

# 6010

Charger / Quick Charger / Adapter / LED Driver System



AUTOMATIC TEST EQUIPMENT (ATE)



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## Features

- Cost effective and full - featured modular design
- Multi - function test capability for charger, adapter, LED driver power
- Multi-U.U.T test simultaneously capability › significantly enhance the production line throughput
- Operating environment of Windows 7 or higher (included)
- Open architecture software platform
- Support related hardware expansion
  - User editable test item
  - User editable test program
  - User editable report format & statistical report
  - On-line control function
  - User authority control
  - Support Bar Code Reader

## Descriptions

- 6010 Charger / Quick Charger / Adapter / LED Driver Test System is able to meet multi-types power products test requirements › and its multi-U.U.T test simultaneously capability can significantly enhance the production line throughput. It also possess multi-modular combination that includes low noise analog AC source with Triac to simulate output, four sets precision power meter, two or four sets ripple noise / timing measurement module, four sets OVP DC power supply, 3310F series & 3332F/3336F Electronic Load module and unique design 3340G series for LED power driver output test.
- Test items are included with five categories Power Test Features :
  1. Output Performances -- the general performance of U.U.T
  2. Input Characteristics -- the input power parameters of U.U.T
  3. Regulation Tests -- the regulation of U.U.T when the change of the input power and load
  4. Timing & Transient -- measuring the timing and transient of Turn ON, Turn OFF
  5. Protection Tests -- trigger and test the protection circuit of U.U.T.

## LED Driver Test Items

### Output Performances

- DC Output Voltage
- DC Output Current
- Ripple Current (RMS & Peak-to-Peak)
- Dimming Current (PWM & Triac mode)
- Dimming Frequency
- Dimming Duty
- Efficiency
- Hold ON adjustment
- Overshoot Voltage

### Input Characteristics

- Input Inrush Current
- Input RMS Current
- Input Peak Current
- Input Power
- Input Power Factor
- Input Voltage RAMP
- Input Frequency RAMP
- Input Voltage Interrupt (AC cycle drop out)
- Input Power Line Disturbance Simulation

### Regulation Tests

- Load Regulation
- Line Regulation
- Combine Regulation

### Timing & Transient

- Set-up Time (Turn ON Time)
- Hold-up Time (Turn OFF Time)
- Rise Time
- Fall Time

### Protection Tests

- Short Circuit Test
- OV Protection
- OC Protection
- OP Protection

### Special Features

- TTL Signal Control
- Relay Control

## Charger / Adapter Test Items

### Output Performances

- DC Output Voltage
- DC Output Current
- Efficiency
- Hold ON adjustment
- Overshoot Voltage
- Overshoot Current
- Noise (RMS & Peak-to-Peak)

### Input Characteristics

- Input Inrush Current
- Input RMS Current
- Input Peak Current
- Input Power
- Input Power Factor
- Input Voltage RAMP
- Input Frequency RAMP
- Input Voltage Interrupt (AC cycle drop out)
- Input Power Line Disturbance Simulation

### Regulation Tests

- Load Regulation
- Line Regulation
- Combine Regulation
- Dynamic Load Regulation
- Sync. dynamic Load Regulation

### Timing & Transient

- Set-up Time (Turn ON Time)
- Hold-up Time (Turn OFF Time)
- Rise Time
- Fall Time

### Protection Tests

- Short Circuit Test
- OV Protection
- OC Protection
- OP Protection
- Temperature Simulation

### Special Test

- Average Efficiency Test

### Special Features

- TTL Signal Control
- Relay Control

## Specifications

### System Controller

MODEL	PC		
CPU	i5-3470(3.2GHz) or faster	Monitor	22"
SRAM	256KB	Keyboard	101 keys
DRAM	4GB or higher	I/O	Mouse / Print port
Hard driver	500GB or higher	System interface	RS-232
CD-ROM	40X or faster	System I/O	1:8 RS-232 Card

### Power Meter

MODEL	4013A	4015A
No. of input Channel	4	
Vrms range	30V / 305V	15V / 30V 50V / 150V 300V / 500V
Irms range	20mA / 200mA 2000mA / 20A 200A peak	20mA / 50mA 200mA / 500mA 2A / 5A / 10A 20A / 200A peak
Low Pass Filter (V & A)	50KHz	
V/I harmonic number	1~50th (only 4015A)	
V/I THD range	0%~255% (only 4015A)	

### Noise and Timing Analyzer Module

MODEL	4031	4032
Mainframe	60104	
No. of Input Channel	1	2
Noise measurement range	0~0.6V / 3Vp-p	
Low Pass Filter	up to 20MHz	
Input Circuit	Differential input	
Timing range	1 Sec/2 Sec/4 Sec/8 Sec/16 Sec	
Voltage range	0~80V / 600V	
Current range	*(1/4F.S.) / (F.S.) A	
<b>V-Ripple / I-Ripple measurement</b>		
Band width	100KHz	
Voltage range	0~80V / 600V	
Measurement range	0~3.2V / 20Vp-p	
Current range	*(1/4F.S.) / (F.S.) A	
Measurement range	*(1/8F.S.) / (1/2F.S.) Ap-p	
Sampling rate	100KHz	
Update rate	50~1000mS	
<b>V-Over / I-Over shoot</b>		
Band width	100KHz	
Voltage range	0~80V / 600V	
Current range	*(1/4F.S.) / (F.S.) A	
Sampling rate	100KHz	
Update rate	50~1000mS	
<b>Dimming Current measurement</b>		
Band width	100KHz	
Current range	*(1/8F.S.) / (1/2F.S.) A	
Frequency range	10Hz~35KHz	
Duty range	3μS~90mS	
Sampling rate	100KHz	
Update rate	50~1000mS	

### DC Source ( OVP testing )

MODEL	PFR-100L	PFR-100M
No. of output Channel	4	
Power Rating	100W	100W
Voltage range	50V	250V
Current range	10A	2A

### DC Source

MODEL	PSU-60-25	PSU-150-10
Power Rating	Voltage range	Current range
1500W	60V / 25A	150V / 10A

### AVR ( Auto Voltage Regulator )

MODEL	5303
Power Rating	3KVA
Input Voltage Rating	230Vrms +/- 10%
Output Voltage Rating	230,264,277Vrms Selectable
Accuracy	±2.5Vrms
Interface	RS-232 remote control only

### Noise and Timing Analyzer

MODEL	4034-1	4034-2	4034
No. of Input Channel	1	2	4
Noise measurement range	0~0.6V / 3Vp-p		
Low Pass Filter	up to 20MHz		
Input Circuit	Differential input		
Timing range	1 Sec/2 Sec/4 Sec/8 Sec/16 Sec		
Voltage range	0~80V / 600V		
Current range	*(1/4F.S.) / (F.S.) A		
<b>V-Ripple / I-Ripple measurement</b>			
Band width	100KHz		
Voltage range	0~80V / 600V		
Measurement range	0~3.2V / 20Vp-p		
Current range	*(1/4F.S.) / (F.S.) A		
Measurement range	*(1/8F.S.) / (1/2F.S.) Ap-p		
Sampling rate	100KHz		
Update rate	50~1000mS		
<b>V-Over / I-Over shoot</b>			
Band width	100KHz		
Voltage range	0~80V / 600V		
Current range	*(1/4F.S.) / (F.S.) A		
Sampling rate	100KHz		
Update rate	50~1000mS		
<b>Dimming Current measurement</b>			
Band width	100KHz		
Current range	*(1/8F.S.) / (1/2F.S.) A		
Frequency range	10Hz~35KHz		
Duty range	3μS~90mS		
Sampling rate	100KHz		
Update rate	50~1000mS		

## Specifications

### Voltage Regulator

<b>MODEL</b>	<b>5080</b>
No. of Channel/Cell	4 x 4
Voltage range	0 ~ 5V
Accuracy	±0.2% of (Setting + Range)
Resolution	0.001V
Max Current	12mA ( AC Input 90V )
Slew rate	0.166V/us
Interface	RS-232

### AC Source

<b>MODEL</b>	<b>APS-7050</b>
Power rating	500VA
Voltage range	0~150Vrms / 0~310Vrms
Current range	4.2A / 2.1A
Integration measurement	Power / Time
Output measurement	Yes

<b>MODEL</b>	<b>APS-7100</b>
Power rating	1KVA
Voltage range	150 / 200V
Current range	8.4A / 4.2A
Output measurement	yes

<b>MODEL</b>	<b>6605</b>	<b>6610</b>	<b>6620</b>	<b>6630</b>	<b>6650</b>
Power rating	500VA	1000VA	2000VA	3000VA	5000VA
Voltage range	0~150V / 0~300V				
Current range	4.6A/2.3A	9.2A/4.6A	18.4A/9.2A	27.6A/13.8A	46A/23A

### Electronic Load Module

#### MODEL : 3310F , 3340G Series / 3332F / 3336F

Mainframe	60104
Load Mode	CC / CR / CV / CP / LED
Power rating	40-300W
Voltage range	0~500V
Current range	up to 60A
Slew rate	up to 2.5A/μS
Measurements	Power / Voltage / Current
Monitoring output	Current
Voltage Sense input	Yes

### NTC ( Negative Temperature Coefficient ) Emulator

NTC resistor	10KΩ
Beta Range	2000K~5000K
Temp. Range	-40~120°C

Note : F.S. Load Current range

## Noise & Timing Analyzer Module

MODEL	4031	4032
No. of Input Channel	1	2
<b>Timing Measurement</b>		<b>Ripple Measurement</b>
<b>Set-up/Hold-up/Rise/Fall Time</b>		<b>Band Width</b>
<b>Voltage range</b>	0~80 / 600 Vdc	<b>Voltage range</b>
<b>Current range</b>	*(1/4F.S.) / (F.S.) Adc	<b>Measurement range</b>
<b>Timing range</b>	1Sec/2Sec/4Sec/8Sec/16Sec	Resolution
Resolution	1μS/2μS/4μS/8μS/16μS	<b>Current range</b>
<b>Vth1/Vth2</b>		<b>Measurement range</b>
<b>Voltage range</b>	5%~95% of reading	Resolution
Resolution	0.1V / 1V , 0.001A/0.01A	Accuracy
Accuracy	±2% of (Reading + Range)	<b>Sampling Rate</b>
<b>Noise Measurement</b>		<b>Update Rate</b>
<b>Low Pass Filter</b>	up to 20 MHz	Resolution
<b>Voltage range</b>	0.6 / 3Vp-p	<b>Dimming Measurement</b>
Resolution	1mV	<b>Band Width</b>
Accuracy	±2% of Reading + 5mV	<b>Current range</b>
<b>Over Shoot Measurement</b>		Resolution
<b>Band Width</b>	0~100 KHz	Accuracy
<b>Voltage range</b>	0~80 / 600 Vdc	<b>Sampling Rate</b>
<b>Measurement range</b>	0~80 / 600 Vdc	<b>Update Rate</b>
Resolution	0.1 / 1Vdc	Resolution
<b>Current range</b>	*(1/4F.S.) / (F.S.) Adc	<b>Frequency range</b>
<b>Measurement range</b>	*(1/4F.S.) / (F.S.) Adc	Resolution
Resolution	0.001 / 0.01A	Accuracy
Accuracy	±5% OF (Reading + Range)	<b>Duty(Ton) Range</b>
<b>Sampling Rate</b>	100KHz	Resolution
<b>Update Rate</b>	50~1000 mS	Accuracy
Resolution	1mS	

Note : F.S. Load Current range

## Noise & Timing Analyzer

MODEL	4034-1	4034-2	4034
No. of Input Channel	1	2	4
<b>Timing Measurement</b>		<b>Ripple Measurement</b>	
<b>Set-up/Hold-up/Rise/Fall Time</b>		<b>Band Width</b>	0~100 KHz
<b>Voltage range</b>	0~80 / 600 Vdc	<b>Voltage range</b>	0~80 / 600 Vdc
<b>Current range</b>	*(1/4F.S.) / (F.S.) Adc	<b>Measurement range</b>	0~3.2 / 20 Vp-p
<b>Timing range</b>	1 Sec/2 Sec/4 Sec/8 Sec/16 Sec	<b>Resolution</b>	0.001 / 0.01V
<b>Resolution</b>	1µS/2µS/4µS/8µS/16µS	<b>Current range</b>	*(1/4F.S.) / (F.S.) Adc
<b>Vth1/Vth2</b>		<b>Measurement range</b>	*(1/8F.S.) / (1/2F.S.) Ap-p
<b>Voltage range</b>	5%~95% of reading	<b>Resolution</b>	0.001 / 0.01A
<b>Resolution</b>	0.1V / 1V , 0.001A/0.01A	<b>Accuracy</b>	±5% of (Reading + Range)
<b>Accuracy</b>	±2% of (Reading + Range)	<b>Sampling Rate</b>	100KHz
<b>Noise Measurement</b>		<b>Update Rate</b>	50~1000 mS
<b>Low Pass Filter</b>	up to 20 MHz	<b>Resolution</b>	1mS
<b>Voltage range</b>	0.6 / 3Vp-p	<b>Dimming Measurement</b>	
<b>Resolution</b>	1mV	<b>Band Width</b>	100KHz
<b>Accuracy</b>	±2% of Reading + 5mV	<b>Current range</b>	*(1/8F.S.) / (1/2F.S.) Adc
<b>Over Shoot Measurement</b>		<b>Resolution</b>	0.001 / 0.01A
<b>Band Width</b>	0~100 KHz	<b>Accuracy</b>	±5% of (Reading + Range)
<b>Voltage range</b>	0~80 / 600 Vdc	<b>Sampling Rate</b>	100KHz
<b>Measurement range</b>	0~80 / 600 Vdc	<b>Update Rate</b>	50~1000 mS
<b>Resolution</b>	0.1 / 1Vdc	<b>Resolution</b>	1mS
<b>Current range</b>	*(1/4F.S.) / (F.S.) Adc	<b>Frequency range</b>	10Hz~35KHz
<b>Measurement range</b>	*(1/4F.S.) / (F.S.) Adc	<b>Resolution</b>	0.1Hz
<b>Resolution</b>	0.001 / 0.01A	<b>Accuracy</b>	±1% of (Reading + Range)
<b>Accuracy</b>	±5% OF (Reading + Range)	<b>Duty(Ton) Range</b>	3µS~90mS
<b>Sampling Rate</b>	100KHz	<b>Resolution</b>	1µS
<b>Update Rate</b>	50~1000 mS	<b>Accuracy</b>	±1% of (Reading + Range)
<b>Resolution</b>	1mS		

Note : F.S. Load Current range

## DC OVP Source

MODEL	PFR-100L	PFR-100M
No. of output Channel	4	
<b>Power Rating</b>	100W	100W
<b>Voltage range</b>	50V	250V
<b>Resolution</b>	2mV	10mV
<b>Accuracy</b>	±1% of setting	
<b>Current range</b>	10A	2A
<b>Resolution</b>	1mA	0.1mA
<b>Accuracy</b>	±1% of setting	

## DC Source

MODEL	PSU 60-25 / PSU 150-10	
<b>Output</b>	<b>Measurements</b>	
<b>Power Rating</b>	1500W	<b>DCV meter</b>
<b>Voltage range</b>	60V / 150V	<b>Resolution</b>
<b>Accuracy</b>	±1% of (Setting + Range)	60V / 120V
<b>Resolution</b>	2mV / 5.2mV	0.01V(0~99) / 0.1V (100~120)
<b>Load Regulation</b>	±1%	<b>Accuracy</b>
<b>Line Regulation</b>	±1%	±1% of (Reading + Range)
<b>Current ranges</b>	25A / 10A	<b>DCA meter</b>
<b>Accuracy</b>	±1% of (Setting + Range)	25A / 12.5A
<b>Resolution</b>	0.8mA / 0.5mA	<b>Resolution</b>
<b>Protection</b>	OVP, OTP, OPP	0.01A
		<b>Accuracy</b>
		±2% of (Reading + Range)
		<b>Interface</b>
		RS-232

## Power Meter

MODEL : 4013A					
<b>No. of Input Channel</b>	4		<b>DCW meter</b>	800mW / 8W / 80W / 800W / 8000W	
<b>ACV meter(Vrms)</b>	30V / 305V		Resolution	32-bit	
Resolution	16-bit		Accuracy	±0.5% of ( Reading + Range )	
Accuracy	±0.5% of (Reading + Range)		<b>PF meter</b>	±0.01~1.00	
<b>ACA meter(Arms)</b>	20mA / 200mA / 2A / 20A / 200A (for Inrush)		Resolution	0.01	
Resolution	16-bit		Accuracy	Corresponds to V and A, 1% of ( Reading + Range )	
Accuracy	±0.5% of ( Reading + Range ) / ±2% of (Reading + Range) (for Inrush)		<b>Frequency meter</b>	40~70 Hz	
<b>ACW meter</b>	0.6W / 6W / 60W / 600W / 6000W		Resolution	0.1 Hz	
Resolution	32-bit		Accuracy	± 0.1 Hz	
Accuracy	±0.5% of ( Reading + Range )		<b>Inrush Delay/Period</b>	0~99.9mS / 0.1~99.9S	
<b>DCV meter</b>	40V / 400V		<b>Meter Meas. Rate</b>	100mS / 200mS / 500mS / 1S / 5S / 10S	
Resolution	0.001V / 0.01V		<b>Interval time</b>		
Accuracy	±0.5% of ( Reading + Range)		<b>Low Pass Filter(V &amp; A)</b>	50KHz	
<b>DCA meter</b>	20mA / 200mA / 2A / 20A / 200A ( for Inrush )		<b>Interface</b>	RS-232	
Resolution	0.001mA/0.01mA/0.1mA/1mA/10mA(for Inrush)				
Accuracy	±0.5% of (Reading + Range) / ±2% of (Reading + Range) (for Inrush)				
MODEL : 4015A					
<b>No. of Input Channel</b>	4				
<b>ACV meter (Vrms)</b>	Range	15V/0.001V    30V/0.001V    50V/0.01V 150V/0.01V    300V/0.01V    500V/0.1V	<b>DCV</b>	Range	Same as ACV
	Accuracy	±0.1% of (Reading + Range)		Accuracy	Same as ACV
<b>ACA meter (Arms)</b>	Range	20mA/0.001mA    500mA/0.01mA    10A/1mA 50mA/0.001mA    2A/0.1mA    20A/1mA 200mA/0.01mA    5A/0.1mA    200A peak/0.01A	<b>DCA</b>	Range	Same as ACA
	Accuracy	±0.1% of (Reading + Range)		Accuracy	Same as ACA
<b>ACW meter</b>	Range	±2% of (Reading + Range, for Inrush)	<b>DCW</b>	Range	Same as ACW
				Accuracy	Same as ACW
			<b>PF meter</b>	Range	±0.001~1.000 / 0.001
				Accuracy	1% of ( Reading + Range, Corresponds to V and A )
			<b>Frequency meter</b>	Range	40~70 / 0.1Hz
				Accuracy	± 0.1 Hz
			<b>V/A</b>	Number	1~50 th / Same as ACV, ACA meter
				Accuracy	±0.5% of ( Reading + Range )
			<b>V/A THD</b>	Range	0%~255% / 0.001%
				Accuracy	±0.5% of ( Reading + Range )
<b>Inrush Delay/Period</b>		0~100ms			
	<b>Low Pass Filter(V&amp;A)</b>	50KHz			
Accuracy	±0.1% of (Reading + Range)	<b>Interface</b>	RS-232		

## AC Power Source with Power/Energy Analyzer

MODEL				APS-7050	
<b>Power Rating</b>	500VA		<b>ACA meter(Arms)</b>	2~70mA / 60~350mA / 0.3~3.5A / 3~17.5A	
<b>Type</b>	Linear		Resolution	0.01mA / 0.1mA / 0.001A / 0.01A	
<b>Voltage Rating</b>	0~155Vrms / 0~310Vrms		Accuracy	± (0.6% of reading+5 counts) ± (0.5% of reading +5 counts) ± (0.5% of reading+3 counts)	
Accuracy	± 0.5% of setting + 2 counts				
Resolution	0.01V / 0.1V		<b>ACW meter</b>	1.5W / 3W / 6W / 30W / 60W / 300W / 600W	
<b>Distortion</b>	THD ≤ 0.5% (R load)		Resolution	0.01W / 0.1W / 1W	
<b>Load Regulation</b>	±0.5%±0.5V		Accuracy	± ( 0.6% of reading+5 counts ) ± ( 0.6% of reading +5 counts ) ± ( 0.6% of reading+2 counts )	
<b>Line Regulation</b>	0.1%				
<b>Current Rating</b>	4.2A / 2.1A		<b>PF meter</b>	0.000~1.000	
<b>Frequency</b>	45~500Hz		Resolution	0.001	
Resolution	0.01Hz / 0.1Hz		Accuracy	± (2% of reading + 2 counts)	
<b>Protection</b>	OCP, OTP, OPP		<b>Frequency meter</b>	45 ~ 500Hz	
<b>Measurements</b>			Resolution	0.01Hz / 0.1Hz	
<b>ACV meter (Vrms)</b>	0 ~ 99Vrms / 100~310Vrms		Accuracy	±0.1Hz	
Resolution	0.01 / 0.1V		<b>Interface</b>	Standard	USB / LAN
Accuracy	±0.5% of (Reading + 2 counts)			Optional	GPIO / RS232

## AC Source

MODEL : APS-7100 / APS-7200 / APS-7300			
Output Specification		Meter Specification	
Power	Range	1KVA / 2KVA / 3KVA	
	Type	Linear Amp	
Voltage	Range	0~155 Vrms / 0~310 Vrms	
	Resolution	0.1V	
	Accuracy	0.2%±0.2%F.S.	
Current	Range	8.4A / 4.2A	
Distortion		THD ≤ 0.5% (R load)	
Load Regulation		±0.5% ± 0.5V	
Frequency	Range	45 ~ 500Hz	
	Resolution	0.1Hz : 0.1Hz	
	Response Time	100uS	
Angle (ON/OFF)	Range	0~359°	
	Resolution	1°	
PQT (IEC61000-4-11)		Dip、Interrupt、Variation	
Protection		OCP, OTP, Short	
<b>AC input Specification</b>			
Voltage range		115Vac±10%	230 Vac ±10%
Frequency range		47-63Hz	
Circuit Breaker		125/250Vac 20A	

## Test Fixture Adapter

MODEL : 99093			
No. of Test Channel		4	
Terminal for Input		Terminal for Output	
Source	AC / DC	Source	AC / DC
Source Sense	AC / DC	Source Sense	AC / DC
Load	DC	Load	DC
Load Sense	DC	Load Sense	DC
DIM	DC	DIM	DC
NTC Emulator (Optional)		NTC	Resister
NTC resister	10KΩ	State	Test/Pass/Fail
Resister Range	10~500KΩ	Load Short	Yes(Relay)
Beta Range	2000K~5000K	Terminal for Key	A/B/STOP
Temp. Range	-40~120°C	State	A/B
		Digital I/O	16 bits

## Quick Charger Emulator

MODEL : 99094	
No. of Test Channel	4+4
Support Quick Charge	QC2.0, QC3.0, PE+, PE+2.0, USB PD
Terminal of Charger	D-sub 15Pin for ChxA, ChxB

## Color & Fan flow sensor

MODEL : 99095		
	ITEM	SPECIFICATION
LED	Color distinguish	3 types
	Fading Detctet Time	100 ~ 65535 ms
	Wind distinguish	1000 ~ 65535 ms
FAN	Detctet Time	3 ranges(Range:±200 SCCM)
		100 ms (Minimum)

## BMS Board Test Fixture

MODEL : 99096			
No. of Test Channel	1 ~ 4	Discharge (P+、P-)	20V/30A
Terminal of Input		Charge (CH+、CH-)	20V/30A
Source (PS+、PS-)	DC 20V/30A	Control I/O	Signal Output
MULTIMETER (M+、M-、I+)	DCV、DCI、R	STATE	Pass/Fail/Test LED & Stop Key
DC Load+、Load-	20V/30A	NTC Emulator	
DC Load Sense+、Sense-	Signal Input	NTC Resistor	10KΩ
5080 (VB0、VB1、VB2、VB3、VB4)	DCV	Resistor Range	10 ~ 500KΩ
Terminal of Output		Beta Range	2000K ~ 5000KΩ
BAT (B+、B-)	20V/30A	Temperature Range	-40 ~ 120°C

## Order Information

- **6010** : Charger / Adapter / LED Driver Test System
- **60104** : Noise and Timing Analyzer Mainframe
- **4031 / 4032** : Noise and Timing Analyzer Module ( 1CH/2CH )
- **4034-1 / 4034-2 / 4034** : Noise and Timing Analyzer Module ( 1CH/2CH/4CH )
- **4013A / 4015A** : Power Meter
- **5080** : Voltage Regulator ( Application to BMS Battery Simulator )
- **5303** : AVR ( for Inrush Test )
- **PFR-100M/100L** : Fanless Multi-Range D.C. Power Supply
- **PSU-60-25 / PSU-150-10** : Programmable Switching D.C. Power Supply
- **APS-7000 Series** : Programmable Linear AC Power Source
- **NTC ( Negative Temperature Coefficient ) Emulator**
- **DC Electronic Load Module** : 3310F / 3340G Series / 3332F、3336F
- **99093** : ATE test fixture
- **99094** : Quick Charger Emulator
- **99095** : LED & FAN Testing Module
- **99096** : BMS Board Test Fixture
- **6010 System Software**
- **6010 System 19" ( 20U ) Cabinet**
- **6010 System 19" ( 30U ) Cabinet**
- **Personal Computer**