KIKUSUI

# PLZ334W

The Kikusui PLZ334W is a high-performance, multifunctional programmable DC electronic load designed for testing power supplies, batteries, and electronic components. Operating within a range of 1.5 V to 150 V, it supports up to 66 A and 330 W. It features versatile operating modes, high-speed transient testing capabilities, sequence programming, and standard communication interfaces including USB, GPIB, and RS-232C.

## SPECIFICATIONS

### General

| | |
|---|---|
| Interfaces | USB 2.0, GPIB, RS-232C |
| Display | Monochrome custom backlit LCD |
| Warm-up Time | 30 minutes |

### Physical

| | |
|---|---|
| Power Supply | 100 VAC to 240 VAC, 47 Hz to 63 Hz, 80 VA max |
| Operating Temperature | 0 to 40 °C |
| Dimensions (W×H×D) | 214.5 x 124 x 400 mm |
| Weight | 11.5 kg |

### Input Ratings and Operating Ranges

| | |
|---|---|
| Maximum Input Power | 330 W |
| Maximum Input Voltage | 150 V |
| Maximum Input Current | 66 A |
| Minimum Operating Voltage | 1.5 V |
| Low Voltage Derating Threshold | 0.3 V (operates with derated current down to 0.3 V) |
| Parallel Operation Capacity | Up to 5 units of the same model (1 master, 4 slaves) |
| Series Operation | Not supported |

### Operating Modes & Accuracy

| | |
|---|---|
| Operating Modes | Constant Current (CC), Constant Voltage (CV), Constant Resistance (CR), Constant Power (CP), CC+CV, CR+CV |
| Constant Current (CC) Range | 0 A to 66 A |
| Constant Voltage (CV) Range | 1.5 V to 150 V |
| Constant Resistance (CR) Range | 0.045 Ω to 45 kΩ (22 S to 22 µS) |
| Constant Power (CP) Range | 0.033 W to 330 W |
| CC Programming Accuracy | ±(0.2% of set + 0.1% of f.s.) |
| CV Programming Accuracy | ±(0.1% of set + 0.1% of f.s.) |

### Transient and Dynamic Characteristics

| | |
|---|---|
| Transient Mode Frequency Range | 1 Hz to 20 kHz |
| Transient Mode Duty Cycle Range | 1% to 99% (in 0.1% steps) |
| Current Slew Rate Range | 20 mA/µs to 10 A/µs |
| Slew Rate Resolution | 20 mA/µs |
| Normal Sequence Step Duration | 1 ms to 999 h 59 min |
| Fast Sequence Step Duration | 25 µs to 100 ms |
| Maximum Sequence Steps | 1024 steps per program |

### Measurement and Readback Accuracy

| | |
|---|---|
| Voltage Readback Range | 0 V to 150 V |
| Voltage Readback Accuracy | ±(0.1% of rdg + 0.1% of f.s.) |
| Current Readback Range | 0 A to 66 A |
| Current Readback Accuracy | ±(0.2% of rdg + 0.1% of f.s.) |
| Capacity Measurement (Ah) Range | 0.001 Ah to 9999 Ah |
| Capacity Measurement (Wh) Range | 0.01 Wh to 9999 Wh |

### Protection Features

| | |
|---|---|
| Over-Voltage Protection (OVP) Range | 1.5 V to 165 V / Off |
| Over-Current Protection (OCP) Range | 0.06 A to 72.6 A / Off |
| Over-Power Protection (OPP) Range | 0.33 W to 363 W / Off |
| Under-Voltage Protection (UVP) Range | 0 V to 150 V / Off |
| Over-Temperature Protection (OTP) | Cuts off load when internal heatsink temperature exceeds limit |
| Reverse Voltage Protection | By-pass diode, maximum reverse current 66 A |
| External Load Off Input | External contact closure to safely turn off the load input |

### Connectivity & Control Interfaces

| | |
|---|---|
| Analog Control Input | 0 V to 10 V external voltage or 0 to 10 kΩ resistance |
| Current Monitor Output | 0 V to 10 V (corresponds to 0% to 100% rated current) |
| Trigger Connectors | BNC type for trigger output only |

### Physical and Mechanical Specifications

| | |
|---|---|
| Form Factor | Benchtop, 3U rack-mount compatible (half-width) |
| Cooling Configuration | Forced air cooling by temperature-controlled fan |

### Environmental and Safety Compliance

| | |
|---|---|
| Storage Temperature Range | -20 °C to 70 °C |
| Operating Humidity Range | 20% to 85% RH (no condensation) |
| Safety Compliance | CE marked (Low Voltage Directive) |

### Inputs & Outputs

| | |
|---|---|
| Front Panel Input Terminal Maximum Current | 30 A |
| Current Monitor Output Level | 10 V at full scale (H/M range), 1 V at full scale (L range) |

### Performance

| | |
|---|---|
| Remote Sensing Compensation Voltage | 2 V (one way) |
| Elapsed Time Measurement Range | 1 s to 999 h 59 min 59 s |
| Short-Circuit Equivalent Resistance | Approx. 20 mΩ |
| Soft Start Setting Options | 0.1 ms, 1 ms, 3 ms, 10 ms, 30 ms, 100 ms, 300 ms |
| Transient Mode Duty Cycle Resolution | 1% |

### Power

| | |
|---|---|
| Maximum Power Consumption | 95 VA |

### Safety & Isolation

| | |
|---|---|
| Insulation Resistance | 30 MΩ or more (at 500 Vdc) |
| Withstand Voltage | 1500 Vac for 1 minute (AC input to chassis), 500 Vdc for 1 minute (input terminal to chassis) |

### Control

| | |
|---|---|
| Fast Sequence Maximum Steps | 1024 |
| Setup Memories | 100 channels (0 to 99) |
| Auto Load Off Timer Range | 1 s to 999 h 59 min 59 s (or off) |
| External Voltage Control Range | 0 V to 10 V (corresponds to 0% to 100% of rated value) |
| External Resistance Control Range | 0 kΩ to 10 kΩ (corresponds to 0% to 100% or 100% to 0% of rated value) |

## TECHNOLOGY

Active semiconductor-based DC electronic load

## APPLICATIONS

Power supply evaluation, battery discharge testing, solar panel testing, and alternator characterization

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.