

# SPECIFICATIONS

Programmable DC Power Supply

MODEL : OPS-2501



# ODA

TECHNOLOGIES  
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| Parameter   |   | Specifications   |            |
|---|---|--|------------|
| Output rating(@0°C ~ 40°C)  | Voltage                                   | 0 to 250   |            |
|   | Current                                   | 0 to 1   |            |
| Output WATT   |   | 250W   |            |
| Programming Accuracy<br>(@25°C ±5°C)±(%of output + offset)                  | Voltage                                   | 0.05% + 85mV   |            |
|   | Current                                   | 0.15% + 5mA  |            |
| Readback Accuracy<br>(@25°C ±5°C)±(%of output + offset)                     | Voltage                                   | 0.05% + 45mV   |            |
|   | Current                                   | 0.08% + 3mA  |            |
| Ripple and Noise(20Hz to 20MHz)   | Voltage                                   | ≤ 0.01% $mV_{rms}$   |            |
|   | Current                                   | ≤ 3 $mA_{rms}$   |            |
| Load Regulation (with V-Sensing)  | Voltage                                   | ≤ 4mV  |            |
|   | Current                                   | ≤ 500 $\mu A$  |            |
| Line Regulation (with V-Sensing)  | Voltage                                   | ≤ 1mV  |            |
|   | Current                                   | ≤ 500 $\mu A$  |            |
| Resolution  | Programming/Readback                      | ≤ 2.5mV / ≤ 10 $\mu A$   |            |
|   | Display Meter                             | 10mV / 100 $\mu A$   |            |
| Temperature Coefficient ±(%of output + offset)<br>After a 30-minute warm-up | Voltage                                   | 0.01% + 30mV   |            |
|   | Current                                   | 0.02% + 3mA  |            |
| Stability ±(%of output + offset)<br>After a 1 hour warm-up                  | Voltage                                   | 0.02% + 30mV   |            |
|   | Current                                   | 0.1% + 1mA   |            |
| Transient Response Time   |   | Less than 50 $\mu s$ for output to recover to within 15mV following a change in output current from full load to half load or vice versa     |            |
| Voltage Programming Speed   | No load                                   | Rising time  | ≤ 7.5V/ms  |
|   |   | Falling time   | ≤ 3V/ms    |
|   | Half load                                 | Rising time  | ≤ 3.25V/ms |
|   |   | Falling time   | ≤ 6V/ms    |
| Remote Sensing Capability   | Voltage Drop                              | Up to 1V per each lead   |            |
|   | Load Regulation                           | Add 5 mV to spec for each 1-volt change in the + output lead due to load current changes   |            |
|   | Load Voltage                              | Subtract voltage drop in load leads from specified output voltage rating.  |            |
| OVP and OCP Accuracy ±(%of output + offset)                                 | OVP                                       | 5% + 2.5V  |            |
|   | OCP                                       | 5% + 0.1A  |            |
|   | Activation Time                           | < 80ms when maximum output rating  |            |
| Output Voltage Overshoot & Undershoot                                       | Power Switch ON/OFF                       | No overshoot, undershoot : ≤ -0.8V   |            |
|   | Voltage Output Setting                    | No overshoot, No undershoot  |            |
| Remote Interface  |   | GPIO(IEEE-488.2) Option , RS232C Standard  |            |
| Programming Language  |   | SCPI(Standard Commands for Programmable Instruments)   |            |
| Command Processing Time(average)  | Apply                                     | Setting  | 20ms       |
|   |   | Query  | 32ms       |
|   | Output Setting                            | Voltage & Current Setting  | 15ms       |
|   |   | Voltage & Current Query  | 32ms       |
|   | Measurement                               | Voltage & Current Query  | 32ms       |
| The Other   | Setting & Query                           | < 35ms   |            |
| State Storage Memory  |   | Ten user-configurable(voltage,current,OVP & OCP level)stored states  |            |
| Cycling Mode  | Step(Voltage,Current, Slope & Delay time) | Maximum 100 steps  |            |
|   | Slope time                                | 0sec ~ 86,400sec (24 hours)  |            |
|   | Delay time                                | 100ms ~ 86,400sec(24 hours)  |            |
|   | Repeat                                    | Maximum 15million times  |            |
| Operation Temperature   |   | 0°C ~ 40°C for full rated output. At higher temperatures the output current is derated linearly to 50% at 55°C maximum temperature           |            |
| Cooling   |   | Isolation DC FAN   |            |
| Output Terminal Isolated (maximum, from chassis ground)                     |   | ±60 Vdc when connecting shorting conductors without insulation to the (+)output to the (+)sense and the (-)output and the (-)sense terminals |            |
| AC Input Ratings  | Standard                                  | 220V ± 10% 50~60Hz   |            |
|   |   | 110V ± 10% 50~60Hz   |            |
|   | Option                                    | 115V ± 10% 50~60Hz   |            |
|   |   | 230V ± 10% 50~60Hz   |            |
| Calibration Interval  | Precision                                 | 6 month  |            |
|   | Recommended                               | 1 year   |            |
| Dimensions (19-inch 3U Standard)  | Excepted the bumper                       | 213mm(W) * 133mm(H) * 394mm(D)   |            |
|   | Included the bumper                       | 226mm(W) * 147mm(H) * 394mm(D)   |            |
| Maximum Input Power(full load)  |   | 553W   |            |
| Weight  | Net weight                                | 9kg  |            |
|   | Gross weight                              | 10.5kg   |            |

