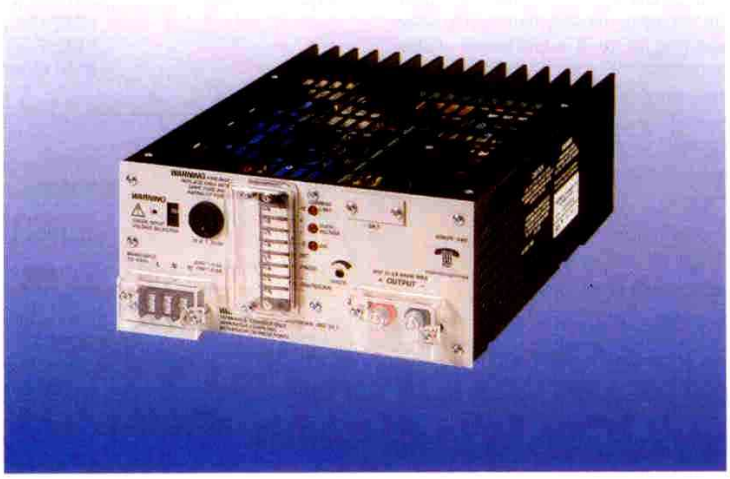
Downloaded from
Advance Product Services Ltd.
For repairs and replacements, visit
http://www.advanceproductservices.co.uk



SUMMARY SPECIFICATION

Model Number	Input Voltage	Nominal Voltage	Adjustment Range	Output Current	Cooling	Dimensions
GS60012	92 – 132V a.c. 176 – 264V a.c.	12V	8 – 12.6V	0 – 50A	Convection	280 x 200 x 88mm 11.02 x 7.87 x 3.46 in.
GS60024		24V	16 – 29V	0 – 25A at 24V 20.7A at 29V	Convection	
GS60048		48V	35 – 58V	0 – 12.5A at 48V 10.3A at 58V	Convection	

INPUT SPECIFICATION

Input Voltage	92 – 132V a.c. on 115V tap. 176 – 264V a.c. on 230V tap.
Frequency	45 – 440Hz.
Supply Type	Single phase TN-S systems (as defined in IEC364). i.e. systems with a separate earth conductor which is directly connected to the neutral conductor at the source.
Efficiency	Minimum 70% when loaded to maximum rated output power.

OUTPUT SPECIFICATION

Voltage	Nominal output voltages and adjustment ranges are shown in the summary specification above.
Current	Recommended maximum continuous current ratings (I_{MAX}) are shown in the summary specification above. Above 24V or 48V, derate linearly to 20.7A at 29V or 10.3A at 58V. All maximum current ratings are applicable up to 55°C. From 55°C to 70°C derate linearly from I_{MAX} at 55°C to 50% I_{MAX} at 70°C.
Combined Regulation	0.1% V_{NOM} maximum for an input variation from 198V to 264V or from 103.5V to 132V combined with a load change from 0 to I_{MAX}.
Ripple and Noise	With the output loaded to I_{MAX}, the differential noise voltage over the frequency range 10Hz – 30MHz does not exceed 20mV r.m.s, 50mV pk-pk, except GS60048 at 75mV pk-pk.

PROTECTION

Hold Up	All units have sufficient energy storage to ride through a missing mains cycle when supplying full rated output power. At low mains input, 198V or 103V hold up >28ms.
Output Overvoltage	The output is protected against overvoltage. Unit shutdown will occur at approximately 120% of nominal voltage.
Output Overcurrent	All units are protected against output overload.

AUXILIARY FUNCTIONS

Remote Sense	Available on all units.
Parallel Operation	All units shown are suitable for operation in parallel with other units of the same model number.
Series Operation	Units may be connected in series to provide higher output voltages.
External Voltage Programming	The output voltage of all units is programmable by an external resistor.
External Inhibit	The output current of all units may be inhibited by a relay contact.
External Shutdown	Units may be shut down by a logic signal.
Unit Healthy	Available when option 3 or 6 is specified. Changeover relay contacts indicating normal operation of a unit.
Input Healthy	Available when option 6 is specified. Changeover relay contacts indicating mains input is within operating range of unit.
Indicators	LED indicators are provided for 'Output Present'; 'Overvoltage'; 'Current Limit'.

ISOLATION

Primary to Secondary	Input to output isolation barriers, including layout and wiring, are specified to 4kV a.c. r.m.s. for one minute. Where a safety earth is interposed between primary and secondary, this potential is applied as 2kV a.c. r.m.s. input to earth and 2kV a.c. r.m.s. output to earth. Complete units are tested to 1.5kV a.c. r.m.s between input and earth and simultaneously 1kV a.c. r.m.s. between output and earth giving 2.5kV input to output.

ELECTROMAGNETIC COMPATIBILITY

Exported Noise	All units meet the requirements of BS800; BS6527 Class B; EEC Directive 82/499/EEC; FCC Rules Part 15 Subpart J Class B; VDE0871 Class B

MECHANICAL SPECIFICATION

Mechanical Format	All units are supplied fully enclosed as standard.
Mounting Orientation	Units may be mounted only with the rear heatsink fins vertical.
Ventilation and Cooling	The top and bottom faces of the units require free air flow over the ventilated area and the heatsink area. Units are convection cooled.

ENVIRONMENTAL CONDITIONS

Operating Temperature	–10 to 70°C . See current ratings in output specifications for any deratings required.
Operating Humidity	0 to 95% R.H. non-condensing.

INTERNATIONAL SAFETY STANDARDS

All units have been tested by the following approval bodies to the standards listed and have been approved as being compliant with those standards or with the relevant sections of those standards.

CE marked to the Low Voltage Directive.

BABT	BS6301.
CSA	Bulletin 1402C.
UL	UL1012 + D3.
VDE	EN60950.

For more detailed information on these units please contact your local sales office or agent.

ORDERING INFORMATION

The order code consists of 5 fields:

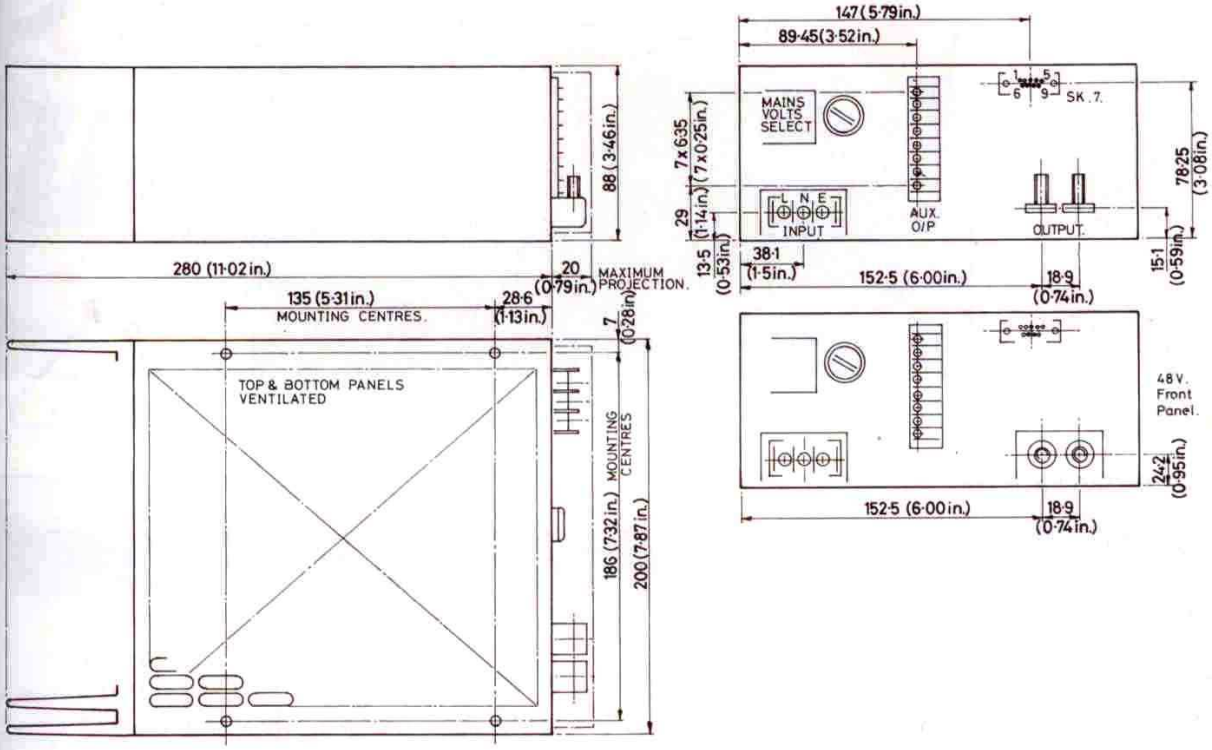
1.	Source Code:	13
2.	Series:	GS
3.	Range:	600
4.	Version:	12, 24 or 48
5.	Options: as required	3 for Unit Healthy relay 6 for Unit Healthy and Input Healthy relays

Note that fields 2, 3 and 4 comprise the basic model number of the unit. e.g. to order model GS60024, with unit healthy relay, the order code is:

13 GS 600 24 3

OUTLINE DRAWING

All dimensions are nominal and are given in mm (inches).



External Dimensions and Mass

280 + 20(11.02 + 0.79) x 200(7.67) x 88(3.46). 5.25kg (11.6lb).

Fixings	4 x M4 ISO standard threaded inserts are provided and are marked 'a' on the outline drawing.
Connectors	The following are provided on the power supply:
Input	3 x 6-32 UNC terminal screws.
Output	12 and 24 versions 12 x M6 x 20mm ISO standard screws.
	48 versions: 2 x M5 ISO standard studs.
Input Voltage Selector	Provided as a switch on the front panel.
Auxiliary Functions	8 x 2-56 UNC terminal screws for standard functions and 9 way 'D' type connector for optional functions.