



INDIAN INSTITUTE OF TECHNOLOGY BOMBAY
MATERIALS MANAGEMENT DIVISION
 Powai, Mumbai - 400076

PR.No. 1000022396

RFX No. 6100000898

Technical Specification
DC Electronic Load

S. No.	Particular	Particular Description	
1.	Specification		
	Power	20KW	
	Current	0~100A	0~1000A
	Voltage	0 ~ 60V	
	Min. Operating Voltage	0.1V@100A 0.7V@1000A*3	
2.	Protections		
	Over Power Protection (OPP)	105%	
	Over Current Protection (OCP)	104%	
	Over Voltage Protection (OVP)	105%	
	Over Temp Protection (OTP)	Yes	
3.	Constant Current Mode		
	Range	0~100A	0~1000A
	Resolution	1.6mA	16mA
	Accuracy	± (0.1% of Setting + 0.2% of Range)	
4.	Constant Resistance Mode		
	Range	3600Ω~0.06Ω	0.06Ω~0.001Ω
	Resolution	277μS	0.001mΩ
	Accuracy	± 0.2% of (Setting + Range)	
5.	Constant Voltage Mode		
	Range	60V	
	Resolution	1mV	
	Accuracy	± 0.05% of (Setting + Range)	
6.	Constant Power Mode		
	Range	2000W	20000W
	Resolution	32mW	320mW
	Accuracy	± 0.5% of (Setting + Range)	
7.	Constant Voltage Mode + Constant Current Mode		
	Range	60V	1000A
	Resolution	1mV	16mA
	Accuracy	± 1.0% of (Setting + Range)	
8.	Constant Voltage Mode + Constant Power Mode		
	Range	60V	20000W

	Resolution	1mV	320mW
	Accuracy	± 1.0% of (Setting + Range)	
9.	MPPT Mode		
	Algorithm	P&O + Scanning	
	Load mode	CC, CR ,CV (MPPT C, R, V)	
	Sampling interval	10ms~2000ms ; resolution 1ms	
	P&O interval	10ms~2000ms ; resolution 1ms	
	Memory situation	Discard old data and keep catching new data	
10.	Dynamic Mode		
	Timing		
	Thigh & Tlow	0.150~9.999 / 99.99 / 999.9 / 9999ms	
	Resolution	0.001 / 0.01 / 0.1 / 1ms	
	Accuracy	1μs / 10μs / 100μs / 1ms + 50ppm	
	Slew Rate	24mA~1.5A/uS	240mA~15A/uS
	Resolution	6mA/μs	60mA/μs
	Min. Rise Time	66.7μs(typical)	
11.	Current		
	Range	0~100A	100~1000A
	Resolution	1.6mA	16mA
12.	Measurement		
	Voltage Read Back		
	Range (5 Digital)	0~6V	6~60V
	Resolution	0.1mV	1mV
	Accuracy	± 0.025% of (Reading + Range)	
13.	Current Read Back		
	Range (5 Digital)	0~100A	100~1000A
	Resolution	1.6mA	16mA
	Accuracy	± 0.1% of (Reading + Range)	
14.	Power Read Back		
	Range (5 Digital)	10000W	20000W
	Resolution	0.1W	1W
	Accuracy	± 0.125% of (Reading + Range)	
15.	General		
	Short Circuit		
	Current	1000A	
	Load ON Voltage	0.1~25V	
	Load OFF Voltage	0~25V	
	Power Consumption	1900Wmax	
	Operating Temperature*	0~40°C	
	Dimension (HxWxD)	885x647x766mm	
	HxWxD (Not included wheels)	781x647x766mm	
Weight	220 kg		
	Safety & EMC	CE	
16.	Interface	USB Card/LAN Card	

17.	Warranty	One year from shipmet
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