# Preen<sup>®</sup>

### **PEL Series**

### **Regenerative AC Load Bank**

Leading Test & Measurement Power Supply Provider





#### AC POWER CORP.

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In the electrical technology is highly developed today, various power equipment is widely used in energy, metallurgy, chemical industry, transportation, IT, military and other industries. These power supplies are needed to be tested with load to measure the dynamic and static characteristic, or called burn-in test, to ensure the product quality. Most of manufactures applied resistance load to test their equipment, it will generate heat and consume lots of electricity energy. PEL product was developed to save energy of factory with 90% energy feeding back to the grid. It can also simulate different load type with adjustable power factor from 0.3 to 1. There are some features in below:

•Energy feed back to the utility grid with 90% efficiency

•Applied digital synchronization technology with 0.98 utility power factor

•Selectable constant current, resistance, and power three working mode and simulate the power factor from 0.3~1

- •Parallel connected for future capacity expansion
- •Flexible test for single phase and 3 phase test unit
- •Standard RS485 Modbus for remote control and communication
- •7" touch panel with user friendly interface
- •IPM IGBT technology, enhance reliability and EMI noise.



### **Applications:**



**Generator Manufactures** 

•Servo Motor System Test •Motor Generator Test



#### Motor/ Turbine Manufactures

•Motor System burn in test •Turbine System burn in test •Performance & durability test



Power Industry Manufacture •UPS Power Manufactures •Frequency Converter Manufactures •Voltage Regulator Manufactures •Power Inverter/Converter Manufacture •On-Site Burn In Test (Airport, Military, Data Center...)



The entire structure of regenerative AC load bank is composed by the input regulation inductance, IGBT rectifier unit, DC bus, utility feedback inverter module, output isolation transformers and other components. The IGBT module is also used for load simulation and adjusting the power factor. DC bus composed by DC capacitors and it provides the DC energy storage and stabilized the IGBT rectifier energy as following shown.



Model Name		PEL-33060	
Input	Input Voltage	480V+/-10%	
	Input Frequency	45~65Hz	
	Phase/Wire	3Phase/4Wire or Single Phase/2 Wire +G	
	Input Current	90A (Maximum)	
	Input THD	<3%	
	Input Power Factor	0.3~1	
Working Mode	Constant Current (CC)	90A, PF: 0.3~1	
	Constant Resistor (CR)	2.4~44 Ω(Each Phase), PF:0.3~1	
	Constant Power (CP)	0~20kVA(Each Phase), PF:0.3~1	
Grid-Connected Side	Grid Connect Voltage	220V+/-10%	
	Grid Connect Frequency	45~65Hz	
	Grid Connect Current	90A (Maximum)	
	Grid Connect iTHD	<3%	
	Grid Connect Power Factor	0.99	
	Grid Connect Efficiency	>90%	
Protection		Over Voltage/Under Voltage, Over Frequency/Under Frequency, Over Current, IGBT Over Current, Over Temperature, Emergency Stop	
Display	Input Voltage	Accuracy: 0.2V+0.1%FS	Resolution: 0.01V
	Input Frequency	Accuracy: 0.01Hz+0.01%FS	Resolution: 0.01Hz
	Input Current	Accuracy: 0.2A+0.1%FS	Resolution: 0.01A
	Input Power Factor	Accuracy: +/-0.01	Resolution: 0.01
	Input Power (kW)	Accuracy: 0.2kW+0.1%FS	Resolution: 0.01kW
	Grid Connect Voltage	Accuracy: 0.2V+0.1%FS	Resolution: 0.01V
	Grid Connect Frequency	Accuracy: 0.01Hz+0.01%FS	Resolution: 0.01Hz
	Grid Connect Current	Accuracy: 0.2A+0.1%FS	Resolution: 0.01A
	Grid Connect PF	Accuracy: +/-0.01	Resolution: 0.01
	Grid Connect Power	Accuracy: 0.2kW+0.1%FS	Resolution: 0.01kW
Operate Environment		Humidity: 0~90% Non-Condensing Working Temperature: -5~50deg C	
Cooling Method		Fan	
Dimension (WxDxH mm)		800x800x2100	

AC Power Corp. offers products widely applied in multi-professional fields and provides the best power solutions to customers. Our mission is to satisfy customers' demand by considering the whole conditions including power environment, loading allocation, module solution alternative, thoughtful design, lean and efficient manufacturing, timely and comprehensive maintenance.

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