High Voltage Amplifier

DESCRIPTION
The L-shape high voltage high power (18 kW) amplifier is a high-performance, fully-featured digital servo drive, for use in applications requiring connection to high voltage. It comprises high power stage with the CD Series 5 control board, thus providing the CD Series 5 feature set.

RATIONALE
- High power drives for extending existing robotics product line.
- Customer specific mechanical shape to accommodate to the customer’s cabinet.
- SERCOS communication.

SOLUTION
- One high voltage power supply and six high voltage L-shape amplifiers per system, that fit into customer cabinet.
- Mechanical shape per customer request.
- Design new power stage and use the well known digital board of the CD series 5.
- Short development cycle.
Applications

- Robotics, Machine tools, Electronic assembly.

FEATURES

Operation Modes

- 9kW, 15 kW & 18 kW.
- Feedback Sine Encoder, 5 V Stegmann Hiperface, Resolver or encoder
- Servo Control Fully digital current, velocity and position loops
- Advanced patented sinewave commutation technology provides smooth, precise low-speed control as well as high-speed performance
- Accurate torque control due to precision balanced current loops with closed loop sensors
- Patented torque angle control enhances motor performance
- Velocity loop bandwidths up to 400 Hz
- Self-tuning velocity loop algorithm
- Reference Command SERCOS operation.
- Motion Options Point-to-point, incremental or absolute
- Homing functions

Configurable I/O

- 3 digital inputs and 1 digital output, configurable to a variety of functions
- Analog output for monitoring various parameters
- Robust Design Self-protecting power modules
- Full protection against short circuit, over-voltage, under-voltage, motor and drive over-temperature, over-current and feedback loss
- Flexible current foldback protection

Power Supply Rating

<table>
<thead>
<tr>
<th>AC Input 3 Phase [VAC]</th>
<th>Output Continuous BUS voltage [kW]</th>
<th>Rated Output Continuous [kW]</th>
<th>Rated Output Peak [kW]</th>
</tr>
</thead>
<tbody>
<tr>
<td>400</td>
<td>565</td>
<td>12</td>
<td>36</td>
</tr>
</tbody>
</table>

24 VDC @ 0.5 amp logic input supply, to separate from mains supply.

L-shape Amplifier Rating

<table>
<thead>
<tr>
<th>DC Input [VDC]</th>
<th>Output Continuous Current Per Phase [RMS/Phase] @ 60°C</th>
<th>Output Peak Current Per Phase [RMS/Phase]</th>
<th>Rated Output Continuous Power [kW]</th>
</tr>
</thead>
<tbody>
<tr>
<td>565</td>
<td>15 amps</td>
<td>32 amp (2 sec)</td>
<td>9</td>
</tr>
<tr>
<td>565</td>
<td>25 amps</td>
<td>65 amp (2 sec)</td>
<td>15</td>
</tr>
<tr>
<td>565</td>
<td>30 amps</td>
<td>84 amp 2 (sec)</td>
<td>18</td>
</tr>
</tbody>
</table>

24 VDC @ 0.5 amp logic input supply, to separate from mains supply.

L-shape Amplifier Mechanical Dimensions

8.46” (height) X 8” mm (width) X 10.63” (length)