STANDARD GATE BOX CONFIGURATIONS

(GATE BOX BASIC PART NUMBER IS 900-30003-XX)

<table>
<thead>
<tr>
<th>KVA</th>
<th>OUTPUT</th>
<th>INPUT VOLTS</th>
<th>HEIGHT (IN. / MM)</th>
<th>WIDTH (IN. / MM)</th>
<th>DEPTH (IN. / MM)</th>
<th>WEIGHT LBS / KG</th>
</tr>
</thead>
<tbody>
<tr>
<td>92</td>
<td>1</td>
<td>115</td>
<td>53.5 (1359)</td>
<td>30 (762)</td>
<td>19 (533)</td>
<td>470 (213)</td>
</tr>
<tr>
<td>90</td>
<td>60</td>
<td>575</td>
<td>53.5 (1359)</td>
<td>30 (762)</td>
<td>19 (533)</td>
<td>820 (372)</td>
</tr>
<tr>
<td>91</td>
<td>75</td>
<td>575</td>
<td>53.5 (1359)</td>
<td>30 (762)</td>
<td>19 (533)</td>
<td>860 (391)</td>
</tr>
<tr>
<td>86</td>
<td>90</td>
<td>575</td>
<td>53.5 (1359)</td>
<td>30 (762)</td>
<td>19 (533)</td>
<td>900 (408)</td>
</tr>
<tr>
<td>96</td>
<td>90</td>
<td>960</td>
<td>53.5 (1359)</td>
<td>30 (762)</td>
<td>19 (533)</td>
<td>900 (408)</td>
</tr>
<tr>
<td>95</td>
<td>90</td>
<td>575</td>
<td>65.6 (1665)</td>
<td>36.75 (933)</td>
<td>21 (533)</td>
<td>1050 (476)</td>
</tr>
<tr>
<td>77</td>
<td>125</td>
<td>575</td>
<td>65.6 (1665)</td>
<td>36.75 (933)</td>
<td>21 (533)</td>
<td>1275 (578)</td>
</tr>
<tr>
<td>94</td>
<td>125</td>
<td>575</td>
<td>65.6 (1665)</td>
<td>36.75 (933)</td>
<td>21 (533)</td>
<td>1200 (544)</td>
</tr>
<tr>
<td>85</td>
<td>140</td>
<td>575</td>
<td>65.6 (1665)</td>
<td>36.75 (933)</td>
<td>21 (533)</td>
<td>1255 (589)</td>
</tr>
<tr>
<td>67</td>
<td>180</td>
<td>575</td>
<td>65.6 (1665)</td>
<td>36.75 (933)</td>
<td>21 (533)</td>
<td>1255 (589)</td>
</tr>
<tr>
<td>97</td>
<td>140</td>
<td>960</td>
<td>65.6 (1665)</td>
<td>36.75 (933)</td>
<td>21 (533)</td>
<td>1255 (589)</td>
</tr>
</tbody>
</table>

1. Only two outputs may be used at one time. The other two outputs will be interlocked off.
Contact the factory for models not listed above.

GATE BOX ACCESSORIES

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>ITEM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>120-30003-62</td>
<td>FLOOR STAND (2)</td>
<td>MOUNTS SINGLE OUTPUT GATE BOX 18&quot; (457) ABOVE FLOOR</td>
</tr>
<tr>
<td>120-30003-63</td>
<td>FLOOR STAND (2)</td>
<td>MOUNTS DUAL OUTPUT GATE BOX 18&quot; (457) ABOVE FLOOR</td>
</tr>
<tr>
<td>120-30003-60</td>
<td>WALL BRACKET</td>
<td>MOUNTS SINGLE OUTPUT GATE BOX TO A VERTICAL SURFACE</td>
</tr>
<tr>
<td>120-30003-61</td>
<td>WALL BRACKET</td>
<td>MOUNTS DUAL OUTPUT GATE BOX TO A VERTICAL SURFACE</td>
</tr>
<tr>
<td>087-30003-88</td>
<td>TELEMETRY CARD</td>
<td>PROVIDES VOLTS &amp; AMPS TELEMETRY FOR 1 OUTPUT</td>
</tr>
<tr>
<td>DESCRIPTION ON/OFF CONTROLS</td>
<td>SWITCHES &amp; ON INDICATOR FOR 1 OUTPUT (FACTORY INST.)</td>
<td></td>
</tr>
<tr>
<td>DESCRIPTION ON/OFF CONTROLS</td>
<td>SWITCHES &amp; ON INDICATOR FOR 2 OUTPUT (FACTORY INST.)</td>
<td></td>
</tr>
</tbody>
</table>

1. The telemetry circuit card(s) must have the type of output specified when ordered (0-5 v, 0-10 v, 0-20 ma, 4-20 ma).
Two circuit cards would be used to fully equip a Dual Output Gate Box.

PAGE INDUSTRIES
400 Hz COMBINED GATE BOX AND LINE DROP COMPENSATOR ASSEMBLY

Introduction
Today’s aircraft make the most extensive use of electronics imaginable. The electronics, combined with other heavy electrical loads aboard, place very high demands on the ground power source. In addition to heavy ground power loading, the newer aircraft are able to produce high level power transients as a part of their normal operation.

The Combined Gate Box/Line Drop Compensator designed and built by PAGE Industries, Inc. addresses all of the latest aircraft ground power requirements. The digital circuitry within the Gate Box will not permit the aircraft to be connected to power that is out of limits. If ground power limits are exceeded while the aircraft is on line, power to the aircraft will be interrupted by the Gate Box. Without compromising safety, nuisance tripping is positively eliminated.

This equipment is user friendly and does not normally require routine maintenance.

Long Term Advantage
This product assists in minimizing the risk of power system fault damage to both the aircraft and the ground support facilities. This serves to enhance the reliability of the ground power system, thus encouraging more use of ground power and less use of the expensive APU aboard the aircraft. The elimination of nuisance fault trip has minimized the chance of gate delays caused by ground power or the aircraft.

The Benefits:
• Protects aircraft 400 Hz systems
• Protects the 400 Hz ground power system
• Minimized use of expensive aircraft APU
• Reduces gate delays caused by ground power
• Meet local APU exhaust & noise regulations
• Saves valuable space with a combined unit
• Encourages the use of reliable ground power
• COST EFFECTIVE
Functional Characteristics

- **Overall**
  - Input: 115/200 volts wye, 575 volts or 960 volts delta, 3Ø, 400 Hz (see table)
  - Output: 118/204 volts wye, up to 260.5 amps maximum continuous per output, not exceeding kVA rating of Gate Box (see table). Optional secondary: 115/200 volts wye

- **Protection**
  - Voltage and current values are independently determined for each output phase. Sensing is at the transformer secondary, ahead of the contactor(s).
  - Overvoltage sensing per output phase
  - Undervoltage sensing per output phase
  - Overload sensing per output phase
  - Trip Reset: May be reset from ground level by operating a ground level “Off Button”
  - Control Circuit Protection: The E/F and ON/OFF circuits cannot be damaged by inadvertent contact with phase power.
  - Thermal control: Redundant, independently controlled fans. A cooling failure for any reason will operate a self-resetting, high limit, thermal switch at 150°F/70°C and power down the Gate Box.

- **Line Drop Compensation**
  - Boost Range: 115/200 volt input, 7%-20% of 575 or 960 volt input, 4%-20%
  - Boost adjustment steps do not exceed 2%

- **Operating Indicators**
  - Fault: Individual indicators for Overvoltage, Undervoltage and Overload (2 Overload on dual output units)
  - Power Available
  - Optional: Telemetry to remotely indicate output voltage and current for each output.

- **Operating Environment**
  - Ambient Temperature: -40°C to +56°C
  - Humidity: 0% to 99%, non-condensing
  - Snow and Ice: Keep openings clear
  - Blowing Rain: No restriction
  - Blowing Sand & Dust: No restriction

- **Controls**
  - Output ON/OFF terminals
  - E & F
  - Signalling relays for Contactor Closed, Power Available and Summary Fault. Each has two “form C”, 5 amp contacts. Separately fused 24 volts DC signalling voltage is provided.

- **Maintenance and Safety**
  - Test Access: Testing of all Gate Box operating characteristics may be done without requiring a separate test power source. Trip points, ON/OFF and E/F circuits may be fully tested with the optional PAGE Gate Box Test Set.
  - Spares: Two lamps, a Lamp Extractor and one of each type of fuse are stored inside the Gate Box.
  - Repairability: All components can be removed and replaced without disturbing adjacent components.
  - Underwriters Laboratories listing is provided for most equipment distributed in the U.S.
  - Wiring: All wiring within the assembly is rated at least 125°C. Polyvinyl chloride insulation is not used.
  - Door interlock: Standard door safety interlock discourages entry with power on.
  - Door restraint: An adjustable door restraint is provided so that the door may be secured in any open position.
  - Safety shields: Safety shields cover all points with greater than 28 volt potential. Risk of inadvertent contact with live parts is minimized. The safety shields are clear, flame retardant polycarbonate material.
  - Finish: The finish is two part, polyurethane paint or fused, polyester powder coating.

PAGE Industries, Inc.

This equipment offers levels of safety, reliability and performance unavailable in any competing equipment, without exception.