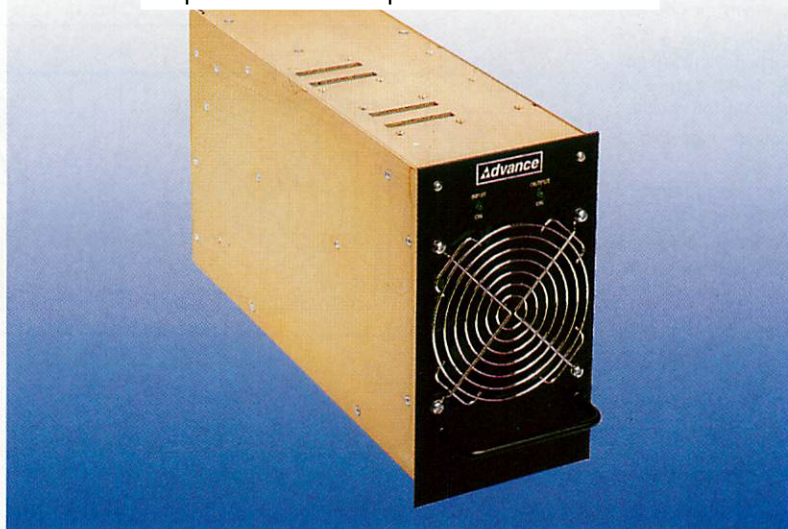




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SUMMARY SPECIFICATION

Model Number	Input Voltage	Output Voltage	Setting Range	Output Current	Current Limit	Cooling	Dimensions
F20006-027	184 – 264V a.c.	27.4V	25 – 28V	0 – 100A	100 – 105A	Internal Fan	127 x 203.2 x 330.2 5.00 x 8.00 x 13.00
F20006-054		54.5V	52 – 56V	0 – 50A	50 – 52.5A	Internal Fan	

INPUT SPECIFICATION

Voltage	184 – 264V r.m.s.
Frequency	45 – 66Hz
Supply Type	Single phase TN-S system (as defined in IEC 364).
Efficiency	Greater than 85% for output loads in excess of 50% I_{MAX} . Typically 87%.
Power Factor Correction	Units have input current correctors to comply with the requirements of EN61000-3-2.

OUTPUT SPECIFICATION

Voltage	The output voltage is factory set to the voltage shown in the summary specification. Alternative output voltage settings are possible in the range shown in the summary specification. Please contact your local sales office or agent to discuss your requirement.
Current	Continuous output current is available up to the current limit point I_{LIM} . For test purposes, measurements are made at the maximum rated output current, I_{MAX} .
Combined Regulation	A worst case combination of input voltage variation of 184V to 264V and output load variation between zero and I_{MAX} results in an output voltage change of less than 0.1% nominal. Optional output droop: This is available to assist current sharing when rectifiers are connected in parallel in a passive sharing system.
Ripple and Noise	The psophometrically weighted noise, in accordance with C.C.I.T.T. No 1, does not exceed 2mV r.m.s. C message weighted noise is less than 32dBnc. The wideband differential output noise over the frequency range 10Hz – 100MHz does not exceed 50mV r.m.s. Individual harmonics do not exceed 2mV r.m.s.

PROTECTION

Hold Up	With the output loaded to 2725W, a hold up time of at least 20ms is available when operating at 198V input.
Output Current Limit	These rectifiers are designed to be able to operate continuously in current limit and are fully protected against output overload.
Output Overvoltage	An output voltage in excess of the trip point of 59.5V on 54V units and 31.5V on 27V units, will cause the rectifier to latch into a shutdown condition. The rectifier is reset by interrupting the mains input.
Parallel Voltage	The rectifier can withstand voltages of up to 63V on 54V models and up to 35V on 27V models applied to the output terminals when it is inoperative.
Thermal Overload	Thermal sensors are fitted to the main heatsink which, under thermal overload conditions, will cause the unit to inhibit until the temperature has reduced to an acceptable level.

AUXILIARY FUNCTIONS

Remote Sense	Provided as standard.
Parallel Operation	Units may be operated with outputs connected in parallel without limitation. Passive or active current sharing can be used.
Remote On/Off	An isolated TTL input is provided to allow for remote switching of the rectifier.
Output Healthy Relay	Isolated changeover relay contacts indicating that the output voltage is within the normal operating range.
Input Healthy	Isolated open collector output and LED indicating that the mains input is within specification.
Output Healthy	Isolated open collector output and LED indicating that the output voltage is within normal operating limits.
Current Limit	Isolated open collector output and LED indicating that the current limit circuitry is operative.
Overvoltage Trip	Isolated open collector output and LED indicating that the unit's overvoltage trip has operated.

ELECTRICAL ISOLATION

Primary to Earth	Units are tested to 1.5kV a.c. r.m.s. from input to earth with both input lines connected together.
Secondary to Earth	Units are tested to 500V a.c. r.m.s. from output to earth, with all outputs and secondary ports (signals) connected together.

Primary to Secondary

Reinforced insulation to 3kV a.c. r.m.s. for one minute. Where a safety earth is interposed between primary and secondary, this potential is split equally between input to earth and output to earth. Complete units are tested to 1.5kV a.c. between input and output with all output terminals connected together and connected to earth

Earth Leakage Current

Less than 3.5mA at 240V 50Hz input.

ELECTROMAGNETIC COMPATIBILITY**Exported Noise**

Units have been tested to and found to comply with the requirements of EN55022 Curve B, FCC Rules part 15 subpart J Class B.

MECHANICAL SPECIFICATION

Mechanical Format	All units are fully enclosed with integral fan.
Mounting Orientation	Units may be mounted in any orientation without derating.
Ventilation and Cooling	Units are forced air cooled and require free air flow in the region of the fan at the rear and over the ventilated front panel.

ENVIRONMENTAL CONDITIONS

Operating Temperature	-5°C to +50°C operating.
Operating Humidity	0 to 85% R.H. non-condensing.

INTERNATIONAL SAFETY APPROVALS

All units are designed in accordance with the requirements of the following standards. Many versions have already obtained various of the approvals. Please contact your local sales office or agent to discuss your specific requirements

CE marked to the Low Voltage Directive

UL	UL1950
CSA	C22.2 #234
VDE	EN60950.

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

ORDERING INFORMATION

The order code is made up of 4 fields:

1 Source code	14	
2 Series	F20006	
3 Output Voltage	27.4V	027
	54.5V	054
4 Mechanical Format	Standard connectors	L1
	Hot plug	R1

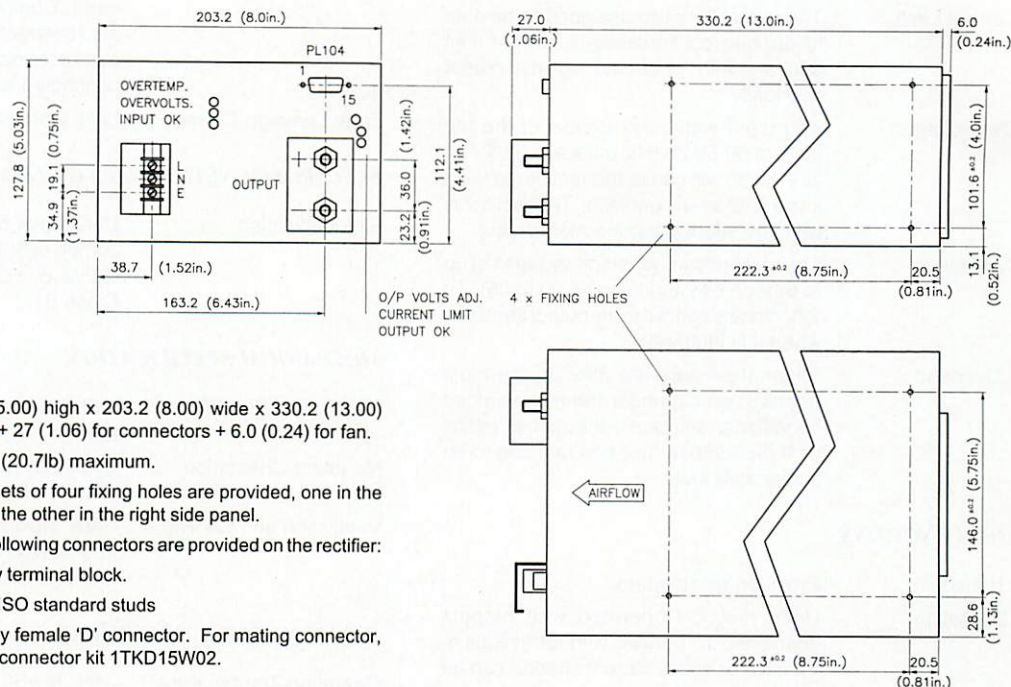
For example, to order a 54V unit with hot plug connectors, the order code is:

14 F20006 -054 R1.

Connector kits may also be ordered from Advance Power. See outline drawings for details.

OUTLINE DRAWING FOR LI VERSION UNITS

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



External Dimensions	127 (5.00) high x 203.2 (8.00) wide x 330.2 (13.00) deep + 27 (1.06) for connectors + 6.0 (0.24) for fan.
Mass	9.4kg (20.7lb) maximum.
Fixings	Two sets of four fixing holes are provided, one in the base, the other in the right side panel.
Connectors	The following connectors are provided on the rectifier:
Input	Screw terminal block.
Output	8mm ISO standard studs
Signals	15 way female 'D' connector. For mating connector, order connector kit 1TKD15W02.

OUTLINE DRAWING FOR RI VERSION UNITS

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

External Dimensions	203.2 (8.00) high x 127 (5.00) wide x 330.2 (13.00) deep. Connectors extend beyond this dimension. A 5U high front panel is fitted, dimensions 221.5 (8.72) x 129.6 (5.10).
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Mass 9.4kg (20.7lb) maximum.

Fixings A captive screw is fitted at the bottom of the front panel.

Connectors

Input and signals	Elcon 'lower drawer' connector. For mating half order connector kit TKL01.
Output	Busbars to mate with Elcon crown clip.

