LANCUW8 SERIES

4:1 Ultra Wide Input Voltage Ranges
Single and Dual Outputs
SMT and DIP Packages
8 Watt DC/DC Power Converters

FEATURES

• Single and Dual Outputs
• 4:1 Ultra Wide Input Voltage Ranges
• High Efficiency up to 88%
• 8 Watts Output Power
• 1600VDC I/O Isolation
• Output Current up to 2.4A
• Remote ON/OFF
• Fixed Switching Frequency (300KHz)
• Over Voltage, Over Load, and Short Circuit Protection
• Five-Sided Continuous Shield
• Railway Applications
• Standard 1.25” x 0.80” x 0.40” and 24 Pin DIP Package
• SMT Package Available (Suffix “S”)
• Compliant to RoHS EU Directive 2002/95/EC
• CE Mark Meets 2006/95/EC, 93/68/EEC and 2004/108/EC
• UL60950-1, EN60950-1, IEC60950-1, and EN50155 Safety Approvals (Pending)

APPLICATIONS

• Railway Systems
• Wireless Networks
• Telecom / Datacom
• Measurement Equipment
• Industry Control Systems
• Semiconductor Equipment

DESCRIPTION

The LANCUW8 series of DC/DC power converters provides 8 Watts of output power in a 1.25 x 0.80 x 0.40 inch DIP package. This series has single and dual output models with 4:1 wide input voltage ranges of 9-36VDC, 18-75VDC, and 43-160VDC. Some features include high efficiency up to 88%, 1600VDC I/O isolation, five-sided shielding, remote ON/OFF control, and no minimum load requirement. These converters are also protected against over voltage (single outputs only), over load, and short circuit conditions. All models are RoHS compliant and have UL60950-1, EN60950-1, IEC60950-1, and EN50155 safety approvals (pending). This series is best suited for use in wireless networks, telecom/datacom, measurement equipment, industry control systems, semiconductor equipment, and railway systems.
### SPECIFICATIONS: LANCUW8 Series

All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted. We reserve the right to change specifications based on technological advances.

<table>
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<tr>
<th>SPECIFICATION</th>
<th>TEST CONDITIONS</th>
<th>Min</th>
<th>Nom</th>
<th>Max</th>
<th>Unit</th>
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<td><strong>INPUT SPECIFICATIONS</strong></td>
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**LANCUW8 Series**  
4:1 Input Voltage Range  
8 Watt DC/DC Power Converters

**SAFETY & EMC CHARACTERISTICS**

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<thead>
<tr>
<th>EMI (See Note 8)</th>
<th>EN55022, EN55011</th>
<th>Class A</th>
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website: www.wallindustries.com • e-mail: sales@wallindustries.com
## MODEL SELECTION TABLES

### SINGLE OUTPUT MODELS

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<tr>
<td>LANC2433UW8</td>
<td>24 VDC (9 - 36 VDC)</td>
<td>3.3 VDC</td>
<td>0mA</td>
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<td>20mA</td>
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<td>±133µF</td>
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<td>13mA</td>
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<td>3.3 VDC</td>
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<td>8W</td>
<td>85%</td>
<td>±133µF</td>
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<td>20mA</td>
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<td>50mVp-p</td>
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<td>50mVp-p</td>
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<td>±133µF</td>
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<tr>
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<td>5mA</td>
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<td>8W</td>
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<td>LANC11033UW8</td>
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<td>8W</td>
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<td>50mVp-p</td>
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<td>87%</td>
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### DUAL OUTPUT MODELS

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<tbody>
<tr>
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<td>24 VDC (9 - 36 VDC)</td>
<td>±5 VDC</td>
<td>0mA</td>
<td>±800mA</td>
<td>50mVp-p</td>
<td>8W</td>
<td>84%</td>
<td>±900µF</td>
</tr>
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<td>±12 VDC</td>
<td>0mA</td>
<td>±333mA</td>
<td>25mA</td>
<td>50mVp-p</td>
<td>8W</td>
<td>86%</td>
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<td>±267mA</td>
<td>25mA</td>
<td>50mVp-p</td>
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<td>LANC4805DUW8</td>
<td>48 VDC (18 - 75 VDC)</td>
<td>±5 VDC</td>
<td>0mA</td>
<td>±800mA</td>
<td>50mVp-p</td>
<td>8W</td>
<td>84%</td>
<td>±900µF</td>
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<tr>
<td>LANC4812DUW8</td>
<td>±12 VDC</td>
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<td>±333mA</td>
<td>13mA</td>
<td>50mVp-p</td>
<td>8W</td>
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<td>±133µF</td>
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<td>LANC4815DUW8</td>
<td>±15 VDC</td>
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<td>50mVp-p</td>
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<td>±133µF</td>
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<td>±133µF</td>
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<td>LANC11015DUW8</td>
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<td>±267mA</td>
<td>5mA</td>
<td>50mVp-p</td>
<td>8W</td>
<td>85%</td>
<td>±133µF</td>
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</table>

### NOTES
1. BELLCORE TR-NWT-000332. Case 1: 50% Stress, Temperature at 40°C. MIL-HDBK-217F Notice2 @Ta=25°C, Full load (Ground, Benign, controlled environment).
2. Maximum value at nominal input voltage and full load.
3. Typical value at nominal input voltage and no load.
4. Typical value at nominal input voltage and full load.
5. Test by minimum Vin and constant resistive load.
6. The ON/OFF control pin voltage is referenced to -Vin.
7. Operating Ambient Temperature:
   Converters can meet the railway T2 and TX temperature requirements.
   T2: -40°C to +70°C for all models, TX: -40°C to +85°C with power derating to 55% output power.
8. The LANCUW8 series can meet EN55022 and EN55011 Class A with an external capacitor on the input pins to the converter.
   Recommended: 24Vin Models: 1µF/50V 1210 MLCC
   48Vin Models: 0.47µF/100V 1812 MLCC
   110Vin Models: 1µF/250V*2pcs 1812 MLCC
9. An external input filter capacitor is required if the module has to meet EN61000-4-4, EN61000-4-5.
   Recommended: 24Vin & 48Vin Models: Nippon chemi-con KY series, 220µF/100V
   110Vin Models: Nippon chemi-con KXJ series, 150µF/200V
10. For surface mount (SMT) type add the suffix “S” to the model number. Ex: LANC2405UW8S.
11. CAUTION: This power module is not internally fused. An input line fuse must always be used.
12. This product is Listed to applicable standards and requirements by UL.
   *Due to advances in technology, specifications subject to change without notice.*
Recommended Filter for EN55022 Class B Compliance

The components used in the figure above are as follows:

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<td>325µH Common Choke PMT-050</td>
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</table>

Common Choke L1

- PMT-050
  - L: 325µH ±35% / DCR: 35mΩ, max.
  - Test Conditions: 100kHz / 100mV
  - Recommended Through Hole: Ø6.5mm

- PMT-017
  - L: 457µH ±25% / DCR: 60mΩ, max.
  - Test Conditions: 10kHz / 25mV
  - Recommended Through Hole: Ø6.0mm
MECHANICAL DRAWING

DIP TYPE

SMT TYPE

(add Suffix “S”)

Unit: inches (mm)

Pin size is 0.02 (0.5) Dia or 0.01 x 0.02 (0.25 x 0.50) Rectangular Pin

Unit: inches (mm)

Pin Area 0.04 x 0.02 (1.0 x 0.5)

1. Tolerance: X.XX±0.02 (X.X±0.5)
   X.XXX±0.01 (X.XX±0.25)
2. Pin pitch tolerance ±0.01 (0.25)

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<td>NC</td>
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<td>14</td>
<td>+OUTPUT</td>
<td>+OUTPUT</td>
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</table>

Others | NC | Others | NC | NC |

COMPANY INFORMATION

Wall Industries, Inc. has created custom and modified units for over 50 years. Our in-house research and development engineers will provide a solution that exceeds your performance requirements on-time and on budget. Our ISO9001: 2015 certification is just one example of our commitment to producing a high quality, well-documented product for our customers.

Our past projects demonstrate our commitment to you, our customer. Wall Industries, Inc. has a reputation for working closely with its customers to ensure each solution meets or exceeds form, fit and function requirements. We will continue to provide ongoing support for your project above and beyond the design and production phases. Give us a call today to discuss your future projects.

Contact Wall Industries for further information:

Phone: (603)778-2300
Toll Free: (888)597-9255
Fax: (603)778-9797
E-mail: sales@wallindustries.com
Web: www.wallindustries.com
Address: 37 Industrial Drive
         Exeter, NH 03833

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