

# C H A P T E R ③

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## *OEM300 Specifications*

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### **WARNING**

NO USER-SERVICEABLE PARTS INSIDE THE OEM300!  
The OEM300 contains potentially lethal voltages. Do not attempt to repair it.  
Return it to Compumotor for any repairs.

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## **AC INPUT SPECIFICATIONS**

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### **INPUT VOLTAGE**

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Low Range: Jumper installed	90VAC to 132VAC
High Range: Jumper removed	180VAC to 265VAC
Forbidden Range:	132VAC to 180VAC

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### **WARNING**

High voltage is present on the jumper. Use insulated wire for safety.

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### **CAUTION**

Do not use AC input voltage in the range 132-180VAC.  
Voltage in this range can cause excessive voltages to be generated within the  
OEM300, and may damage the unit.

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### **INPUT FILTER**

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The Power Module has a line filter at the AC input that minimizes noise energy sent out to the power line.

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**INRUSH CURRENT**

The Power Module has an initial power up current limiter.

Input Limit: 40A Maximum Inrush Current

**DC OUTPUT SPECIFICATIONS**

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**OUTPUT VOLTAGE**

75VDC  $\pm$  5% (Fixed—Not Adjustable)

**OUTPUT CURRENT**

2.7A at 75VDC Continuous Current

4.0A at 75VDC Peak Current

**OUTPUT POWER**

200W Continuous

300W Peak

30 seconds maximum at peak  
10% duty cycle at maximum  
(Example: 30 seconds at 300W,  
followed by a minimum of 270  
seconds at 200W or less.)

**OUTPUT GROUNDS**

Output grounds are internally connected to each other, to the AC input ground (labeled EARTH), and to the cover of the OEM300.

**VOLTAGE REGULATION**

$\pm$  5% maximum

**EFFICIENCY**

The Power Module has a minimum of 80% efficiency at full output load.

**OVER-TEMPERATURE PROTECTION**

The Power Module will shut down if its heatplate reaches a temperature of 60°C (140°F). This is a *LATCHED* condition. To resume normal operations, turn off AC power, cool the Power Module below 30°C (86°F), and then turn on AC power.

**POWER DUMP**

The OEM300 has a power dump circuit that can dissipate excess energy from load regeneration conditions.

THRESHOLD VOLTAGE: 85VDC ± 3VDC

ENERGY DISSIPATION: Consult Power Dump section in Chapter ④ *Protective Circuits*

AVERAGE POWER DISSIPATION RATE: 8 Watts

PEAK POWER DISSIPATION RATE: 722.5 Watts

EQUIVALENT ENERGY: Two 83-135 motors, each turning loads with 10:1 Rotor Inertia at 50 rps, simultaneously decelerate to a full stop in 0.3 sec.

**SHORT CIRCUIT PROTECTION**

The Power Module shuts down the 75VDC output if there is a short circuit in output cables or drives. This is a *LATCHED* condition. Cycle AC power to resume normal operations.

<u>Short Circuit Current</u>	<u>Response Time</u>
9 Amps	Immediate (output shuts down)
6 Amps	Responds in 3 seconds

**OVERVOLTAGE PROTECTION**

The Power Module has an output overvoltage protection circuit. It shuts down the Power Module if the power dump stays on continuously for more than one-half second. This is a *LATCHED* condition. Correct the problem, then cycle AC power to resume normal operations.

## **OPERATING TEMPERATURES**

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### **MAXIMUM AMBIENT: STILL AIR**

35°C (95°F)

With a 200W Load

40°C (104°F)

With a 170W Load

### **MAXIMUM AMBIENT: MOVING AIR**

45°C (113°F)

With a 200W Load

50°C (122°F)

With a 170W Load

### **MAXIMUM HEATPLATE TEMPERATURE**

60°C (140°F)

### **MINIMUM AMBIENT TEMPERATURE**

0°C (32°F)