

SL POWER COMMERCIAL / MEDICAL LINEARS

Installation Instruction A to D



Commercial

Medical



RATINGS

- Input: 100/120/215/230 to 240 VAC, 50/60 Hz. Derated output current 10% for operation at 50 Hz. Refer to chassis marking for input current ratings.
- Output: See table on page 2.

Note:

1. Maximum ambient temperature for continuous output specified in the table is 50°C.
2. Maximum m 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

- Advanced Energy declares under our sole responsibility that all models listed 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.

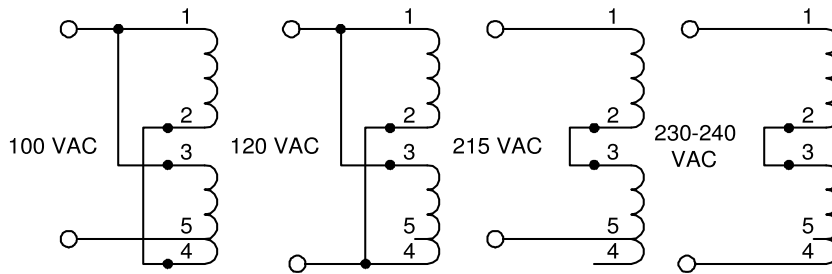
APPLIED MODELS

Single Output Models					
Model	Maximum Output Ratings 50 °C Ambient	CSA Level	Model	Maximum Output Ratings 50 °C Ambient	CSA Level
HA15-0.9-A+	12 V or 15 V 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			
Dual Output Models					
Model	Maximum Output Ratings 50 °C Ambient	CSA Level			
CP323-A+	12 V 4A; 5 V 2 A	L3M1			
HAA15-0.8-A+	+12 V 1 A or +15 V 0.8A; -12 V 1 A or -15 V 0.8 A or -5 V 0.4 A	L3M1			
HAA24-0.6-A+	±24 V 0.6 A	L3M1			
HAA5-1.5/OVP-A+	±5 V 1.5 A	L3M1			
HAA512-A+	5 V 2 A; 9 to 15 V 0.5 A	L3M1			
HAA524-A+	5 V 2 A; 18 to 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	L1			
HBB15-1.5-A+	+12 V 1.7 A or +15 V 1.5A; -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 to 15 V 1.25 A	L3M1			
HBB524-A+	5 V 3 A; 18 to 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 to 15 V 2.5 A	L3M1			
HCC524-A+	5 V 4 A (6 A with 14 cfm airflow); 18 to 24 V 2 A	L3M1			
Triple Output Models					
Model	Maximum Output Ratings 50 °C Ambient	CSA Level			
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 (+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 to +15 V 0.4 A; -9 to -15 V 0.4 A or -5 V 0.4 A	L3M1			

Note:

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

AC INPUT HOOKUP INSTRUCTIONS



Advanced Energy 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, 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.



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Our products enable customer innovation in complex applications for a wide range of industries including semiconductor equipment, industrial, manufacturing, telecommunications, data center computing, and medical. With deep applications know-how and responsive service and support across the globe, we build collaborative partnerships to meet rapid technological developments, propel growth for our customers, and innovate the future of power.

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