1. GENERAL

1.1 Description

Model PLZ1002W Electronic Load is rated for loading voltage 3 - 110 volts, loading current 0 - 200 amperes, and wattage 1000 watts. The PLZ1002W can be operated either in a constant current mode or in a constant resistance mode.

The PLZ1002W allows dynamic load test by switching between two different levels of load current with its internal oscillator and electronic switching circuit. This function is available when in either the constant current or resistance mode.

The PLZ1002W is incorporated with protectors against overvoltage, overcurrent, overpower, and reverse polarity connection. It has a digital voltmeter/ammeter of 3-1/2 digits. It has a fan for forced air cooling.

Features

(1) The PLZ1002W employs power MOS FET, thereby eliminating secondary breakdown and improving the reliability.

(2) A digital voltmeter/ammeter of 3-1/2 digits is provided.

(3) Two 10-turn helical potentiometers are provided to set individual levels of loading current.

(4) The loading current can be switched between two different levels, thereby allowing dynamic load test.

(5) The loading current can be remote-controlled with a voltage signal (when in the constant current mode) or with a resistance signal (when in the constant current or resistance mode).

(6) Two or more units or PLZ1002W can be operated in parallel in a master-slave mode.

(7) The PLZ1002W is incorporated with protectors against overvoltage, overcurrent, overpower, overheat, and inverted connections of input. These protectors reset automatically.

(8) The PLZ1002W is incorporated with a rapid-response rush current suppression circuit.

(9) Optional frames and brackets are available to install the PLZ1002W on a rack of the EIA Standard or the JIS Standard.

1.2 Specifications

Item		Specification
Model		PLZ1002W
Power Requirements	Input voltage	100 V AC ±10% (Standard AC input) * Note 50/60/ Hz AC, single phase
	Power consumption	Approx. 70 VA (with 100 V AC line voltage)
Load Input	Loading voltage/ current	3 - 110 V DC (0 - 200 A DC) 2 - 110 V DC (0 - 100 A DC)
	Allowable loading power	1000 W
Operation Modes	Constant current mode	Two ranges of 0 - 200 A and 0 - 20 A, continuously variable
	Constant resistance mode	Two ranges of 0.02 - 0.4 Ω and 0.2 - 4 Ω or over, continuously variable
Constant Current Mode	3 - 110 V change of loading voltage	±0.1% + 20 mA (at loading current 3 A)
	±10% change of line voltage	±0.1% + 20 mA of setting current
	Ripple noise	50 mA rms (5 Hz - 1 MHz)
	Temperature coefficient (typical)	Approx. 0.01%/°C
	Rise-time/fall-time	400 µs or faster (at load current 0 - 200 A)
Constant Resistance Mode	Temperature coefficient (typical)	Approx. 0.01%/°C
	±10% change of line voltage	±0.1% + 5 mA of setting current

* Note Optional AC input of 120 V ±10%, 220 V ±10% or 240 V ±10%

Item			Specification
Remote Control	Constant current mode	With external voltage	Control of 0 - 200 A with 0 - 10 V (Input impedance approx. 10 kΩ)
		With external resistance	With 0 - 5 kΩ
	Constant resistance mode	With external resistance	With 0 - 5 kΩ
Protectors	Overvoltage protector		Cuts out load input at approximately 115 V DC
	Overcurrent protector		Cuts out load input at approximately 210 A DC
	Overpower protector		Cuts out load input at approximately 1050 W
	Reverse connection protector		Checks reverse current with series diode
	Overheat protector		Cuts out load input at 100 ±5 deg C
	AC line power fuse		2 A
Digital Voltmeter/ Ammeter	Maximum effective display		1999
	Ammeter accuracy		±(0.5% of rdg + 0.1% of FS + 1 digit) at 23°C ±5°C, 85% RH or less
	Voltmeter accuracy		±(0.1% of rdg + 0.1% of FS + 1 digit) at 23°C ±5°C, 85% RH or less
	Range select		Automatic range select

Item		Specification
Oscillator for Switching	Switching period	Two ranges: 5 ms - 50 ms, 50 ms - 500 ms
Parallel Operation		In master-slave mode
Current Monitor Output		1 mV/A, BNC connector
Overpower Indicator		Yellow LED (blink)
Overvoltage and Overpower Indicator		Red LED
Ambient Temperature and Humidity		0 to 40 deg C (32 to 104 deg F), 10 to 90% RH
Cooling System		Forced air cooling with fan
Dielectric Strength		±250 V DC between DC input terminal and chassis
Insulation Resistance		Between DC input terminal and chassis: 20 MΩ or more as tested with 500 V DC Between AC line and chassis: 30 MΩ or more as tested with 500 V DC
Withstanding Voltage		Between AC line and chassis: 1500 V DC, 1 minute
Dimensions (Including Extrusions)		430(455)W × 146(165(H) × 400(495)D mm 16.92(17.91)W × 5.75(6.50)H × 15.75(19.49) in.
Weight		Approx. 17.5 kg (39 lbs)
Accessories		Power cord 1
		Instruction manual 1
		Guard caps 2
		Dust filter 1
		Filter seal 1

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