



# RITENGA DESIGN LTD

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## SPECIFICATION OF 10kW reversible HIGH FREQUENCY POWER SOURCE: 19" enclosure

<b>Electrical:</b>	<b>15V 600A</b>	<b>20V 500A</b>
Input Voltage	400V, +/-10% - three phase, three wire supply (Public Low Voltage network)	
Input Current	9.4A / phase maximum	19.0A / phase maximum
Power Factor	>0.94 at full load	
Efficiency	>88% at full load, with mains at 400Vac	
Output Voltage	15.0V	Adjustable, 0 – 20.0V
Ripple Voltage	<5% peak – peak (dependant upon load characteristic)	
Output Current	Adjustment available 0 – 600A	Adjustment available 0 – 500A
Ripple Current	<5% peak – peak (dependant upon load characteristic)	
Load regulation	<2% for output current = 10 – 100%	
Line regulation	< +/-0.5% for +/-10% mains variation	
Mains Input Protection	20A MCB type B	
Output Current Protection	Internal electronic control of current limit Short circuit protection	
<b>Indication:</b>	Green Led = Mains On	
	Green Led = Unit ON	
	Red Led = Unit Overheating	
	Amber Led = Low current Alarm (Output Current <50%)	
	Red Led = Over Voltage trip	
		Red Led = Over Current trip
		Amber Led = Output Reversed
<b>Control Connections:</b>		
Voltage Monitor	0-10V ⇒ 0-100% output voltage Accuracy <=1%	
Current Monitor	0-10V ⇒ 0-100% output current Accuracy <=1%	
Alarm	Low Current alarm – Normally closed volt free contacts	
Stop / Start (Enable)	Closed contact ⇒ Start (Enable) (= logic 0)	
Output Reversed	Closed contact ⇒ Reverse. Open ⇒ Normal	
Set Output Voltage	Not used	0-10V ⇒ 0-100% output voltage
Set Output Current	0-10V ⇒ 0-100% output current	0-10V ⇒ 0-100% output current
Set Over Voltage Trip	Not used	0-10V ⇒ 0-110% output voltage
Set Over Current Trip	Not used	0-10V ⇒ 0-110% output current
On Standby	Not used	Open Collector ON (logic 0) ⇒ Unit on Standby
Over Voltage trip alarm	Not used	Open Collector ON (logic 0)
Over Current trip alarm	Not used	Open Collector ON (logic 0)
High Temperature alarm	Not used	Open Collector ON (logic 0)
	All isolated to +/-1kV from DC output	

(cont)

<b>Environment:</b>		
Temp range	0 – 40°C	
Max Altitude	1000m (max output current to be reduced above 1000m)	
Cooling	Forced convection from lower face to upper face of unit.	
<b>EMC &amp; Safety:</b>		
Conducted & Radiated EMI	EN55011 / EN55022, level B	
Safety Approvals	EN61010-1:2001	
<b>Mechanical:</b>		
Dimensions	482.6mm(w) x 394.1mm (d) x 212.7mm (h)	
Finish	Front Panel = Powder Coat Paint, colour RAL7035	
Weight	~25kg	
Input Connection	Terminals – on rear panel – Cable Max = 4mmsq	
Output Connection	Busbar – on rear panel – M10 holes	
Control Connection	Terminal block – on rear panel – Cable max 1.0mmsq	20 way idc connector on rear panel

Layout

