

ANNEXURE: I

Technical Specification for BI-DIRECTIONAL DC POWER SUPPLY with Battery Simulation Software”

S.NO	TECHNICAL SPECIFICATION		COMPLIED/NOT COMPLIED	REFERENCE PG.NO
SOURCE/SINK RATING				
1	Voltage	0 - 100 V		
2	Current	±180A		
3	Power	±6000W		
REGULATION				
4	Line Regulation @Voltage	±0.01% F.S.		
5	Line Regulation @Current	±0.05% F.S		
6	Load Regulation @Voltage	±0.02% F.S.		
7	Load Regulation @Current	±0.1% F.S.		
MEASUREMENT ACCURACY & PROGRAMMING RESPONSE TIME				
8	Voltage	0.05% + 0.05%F.S.		
9	Current	0.1% + 0.1%F.S.		
10	O/P Noise & Ripple Voltage	P-P: 150mV, rms: 25 mV		
11	O/P Noise & Ripple Current	30 mA		
12	Rise & Fall Time (Full Load)	10 ms		
13	Rise & Fall Time (No Load)	10 ms		
SLEW RATE CONTROL				
14	Voltage Range	0.001V/ms~10V/ms		
15	Current Range	0.001A~ 10A/ms		
16	Transient Response Time (CV)	<0.5ms		
MODES OF OPERATION				
17	Source & Load	CC, CV & CP		
18	Drift Voltage (8 hours)	0.02% of Vmax		
19	Drift Current (8 hours)	0.04% of Imax		
20	Dwell time Range	2ms~15000s		
INTERFACE				
21	Standard	USB/LAN/APG interfaces		
22	Display	Front panel Display & Touch Screen controls keys.		
GENERAL				
23	Operating Modes	Two-quadrant operation with source and		
		load functions and battery simulation.		
24	Transient Response	< 1.5mSec		
25	USB Host	Front panel USB Host for test files saving & recall.		

26	Multiple Qty Support	Master/slave mode to increase Current & Power ranges.		
27	Certification	CE Marked & ROHS Compliant product.		
28	Testing compliance	LV 148 & LV 123 Testing compliance Test built in Software		
29	Software Support	Software for control & programming.		
30	Programming & Measurement Resolution	10mV & 10mA.		
31	Height	3U		
32	I/P AC	3Ø 380Vac ~ 480Vac ± 10% & Freq: 47Hz to 63hz, PF: >0.97		
33	Operating Temperature Range	0°C~40°C		
34	Safety Protections	OVP, OCP, OPP, OTP, Fan Fail, and AC Fault protection circuits.		
Battery Simulation Function				
35	Battery Simulation Software	Softpanel to support battery simulation		
		Have feature to import specific battery characteristic V-I curves		
		Should be able to simulate operation under different State of Charge (SOC) conditions		
		Should be able to simulate operation as both source (battery) and load (energy storage)		

(Note: It is mandatory for the bidders to provide the compliance statement in tabular column format along with catalogue page number (comply/not comply) for the above points with document proof as required. Failing which bidders will be technically disqualified)