

### General

| Characteristic                                                    | Minimum | Typical    | Maximum | Units             | Notes & Conditions                |
|-------------------------------------------------------------------|---------|------------|---------|-------------------|-----------------------------------|
| Efficiency                                                        |         |            |         | %                 | 230 VAC (see fig. 2 & 3)          |
| Isolation: Input to Output<br>Input to Ground<br>Output to Ground | 3000    |            |         | VAC               |                                   |
|                                                                   | 1500    |            |         | VAC               |                                   |
|                                                                   |         |            |         | VAC               |                                   |
| Switching Frequency                                               | 50      |            | 95      | kHz               | Main converter                    |
| Power Density                                                     |         |            | 9       | W/in <sup>3</sup> |                                   |
| Mean Time Between Failure                                         |         | 300        |         | kHrs              | MIL-HDBK-217F, Notice 2 +25 °C GB |
| Weight                                                            |         | 0.32 (145) |         | lb(g)             |                                   |

### Efficiency Vs Load

Figure 2  
LCE80PS12

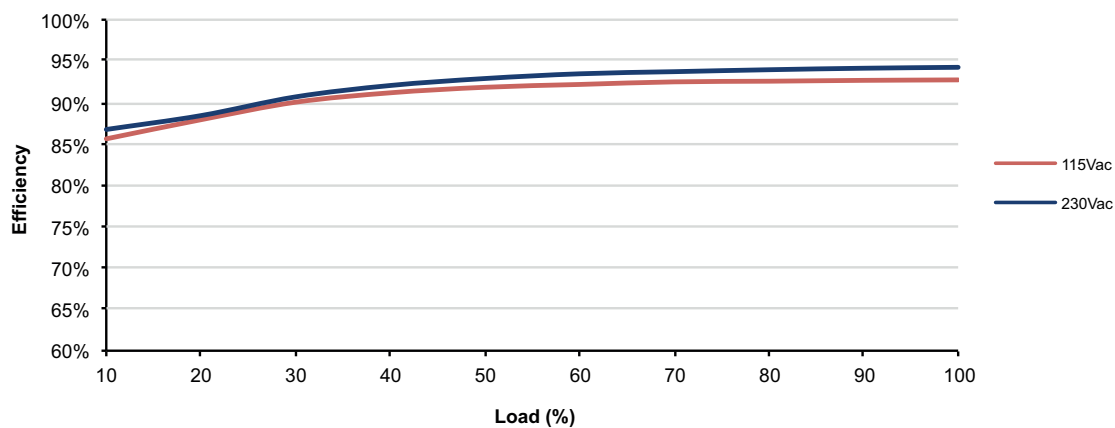
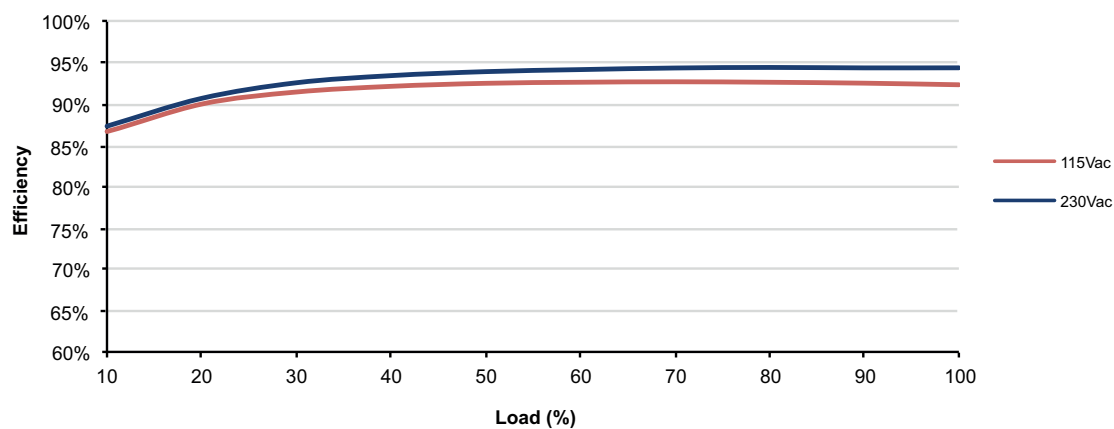


Figure 3  
LCE80PS24

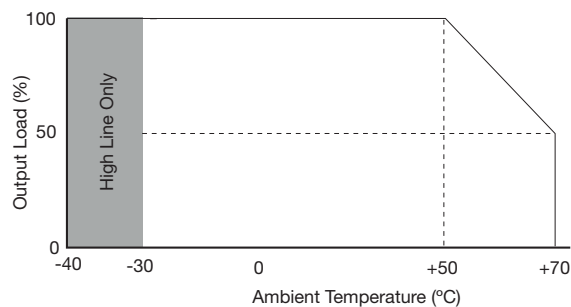


### Environmental

| Characteristic        | Minimum                                                                                                        | Typical | Maximum | Units | Notes & Conditions        |
|-----------------------|----------------------------------------------------------------------------------------------------------------|---------|---------|-------|---------------------------|
| Operating Temperature | -40                                                                                                            |         | +70     | °C    | See derating curve, fig.4 |
| Storage Temperature   | -40                                                                                                            |         | +85     | °C    |                           |
| Cooling               | 10                                                                                                             |         |         | CFM   | Forced-cooled > 100W      |
| Humidity              | 5                                                                                                              |         | 95      | %RH   | Non-condensing            |
| Operating Altitude    |                                                                                                                |         | 5000    | m     |                           |
| Shock                 | ±3 x 30g shocks in each plane, total 18 shocks. 30g = 11ms (+/- 0.5msecs), half sine. Conforms to EN60068-2-27 |         |         |       |                           |
| Vibration             | Single axis 10-500 Hz at 2g sweep and endurance at resonance in all 3 planes. Conforms to EN60068-2-6          |         |         |       |                           |

### Temperature Derating Curve

Figure 4



### EMC: Emissions

| Phenomenon        | Standard    | Test Level | Criteria | Notes & Conditions             |
|-------------------|-------------|------------|----------|--------------------------------|
| Conducted         | EN55032     | Class B    |          |                                |
| Radiated          | EN55032     | Class B    |          |                                |
| Harmonic Current  | EN61000-3-2 | Class A, C |          | Class C for 50W load and above |
| Voltage Functions | EN61000-3-3 |            |          |                                |

### EMC: Immunity

| Phenomenon             | Standard                  | Test Level                | Criteria | Notes & Conditions |
|------------------------|---------------------------|---------------------------|----------|--------------------|
| Low Voltage PSU EMC    | EN61204-3                 | High severity level       | as below |                    |
| ESD                    | EN61000-4-2               | 3                         | A        |                    |
| Radiated               | EN61000-4-3               | 3                         | A        |                    |
| EFT                    | EN61000-4-4               | 3                         | A        |                    |
| Surges                 | EN61000-4-5               | Installation class 4      | A        |                    |
| Conducted              | EN61000-4-6               | 3                         | A        |                    |
| Magnetic Fields        | EN61000-4-8               | 3                         | A        |                    |
| Dips and Interruptions | EN61000-4-11<br>(100 VAC) | Dip >95% (0 VAC), 8.3 ms  | A        |                    |
|                        |                           | Dip 30% (70 VAC), 416 ms  | A        |                    |
|                        |                           | Dip >95% (0 VAC), 4160 ms | B        |                    |
|                        | EN61000-4-11<br>(240 VAC) | Dip >95% (0 VAC), 10.0 ms | A        |                    |
|                        |                           | Dip 30% (168 VAC), 500 ms | A        |                    |
|                        |                           | Dip >95% (0 VAC), 5000 ms | B        |                    |