

# **PST-Series**









## **FEATURES**

- \* Digitized Programmable Interface, High Resolution 10mV, 1mA
- \* 192 x 128 LCD Display, Display Several Setting and Measuring Result Simultaneously
- \* Over-Voltage, Over-Current, Over Temperature Protection
- \* Intelligent Fan Control(Change by Output Power)
- \* 100 Sets Memory
- \* Auto Step Running With Timp Setting
- \* Auto Series and Parallel Function
- \* LabVIEW Driver
- \* Standard Interface: RS-232C
- \* Option: GPIB (IEEE-488.2)
- \* Optional European Jack Type Terminal

# Rear Panel



The PST-Series is triple output, 96 or 158W, programmable linear DC power supply OVP, OCP, and OTP protect PST and loads from unexpected conditions. High resolution is maintained at 10mV, 1mA. Large 192 x 128 LCD panel with simultaneous output/parameter view and automatically regulated cooling fan for low noise provide comfortable operation. Configuration is simplified with output setting store/recall function, Auto series/parallel operation, and Auto step running for continuous testing. SCPI command set and Labview driver access through RS-232C or optional GPIB interface provide remote control and ATE software development capability. The versatile PST Series is ideal for applications which require high resolution, multiple output, and automated operation, such as in production testing and rack mounting system.

| DUTPUT  | SPECIFICATIONS             |   |                                    |  |
|---|----------------------------|---|------------------------------------|--|
| Voltage   |                            | PST-3202                                      | PST-3201                           |  |
| Current   | OUTPUT                     |   |                                    |  |
| DOAD REGULATION   | Voltage                    | 0~32Vx2, 0~6Vx1                               | 0~32Vx3                            |  |
| Voltage   | Current                    |   | 0~1Ax3                             |  |
| Voltage   |                            | 0~33Vx2, 0~7Vx1                               | 0~33Vx3                            |  |
| Current   | LOAD REGULATION            |   |                                    |  |
| Voltage   |                            |   |                                    |  |
| Voltage   |                            | $\leq$ 3mA ( $\leq$ 5mA rating current >3.0A) |                                    |  |
| SamA   Set   SamA   | LINE REGULATION            |   |                                    |  |
| Notage  |                            | ≦ 3mV   |                                    |  |
| Voltage   |                            | ≥ 3mA   |                                    |  |
| Current   | RESOLUTION                 |   |                                    |  |
| OyP   |                            |   |                                    |  |
| PROGRAM ACCURACY(25 ± 5°C)  |                            |   |                                    |  |
| Voltage   |                            |   |                                    |  |
| Current   | ·                          |   |                                    |  |
| Source   Source  |                            |   |                                    |  |
| RiPPLE & NOISE(20Hz-20MHz)  | I .                        |   | Tent 25.0A)                        |  |
| Voltage   |                            |   |                                    |  |
| Samarms (≤5marms, rating current >3.0A)   | ,                          |   | 2001/2005/2001/200                 |  |
| TEMPERATURE COEFFICIENT (0 ~ 40 ° C)   Voltage  | •                          |   |                                    |  |
| Voltage   |                            | ,       |                                    |  |
| Second   Second  | _                          |   |                                    |  |
| Notage  | •                          |   |                                    |  |
| Voltage   |                            | ≥ 100ppm+3mA                                  |                                    |  |
| Tank   Tank | READBACK RESOLUTION        |   |                                    |  |
| READBACK ACCURACY(25 ± 5 °C)  |                            |   | 1                                  |  |
| Voltage   | ( , 2 ,                    |   |                                    |  |
| Current   |                            |   | l. acro                            |  |
| READBACK TEMPERATURE COEFFICIENT  Voltage Current  S 100ppm+10mV(+20mV, rating current >3.0A)  RESPONSE TIME  Voltage Up (10%-90%) Voltage Down (90%~10%)  DRIFT  Voltage S 100ppm+10mV(+20mV, rating load)  DRIFT  Voltage S 100ppm+10mV(+20mV, rating voltage >36V) Current S 150ppm+10mA  TRACK OPERATION  Tracking Error Series(Load Effect) PARALLEL OPERATION  Program Accuracy (25 ± 5 ° C) Current Solve SmV, rating current>3.0A); current ≤ 6mA  Voltage ≤ 3mV(≤5mV, rating voltage >36V) Current ≤ 1.5%+10mA  OVP≤0.05%+20mV Voltage ≤ 3mV(≤5mV, rating current>3.0A); current ≤ 6mA  Voltage ≤ 3mV; current ≤ 6mA  MEMORY  Store, Recall 99 Sets  TIMER  Setting time Resolution Function  O 1. second~99 Minutes 59 second (Max. 99 Minutes 59 second x 100) O.1 second Function  Function  INTERFACE  Standard: RS-232C; Option: GPIB (IEEE488.2)  POWER SOURCE  AC 100V/ 120V/ 220V ± 10%, 230V(+10%/-6%), 50/60Hz  DIMENSIONS & WEIGHT  |                            |   |                                    |  |
| Voltage Current  S 100ppm+10mV(+20mV, rating current >3.6V) S 100ppm+5mA(+10mA, rating current >3.0A)  RESPONSE TIME  Voltage Up (10%-90%) Voltage Down (90%-10%)  DRIFT  Voltage Current  S 100ppm+10mV(+20mV, rating load)  DRIFT  Voltage Current  S 100ppm+10mV(+20mV, rating voltage >36V) S 150ppm+10mA  TRACK OPERATION  Tracking Error Series (Load Effect) PARALLEL OPERATION  Program Accuracy (25 ± 5 ° C) Current ≤ 0.1%+20mV Current ≤ 0.1%+10mA  OVP ≤ 0.05%+20mV (+20mV, rating voltage >36V) Current ≤ 0.1%+10mA  OVP ≤ 0.05%+20mV Voltage ≤ 3mV (≤ 5mV, rating current>3.0A); current ≤ 6mA  Voltage ≤ 3mV; current ≤ 6mA  MEMORY  Store/Recall  PS Seting time Resolution Function  S Setting time Resolution Function  INTERFACE  Standard: RS-232C; Option: GPIB (IEEE488.2)  POWER SOURCE  AC 100V/ 120V/ 220V ± 10%, 230V (+10%/-6%), 50/60Hz  DIMENSIONS & WEIGHT  |                            | , -   | rent>3.0A)                         |  |
| Current         ≤ 100ppm+5mA(+10mA, rating current >3.0A)           RESPONSE TIME           Voltage Up (10%-90%) Voltage Down (90%-10%)         ≤ 100mS ≤ 100mS ( ≥10% rating load)           DRIFT           Voltage Current         ≤ 100ppm+10mV(+20mV, rating voltage >36V)           TRACK OPERATION           Tracking Error Series (Load Effect)         0.1%+20mV (+20mV (+20mV, rating voltage >36V)           PARALLEL OPERATION           Program Accuracy (25 ± 5 ° C)         Voltage ≤ 0.05%+20mV (+20mV, rating voltage >36V)           Load Effect OV (25 ± 5 ° C)         Voltage ≤ 3mV (≤ 5mV, rating current> 3.0A); current ≤ 6mA           MEMORY           Source Effect         Voltage ≤ 3mV; current ≤ 6mA           MEMORY           Store/Recall         99 Sets           TIMER           Setting time Resolution Auto step running (for output working loop)           INTERFACE           Standard : RS-232C; Option: GPIB (IEEE488.2)           POWER SOURCE           AC 100V/ 120V/ 220V ± 10%, 230V(+10%/-6%), 50/60Hz           DIMENSIONS & WEIGHT  |                            |   |                                    |  |
| RESPONSE TIME   |                            |   |                                    |  |
| Voltage Up (10%–90%)         ≤ 100mS           Voltage Down (90%–10%)         ≤ 100mS (≥10% rating load)           DRIFT           Voltage         ≤ 100ppm+10mV(+20mV, rating voltage >36V)           Current         ≤ 150ppm+10mA           TRACK OPERATION           Tracking Error Series (Load Effect)         0.1%+20mV           Series (Load Effect)         ≤ 20mV           PARALLEL OPERATION           Program Accuracy (25 ± 5 ° C)         Voltage ≤ 0.05%+20mV (+20mV, rating voltage >36V)           Current ≤ 0.1%+10mA         OVP ≤ 0.05%+20mV           Voltage ≤ 3mV (≤5mV, rating current>3.0A); current ≤6mA           MEMORY           Store/Recall         99 Sets           TIMER           Setting time Resolution Auto step running (for output working loop)           INTERFACE         Standard : RS-232C; Option: GPIB (IEEE488.2)           POWER SOURCE           AC 100V/ 120V/ 220V ± 10%, 230V(+10%/-6%), 50/60Hz           DIMENSIONS & WEIGHT   |                            | ≥ 100ppm+3mA(+10mA, rating o                  | current >3.0A)                     |  |
| Voltage   |                            |   |                                    |  |
| DRIFT  Voltage  |                            |   |                                    |  |
| Voltage Current  \$\leq\$ 100ppm+10mV(+20mV, rating voltage > 36V) \$\leq\$ 150ppm+10mA  TRACK OPERATION  Tracking Error Series(Load Effect) \$\leq\$ 20mV  PARALLEL OPERATION  Program Accuracy (25 ± 5 ° C) Current \$\leq\$ 0.05%+20mV(+20mV, rating voltage > 36V) Current \$\leq\$ 0.1%+10mA OVP \$\leq\$ 0.05%+20mV Voltage \$\leq\$ 3mV(\$\leq\$ 5mV, rating current> 3.0A); current \$\leq\$ 6mA  Voltage \$\leq\$ 3mV; current \$\leq\$ 6mA  MEMORY  Store/Recall 99 Sets  TIMER  Setting time Resolution Resolution Function  O.1 second—99 Minutes 59 second (Max. 99 Minutes 59 second x 100) 0.1 second Auto step running (for output working loop)  INTERFACE Standard: RS-232C; Option: GPIB (IEEE488.2)  POWER SOURCE  AC 100V/ 120V/ 220V ± 10%, 230V(+10%/-6%), 50/60Hz  DIMENSIONS & WEIGHT  |                            | ≥ 100m3 (≥10% rating load)                    |                                    |  |
| Current         ≤ 150ppm+10mA           TRACK OPERATION           Tracking Error Series(Load Effect)         0.1%+20mV           Series(Load Effect)         ≤ 20mV           PARALLEL OPERATION           Program Accuracy (25 ± 5 ° C)         Voltage ≤ 0.05%+20mV (+20mV, rating voltage > 36V)           Load Effect         OVP ≤ 0.05%+20mV           Voltage ≤ 3mV (≤ 5mV, rating current> 3.0A); current ≤ 6mA           MEMORY           Store/Recall         99 Sets           TIMER           Setting time Resolution         0.1 second -99 Minutes 59 second (Max. 99 Minutes 59 second x 100)           Resolution         0.1 second Auto step running (for output working loop)           INTERFACE           Standard : RS-232C ; Option: GPIB (IEEE488.2)           POWER SOURCE           AC 100V/ 120V/ 220V ± 10%, 230V(+10%/-6%), 50/60Hz           DIMENSIONS & WEIGHT  |                            | < 100 10 W 20 W ::                            | h 200                              |  |
| TRACK OPERATION  Tracking Error Series(Load Effect) $\leq 20 \text{mV}$ PARALLEL OPERATION  Program Accuracy (25 ± 5 ° C)   |                            |   | voltage >36V)                      |  |
| Tracking Error<br>Series(Load Effect) $0.1\%+20mV$<br>$\leq 20mV$ PARALLEL OPERATIONProgram Accuracy<br>(25 ± 5 ° C)Voltage $\leq 0.05\%+20mV$ (+20mV, rating voltage >36V)<br>Current $\leq 0.1\%+10mA$<br>OVP $\leq 0.05\%+20mV$<br>Voltage $\leq 3mV$ ( $\leq 5mV$ , rating current >3.0A); current $\leq 6mA$ MEMORYStore/Recall99 SetsTIMERSetting time<br>Resolution<br>Function0.1 second~99 Minutes 59 second (Max. 99 Minutes 59 second x 100)<br>0.1 second<br>Auto step running (for output working loop)INTERFACEStandard : RS-232C ; Option: GPIB (IEEE488.2)POWER SOURCEAC 100V/ 120V/ 220V ± 10%, 230V(+10%/-6%), 50/60HzDIMENSIONS & WEIGHT   |                            | ≥ 130ppm+10mA                                 |                                    |  |
| Series (Load Effect)         ≤ 20mV           PARALLEL OPERATION           Program Accuracy (25 ± 5 ° C)         Voltage ≤ 0.05%+20mV (+20mV, rating voltage >36V)           Current ≤ 0.1%+10mA         OVP ≤ 0.05%+20mV           Voltage ≤ 3mV (≤ 5mV, rating current>3.0A); current ≤ 6mA           MEMORY           Store/Recall         99 Sets           TIMER           Setting time Resolution Function         0.1 second~99 Minutes 59 second (Max. 99 Minutes 59 second x 100)           INTERFACE         Standard : RS-232C; Option: GPIB (IEEE488.2)           POWER SOURCE           AC 100V/ 120V/ 220V ± 10%, 230V(+10%/-6%), 50/60Hz           DIMENSIONS & WEIGHT   |                            | 0.10/ 20 1/                                   |                                    |  |
| PARALLEL OPERATION  Program Accuracy (25 ± 5 ° C)  Load Effect Source Effect Voltage ≤ 3mV(≤5mV, rating voltage >36V)  Voltage ≤ 3mV(≤5mV, rating current>3.0A); current ≤ 6mA  Voltage ≤ 3mV; current ≤ 6mA  MEMORY  Store/Recall 99 Sets  TIMER  Setting time Resolution Function  INTERFACE Standard: RS-232C; Option: GPIB (IEEE488.2)  POWER SOURCE  AC 100V/ 120V/ 220V ±10%, 230V(+10%/-6%), 50/60Hz  DIMENSIONS & WEIGHT  |                            |   |                                    |  |
| Program Accuracy (25 ± 5 ° C)       Voltage ≤ 0.05%+20mV (+20mV, rating voltage >36V)         Load Effect Source Effect       OVP ≤ 0.05%+20mV (>5mV, rating current>3.0A); current ≤ 6mA         MEMORY       Voltage ≤ 3mV; current ≤ 6mA         Store/Recall       99 Sets         TIMER         Setting time Resolution Function       0.1 second~99 Minutes 59 second (Max. 99 Minutes 59 second x 100) 0.1 second Auto step running (for output working loop)         INTERFACE         Standard : RS-232C; Option: GPIB (IEEE488.2)         POWER SOURCE         AC 100V/ 120V/ 220V ± 10%, 230V(+10%/-6%), 50/60Hz         DIMENSIONS & WEIGHT   |                            | _   |                                    |  |
| Current ≤ 0.1%+10mA OVP ≤ 0.05%+20mV Voltage ≤ 3mV (≤ 5mV, rating current>3.0A); current ≤ 6mA Voltage ≤ 3mV; current ≤ 6mA  MEMORY  Store/Recall 99 Sets  TIMER  Setting time Resolution Function UNTERFACE  Standard: RS-232C; Option: GPIB (IEEE488.2)  POWER SOURCE  AC 100V/ 120V/ 220V ± 10%, 230V (+10%/-6%), 50/60Hz  DIMENSIONS & WEIGHT   |                            | Voltage < 0.05%+20mV(+20mV                    | rating voltage >36V)               |  |
| Load Effect $OVP \le 0.05\% + 20mV$ $Voltage \le 3mV (\le 5mV, nating current > 3.0A); current ≤ 6mA Voltage \le 3mV; current \le 6mA  MEMORY  Store/Recall 99 Sets  TIMER  Setting time 8. O.1 second 99 Minutes 59 second (Max. 99 Minutes 59 second x 100) 0.1 second Auto step running (for output working loop)  INTERFACE  Standard: RS-232C; Option: GPIB (IEEE488.2)  POWER SOURCE  AC 100V/ 120V/ 220V \pm 10%, 230V(+10%/-6%), 50/60Hz  DIMENSIONS & WEIGHT$  |                            |   | aming voltage > 50 v)              |  |
| Load Effect Voltage≤3mV(≤5mV, rating current>3.0A); current≤6mA Voltage≤3mV; current≤6mA  MEMORY  Store/Recall 99 Sets  TIMER  Setting time 0.1 second~99 Minutes 59 second (Max. 99 Minutes 59 second x 100) 0.1 second Auto step running (for output working loop)  INTERFACE  Standard: RS-232C; Option: GPIB (IEEE488.2)  POWER SOURCE  AC 100V/ 120V/ 220V ±10%, 230V(+10%/-6%), 50/60Hz  DIMENSIONS & WEIGHT  | ` =,                       |   |                                    |  |
| Source Effect Voltage ≤ 3mV; current ≤ 6mA  MEMORY  Store/Recall 99 Sets  TIMER  Setting time 0.1 second~99 Minutes 59 second (Max. 99 Minutes 59 second x 100) Resolution 0.1 second Auto step running (for output working loop)  INTERFACE  Standard: RS-232C; Option: GPIB (IEEE488.2)  POWER SOURCE  AC 100V/ 120V/ 220V ±10%, 230V(+10%/-6%), 50/60Hz  DIMENSIONS & WEIGHT   | Load Effect                |   | rent>3.0A); current≦6mA            |  |
| MEMORY  Store/Recall 99 Sets  TIMER  Setting time 0.1 second~99 Minutes 59 second (Max. 99 Minutes 59 second x 100) 0.1 second Auto step running (for output working loop)  INTERFACE  Standard: RS-232C; Option: GPIB (IEEE488.2)  POWER SOURCE  AC 100V/ 120V/ 220V ± 10%, 230V (+10%/-6%), 50/60Hz  DIMENSIONS & WEIGHT  | Source Effect              |   | •                                  |  |
| Store/Recall 99 Sets  TIMER  Setting time 0.1 second~99 Minutes 59 second (Max. 99 Minutes 59 second x 100) 0.1 second Auto step running (for output working loop)  INTERFACE  Standard: RS-232C; Option: GPIB (IEEE488.2)  POWER SOURCE  AC 100V/ 120V/ 220V ± 10%, 230V(+10%/-6%), 50/60Hz  DIMENSIONS & WEIGHT   | MEMORY                     | <u> </u>                                      |                                    |  |
| TIMER  Setting time   |                            | 99 Sets                                       |                                    |  |
| Setting time Resolution Function  INTERFACE  Standard: RS-232C; Option: GPIB (IEEE488.2)  POWER SOURCE  AC 100V/ 120V/ 220V ± 10%, 230V(+10%/-6%), 50/60Hz  DIMENSIONS & WEIGHT   |                            |   |                                    |  |
| Resolution Function O.1 second Auto step running (for output working loop)  INTERFACE  Standard: RS-232C; Option: GPIB (IEEE488.2)  POWER SOURCE  AC 100V/ 120V/ 220V ± 10%, 230V(+10%/-6%), 50/60Hz  DIMENSIONS & WEIGHT   |                            | 0.1 second~99 Minutes 59 second               | d(Max. 99 Minutes 59 second x 100) |  |
| INTERFACE Standard: RS-232C; Option: GPIB (IEEE488.2)  POWER SOURCE  AC 100V/ 120V/ 220V ±10%, 230V(+10%/-6%), 50/60Hz  DIMENSIONS & WEIGHT   | Resolution                 | 0.1 second                                    | •                                  |  |
| Standard : RS-232C ; Option: GPIB (IEEE488.2) <b>POWER SOURCE</b> AC 100V/ 120V/ 220V ±10%, 230V(+10%/-6%), 50/60Hz <b>DIMENSIONS &amp; WEIGHT</b>  |                            | Auto step running (for output wo              | rking loop)                        |  |
| POWER SOURCE AC 100V/ 120V/ 220V ±10%, 230V(+10%/-6%), 50/60Hz DIMENSIONS & WEIGHT  |                            |   |                                    |  |
| AC 100V/ 120V/ 220V ±10%, 230V(+10%/-6%), 50/60Hz  DIMENSIONS & WEIGHT  |                            |   |                                    |  |
| DIMENSIONS & WEIGHT   |                            |   |                                    |  |
|   |                            | , 230V(+10%/-6%), 50/60Hz                     |                                    |  |
| 230(W) x 140(H) x 380(D) mm , Approx.10kg   |                            |   |                                    |  |
|   | 230(W) x 140(H) x 380(D) m | m , Approx.10kg                               |                                    |  |

### **ORDERING INFORMATION**

PST-3202 158W Triple Output Programmable D.C. Power Supply

PST-3201 96W Triple Output Programmable D.C. Power Supply

ACCESSORIES :

User manual x 1, Power cord x 1, Test lead: GTL-104 x 3 (PST-3202) or GTL-105 x 3 (PST-3201) European test lead: GTL-204 x 3 (PST-3202) or GTL-203 x 3 (PST-3201)

Opt.01: GPIB Interface (factory installed)

### **Optional Accessories**

GRA-407 Rack Mounting (19", 4U)
GTL-232 RS232C Cable, 9-pin Female to 9-pin, null Modem for Computer