

# SSL20C Series

## Single Output External Power Supply

- 4.65 x 2.40 x 1.08 inch enclosure
- 20 W continuous external power supply
- Molded UL94V-0 plastic enclosure
- Overvoltage and short circuit protection
- EN55022, FCC conducted and radiated emissions level B
- UL, CSA, VDE and CE safety approvals
- Available RoHS compliant



The SSL20C series is a 20 W universal input ac/dc external Class II power supply in a 4.65 x 2.40 x 1.08 inch plastic enclosure. The SSL20C represents the next generation of low cost external power supplies, suitable for a host of worldwide low power external power applications. The SSL20C provides up to 20 W under natural convection cooling. Standard features include universal ac input, overvoltage and short circuit protection and meets EN55022 level B for conducted emissions. The SSL20C has several output voltages available ranging from 5 V to 48 V. The series has full international safety approvals and carries the CE mark to provide pre-approved SELV outputs.

**CE** (LVD & EMC)

**2 YEAR WARRANTY**

All specifications are typical at nominal input, full load at 25 °C unless otherwise stated

### SPECIFICATIONS

#### OUTPUT SPECIFICATIONS

|                                        |                                                           |                                  |
|----------------------------------------|-----------------------------------------------------------|----------------------------------|
| Total regulation<br>(See Note 3)       | Main output<br>Line, load and<br>temperature co-efficient | ±5.0%                            |
| Overshoot/undershoot                   | Less than 10ms                                            | 10%                              |
| Transient response                     | Main output<br>70% to 100%<br>full load step              | ±5.0% of nominal<br>voltage      |
| Overvoltage protection<br>(See Note 5) | Auto-recovery                                             | 140% nominal                     |
| Short circuit protection               |                                                           | Continuous<br>with auto-recovery |
| Minimum output current                 |                                                           | 0 A                              |

#### INPUT SPECIFICATIONS

|                       |                   |                                |
|-----------------------|-------------------|--------------------------------|
| Input voltage range   | Universal input   | 90-264 Vac                     |
| Input frequency range |                   | 47-63 Hz                       |
| Input current         | 90 Vac<br>264 Vac | 0.6 Arms max.<br>0.3 Arms max. |

#### EMC CHARACTERISTICS

|                     |              |         |
|---------------------|--------------|---------|
| Radiated emissions  | EN55022, FCC | Level B |
| Conducted emissions | EN55022, FCC | Level B |

#### GENERAL SPECIFICATIONS

|                                         |                                              |                      |
|-----------------------------------------|----------------------------------------------|----------------------|
| Hold-up time                            | 115 Vac @ full load                          | 10 ms                |
| Efficiency                              | 115 Vac @ full load<br>5 V models only       | 70% typ.<br>65% typ. |
| Isolation voltage                       | Input/output                                 | 3000 Vac             |
| Switching frequency                     | Fixed                                        | 72 kHz, Typ.         |
| Approvals and<br>standards (See Note 4) | EN60950, IEC950, UL1950<br>CSA C22.2 No. 950 |                      |
| Case material                           | General Electric Lexan, black                |                      |
| Flammability rating                     | UL94V-0                                      |                      |
| Weight                                  | 200 g (7 oz)                                 |                      |
| MTBF                                    | MIL-HDBK-217F<br>@ 25 °C                     | >150,000 hours       |

#### ENVIRONMENTAL SPECIFICATIONS

|                        |                                                                                       |                                                 |
|------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------|
| Thermal performance    | Operating, full load<br>Non-operating<br>0 °C to +40 °C ambient,<br>convection cooled | 0 °C to +40 °C<br>-40 °C to +85 °C<br>Full load |
| Relative humidity      | 5% to 95% RH                                                                          |                                                 |
| Altitude               | Operating<br>Non-operating                                                            | 10,000 feet max.<br>30,000 feet max.            |
| Vibration (See Note 6) | 5-500 Hz                                                                              | 2.4 G (approx.)                                 |
| Shock                  | per MIL-STD-810E                                                                      | 516.4 Part IV                                   |

#### International Safety Standard Approvals



VDE0805/EN60950/IEC950 File No. 129739G



UL1950 File No. E136005



CSA C22.2 No. 950 File No. LR41062

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For the most current data and application support visit [www.artesyn.com/powergroup/products.htm](http://www.artesyn.com/powergroup/products.htm)

| OUTPUT VOLTAGE | OUTPUT CURRENTS |        |                     | RIPPLE <sup>(2)</sup> | TOTAL REGULATION <sup>(3)</sup> | OVP (MAX) | MODEL NUMBER <sup>(6,7)</sup> |
|----------------|-----------------|--------|---------------------|-----------------------|---------------------------------|-----------|-------------------------------|
|                | MIN             | MAX    | PEAK <sup>(1)</sup> |                       |                                 |           |                               |
| +5 V           | 0 A             | 4.0 A  | 4.80 A              | 50 mV                 | 4.75-5.25 V                     | 7 V       | SSL20C-7605J                  |
| +12 V          | 0 A             | 1.67 A | 2.00 A              | 120 mV                | 11.4-12.6 V                     | 16.8 V    | SSL20C-7612J                  |
| +15 V          | 0 A             | 1.34 A | 1.60 A              | 150 mV                | 14.25-15.75 V                   | 21 V      | SSL20C-7615J                  |
| +18 V          | 0 A             | 1.11 A | 1.33 A              | 180 mV                | 17.1-18.9 V                     | 25.2 V    | SSL20C-7618J                  |
| +24 V          | 0 A             | 0.83 A | 1.00 A              | 240 mV                | 22.8-25.2 V                     | 33.6 V    | SSL20C-7624J                  |
| +48 V          | 0 A             | 0.42 A | 0.50 A              | 300 mV                | 45.6-50.4 V                     | 64 V      | SSL20C-7617J                  |

### Notes

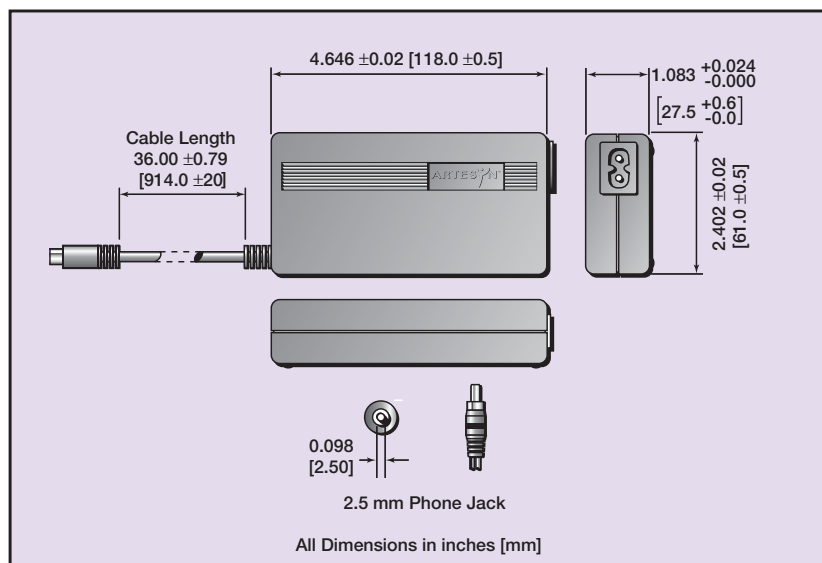
- 1 Peak output current lasting less than 3 seconds and non repetitive. During peak loading output voltage may exceed total regulation limits.
- 2 20 MHz bandwidth, peak to peak, measured using 0.1  $\mu$ F ceramic capacitor in parallel with a 10  $\mu$ F tantalum capacitor at the point of output load.
- 3 Total regulation is defined as the static output regulation at 25 °C, including initial tolerance, line voltage within stated limits, load currents within stated limits, and output voltages adjusted to their factory settings.
- 4 To help maintain the power supply safety approvals, the IEC320/C7 input connector cable must be rated minimum 3.0 A and approved by an applicable safety agency for the intended country of use. National and international variations on mains plugs, adapters and customer preference to lead length prevents Artesyn from supplying an IEC320/C7 (or compatible) input connector cable. The IEC320/C7 input (or compatible) connector cable can be sourced locally, e.g. Newark, Qual Electronics, Radio Shack, etc. or other non affiliated distributors.
- 5 This feature protects output circuitry from output overvoltage caused by internal PSU failure.
- 6 The 'J' suffix indicates that these parts are Pb-free (RoHS 6/6) compliant. TSE RoHS 5/6 (non Pb-free) compliant versions may be available on special request, please contact your local sales representative for details.
- 7 NOTICE: Some models do not support all options. Please contact your local Artesyn representative or use the on-line model number search tool at <http://www.artesyn.com/powergroup/products.htm> to find a suitable alternative.

### SINGLE OUTPUT PIN CONNECTIONS 2.5 MM JACK PLUG

|       |                |  |                                            |
|-------|----------------|--|--------------------------------------------|
| Inner | V <sub>A</sub> |  | SWITCHCRAFT Power Jack, P/N 712A or equiv. |
| Outer | Return         |  |                                            |

### INPUT CONNECTOR

|         |          |         |                         |
|---------|----------|---------|-------------------------|
| IEC 320 | two pins | C8 type | Rated at 2.5 A, 250 Vac |
|---------|----------|---------|-------------------------|



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