



34300E Series

Compact High Power DC Electronic Load

FEATURES

- With parallel function maximum power up to 320KW.
- Maximum up to 8 units master / slave parallel control.
- 5 digit V/A/W Meter.
- High-speed measurement and communication transmission.
- Large LCD Display \ setting values can be adjusted by rotary knob or push button.
- Voltage \ Current and Watt value can be displayed simultaneously.
- Capable for Power Factor Correction (PFC) Test.
- OCP \ OPP test function automatically.
- Power ON status can be set.
- CC, CR, CV, CP , CC+CV(CV with Current Limit) ,CP+CV(CV with Power Limit), Dynamic and Short operation mode.
- SHORT time setting.

GW INSTEK
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34300E Series Compact High Power DC Electronic Load (1250V)



Features

- Maximum power up to 320KW
- Maximum up to 8 units master / slave parallel control
- 5 digit V/A/W Meter.
- High-speed measurement and communication transmission.
- Large LCD Display \ setting values can be adjusted by rotary knob or push button.
- Voltage \ Current and Watt value can be displayed simultaneously.
- Capable for Power Factor Correction (PFC) Test. (600V / 1000V Model)
- OCP \ OPP test function automatically.
- Power ON status can be set.
- CC, CR, CV, CP, Dynamic and Short operation mode.
- SHORT time setting.
- Protections against I,W,°C and over-voltage alert.
- Voltage meter display the polarity positive ("+") or negative ("-") is selectable.
- Support MPPT CC \ CR \ CV test function for solar panel
- Optional Interface : GPIB \ RS232 \ USB \ LAN.
- Built-in soft-start circuit function allowing the U.U.T. power supply to be directly connected to the 34300E series load input terminal, no longer need a large relay switch with an external soft-start circuit.
- Optional 9923 load current waveform generator to provide the battery actual discharge current waveform simulation (option)

Descriptions

- 34300E Series has its own control and display panel, CC / CR / CV / CP / Dynamic modes, 150 sets Store / Recall memory which provides load set-up more efficiently, also can be remote controlled via GPIB \ RS232 \ USB and LAN interface.
- SHORT time setting and SHORT_VH, SHORT_VL setting function, also can measure Short Voltage and Current.
- Dynamic can be simulated under CC, CP mode. The current Rise / Fall slew rate can be adjusted individually and there is an external signal input for a Arbitrary Waveform to simulate load current.
- Single key for OCP \ OPP test function will be more efficiency and accuracy on OCP \ OPP testing.
- Programmable Load ON/OFF voltage, GO/NG meter check, Voltage meter display "+" or "-" is selectable and 150 sets Store/Recall larger memory is much advance feature for each different application.
- 150 sets test parameter and status storage function, user can recall the storage memory real time in accordance with the auto sequence requirement.
- Maximum Voltage up to 1250V provide an idea testing solution for Power Factor Correction test.
- Master / Slave control units maximum are up to 1 MASTER, 7 SLAVES.

Applications

- Voltage / Current source
- SMPS transient response
- CV / Current limit testing and battery emulation
- Battery charger
- Battery discharge
- R&D Quality Control
- ATE system
- Production testing

SPECIFICATIONS

| Model | 34330E | | 34335E | | 34340E | |
|--|--|------------------------------|-------------------------------|------------------------------|-------------------------------|------------------------------|
| Power | 30 KW | 30 KW | 35 KW | 35 KW | 40 KW | 40 KW |
| Current | 0 A to 15 A | 0 A to 150 A | 0 A to 17.5 A | 0 A to 175 A | 0 A to 20 A | 0 A to 200 A |
| Voltage | 0 V to 1250 V | | | | | |
| Protections | | | | | | |
| Over Power Protection(OPP) | 105 % | | | | | |
| Over Current Protection(OCP) | 104 % | | | | | |
| Over Voltage Protection(OVP) | 104 % | | | | | |
| Over Temp Protection(OTP) | YES | | | | | |
| Constant Current Mode | | | | | | |
| Range #1 | 15 A | 150 A | 17.5 A | 175 A | 20 A | 200 A |
| Resolution | 0.24 mA | 2.4 mA | 0.28 mA | 2.8 mA | 0.32 mA | 3.2 mA |
| Accuracy #2 | ± 0.05 % of (Setting + Range) | | | | | |
| Constant Resistance Mode | | | | | | |
| Range | 9996 Ω to 8.33 Ω | 8.33 Ω to 0.417 Ω | 8568 Ω to 7.14 Ω | 7.14 Ω to 0.357 Ω | 7500 Ω to 6.25 Ω | 6.25 Ω to 0.315 Ω |
| Resolution | 2.0008 μS | 0.139 mΩ | 2.334 μS | 0.119 mΩ | 2.6667 μS | 0.105 mΩ |
| Accuracy | ± 0.2 % of (Setting + Range) | | | | | |
| Constant Voltage Mode | | | | | | |
| Range | 1250 V | | 1250 V | | 1250 V | |
| Resolution | 20 mV | | 20 mV | | 20 mV | |
| Accuracy | ± 0.05 % of (Setting + Range) | | | | | |
| Constant Power Mode | | | | | | |
| Range | 3000 W | 30000 W | 3500 W | 35000 W | 4000 W | 40000 W |
| Resolution | 48 mW | 480 mW | 56 mW | 560 mW | 64 mW | 640 mW |
| Accuracy #3 | ± 0.1 % of (Setting + Range) | | | | | |
| Constant Voltage + Current Limit Mode | | | | | | |
| Range | 1250 V | 150 A | 1250 V | 175 A | 1250 V | 200 A |
| Resolution | 20 mV | 2.4 mA | 20 mV | 2.8 mA | 20 mV | 3.2 mA |
| Accuracy | ± 0.05 % of (Setting + Range) | ± 1.0 % of (Setting + Range) | ± 0.05 % of (Setting + Range) | ± 1.0 % of (Setting + Range) | ± 0.05 % of (Setting + Range) | ± 1.0 % of (Setting + Range) |
| Constant Voltage + Power Limit Mode | | | | | | |
| Range | 1250 V | 30000 W | 1250 V | 35000 W | 1250 V | 40000 W |
| Resolution | 20 mV | 480 mW | 20 mV | 560 mW | 20 mV | 640 mW |
| Accuracy | ± 0.05 % of (Setting + Range) | ± 1.0 % of (Setting + Range) | ± 0.05 % of (Setting + Range) | ± 1.0 % of (Setting + Range) | ± 0.05 % of (Setting + Range) | ± 1.0 % of (Setting + Range) |
| MPPT Mode | | | | | | |
| Algorithm | P&O | | | | | |
| Load mode | CV | | | | | |
| P&O interval | 1000 ms to 60000 ms ; resolution 1000 ms | | | | | |
| Dynamic Mode | | | | | | |
| Timing | | | | | | |
| Thigh & Tlow | 0.050 ms to 9.999 ms / 99.99 ms / 999.9 ms / 9999 ms | | | | | |
| Resolution | 0.001 ms / 0.01 ms / 0.1 ms / 1 ms | | | | | |
| Accuracy | 1 μs / 10 μs / 100 μs / 1 ms + 50 ppm | | | | | |
| Slew rate | 0.012 A/μs to 0.75 A/μs | 0.12 A/μs to 7.5 A/μs | 0.014 A/μs to 0.875 A/μs | 0.14 A/μs to 8.75 A/μs | 0.016 A/μs to 1 A/μs | 0.16 A/μs to 10 A/μs |
| Resolution | 0.003 A/μs | 0.03 A/μs | 0.0035 A/μs | 0.035 A/μs | 0.002 A/μs | 0.04 A/μs |
| Min. Rise Time | 20 μs (typical) | | | | | |
| Accuracy | ± (5 % of Setting) ± 10 μs | | | | | |
| Current | | | | | | |
| Range | 0 A to 15 A | 15 A to 150 A | 0 A to 17.5 A | 17.5 A to 175 A | 0 A to 20 A | 20 A to 200 A |
| Resolution | 0.24 mA | 2.4 mA | 0.28 mA | 2.8 mA | 0.32 mA | 3.2 mA |
| Measurement | | | | | | |
| Voltage Read Back | | | | | | |
| Range (5 Digital) | 0 V to 125 V | 125 V to 1250 V | 0 V to 125 V | 125 V to 1250 V | 0 V to 125 V | 125 V to 1250 V |
| Resolution | 2 mV | 20 mV | 2 mV | 20 mV | 2 mV | 20 mV |
| Accuracy | ± 0.025 % of (Reading + Range) | | | | | |
| Current Read Back | | | | | | |
| Range (5 Digital) | 0 A to 15 A | 15 A to 150 A | 0 A to 17.5 A | 17.5 A to 175 A | 0 A to 20 A | 20 A to 200 A |
| Resolution | 0.24 mA | 2.4 mA | 0.28 mA | 2.8 mA | 0.32 mA | 3.2 mA |
| Accuracy | ± 0.05 % of (Reading + Range) | | | | | |
| Power Read Back | | | | | | |
| Range (5 Digital) | 3000 W | 30000 W | 3500 W | 35000 W | 4000 W | 40000 W |
| Resolution | 0.1 W | 1 W | 0.1 W | 1 W | 0.1 W | 1 W |
| Accuracy #4 | ± 0.06 % of (Reading + Range) | | | | | |
| General | | | | | | |
| Short Circuit | | | | | | |
| Current | 150 A | | 175 A | | 200 A | |
| Load ON Voltage | 1.0 V to 250 V | | | | | |
| Load OFF Voltage | 0 V to 250 V | | | | | |
| Power Consumption | 2800 Wmax | | 3250 Wmax | | 3700 Wmax | |
| Dimension(HxWxD) | 1197 mm x 647 mm x 766 mm | | 1353 mm x 647 mm x 766 mm | | 1509 mm x 647 mm x 766 mm | |
| Weight | 340 Kg | | 390 Kg | | 430 Kg | |
| Operating Range | | | | | | |
| Temperature #5 | 0 °C to 40 °C | | | | | |
| Humidity | 20 % to 85 %rh | | | | | |
| Storage Range | | | | | | |
| Temperature | -20 °C to +70 °C | | | | | |
| Humidity | ≤ 90 %rh | | | | | |
| Withstanding Voltage Test | | | | | | |
| AC input and FG | AC 1500 V, 1 minute. | | | | | |
| AC input and Load terminal | AC 3000 V, 1 minute. | | | | | |
| Load terminal and FG | AC 1500 V, 1 minute. | | | | | |
| Safety & EMC | CE | | | | | |

Note #1 : The range is automatically or forcing to range II only in CC mode

Note #2 : If the operating current is below range 0.1 %, the accuracy specification is 0.1 % F.S.

Note #3 : If the operating voltage is higher than 600 V, the accuracy specification is 0.5 % F.S.

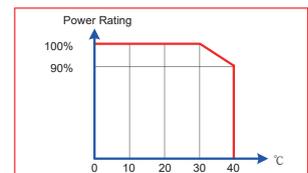
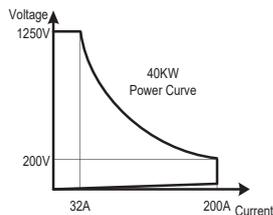
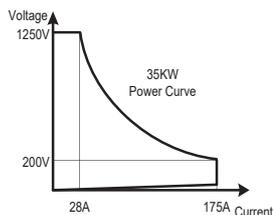
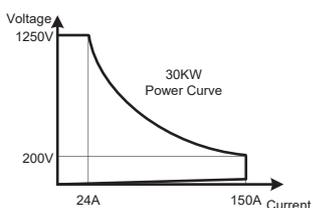
Note #4 : Power F.S. = Vrange F.S. x Irange F.S.

Note #5: Operating temperature range is 0 °C to 40 °C, All specifications apply for 25 °C±5 °C, Except as noted

Input AC Power : 100 Vac to 230 Vac ± 10 %, 50/60 Hz

Cooling : Advanced Fan Cooled

All specifications are subject to change without notice.



Order Information

| | | |
|---------------|-------------------------------|------------------------|
| 34330E | High Power DC Electronic Load | 1250 V / 150 A / 30 kW |
| 34335E | High Power DC Electronic Load | 1250 V / 175 A / 35 kW |
| 34340E | High Power DC Electronic Load | 1250 V / 200 A / 40 kW |



RS232 interface



GPIB interface



USB interface



LAN interface



STANDARD ACCESSORIES

Banana Plug x 2 PCs
 BNC-BNC CABLE L=1M x 1 PC
 HD-DSUB 15PIN Parallel Cable x 1 PC
 Hex Head Screw M8*1.25 L=35mm NI x4 PCs

Round Head Phillips Screw M8*1.25 L=35mm NI x4 PCs
 NUT M8 x 1.25 NI x 4 PCs
 WASHER INSIDE DIA-8.5 OUTSIDE x 8 PCs
 Power Cord x 1 PC

OPTIONAL ACCESSORIES

RS232 interface Hook Ring
 GPIB interface FPIB cable length 1 m
 USB interface FPIB cable length 2 m
 LAN interface USB TYPE A to TYPE B cable length 1.8 m

GTL-170 1000 Ampere copper braid (single hole) 1M * 2
 GTL-171 1000 Ampere copper braid (single hole) 2M * 2
 GTL-172 1000 Ampere copper braid (single hole) 3M * 2
 GTL-173 1000 Ampere copper braid (single hole) 4M * 2
 GTL-174 1000 Ampere copper braid (single hole) 5M * 2
 GTL-175 500 Ampere copper braid (single hole) 1M * 2
 GTL-176 500 Ampere copper braid (single hole) 2M * 2
 GTL-177 500 Ampere copper braid (single hole) 3M * 2
 GTL-178 500 Ampere copper braid (single hole) 4M * 2

Note: * Regarding the product delivery date, please contact your regional sales representative.

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