

### General

| Characteristic                                                    | Minimum | Typical   | Maximum | Units             | Notes & Conditions                |
|-------------------------------------------------------------------|---------|-----------|---------|-------------------|-----------------------------------|
| Efficiency                                                        |         | 95        |         | %                 | 230 VAC (see fig. 1 & 2)          |
| Isolation: Input to Output<br>Input to Ground<br>Output to Ground | 4000    |           |         | VAC               | 2 MOPP                            |
|                                                                   | 1500    |           |         | VAC               | 1 MOPP, Class I only              |
|                                                                   | 1500    |           |         | VAC               | 1 MOPP, Class I only              |
| Switching Frequency                                               | 40      |           | 130     | kHz               | PFC                               |
|                                                                   | 50      |           | 95      | kHz               | Main converters                   |
| Power Density                                                     |         |           | 22/14.6 | W/in <sup>3</sup> | Forced/convection-cooled          |
| Mean Time Between Failure                                         |         | 300       |         | kHrs              | MIL-HDBK-217F, Notice 2 +25 °C GB |
| Weight                                                            |         | 0.43(195) |         | lb(g)             |                                   |

### Efficiency Vs Load

Figure 1  
EPL225PS12  
12 V at 225 W

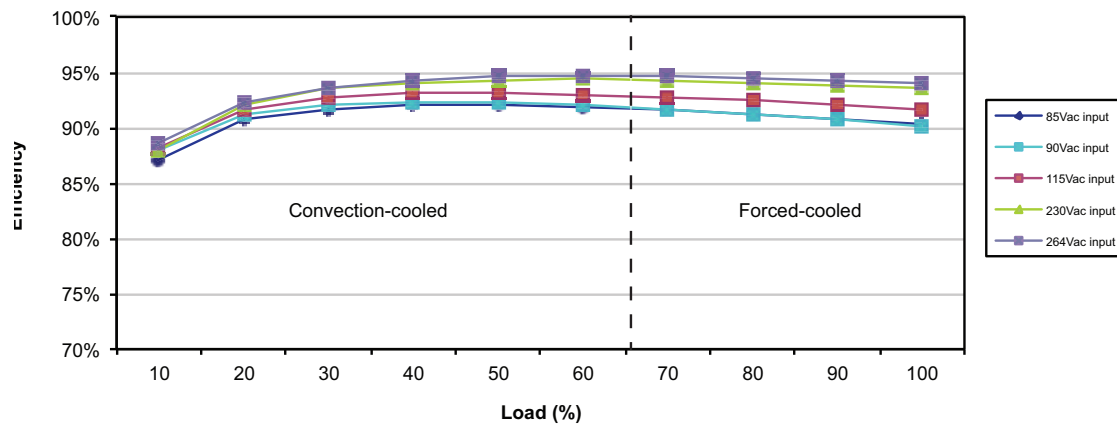
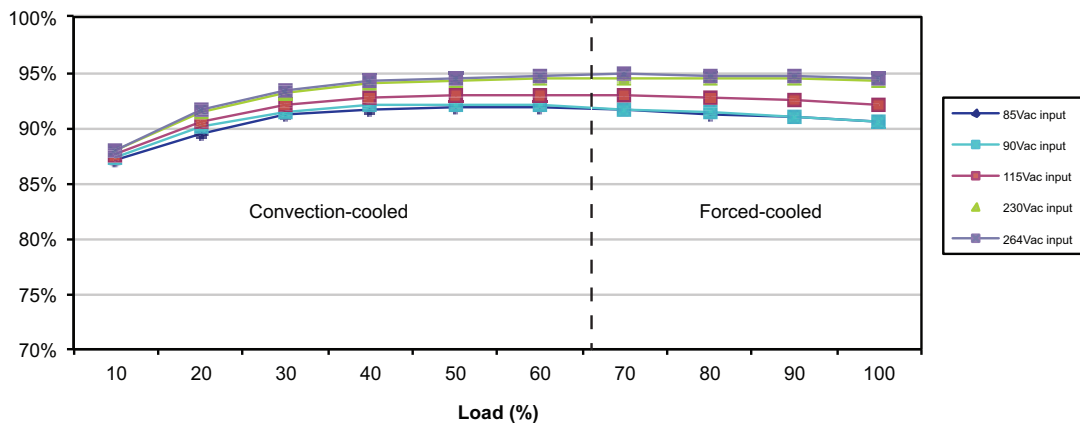


Figure 2  
EPL225PS24  
24 V at 225 W

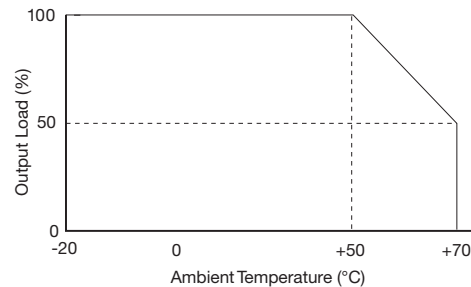


### Environmental

| Characteristic        | Minimum                                                                                                        | Typical | Maximum | Units | Notes & Conditions        |
|-----------------------|----------------------------------------------------------------------------------------------------------------|---------|---------|-------|---------------------------|
| Operating Temperature | -20                                                                                                            |         | +70     | °C    | See derating curve, fig.3 |
| Storage Temperature   | -40                                                                                                            |         | +85     | °C    |                           |
| Cooling               | 10                                                                                                             |         |         | CFM   | Forced-cooled > 150W      |
| 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 3



### EMC: Emissions

| Phenomenon        | Standard    | Test Level | Criteria | Notes & Conditions                                    |
|-------------------|-------------|------------|----------|-------------------------------------------------------|
| Conducted         | EN55011/32  | Class B    |          |                                                       |
| Radiated          | EN55011/32  | Class A    |          | Class B with King Core K5B RC 13*23*7 on input cable. |
| Harmonic Current  | EN61000-3-2 | Class A    |          | Meet Class C for loads above 145W                     |
| Voltage Functions | EN61000-3-3 |            |          |                                                       |

### EMC: Immunity

| Phenomenon             | Standard              | Test Level                | Criteria | Notes & Conditions         |
|------------------------|-----------------------|---------------------------|----------|----------------------------|
| Medical Device EMC     | IEC60601-1-2          | Ed.4.0 : 2014             | as below |                            |
| Low Voltage PSU EMC    | EN61204-3             | High severity level       | as below |                            |
| ESD                    | EN61000-4-2           | 4                         | A        | ±8kV contact, ±15kV air    |
| Radiated               | EN61000-4-3           | 3                         | A        |                            |
| EFT                    | EN61000-4-4           | 3                         | A        |                            |
| Surges                 | EN61000-4-5           | Installation class 3      | A        |                            |
| Conducted              | EN61000-4-6           | 3                         | A        |                            |
| Magnetic Fields        | EN61000-4-8           | 4                         | A        |                            |
| Dips and Interruptions | EN55024 (100 VAC)     | Dip >95% (0 VAC), 8.3 ms  | A        | At 200 W                   |
|                        |                       | Dip 30% (70 VAC), 416 ms  | A        |                            |
|                        |                       | Dip >95% (0 VAC), 4160 ms | B        |                            |
|                        | EN55024 (240 VAC)     | Dip >95% (0 VAC), 10.0 ms | A        |                            |
|                        |                       | Dip 30% (168 VAC), 500 ms | A        |                            |
|                        |                       | Dip >95% (0 VAC), 5000 ms | B        |                            |
|                        | EN60601-1-2 (100 VAC) | Dip 100% (0 VAC), 10.0 ms | A        | At 120 W                   |
|                        |                       | Dip 100% (0 VAC), 20 ms   | A        |                            |
|                        |                       | Dip 60% (40 VAC), 100 ms  | A        | Derate Output Power to 30W |
|                        |                       | Dip 30% (70 VAC), 500 ms  | A        |                            |
|                        |                       | Dip 100% (0 VAC), 5000 ms | B        |                            |
|                        | EN60601-1-2 (240 VAC) | Dip 100% (0 VAC), 10.0 ms | A        | At 150 W                   |
|                        |                       | Dip 100% (0 VAC), 20 ms   | A        |                            |
|                        |                       | Dip 60% (96 VAC), 100 ms  | A        | At 170 W                   |
|                        |                       | Dip 30% (168 VAC), 500 ms | A        |                            |
|                        |                       | Dip 100% (0 VAC), 5000 ms | B        |                            |