Electronic Loads

LSA Series

GP-IB OPTION RS-232C OPTION USB OPTION

LSA-165 (150V/33A/165W)
LSA-330 (150V/66A/330W)
LSA-1000 (150V/200A/1000W)

- Compact size which is 1/3-rack-size for 165W model and 330W model. Reduce the bulk ratio to 60% of that of the conventional company products.
- Full-color 3.5 inch LCD provides high operability and visibility.
- 10μA minimum resolution for current setting (LSA-165 L range).
- CC/CR/CP/CC+CV/CR+CV mode are selectable.
- High-speed response for 10μsec. Switching function is available (CC, CR, CP mode).
- Setting voltage and resistance can be controlled via externally.
- Maximum 5-unit-parallel master-slave operation is available.
- Sequence control provides branch on condition.
- Option: GP-IB, USB and RS-232C are in one slot-in option board IF-80GUR.Recommend to use GP-IB or RS-232C if you use LSA seriese at noisy condition.

Specifications

Input				
Model		LSA-165	LSA-330	LSA-1000
Input power	H	0W to 165W	0W to 330W	0W to 1000W
	M	0W to 16.5W	0W to 33W	0W to 100W
	L	0W to 1.65W	0W to 3.3W	0W to 10W
Input voltage V	CR	0V to 150V		
	except CR	1V to 150V		
Input current	Rear input terminal	0A to 33A	0A to 66A	0A to 200A
	Front input terminal			0A to 66A
Input terminal form	Front	Screw terminal		
	Rear	Cupper bus bar		

Constant current mode(CC)				
Model		LSA-165	LSA-330	LSA-1000
Setting range	H	0A to 33A	0A to 66A	0A to 200A
	M	0A to 3.3A	0A to 6.6A	0A to 20A
	L	0mA to 330mA	0mA to 660mA	0mA to 2000mA
Setting resolution	H	1mA	2mA	6mA
	M	0.1mA	0.2mA	0.6mA
	L	10μA	20μA	60μA
Maximum power	H	165W	330W	1000W
	M	16.5W	33W	100W
	L	1.65W	3.3W	10W
Ripple noise(ms) In the rage of 10Hz to 1MHz	H	10mA	15mA	30mA
	M	5mA	5mA	10mA
	L	1mA	1mA	3mA
Stability (long term drift)		±0.1% of fs typ		
Temperature factor		100ppm/°C		

Constant resistance mode(CR)				
Model		LSA-165	LSA-330	LSA-1000
Setting resistance	H	OPEN, 1.81kΩ to 30.3mΩ	OPEN, 909Ω to 15.1mΩ	OPEN, 303Ω to 5.05mΩ
	M	OPEN, 18.1kΩ to 303mΩ	OPEN, 9.09Ω to 151mΩ	OPEN, 3.03kΩ to 50.5mΩ
	L	OPEN, 181kΩ to 3.03Ω	OPEN, 90.9kΩ to 1.51Ω	OPEN, 30.3kΩ to 505mΩ
Setting resolution	H	0.55mS	1.1mS	3.3mS
	M	55μS	0.11mS	0.33mS
	L	5.5μS	11μS	33μS
Ripple noise(ms) In the rage of 10Hz to 1MHz	H	10mA	15mA	30mA
	M	5mA	5mA	10mA
	L	1mA	1mA	3mA
Stability (long term drift)		±0.1% of fs typ		
Temperature factor		1000ppm/°C		

Constant power mode(CP)				
Model		LSA-165	LSA-330	LSA-1000
Setting power	H	0W to 165W	0W to 330W	0W to 1000W
	M	0W to 16.5W	0W to 33W	0W to 100W
	L	0W to 1.65W	0W to 3.3W	0W to 10W
Setting resolution	H	10mW	20mW	100mW
	M	1mW	2mW	10mW
	L	0.1mW	0.2mW	1mW
Ripple noise(ms) In the rage of 10Hz to 1MHz	H	10mA	15mA	30mA
	M	5mA	5mA	10mA
	L	1mA	1mA	3mA
Stability (long term drift)		±0.2% of fs typ		
Temperature factor		1000ppm/°C		

Constant voltage(CV+CC/CV+CR) mode				
Model		LSA-165	LSA-330	LSA-1000
Setting voltage	H	0.1V to 150V		
	L	0.1V to 15V		
Setting resolution	H	10mV		
	L	1mV		
Minimum current for operating		1% of fs current		
Stability (long term drift)		±0.2% of fs typ		
Input current fluctuation		10mV		
Temperature factor		1000ppm/°C		

General specifications				
Model		LSA-165	LSA-330	LSA-1000
Temperature		0°C to 40°C		
Humidity		20% to 85% RH(no dew condition)		
Storing temperature		-20°C to 60°C		
Storing humidity		20% to 85% RH(no dew condition)		
Power requirment		AC 100V to AC240V		
Power frequency		50Hz/60Hz		
Power consumption		70VA	75VA	130VA
Dielectric strength voltage	primary/ chassis	AC1500V 1 min.		
	primary/ secondary	AC2300V 1 min.		
Insulation resistance	primary/ chassis	DC500V 10MΩ or more		
	primary/ secondary	DC500V 10MΩ or more		
Cooling		Front fun, rear exhausting forced air cooling		
Dimmension(mm)	H×W×D	124×140×383	124×140×383	124×421.5×383
	(Maximum)	148.4×141.8×446.1	148.4×141.8×446.1	140.8×423×449
Weight (kg) approx.		4.6	5.5	12.3