OUTSOURCE
Application & Engineering Specifications

Draft V3.0 29 May 2008 - Veracity UK Ltd

1 GENERAL

1.1.1 All equipment and materials used shall be standard components that are regularly manufactured and used in the manufacturer's system.

1.1.2 All systems and components shall have been thoroughly tested and proven in actual use.

1.1.3 All systems and components shall be provided with the one-year warranty. Additional warranty can be obtained by purchasing a specific warranty service package available through the system integrator.

1.1.4 Each distributor/integrator/installer and end users shall have access to secure e-support for technical assistance on a 24-hour basis. The site will enable downloads of software updates, datasheets, manuals and review of FAQ.

2 SYSTEM OVERVIEW

2.1.1 The OUTSOURCE shall provide the capability to upgrade a channel of a standard Ethernet switch to deliver power over the Ethernet (POE).

2.1.2 The OUTSOURCE shall provide the capability of a fully IEEE 802.3af single channel POE midspan power injector.

2.1.3 The OUTSOURCE shall be fitted in line with the Ethernet cable.

2.1.4 The OUTSOURCE shall provide the capability to provide maximum class POE to remote devices.

2.1.5 The OUTSOURCE shall be capable of increasing the power available in a single channel of an Ethernet switch.

2.1.6 The OUTSOURCE shall draw its power from an external power source.

2.1.7 The OUTSOURCE shall be fully transparent with no restriction on network traffic.

2.1.8 The OUTSOURCE shall be used with OUTREACH to forward the full range of POE beyond the normal Ethernet cable length restrictions.

3 INTERFACES

3.1 Ethernet

3.1.1 The OUTSOURCE shall have two Ethernet RJ45 connectors, one standard Ethernet and one providing POE capability.

3.1.2 The OUTSOURCE shall support a standard Ethernet cable: patch or crossover CAT5/CAT6.

3.1.3 THE OUTSOURCE shall support 100BaseTX full duplex.

3.1.4 The OUTSOURCE shall be a transparent layer1 device and shall require no MAC or IP address.

3.2 Indicators

3.2.1 The OUTSOURCE shall have three indicator LEDs. They shall be used to indicate the status of the load connected to the Ethernet output. A combination of the Fault and Connect LEDs shall be used to indicate any faults detected with the attached load.

LED	Status	Meaning
On	Constant	Power OK
	Off	No power
Fault	Constant/Blink	Fault detected
	Off	No fault detected
Connect	Constant	Compliant load detected
	Blink	Non compliant load detected
	Off	No POE device connected

3.3 POE

3.3.1 The OUTSOURCE shall require an input voltage range 100 – 240VAC and frequency of 47 – 63Hz.

3.3.2 The OUTSOURCE shall comply with the universal IEEE 802.3af POE midspan standard. It shall supply POE to IEE 802.3af class 1, 2 and 3 devices.

3.3.3 The OUTSOURCE shall be capable of supplying POE over the following typical distances when used with OUTREACH and with a 24AWG CAT5, CAT5e or CAT6 cable:

POE Device Class	Device Power (max)	Range (when used with OUTREACH)
No POE	n/a	1000m
1	6.49W	700m
2	3.84W	500m
3	12.95W	300m

4 ENVIRONMENTAL

4.1.1 The OUTSOURCE shall be capable of being mounted on a horizontal or vertical surface.

4.1.2 The OUTSOURCE shall keep operating in temperatures between -10°C to 50°C.

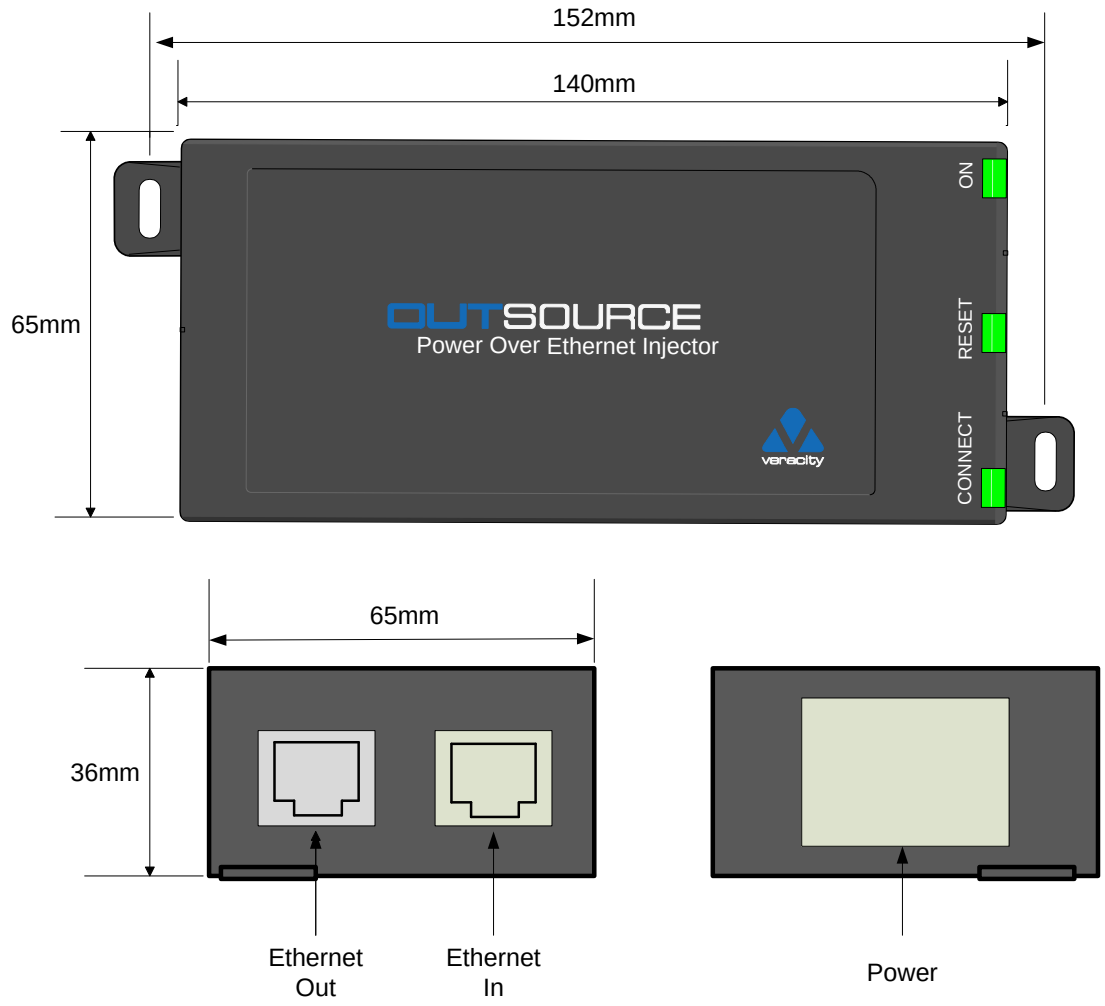
4.1.3 The OUTSOURCE shall keep operating in relative humidity up to 85% non-condensing.

4.1.4 The OUTSOURCE shall weigh 85g.

4.1.5 The OUTSOURCE shall have dimensions of 140mm (L) x 65mm (W) x 36mm (H)

4.1.6 The OUTSOURCE shall be compliant with CE and FCC.

5 DIMENSIONS



6 SPECIFICATIONS SUMMARY

Ethernet	Connector Type	RJ45 x 2
	Cable Type	~~Patch or crossover~~ CAT5/CAT6
	Transmission Rates	100BaseTX, full duplex
Power	Connector Type	IEC320 inlet 3 pin
Input	AC Input Voltage Range	90 – 264VAC
	AC input Voltage Rating	100 – 240VAC
	AC Input Current	0.5A(RMS) max for 90VAC 0.35A(RMS) max for 240VAC
	Leakage Current	0.25mA max @ 254VAC 60Hz
	AC Input Frequency	47 – 63Hz
	AC Inrush Current	15A(RMS) max for 115VAC 20A(RMS) max for 230VAC
Output	Total Output Power	19.6W
	Efficiency	65% (typical) at max load and 120VAC 60Hz
	Hold-up Time	16mS min 120VAC and max load
	Transient O/P Voltage Protection	60V max at switch on and off at any AC line Phase
Environmental	Temperature	-10 to 50°C Operation
	Humidity	up to 85% Operation
	Isolation Test	Primary to Secondary: 3000VAC for 1 minute 10mA Primary to F.G.: 1500VAC for 1 minute Output to F.G.: 1500VAC
	Immunity	ESD: EN61000-4-2. Level 3 RS: EN61000-4-3. Level 2 EFT: EN61000-4-4. Level 2 Surge: EN61000-4-5. Level 3 CS: EN61000-4-6. Level 2 Voltage Dips EN61000-4-11 Harmonic: EN61000-3-2
	Insulation Resistance	Primary to secondary: >10M OHM 500VDC Primary to FC: >10M OHM 500VDC
LED Indicators		LED 1 Power indicator LED 2 Fault indicator LED 3 Load indicator
Regularity	Compliance	FCC Part 15 Class B CE EN55022 Class B
Mechanical	Dimensions	L 152mm (140mm excluding tabs) W 65mm H 36mm
	Weight	85g