



# 36000A Series

## Compact High Power DC Electronic Load

### FEATURES

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- With parallel function maximum power up to 480 KW.
- 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.
- over ON status can be set.
- CC, CR, CV, CP , CC+CV(CV mode with Current Limit) , CP+CV (CP mode with Power Limit) , Dynamic and Short operation mode.
- SHORT time setting.

# 36000A Series Compact High Power DC Electronic Load (50 kW, 60 kW)



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- SHORT time setting.
- CC, CR, CV, CP , CC+CV(CV mode with Current Limit) , CP+CV(CP mode with Power Limit) , Dynamic and Short operation mode.
- Protections against I,W,°C and over-voltage alert.
- Voltage meter display the polarity positive (“+”) or negative (“-”) is selectable.
- Optional Interface : GPIB \ RS232 \ USB \ LAN.
- Support MPPT CV test function for solar panel
- Built-in soft-start circuit function allowing the U.U.T. power supply to be directly connected to the 36000A series load input terminal, no longer need a large relay switch with an external soft-start circuit.

## Descriptions

- 36000A 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 an 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 1000 V provide an idea testing solution for Power Factor Correction test.
- Master / Slave control units maximum up to 1 MASTER, 7 SLAVE.

## 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	36250A		36260A		36350A		36360A	
Power	50 KW	50 KW	60 KW	60 KW	50 KW	50 KW	60 KW	60 KW
Current	0 A to 21 A	0 A to 210 A	0 A to 24 A	0 A to 240 A	0 A to 50 A	0 A to 500 A	0 A to 60 A	0 A to 600 A
Voltage	0 V to 600 V		0 V to 600 V		0 V to 1000 V		0 V to 1000 V	
Min. Operating Voltage	20 V @ 210 A		20 V @ 240 A		30 V @ 500 A		30 V @ 600 A	
<b>Protections</b>								
Over Power Protection(OPP)	105 %							
Over Current Protection(OCF)	104 %							
Over Voltage Protection(OVP)	105 %							
Over Temp Protection(OTP)	YES							
<b>Constant Current Mode</b>								
Range *1	21 A	210 A	24 A	240 A	5.00 A	500 A	60 A	600 A
Resolution	0.336 mA	3.36 mA	0.384 mA	3.84 mA	0.875 mA	8.75 mA	1 mA	10 mA
Accuracy	± 0.05 % of (Setting + Range)							
<b>Constant Resistance Mode</b>								
Range	8571 Ω to 2.857 Ω	2.857 Ω to 0.0477 Ω	7500 Ω to 2.5 Ω	2.5 Ω to 0.0417 Ω	2280 Ω to 1.9 Ω	1.9 Ω to 0.02 Ω	2000 Ω to 1.666 Ω	1.666 Ω to 0.01668 Ω
Resolution*6	5.83 μS	47.7 μΩ	6.66 μS	41.7 μΩ	8.7 μS	32 μΩ	10 μS	27.833 μΩ
Accuracy	± 0.2 % of (Setting + Range)							
<b>Constant Voltage Mode</b>								
Range	0 V to 600 V				10 V to 1000 V			
Resolution	10 mV				16 mV			
Accuracy	± 0.05 % of (Setting + Range)							
<b>Constant Power Mode</b>								
Range	5 KW	50 KW	6 KW	60 KW	5 KW	50 KW	6 KW	60 KW
Resolution	0.0875 W	0.875 W	0.1 W	1 W	0.0875 W	0.875 W	0.1 W	1 W
Accuracy *2	± 0.1 % of (Setting + Range)							
<b>Constant Voltage + Current Limit Mode</b>								
Range	600 V	210 A	600 V	240 A	1000 V	500 A	1000 V	600 A
Resolution	10 mV	3.36 mA	10 mV	3.84 mA	16 mV	8.75 mA	16 mV	10 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)	± 0.05 % of (Setting + Range)	± 1.0 % of (Setting + Range)
<b>Constant Voltage + Power Limit Mode</b>								
Range	600 V	50 KW	600 V	60 KW	1000 V	50 KW	1000 V	60 KW
Resolution	10 mV	0.875 W	10 mV	1 W	16 mV	0.8 W	16 mV	1 W
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)	± 0.05 % of (Setting + Range)	± 1.0 % of (Setting + Range)
<b>MPPT Mode</b>								
Algorithm	P & O							
Load mode	CV							
P&O interval	1000 ms to 60000 ms ; resolution 1000 ms							
<b>Dynamic Mode</b>								
<b>Timing</b>								
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	6.8m A/μs to 1.05 A/μs	68 mA/μs to 10.5 A/μs	9.2 mA/μs to 1.2 A/μs	192 mA/μs to 12 A/μs	0.04 A/μs to 2.5 A/μs	0.4 A/μs to 25 A/μs	0.048 A/μs to 3 A/μs	0.48 A/μs to 30 A/μs
Resolution	4.2 mA/μs	42 mA/μs	4.8 mA/μs	48 mA/μs	0.01 A/μs	0.1 A/μs	0.012 A/μs	0.12 A/μs
Min. Rise Time	20 μs (typical)							
Accuracy	± (5 % of Setting) ± 10 μs							
<b>Current</b>								
Range	0 A to 21 A	21 A to 210 A	0 A to 24 A	24 A to 240 A	0 A to 50 A	50 A to 500 A	0 A to 60 A	60 A to 600 A
Resolution	0.336 mA	3.36 mA	0.384 mA	3.84 mA	0.875 mA	8.75 mA	1 mA	10 mA
<b>Measurement</b>								
<b>Voltage Read Back</b>								
Range (5 Digital)	0 V to 60 V	60 V to 600 V	0 V to 60 V	60 V to 600 V	0 V to 100 V	100 V to 1000 V	0 V to 100 V	100 V to 1000 V
Resolution	1 mV	10 mV	1 mV	10 mV	1.6 mV	16 mV	1.6 mV	16 mV
Accuracy	± 0.025 % of (Reading + Range)							
<b>Current Read Back</b>								
Range (5 Digital)	0 A to 21 A	21 A to 210 A	0 A to 24 A	24 A to 240 A	0 A to 50 A	50 A to 500 A	0 A to 60 A	60 A to 600 A
Resolution	0.336 mA	3.36 mA	0.384 mA	3.84 mA	0.875 mA	8.75 mA	1 mA	10 mA
Accuracy	± 0.05 % of (Reading + Range)							
<b>Power Read Back</b>								
Range (5 Digital)	5 KW	50 KW	6 KW	60 KW	5 KW	50 KW	6 KW	60 KW
Resolution	0.1 W	1 W	0.1 W	1 W	0.1 W	1 W	0.1 W	1 W
Accuracy *3	± 0.06 % of (Reading + Range)							
<b>General</b>								
<b>Short Circuit</b>								
Current	210 A		240 A		500 A		600 A	
Load ON Voltage	0.4 V to 100 V		0.4~ 100V		10.4 V to 200 V		10.4 V to 200 V	
Load OFF Voltage	0 V to 99 V		0 ~ 99V		0 V to 198.4 V		0 V to 198.4 V	
<b>Operating Range</b>								
Temperature *4	0 °C to 40 °C							
Humidity	20 % to 85 %rh							
<b>Storage Range</b>								
Temperature	-20 °C to +70 °C							
Humidity	≤ 90 %rh							
<b>Withstanding voltage test</b>								
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.							
<b>Safety &amp; EMC</b>								
CE								

Note \*1 : The range is automatically forcing to range II only in CC mode  
 Note \*2 : If the operating voltage is higher than 600 V, the accuracy specification is 0.5 % F.S.  
 Note \*3 : Power F.S. = Vrange F.S. x Irange F.S.  
 Note \*4: Operating temperature range is 0 °C to 40 °C, All specifications apply for 25 °C±5 °C, Except as noted  
 Note \*5: 1000 V Model Specifications apply only for load input voltage > 50 V  
 Note \*6 : μS (microsiemens) is the unit of conductance(G), one siemens equal to 1/Ω  
 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

<b>36250A</b>	High Power DC Electronic Load	600 V / 210 A / 50 kW
<b>36260A</b>	High Power DC Electronic Load	600 V / 240 A / 60 kW
<b>36350A</b>	High Power DC Electronic Load	1000 V / 500 A / 50 kW
<b>36360A</b>	High Power DC Electronic Load	1000 V / 600 A / 60 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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