

**Table 8.3-13—Division 1 Class 1E Uninterruptible Power Supply Nominal Loads**

| Load Description                    | Load Requirement (kW)    |             |                       |            |
|-------------------------------------|--------------------------|-------------|-----------------------|------------|
|                                     | Momentary <sup>(1)</sup> |             | Random <sup>(2)</sup> | Continuous |
|                                     | 0-1 Min                  | 119-120 Min | 0-1 Min Duration      | 0-120 Min  |
| Inverter Load (MCC 31BRA)           |                          |             |                       |            |
| • Containment Isolation Valves      | 39                       | 0           | 0                     | 0          |
| • Solenoid Valves                   | 0                        | 0           | 0                     | 2.3        |
| • Valves and Dampers                | 98.6                     | 0           | 165.9                 | 0          |
| • AC/DC Converters                  | 0                        | 0           | 0                     | 31.4       |
| • I&C Systems                       | 0                        | 0           | 0                     | 10.2       |
| • 31BRA Control Power               | 0                        | 0           | 1.6                   | 0.3        |
| • Main Steam Relief Control Valve   | 0                        | 0           | 0                     | 2.8        |
| Total Inverter Loads                | 137.6                    | 0           | 167.5                 | 47         |
| 250 Vdc Loads (switchgear 31BUC)    |                          |             |                       |            |
| • Control Power                     | 17.7                     | 0           | 0                     | 1.2        |
| • DC/DC Converters <sup>(3)</sup>   | 0                        | 0           | 0                     | 0          |
| • Inverter Load <sup>(4)</sup>      | 158.2                    | 0           | 192.5                 | 54         |
| • EDG Auxiliaries                   | 1.4                      | 1.4         | 0                     | 0.8        |
| Total Division 1 EUPS Nominal Loads | 177.3                    | 1.4         | 192.5                 | 56         |

**Notes:**

1. Maximum load occurring during the one minute momentary load duration is assumed for the entire one minute duration as described in IEEE Std 485-1997.
2. Random load assumed to occur at the most critical time of the duty cycle. Maximum load occurring during the one minute random load duration is assumed for the entire one minute duration.
3. AC/DC and DC/DC converters operate in parallel. Total load contribution from converters is shown as inverter load to include efficiency factor.
4. EUPS Battery load includes inverter efficiency factor of 87 percent.

**Table 8.3-14—Division 2 Class 1E Uninterruptible Power Supply Nominal Loads**

| Load Description                    | Load Requirement (kW)    |             |                       |            |
|-------------------------------------|--------------------------|-------------|-----------------------|------------|
|                                     | Momentary <sup>(1)</sup> |             | Random <sup>(2)</sup> | Continuous |
|                                     | 0-1 Min                  | 119-120 Min | 0-1 Min Duration      | 0-120 Min  |
| Inverter Load (MCC 32BRA)           |                          |             |                       |            |
| • Containment Isolation Valves      | 17.9                     | 0           | 0                     | 0          |
| • Solenoid Valves                   | 0                        | 0           | 0                     | 2.7        |
| • Valves and Dampers                | 120.9                    | 0           | 103.1                 | 0          |
| • Special Emergency Lighting        | 0                        | 0           | 0                     | 4          |
| • AC/DC Converters                  | 0                        | 0           | 0                     | 27.5       |
| • I&C Systems                       | 0                        | 0           | 0                     | 6.6        |
| • 32BRA Control Power               | 0                        | 0           | 0.8                   | 0.2        |
| • Main Steam Relief Control Valve   | 0                        | 0           | 0                     | 2.8        |
| • Communications                    | 0                        | 0           | 0                     | 0.3        |
| Total Inverter Loads                | 138.8                    | 0           | 103.9                 | 44.1       |
| 250 Vdc Loads (switchgear 32BUC)    |                          |             |                       |            |
| • Control Power                     | 15                       | 1.2         | 0                     | 1          |
| • DC/DC Converters <sup>(3)</sup>   | 0                        | 0           | 0                     | 0          |
| • Inverter Load <sup>(4)</sup>      | 159.5                    | 0           | 119.4                 | 50.7       |
| • EDG Auxiliaries                   | 1.4                      | 1.4         | 0                     | 0.8        |
| Total Division 2 EUPS Nominal Loads | 175.9                    | 2.6         | 119.4                 | 52.5       |

**Notes:**

1. Maximum load occurring during the one minute momentary load duration is assumed for the entire one minute duration as described in IEEE Std 485-1997.
2. Random load assumed to occur at the most critical time of the duty cycle. Maximum load occurring during the one minute random load duration is assumed for the entire one minute duration.
3. AC/DC and DC/DC converters operate in parallel. Total load contribution from converters is shown as inverter load to include efficiency factor.
4. EUPS Battery load includes inverter efficiency factor of 87 percent.

**Table 8.3-15—Division 3 Class 1E Uninterruptible Power Supply Nominal Loads**

| Load Description                    | Load Requirement (kW)    |             |                       |            |
|-------------------------------------|--------------------------|-------------|-----------------------|------------|
|                                     | Momentary <sup>(1)</sup> |             | Random <sup>(2)</sup> | Continuous |
|                                     | 0-1 Min                  | 119-120 Min | 0-1 Min Duration      | 0-120 Min  |
| Inverter Load (MCC 33BRA)           |                          |             |                       |            |
| • Containment Isolation Valves      | 17.9                     | 0           | 0                     | 0          |
| • Solenoid Valves                   | 0                        | 0           | 0                     | 2.7        |
| • Valves and Dampers                | 120.9                    | 0           | 103.1                 | 0          |
| • Special Emergency Lighting        | 0                        | 0           | 0                     | 4          |
| • AC/DC Converters                  | 0                        | 0           | 0                     | 27.5       |
| • I&C Systems                       | 0                        | 0           | 0                     | 6.6        |
| • 33BRA Control Power               | 0                        | 0           | 0.8                   | 0.2        |
| • Main Steam Relief Control Valve   | 0                        | 0           | 0                     | 2.8        |
| • Communications                    | 0                        | 0           | 0                     | 0.3        |
| Total Inverter Loads                | 138.8                    | 0           | 103.9                 | 44.1       |
| 250 Vdc Loads (switchgear 33BUC)    |                          |             |                       |            |
| • Control Power                     | 15                       | 1.2         | 0                     | 1          |
| • DC/DC Converters <sup>(3)</sup>   | 0                        | 0           | 0                     | 0          |
| • Inverter Load <sup>(4)</sup>      | 159.5                    | 0           | 119.4                 | 50.7       |
| • EDG Auxiliaries                   | 1.4                      | 1.4         | 0                     | 0.8        |
| Total Division 3 EUPS Nominal Loads | 175.9                    | 2.6         | 119.4                 | 52.5       |

**Notes:**

1. Maximum load occurring during the one minute momentary load duration is assumed for the entire one minute duration as described in IEEE Std 485-1997.
2. Random load assumed to occur at the most critical time of the duty cycle. Maximum load occurring during the one minute random load duration is assumed for the entire one minute duration.
3. AC/DC and DC/DC converters operate in parallel. Total load contribution from converters is shown as inverter load to include efficiency factor.
4. EUPS Battery load includes inverter efficiency factor of 87 percent.

**Table 8.3-16—Division 4 Class 1E Uninterruptible Power Supply Nominal Loads**

| Load Description                    | Load Requirement (kW)    |             |                       |            |
|-------------------------------------|--------------------------|-------------|-----------------------|------------|
|                                     | Momentary <sup>(1)</sup> |             | Random <sup>(2)</sup> | Continuous |
|                                     | 0-1 Min                  | 119-120 Min | 0-1 Min Duration      | 0-120 Min  |
| Inverter Load (MCC 34BRA)           |                          |             |                       |            |
| • Containment Isolation Valves      | 32.1                     | 0           | 0                     | 0          |
| • Solenoid Valves                   | 0                        | 0           | 0                     | 1.4        |
| • Valves and Dampers                | 98.6                     | 0           | 166                   | 0          |
| • AC/DC Converters                  | 0                        | 0           | 0                     | 32.5       |
| • I&C Systems                       | 0                        | 0           | 0                     | 12.6       |
| • 34BRA Control Power               | 0                        | 0           | 1.6                   | 0.3        |
| • Main Steam Relief Control Valve   | 0                        | 0           | 0                     | 2.8        |
| Total Inverter Loads                | 130.7                    | 0           | 167.6                 | 49.6       |
| 250 Vdc Loads (switchgear 34BUC)    |                          |             |                       |            |
| • Control Power                     | 17.7                     | 0           | 0                     | 1.3        |
| • DC/DC Converters <sup>(3)</sup>   | 0                        | 0           | 0                     | 0          |
| • Inverter Load <sup>(4)</sup>      | 150.2                    | 0           | 192.6                 | 57         |
| • EDG Auxiliaries                   | 1.4                      | 1.4         | 0                     | 0.8        |
| Total Division 4 EUPS Nominal Loads | 169.3                    | 1.4         | 192.6                 | 59.1       |

**Notes:**

- Maximum load occurring during the one minute momentary load duration is assumed for the entire one minute duration as described in IEEE Std 485-1997.
- Random load assumed to occur at the most critical time of the duty cycle. Maximum load occurring during the one minute random load duration is assumed for the entire one minute duration.
- AC/DC and DC/DC converters operate in parallel. Total load contribution from converters is shown as inverter load to include efficiency factor.
- EUPS Battery load includes inverter efficiency factor of 87 percent.

Next File