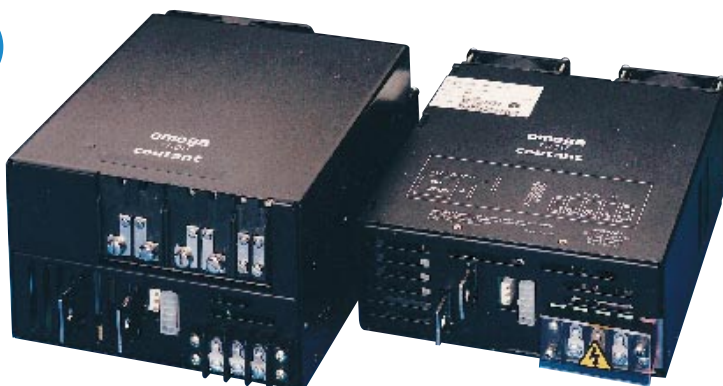


### 1000-1500W SINGLE/MULTI OUTPUT

### FEATURES



- 85-265VAC wide range input
- High efficiency (>78%)
- 37% smaller than industry standard
- Complies with UL, CSA, BABT, BSI
- EMC meets EN61000-3-2, EN55022
- Meets EN61010-1, IEC1010-1

### ELECTRICAL SPECIFICATION

Model No.	Case size	Max Power Watts	Output 1		Output 2		Output 3		Output 4		Output 5	
			Volts	Amps	Volts	Amps	Volts	Amps	Volts	Amps	Volts	Amps
OMS1000-5	1000	1000	5	200								
OMS1000-12	1000	1000	12	83								
OMS1000-24	1000	1000	24	41								
OMS1000-36	1000	1000	36	27.8								
OMS1000-48	1000	1000	48	21								
OMM1500 W1	1500	1500	5	200	12	24	12	24				
OMM1500 W2	1500	1500	5	200	5	25	12	24	12	12		
OMM1500 W3	1500	1500	5	200	12	24	12	12	12	12		
OMM1500 W4	1500	1500	5	200	12	24	24	15	12	12		
OMM1500 W5	1500	1500	5	200	5	25	12	24	12	12	24	7

Note 1. Output 1 is user adjustable between the following ranges

Nominal setting	Adjustable range
5V O/P	4.5-5.5V
12V O/P	11.5-16.0V
24V O/P	23.0-30.0V
36V O/P	31.0-45.0V
48V O/P	45.0-60.0V

Output power is limited to 1000W max on O/P1

Note 2. Outputs 2-5 are user adjustable over the ranges specified in the module table shown in the Auxiliary Outputs section. However when reducing the output voltages from those shown above, it may not be possible to draw full O/P power. Overall O/P power limited to 600W max. total on O/PS 2-5.

Request Omega Application Note 2 for further details.

### OUTLINE SPECIFICATION

Input		Output continued	
Input voltage range	85-265 AC wide range	Line regulation (high line - low line)	0.1% nom
Input frequency	47-63Hz	Load regulation (10 to 100% load change)	0.1% nom
Inrush current	< 30A pk (1000W) < 50A pk (1500W)	Cross regulation	0.1%
Input protection	fuse	Hold up (min)	20mS from 95VAC full load
Thermal shutdown	standard	PARD	Max. 2% of set volts. (Max. PARD of 100mV below 5V output)
Harmonic distortion of mains	meets EN 60555-2 (0.99)	Temperature coefficient	0.02%/C
Mains fail and inhibit active low standard facilities		Overload protection	constant current limit. Set point adjustable from 105 to 120%
Output		Power good signal	Standard
Main channel			
Rating (fan cooled)	1000W (+600W for auxiliary O/Ps) 1500W total		

## OUTLINE SPECIFICATION continued

## Output continued

Overvoltage protection	adjustable multi turn pot shut down of channel 1 PSU. See module data for auxiliary O/P's
Remote sense	Standard 0.5V
Output adjust range.	
5V nom	4.5-5.5V
12V nom	11.5-16.0V
24V nom	23.0-30.0V

## Output continued

36V	31.0-45V
48V nom	45.0-60.0V
Transient response (25% to 75% load change)	< 10% deviation, recovery to 1% typically 500MS
Start up rise time	50mS (monotonic rise)
Margin and starpoint parallel standard on main channel.	

## OUTPUT

Module Type Slots (width of module)	A	B	C	D	E	F	G	H	J	K <sub>s</sub>	L <sub>s</sub>
1 slot = 23mm	2	1	1	1	1	2	2	1	2	1	3
Output Voltage (Pre-set)	5V	5V	12V	24V	12/12V	12V	24V	24/24V	48V	12/12V	5V
Adjustment Range	2-6V	2-6V	5-15V	12-28V	5-15V	5-15V	12-28V	12-28V	25-60V	5-15V	2-6V
Output Current	60A	25A	12A	7A	6A <sub>2</sub>	24A	15A	3.5A <sub>2</sub>	10A	6A <sub>2</sub>	100A
Load Regulation (0-100% loading)	0.5%	0.5%	0.5%	0.5%	0.5% <sub>1</sub>	0.5%	0.5%	0.5% <sub>1</sub>	0.5%	0.5%	0.5%
Adjustment	Multi-turn potentiometer for each output										
Setting Accuracy	± 1%										
Temperature Coefficient	0.02%/°C										
Line Regulation	0.1% (At ± 20% of nominal mains)										
Noise and Ripple (PARD)	50mV or 1% whichever is greater (A, B, C, D, F, G, J, L). 1% typical, 2%max (E, H, K, twin O/P Note 4.)										
Transient Response (25% - 75% load)	Maximum deviation < 7.5% of set volts recovering to 1% within 300 micro-seconds										
Overcurrent Protection	Non foldback from 105% to 120% of nominal current (A, B, C, D, F, G, L) Foldback (J) from 105 to 140% of nominal current. Non foldback (E, H, K twin OP) 105% to 140% of nominal current.										
Overvoltage Protection	Tracking 120% of set voltage on A, B, C, D, F, G, L, Fixed on E, H & K, multi turn potentiometer on J.										
Remote Sense	0.5volts total (Not on E, H, K)										
Output Isolation	500VDC to ground										

1. 10 to 100% load.

2. Total current shared between both outputs

3. Modules E, H, K, have fixed overvoltage clamp,  
typically 18V for E & K, 35V for H.

4. 50mV up to 6A/channel. 10mV up to 1A/channel (K module only)

5. Preliminary Specification

6. Total Adjustable Output Voltage Range only on units rated for Maximum Output

Hold up: MML200 and MML400 : &gt;20ms from 100 or 198 VAC. MML400PFC, 600 and 800 &gt;20ms from 85 VAC. Rating: (fan cooled) ; 200 to 800 Watts

## General

Efficiency	> 78%
MTBF (nom)	OMS 1000 70,000hr OMM1500 44,000hr* MIL 217E ground benign 25 °C *Output modules not incl.
Isolation voltage:	500 VDC output – ground
Mains fail signal	standard (5mS min)

## Environmental

Operating temperature range	0°C to 65°C
Derating	100% at 50°C 75% at 60°C 62.5% at 65°C

## Environmental continued

Storage temperature range	-40°C to 85°C
Operating humidity (non-condensing)	5% to 95%RH
Storage humidity (non-condensing)	5% to 95%RH
Operating/storage pressure	1030-680mb (-500' to 10000')

## Safety Approvals †

UL1950, CSA22.2 No: 234, EN41003, EN60950,  
CE Marked for LVD

†Check with Technical Sales for current status of approvals.

## EMC

Meets EN55022A (conducted) EN60555-2, EN61000-3-2

## Warranty

Warranty 3 years (operating temperature  
dependent - consult Technical Sales for  
operation above 50°C)

All specifications guaranteed worst case unless otherwise noted.

### OPTIONS

#### Configured (Modular) Units

(Secondary options not available on standard OMM models)

If you cannot find a standard Omega 1500 unit which fully meets your requirements, the Coutant Lambda team will create a customised modular unit utilising the standard modules. If your requirements are straightforward you can even configure the unit yourself.

There are four basic rules to observe.

1. Maximum output power of main output is 1000W.
2. Maximum total output power of auxiliary outputs is 600W.
3. Maximum overall output power is 1500W.
4. Maximum number of 'slots' that can be occupied by auxiliary output modules is 5.

1. First select the main channel output voltage required from the following ranges:

4.5-6.0V 222A max

11.5-16.0V 87A max

23.0-30.0V 44A max

45.0-60.0V 22A max

Overall power limit 1000W max.

eg. 5.0V 200A

2. Next, list all the required auxiliary output voltages and current ratings. (Because all outputs are fully floating, polarity can be ignored). Multiply the voltage and current together to calculate power in watts for each output. Add together all of the output powers to arrive at the total wattage. In this example, the total power output is 471W. This is within the total permissible auxiliary output power of 600W.

Volts	Amps	Watts
28	7	196
5	25	125
5	6	30
12	4	48
24	3	72
Total Power		471

3. Now refer to the module table and select a unit to meet the requirements of the first output. In the example, this is 28 volts at 7 amps, so a 'D' module would be suitable. Prefix this with the required voltage (in this case 28). This gives the module specification as 28D.

4. Refer again to the module selection table and select modules to meet the requirements of each of the remaining outputs. Prefix each module with the voltage required. In the example, the complete list would read as follows.

Volts	Amps	Watts	Module	Width in Slots
28	7	196	D	1
5	25	125	B	1
5	6	30	B	1
12	4	48	C	1
24	3	72	D	1

Total number of slots occupied is 5 which is the maximum allowed.

5. Now construct the part number as follows:-

a. Basic model number OMM 1500.

b. Add main channel output voltage eg., OMM 1500 5.

c. Add the auxiliary output modules selected in descending order of current rating.e.g., OMM 1500 5 5B 28D 5B 12C 24D.

6. In addition, there are options available for either the converter or each of the modules separately. Consult the options table for details. If you need a Starpoint parallelling option on the 28 volt output, enter Y5 after that module, i.e., OMM 1500 5 5B 28D Y5.

Remember, the Technical Support Team are available to configure the outputs you require.

#### Primary Options

Inhibit active high, enable active low and enable active high options on primary available.

#### Secondary options (Main channel)

Remote programming (resistance) ('RP')

Remote programming (voltage) ('VP')

#### Secondary options (Auxiliary outputs)

Starpoint parallelling\* Single wire interconnect forces paralleled modules to share current at greater than 25% load, modules share within 2% of current determined by current limit setting.

Power good Detects output voltage high or low ( $\pm 10\%$ ) from set output volts. Upto isolated output, 'on' = output good.

#### Secondary options continued

Inhibit/enable Factory configurable for module inhibit/enable - high or low. Pin is connected to 0 volts or + VE output to effect control.

Output connections are via a 4-way Molex connector located above output terminals.

\*Consult the Technical Support Team at Coutant Lambda for more details.

#### Unit Options

Reverse air ('RA')

Consult tech. sales for possible max. power limitations

#### Order Codes

##### Secondary Options (Main Channel)

Add order code suffix to main channel output e.g. OMM 1500 5SP 24D for Starpoint parallel.

##### Secondary Options (Auxiliary outputs)

(Not available on twin output E, H, K modules.)

Suffix	Function
Y5	'Starpoint', 'parallelling' & 'module good' signal for parallel redundant applications
Y6	'Power good', 'Inhibit' (active high and low)
Y7	'Power Good', 'Enable' (active high)
Y8	'Power Good', 'Enable' (active low)

Suffix added to individual module descriptions, i.e., 5AY6 = 5 volts 'A' module with Power Good and Inhibit.

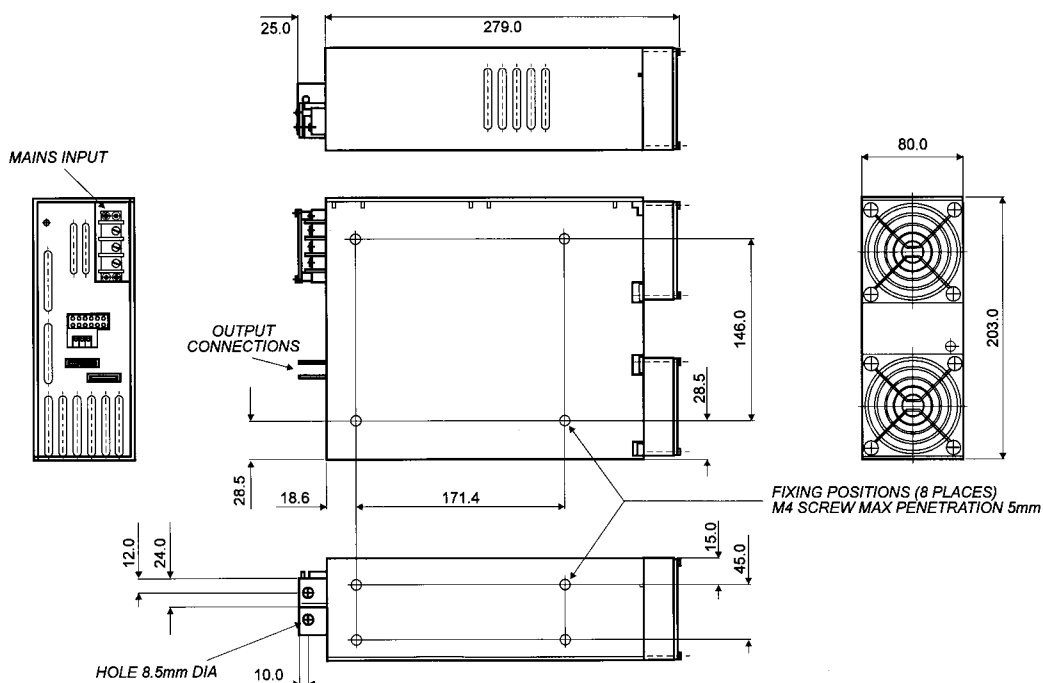
Unit options Add order code suffix to basic model number eg., OMS 1000 RA 24 for reverse air.

### CONNECTION DETAILS

Input connections	terminal block 8-32 screws	
Output connections	main output - busbars (8.5mm dia. hole)	
	auxiliary outputs - screw terminals	
Option connections	primary. Molex housing	39-01-2120, pins 39-00-0038
	secondary. Molex	39-01-2040, pins 39-00-0038
Case style	boxed	

### PHYSICAL SPECIFICATION

#### CASE 1000



#### CASE 1500

