

**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)           |                          |             |                       |                    |
| • Motor Operated Valves             | 175.2                    | 0           | 138.8                 | 2.8 <sup>(5)</sup> |
| • Solenoid Valves                   | 0.1                      | 0.1         | 0                     | 3.3                |
| • Dampers                           | 0                        | 0           | 44.8                  | 0                  |
| • AC/DC Converters                  | 0                        | 0           | 0                     | 31.3               |
| • I&C Systems                       | 0                        | 0           | 0                     | 10.5               |
| • 31BRA Control Power               | 2                        | 0           | 2                     | 0.3                |
| Total Inverter Loads                | 177.3                    | 0.1         | 185.6                 | 48.2               |
| 250 Vdc Loads (switchgear 31BUC)    |                          |             |                       |                    |
| • Control Power                     | 18.5                     | 0           | 0                     | 1.2                |
| • DC/DC Converters <sup>(3)</sup>   | 0                        | 0           | 0                     | 0                  |
| • Inverter Load <sup>(4)</sup>      | 203.8                    | 0.1         | 213.3                 | 55.4               |
| • EDG Auxiliaries                   | 14.3                     | 3.3         | 0                     | 0.8                |
| Total Division 1 EUPS Nominal Loads | 236.6                    | 3.4         | 213.3                 | 57.4               |

**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.
5. Load contribution from modulating valves in continuous use.

**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)           |                          |             |                       |                    |
| • Motor Operated Valves             | 85.6                     | 0           | 120.9                 | 2.8 <sup>(5)</sup> |
| • Solenoid Valves                   | 0.1                      | 0.1         | 0                     | 2.7                |
| • Dampers                           | 0                        | 0           | 22.4                  | 0                  |
| • Special Emergency Lighting        | 0                        | 0           | 0                     | 4                  |
| • AC/DC Converters                  | 0                        | 0           | 0                     | 27.5               |
| • I&C Systems                       | 0                        | 0           | 0                     | 7.6                |
| • 32BRA Control Power               | 0.6                      | 0           | 1.3                   | 0.2                |
| Total Inverter Loads                | 86.3                     | 0.1         | 144.6                 | 44.8               |
| 250 Vdc Loads (switchgear 32BUC)    |                          |             |                       |                    |
| • Control Power                     | 12.6                     | 0           | 0                     | 1                  |
| • DC/DC Converters <sup>(3)</sup>   | 0                        | 0           | 0                     | 0                  |
| • Inverter Load <sup>(4)</sup>      | 99.2                     | 0.1         | 166.2                 | 51.5               |
| • EDG Auxiliaries                   | 14.3                     | 3.3         | 0                     | 0.8                |
| Total Division 2 EUPS Nominal Loads | 126.1                    | 3.4         | 166.2                 | 53.3               |

**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.
5. Load contribution from modulating valves in continuous use.

**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)           |                          |             |                       |                    |
| • Motor Operated Valves             | 85.6                     | 0           | 120.9                 | 2.8 <sup>(5)</sup> |
| • Solenoid Valves                   | 0.1                      | 0.1         | 0                     | 2.7                |
| • Dampers                           | 0                        | 0           | 22.4                  | 0                  |
| • Special Emergency Lighting        | 0                        | 0           | 0                     | 4                  |
| • AC/DC Converters                  | 0                        | 0           | 0                     | 27.5               |
| • I&C Systems                       | 0                        | 0           | 0                     | 7.6                |
| • 33BRA Control Power               | 0.6                      | 0           | 1.3                   | 0.2                |
| Total Inverter Loads                | 86.3                     | 0.1         | 144.6                 | 44.8               |
| 250 Vdc Loads (switchgear 33BUC)    |                          |             |                       |                    |
| • Control Power                     | 12.6                     | 0           | 0                     | 1                  |
| • DC/DC Converters <sup>(3)</sup>   | 0                        | 0           | 0                     | 0                  |
| • Inverter Load <sup>(4)</sup>      | 99.2                     | 0.1         | 166.2                 | 51.5               |
| • EDG Auxiliaries                   | 14.3                     | 3.3         | 0                     | 0.8                |
| Total Division 3 EUPS Nominal Loads | 126.1                    | 3.4         | 166.2                 | 53.3               |

**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.
5. Load contribution from modulating valves in continuous use.

**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)           |                          |             |                       |                    |
| • Motor Operated Valves             | 175.2                    | 0           | 138.8                 | 2.8 <sup>(5)</sup> |
| • Solenoid Valves                   | 0.1                      | 0.1         | 0                     | 3.3                |
| • Dampers                           | 0                        | 0           | 44.8                  | 0                  |
| • AC/DC Converters                  | 0                        | 0           | 0                     | 31.3               |
| • I&C Systems                       | 0                        | 0           | 0                     | 10.5               |
| • 34BRA Control Power               | 2                        | 0           | 2                     | 0.3                |
| Total Inverter Loads                | 177.3                    | 0.1         | 185.6                 | 48.2               |
| 250 Vdc Loads (switchgear 34BUC)    |                          |             |                       |                    |
| • Control Power                     | 18.5                     | 0           | 0                     | 1.2                |
| • DC/DC Converters <sup>(3)</sup>   | 0                        | 0           | 0                     | 0                  |
| • Inverter Load <sup>(4)</sup>      | 203.8                    | 0.1         | 213.3                 | 55.4               |
| • EDG Auxiliaries                   | 14.3                     | 3.3         | 0                     | 0.8                |
| Total Division 4 EUPS Nominal Loads | 236.6                    | 3.4         | 213.3                 | 57.4               |

**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.
5. Load contribution from modulating valves in continuous use.

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