

## INTERNATIONAL + LINEAR SERIES INSTALLATION INSTRUCTIONS

### RATINGS:

Input: 100/120/215/230-240 V ac, 50/60 Hz  
 Derate output current 10 % for operation at 50 Hz.  
 Refer to chassis marking for input current ratings.

Output: See table on Page 2.

- Notes:
1. Maximum ambient temperature for continuous output specified in the table is 50 °C.
  2. Maximum Relative Humidity 96 %, no condensation.
  3. Storage: -40 to +85 °C. Units should be allowed to warm-up under non-condensing conditions before application of power.



**SAFETY DECLARATION:** SL Power Electronics Corp. declares under our sole responsibility that all models listed above are in conformity with the applicable requirements of EN 60950-1 following the provisions of the Low Voltage Directive 73/23/EEC. All models are Certified to be in compliance with the applicable requirements of IEC/EN/UL/CSA 60950-1 for Pollution Degree 2 environment and Class I TN-S power systems. The output of some models do not meet the requirements for SELV. To identify these models, refer to the notes for the table.

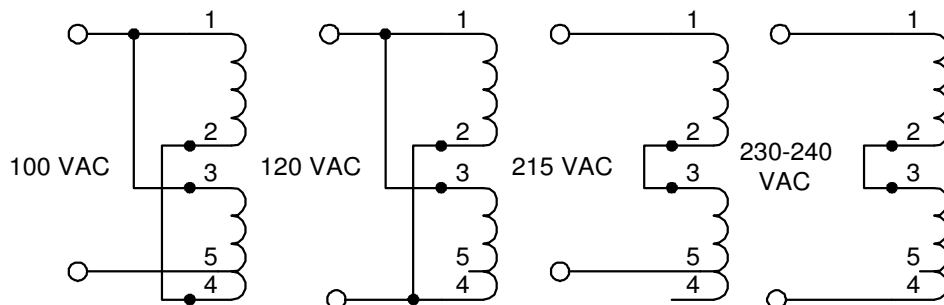
**GROUNDING:** Protection Class I requires that the chassis be bonded to Protective Earth in the end application.

**SPACINGS:** Creepage and clearance distances from primary circuits to ground and secondary circuits, as defined in the applicable safety standards, must be maintained after installation to preserve the intended safety.

**TEMPERATURES:** The maximum operating temperatures of certain safety components, as defined in the applicable safety standards, must not be exceeded after installation to preserve the intended safety. The output power, ambient air temperature and the availability, amount, direction and/or restriction of airflow influence the temperatures of these components.

**WARNING! RISK OF FIRE!** All models require external fusing to maintain the intended safety. Refer to marking on chassis for maximum fuse ratings.

### AC INPUT HOOKUP INSTRUCTIONS



SL Power Electronics Corp. will not be liable for the safety, reliability or performance of these power supplies if a) any changes, modifications or repairs are carried out by other than authorized agents of SL Power Electronics Corp., or b) the installation of the supply is not in accordance with these installation instructions and the applicable UL, CSA, and IEC/EN safety standards.

## INTERNATIONAL + LINEAR SERIES

| MODEL                       | Maximum Output Ratings<br>50 °C Ambient   | CSA<br>Level | MODEL         | Maximum Output Ratings<br>50 °C Ambient | CSA<br>Level |
|-----------------------------|---|--------------|---------------|---|--------------|
| <b>SINGLE OUTPUT MODELS</b> |   |              |               |   |              |
| HA15-0.9-A+                 | 12 V or 15V 0.9 A   | L3M1         | HC48-1-A+ (1) | 48 V 1 A                                | L1           |
| HA2-1.5-A+                  | 2 V 1.5 A   | L3M1         | HC5-6/OVP-A+  | 5 V 6 A                                 | L3M1         |
| HA24-0.5-A+                 | 24 V or 28 V 0.5 A  | L3M1         | HD12-6.8-A+   | 12 V 6.8 A                              | L3M1         |
| HA5-1.5/OVP-A+              | 5 V 1.5 A   | L3M1         | HD15-6-A+     | 15 V 6 A                                | L3M1         |
| HB12-1.7-A+                 | 12 V 1.7 A  | L3M1         | HD2-12-A+     | 2 V 12 A                                | L3M1         |
| HB15-1.5-A+                 | 15 V 1.5 A  | L3M1         | HD24-4.8-A+   | 24 V 4.8 A                              | L3M1         |
| HB2-3-A+                    | 2 V 3 A   | L3M1         | HD28-4-A+     | 28 V 4 A                                | L3M1         |
| HB24-1.2-A+                 | 24 V 1.2 A  | L3M1         | HD48-3-A+ (1) | 48 V 2.5 A (3 A with 14 cfm airflow)    | L1           |
| HB28-1-A+                   | 28 V 1 A  | L3M1         | HD5-12/OVP-A+ | 5 V 12 A                                | L3M1         |
| HB48-0.5-A+ (1)             | 48 V 0.5 A  | L1           | HN12-5.1-A+   | 12 V 5.1 A                              | L3M1         |
| HB5-3/OVP-A+                | 5 V 3 A   | L3M1         | HN15-4.5-A+   | 15 V 4.5 A                              | L3M1         |
| HC12-3.4-A+                 | 12 V 3.4 A  | L3M1         | HN2-9-A+      | 2 V 9 A                                 | L3M1         |
| HC15-3-A+                   | 15 V 3 A  | L3M1         | HN24-3.6-A+   | 24 V 3.6 A                              | L3M1         |
| HC2-6-A+                    | 2 V 6 A   | L3M1         | HN28-3-A+     | 28 V 3 A                                | L3M1         |
| HC24-2.4-A+                 | 24 V 2.4 A  | L3M1         | HN5-9/OVP-A+  | 5 V 9 A                                 | L3M1         |
| HC28-2-A+                   | 28 V 2 A  | L3M1         |               |   |              |
| <b>DUAL OUTPUT MODELS</b>   |   |              |               |   |              |
| MODEL                       | Maximum Output Ratings 50 °C Ambient  |              |               |   | CSA<br>Level |
| CP323-A+                    | 12 V 4 A; 5 V 2 A   |              |               |   | L3M1         |
| HAA15-0.8-A+                | +12 V 1 A or +15 V 0.8 A; -12 V 1 A or -15V 0.8 A or -5 V 0.4 A   |              |               |   | L3M1         |
| HAA24-0.6-A+                | ±24 V 0.6 A   |              |               |   | L1           |
| HAA5-1.5/OVP-A+             | ±5 V 1.5 A  |              |               |   | L3M1         |
| HAA512-A+                   | 5 V 2 A; 9-15 V 0.5 A   |              |               |   | L3M1         |
| HAA524-A+                   | 5 V 2 A; 18-24 V 0.3 A  |              |               |   | L3M1         |
| HAD12-0.4-A+                | ±12 V 0.4 A   |              |               |   | L3M1         |
| HAD15-0.4-A+                | ±15 V 0.4 A   |              |               |   | L3M1         |
| HBB15-1.5-A+                | +12 V 1.7 A or +15 V 1.5 A; -12 V 1.7 A or -15 V 1.5 A or -5 V 0.7 A  |              |               |   | L3M1         |
| HBB5-3/OVP-A+               | ±5 V 3 A  |              |               |   | L3M1         |
| HBB512-A+                   | 5 V 3 A; 9-15 V 1.25 A  |              |               |   | L3M1         |
| HBB524-A+                   | 5 V 3 A; 18-24 V 0.8 A  |              |               |   | L3M1         |
| HCC15-3-A+                  | +12 V 3.4 A or +15 V 3 A; -12 V 3.4 A or -15 V 3 A or -5 V 1.4 A  |              |               |   | L3M1         |
| HCC5-6/OVP-A+               | ±5 V 4 A (6 A with 14 cfm airflow)  |              |               |   | L3M1         |
| HCC512-A+                   | 5 V 4 A (6 A with 14 cfm airflow); 9-15 V 2.5 A   |              |               |   | L3M1         |
| HCC524-A+                   | 5 V 4 A (6 A with 14 cfm airflow); 18-24 V 2 A  |              |               |   | L3M1         |
| <b>TRIPLE OUTPUT MODELS</b> |   |              |               |   |              |
| CP131-A+                    | 5 V 9 A; +12 V 1.7 A or +15 V 1.5 A; -12 V 1.7 A or -15 V 1.5 A or -5 V 0.7 A   |              |               |   | L3M1         |
| CP206-A+                    | 24 V 3 A; +5 V 2.5 A, -5 V 1.0 A  |              |               |   | L3M1         |
| HBAA40W-A+                  | 5 V 3 A; +12 V 1 A or +15 V 0.8 A; -12 V 1 A or -15 V 0.8 A or -5 V 0.4 A   |              |               |   | L3M1         |
| HCAA60W-A+                  | 5 V 6 A; +12 V 1 A or +15 V 0.8 A; -12 V 1 A or -15 V 0.8 A or -5 V 0.4 A   |              |               |   | L3M1         |
| HCBB105W-A+                 | 5 V 3 A; +12 V 2.5 A or +15 V 2 A; -12 V 2.5 A or -15 V 2 A or -5 V 1 A<br>(+12 V 3.4 A or +15 V 3 A; -12 V 3.4 A or -15 V 3 A or -5 V 1.5 A with 14 cfm airflow) |              |               |   | L3M1         |
| HCBB75W-A+                  | 5 V 6 A; +12 V 1.7 A or +15 V 1.5 A; -12 V 1.7 A or -15 V 1.5 A or -5 V 0.7 A   |              |               |   | L3M1         |
| HTAA-16W-A+                 | 5 V 2 A; +9-15 V 0.4 A; -9 to -15 V 0.4 A or -5 V 0.4 A   |              |               |   | L3M1         |

**Notes:**

1. Models may be followed by suffix G to indicate compliance to RoHS.
2. 48 V models are not approved for SELV. The output voltage may exceed 60 V under certain conditions.