HR7
High Frequency Rectifier
PRODUCT
SPECIFICATIONS

HR7

Description

When the application requires ‘real’ power, HR7 can deliver efficient, reliable and regulated power as small as 50KW and up to 2MW.

Utilizing the latest in IGBT technology, HR7 is capable of constant or variable power with very low output ripple and minimal harmonic disturbance on the input.

Touch screen HMI allows for ease of monitoring and control, while providing diagnostics and historical information regarding the unit.

Batteries and input/output voltage and current measurements are among other features easily and readily accessible through this panel.

Standard Features

- IGBT design for maximum reliability
- Alarm indication with log and Form C contact
- Real-time & historical monitoring
- Input/output voltage and current metering via HMI and communications
- AC input and DC output breakers
- Communications: Modbus TCP/IP
- NEMA 1 enclosure
- Touch screen HMI providing all pertinent control and alarming set-points
- E-Stop, fault, and output selection switches
- Compact footprint
- MTBF > 150,000 hours
Alarming & Monitoring

- Emergency stop
- High/Low DC voltage
- High DC amps
- High transformer temperature (2 setpoints)
- DC breaker open
- Inverter fault
- Positive/negative ground fault
- High ambient temperature (2 setpoints)

Available Options

- 12 pulse rectifier
- Redundant configuration
- Enclosure types:
  - NEMA 4/4X
  - NEMA 12
- Email and SMS alarming
- Vortex cooling
- Integrated DC distribution
- Battery monitoring and diagnostics
- Integrated battery rack and batteries
- Integrated load bank
- Communication:
  - Profibus
  - DeviceNet
  - ControlNet

Technical Specifications

<table>
<thead>
<tr>
<th>Input</th>
<th>Output VA</th>
<th>50KW – 2MW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Voltage</td>
<td>120, 240, 208, 480, 600 or custom</td>
<td></td>
</tr>
<tr>
<td>Frequency</td>
<td>50/60 Hz</td>
<td></td>
</tr>
<tr>
<td>Power Factor</td>
<td>&gt; 0.9</td>
<td></td>
</tr>
<tr>
<td>Short Circuit Protection</td>
<td>Electronics SCP</td>
<td></td>
</tr>
<tr>
<td>Output</td>
<td>Output Voltage</td>
<td>12, 24, 48, 125, 250, 600 or custom</td>
</tr>
<tr>
<td>Efficiency</td>
<td>&gt; 92%</td>
<td></td>
</tr>
<tr>
<td>Ripple</td>
<td>Better than 1%</td>
<td></td>
</tr>
<tr>
<td>Regulation</td>
<td>&lt; 0.5% for input variation of 10%</td>
<td></td>
</tr>
<tr>
<td>Environmental</td>
<td>Operating Temperature</td>
<td>0 to 50 °C</td>
</tr>
<tr>
<td>General Features</td>
<td>Method of Cooling</td>
<td>Forced air</td>
</tr>
<tr>
<td>Enclosure</td>
<td>NEMA 1 (optional: NEMA 4/4X or 12)</td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td>Modbus TCP/IP (optional: Profibus, DeviceNet, ControlNet)</td>
<td></td>
</tr>
<tr>
<td>Mounting Positions</td>
<td>Wall mount/floor mount</td>
<td></td>
</tr>
<tr>
<td>Soft Start</td>
<td>Electronic soft start</td>
<td></td>
</tr>
<tr>
<td>Certification</td>
<td>CSA (SPE-1000)</td>
<td></td>
</tr>
<tr>
<td>Warranty</td>
<td>18 months from date of shipment</td>
<td></td>
</tr>
</tbody>
</table>

- Available Options:

  - 12 pulse rectifier
  - Redundant configuration
  - Enclosure types:
    - NEMA 4/4X
    - NEMA 12
  - Email and SMS alarming
  - Vortex cooling
  - Integrated DC distribution
  - Battery monitoring and diagnostics
  - Integrated battery rack and batteries
  - Integrated load bank
  - Communication:
    - Profibus
    - DeviceNet
    - ControlNet

- Technical Specifications:

  - Input Voltage: 120, 240, 208, 480, 600 or custom
  - Frequency: 50/60 Hz
  - Power Factor: > 0.9
  - Short Circuit Protection: Electronics SCP
  - Output VA: 50KW – 2MW
  - Output Voltage: 12, 24, 48, 125, 250, 600 or custom
  - Output Current: 5 – 4000A
  - Efficiency: > 92%
  - Ripple: Better than 1%
  - Regulation: < 0.5% for input variation of 10%
  - Operating Temperature: 0 to 50 °C
  - Method of Cooling: Forced air
  - Enclosure: NEMA 1 (optional: NEMA 4/4X or 12)
  - Communication: Modbus TCP/IP (optional: Profibus, DeviceNet, ControlNet)
  - Mounting Positions: Wall mount/floor mount
  - Soft Start: Electronic soft start
  - Certification: CSA (SPE-1000)
  - Warranty: 18 months from date of shipment