FEATURES & SPECIFICATIONS

NEMA Premium®
Normal ballast factor: 0.88.
Instant start.
Parallel circuit type.
Starting temperature is 0°F for 32W lamps; 60°F for energy-saving T8 lamps.
Input voltage: 120-277; 50Hz or 60Hz.
UL Listed Class P; CSA Certified.

ELECTRICAL SYSTEM
Ballast shall be instant start.
Ballast shall contain auto-restart circuitry to restart lamps without a reset of power.
Ballast shall operate input voltages 120-277, with variations of +/- 10% at 50Hz or 60Hz.
Ballast shall be a high-frequency electronic type, and operate lamps at a frequency above 42kHz to minimize interference with infrared devices, eliminate visible flicker and avoid Article Surveillance Systems.
Ballast shall have power factor greater than 0.98 for primary lamp.
Ballast shall have minimum ballast factor of 0.87 for primary lamp.
Lamp current crest factor shall be 1.7 or less, in accordance with lamp manufacturer recommendations.
Ballast shall have a less than 10% Total Harmonic Distortion (THD).
Ballast shall have a class A sound rating.
Ballast shall have a minimum starting temperature of 0°F for 32W T8 lamps, and 60°F for energy-saving T8 lamps.
Ballast shall tolerate sustained open circuit and short circuit output conditions without damage.
Ballast shall not contain any PCBs.
Ballast shall comply with ANSI C62.41 Category A for Transient protection.
Ballast shall comply with ANSI C82.11.
Ballast shall comply with FCC part 18 non-consumer equipment for EMI/RFI (conducted and radiated).
Ballast shall be labeled “NEMA Premium”.
Ballast shall be manufactured in facility certified to ISO 9001 standards.
Manufacturer shall have a five-year history of producing electronic ballasts for the North American market.

LISTINGS
Ballasts shall be Underwriters Laboratory listed, Class P, Type 1 Outdoor, and CSA certified.

WARRANTY
Ballast shall carry a two-year warranty from the date of installation.
Specifications subject to change without notice.

PERFORMANCE MATRIX

STANDARD 4’ 32 WATT LAMP OPERATION

<table>
<thead>
<tr>
<th>Model Number</th>
<th># Lamps</th>
<th>Min. BEF@277</th>
<th>Power factor</th>
<th>Ballast factor</th>
<th>Input Wattage 120/277</th>
<th>Input Current (A) 120V</th>
<th>Input Current (A) 277V</th>
<th>THD</th>
</tr>
</thead>
<tbody>
<tr>
<td>A* 132-IP-UNV</td>
<td>1 Lamp</td>
<td>&gt;3.11</td>
<td>&gt;0.98</td>
<td>0.87</td>
<td>30/28</td>
<td>0.25</td>
<td>0.11</td>
<td>&lt;10%</td>
</tr>
<tr>
<td>A* 232-IP-UNV</td>
<td>2 Lamp</td>
<td>≥1.58</td>
<td>&gt;0.98</td>
<td>0.88</td>
<td>56/55</td>
<td>0.50</td>
<td>0.20</td>
<td>&lt;10%</td>
</tr>
<tr>
<td>A* 332-IP-UNV</td>
<td>3 Lamp</td>
<td>≥1.05</td>
<td>&gt;0.98</td>
<td>0.88</td>
<td>85/83</td>
<td>0.73</td>
<td>0.31</td>
<td>&lt;10%</td>
</tr>
<tr>
<td>A* 432-IP-UNV</td>
<td>4 Lamp</td>
<td>≥0.80</td>
<td>&gt;0.98</td>
<td>0.88</td>
<td>112/109</td>
<td>0.94</td>
<td>0.42</td>
<td>&lt;10%</td>
</tr>
</tbody>
</table>

ENERGY SAVING 4’ 28 WATT LAMP OPERATION

<table>
<thead>
<tr>
<th>Model Number</th>
<th># Lamps</th>
<th>Min. BEF@277</th>
<th>Power factor</th>
<th>Ballast factor</th>
<th>Input Wattage 120/277</th>
<th>Input Current (A) 120V</th>
<th>Input Current (A) 277V</th>
<th>THD</th>
</tr>
</thead>
<tbody>
<tr>
<td>A* 132-IP-UNV</td>
<td>1 Lamp</td>
<td>&gt;3.52</td>
<td>≥0.98</td>
<td>0.87</td>
<td>26/25</td>
<td>0.25</td>
<td>0.11</td>
<td>&lt;10%</td>
</tr>
<tr>
<td>A* 232-IP-UNV</td>
<td>2 Lamp</td>
<td>≥1.76</td>
<td>≥0.98</td>
<td>0.88</td>
<td>50/50</td>
<td>0.49</td>
<td>0.21</td>
<td>&lt;10%</td>
</tr>
<tr>
<td>A* 332-IP-UNV</td>
<td>3 Lamp</td>
<td>≥1.15</td>
<td>≥0.98</td>
<td>0.88</td>
<td>75/75</td>
<td>0.66</td>
<td>0.29</td>
<td>&lt;10%</td>
</tr>
<tr>
<td>A* 432-IP-UNV</td>
<td>4 Lamp</td>
<td>≥0.88</td>
<td>≥0.98</td>
<td>0.88</td>
<td>97/97</td>
<td>0.86</td>
<td>0.37</td>
<td>&lt;10%</td>
</tr>
</tbody>
</table>

ENERGY SAVING 4’ 25 WATT LAMP OPERATION

<table>
<thead>
<tr>
<th>Model Number</th>
<th># Lamps</th>
<th>Min. BEF@277</th>
<th>Power factor</th>
<th>Ballast factor</th>
<th>Input Wattage 120/277</th>
<th>Input Current (A) 120V</th>
<th>Input Current (A) 277V</th>
<th>THD</th>
</tr>
</thead>
<tbody>
<tr>
<td>A* 132-IP-UNV</td>
<td>1 Lamp</td>
<td>&gt;3.95</td>
<td>≥0.98</td>
<td>0.87</td>
<td>23/23</td>
<td>0.20</td>
<td>0.09</td>
<td>&lt;10%</td>
</tr>
<tr>
<td>A* 232-IP-UNV</td>
<td>2 Lamp</td>
<td>≥1.98</td>
<td>≥0.98</td>
<td>0.88</td>
<td>44/44</td>
<td>0.41</td>
<td>0.18</td>
<td>&lt;10%</td>
</tr>
<tr>
<td>A* 332-IP-UNV</td>
<td>3 Lamp</td>
<td>≥1.32</td>
<td>≥0.98</td>
<td>0.88</td>
<td>69/66</td>
<td>0.60</td>
<td>0.26</td>
<td>&lt;10%</td>
</tr>
<tr>
<td>A* 432-IP-UNV</td>
<td>4 Lamp</td>
<td>≥0.99</td>
<td>≥0.98</td>
<td>0.88</td>
<td>90/88</td>
<td>0.82</td>
<td>0.35</td>
<td>&lt;10%</td>
</tr>
</tbody>
</table>

(1) Also operates 17W 2’ lamps
(2) Asterick (*) represents series number or letter
FEATURES & SPECIFICATIONS

Normal ballast factor: 0.88.
Instant start.
Parallel circuit type.
Starting temperature is 0°F for 32W lamps; 60°F for energy-saving T8 lamps.
Input voltage: 120V.
UL Listed Class P; CSA Certified.

ELECTRICAL SYSTEM

Ballast shall be instant start.
Ballast shall contain auto-restart circuitry to restart lamps without a reset of power.
Ballast shall be a high-frequency electronic type, and operate lamps at a frequency above 40kHz to minimize interference with infrared devices, eliminate visible flicker and avoid Article Surveillance Systems.
Ballast shall have power factor greater than 0.98 for primary lamp.
Ballast shall have minimum ballast factor of 0.85 for primary lamp.
Lamp current crest factor shall be 1.7 or less, in accordance with lamp manufacturer recommendations.
Ballast shall have a class A sound rating.
Ballast shall have a minimum starting temperature of 0°F for 32W T8 lamps, and 60°F for energy-saving T8 lamps.
Ballast shall tolerate sustained open circuit and short circuit output conditions without damage.
Ballast shall not contain any PCBs.
Ballast shall comply with ANSI C62.41 Category A for Transient protection.
Ballast shall comply with ANSI C62.11.
Ballast shall comply with the limits of FCC Part 18C Class B (Residential) and Class A.
Ballast shall be manufactured in facility certified to ISO 9001 standards.
Manufacturer shall have a five-year history of producing electronic ballasts for the North American market.

LISTINGS

Ballasts shall be Underwriters Laboratory listed, Class P, Type 1 Outdoor, and CSA certified.

WARRANTY

Ballast shall carry a two-year warranty from the date of installation.
Specifications subject to change without notice.

PERFORMANCE MATRIX

<table>
<thead>
<tr>
<th>Model Number</th>
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<th>Min. BEF</th>
<th>Power factor</th>
<th>Ballast factor</th>
<th>Input Wattage 120/277</th>
<th>Input Current (A) 120V</th>
<th>THD</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP-RC-232IP</td>
<td>1 Lamp</td>
<td>&gt;2.27</td>
<td>&gt;=0.98</td>
<td>1.05</td>
<td>37</td>
<td>0.38</td>
<td>&lt;15%</td>
</tr>
<tr>
<td>AP-RC-232IP</td>
<td>2 Lamp</td>
<td>&gt;1.53</td>
<td>&gt;=0.98</td>
<td>0.87</td>
<td>58</td>
<td>0.49</td>
<td>&lt;10%</td>
</tr>
<tr>
<td>AP-RC-432IP</td>
<td>3 Lamp</td>
<td>&gt;1.09</td>
<td>&gt;=0.98</td>
<td>0.98</td>
<td>93</td>
<td>0.78</td>
<td>&lt;10%</td>
</tr>
<tr>
<td>AP-RC-432IP</td>
<td>4 Lamp</td>
<td>&gt;0.82</td>
<td>&gt;=0.98</td>
<td>0.85</td>
<td>108</td>
<td>0.94</td>
<td>&lt;10%</td>
</tr>
</tbody>
</table>

Notes

1. Also operates 32W-U lamps, 17W 2' lamps, 25W 3' lamps, and 30W and 28W energy-saving lamps.
2. Asterisk (*) represents series number or letter.
3. BEF, ballast efficacy factor, = (ballast factor x 100) input wattage.