



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

Ref. PR No. 1000052374

Rfx. No.6100002940

**Item Description: 60 KVA Regenerative Grid Simulator**

Sr. No	Item Description	Detailed Technical Specification	Technical Compliance (Yes / No)	Additional Information (if any)
1.	<b>AC Output Rating</b>			
	Output Phase	1 or 3 selectable		
	Max. Power	60kVA		
	Per Phase	20kVA		
2.	<b>Voltage</b>			
	Range	0~300VLN		
	Accuracy	0.1%+0.2%F.S.		
	Resolution	0.1V		
	Distortion	< 0.5% @ 50/60Hz < 0.8% @ 30Hz~100Hz		
	Line regulation	0.10%		
	Load regulation	0.20%		
3	<b>Max. Current (1-Phase Mode)</b>			
	RMS	300A		
	Peak	900A		
4	<b>Max. Current (each phase in 3-Phase Mode)</b>			
	RMS	100A		
	Peak	300A		
5	<b>Frequency</b>			
	Range	30Hz ~ 100Hz		
	Accuracy	0.01%		
6	<b>DC Output (1-Phase Mode)</b>			
	Power	30kW		

	Voltage	424V		
	Current	150A		
7	<b>DC Output (3-Phase Mode)</b>			
	Power	10kW		
	Voltage	424V		
	Current	50A		
8	<b>Harmonics Synthesis Function</b>	up to 50 harmonics order @ 50/60Hz fundamental frequency		
9	<b>Input Rating</b>			
	Voltage Operating Range	3Ø 380~400V ±10%VLL, 47~63Hz		
	Current	130A Max./Phase (3Ø 380~400V ±10%VLL)		
10	<b>Power factor</b>	0.99 (Typical)		
11	<b>Measurement</b>			
	<b>Voltage</b>			
	Range	0~300VLN		
	Accuracy	0.1%+0.2%F.S.		
	<b>Current</b>			
	Range (peak)	300A		
	Accuracy (RMS)	0.4%+0.3%F.S.		
	Accuracy (peak)	0.4%+0.6%F.S.		
	<b>Power</b>			
	Accuracy	0.4%+0.4% F.S.		
12	<b>Remote Interface</b>	GPIB, RS-232, USB, Ethernet		
13	<b>Efficiency</b>	80% (Typical)		
	<b>Front panel Display</b>	6.5" Color LCD		
14	<b>Protection</b>	OVP, OCP, OPP, OTP, FAN		
15	<b>Safety &amp; EMC</b>	CE		
16	<b>Dimensions</b> (H x W x D)	1740 x 780 x 1000 mm		
17	<b>Other Requirements :</b>	Full 4 quadrant, full regenerative, AC power supply designed for common electrical product testing such as home appliances, and industrial electronics needing a programmable input source, Specifically designed for PV inverter, Smart Grid and EV related test applications, capable of simulating various types of distorted LIST, PULSE, STEP mode functions for testing Power Line Disturbance (PLD) simulation , Voltage dips, short interruption and voltage variation simulation, Harmonics, inter-harmonics waveform synthesizer ,comprehensive measurement		

		<p>capability, including current harmonics , Analog programmable interfaces,          Capable of simulating various test conditions such as voltage distortion, frequency variation and more in order to meet Micro Grid test requirements, Capable of meeting the following regulations designated for Grid Tied Discrete Generator          testing for UL 1741SA/IEEE 1547/IEC 62116 or substantial equivalent:          Voltage Abnormality Test          Frequency Abnormality Test          Anti-islanding Test          Low Voltage Ride Through Test          Immunity Test (IEC 61000-4-11/-4-34) or substantial equivalent</p> <p>Limit Test (IEC 61000-3-2/-3-3) or substantial equivalent</p> <p>Provides an effective energy saving solution as the energy generated by a Discrete Generator (DG) is fed back to the grid instead of being dissipated as heat during operation.          The 6.5" Color LCD provides users with an easy to operate interface by integrating parameters and functions on a single display page. The panel is also capable of voltage and current measurement waveform display.          Graphical User Interface specifically designed to provide users with an easy to use interface for configuring the instrument.          The Softpanel is also equipped with data recording functions allowing multiple measurements to be recorded and saved simultaneously.</p>		
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