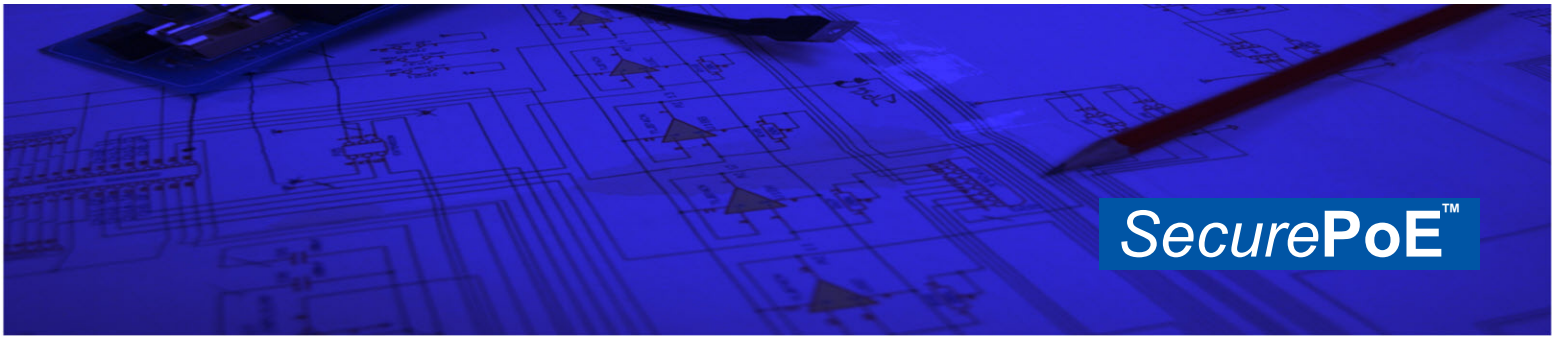
DANTECH
ELECTRONIC ENGINEERING



Product applications

Power over Ethernet technology is increasingly being used in the security industry. Dantech's SecurePoE products are compatible with IEEE 802.3:2012 *(IEEE 802.3at:2009 & IEEE802.3af:2003)* making them suitable for use in a variety of applications, including:

- CCTV
- Intercoms systems
- Access Control
- VOIP Telecoms
- Secure System Integration
- Lighting

Unique product benefits

The availability of secure Power over Ethernet for universal locations allows:

- Secure remote installation with less equipment and fewer mains terminations
- Reliable power with increased security and redundancy for remote locations, including CCTV cameras with on board edge storage recording
- Secure VRLA battery back-up of Power over Ethernet
- Localised back-up prevents drain on centralised UPS systems, extending stand-by times
- Extend Ethernet networks beyond 100 metres from servers and maintain battery backed protection

Security with flexibility

SecurePoE is designed with consideration for ease of installation in any environment. Whether indoor or outdoor, wall mounting or 19" rack mounting, there is a solution designed to fit the location that your system demands. Most versions come equipped with innovative fast cable entry options to save installer time.

Did you know?

- *Included within all Multispan™ & MultispanUPS™ products is a 5-Port Cisco network switch.*
- *All of our battery maintained SecurePoE products are sold with customised YUASA battery packs to suit.*

CISCO™

YUASA BATTERY

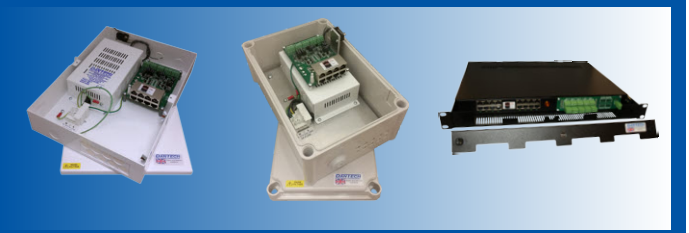
SecurePoE™

Power over Ethernet for security

Midspan

DANTECH SecurePoE™

PoE Power

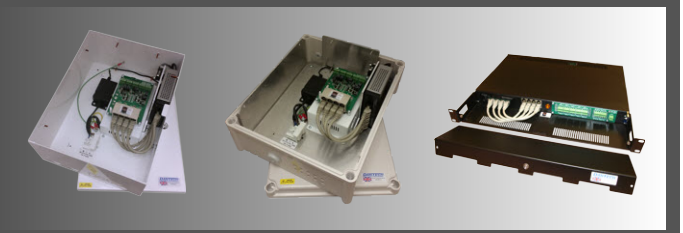


Midspan products provide dedicated PoE power for use with a separate network switch.

Multispan™

CISCO DANTECH SecurePoE™

PoE Power & Network switch



Multispan products include a gigabit Cisco network switch, allowing fast single cable connection to any network infrastructure.

MidspanUPS™

YUASA BATTERY DANTECH SecurePoE™

VRLA Battery backed PoE Power

Midspan products provide dedicated PoE power for use with a separate network switch.

MultispanUPS™

YUASA BATTERY CISCO DANTECH SecurePoE™

VRLA Battery backed network switch & PoE Power

MultispanUPS products include a gigabit Cisco network switch, allowing fast single cable connection to any network infrastructure. (Both Cisco network switch and PoE power are battery maintained)

Contents

*Secure*PoE™

Power over Ethernet for security

Tailored for secure installation, Dantech Power over Ethernet injectors provide up to 30W per channel, available simultaneously on all channels.

All SecurePoE products feature a secure enclosure with all connections inside. They include status monitoring and tamper contacts that can be used in a variety of ways to increase system security.

Gigabit and *10/100Mbps* bandwidth products are available in various output configurations and mounting packages. SecurePoE products use British designed high efficiency and high reliability electronics. They are manufactured and tested in Great Britain.

SecurePoE is designed for use with all PoE devices compliant to IEEE 802.3:2012 (IEEE 802.3at & 802.3af) devices.

Monitoring

Standard on all SecurePoE products

All models and variants of the SecurePoE range include single pole change over (SPCO) relay monitoring contacts,

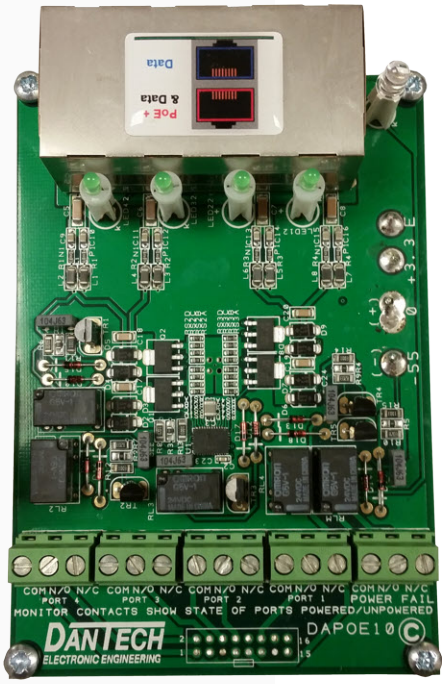
- **Individual PoE port status**
  Each PoE port has separate SPCO contacts and LED indicator for signalling the port status, such as,
  - No device detected *(LED off, SPCO NO)*
  - PoE device detected, connection in progress (LED flash, SPCO switching on/off)
  - Device connected and using PoE power (LED on, SPCO NC)
- **SecurePoE power status**
  Every SecurePoE PCB module within the unit has an LED indicator to visibly show that the PCB is powered. SPCO contacts allow remote signalling to other equipment in the event that PoE power can no longer be maintained.
- **Tamper monitoring**
  Indoor, exterior and rack-mount enclosures all include tamper monitoring. SPCO contacts change over from normally closed to normally open when the enclosure is opened. The tamper contacts also change over on rack-mount models if the remote battery pack is opened, or the cable is disconnected.

***Midspan*UPS™** & ***Multispan*UPS™** models and variants of the SecurePoE range also include monitoring of,

- **Power status**
  The power monitoring PCB module of MidspanUPS and MultispanUPS models and variants have an LED for visual indication and SPCO contacts for remote indication of mains power status. Ideal for signalling alarm panels or switching of other equipment in the event of a mains power failure. PoE power will be maintained during this state *(as indicated by the separate SecurePoE power status LED and SPCO contacts on the SecurePoE PCB)*
- **Battery low voltage**
  In the event of a prolonged mains power failure the *"Low volt"* contacts will change over to signal that the battery voltage is low and PoE power will shortly fail.

  If mains power is not restored promptly and battery power is depleted to very low levels, then as a protection against deep cycle damage, the battery pack will be disconnected. This will cause the power status contacts (on the PoE PCB) to change over and signal that PoE power can no longer be maintained.

  Once mains power is restored, the battery pack will automatically be reconnected and re-charged, ready to maintain power again.



Multispan™ inclusive 5-Port network switch

DA11xx (Indoor, exterior and rack-mount ranges)

Multispan and MultispanUPS products include a 5-port network switch. Available within an indoor mild steel wall mount enclosure, exterior IP66 weather resistant enclosures ideal for harsh environments, or simply as a 1U rack-mount product.

These switched Multispan models are ideal for installations where there is limited access to, or availability of, Ethernet ports on the network. Only a single Ethernet data cable is required to send and receive data from up to four devices that may or may not require power over Ethernet.

- Pre-installed within Multispan SecurePoE units
- No software to configure
- ***Network switch and PoE power are both*** battery backed with 1.2Ah, 7Ah and 10Ah MultispanUPS models
- Maintain data network during accidental or deliberate power failures or faults
- Gigabit Ethernet delivers high-speed connectivity to enhance network performance
- 200mm Ethernet cables to SecurePoE ports included
- Easily keep security infrastructure independent of existing networks
- Only one Ethernet cable is required to bridge to existing network infrastructure
- Ability to extend the range of power over Ethernet and network, up to 200m between network and PoE devices

*Midspan*UPS™ & *Multispan*UPS™

VRLA battery backed PoE systems

Designed for reliable battery backup of PoE devices, our ***Secure*PoE™** range includes battery maintained MidspanUPS and MultispanUPS models that provide continuous power to PoE ports when mains power is not available. The MultispanUPS models maintain power to both the PoE ports and the included Cisco network switch.

Power backup is provided by our replaceable customised battery packs, which use high reliability Yuasa batteries. Different capacities are available to cater for different standby time requirements and we offer guaranteed replacement battery pack availability.

Whether powering CCTV cameras, video intercoms, locks or other device types, Power over Ethernet battery standby is available off-the-shelf.

Estimated stand-by times

	Battery capacity		
Output load	**1.2Ah**	**7Ah**	**10Ah**
5W	9 Hours	65 Hours	100 Hours
12W	4 Hours	30 Hours	44 Hours
25W	1.75 Hours	14.5 Hours	20 Hours
50W	40 Minutes	6.5 Hours	9.5 Hours
75W	23 Minutes	4 Hours	6 Hours
100W	14 Minutes	2.75 Hours	4 Hours

Power considerations

Tim Scott, Director, Dantech Electronic Engineering

Security system components have varied power needs: a supply of direct mains, specified DC or AC low voltage, or power over ethernet (PoE). Often systems will use a mixture of supply voltages due to the requirements of individual components. Power distribution decisions should be based on key factors such as reliability, continuity, accessibility, compliance, physical security and cost.
Many system devices are capable of functioning with more than one type of supply. Surveillance cameras might accept a low voltage AC or DC input as well as PoE power.

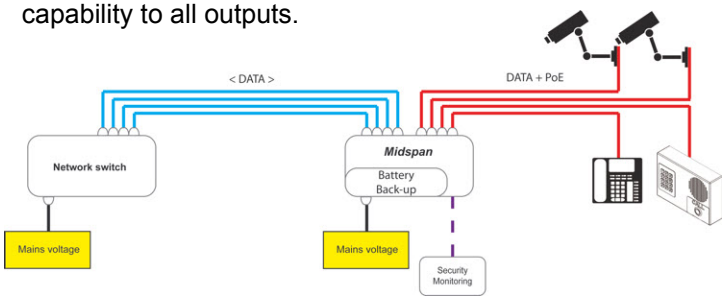
Security systems consist of pathways carrying information between system components and pathways distributing power. With networked systems these two types of interconnecting path can be located separately, follow a similar route or be physically combined.

System power can be planned much like a simple data network, with the incoming power branching out, via PSUs and power storage devices, to the various components. A good design will minimise power transmission bottlenecks, reduce single points of failure and consecutive points of potential failure within each path.

Mains back-up generators and UPS systems may be pre-existing at a location or specified for installation. These can be helpful but should be scrutinised with regard to acceptability, including the effect of a unit failure.

IP security devices such as surveillance cameras tend to 'reboot' following a power interruption for a period that might range from 30 to 90 seconds. The use of a dedicated maintained power supply local to devices ensures seamless operation. The prevention of device reboot downtime makes a powerful case for the use of battery-maintained power supplies in all security applications, as does the continuous provision of functions like edge storage, door entry and call-point access, regardless of mains and network state.

It is more reliable to use power supplies that are separate from network infrastructure. Separation of power provision removes single points of failure, reducing both the likelihood and the magnitude of failures. Good dedicated power units normally have higher life expectancies than switching equipment. All PSUs have a conversion-efficiency loss which is shed as heat, potentially affecting other equipment.
Network devices with integrated power outputs may have a 'power budget', limiting the defined output power to a specified total figure, rather than providing full capability to all outputs.



This allows the possibility of load devices being connected with insufficient power available. With some supply products it is possible to overload the integrated power supply, resulting in a shutdown of all outputs until the overload is removed. As some common devices have variable power consumption, it is a risk that these will appear to function normally until loads demand higher power levels. While convenient, the use of integrated power outputs for critical operations is questionable. The specification of separate PSUs will improve system reliability.

Given sensibly specified power supplying equipment, bottlenecks in power distribution paths are a function of voltage supplied, power demanded and wire conductor size used. These bottlenecks manifest as resistive 'volt drop'. Conductors have an inherent resistance at a given temperature and the degree of volt drop is inversely proportional to the voltage supplied. Ohm's law dictates that for any known conductor and power conducted, a doubling of supply voltage will half the current, hence also halving the voltage drop. Importantly, the resulting transmission power loss is actually quartered as a result of doubling the voltage, due to the halving of the current conducted and the resultant halving of the volt drop. Subsequently it is preferable to use available higher voltages until within the area of load devices, which commonly means using mains power. At the load device area, a secure PSU or PoE midspan can be sited, including battery back-up if required.

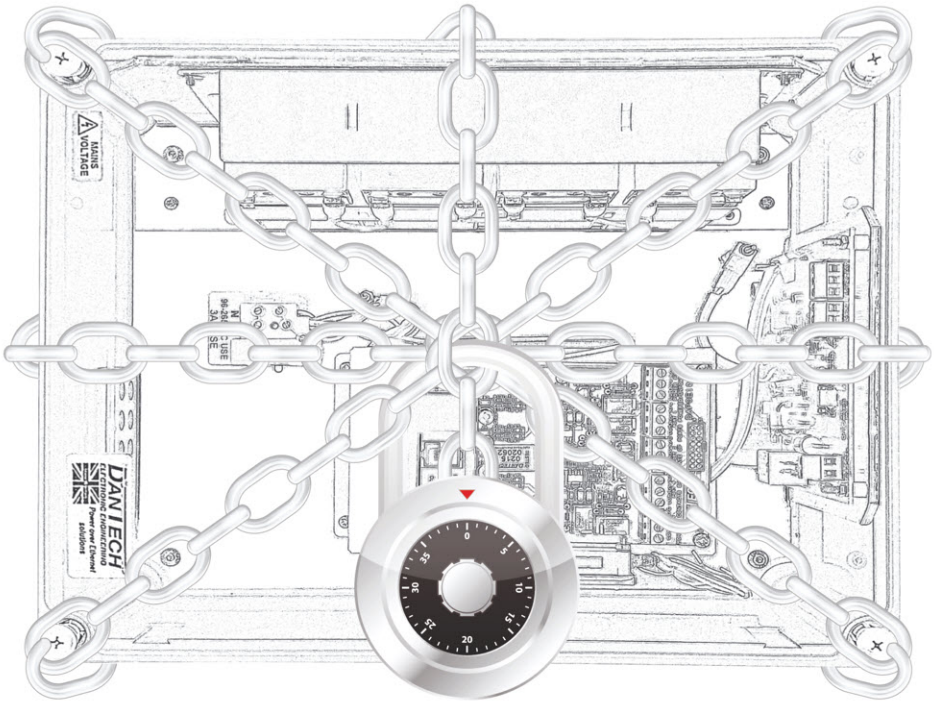
The IEEE standard for PoE devices ensures power losses will be acceptable within a 100 metre span. Non-compliant PoE devices are an unknown and a potential hazard.

To reduce points of failure in a power path it is necessary to minimise the number of power conversion stages. Supplying mains voltage to the load area (or where not possible the next highest available voltage) then using one or more low voltage power supplies keeps the path as simple as possible. For normal practical purposes and as a requirement for PoE supplies, installation of the low voltage PSUs should be within 100 metres of the load devices. If necessary, these can be sited alongside network apparatus such as edge switches and media converters, as well as being status monitored dependent on system requirement. Power repeaters designed for consecutive placement in a power path can save up-front cost but give multiple failure points in the path. They are also inefficient, having a conversion efficiency loss at every stage.

The applicable standard defining the requirements of all compliant PoE devices is IEEE802.3:2012. This incorporates the earlier standard amendments 802.3af (2003) and 802.3at (2009). The 'af' and 'at' references continue to be seen. Two device power categories exist: up to 15.4W ('af') and up to 30W ('at' or PoE+). It is sensible to specify the 30W supplies as this allows the connection of any PoE standard compliant device.

The choice of conventional versus PoE power is often debated. Both methods are valid. Whichever is used, the consideration of minimising losses, separating power, removing failure points and spreading risk between multiple power supply units will enable the design of reliable systems.

Secure by design



SecurePoE™ Midspan & Multispan™

Power solutions for any network

Designed with security in mind, Dantech's new SecurePoE range includes Midspan & Multispan PoE power supplies, with optional battery maintained UPS, and/or integrated Ethernet switch versions. They feature:

- ✔ Secure enclosures
- ✔ All connections inside
- ✔ Unique power monitoring & tamper contacts
- ✔ Laptop access to connected PoE devices
- ✔ 30W per port guaranteed
- ✔ Indoor, outdoor & rack-mount models
- ✔ Multi-port versions
- ✔ Installation at any location within a system
- ✔ High reliability & efficiency

Suitable for

- Surveillance
- Access Control
- Intercom
- VoIP

DANTECH
ELECTRONIC ENGINEERING

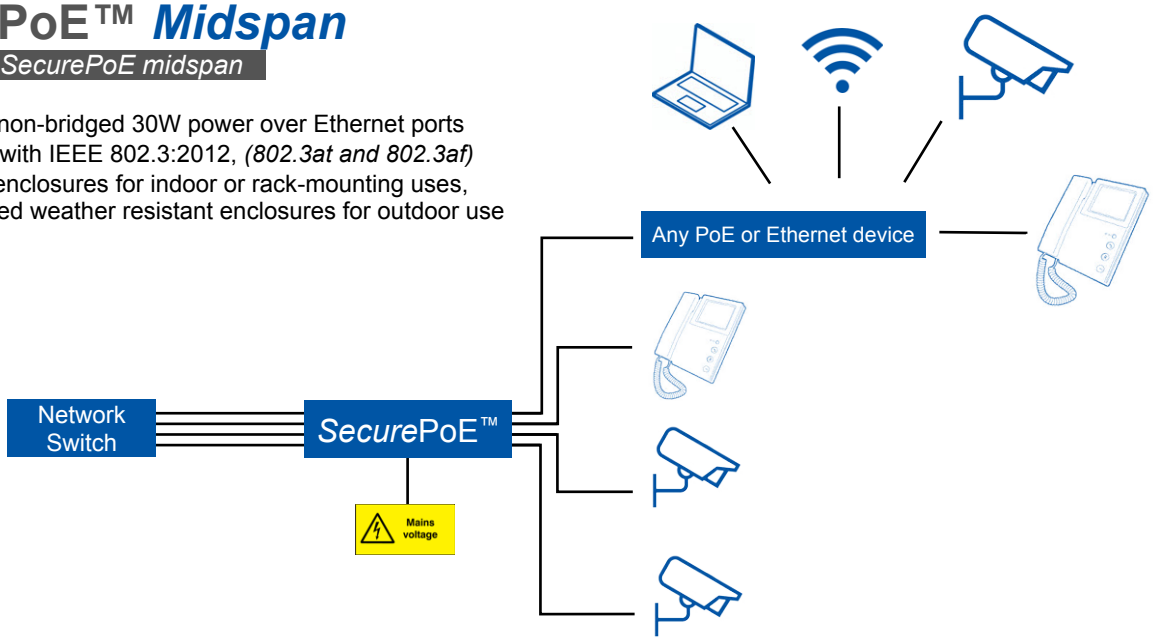
Designed, built & tested in Great Britain

For more information visit: www.dantech.uk.com

SecurePoE™ Midspan

Benefits of SecurePoE midspan

- Up to four non-bridged 30W power over Ethernet ports
- Compliant with IEEE 802.3:2012, *(802.3at and 802.3af)*
- Mild steel enclosures for indoor or rack-mounting uses, or IP66 rated weather resistant enclosures for outdoor use



Power over Ethernet (PoE) offers an easy, fast and cost-effective solution for supplying power to products without the need to install power outlets and electrical cabling to the PoE devices. With the use of PoE, network devices can receive both data and power over a single Ethernet cable. PoE devices can therefore be installed in areas where traditional power cabling and outlets are unavailable, costly or difficult to install.

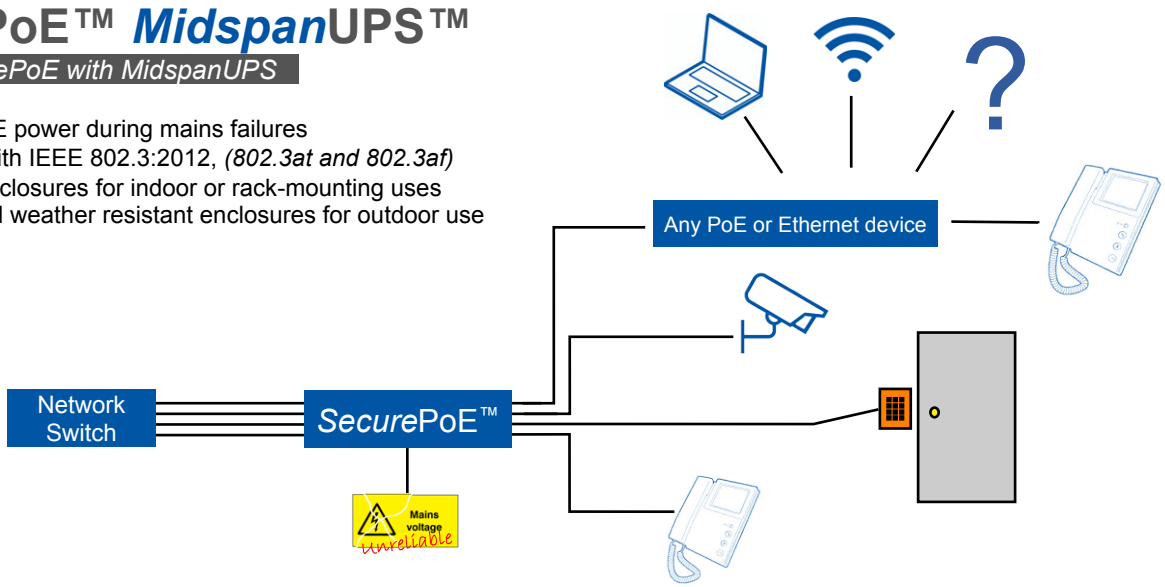
PoE has many applications, but the three key areas are:

- *VoIP phones* - the original PoE application. Using PoE means phones have a single connection to a wall socket.
- *IP cameras* - PoE is now common on networked surveillance cameras, where it enables fast deployment and easy repositioning.
- *Wireless* - Wifi, Bluetooth and RFID readers are commonly PoE-compatible, to allow remote installation away from AC outlets, and relocation following site surveys.

SecurePoE™ MidspanUPS™

About SecurePoE with MidspanUPS

- Maintain PoE power during mains failures
- Compliant with IEEE 802.3:2012, *(802.3at and 802.3af)*
- Mild steel enclosures for indoor or rack-mounting uses or IP66 rated weather resistant enclosures for outdoor use



All Dantech SecurePoE products feature a secure enclosure with all connections inside so they can be installed outside secure zones. They include status monitoring and tamper contacts that can be used in a variety of ways to increase system security. Gigabit and 10/100Mbps bandwidth products are available in various output configurations and mounting packages.

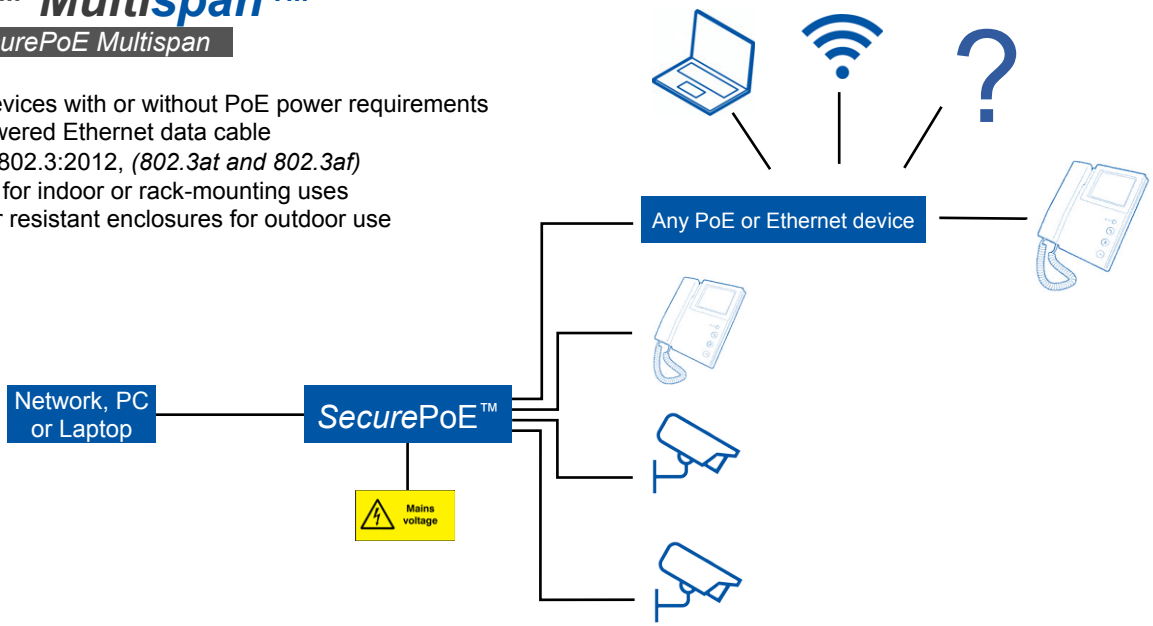
Manufactured and tested in Great Britain, Dantech SecurePoE products use British designed high efficiency and high reliability electronics. Products are compliant with IEEE 802.3:2012 (802.3at, 802.3af) and designed for use with all compatible load devices.

SecurePoE MidspanUPS products include replaceable stand-by battery packs with Yuasa batteries. There are versions for both long and short stand-by durations available. Ideal for environments where PoE devices need to remain powered during mains power loss.

*Secure*PoE™ *Multispan*™

When to choose SecurePoE Multispan

- Connect up to four devices with or without PoE power requirements from a single non-powered Ethernet data cable
- Compliant with IEEE 802.3:2012, *(802.3at and 802.3af)*
- Mild steel enclosures for indoor or rack-mounting uses or IP66 rated weather resistant enclosures for outdoor use



SecurePoE Multispan products include a 5-port network switch, ideal for installations where there is limited access to or availability of Ethernet ports on the network. Only a single Ethernet data cable is required to send and receive data from up to four PoE powered devices. PoE power is maintained with or without a laptop, PC or network data connection.

All *Multispan* products are Gigabit capable as standard *(and backwardly compatible with 10/100Mbps devices).*

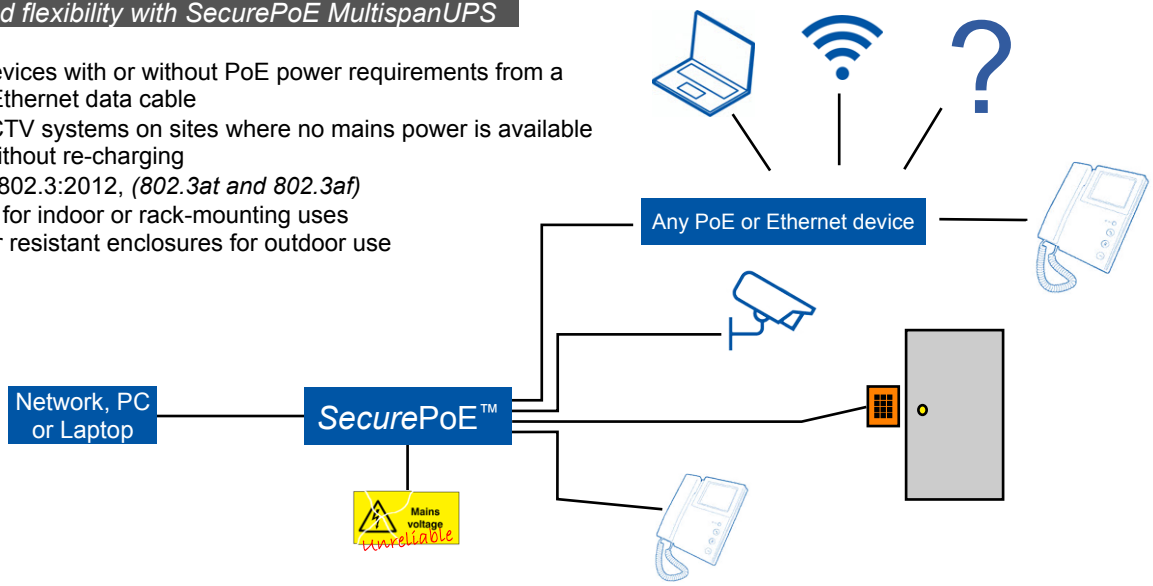
These are available in tamper resistant secure enclosures made from mild steel, IP66 rated weather resistant ABS or as 1U rack-mount units.

SecurePoE includes status monitoring and tamper contacts that can be used in a variety of ways to increase system security, all connections are within each unit so they can be installed outside secure zones.

*Secure*PoE™ *Multispan*UPS™

Ultimate reliability and flexibility with SecurePoE MultispanUPS

- Connect up to four devices with or without PoE power requirements from a single non-powered Ethernet data cable
- Ideal for powering CCTV systems on sites where no mains power is available for up to 100 hours without re-charging
- Compliant with IEEE 802.3:2012, *(802.3at and 802.3af)*
- Mild steel enclosures for indoor or rack-mounting uses or IP66 rated weather resistant enclosures for outdoor use



SecurePoE MultispanUPS has all the features and benefits of SecurePoE Multispan with the addition of replaceable stand-by battery packs with Yuasa batteries, for maintaining PoE power during mains power loss. There are versions for both long and short stand-by durations available. Ideal for multiple PoE devices that need to remain powered when the mains supply is not available.

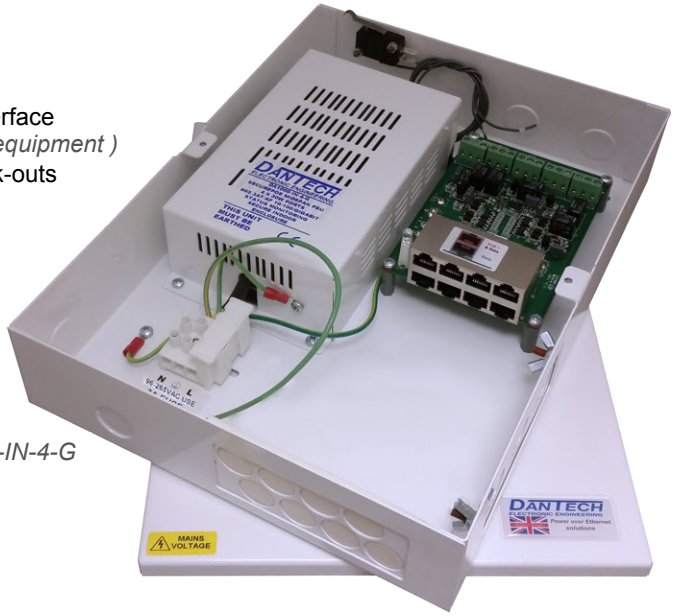
The inclusive Cisco network switch is also battery maintained along with the PoE ports to maintain the network connections to connected devices during power loss.

Indoor *Secure*PoE™ *Midspan*

Secure power over Ethernet

- Midspan power injector with 1, 2 or 4 load output ports
- Non-bridged ports, connect PoE devices independently, with or without data connections
- Up to 30W of load power simultaneously available from each port
- Automatic load class detection
- Compatible with all IEEE 802.3:2012 *(IEEE 802.3at:2009 and IEEE 802.3af:2003)* devices
- 90-270V AC, 47-63Hz universal mains input
- Ultra high efficiency operation - up to 96% *(tested with 120W load)*
- System power status LED and monitoring contacts
- Individual port power status LED's
- Monitoring relay contacts can be used for analogue or network interface
  (e.g. AVIs, alarm logs, device alarm inputs; or triggering ancillary equipment)
- Innovative fast entry cable system and additional cable entry knock-outs
- Secure steel enclosure with lid tamper switch
- Designed for ease of fitting and high reliability

DANTECH SecurePoE™



DA1000-IN-4-G

PoE Ports	Width	Height	Depth	Battery capacity	10/100Mbps	Gigabit	Product code
1, ***2*** or ***4*** x 30W	295mm	220mm	62mm	-	✓		DA1000-IN-***x***
					✓	✓	DA1000-IN-***x***-G

* ***x*** = *number of PoE ports, e.g. DA1000-IN-4*

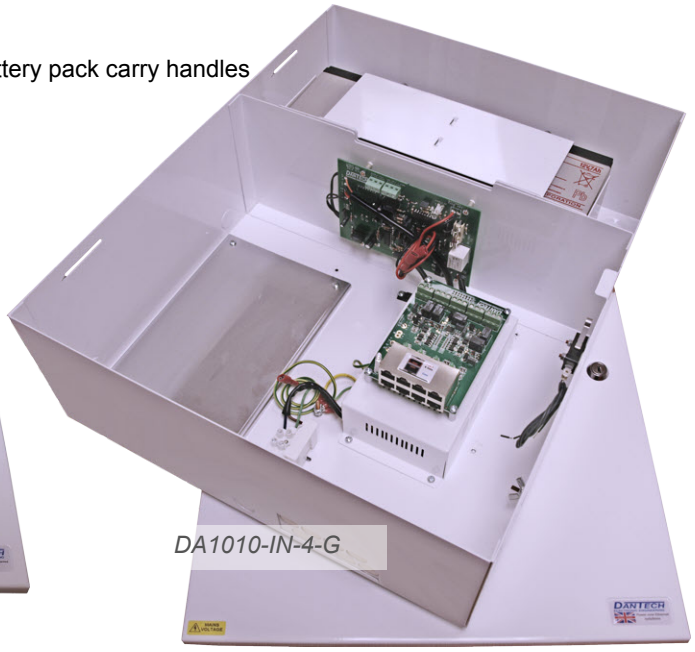
Indoor *Secure*PoE™ *Midspan*UPS™

Secure power over Ethernet with VRLA battery back-up

- Includes all features of the indoor SecurePoE Midspan design
- Customised Yuasa battery pack included
- Maintain 30W per channel of Power over Ethernet without mains power available
- Battery packs are fast-fit and easily replaceable
- Available with ***1.2Ah***, ***7Ah*** and ***10Ah*** battery pack capacities
- 7Ah and 10Ah models feature equipment mounting plates and battery pack carry handles
- Automatic battery low voltage deep discharge protection
- Mains fail and low battery relay monitoring contacts
- Guaranteed replacement battery pack availability

YUASA BATTERY DANTECH SecurePoE™

DA1001-IN-4-G



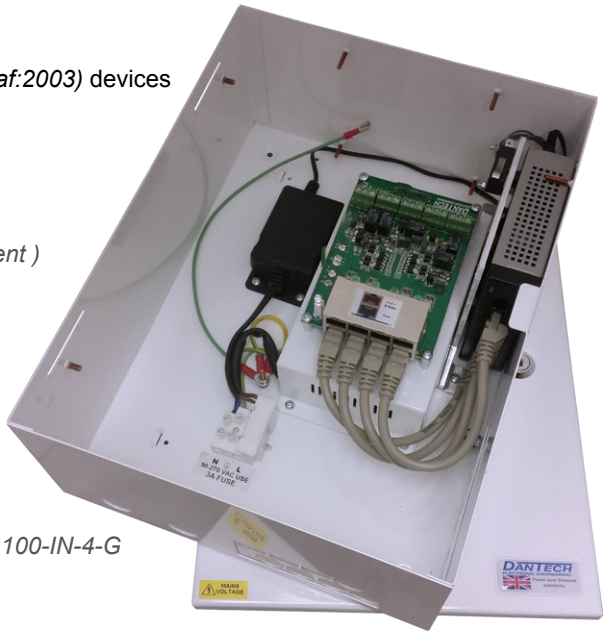
DA1010-IN-4-G

PoE Ports	Width	Height	Depth	Battery capacity	10/100Mbps	Gigabit	Product code
1, ***2*** or ***4*** x 30W	330mm	250mm	125mm	1.2Ah	✓		DA1001-IN-***x***
					✓	✓	DA1001-IN-***x***-G
	500mm	400mm	155mm	7Ah	✓		DA1007-IN-***x***
					✓	✓	DA1007-IN-***x***-G
				10Ah	✓		DA1010-IN-***x***
					✓	✓	DA1010-IN-***x***-G

Indoor *Secure*PoE™ *Multispan*™

Secure power over Ethernet with 5-Port network switch

- Connect up to four devices with a single non-powered Ethernet data cable
- Power injector with 1, 2 or 4 power over Ethernet load ports
- Non-bridged ports, connect PoE devices independently, with or without data connections
- Up to 30W of load power simultaneously available from each port
- Automatic load class detection
- Compatible with all IEEE 802.3:2012 *(IEEE 802.3at:2009 and IEEE 802.3af:2003)* devices
- 90-270V AC, 47-63Hz universal mains input
- Ultra high efficiency operation - up to 96% *(tested with 120W load)*
- System power status LED and monitoring contacts
- Individual port power status LED's
- Monitoring relay contacts can be used for analogue or network interface
  (e.g. AVIs, alarm logs, device alarm inputs; or triggering ancillary equipment)
- Innovative fast entry cable system and additional cable entry knock-outs
- Secure steel enclosure with lid tamper switch
- Designed for ease of fitting and high reliability



DA1100-IN-4-G

PoE Ports	Width	Height	Depth	Battery capacity	10/100Mbps	Gigabit	Product code
1, ***2*** or ***4*** x 30W ***&*** ***5-Port Gigabit switch***	295mm	220mm	62mm	-	✓	✓	DA1100-IN-***x***-G

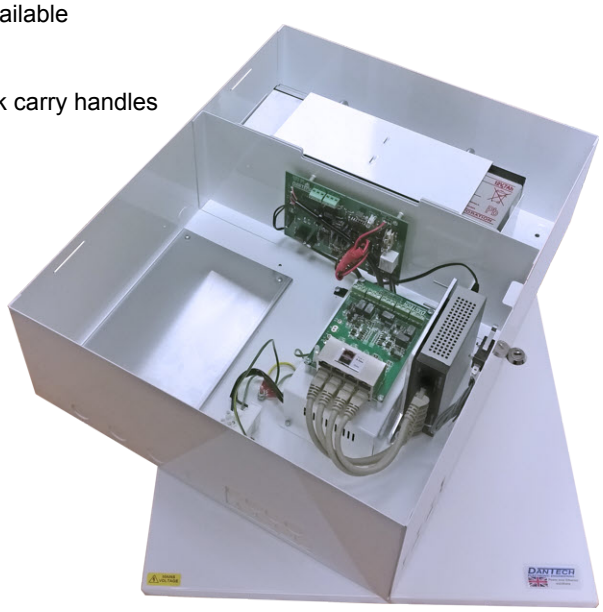
** **x** = number of PoE ports, e.g. DA1100-IN-4-G*

Indoor *Secure*PoE™ *Multispan*UPS™

Secure power over Ethernet with 5-Port network switch and VRLA battery back-up

- Includes all features of the indoor SecurePoE Multispan design
- Customised Yuasa battery pack included
- Maintain 30W per channel of Power over Ethernet without mains power available
- Battery packs are fast-fit and easily replaceable
- Available with ***1.2Ah***, ***7Ah*** and ***10Ah*** battery pack capacities
- 7Ah and 10Ah models feature equipment mounting plates and battery pack carry handles
- Automatic battery low voltage deep discharge protection
- Mains fail and low battery relay monitoring contacts
- Guaranteed replacement battery pack availability

DA1101-IN-4-G



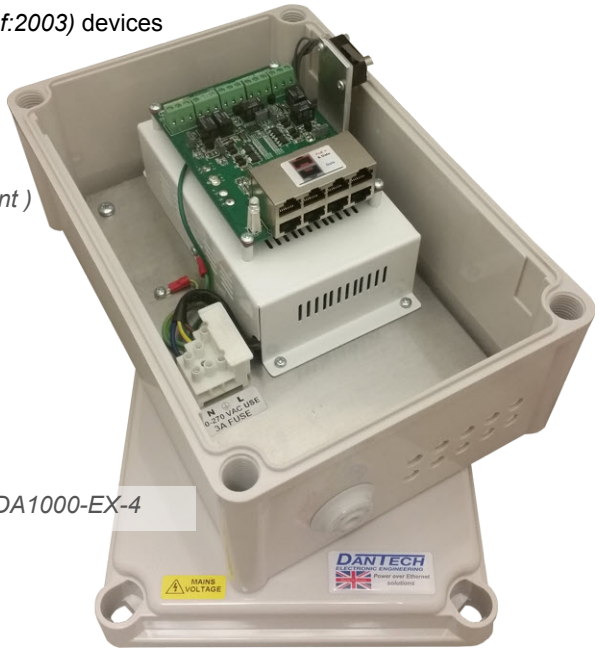
DA1107-IN-4-G &
DA1110-IN-4-G

PoE Ports	Width	Height	Depth	Battery capacity	10/100Mbps	Gigabit	Product code
1, ***2*** or ***4*** x 30W	330mm	400mm	125mm	1.2Ah	✓	✓	DA1101-IN-***x***-G
&	500mm	400mm	155mm	7Ah	✓	✓	DA1107-IN-***x***-G
5-Port Gigabit switch				10Ah	✓	✓	DA1110-IN-***x***-G

Exterior *Secure*PoE™ *Midspan*

Secure power over Ethernet

- Midspan power injector with 1, 2 or 4 load output ports
- Non-bridged ports, connect PoE devices independently, with or without data connections
- Up to 30W of load power simultaneously available from each port
- Automatic load class detection
- Compatible with all IEEE 802.3:2012 *(IEEE 802.3at:2009 and IEEE 802.3af:2003)* devices
- 90-270V AC, 47-63Hz universal mains input
- Ultra high efficiency operation - up to 96% *(tested with 120W load)*
- System power status LED and monitoring contacts
- Individual port power status LED's
- Monitoring relay contacts can be used for analogue or network interface
  (e.g. AVIs, alarm logs, device alarm inputs; or triggering ancillary equipment)
- Innovative fast entry cable system
- Weather resistant IP66 rated enclosure with lid tamper switch
- Designed for ease of fitting and high reliability



DA1000-EX-4

PoE Ports	Width	Height	Depth	Battery capacity	10/100Mbps	Gigabit	Product code
1, ***2*** or ***4*** x 30W	280mm	190mm	130mm	-	✓		DA1000-EX-***x***
					✓	✓	DA1000-EX-***x***-G

** **x** = number of PoE ports, e.g. DA1000-EX-4-G*

Exterior *Secure*PoE™ *Midspan*UPS™

Secure power over Ethernet with VRLA battery back-up

- Includes all features of the exterior SecurePoE Midspan deisgn
- Customised Yuasa battery pack included
- Maintain 30W per channel of Power over Ethernet without mains power available
- Battery packs are fast-fit and replaceable
- Available with ***1.2Ah***, ***7Ah*** and ***10Ah*** battery pack capacities
- 7Ah and 10Ah models feature equipment mounting plates and battery pack carry handles
- Automatic battery low voltage deep discharge protection
- Mains fail and low battery relay monitoring contacts
- Guaranteed replacement battery pack availability

DA1007-EX-4
& DA1010-EX-4

DA1001-EX-4

PoE Ports	Width	Height	Depth	Battery capacity	10/100Mbps	Gigabit	Product code
1, ***2*** or ***4*** x 30W	340mm	280mm	130mm	1.2Ah	✓		DA1001-EX-***x***
					✓	✓	DA1001-EX-***x***-G
	500mm	400mm	200mm	7Ah	✓		DA1007-EX-***x***
					✓	✓	DA1007-EX-***x***-G
				10Ah	✓		DA1010-EX-***x***
					✓	✓	DA1010-EX-***x***-G

Exterior *Secure*PoE™ *Multispan*™

Secure power over Ethernet with 5-Port network switch

- Connect up to four devices with a single non-powered Ethernet data cable
- Power injector with 1, 2 or 4 load output ports
- Non-bridged ports, connect PoE devices independently, with or without data connections
- Up to 30W of load power simultaneously available from each port
- Automatic load class detection
- Compatible with all IEEE 802.3:2012 *(IEEE 802.3at:2009 and IEEE 802.3af:2003)* devices
- 90-270V AC, 47-63Hz universal mains input
- Ultra high efficiency operation - up to 96% *(tested with 120W load)*
- System power status LED and monitoring contacts
- Individual port power status LED's
- Monitoring relay contacts can be used for analogue or network interface
  (e.g. AVIs, alarm logs, device alarm inputs; or triggering ancillary equipment)
- Innovative fast entry cable system
- Weather resistant IP66 rated enclosure with lid tamper switch
- Designed for ease of fitting and high reliability

DA1100-EX-4

PoE Ports	Width	Height	Depth	Battery capacity	10/100Mbps	Gigabit	Product code
1, ***2*** or ***4*** x 30W ***&*** ***5-Port Gigabit switch***	280mm	190mm	130mm	-	✓	✓	DA1100-EX-***x***-G

** **x** = number of PoE ports, e.g. DA1100-EX4-G*

Exterior *Secure*PoE™ *Multispan*UPS™

Secure power over Ethernet with 5-Port network switch and VRLA battery back-up

- Includes all features of the exterior SecurePoE Multispan design
- Customised Yuasa battery pack included
- Maintain 30W per channel of Power over Ethernet without mains power available
- Battery packs are fast-fit and replaceable
- Available with ***1.2Ah***, ***7Ah*** and ***10Ah*** battery pack capacities
- 7Ah and 10Ah models feature equipment mounting plates and battery pack carry handles
- Automatic battery low voltage deep discharge protection
- Mains fail and low battery relay monitoring contacts
- Guaranteed replacement battery pack availability

DA1107-EX-4
& DA1110-EX-4

DA1101-EX-4

PoE Ports	Width	Height	Depth	Battery capacity	10/100Mbps	Gigabit	Product code
1, ***2*** or ***4*** x 30W	340mm	280mm	130mm	1.2Ah	✓	✓	DA1101-EX-***x***-G
&	500mm	400mm	200mm	7Ah	✓	✓	DA1107-EX-***x***-G
5-Port Gigabit switch				10Ah	✓	✓	DA1110-EX-***x***-G

Rack-mount *Secure*PoE™ *Midspan*

Secure power over Ethernet

- Midspan power injector with 4 or 8 load output ports
- Non-bridged ports, connect PoE devices independently, with or without data connections
- Up to 30W of load power simultaneously available from each port
- Automatic load class detection
- Compatible with all IEEE 802.3:2012 *(IEEE 802.3at:2009 and IEEE 802.3af:2003)* devices
- 90-270V AC, 47-63Hz universal mains input
- Ultra high efficiency operation - up to 96% *(tested with 120W load)*
- System power status LED and monitoring contacts
- Individual port power status LED's
- Monitoring relay contacts can be used for analogue or network interface
  (e.g. AVIs, alarm logs, device alarm inputs; or triggering ancillary equipment)
- 1U Rack-mount SecurePoE with remote battery packs
- Front panel tamper switch
- Designed for ease of fitting and high reliability

DANTECH SecurePoE™

DA1000-RM-8

PoE Ports	Width	Height	Depth	Battery capacity	10/100Mbps	Gigabit	Product code
4 or ***8*** x 30W	1U *(44mm)*	19" *(478mm)*	15" *(380mm)*	-	✓ ✓	 ✓	DA1000-RM-***x*** DA1000-RM-***x***-G

** **x** = number of PoE ports, e.g. DA1000-RM-4*

Rack-mount *Secure*PoE™ *Midspan*UPS™

Secure power over Ethernet with VRLA battery back-up

- Includes all features of the rack-mount SecurePoE Midspan design
- Customised Yuasa battery pack(s) included
- Maintain 30W per channel of Power over Ethernet without mains power available
- Battery packs are remote and are supplied with plug-in lead
  (designed for shelf or floor mounting, while saving rack space)
- Available with ***1.2Ah***, ***7Ah*** and ***10Ah*** battery pack capacities
- Battery packs feature carry handles
- Tamper switching loop includes the front panel, battery lead and battery pack
- Automatic battery low voltage deep discharge protection
- Mains fail and low battery relay monitoring contacts
- Guaranteed replacement battery pack availability
- Four port versions use one battery pack *(included)*
- Eight port versions use two battery packs *(included)*
  (use standby time figures for four port versions)

YUASA BATTERY DANTECH SecurePoE™ CISCO

DA1107-RM-4-G

PoE Ports	Width	Height	Depth	Battery capacity	10/100Mbps	Gigabit	Product code
4 or ***8*** x 30W	1U *(44mm)*	19" *(478mm)*	15" *(380mm)*	1.2Ah *(210 x 100 x 145mm)*	✓ ✓	 ✓	DA1001-RM-***x*** DA1001-RM-***x***-G
				7Ah *(290 x 160 x 200mm)*	✓ ✓	 ✓	DA1007-RM-***x*** DA1007-RM-***x***-G
				10Ah *(290 x 160 x 200mm)*	✓ ✓	 ✓	DA1010-RM-***x*** DA1010-RM-***x***-G

Rack-mount *Secure*PoE™ *Multispan*™

Secure power over Ethernet with 5-Port network switch

- Connect up to four devices with a single non-powered Ethernet data cable
- 1U Rack-mount SecurePoE with remote battery packs
- Power injector with 4 load output ports
- Non-bridged PoE ports, connect PoE devices independently with or without data connections
- Compatible with all IEEE 802.3:2012 *(IEEE 802.3at:2009 and IEEE 802.3af:2003)* devices
- Up to 30W of load power simultaneously available from each port
- 90-270V AC, 47-63Hz universal mains input
- Ultra high efficiency operation - up to 96% *(tested with 120W load)*
- System power status LED & monitoring contacts
- Individual port power status LEDs and monitoring contacts
- Monitoring relay contacts can be used for analogue or network interface
  (e.g. AVIs, alarm logs, device alarm inputs; or triggering ancillary equipment)
- Innovative fast entry cable system
- Front panel tamper switch
- Fully backward compatible with automatic load class detection
- Designed for ease of fitting and high reliability

PoE Ports	Width	Height	Depth	Battery capacity	10/100Mbps	Gigabit	Product code
4 x 30W	1U *(44mm)*	19" *(478mm)*	15" *(380mm)*	-	✓	✓	DA1100-RM-4-G

Rack-mount *Secure*PoE™ *Multispan*UPS™

Secure power over Ethernet with 5-Port network switch and VRLA battery back-up

- Includes all features of the rack-mount SecurePoE Multispan design
- Customised Yuasa battery pack included
- Maintain 30W per channel of Power over Ethernet without mains power available
- Battery packs are remote and are supplied with plug-in lead
  (designed for shelf or floor mounting, while saving rack space)
- Available with ***1.2Ah***, ***7Ah*** and ***10Ah*** battery pack capacities
- Battery packs feature carry handles
- Tamper switching loop includes the front panel, battery lead and battery pack
- Automatic battery low voltage deep discharge protection
- Mains fail and low battery relay monitoring contacts
- Guaranteed replacement battery pack availability

DA1107-RM-4-G

PoE Ports	Width	Height	Depth	Battery capacity	10/100Mbps	Gigabit	Product code
4 x 30W ***&*** ***5-Port Gigabit switch***	1U *(44mm)*	19" *(478mm)*	15" *(380mm)*	1.2Ah *(210 x 100 x 146mm)*	✓	✓	DA1101-RM-4-G
				7Ah *(290 x 160 x 200mm)*	✓	✓	DA1107-RM-4-G
				10Ah *(290 x 160 x 200mm)*	✓	✓	DA1110-RM-4-G

	Indoor wall mount	Exterior wall mount	19" Rack-mount
Standard (Non-battery)			
1 x 30W PoE+ injector	DA1000-IN-1	DA1000-EX-1	-
2 x 30W PoE+ injector	DA1000-IN-2	DA1000-EX-2	-
4 x 30W PoE+ injector	DA1000-IN-4	DA1000-EX-4	DA1000-RM-4
8 x 30W PoE+ injector	-	-	DA1000-RM-8
1 x 30W Gigabit PoE+ injector	DA1000-IN-1-G	DA1000-EX-1-G	-
2 x 30W Gigabit PoE+ injector	DA1000-IN-2-G	DA1000-EX-2-G	-
4 x 30W Gigabit PoE+ injector	DA1000-IN-4-G	DA1000-EX-4-G	DA1000-RM-4-G
8 x 30W Gigabit PoE+ injector	-	-	DA1000-RM-8-G
1 x 30W Gigabit PoE+ injector & 5-Port Gigabit switch	DA1100-IN-1-G	DA1100-EX-1-G	-
2 x 30W Gigabit PoE+ injector & 5-Port Gigabit switch	DA1100-IN-2-G	DA1100-EX-2-G	-
4 x 30W Gigabit PoE+ injector & 5-Port Gigabit switch	DA1100-IN-4-G	DA1100-EX-4-G	DA1100-RM-4-G
Battery maintained 1.2Ah			
1 x 30W PoE+ injector	DA1001-IN-1	DA1001-EX-1	-
2 x 30W PoE+ injector	DA1001-IN-2	DA1001-EX-2	-
4 x 30W PoE+ injector	DA1001-IN-4	DA1001-EX-4	DA1001-RM-4
8 x 30W PoE+ injector	-	-	DA1001-RM-8
1 x 30W Gigabit PoE+ injector	DA1001-IN-1-G	DA1001-EX-1-G	-
2 x 30W Gigabit PoE+ injector	DA1001-IN-2-G	DA1001-EX-2-G	-
4 x 30W Gigabit PoE+ injector	DA1001-IN–4-G	DA1001-EX-4-G	DA1001-RM-4-G
8 x 30W Gigabit PoE+ injector	-	-	DA1001-RM-8-G
1 x 30W Gigabit PoE+ injector & 5-Port Gigabit switch	DA1101-IN-1-G	DA1101-EX-1-G	-
2 x 30W Gigabit PoE+ injector & 5-Port Gigabit switch	DA1101-IN-2-G	DA1101-EX-2-G	-
4 x 30W Gigabit PoE+ injector & 5-Port Gigabit switch	DA1101-IN-4-G	DA1101-EX-4-G	DA1101-RM-4-G
Replacement battery pack part code:	**DA1001-IN-BATT**	**DA1001-EX-BATT**	**DA1001-RM-BATT**
Battery maintained 7Ah			
1 x 30W PoE+ injector	DA1007-IN-1	DA1007-EX-1	-
2 x 30W PoE+ injector	DA1007-IN-2	DA1007-EX-2	-
4 x 30W PoE+ injector	DA1007-IN-4	DA1007-EX-4	DA1007-RM-4
8 x 30W PoE+ injector	-	-	DA1007-RM-8
1 x 30W Gigabit PoE+ injector	DA1007-IN-1-G	DA1007-EX-1-G	-
2 x 30W Gigabit PoE+ injector	DA1007-IN-2-G	DA1007-EX-2-G	-
4 x 30W Gigabit PoE+ injector	DA1007-IN-4-G	DA1007-EX-4-G	DA1007-RM-4-G
8 x 30W Gigabit PoE+ injector	-	-	DA1007-RM-8-G
1 x 30W Gigabit PoE+ injector & 5-Port Gigabit switch	DA1107-IN-1-G	DA1107-EX-1-G	-
2 x 30W Gigabit PoE+ injector & 5-Port Gigabit switch	DA1107-IN-2-G	DA1107-EX-2-G	-
4 x 30W Gigabit PoE+ injector & 5-Port Gigabit switch	DA1107-IN-4-G	DA1107-EX-4-G	DA1107-RM-4-G
Replacement battery pack part code:	**DA1007-IN-BATT**	**DA1007-EX-BATT**	**DA1007-RM-BATT**
Battery maintained 10Ah			
1 x 30W PoE+ injector	DA1010-IN-1	DA1010-EX-1	-
2 x 30W PoE+ injector	DA1010-IN-2	DA1010-EX-2	-
4 x 30W PoE+ injector	DA1010-IN-4	DA1010-EX-4	DA1010-RM-4
8 x 30W PoE+ injector	-	-	DA1010-RM-8
1 x 30W Gigabit PoE+ injector	DA1010-IN-1-G	DA1010-EX-1-G	-
2 x 30W Gigabit PoE+ injector	DA1010-IN-2-G	DA1010-EX-2-G	-
4 x 30W Gigabit PoE+ injector	DA1010-IN-4-G	DA1010-EX-4-G	DA1010-RM-4-G
8 x 30W Gigabit PoE+ injector	-	-	DA1010-RM-8-G
1 x 30W Gigabit PoE+ injector & 5-Port Gigabit switch	DA1110-IN-1-G	DA1110-EX-1-G	-
2 x 30W Gigabit PoE+ injector & 5-Port Gigabit switch	DA1110-IN-2-G	DA1110-EX-2-G	-
4 x 30W Gigabit PoE+ injector & 5-Port Gigabit switch	DA1110-IN-4-G	DA1110-EX-4-G	DA1110-RM-4-G
Replacement battery pack part code:	**DA1010-IN-BATT**	**DA1010-EX-BATT**	**DA1010-RM-BATT**

Find out more at www.dantech.uk.com

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Estimated stand-by times

The Cisco network switch included with MultispanUPS, is also VRLA battery backed in addition to PoE outputs.

	Battery capacity		
Output load	**1.2Ah**	**7Ah**	**10Ah**
5W	9 Hours	65 Hours	100 Hours
12W	4 Hours	30 Hours	44 Hours
25W	1.75 Hours	14.5 Hours	20 Hours
50W	40 Minutes	6.5 Hours	9.5 Hours
75W	23 Minutes	4 Hours	6 Hours
100W	14 Minutes	2.75 Hours	4 Hours

The enclosed information is believed to be correct. Information may change 'without notice' due to product improvement. Users should ensure that the product is suitable for their use. E&OE. Registered Proprietor: Benham (General Engineers) Ltd (No. 1181752) Registered at 3 Galliford Road Industrial Estate, Heybridge, Maldon, Essex CM9 4XD, UK. Directors: R.A.Scott, K.E.Horwood, T.J.Scott, N.J.Scott. VAT Reg. GB 28276273 Tel:+44(0)1621 856 850 Fax:+44(0)1621 856 162 sales@dantech.uk.com