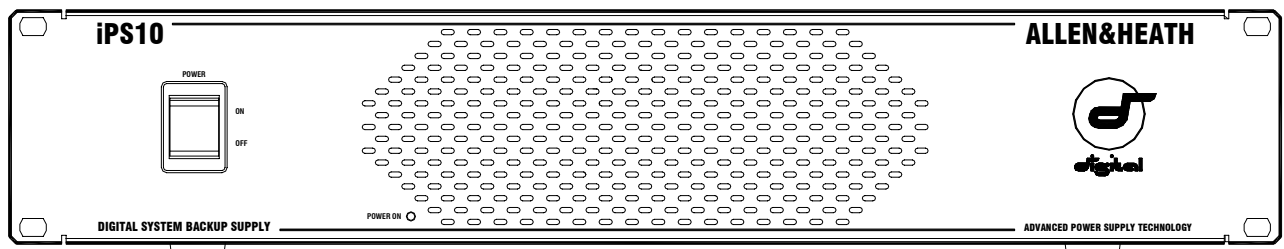


ALLEN&HEATH



iPS10

Digital Console Backup Power Supply

USER GUIDE

Publication AP6688

Limited Two Year Warranty

This product has been manufactured in the UK by ALLEN & HEATH and is warranted to be free from defects in materials or workmanship for a period of two years from the date of purchase by the original owner.

To ensure a high level of performance and reliability for which this equipment has been designed and manufactured, read this User Guide before operating.

In the event of a failure, notify and return the defective unit to ALLEN & HEATH or its authorised agent as soon as possible for repair under warranty subject to the following conditions:

Conditions Of Warranty

1. The equipment has been installed and operated in accordance with the instructions in this User Guide
2. The equipment has not been subject to misuse either intended or accidental, neglect, or alteration other than as described in the User Guide or Service Manual, or approved by ALLEN & HEATH.
3. Any necessary adjustment, alteration or repair has been carried out by ALLEN & HEATH or its authorised agent.
4. The defective unit is to be returned carriage prepaid to ALLEN & HEATH or its authorised agent with proof of purchase.
5. Units returned should be packed to avoid transit damage.

In certain territories the terms may vary. Check with your ALLEN & HEATH agent for any additional warranty, which may apply.



This product complies with the European Electromagnetic Compatibility directives 89/336/EEC & 92/31/EEC and the European Low Voltage Directives 73/23/EEC & 93/68/EEC.

Any changes or modifications to the power supply unit not approved by Allen & Heath could void the compliance of the product and therefore the users authority to operate it.

iPS10 User Guide AP6688 Issue 1.

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ALLEN&HEATH

Manufactured in the United Kingdom by Allen & Heath Limited

Kernick Industrial Estate, Penryn, Cornwall, TR10 9LU, UK

<http://www.allen-heath.com>

WARNINGS - Read the following before proceeding :



ATTENTION: RISQUE DE CHOC ELECTRIQUE – NE PAS OUVRIR

- Read instructions:** Retain these safety and operating instructions for future reference. Adhere to all warnings printed here and on the power supply unit. Follow the operating instructions printed in this User Guide.
- Do not remove covers:** Operate the power supply unit with its covers correctly fitted. Refer any service work on the power supply unit to competent technical personnel only.
- Power sources:** Connect the power supply unit to a mains power supply only of the type described in this User Guide and marked on the rear panel. Use only the power cord with sealed mains plug appropriate for your local mains supply as provided with the power supply unit. If the provided plug does not fit into your outlet consult your service agent for assistance.
- Power cord routing:** Route the power cord so that it is not likely to be walked on, stretched or pinched by items placed upon or against it.
- Grounding:** Do not defeat the grounding and polarisation means of the power cord plug. Do not remove or tamper with the ground connection in the power cord.



WARNING: This equipment must be earthed.

- Water and moisture:** To reduce the risk of fire or electric shock do not expose the power supply unit to rain or moisture or use it in damp or wet conditions. Do not place containers of liquid on it which might spill into any openings.
- Ventilation:** Do not obstruct the ventilation slots or position the power supply unit where the air flow required for ventilation is impeded. If the power supply unit is to be operated in a flightcase ensure that it is constructed to allow adequate ventilation.
- Heat and vibration:** Do not locate the power supply unit in a place subject to excessive heat or direct sunlight as this could be a fire hazard. Locate the power supply unit away from any equipment which produces heat or causes excessive vibration.
- Servicing:** Switch off the equipment and unplug the power cord immediately if it is exposed to moisture, spilled liquid, objects fallen into the openings, the power cord or plug become damaged, during lightening storms, or if smoke, odour or noise is noticed. Refer servicing to qualified technical personnel only.
- Installation:** Install the power supply unit in accordance with the instructions printed in this User Guide. Do not connect the output of power supply unit to any other equipment other than that specified by Allen & Heath.



Important Mains plug wiring instructions.

The power supply unit is supplied with a moulded mains plug fitted to the AC mains power lead. Follow the instructions below if the mains plug has to be replaced.

The wires in the mains lead are coloured in accordance with the following code:

TERMINAL		WIRE COLOUR	
		European	USA/Canada
L	LIVE	BROWN	BLACK
N	NEUTRAL	BLUE	WHITE
E	EARTH GND	GREEN & YELLOW	GREEN

The wire which is coloured Green and Yellow must be connected to the terminal in the plug which is marked with the letter E or with the Earth symbol. **This appliance must be earthed.**

The wire which is coloured Blue must be connected to the terminal in the plug which is marked with the letter N.

The wire which is coloured Brown must be connected to the terminal in the plug which is marked with the letter L.

Ensure that these colour codes are followed carefully in the event of the plug being changed.

Precautions

- Damage :** To prevent damage to the power supply unit cosmetics, avoid placing heavy objects on the unit, scratching the surface with sharp objects, or subjecting the power supply unit to rough handling and vibration.
- Environment :** Protect from excessive dirt, dust, heat and vibration when operating and storing. Avoid tobacco ash, smoke, drinks spillage, and exposure to rain and moisture. If the power supply unit becomes wet, switch off and remove power immediately. Allow to dry out thoroughly before using again.
- Cleaning :** Avoid the use of chemicals, abrasives or solvents. The power supply unit is best cleaned with a soft brush and dry lint-free cloth. If the ventilation grilles become blocked with dust use a vacuum cleaner to suck the dirt out. Do not remove the cover to clean the unit.
- Transporting :** The power supply unit should be transported in the original packing or purpose built flightcase to protect it from damage during transit.
- DC power cable:** Plan the location of the mixing console and power supply unit so that the DC power and CAT5 cables are not fully extended. Full extension of the cable can stress the mixing console and power supply unit connectors and may result in undesired performance. Ensure that the power cable is located such that it cannot be stood on or tripped over.

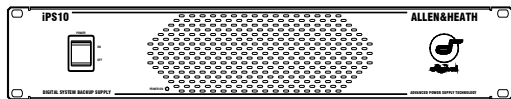
Introduction

This user guide presents a quick reference to the **iPS10** digital console power supply unit. We recommend that you read this fully before starting. Included is information on installing, connecting and operating the power supply unit along with panel drawings and technical specification. Whilst we believe the information in this guide to be reliable we do not assume responsibility for inaccuracies. We also reserve the right to make changes in the interest of further product development.

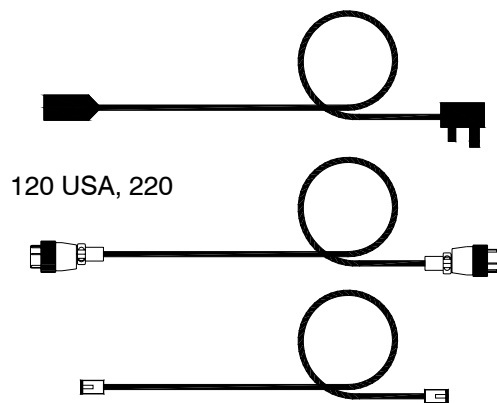
We are able to offer further product support through our worldwide network of approved dealers and service agents. You can also access our Web site (www.allen-heath.com) for information on our company and its pedigree, our full product range and our design philosophy. To help us provide the most efficient service please keep a record of your power supply unit serial number, and date and place of purchase to be quoted in any communication regarding this product. The serial number is located on the rear panel.

Check the Packing Contents

Retain the product packing should you need to ship the product in future. You should find the following components:



1x **iPS10** POWER SUPPLY UNIT. This is packed with its rubber feet fitted. The feet can be removed for rack mounting.



1x IEC MAINS LEAD with moulded plug. Check that the plug is suitable for connection to your local mains supply.

iPS10/n

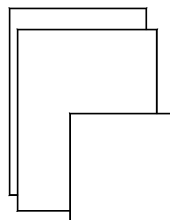
Where n = mains voltage 120 (USA), 220 (EU), 240 (UK)

1x DC POWER CABLE 2.8m male>female 10-pin.

Part number **003-576**. Connects the **iPS10** power rails to the iLive Surface or iDR0 MiniRack backup supply input.

1x CAT5 CABLE 2.8m RJ45 connections.

Part number **AH6831**. Connects the **iPS10** to the iLive Surface or iDR0 MiniRack backup temperature monitor input.



DOCUMENTATION including the User Guide **AP6688**, Safety Sheet **AP3345**, and the Registration Card **AP3594**.

The iPS10 Power Supply

The slimline, 2U rack mountable **iPS10** power supply unit is a high performance, low noise, universal mains voltage, switched mode power supply producing the DC voltages required to run the iLive Surface or IDR0 MiniRack. It is available as an option to provide redundant backup of the internal mains power supplies fitted in these iLive components. The iLive will operate with either or both supplies switched on.

Two connecting cables are required between the **iPS10** and iLive. The power unit produces 5 different DC voltages and has three independent ground connections. These connect to the iLive via a 2.8 meter long multicore DC cable fitted with 10-pin circular locking connectors. Voltage rail protection, thermal sensing and fan cooling ensure the power supply unit will operate consistently. The power unit temperature information connects to the iLive via a 2.8 meter long CAT5 cable. Current status may be viewed by the operator on the iLive Surface TouchScreen.

Installation

Free standing

The **iPS10** can be operated as a freestanding unit for shelf or floor operation. Check that its plastic feet are fitted. Ensure adequate air flow around the unit. It must not be covered in any way. Always stand the unit on a firm flat surface away from any soft furnishings or carpet.

Rack mounting

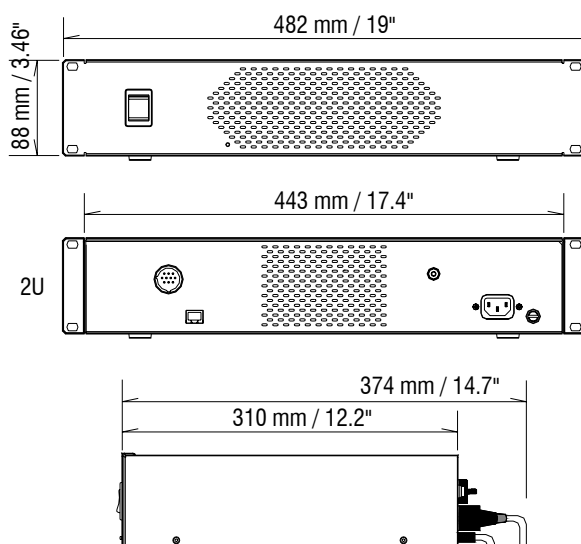
The **iPS10** is designed as a 19 inch rack mount unit and will occupy 2U (3.5 inches) of rack space. The plastic feet may need to be removed before rack mounting. Retain the feet for future use. Ensure natural convection of airflow around the unit by allowing good ventilation below, in front of and behind the unit. Rack equipment known to produce a significant amount of heat should not be mounted directly below the power supply unit. Forced convection by means of a rack mounted fan-tray may be desirable in situations where space is restricted and the ambient air temperature is high.

Cables

The DC power and temperature monitor cables are 2.8 meters long to allow the unit to be positioned away from the console. Make sure the cables are not stretched in any way and are routed to avoid becoming kinked or damaged. Allow enough service loop for access and removal of the unit. Ensure all connectors are fully plugged in and locked.

Consideration should be given to the earthing (grounding) arrangement of the system. The iLive chassis is connected to the mains earth via the power supply unit. Do not remove the IEC power cord earth connection. A screw terminal chassis grounding post is provided on the rear of the **iPS10** for situations where additional earth bonding is required.

Dimensions

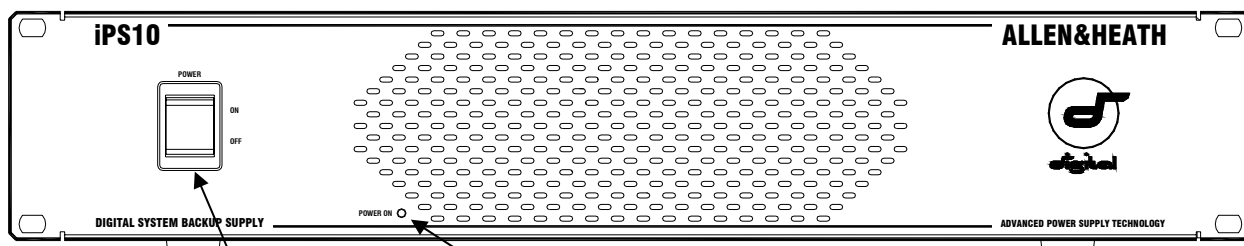


⚠ Do not obstruct the ventilation slots. Ensure adequate air flow around the iPS10.

⚠ Ensure proper grounding. Do not remove the IEC mains cord earth (ground) connection.

⚠ Do not remove the cover of the iPS10. There are no user serviceable parts inside.

Controls and Connections



POWER ON/OFF

Press to switch the **iPS10** power unit on or off. The internal fan runs at constant speed while the unit is switched on.

POWER STATUS

The blue indicator lights at full brightness while the unit is switched on and working correctly. If the indicator does not light check that mains power is switched on and the IEC mains cord properly inserted. If the indicator lights at half brightness there may be a voltage rail fault. If this is the case switch the unit off and contact your Allen & Heath service agent.

DC POWER OUT

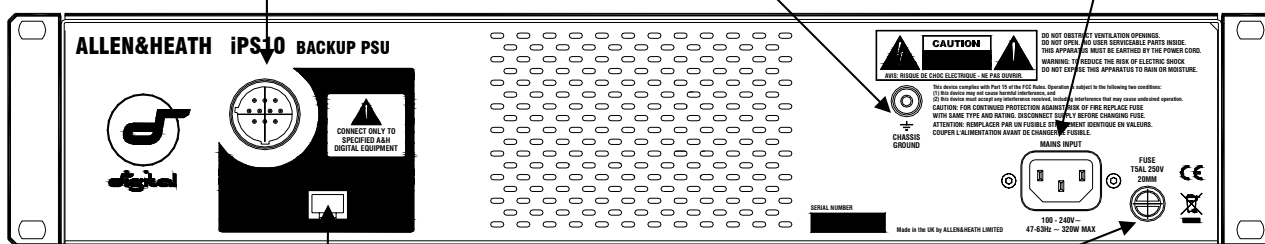
10-pin female socket to output the 5 DC voltage rails and 3 ground connections. It also has two pins for power status information. Plug in the DC power cable supplied with the unit. Do this by rotating the male plug until the mating tabs align with the socket, then insert fully and tighten the locking screw ring. Be careful not to cross thread the screw ring.

GROUND POST

Chassis metal grounding (earthing) post for attaching a grounding wire to other equipment or metal cases or racks in the system if needed. For best results use heavy duty wire. Note that the **iPS10** metalwork is grounded via the mains cord. Do not defeat this connection.

MAINS INPUT

Plug in the IEC mains cord supplied with the unit. Make sure it is inserted fully and has not been modified in any way.



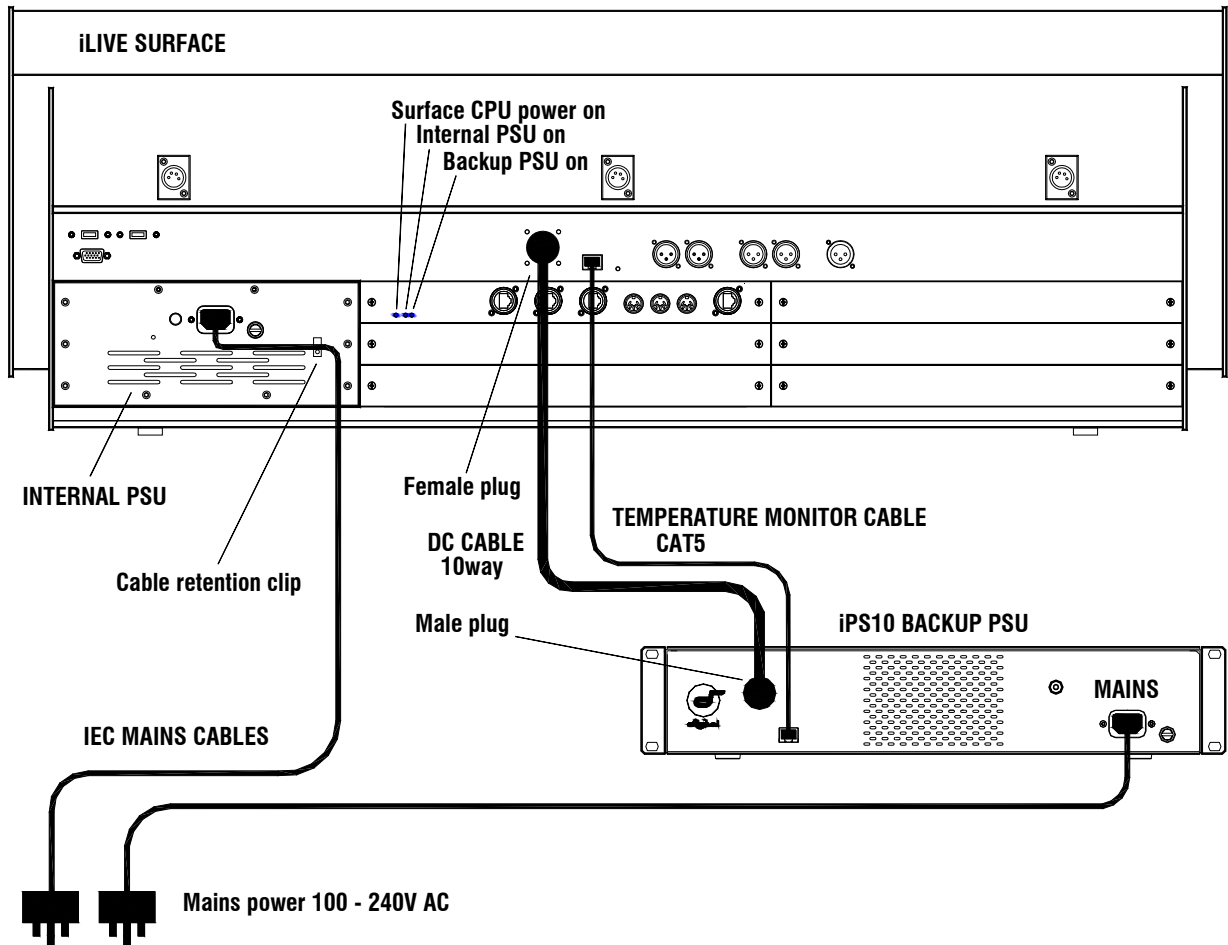
TEMPERATURE MONITOR

RJ45 socket to output the temperature status information to the iLive. Use the CAT5 cable supplied with the unit. A sensor monitors the temperature inside the unit. The supply shuts down safely if the internal temperature reaches 85 degrees C. A fan inside the unit prevents it running too hot.

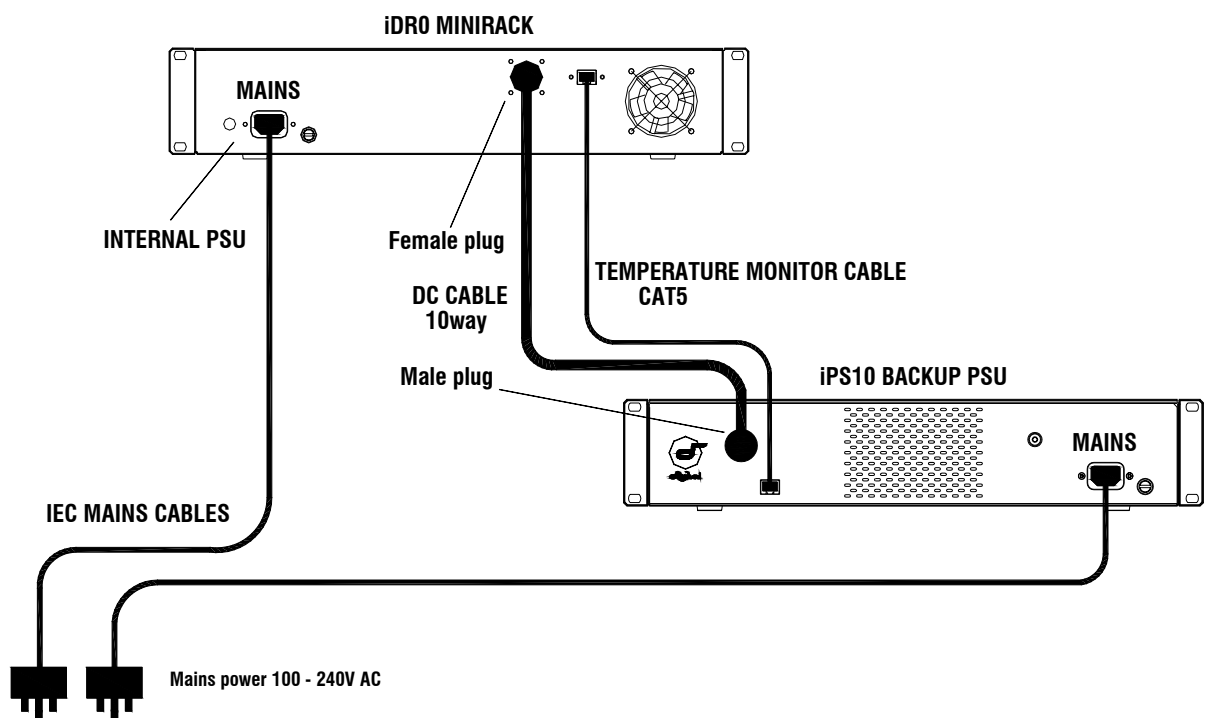
MAINS FUSE

To check or replace the fuse use a flat bladed screwdriver or coin to push in and rotate the fuse holder until it pops out. Always replace with the correct type and value (T5AL 20mm 250V). In the event of repeated failure of the mains fuse, consult your Allen & Heath service agent.

Connecting the iPS10 to the iLive Surface



Connecting the iPS10 to the iDR0 MiniRack



Notes on Operating the iPS10

The **iPS10** is intended as a backup power supply for iLive system components. At the time of release of this user guide it can be used with any of the 4 surfaces (iLive-80, iLive-112, iLive-144 and iLive-176) and the iDR0 DSP MiniRack. These components can operate using their internal mains power units only. Connecting the iPS10 in addition to the internal supply provides dual supply redundancy. The component can be operated with either or both supplies switched on. It continues to operate without interruption if either supply is switched off or loses power.

The **iPS10** features a universal mains voltage input that can accept any AC mains voltage between 100 and 240V AC. We recommend that it is run on the same power distribution that feeds the iLive unit being connected to. For protection against temporary loss of mains power an external UPS (uninterruptible power supply) could be used.

Make sure the **iPS10** and the iLive unit being connected to are both turned off before plugging or unplugging the mains and DC POWER cables.

Blue LED indicators on the CPU module at the rear of the iLive surface light to indicate that the power supplies are switched on and working correctly. There is one for the internal surface supply and one for the backup supply. The **iPS10** sends power good/fail status signals to the iLive via its 10way DC cable.

The **iPS10** front panel blue POWER ON indicator lights at full brightness to indicate normal operation. If a voltage rail fault is detected then it reduces to half brightness. If this happens, switch the unit off and contact your Allen & Heath service agent.

The **iPS10** has an internal fan to assist cooling and ventilation. The fan runs at constant speed. Thermal protection is provided to safely shut down the power rails if the unit reaches 85 degrees C internally. If this happens check that the fan is running, the ventilation slots are not blocked and there is adequate airflow around the unit. Switch the unit off and allow it to cool. When it has cooled sufficiently it automatically resets and resumes operation.

The CAT5 cable provided with the unit is used to send the temperature status to the iLive. The current temperature measured within the **iPS10** is displayed on the iLive Surface TouchScreen Utility/Diagnostics/Temperature Display page. The minimum and maximum temperatures reached are also displayed. These values can be reset.

Technical specification

Technology	Switched mode with power factor correction
Mains input	IEC connector
Mains voltage	85 to 250V AC, 47 to 63 Hz ~
Power consumption	320W max
Mains fuse	T5AL 250V 20mm.
DC voltage rails	+8, +18, -18, +24, +57 V DC
DC output	10-pin female circular chassis mounted socket
Temperature sense	RJ45 connector
DC cable	2.8m multicore male to female. A&H part number 003-576
Temperature cable	2.8m CAT5 RJ45. A&H part number AH6831
Protection	Under voltage detection and thermal sensing
Cooling	Fan assisted. Thermal shutdown at 85 degrees C
Installation	2U rack mount (integral ears) or free standing (plastic feet fitted)
Dimensions	Rack mounted 482 x 310 x 88mm (2U) 19" x 12.2" x 3.46" Free standing 482 x 310 x 92mm (including feet) 19" x 12.2" x 3.6" Minimum clearance at rear for connectors 64mm (2.5") min Packed 580 x 510 x 210mm 22.9" x 20" x 8.3"
Weight	Unpacked 7 kg (15.4 lbs) Packed 8.5 kg (18.7 lbs)

