

**REQUEST FOR COMMENTS OF STAKEHOLDERS/OEM/FIRMS  
ON QRS (QUALITY REQUIREMENT) & TDS (TRIAL DIRECTIVES)  
OF DC Regulated Power Supply**

1. The proposed QRs/TDs of DC Regulated Power Supply is attached as **Appendix 'A & B'**. The OEMs/Vendors are requested to forward information of the product which they can offer and also forward correct specifications of their system against each parameter. Complied or not complied remarks will not be accepted.
  
2. The required information/details may please be forwarded at the following addresses by **7<sup>th</sup> Dec 2018**.

Directorate General CRPF

East Block-7, Sec-1, R.K. Puram, New Delhi-110066

Email: [comncell@crpf.gov.in](mailto:comncell@crpf.gov.in)

3. An early response is requested.

<b>QRs/Specifications of DC Regulated Power Supply</b>		
<b>Sl. No.</b>	<b>Parameters</b>	<b>Specifications</b>
<b>Output</b>		
1	Variable Voltage Range	0-30V +10% i.e. Max 33 Volts, High Stable
2	Variable Voltage Control	Single Turn Coarse & Fine Control, Continuously adjustable
3	Variable Current Range	0-30A +10% i.e. Max 33 Amps, High Stable
4	Variable Current Control	Single Turn Coarse & Fine Control, Continuously adjustable
5	Configuration	Constant Voltage (CV) & Constant Current (CC)
6	Load Regulation	$< = \pm 0.1\% + 2\text{mV}$ for V 10% change in line Voltage
7	Line Regulation	$< = \pm 0.1\% + 2\text{mV}$ for load change on Zero to Full load
8	Ripple & Noise	1mV RMS Max. 20 Hz to 20 MHz
9	Stability	Total drift within 8 hours, after 30 minutes warm-up under constant line, load & temperature. $< \pm 0.2\% \pm 10 \text{ mV}$ in CV Mode. $< \pm 0.2\% \pm 0.5 \text{ mA}$ in Current Mode.
10	Transient Response	0.1 Sec to within 10 mV of set output voltage for load change from 10% to 90%
11	Total output power	Nominal 900 Watts Maximum 1090 Watts
12	Meters	2- Individual 3 Digit LED DPM'S to indicate Volts & Amps.
13	Meter accuracy	$< = \pm 0.5\%$ READ $\pm 1$ Digit CAL Ref Voltage 1 Volt
14	Terminals	Provided on the front panel with BTI-30 Red & Black
15	Instrument insulation	Chassis & O/P Terminals 20 M $\Omega$ Chassis I/P Cable 100 M $\Omega$
<b>Input</b>		
1	Voltage/Frequency	230 V, 50 Hz Single Phase AC
2	Total input VA	1300 VA @ 90% Efficiency
3	Input Current Rating	Nominal 5.65 Amps @ 230 Volts Maximum 6.28 Amps @ 207 Volts
4	Connection	3 Pin , 15 Amps Moulded Cord
<b>Protection</b>		
1	Overload & Short Circuit	Through CC Mode DC Fuse plus MCB as well as AC MCB
<b>Environmental</b>		
1	Operating Temperature	0 to 55°C
2	Humidity	90% at 45° C Non-Condensing
3	Cooling	Forced Air + Natural Convection Cooling
<b>Other Conditions</b>		
1	All Measuring/ Charging probes with connectors should be provided	
2	Spare Fuse should be Provided by firm	

<b>Trial Directives of DC Regulated Power Supply</b>			
<b>Sl. No.</b>	<b>Parameters</b>	<b>Specifications</b>	<b>Trial Procedures</b>
<b>Output</b>			
1	Variable Voltage Range	0-30V +10% i.e. Max 33 Volts, High Stable	Board will check practically.
2	Variable Voltage Control	Single Turn Coarse & Fine Control, Continuously adjustable	Board will check practically.
3	Variable Current Range	0-30A +10% i.e. Max 33 Amps, High Stable	Board will check practically.
4	Variable Current Control	Single Turn Coarse & Fine Control, Continuously adjustable	Board will check practically.
5	Configuration	Constant Voltage (CV) & Constant Current (CC)	Board will check practically.
6	Load Regulation	$< = \pm 0.1\% + 2\text{mV}$ for V 10% change in line Voltage	Firm will submit OEM Certificate.
7	Line Regulation	$< = \pm 0.1\% + 2\text{mV}$ for load change on Zero to Full load	Firm will submit OEM Certificate.
8	Ripple & Noise	1mV RMS Max. 20 Hz to 20 MHz	Firm will submit OEM Certificate.
9	Stability	Total drift within 8 hours, after 30 minutes warm-up under constant line, load & temperature. $< \pm 0.2\% \pm 10 \text{ mV}$ in CV Mode. $< \pm 0.2\% \pm 0.5 \text{ mA}$ in Current Mode.	Firm will submit OEM Certificate.
10	Transient Response	0.1 Sec to within 10 mV of set output voltage for load change from 10% to 90%	Firm will submit OEM Certificate.
11	Total output power	Nominal 900 Watts Maximum 1090 Watts	Board will check practically and Firm will also submit OEM Certificate.
12	Meters	2- Individual 3 Digit LED DPM'S to indicate Volts & Amps.	Board will check practically.
13	Meter accuracy	$< = \pm 0.5\%$ READ $\pm 1$ Digit CAL Ref Voltage 1 Volt	Firm will submit OEM Certificate.
14	Terminals	Provided on the front panel with BTI-30 Red & Black	Board will check practically.
15	Instrument insulation	Chassi & O/P Terminals 20 M $\Omega$ Chassi * I/P Cable 100 M $\Omega$	Board will check practically.

<b>Input</b>			
1	Voltage/Frequency	230 V, 50 Hz Single Phase AC	Board will check practically.
2	Total input VA	1300 VA @ 90% Efficiency	Board will check practically.
3	Input Current Rating	Nominal 5.65 Amps @ 230 Volts Maximum 6.28 Amps @ 207 Volts	Board will check practically.
4	Connection	3 Pin , 15 Amps Moulded Cord	Board will check practically.
<b>Protection</b>			
1	Overload & Short Circuit	Through CC Mode DC Fuse plus MCB as well as AC MCB	Board will check practically.
<b>Environmental</b>			
1	Operating Temperature	0 to 55°C	Firm will submit certificate of any Govt. Lab or NABL or ILAC accredited laboratory or OEM certificate.
2	Humidity	90% at 45° C Non-Condensing	
3	Cooling	Forced Air + Natural Convection Cooling	Board will check practically.
<b>Other Conditions</b>			
1	All Measuring/ Charging probes with connectors should be provided		Board will check practically.
2	Spare Fuse should be Provided by firm		Board will check practically.