 AWG (35 mm²)                                     | 4/0 AWG (95 mm²)  | 4/0 AWG (95 mm²)              |  |  |
| Environmental                |  |   |                               |  |  |
| Operating Temperature Range  |  | 32° to +104° F (0° to +40° C)                               |                               |  |  |
| Operating Humidity Range     |  | % relative humidity (non-con                                | <u> </u>                      |  |  |
| Operating altitude range     |  | 00 meters (6,600 ft) above s<br>vithout derating output pow |                               |  |  |
| Storage temperature range    |  | -4° to +140° F (-20° to +60°C                               | )                             |  |  |
| Safety                       |  |   |                               |  |  |
| Agency approvals             | Designed to meet UL 60950 (UL/cUL listing pending) |   |                               |  |  |

#### Warranty

<sup>\*</sup>Note 1: For continuous product improvement, specifications are subject to change without notice.

**<sup>†</sup>Note 2**: Refer to Page 29 and Page 30 for cabinet illustrations and detailed dimensions.

[460 V<sub>L-L</sub> / 266 V<sub>L-N</sub>]

| Model                        | VRP-144k-I11D  | VRP-166k-I11F  |  |  |
|------------------------------|--|--|--|--|
| Capacity / (kVA)             | 144  | 166  |  |  |
| Design topology              | High-performance PWM voltac  | l<br>ge regulator operating at 20 kHz  |  |  |
| Voltage correction time      |  | line cycle)  |  |  |
| AC Input                     |  |  |  |  |
| Input voltage range          | Three phase wye<br>460 V <sub>L-L</sub> / 266 V <sub>L-N</sub> ± 17% (221 – 311 V <sub>L-N</sub> ) | Three phase wye<br>460 V <sub>L-L</sub> / 266 V <sub>L-N</sub> ± 15% (226 – 306 V <sub>L-N</sub> ) |  |  |
| Frequency                    | 60   | Hz   |  |  |
| Input Circuit breaker rating | None   | None   |  |  |
| AC Input connector           | Hard   | wired  |  |  |
| Surge protection             |  | r protects both the VRP and<br>It from surges & spikes   |  |  |
| AC Output                    |  |  |  |  |
| Output voltage               | 460 V <sub>L-L</sub> / 2   | 66 V <sub>L-N</sub> ± 3%   |  |  |
| Power efficiency             | 97% typical (for lo  | oad of 50 to 100%)   |  |  |
| Maximum rated output current | 181 A  | 208 A  |  |  |
| System status indicator      | Green LED ON-Normal operation - Yellow LED ON-Bypass operation  Red LED ON-Fault                   |  |  |  |
| Output connector             | Hard   | wired  |  |  |
| Physical                     |  |  |  |  |
| Dimension <sup>†</sup>       | Type 2   | Type 2   |  |  |
| Weight                       | 900 lbs (408 kg)   | 900 lbs (408 kg)   |  |  |
| Mounting                     | Casters standard, optional C   | C-channel floor mounting kit   |  |  |
| Max wire size (hard-wired)   | 300 kcmil (150mm²)   | 300 kcmil (150mm²)   |  |  |
| Environmental                |  |  |  |  |
| Operating Temperature Range  | 32° to +104° F   | (0° to +40° C)   |  |  |
| Operating Humidity Range     |  | nidity (non-condensing)  |  |  |
| Operating altitude range     | 0 to 2,000 meters (6,600 ft) above sea level<br>(without derating output power)                    |  |  |  |
| Storage temperature range    | ·  | (-20° to +60°C)  |  |  |
| Safety                       |  |  |  |  |
| Agency approvals             | Designed to meet UL 6095   | 50 (UL/cUL listing pending)  |  |  |

#### Warranty

<sup>\*</sup>Note 1: For continuous product improvement, specifications are subject to change without notice.

**<sup>†</sup>Note 2**: Refer to Page 29 and Page 30 for cabinet illustrations and detailed dimensions.

[480 V<sub>L-L</sub> / 277 V<sub>L-N</sub>]

| Model                        | VRP-7k-J11B                    | VRP-10k-J11B   | VRP-20k-J11B                  |  |
|------------------------------|--------------------------------|--|-------------------------------|--|
| Electrical                   |                                |  |                               |  |
| Capacity / (kVA)             | 6.65                           | 9.97   | 19.9                          |  |
| Design topology              | High-performand                | e PWM voltage regulator o                                | perating at 20 kHz            |  |
| Voltage correction time      |                                | 8 ms (½ line cycle)                                      |                               |  |
| AC Input                     |                                |  |                               |  |
| Input voltage range          | Three phase v                  | vye 480 V <sub>L-L</sub> / 277 V <sub>L-N</sub> ± 20%    | (222 – 332 V <sub>L-N</sub> ) |  |
| Frequency                    |                                | 60 Hz  |                               |  |
| Input Circuit breaker rating | 10 A                           | 15 A   | 30 A                          |  |
| AC Input connector           |                                | Hardwired  |                               |  |
| Surge protection             | _                              | urge protector protects bot<br>ted equipment from surges |                               |  |
| AC Output                    |                                |  |                               |  |
| Output voltage               |                                | 480 V <sub>L-L</sub> / 277 V <sub>L-N</sub> ± 3%         |                               |  |
| Power efficiency             | 979                            | % typical (for load of 50 to 10                          | 00%)                          |  |
| Maximum rated output current | 8.00 A                         | 12.0 A   | 24.0 A                        |  |
| System status indicator      | Green LED ON-Norr              | mal operation - Yellow LED<br>Red LED ON-Fault           | ON-Bypass operation           |  |
| Output connector             |                                | Hardwired  |                               |  |
| Physical                     |                                |  |                               |  |
| Dimension <sup>†</sup>       |                                | Type 1   |                               |  |
| Weight                       | 220 lbs (100 kg)               | 230 lbs (104 kg)   | 260 lbs (118 kg)              |  |
| Mounting                     | Casters stand                  | ard, optional C-channel floo                             | or mounting kit               |  |
| Max wire size (hard-wired)   |                                | 8 AWG (10 mm²)   |                               |  |
| Environmental                |                                |  |                               |  |
| Operating Temperature Range  |                                | 32° to +104° F (0° to +40° C                             | )                             |  |
| Operating Humidity Range     | 10 to 90%                      | 6 relative humidity (non-co                              | ndensing)                     |  |
| Operating altitude range     |                                | 000 meters (6,600 ft) above vithout derating output pov  |                               |  |
|                              | -4° to +140° F (-20° to +60°C) |  |                               |  |

#### Warranty

<sup>\*</sup>Note 1: For continuous product improvement, specifications are subject to change without notice.

**<sup>†</sup>Note 2**: Refer to Page 29 and Page 30 for cabinet illustrations and detailed dimensions.

 $[480 V_{L-L} / 277 V_{L-N}]$ 

| Model                        | VRP-27k-J11B  | VRP-33k-J11B                              | VRP-53k-J11B                        | VRP-60k-J11B           |  |
|------------------------------|---|---|-------------------------------------|------------------------|--|
| Electrical                   |   |   |                                     |                        |  |
| Capacity / (kVA)             | 26.6  | 33.2                                      | 53.2                                | 59.8                   |  |
| Design topology              | High-perfo  | rmance PWM voltag                         | e regulator operatin                | g at 20 kHz            |  |
| Voltage correction time      |   | 8 ms (½ l                                 | line cycle)                         |                        |  |
| AC Input                     |   |   |                                     |                        |  |
| Input voltage range          | Three p   | hase wye 480 V <sub>L-L</sub> / 2         | 277 V <sub>L-N</sub> ± 20% (222 – 3 | 332 V <sub>L-N</sub> ) |  |
| Frequency                    |   | 60  | Hz                                  |                        |  |
| Input Circuit breaker rating | 40 A  | 50 A                                      | 80 A                                | 90 A                   |  |
| AC Input connector           |   | Hard                                      | wired                               |                        |  |
| Surge protection             |   | stage surge protecto<br>onnected equipmen |                                     |                        |  |
| AC Output                    |   |   |                                     |                        |  |
| Output voltage               |   | 480 V <sub>L-L</sub> / 2                  | 77 V <sub>L-N</sub> ± 3%            |                        |  |
| Power efficiency             |   | 97% typical (for lo                       | oad of 50 to 100%)                  |                        |  |
| Maximum rated output current | 32.0 A  | 40.0 A                                    | 64.0 A                              | 72.0 A                 |  |
| System status indicator      | Green LED Of  | N-Normal operation<br>Red LED             | - Yellow LED ON-Byp<br>ON-Fault     | bass operation         |  |
| Output connector             | Hardwired   |   |                                     |                        |  |
| Physical                     |   |   |                                     |                        |  |
| Dimension <sup>†</sup>       |   | Тур                                       | pe 1                                |                        |  |
| Weight                       | 325 lbs (147 kg)  | 340 lbs (154 kg)                          | 360 lbs (163 kg)                    | 380 lbs (172 kg)       |  |
| Mounting                     | Casters   | standard, optional C                      | C-channel floor mour                | nting kit              |  |
| Max wire size (hard-wired)   | 8 AWG (   | (10 mm²)                                  | 2 AWG (                             | (35 mm²)               |  |
| Environmental                |   |   |                                     |                        |  |
| Operating Temperature Range  |   | 32° to +104° F                            | (0° to +40° C)                      |                        |  |
| Operating Humidity Range     |   | to 90% relative hum                       | <u> </u>                            | <u> </u>               |  |
| Operating altitude range     | 0 to 2,000 meters (6,600 ft) above sea level<br>(without derating output power) |   |                                     |                        |  |
| Storage temperature range    |   | -4° to +140° F                            | (-20° to +60°C)                     |                        |  |
| Safety                       |   |   |                                     |                        |  |
| Agency approvals             | Desig   | ned to meet UL 6095                       | 50 (UL/cUL listing per              | nding)                 |  |

#### Warrantv

<sup>\*</sup>Note 1: For continuous product improvement, specifications are subject to change without notice.

**<sup>†</sup>Note 2**: Refer to Page 29 and Page 30 for cabinet illustrations and detailed dimensions.

 $[480 V_{L-L} / 277 V_{L-N}]$ 

| Model                        | VRP-66k-J11B   | VRP-79k-J11B     | VRP-125k-J11B    |
|------------------------------|--|------------------|------------------|
|                              |  | T                |                  |
| Capacity / (kVA)             | 66.5   | 78.5             | 125              |
| Design topology              | High-performance PWM voltage regulator operating at 20 kHz                                     |                  |                  |
| Voltage correction time      | 8 ms (½ line cycle)  |                  |                  |
| AC Input                     |  |                  |                  |
| Input voltage range          | Three phase wye 480 $V_{L-L}$ / 277 $V_{L-N}$ ± 20% (222 – 332 $V_{L-N}$ )                     |                  |                  |
| Frequency                    | 60 Hz  |                  |                  |
| Input Circuit breaker rating | 100 A  | None             | None             |
| AC Input connector           | Hardwired  |                  |                  |
| Surge protection             | Three-stage surge protector protects both the VRP and connected equipment from surges & spikes |                  |                  |
| AC Output                    |  |                  |                  |
| Output voltage               | 480 V <sub>L-L</sub> / 277 V <sub>L-N</sub> ± 3%   |                  |                  |
| Power efficiency             | 97% typical (for load of 50 to 100%)   |                  |                  |
| Maximum rated output current | 80.0 A   | 95.0 A           | 150 A            |
| System status indicator      | Green LED ON-Normal operation - Yellow LED ON-Bypass operation<br>Red LED ON-Fault             |                  |                  |
| Output connector             | Hardwired  |                  |                  |
| Physical                     |  |                  |                  |
| Dimension <sup>†</sup>       | Type 1   | Type 2           | Type 2           |
| Weight                       | 400 lbs (181 kg)   | 900 lbs (408 kg) | 900 lbs (408 kg) |
| Mounting                     | Casters standard, optional C-channel floor mounting kit  |                  |                  |
| Max wire size (hard-wired)   | 2 AWG (35 mm²)   | 4/0 AWG (95 mm²) | 4/0 AWG (95 mm²) |
| Environmental                |  |                  |                  |
| Operating Temperature Range  | 32° to +104° F (0° to +40° C)  |                  |                  |
| Operating Humidity Range     | 10 to 90% relative humidity (non-condensing)   |                  |                  |
| Operating altitude range     | 0 to 2,000 meters (6,600 ft) above sea level<br>(without derating output power)                |                  |                  |
| Storage temperature range    | -4° to +140° F (-20° to +60°C)   |                  |                  |
| Safety                       |  |                  |                  |
| Agency approvals             | Designed to meet UL 60950 (UL/cUL listing pending)   |                  |                  |

#### Warranty

<sup>\*</sup>Note 1: For continuous product improvement, specifications are subject to change without notice.

**<sup>†</sup>Note 2**: Refer to Page 29 and Page 30 for cabinet illustrations and detailed dimensions.

 $[480 V_{L-L} / 277 V_{L-N}]$ 

| Model                        | VRP-150k-J11D  | VRP-173k-J11F  |  |  |
|------------------------------|--|--|--|--|
|                              |  |  |  |  |
| Capacity / (kVA)             | 150  | 173  |  |  |
| Design topology              | High-performance PWM voltage regulator operating at 20 kHz   |  |  |  |
| Voltage correction time      | 8 ms (½ line cycle)  |  |  |  |
| AC Input                     |  |  |  |  |
| Input voltage range          | Three phase wye<br>480 V <sub>L-L</sub> / 277 V <sub>L-N</sub> ± 17% (230 – 324 V <sub>L-N</sub> ) | Three phase wye<br>480 V <sub>L-L</sub> / 277 V <sub>L-N</sub> ± 15% (235 – 319 V <sub>L-N</sub> ) |  |  |
| Frequency                    | 60 Hz  |  |  |  |
| Input Circuit breaker rating | None   | None   |  |  |
| AC Input connector           | Hardwired  |  |  |  |
| Surge protection             | Three-stage surge protector protects both the VRP and connected equipment from surges & spikes     |  |  |  |
| AC Output                    |  |  |  |  |
| Output voltage               | 480 V <sub>L-L</sub> / 277 V <sub>L-N</sub> ± 3%   |  |  |  |
| Power efficiency             | 97% typical (for load of 50 to 100%)   |  |  |  |
| Maximum rated output current | 181 A  | 208 A  |  |  |
| System status indicator      | Green LED ON-Normal operation - Yellow LED ON-Bypass operation<br>Red LED ON-Fault                 |  |  |  |
| Output connector             | Hardwired  |  |  |  |
| Physical                     |  |  |  |  |
| Dimension <sup>†</sup>       | Type 2   | Type 2   |  |  |
| Weight                       | 900 lbs (408 kg)   | 900 lbs (408 kg)   |  |  |
| Mounting                     | Casters standard, optional C-channel floor mounting kit  |  |  |  |
| Max wire size (hard-wired)   | 300 kcmil (150mm²)   | 300 kcmil (150mm²)   |  |  |
| Environmental                |  |  |  |  |
| Operating Temperature Range  | 32° to +104° F (0° to +40° C)  |  |  |  |
| Operating Humidity Range     | 10 to 90% relative humidity (non-condensing)   |  |  |  |
| Operating altitude range     | 0 to 2,000 meters (6,600 ft) above sea level<br>(without derating output power)                    |  |  |  |
| Storage temperature range    | -4° to +140° F (-20° to +60°C)   |  |  |  |
| Safety                       |  |  |  |  |
| Agency approvals             | Designed to meet UL 60950 (UL/cUL listing pending)   |  |  |  |

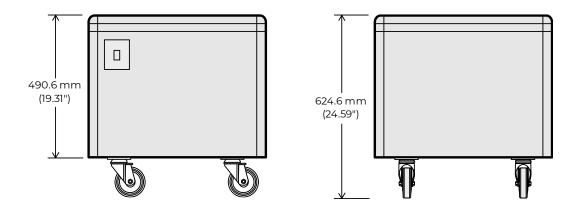
#### Warranty

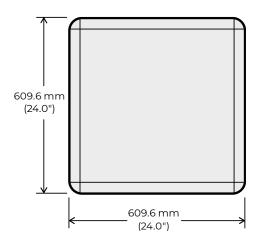
<sup>\*</sup>Note 1: For continuous product improvement, specifications are subject to change without notice.

**<sup>†</sup>Note 2**: Refer to Page 29 and Page 30 for cabinet illustrations and detailed dimensions.

# **Dimensions**

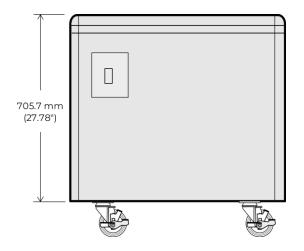
## Type 1

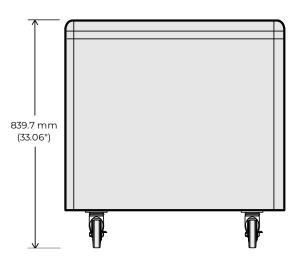


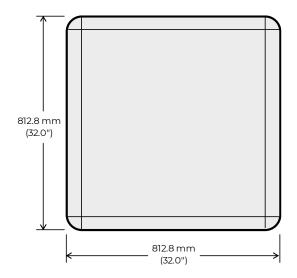


## **Dimensions**

### Type 2









### **TSI Power Corporation**

| 1103 W Pierce Avenue, Antigo, WI 54409 USA | | *Tel:* + 1-715-623-0636 (US) / + 65-9842-6601(Asia) | | sales@tsipower.com |www.tsipower.com |

