

Input Specification

Input voltage	85 to 264V AC. 120 to 350V DC.
Frequency	47 to 440Hz.
Inrush current	40A peak max.
Efficiency	70% - 80% @ full load.
Power factor	0.99 typical. Meets EN61000-3-2.
Turn-on time	<5 sec. (3.5 sec typ).
EMI-filter standard	CISPR 22, EN55022 "B".
Leakage current	2.0mA max @ 240VAC.
Radiated EMI	CISPR 22, EN55022 "B".
Holdup time	20ms minimum Full cycle ride thru (50Hz).
Harmonic distortion	Meets EN61000-3-2.
Isolation	Meets EN60950.
Input fuse (internal)	20A 600V fast acting.

Output Specification

Overall regulation	0.4% or 20mV max.
Ripple RMS:	0.1% or 10mV max.
Ripple Pk-Pk:	1.0% or 50mV max. (Bandwidth ltd to 20 MHz).
Dynamic response	<2% or 100mV with 25% load step
Recovery time	To within 1% in < 300µsec.
Current limit	105-120% (dual outputs 105-140%) of rated output current. Type: constant, re-entrant or trip
Short circuit protection	Protected for continuous short circuit, current approx 40% of rated output (re-entrant). Dual outputs <100% rated output
Overvoltage protection	2-5.5V outputs 122-134% 6-60V outputs 110-120% (Recycle i/p to reset).
Reverse voltage	100% of rated o/p volts.
Thermal protection	All outputs disabled when internal temp exceeds safe operating range.
Remote sense	Up to 0.5V total drop.
Minimum load	Not required.
Output Power	1000 watts max (198-264V input) 800 watts max (85-132V input)
Approvals	CE
Weight	8.5Kg

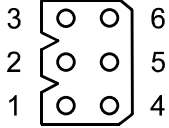
CAUTION

1. Connect the power supply correctly. 115/230VAC line voltages can be lethal. To avoid shock, always use correct size and style input connections.
2. The earth wire must always be connected to the earthing point on the input connector to protect against shock hazard due to capacitive leakage.
3. Install power supply correctly. Use correct screw sizes for mounting. Screws must not penetrate the interior of the supply excessively to avoid shorting of internal components.
4. Operate the power supply safely. Power supplies generate heat; allow adequate ventilation at the front & rear for fan intake and exhaust and keep away from combustible materials and gases. Make sure liquid or metal fragments do not enter the supply, as this could constitute a fire hazard.
5. Maximum ambient temperature must not exceed 50°C at 1000W (800W wide input) and 70°C at 500W (400W wide input) loading.
6. This power supply is intended for use as a component part of other equipment. When installing, the relevant safety standards (e.g. IEC950/VDE0805; EN60950; CSA C22.2 no.950 & no. 234; UL1950) must be complied with.
7. Maintain power supply safely. Only qualified personnel should service or repair this unit. Beware of possible internal lethal voltages due to charged capacitors, even after AC power is disconnected.
8. The internal input power fuse F201 should only be replaced by a fuse of similar size and rating (20A, 600V), i.e. Bussman KTK-20 or Littlefuse KLK 20.
9. Components such as capacitors are positioned before the internal power supply fuse, therefore the unit must be protected by a fuse in the installation system.
10. In case of failure, this power supply should be returned to Advance Product Services Ltd to ensure compliance with safety requirements. Interference with the internals of this unit by any other persons may invalidate the warranty.

Data Sheet COB0800 Series

Signals Information

See 'Signals Available' table for signals packages and pin functionality



Signals Connector

Mating Housing

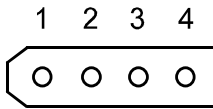
Molex 03-06-2061

Pins

Molex 02-06-2103

Sense Connections

Pin No.	Function
1	Positive Sense
2	Negative Sense
3	Not Used
4	Not Used



Compensates for up to 0.5V drop. Shielded twisted pair recommended

Mating Housing

Molex 03-06-2042

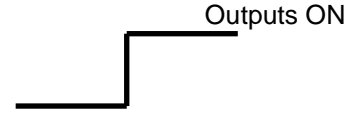
Pins

Molex 02-06-2103

AC Input Terminal

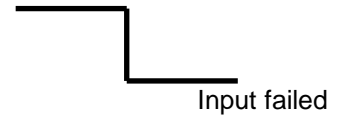
Barrier type terminal strip,
3 off no. 6-32 UNC screws (0.375" centers).

GO Signal (output)



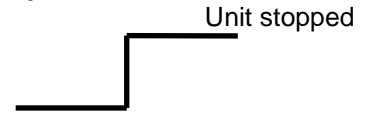
TTL High when all outputs have reached >90% of their nominal values

Input Failed Signal (output)



TTL Low when input voltage is interrupted or the converter is stopped (even when the input voltage is present).

Remote Shutdown Input



TTL High can be applied from an external source to provide an inhibit and shutdown signal to the converter stage. This is normally latching, unit can be restarted by cycling the mains input. Non-latching also on HA3 signal package, pull low to enable

Commence Shutdown Output



TTL Low signal given after an adjustable delay time (5-30mS) triggered by the input failed signal, used to prevent premature shutdown of the system during short term mains interruptions. If the input recovers during the delay, both the Commence Shutdown and Input Fail signals return to normal.

Data Sheet COB0800 Series

Electrical Isolation & Insulation

The COB Series power supply has passed the Safety Approval type test (EN60950 reinforced insulation and SELV outputs) with the following voltages:

Input to Output 4243V DC (Y capacitors removed)
 Input to Chassis 2636V DC (Y capacitors removed)

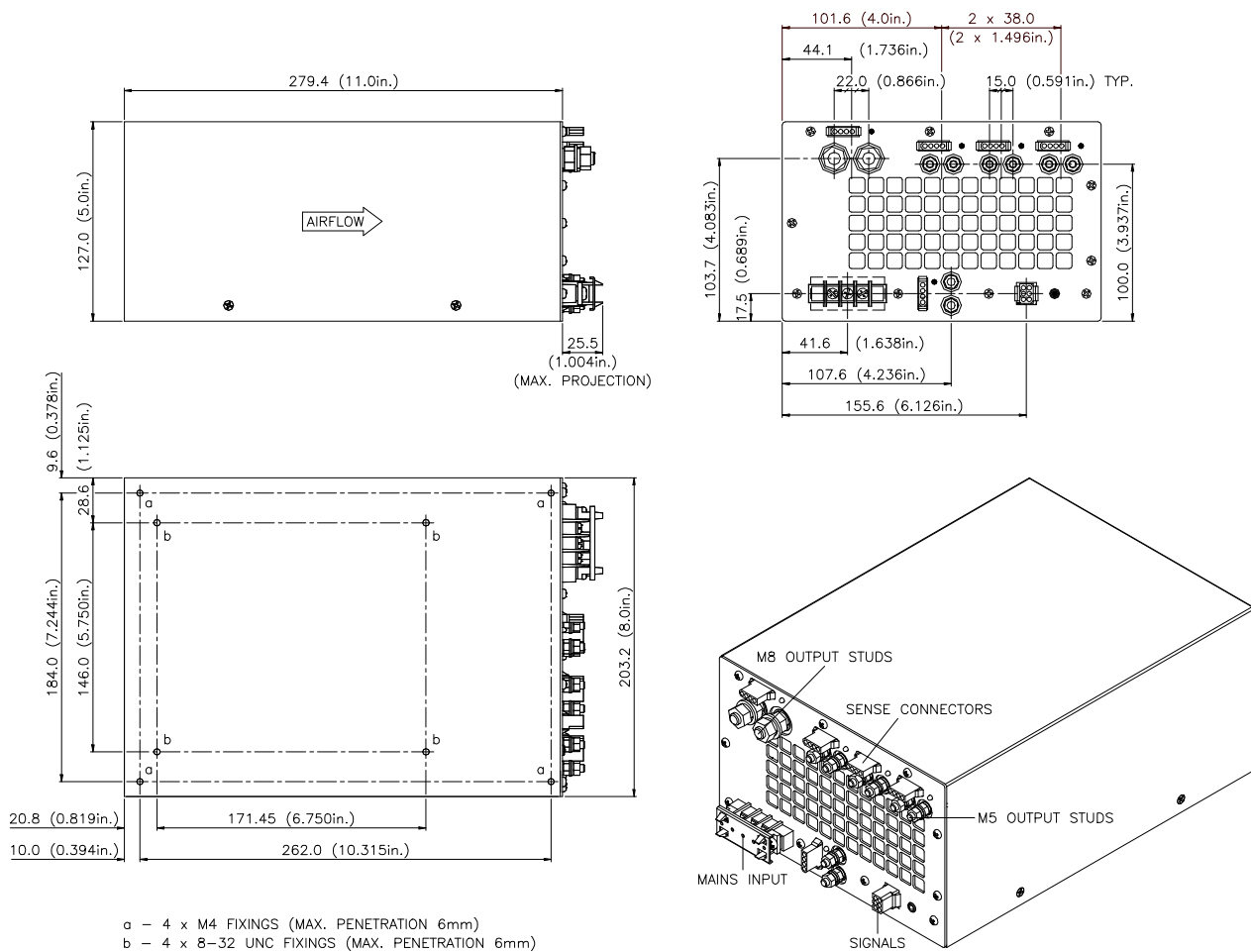
When assembled in production each unit is tested to the following voltage:
 Input (L & N shorted together) to Output/Chassis (O/P shorted to chassis) 2121V DC for 3 seconds

There are surface mount capacitors between output common and chassis earth so no high voltages should be applied between the output terminals and chassis earth. The following are checked with a meter:

Output to Output Isolation with ohm meter >1MΩ
 Output to Chassis Isolation with ohm meter >1MΩ

Mechanical Outline

Typical panel layout shown

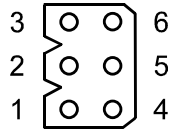


Notes:

1. Input: Barrier type. Three off No. 6-32 UNC screws (0.375" centres).
2. Signals connector: 6 way - mates with Molex 03-06-2061 housing (Molex 02-06-2103 pins required).
3. Sense connector: 4 way - mates with Molex 03-06-2042 housing (Molex 02-06-2103 pins required).
4. Output Connections: M8 and M5 Output studs (dual outputs M3 threaded inserts).
5. Chassis material: Powder coated Zintec steel.
6. All dimensions are in millimetres (inches) and are typical.
7. Customer mounting: 4 x M4 or 4 x 8-32 UNC fixings on bottom plate. Maximum penetration 6mm.

Data Sheet COB0800 Series

Signals Available



Signals Package	None	HA1	HA1+2	HA1+5	HA3	HA1+3
GO Signal		Pin 1	Pin 1	Pin 1		Pin 1
Input Failed Signal		Pin 2	Pin 2	Pin 2		Pin 2
Remote Shutdown Input (latching)	Pin 3	Pin 3		Pin 3	Pin 4	Pin 4
Remote Shutdown Input (non-latching)					Pin 3	Pin 3
Commence Shutdown Input*			Pin 4	Pin 4		
Commence Shutdown Output		Pin 5	Pin 5	Pin 5	Pin 5	Pin 5
Signals 0V	Pin 6	Pin 6	Pin 6	Pin 6	Pin 6	Pin 6

Order Codes

The part number is made up as follows:

COB0800W XXX *

XXX is a three digit number which specifies a particular output arrangement and signals package.

* is an option code only used if front panel accessible output adjustment potentiometers are required.

Available options are

B	Busbars fitted
G	Potentiometers fitted on upper centre of front panel.
P	Potentiometers fitted on lower right of front panel.

Data Sheet COB0800 Series

Models Available

Model No	Replaces	Output 1	Output 2	Output 3	Output 4	Output 5	Output 6	Signals
COB0800W001	05085880	5V 35A	15V 14A	15V 14A	15V 14A	15V 14A	28V 6.7A	HA1+3 (30mS)
COB0800W002	05085881	5V 35A	12V 17A	5V 35A	12V 17A	15V 14A	15V 14A	HA1+2 (30mS)
COB0800W003	05085663 05085074	5V 90A			15V 14A	15V 14A	5V 35A	HA1 (20mS)
COB0800W004	05085823	5V 60A		5V 60A		+/-12V 4AD	5V 35A	HA1 (10mS)
COB0800W005	05085837 05086804	5V 90A			12V 17A	12V 17A		None
COB0800W006	05085213	5V 60A		15V 14A	15V 14A	28V 6.7A	5V 35A	HA1 (20mS)
COB0800W007	05085804	5V 90A			12V 14A	12V 14A		TBA
COB0800W008	05085927	5V 60A		5V 60A		5V 35A		HA1 (20mS)
COB0800W009	05085115	5V 90A			12V 17A	12V 17A	5V 35A	TBA
COB0800W010	05085728	5V 35A		16-32V 20A		+/-15V 4AD	12V 17A	HA100
COB0800W011	05085650	24V 8.5A	15V 14A	15V 14A				HA1 (20mS)
COB0800W013	05085062 05085661	5.05V 90AT			5.15V 35A	12V 17AT	12V 17AT	HA1 (20mS)
COB0800W014	05085764	5V 60A		2V 35A	15V 15A	15V 15A		HA1+3 (20mS)
COB0800W015		5V 90A			5V 35A	5V 35A		HA1 (20mS)
COB0800W016	05085920	20V 18A	Parallel with o/p1	26V 4A	28V 6.7A	20V 10.5A	25V 2A	HA1 (20mS)
COB0800W017	05085503	5V 90AT			15V 14AT	15V 14AT	5.2V 35AT	None
COB0800W018	05085736	5V 90A			5V 35A	12/15V 14A	12/15V 14A	HA1 (20mS)
COB0800W019		5V 60A		5V 60A		5V 35A	15V 14A	TBA
COB0800W020	05085993	5V 60A		12V 5A	12V 6A	24V 5A		HA1+3 (20mS)
COB0800W021	05085996	28.3V 5A	28.3V 5A	28.3V 5A	28V 10A		15V 5A	HA1+3 (20mS)
COB0800W022	05085997	6.3V 6A	18V 5.8A	18V 5.8A	28V 10A			HA1+3 (20mS)
COB0800W023	05085998	5V 40A	5V 7A	5.2V 35A	15V 5A	28V 5A		HA1+3 (20mS)
COB0800W024	05085813	5V 60A		15V 14A	15V 14A	28V 6.7A	28V 6.7A	HA1 (20mS)
COB0800W025		5V 90A			5V 35A	15V 14A	15V 14A	HA1 (20mS)
COB0800W026	05086004	28V 21.4A		5V 60A		+/-15V 4AD	+/-12V 4.3AD	None
COB0800W027		5.2V 30A	8V 10A	9V 10A	18V 11A			HA1 (20mS)
COB0800W028		5V 90A			+/-15V 4AD	+/-15V 4AD	5V 35A	HA1 (20mS)
COB0800W029		5V 60A		18V 19A	Parallel with o/p3	24V 8.5A	24V 8.5A	HA1 (20mS)
COB0800W030		5V 35A	5V 35A	5V 60A		5V 35A		HA1 (20mS)
COB0800W031		5V 90A			5V 35A	Parallel with o/p4		HA1 (20mS)

D suffix designates dual output
T suffix designates trip current limit

Further configurations available – contact sales for details