

AEL-5000 Series

AC & DC Electronic Load

FEATURES

- Turbo Mode (Multiplier Mode) Can Withstand up to 2 Times the Rating Current and Power of the Electronic Load in a Short Period of Time
- Operating Mode: CC, linear CC, CR, CV, CP and AC Rectifier Loads
- Measurement Items: Voltage Value(Vrms, Vpeak, Vmax., Vmin), Current Value(Irms, Ipeak, Imax., Imin.), Watt Value, Volt-ampere Value(VA), Frequency Value, Crest Factor, Power Factor, Voltage Total Distortion(V THD, VH), Current Total Distortion (I THD, IH), Etc
- Eight Units Connected in Parallel up to 180 kW for Single-phase and 540 kW for Three-phase
- Support Loading and Unloading Angle Control, Loading and Unloading Angle Control Can be set at the Full Range of 0 to 359 Degrees
- Support Positive Half Cycle or Negative Half Cycle Load
- Support SCR/TRIAC Current Phase Modulation Waveform, 90 Degree Trailing Edge and Leading Edge
- Support the Capacitive Load (Inrush Current) when the Power Supply is Turned on and the Transient Current (Surge Current) Test when the Load is Suddenly Connected (Hot Plug-in) During Operation
- Crest Factor Range: 1.414 to 5.0
- Power Factor Range: 0.1 to 1.0 Leading or Trailing
- Frequency Range: DC, 40 Hz to 440 Hz (AEL-5003-480-18.75/AEL-5004-480-28: DC, 40 Hz to 70 Hz), and 800 Hz and 1 kHz Need to be Customized
- Optional Control Interfaces: GPIB, RS-232, USB, LAN



AEL-5000 Series



AEL-5002-350-18.75 AEL-5003-350-28 AEL-5004-350-37.5 AEL-5002-425-18.75 AEL-5003-425-28 AEL-5004-425-37.5 AEL-5003-480-18.75 AEL-5004-480-28 AEL-5006-350-56 AEL-5008-350-75 AEL-5006-425-56 AEL-5008-425-75 AEL-5012-350-112.5 AEL-5012-425-112.5 AEL-5015-350-112.5 AEL-5015-425-112.5 AEL-5019-350-112.5 AEL-5019-425-112.5 AEL-5023-350-112.5 AEL-5023-425-112.5

C € RS-232 GPIB USB LAN

MODE	Power (W)		Curren	t (Ampere)	v b av b	
MODEL	Turbo OFF	Turbo ON	Turbo OFF	Turbo ON	Voltage (Volt)	
AEL-5002-350-18.75	1875 W	3750 W (x2)*	18.75 Arms / 56.25 Apeak	37.5 Arms / 56.25 Apeak (x2)*		
AEL-5003-350-28	2800 W	5600 W (x2)*	28 Arms / 84 Apeak	56 Arms / 84 Apeak (x2)*	50 Vrms to 350 Vrms / 500 Vdc	
AEL-5004-350-37.5	3750 W	7500 W (x2)*	37.5 Arms / 112.5 Apeak	75.0 Arms / 112.5 Apeak (x2)*		
AEL-5002-425-18.75	1875 W	3750 W (x2)*	1875 Arms / 56.25 Apeak	37.5 Arms / 56.25 Apeak (x2)*		
AEL-5003-425-28	2800 W	5600 W (x2)*	28 Arms / 84 Apeak	56 Arms / 84 Apeak (x2)*	50 Vrms to 425 Vrms / 600 Vdc	
AEL-5004-425-37.5	3750 W	7500 W (x2)*	37.5 Arms / 112.5 Apeak	75.0 Arms / 112.5 Apeak (x2)*		
AEL-5006-350-56	5600 W	11200 W (x2)*	56.0 Arms / 168 Apeak	112.0 Arms / 168 Apeak (x2)*		
AEL-5008-350-75	7500 W	15000 W (x2)*	75.0 Arms / 225 Apeak	150.0 Arms / 225 Apeak (x2)*		
AEL-5012-350-112.5	11250 W	22500 W (x2)*	112.5 Arms / 337.5 Apeak	225 Arms / 337.5 Apeak (x2)*	50 Vrms to 350 Vrms /	
AEL-5015-350-112.5	15000 W	30000 W (x2)*	112.5 Arms / 337.5 Apeak	225 Arms / 337.5 Apeak (x2)*	500 Vdc	
AEL-5019-350-112.5	18750 W	37500 W (x2)*	112.5 Arms / 337.5 Apeak	225 Arms / 337.5 Apeak (x2)*		
AEL-5023-350-112.5	22500 W	45000 W (x2)*	112.5 Arms / 337.5 Apeak	225 Arms / 337.5 Apeak (x2)*		
AEL-5006-425-56	5600 W	11200 W (x2)*	56.0 Arms / 168 Apeak	112.0 Arms / 168 Apeak (x2)*		
AEL-5008-425-75	7500 W	15000 W (x2)*	75.0 Arms / 225 Apeak	150.0 Arms / 225 Apeak (x2)*		
AEL-5012-425-112.5	11250 W	22500 W (x2)*	112.5 Arms / 337.5 Apeak	225 Arms / 337.5 Apeak (x2)*	50 Vrms to 425 Vrms /	
AEL-5015-425-112.5	15000 W	30000 W (x2)*	112.5 Arms / 337.5 Apeak	225 Arms / 337.5 Apeak (x2)*	600 Vdc	
AEL-5019-425-112.5	18750 W	37500 W (x2)*	112.5 Arms / 337.5 Apeak	225 Arms / 337.5 Apeak (x2)*		
AEL-5023-425-112.5	22500 W	45000 W (x2)*	112.5 Arms / 337.5 Apeak	225 Arms / 337.5 Apeak (x2)*		
AEL-5003-480-18.75	2800 W	5600 W (x2)*	18.75 Arms / 56.25 Apeak	37.5 Arms / 56.25 Apeak (x2)*	50 Vrms to 480 Vrms /	
AEL- 5004-480-28	3750 W	7500 W (x2)*	28 Arms / 84 Apeak	56 Arms / 84 Apeak (x2)*	700 Vdc	

^{*} Power and current boost rate of Turbo ON

FEATURES

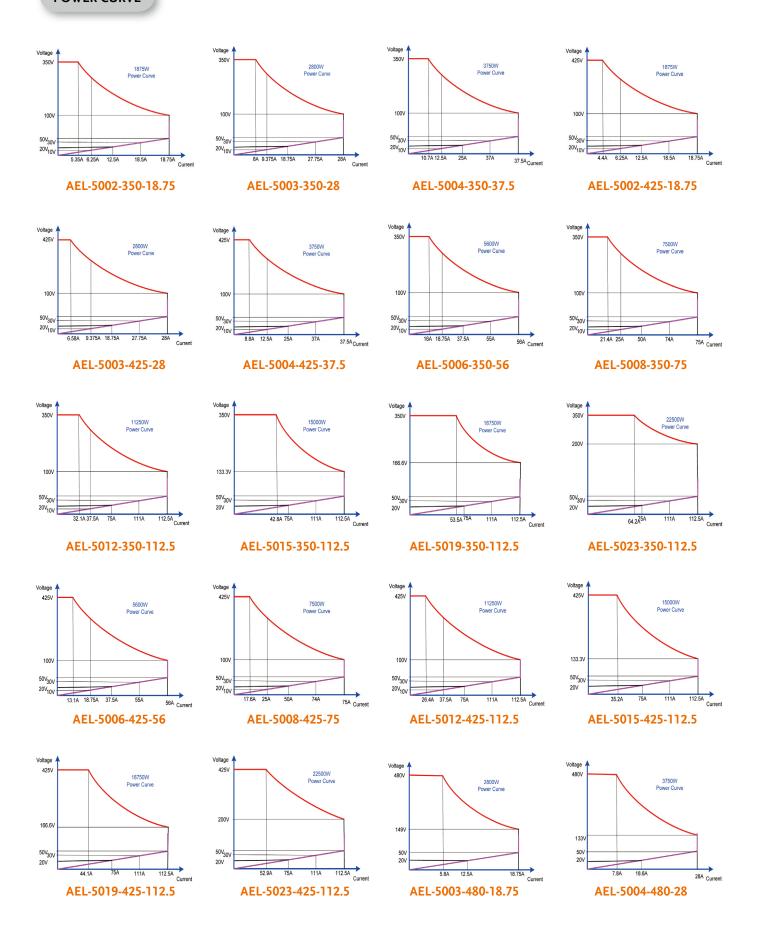
- 4 digit V / A/W Meter, display the Voltage (Vrms, Vpeak, Vmax., Vmin) \ Current (Irms, Ipeak, Imax., Imin.) \ Watt, Voltampere (VA) \ Frequency \ Crest Factor \ Power Factor \ Total Harmonic Distortion of Voltage (VTHD), Voltage Harmonic (VH) \ Total Harmonic Distortion of Current (ITHD), Current Harmonic (IH)
- CC, Linear CC, CR, CV, CP and AC Rectifier Load mode
- Crest factor range: 1.414 to 5.0
- Power factor (PF) range: 0 to 1 lead or (-1 to 0) lag
- Built-in function test modes include UPS Efficiency, PV Inverter Efficiency, UPS Back-up time, Battery Discharge time, UPS transfer time, Fuse/Breaker Trip/Non-Trip, Short circuit, OCP, OPP test modes
- Turbo mode is able to increase to 2 times the current and power of electronic load in a short period which is the most suitable for Fuse / Breaker test and short circuit, OCP, OPP test of AC power supply
- Time measurement can be applied to batteries, UPS, fuses and circuit breakers and other tests
- Support on-load boot; at first set Load ON to support on-load boot, inverter or uninterruptible power supply is turned on directly with the set load current, used to verify whether the starter is stable when the Inverter is connected
- Supports the loading and unloading angle control; the loading and unloading angle control, the full range of 0 to 359 degrees can be set to verify whether the Inverter output voltage transient response is stable when the actual electrical plugging and unplugging, and whether Overshoot/Undershoot is within the allowable range
- Support positive half-cycle or negative half-cycle loading; used to verify whether the Inverter output voltage remains stable when the actual appliance has only positive half-cycle or negative half-cycle load current
- Supports SCR/TRIAC current phase modulation waveforms, 90 degree Trailing edge and Leading Edge
- Supports the Inrush Current of the inverter at startup and the Surge Current test when the load is suddenly plugged in (Hot Plug-in) during testing
- Frequency Range: DC, 40 Hz to 440 Hz
- · Voltage and current monitoring
- Can be controlled by external voltage for CC, Linear CC, CR, CV, CP operating modes
- Protection against V, I, W, and °C
- Optional interface : GPIB > RS232 > USB > LAN
- The most complete measurement capabilities

AEL-5000 Series AC & DC electronic load built-in 16-bit A/D and DSP precision measurement circuit, provides accurate measurements, measurement items have Vrms, Arms, Watt, VA, CF, PF, THD, VTHD, ITHD, Ipeak, Amax, Amin, Vmax, and Vmin In addition to these measurement functions, it also provides time measurement, products such as UPS, fuses and circuit breakers etc. trip or blow time and transfer time for Off-line UPS

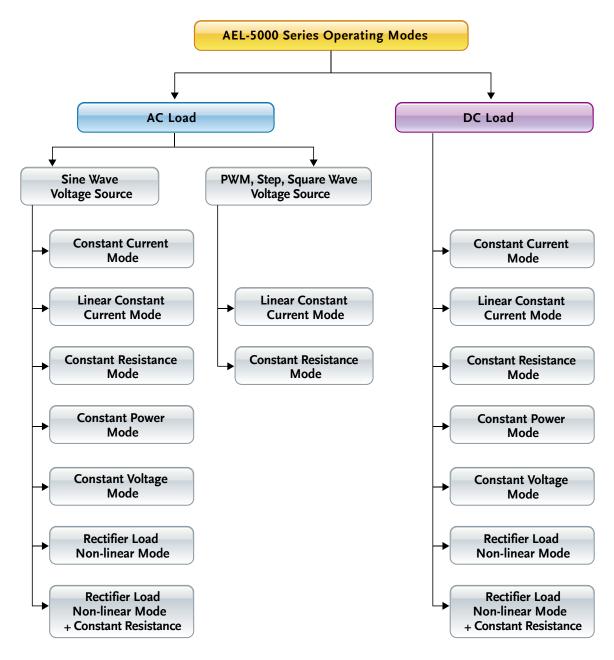
Rear Panel

AEL-5002-350-18.75 AEL-5003-350-28 AEL-5004-350-37.5 AEL-5002-425-18.75 AEL-5003-425-28 AEL-5004-425-37.5 AEL-5003-480-18.75 AEL-5004-480-28	AEL-5006-350-56 AEL-5008-350-75 AEL-5006-425-56 AEL-5008-425-75	AEL-5012-350-112.5 AEL-5012-425-112.5	AEL-5015-350-112.5 AEL-5015-425-112.5	AEL-5019-350-112.5 AEL-5019-425-112.5	AEL-5023-350-112.5 AEL-5023-425-112.5
			0000	0000	0000
			0000	0000	0000
		0000		0000	0000
		0000	0000	9770	

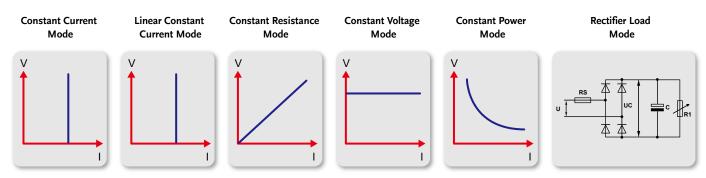
POWER CURVE



COMPLETE AC AND DC LOAD MODES

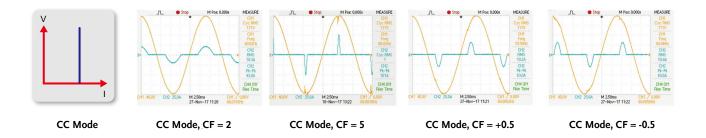


AC LOAD MODE

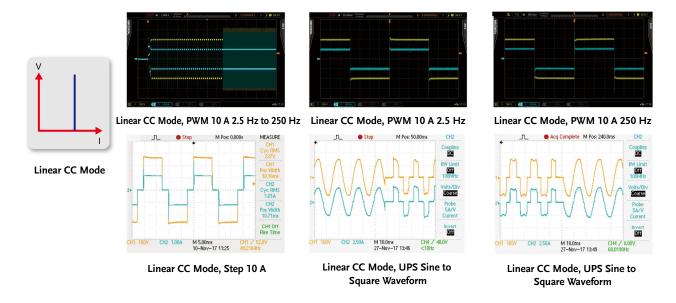


AC LOAD MODE

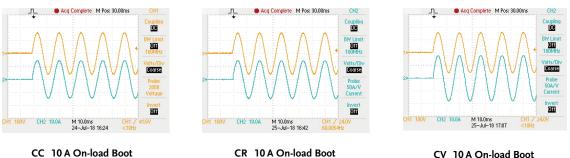
CC Mode: In the constant current mode of AC Load, can be applied to sine wave voltage source, providing CF, PF test of linear load.



Linear Constant Current Mode: Can be applied to sine wave and non-sine wave voltage source, as shown in the PWM inverter driver, step voltage source, and off-line UPS sine wave switch to square wave, square wave switch to sine wave.



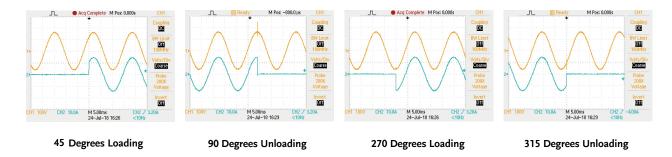
Supported on-load start-up: at first set Load ON to support on-load start-up, inverter or uninterruptible power supply is start-up directly with the set load current, used to verify whether the Inverter is stable when the load is connected during start-up.



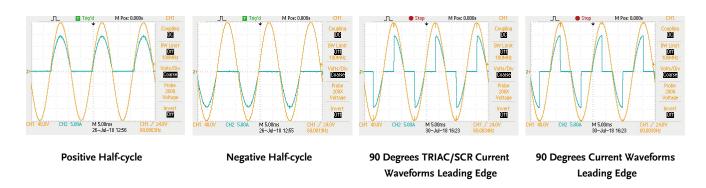
CR 10 A On-load Boot

CV 10 A On-load Boot

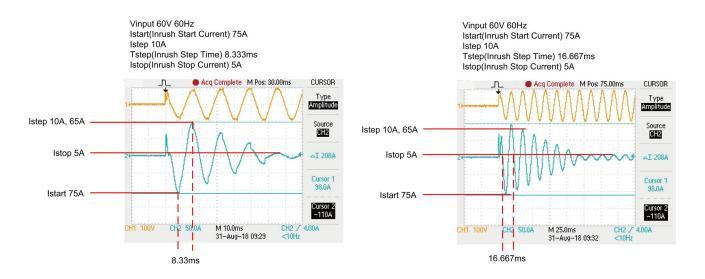
Supports the loading and unloading current angle control; the loading and unloading current angle range of 0 to 359 degrees can be programmed to verify whether the Inverter output voltage transient response is stable during the actual electrical appliance is connected or turn ON/OFF randomly it can be used to verify the Overshoot/Undershoot response is within the desire range.



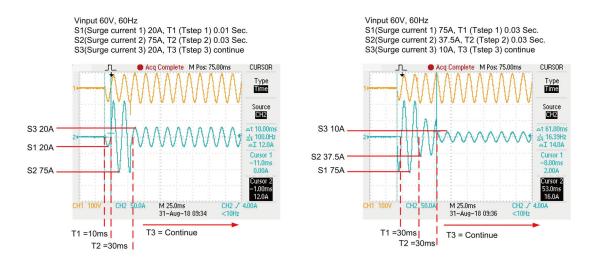
Support positive half-cycle or negative half-cycle loading; it can be used to verify whether the Inverter output voltage remains stable when the actual appliance has only positive half-cycle or negative half-cycle load current.



Support the Inrush Current of the inverter at startup and Power Plug-in test when the power supply is turned on to verify the Inrush Current and the sudden connection of the appliance when the power is turned on (Surge Current), to verify if whether the Inverter output voltage transient response is stable, as shown in the figure below.



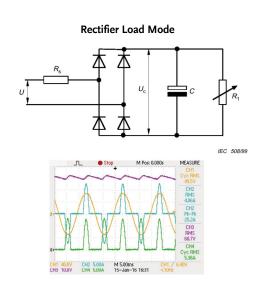
Inrush Current Test at Boot



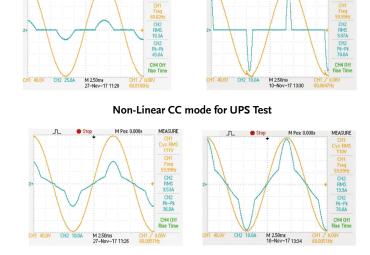
Inrush Current Test at Boot

AC RECTIFIED LOAD SIMULATION MEET THE IEC62040-3 AND IEC61683 TEST SPECIFICATIONS

AEL-5000 Series AC & DC electronic load AC rectified load mode is fully compliance with the IEC test specification requirements for the UPS, IEC 62040-3 UPS Efficiency Measurement Non-Linear and IEC 61683 Resistive Plus Non-Linear, respectively, AEL-5000 Series AC rectifier load mode uses CC + CR load mode and maintain current THD at 80 %, to simulate the actual PV Inverter connected to the electronic device.



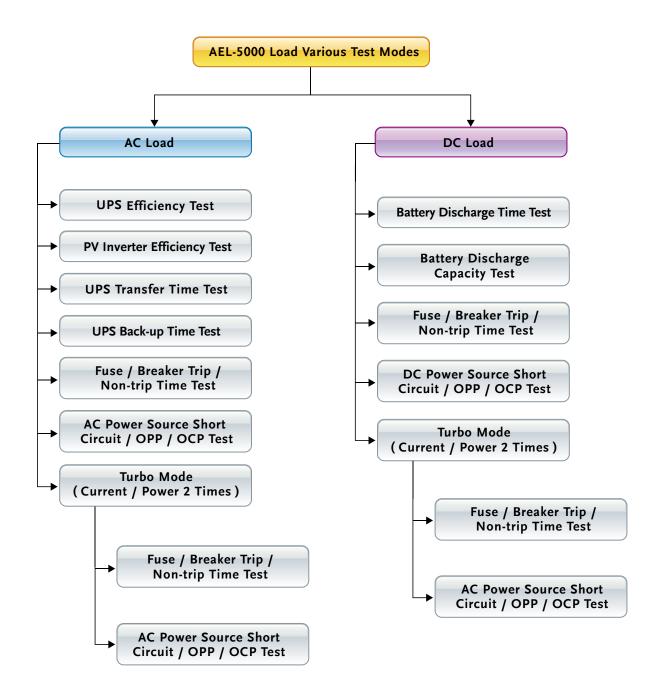
The Actual V / A waveform



110 V, 5 A + 22 ohm Test Waveform 110 V, 10 A + 11 ohm Test Waveform
PV Inverter Test Non-Linear CC + Resistive Mode (CC+CR)

AEL-5000 LOAD VARIOUS TEST MODES

The AEL-5000 Series AC & DC electronic load features built-in test modes for a variety of products. Including AC Load of UPS, Inverter, Fuse/Breaker, AC Power Source and DC Load of Battery, Fuse/Breaker, DC Power Source etc..as shown below.



CURRENT PROTECTION COMPONENT TEST

Current protection component includes Fuse, Circuit breakers and a new PTC Resettable fuse etc.., its function is when the circuit current exceeds the design of the rated value, that is, if the load exceeds the design of the current capacity, the circuit will be disconnected, in order to avoid overheating, even fire. Fuse is a one-time use of the protection components, Breaker and PTC can be reused.

The current protection components of the protection current value and the protection reaction time has usually a product of the relationship that is, the greater the current through the current protection component, the shorter the reaction time to protect the circuit. This is similar to energy protection components.

Due to this feature, the AEL-5000 Series AC & DC electronic load, in particular for the verification of current protection components, has developed a Fuse Test function to test and verify such protection element with an electronic load of rated current and power. When Turbo mode is set to ON, the test current can be up to double the maximum current within 1 second of test period. Take AEL-5004-350-37.5 as an example, the maximum test current can be doubled to 75 A. That is, when the Turbo mode of the AEL-5000 Series is ON, the test current value can reach to 2 units AEL-5000 Series (normal mode) within 1

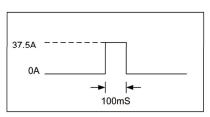




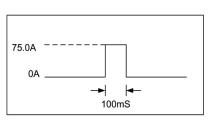
Turbo OFF, Short 100 ms 37.5 A Test Result Screen



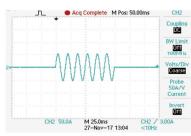
Turbo ON, Short 100 ms 75.0 A Test Result Screen



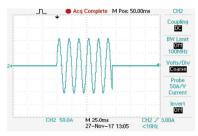
Turbo OFF, Short 100 ms 37.5 A Setting



Turbo ON, Short 100 ms 75.0 A Setting



Turbo OFF, Short 100 ms 37.5 A The Actual Test Waveform



Turbo ON, Short 100 ms 75.0 A The Actual Test Waveform

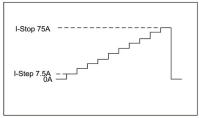


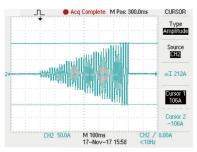
Turbo OFF, OCP Istep 3.75 A Istop 37.5A
Test Result Screen

Turbo OFF, OCP Istep 3.75 A Istop 37.5 A Setting

Turbo OFF, OCP Istep 3.75 A Istop 37.5 A The Actual Test Waveform







Turbo ON, OCP Istep 7.5 A Istop 75 A Test Result Screen

Turbo ON, OCP Istep 7.5 A Istop 75.0 A Setting

Turbo ON, OCP Istep 7.5 A Istop 75.0 A The Actual Test Waveform

Basically, Fuse test has Trip (Blown) and Non-Trip (no Blown) 2 types.

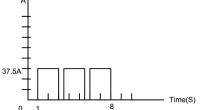
Fuse Test setting parameters include test current (Istart), test time (Time), test REPEAT Time etc..

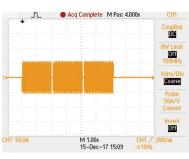
In the Trip fuse test, it is used to test when there is too large abnormal current the Fuse or Bleaker must be able to provide the protection of the circuit break, that means current protection components need the fuse action, therefore the test current needs to be larger than the fuse current rating.

When the AEL-5000 Series AC & DC electronic load detects a voltage lower than 1.0 V, the LCD displays the number of Repeat Cycle and Current Protection Fusing Time XXXX.X sec.

In the Non-Trip (no Blown) test, the current protection component is required to achieve non-blow action, so the test current needs to be lower than the fuse current rating that is used to verify the fuse must not blow during normal current range. When the AEL-5000 Series AC & DC electronic load is not blown after the test time (Pulse Time) and the repeated Repeat number, the LCD displays the information of the Repeat number.





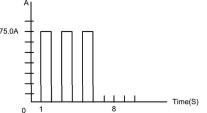


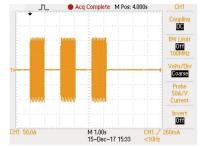
Turbo : OFF, Fuse Mode Test Result Screen

Setting : Turbo : OFF, Fuse ON CC Pulse 37.5 A, 2 s, Test 3 Cycles

Turbo : OFF, Fuse ON, CC Pulse 37.5 A, 2 s, Test 3 Cycles the Actual Test Waveform







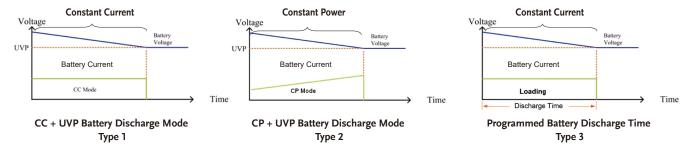
Turbo ON, Fuse Mode Test Result Screen

Setting: Turbo: ON, Fuse ON CC Pulse 75.0 A, 1 s, Test 3 Cycles

Turbo: ON, Fuse ON, CC Pulse 75 A, 1 s, Test 3 Cycles the Actual Test Waveform

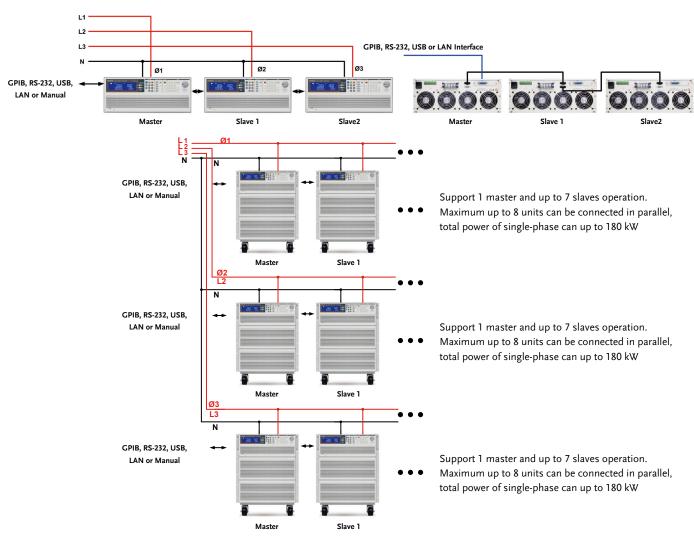
BATTERY TEST FUNCTION

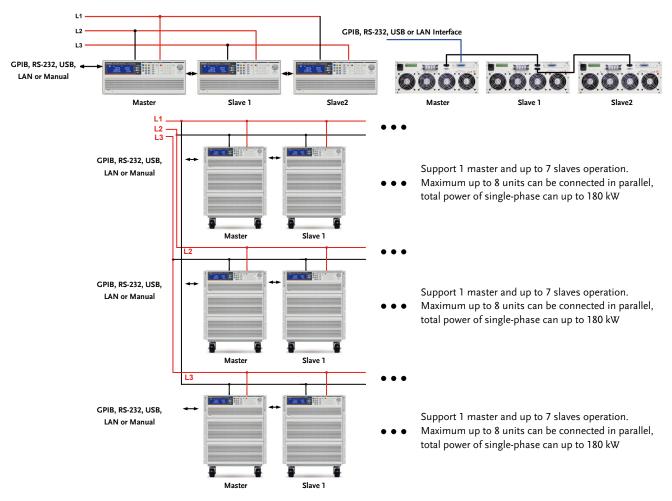
AEL-5000 Series AC & DC electronic load has built-in new TYPE1 to TYPE3 battery discharge test, you can select the desired battery test mode, the test results can be directly displayed on the LCD display for battery AH capacity, the voltage value after discharge and the cumulative discharge time.



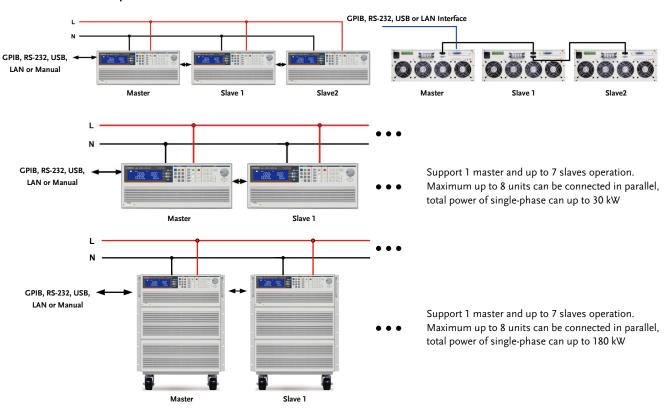
PARALLEL AND THREE-PHASE CONTROL

The AEL-5000 Series AC & DC load provides multiple units in parallel, three-phase applications that allows users to test applications with greater power or three-phase AC power, this is more flexibility to use the AEL-5000 Series AC & DC Electronic Load for control. In parallel / three-phase operation, the user operates the unit as the operation of a single machine, as long as the Master can be operated, Slave1 and Slave2 will automatically sink the load and measurement. Parallel and three-phase connection as shown below.





Maximum power of single-phase can up to 180 kW, 3-phase total power up to 540 kW 3-phase \triangle or Y Connection parallel connection



PANEL INSTRUCTIONS



	LCD Multi-function display Four meters can display the voltage value at the same time the Voltage(Vrms, Vpeak, Vmax., Vmin) \cdot Current		Operate function keys Mode \ Preset ON / OFF \ Load ON / OFF \ Sense ON / OFF \ Level A / B \ Config \ Limit \ Recall \ Store \ SEQ \ Local \ System operate function keys
1	(Irms, Ipeak, Imax., Imin.) \ Watt, Voltampere(VA) \ Frequency \ Crest Factor \ Power Factor \ Total Harmonic Distortion of Voltag(VTHD) \ Voltage Harmonic(VH) \	4	Waveform library keys Can be quickly set CF √2 / 2 / 2.5 / 3 / 3.5 , +/- PF0.6 / 0.7 / 0.8 / 0.9 / 1.0 , FREQ Auto / 50 Hz / 60 Hz / 400 Hz
	Total Harmonic Distortion of Current(ITHD) \ Current Harmonic(IH)	5	Test function keys Can select Short / OPP / OCP /Non-L / NL-CR /Fuse / Batt (Battery Discharge) / Trans (UPS transfer time) test functions
	Meter switch button	6	Numeric keypad
2	V / A / W keys can set the display Pms / Peak / Max / Min Meter	7	Knob setting
	key can select PF / CF / FREQ , switchable display WATT / VA /	8	Switch
	VAR keys , THD key choose to display THD	9	Cursor and button setting



10	AC power input connector		Master-slave control connector
11	Vmonitor · Imonitor · Analog input · SYNC input Input terminal	13	Master: Connect the top or bottom to the next unit Slave: The top connects to the previous unit and the bottom connects to the next unit
12	Vload, Vsense Input terminal	14	Communication interface (GPIB · RS-232 · USB · LAN)

SPECIFICA	TIONS						
51 2011 107	ons	AEL-5002-350-18.75	AEL-5003-350-28	AEL-5004-350-37.5	AEL-5002-425-18.75	AEL-5003-425-28	AEL-5004-425-3 7.5
Power (W)		1875 W	2800 W	3750 W	1875 W	2800 W	3750 W
Current (Ampere)		18.75 Arms/56.25 Apeak	28 Arms / 84 Apeak	37.5 Arms / 112.5 Apeak	18.75 Arms/ 56.25 Apeak	28 Arms/ 84 Apeak	37.5 Arms / 112.5 Apeak
Voltage (Volt) FREQUENCY I	Pango	DC 40 Hz to 440 l	50 Vrms to 350 Vrms / 500 Vdc Hz(CC,CP Mode), DC to 440 Hz		DC 40 Hz to 440 l	50 Vrms to 425 Vrms / 600 Vdo Hz(CC,CP Mode), DC to 440 Hz	
PROTECTION		DC,40 H2 t0 440 F	12(CC,CF Mode), DC to 440 Hz	(LIN,CR,CV Mode)	DC,40 H2 t0 440 F	12(CC,CF Wode), DC to 440 H2	(LIN,CR,CV Mode)
Over Power Pr		1968.75 Wrms or	2940 Wrms or	3937.5 Wrms or	1968.75 Wrms or	2940 Wrms or	3937.5 Wrms or
		Programmable 19.687 Arms or	Programmable 29.40 Arms or	Programmable 39.375 Arms or	Programmable 19.687 Arms or	Programmable 29.40 Arms or	Programmable 39.375 Arms or
Over Current F	Protection	Programmable	Programmable	Programmable	Programmable	Programmable	Programmable
Over Vlotage P			367.5 Vrms / 525 Vdc	-		446.25 Vrms/630 Vdc	-
Over Temp. Pr			Yes			Yes	
	ent Mode for Sine-Wave						
Range	chi mode for sine wave	0 A to 18.75 A	0 A to 28 A	0 A to 37.5 A	0 A to 18.75 A	0 A to 28 A	0 A to 37.5 A
Resolution		0.3125 mA / 16 bits	0.5 mA / 16 bits	0.625 mA / 16 bits	0.3125 mA / 16 bits	0.5 mA / 16 bits	0.625 mA / 16 bits
Accuracy				tting + range) @ DC and 400 Hz	±(0.1 % of setting + 0.2 % of rar	nge) @ 50/60 Hz, ±0.5 % of (se	tting + range) @ DC and 400 H
Range	ntCurrent Mode for Sine-V	/ave, Square-Wave or Quasi-Squa 0 A to 18.75 A	0 A to 28 A	0 A to 37.5 A	0 A to 18.75 A	0 A to 28 A	0 A to 37.5 A
Resolution		0.3125 mA/ 16 bits	0.5 mA / 16 bits	0.625 mA/ 16 bits	0.3125 mA / 16 bits	0.5 mA / 16 bits	0.625 mA / 16 bits
Accuracy			<u> </u>	tting + range) @ DC and 400 Hz		<u> </u>	
Constant Resis	stance Mode						
Range		3.2 ohm to 64 kohm	2.0 ohm to 40 kohm	1.6 ohm to 32 kohm	3.2 ohm to 64 kohm	2.0 ohm to 40 kohm	1.6 ohm to 32 kohm
Resolution *1 Accuracy		0.0052083 mS / 16 bits +0.2 % of (setting+ range) @ !	0.0083333 mS / 16 bits 50/60 Hz. +(0.5 % of setting + 2	0.010416 mS / 16 bits % of range) @ DC and 400 Hz	0.0052083 mS / 16 bits ±0.2 % of (setting + range) @	0.0083333 mS / 16 bits 50/60 Hz. +(0.5 % of setting + 2	0.010416 mS / 16 bits 2 % of range) @ DC and 400 H
Constant Volta	ige Mode	(Jetting riange) (W.	, -0 2, ±(0.0 /0 01 Setting + 2	,	(Setting + range) @	, 20 . 12, ±(0.5 /0 0) Setting + 2	- , - o
Range			50 Vrms to 350 Vrms / 500 Vdc			50 Vrms to 425 Vrms / 600 Vd	£
Resolution			0.01 V			0.1 V	
Accuracy Constant Power	or Modo	±	0.1 % of setting + 0.1 % of rang	ge)	±	(0.1 % of setting + 0.1 % of ran	ge)
Range	er Mode	1875 W	2800 W	3750 W	1875 W	2800 W	3750 W
Resolution		0.1 W	0.1 W	0.1 W	0.1 W	0.1 W	0.1 W
Accuracy*4		±0.5 % of (settir	g+ range) @ 50/60 Hz, ±2 % of	(setting+ range)	±0.5 % of (setting	ng+ range) @ 50/60 Hz, ±2 % o	f (setting+ range)
	R (CC & CP MODE ONL	Y)					
Range			√2 to 5 0.1			√2 to 5 0.1	
Resolution Accuracy			(0.5 % / lrms) + 1 % FS			(0.5 % / lrms) + 1 % FS	
·	OR (CC&CP MODE ONL))	(0.0 %) 111113) 11 70 10			(0.0 /0 / 11115) 1 1 /0 1 0	
Range	,	,	0 to 1 Lag or Lead			0 to 1 Lag or Lead	
Resolution			0.01			0.01	
Accuracy TEST MODE			1 % FS			1 % FS	
UPS Efficient N	Measurement		Non-Linear Mode			Non-Linear Mode	
Operating Free			Auto, 40 Hz to 440 Hz			Auto, 40 Hz to 440 Hz	
Current Range	!	0 A to 18.75 A	0 A to 28 A	0 A to 37.5 A	0 A to 18.75 A	0 A to 28 A	0 A to 37.5 A
PF Range	(-1 C		0 to 1			0 to 1	
	iciency for PV Systems, oners for THD 80 %		Resistive + Non-Linear Mode			Resistive + Non-Linear Mode	
Operating Free	quency		Auto, 40 Hz to 440 Hz			Auto, 40 Hz to 440 Hz	
Current Range		0 A to 18.75 A	0 A to 28 A	0 A to 37.5 A	0 A to 18.75 A	0 A to 28 A	0 A to 37.5 A
Resistive Rang	re (CC,LIN,CR,CP)	3.2 ohm to 64 kohm	2.0 ohm to 40 kohm	1.6 ohm to 32 kohm	3.2 ohm to 64 kohm	2.0 ohm to 40 kohm	1.6 ohm to 32 kohm
UVP (VTH)	runction (CC,LIN,CR,CP)		0 V to 500 V			0 V to 600 V	
UPS Back-Up	Time		1 Sec to 99999 Sec (>27 H)			1 Sec to 99999 Sec (>27 H)	
•	rge Function (CC,LIN,CR,	CP)					
UVP (VTH)			50 Vrms to 350 Vrms / 500 Vdc			50 V rms to 425 Vrms / 600 Vd	Ē
Battery Discha UPS Transfer 1	•		1 Sec to 99999 Sec (>27 H)			1 Sec to 99999 Sec (>27 H)	
Current Range		0 A to 18.75 A	0 A to 28 A	0 A to 37.5 A	0 A to 18.75 A	0 A to 28 A	0 A to 37.5 A
UVP (VTH)			2.5 V	•		2.5 V	•
Time Range	1-		0.15 mS to 999.99 mS			0.15 mS to 999.99 mS	
Fuse Test Mod	Turbo OFF (CC1 to 3)	I		I			
Max. Current	Turbo ON (CC3)	18.75 Arms	28.0 Arms	37.5 Arms	18.75 Arms	28.0 Arms	37.5 Arms
	Turbo OFF (CC1 to 2)	37.5 Arms (x2) *3	56.0 Arms (x2) *3	75.0 Arms (x2) *3	37.5 Arms (x2) *3	56.0 Arms (x2) *3	75.0 Arms (x2) *3
T	Turbo OFF		0.01 Sec to 333.33 Sec			0.01 Sec to 333.33 Sec	·
Trip & Non-Trip	(Time1 to 3) Turbo ON						
Time	(Time1 to 2)	0.01 Sec to 0.50 Sec				0.01 Sec to 0.50 Sec	
055.7	Turbo ON (Time3) 0.01 Sec to 600.00 Sec		0.01 Sec to 600.00 Sec				
OFF Time Meas. Accurac	-v		0.1 Sec to 999.9 Sec ±0.003 Sec			0.1 Sec to 999.9 Sec ±0.003 Sec	
Repeat Cycle	·1		±0.003 Sec 0 to 99999			±0.003 Sec 0 to 99999	
	CP Test Function				·		
ShortTime	Turbo OFF		0.1 Sec to 10 Sec or Cont.			0.1 Sec to 10 Sec or Cont.	
	Turbo ON		0.1 Sec to 1 Sec			0.1 Sec to 1 Sec	
OPP/OCP Step Time	Turbo OFF Turbo ON		100 ms 100 ms, up to 10 Steps			100 ms 100 ms, up to 10 Steps	
	Turbo ON Turbo OFF	18.75 Arms	28.0 Arms	37.5 Arms	18.75 Arms	28.0 Arms	37.5 Arms
	Turbo ON	37.5 Arms	56.0 Arms	75.0 Arms	37.5 Arms	56.0 Arms	75.0 Arms
OCP Istop	14.50						
OPP Pstop	Turbo OFF Turbo ON	1875 W 3750 W	2800 W 5600 W	3750 W 7500 W	1875 W 3750 W	2800 W 5600 W	3750 W 7500 W

Programmable Inrush Current Simulation: Ist Istart, Inrush Start Current Inrush Step Time Istop, Inrush Stop Current Programmable Surge current simulation: S1/T' S1 and S2 Current T1 and T2 Time S3 Current T3 Time MEASUREMENTS VOLTAGE READBACK V METER Range Resolution	0 A to 37.5 A	0 A to 56 A 0.1 ms to 100 ms 0 A to 28 A 0.01 Sec to 0.5 Sec 0 A to 28 A 0.01 Sec to 9.99 Sec or Cont.	AEL-5004-350-37.5 0 A to 75 A 0 A to 37.5 A 0 A to 75 A	AEL-5002-425-18.75 0 A to 37.5 A 0 A to 18.75 A	AEL-5003-425-28 0 A to 56 A 0.1 ms to 100 ms 0 A to 28 A 0 A to 56 A	AEL-5004-425-3 7.5 0 A to 75A 0 A to 37.5 A	
Istart, Inrush Start Current Inrush Step Time Istop, Inrush Stop Current Programmable Surge current simulation: S1/T' S1 and S2 Current T1 and T2 Time S3 Current T3 Time MEASUREMENTS VOLTAGE READBACK V METER Range Resolution	0 A to 37.5 A 0 A to 18.75 A F1 - S2/T2 - S3/T3 0 A to 37.5 A	0.1 ms to 100 ms 0 A to 28 A 0 A to 56 A 0.01 Sec to 0.5 Sec 0 A to 28 A	0 A to 37.5 A 0 A to 75 A	0 A to 18.75 A	0.1 ms to 100 ms 0 A to 28 A		
Inrush Step Time Istop, Inrush Stop Current Programmable Surge current simulation: S1/T' S1 and S2 Current T1 and T2 Time S3 Current T3 Time MEASUREMENTS VOLTAGE READBACK V METER Range Resolution	0 A to 18.75 A F1 - S2/T2 - S3/T3 0 A to 37.5 A	0.1 ms to 100 ms 0 A to 28 A 0 A to 56 A 0.01 Sec to 0.5 Sec 0 A to 28 A	0 A to 37.5 A 0 A to 75 A	0 A to 18.75 A	0.1 ms to 100 ms 0 A to 28 A		
Istop, Inrush Stop Current Programmable Surge current simulation: S1/T' S1 and S2 Current T1 and T2 Time S3 Current T3 Time MEASUREMENTS VOLTAGE READBACK V METER Range Resolution	T1 - S2/T2 - S3/T3 0 A to 37.5 A	0 A to 28 A 0 A to 56 A 0.01 Sec to 0.5 Sec 0 A to 28 A	0 A to 75 A		0 A to 28 A	0 A to 37.5 A	
Programmable Surge current simulation: S1/T S1 and S2 Current T1 and T2 Time S3 Current T3 Time MEASUREMENTS VOLTAGE READBACK V METER Range Resolution	T1 - S2/T2 - S3/T3 0 A to 37.5 A	0 A to 56 A 0.01 Sec to 0.5 Sec 0 A to 28 A	0 A to 75 A			0 A to 37.5 A	
S1 and S2 Current T1 and T2 Time S3 Current T3 Time MEASUREMENTS VOLTAGE READBACK V METER Range Resolution	0 A to 37.5 A	0.01 Sec to 0.5 Sec 0 A to 28 A		0 A to 37.5 A	0 A to 56 A		
T1 and T2 Time S3 Current T3 Time MEASUREMENTS VOLTAGE READBACK V METER Range Resolution		0.01 Sec to 0.5 Sec 0 A to 28 A		0 A to 37.5 A	0 A to 56 A		
S3 Current T3 Time MEASUREMENTS VOLTAGE READBACK V METER Range Resolution	0 A to 18.75 A	0 A to 28 A				0 A to 75 A	
T3 Time MEASUREMENTS VOLTAGE READBACK V METER Range Resolution	0 A to 18.75 A				0.01 Sec to 0.5 Sec		
MEASUREMENTS VOLTAGE READBACK V METER Range Resolution		0.01 Sec to 9.99 Sec or Cont.	0 A to 37.5 A	0 A to 18.75 A	0 A to 28 A	0 A to 37.5 A	
VOLTAGE READBACK V METER Range Resolution					0.01 Sec to 9.99 Sec or Cont.		
Range Resolution							
Resolution							
		500 V			600 V		
		0.01 V			0.01 V		
Accuracy		±0.05 % of (reading + range)			±0.05 % of(reading + range)		
Parameter		Vrms,V Max/Min,± Vpk			Vrms,V Max/Min,± Vpk		
CURRENT READBACK A METER				1	· · · · · · · · · · · · · · · · · · ·		
Range 9	9.375 Arms/18.75 Arms	14 Arms/28 Arms	18.75 Arms/37.5 Arms	9.375 Arms/ 18.75 Arms	14 Arms/28 Arms	18.75 Arms/37.5 Arms	
Resolution	0.2 mA/0.4 mA	0.3 mA/0.6 mA	0.4 mA/0.8 mA	0.2 mA/0.4 mA	0.3 mA/0.6 mA	0.4 mA/0.8 mA	
Accuracy	±0.05	5 % of (reading + range) @ 50/6	0 Hz	· · · · · · · · · · · · · · · · · · ·	5 % of (reading + range) @ 50/6	·	
Parameter		Irms, I Max/Min, ± lpk		Irms, I Max/Min, ± lpk			
WATT READBACK W METER				!	, ,		
Range	1875 W	2800 W	3750 W	1875 W	2800 W	3750 W	
Resolution	0.03125 W	0.05 W	0.0625 W	0.03125 W	0.05 W	0.0625 W	
Accuracy *4	±0.5 % of (readir	ng+ range) @ 50/60 Hz, ±2 % of	(reading+ range)	±5 % of (readin	g+ range) @ 50/60 Hz, ±2 % of (reading+ range)	
VA METER		xArms Correspond To Vrms and	· • • ·		xArms Correspond To Vrms and		
POWER FACTOR METER				l	'		
Range		± 0.000 to 1.000		± 0.000 to 1.000			
Accuracy		±(0.002±(0.001/PF) x F)		±(0.002±(0.001/PF) x F)			
Frequency M ETER (Hz)							
Range		DC,40 Hz to 440 Hz		DC,40 Hz to 440 Hz			
Accuracy		0.1 %		0.1 %			
Other Parameter METER				1			
		VA, VAR, CF_I,lpeak, lma	ax, Imin Vmax, Vmin, IHD, VHI	D, ITHD, VTHD			
OTHERS			<u> </u>				
Startup Loading	Yes, Powe	er on loading during Inverter / UI	PS startup	Yes, Pow	er on loading during Inverter/ UP	'S start up	
Load ON / OFF Angle		ogrammed for the angle of load (<u> </u>	· · · · · · · · · · · · · · · · · · ·	ogrammed for the angle of load (
Half Cycle and SCR/TRIAC Loading		cycle, 90° Trailing edge or Leadin can be programmed			cycle, 90° Trailing edge or Leadin can be programmed		
waster/slave (3 Phase or Parallel	Ye	es, 1 master and upto 7 slave uni	ts	Y	es, 1 master and upto 7 slave uni	its	
Application) External Programming Input (Option)		FS /10 Vdc, Resulotion 0.1 V			FS / 10 Vdc, Resulotion 0.1 V		
External SYNC Input		TTL			TTL		
Vmonitor (Isolated)		±500 V / ± 10V			±600 V /± 10 V		
· · · · · · · · · · · · · · · · · · ·	±56.25 Apk / ±10 Vpk	±84 Apk / ±10 Vpk	±112.5 Apk / ±10 Vpk	±56.25 Apk / ±10 Vpk	±84 Apk / ±10 Vpk	±112.5 Apk /± 10 Vpk	
Interface (Option)	1 7	GPIB, RS-232, LAN, USB			GPIB, RS-232, LAN, USB		
MAX. Power Consumption		150 VA			150 VA		
Operation Temperature *2		0 °C to 40 °C			0 °C to 40 °C		
Current of Input Impedance (mA) @ 50/60 Hz, @ 400 Hz	~V x 0.3, ~V x 2.2	~V x 0.45, ~V x 3.3	~V x 0.6, ~V x 4.4	~V x 0.3, ~V x 2.2	~V x 0.45,~V x 3.3	~V x 0.6,~V x 4.4	
Dimension (H x W x D)		177 mm x 440 mm x 558 mm	<u> </u>		177 mm x 440 mm x 558 mm	<u> </u>	
Weight	21.5 kg	27.5 kg	33.5 kg	21.5 kg	27.5 kg	33.5 kg	

^{*1} ms (millisiemens) is the unit of conductance(G), one siemens equal to $1/\Omega$ *2 Operating temperature range is 0 °C to 40 °C, all specification apply for 25 °C±5 °C, Except as noted *3 Turbo mode for up to 2X Current rating & Power rating support Fuse, Short/OCP/OPP test function *4 The specification apply for current less than 20 Arms *All specifications apply for 50/60 Hz. *All specifications subject to change Input AC Power: 100 Vac to 230 Vac \pm 10 %, 50/60 Hz Cooling: Advanced Fan Cooled

	ATIONS						
		AEL-5006-350-56	AEL-5008-350-75	AEL-5012-350-112.5	AEL-5015-350-112.5	AEL-5019-350-112.5	AEL-5023-350-112.5
Power (W)		5600 W	7500 W	11250 W	15000 W	18750 W	22500 W
Current (Amp	<u> </u>	56 Arms/ 168 Apeak	75 Arms / 225 Apeak	112.5 Arms/ 337.5 Apeak	112.5 Arms/ 337.5 Apeak	112.5 Arms/ 337.5 Apeak	112.5 Arms/ 337.5 Apeak
Voltage (Volt) FREQUENCY				50 Vrms to 350 DC,40 Hz to 440 Hz(CC,CP Mode)	*	a)	
PROTECTION				DC,40 H2 to 440 H2(CC,CF Wode)	1, DC to 440 H2(LIN,CK,CV WOO	=)	
Over Power Pi		5880 Wrms or	7875 Wrms or	11812.5 Wrms or	15750 Wrms or	19687.5 Wrms or	23625 Wrms or
		Programmable	Programmable	Programmable	Programmable	Programmable	Programmable
Over CurrentP	Protection	58.8 Arms, or	78.75 Arms, or	118.125 Arms or	118.125 Arms or	118.125 Arms or	118.125 Arms or
OVI1	D	Programmable	Programmable	Programmable 367.5 Vivos	Programmable	Programmable	Programmable
Over Vlotage I Over Temp. P				367.5 Vrm Ye	<u> </u>		
OPERATION				110			
	rent Mode for Sine-Wave						
Range		0 A to 56 A	0 A to 75 A	0 A to 112.5 A	0 A to 112.5 A	0 A to 112.5 A	0 A to 112.5 A
Resolution		1 mA / 16 bits	1.25 mA / 16 bits	1.875 mA / 16 bits	1.875 mA / 16 bits	1.875 mA / 16 bits	1.875 mA / 16 bits
Accuracy			±(0.1 % of sett	ing + 0.2 % of range) @ 50/60 H:	z, ±0.5 % of (setting + range) @	DC and 400 Hz	,
Linear Consta	antCurrent Mode for Sine-V	Vave, Square-Wave or Quasi-Squ	are Wave, PWM Wave				
Range		0 A to 56 A	0 A to 75 A	0 A to 112.5 A	0 A to 112.5 A	0 A to 112.5 A	0 A to 112.5 A
Resolution		1 mA / 16 bits	1.25 mA / 16 bits	1.875 mA / 16 bits	1.875 mA / 16 bits	1.875 mA / 16 bits	1.875 mA / 16 bits
Accuracy			±(0.1 % of set	ting + 0.2 % of range) @ 50/60 H:	$z \pm 0.5$ % of (setting + range) @	DC and 400 Hz	
	istance Mode						
Range		1 ohm to 20 kohm	0.8 ohm to 16 kohm	0.533 ohm to 10.666 kohm	0.533 ohm to 10.666 kohm	0.533 ohm to 10.666 kohm	0.533 ohm to 10.666 koh
Resolution *1		0.016666 mS / 16 bits	0.020832 mS / 16 bits	0.031248 mS / 16 bits	0.031248 mS / 16 bits	0.031248 mS / 16 bits	0.031248 mS / 16 bits
Accuracy	tage Mode		±0.2 % of (se	tting+ range) @ 50/60 Hz, ±(0.5 9	% or setting + 2 % of range) @ [JC and 400 Hz	
Constant Volta Range	lage Would			50 Vrms to 350	Vrms / 500 Vdc		
Resolution				0.1			
Accuracy				±0.2 % of (setting +			
Constant Pow	ver Mode			= va a. /aamii B	5-7 @7-2 · · ·		
Range		5600 W	7500 W	11250 W	15000 W	18750 W	22500 W
Resolution		0.1 W	0.1 W	1 W	1 W	1 W	1 W
Accuracy *4				±0.5 % of (setting+ range) @ 50	/60 Hz, ±2 % of (setting+ range)		
CREST FACTO	OR (CC & CP MODE ONL	Y)					
Range				√2	to 5		
Resolution				0.			
Accuracy				(0.5 % / lrm	ns)+1 % FS		
	TOR (CC&CP MODE ONL)	7					
Range					g or Lead		
Resolution				0.0			
Accuracy TEST MODE				1 %	15		
	Measurement			Non-Line	aar Mode		
Operating Fre				Auto, 40 H			
CurrentRange		0 A to 56 A	0 A to 75 A	0 A to 112.5 A	0 A to 112.5 A	0 A to 112.5 A	0 A to 112.5 A
PF Range	-			0 to			
	ficiency for PV Systems,			Resistive + No			
	tioners for THD 80 %						
Operating Fre				Auto, 40 H			1
Current Range		0 A to 56 A	0 A to 75 A	0 A to 112.5 A	0 A to 112.5 A	0 A to 112.5 A	0 A to 112.5 A
Resistive Rang	<u> </u>	1 ohm to 20 kohm	0.8 ohm to 16 kohm	0.533 ohm to 10.666 kohm	0.533 ohm to 10.666 kohm	0.533 ohm to 10.666 kohm	0.533 ohm to 10.666 koh
UVP (VTH)	Function (CC,LIN,CR,CP)			E0 \/rms to 2E0	Vrms / 500 Vdc		
UPS Back-Up	Timo			1 Sec to 9999			
	arge Function (CC,LIN,CR,	CD)		1 360 to 3333	9 Sec (>27 H)		
	arge runesion (ee,env,en,	c.,					
				50 Vrms to 350	Vrms / 500 Vdc		
UVP (VTH)	arge Time			50 Vrms to 350 1 Sec to 9999	Vrms / 500 Vdc 9 Sec (>27 H)		
UVP (VTH) Battery Discha	-				<u> </u>		
UVP (VTH) Battery Discha UPS Transfer	Time	0 A to 56 A	0 A to 75 A		<u> </u>	0 A to 112.5 A	0 A to 112.5 A
UVP (VTH) Battery Discha UPS Transfer Current Range UVP (VTH)	Time	0 A to 56 A	0 A to 75 A	1 Sec to 99999 0 A to 112.5 A 2.5	9 Sec (>27 H) 0 A to 112.5 A	0 A to 112.5 A	0 A to 112.5 A
UVP (VTH) Battery Discha UPS Transfer Current Range UVP (VTH) Time Range	Time e	0 A to 56 A	0 A to 75 A	1 Sec to 99999 0 A to 112.5 A	9 Sec (>27 H) 0 A to 112.5 A	0 A to 112.5 A	0 A to 112.5 A
UVP (VTH) Battery Discha UPS Transfer Current Range UVP (VTH) Time Range Fuse Test Mod	Time e e ode	0 A to 56 A	0 A to 75 A	1 Sec to 99999 0 A to 112.5 A 2.5	9 Sec (>27 H) 0 A to 112.5 A	0 A to 112.5 A	0 A to 112.5 A
UVP (VTH) Battery Discha UPS Transfer Current Range UVP (VTH) Time Range Fuse Test Mod	Time e ode Turbo OFF (CC1 to 3)	0 A to 56 A 56 Arms	0 A to 75 A 75 Arms	1 Sec to 99999 0 A to 112.5 A 2.5	9 Sec (>27 H) 0 A to 112.5 A	0 A to 112.5 A	0 A to 112.5 A
UVP (VTH) Battery Discha UPS Transfer Current Range UVP (VTH) Time Range Fuse Test Mod	Time e de Turbo OFF (CC1 to 3) Turbo ON (CC3)	56 Arms	75 Arms	1 Sec to 99999 0 A to 112.5 A 2.5 0.15 ms to	9 Sec (>27 H) 0 A to 112.5 A 5 V 999.99 ms	112.5 Arms	112.5 Arms
UVP (VTH) Battery Discha UPS Transfer Current Range UVP (VTH) Time Range Fuse Test Mod Max. Current	Time e Turbo OFF (CC1 to 3) Turbo ON (CC3) Turbo ON (CC1 to 2)			1 Sec to 99999 0 A to 112.5 A 2.5 0.15 ms to 112.5 Arms 225 Arms (x2) *3	9 Sec (>27 H) 0 A to 112.5 A 5 V 999.99 ms 112.5 Arms 225 Arms (x2) *3		
UVP (VTH) Battery Discha UPS Transfer Current Range UVP (VTH) Time Range Fuse Test Mod Max. Current	Time e Turbo OFF (CC1 to 3) Turbo ON (CC3) Turbo ON (CC1 to 2) Turbo OFF	56 Arms	75 Arms	1 Sec to 99999 0 A to 112.5 A 2.5 0.15 ms to	9 Sec (>27 H) 0 A to 112.5 A 5 V 999.99 ms 112.5 Arms 225 Arms (x2) *3	112.5 Arms	112.5 Arms
JVP (VTH) Battery Discha JPS Transfer Current Range JVP (VTH) Fime Range Fuse Test Mot Max. Current Frip & Non-Trip	Time e Turbo OFF (CC1 to 3) Turbo ON (CC3) Turbo ON (CC1 to 2)	56 Arms	75 Arms	1 Sec to 99999 0 A to 112.5 A 2.5 0.15 ms to 112.5 Arms 225 Arms (x2) *3	9 Sec (>27 H) 0 A to 112.5 A 6 V 999.99 ms 112.5 Arms 225 Arms (x2) *3 333.33 Sec	112.5 Arms	112.5 Arms
JVP (VTH) Battery Discha JPS Transfer Current Range JVP (VTH) Fime Range Fuse Test Mot Max. Current Frip & Non-Trip	Time e Turbo OFF (CC1 to 3) Turbo ON (CC3) Turbo ON (CC1 to 2) Turbo OFF (Time1 to 3) Turbo ON (Time1 to 2)	56 Arms	75 Arms	1 Sec to 99999 0 A to 112.5 A 2.5 0.15 ms to 112.5 Arms 225 Arms (x2) *3 0.01 Sec to	9 Sec (>27 H) 0 A to 112.5 A 5 V 999.99 ms 112.5 Arms 225 Arms (x2) *3 333.33 Sec 0 0.50 Sec	112.5 Arms	112.5 Arms
UVP (VTH) Battery Discha UPS Transfer Current Range UVP (VTH) Time Range Fuse Test Mod Max. Current Trip & Non-Trip Time	Time e Turbo OFF (CC1 to 3) Turbo ON (CC3) Turbo ON (CC1 to 2) Turbo OFF (Time1 to 3) Turbo ON	56 Arms	75 Arms	1 Sec to 99999 0 A to 112.5 A 2.5 0.15 ms to 112.5 Arms 225 Arms (x2) *3 0.01 Sec to	9 Sec (>27 H) 0 A to 112.5 A V 999.99 ms 112.5 Arms 225 Arms (x2) *3 333.33 Sec 0 0.50 Sec 600.00 Sec	112.5 Arms	112.5 Arms
UVP (VTH) Battery Discha UPS Transfer Current Range Time Range Fuse Test Mod Max. Current Trip & Non-Trip Time	Time e Turbo OFF (CC1 to 3) Turbo ON (CC3) Turbo ON (CC1 to 2) Turbo ON (Time1 to 3) Turbo ON (Time1 to 2) Turbo ON (Time3)	56 Arms	75 Arms	1 Sec to 99999 0 A to 112.5 A 2.5 0.15 ms to 112.5 Arms 225 Arms (x2) *3 0.01 Sec to 0.01 Sec to	9 Sec (>27 H) 0 A to 112.5 A 5 V 999.99 ms 112.5 Arms 225 Arms (x2) *3 333.33 Sec 0 0.50 Sec 600.00 Sec 999.9 Sec	112.5 Arms	112.5 Arms
UVP (VTH) Battery Discha UPS Transfer Current Range UVP (VTH) Time Range Fuse Test Mod Max. Current Trip & Non-Trip Time OFF Time Meas. Accurace	Time e Turbo OFF (CC1 to 3) Turbo ON (CC3) Turbo ON (CC1 to 2) Turbo ON (Time1 to 3) Turbo ON (Time1 to 2) Turbo ON (Time3)	56 Arms	75 Arms	1 Sec to 9999 0 A to 112.5 A 2.5 0.15 ms to 112.5 Arms 225 Arms (x2) *3 0.01 Sec to 0.01 Sec to 0.1 Sec to 1.1 Sec to	9 Sec (>27 H) 0 A to 112.5 A 999.99 ms 112.5 Arms 225 Arms (x2) *3 333.33 Sec 0 0.50 Sec 600.00 Sec 999.9 Sec 3 Sec	112.5 Arms	112.5 Arms
UVP (VTH) Battery Discha UPS Transfer Current Range UVYP (VTH) Time Range Fuse Test Mor Max. Current Trip & Non-Trip Time OFF Time Meas. Accurac RepeatCycle	Time e Turbo OFF (CC1 to 3) Turbo ON (CC3) Turbo ON (CC1 to 2) Turbo OFF (Time1 to 3) Turbo ON (Time1 to 2) Turbo ON (Time3)	56 Arms	75 Arms	1 Sec to 99999 0 A to 112.5 A 2.5 0.15 ms to 112.5 Arms 225 Arms (x2) *3 0.01 Sec to 0.01 Sec to	9 Sec (>27 H) 0 A to 112.5 A 999.99 ms 112.5 Arms 225 Arms (x2) *3 333.33 Sec 0 0.50 Sec 600.00 Sec 999.9 Sec 3 Sec	112.5 Arms	112.5 Arms
UVP (VTH) Battery Discha UPS Transfer Current Range UVY (VTH) Time Range Fuse Test Mor Max. Current Trip & Non-Trip Time OFF Time Meas. Accurac RepeatCycle Short/OPP/Oc	Time e Turbo OFF (CC1 to 3) Turbo ON (CC3) Turbo ON (CC1 to 2) Turbo ON (Time1 to 3) Turbo ON (Time1 to 2) Turbo ON (Time3)	56 Arms	75 Arms	1 Sec to 9999: 0 A to 112.5 A 2.5 0.15 ms to 112.5 Arms 225 Arms (x2) *3 0.01 Sec to 0.01 Sec to 0.1 Sec to 0.1 Sec to	9 Sec (>27 H) 0 A to 112.5 A 6 V 999.99 ms 112.5 Arms 225 Arms (x2) *3 333.33 Sec 0 0.50 Sec 600.00 Sec 999.9 Sec 3 Sec	112.5 Arms	112.5 Arms
UVP (VTH) Battery Discha UPS Transfer Current Range UVP (VTH) Time Range Fuse Test Mot Max. Current Trip & Non-Trip Time OFF Time Meas. Accurac RepeatCycle Short/OPP/Os	Time e Turbo OFF (CC1 to 3) Turbo ON (CC3) Turbo ON (CC1 to 2) Turbo OFF (Time1 to 3) Turbo ON (Time1 to 2) Turbo ON (Time3) CCY CCP Test Function Turbo OFF	56 Arms	75 Arms	1 Sec to 99999 0 A to 112.5 A 2.5 0.15 ms to 112.5 Arms 225 Arms (x2) *3 0.01 Sec to 0.01 Sec to 1.00 Sec to 0.1 Sec to 0.1 Sec to 0.1 Sec to	9 Sec (>27 H) 0 A to 112.5 A 5 V 999.99 ms 112.5 Arms 225 Arms (x2) *3 333.33 Sec 0 0.50 Sec 600.00 Sec 999.9 Sec 3 Sec 199999 Sec or Cont.	112.5 Arms	112.5 Arms
UVP (VTH) Battery Discha UPS Transfer Current Range UVP (VTH) Time Range Fuse Test Mod Max. Current Trip & Non-Trip Time OFF Time Meas. Accurac RepeatCycle Short/OPP/Os ShortTime	Time e ode Turbo OFF (CC1 to 3) Turbo ON (CC3) Turbo ON (CC1 to 2) Turbo ON (Timel to 3) Turbo ON (Timel to 2) Turbo ON (Time3) OCP Test Function Turbo OFF Turbo ON	56 Arms	75 Arms	1 Sec to 99999 0 A to 112.5 A 2.5 0.15 ms to 112.5 Arms 225 Arms (x2) *3 0.01 Sec to 0.01 Sec to 1.15 ec to 10 1.15 ec to 10 1.15 ec to 10	9 Sec (>27 H) 0 A to 112.5 A 5 V 999.99 ms 112.5 Arms 225 Arms (x2) *3 333.33 Sec 0 0.50 Sec 600.00 Sec 999.9 Sec 3 Sec 199999 Sec or Cont. to 1 Sec	112.5 Arms	112.5 Arms
UVP (VTH) Battery Discha UPS Transfer Current Range TUVP (VTH) Time Range Fuse Test Mod Max. Current Trip & Non-Trip Time Meas. Accurac RepeatCycle ShortTime OPP/OCP	Time e Turbo OFF (CC1 to 3) Turbo ON (CC3) Turbo ON (CC1 to 2) Turbo ON (CC1 to 2) Turbo ON (Time1 to 3) Turbo ON (Time3) Turbo ON (Time3) Turbo ON (Time3)	56 Arms	75 Arms	1 Sec to 99999 0 A to 112.5 A 2.5 0.15 ms to 112.5 Arms 225 Arms (x2) *3 0.01 Sec to 0.01 Sec to 1.0 Sec to 0.1 Sec to 0.1 Sec to 10 0.1 Sec to 10 0.1 Sec to 10 0.1 Sec to 10	9 Sec (>27 H) 0 A to 112.5 A 3 V 999.99 ms 112.5 Arms 225 Arms (x2) *3 333.33 Sec 0 0.50 Sec 600.00 Sec 999.9 Sec 3 Sec 199999 Sec or Cont. to 1 Sec ms	112.5 Arms	112.5 Arms
UVP (VTH) Battery Discha UPS Transfer Current Range Turent Range Fuse Test Mod Max. Current Trip & Non-Trip Time Meas. Accurac RepeatCycle Short/OPP/OCP Step OPP/OCP Step	Time e ode Turbo OFF (CC1 to 3) Turbo ON (CC3) Turbo ON (CC1 to 2) Turbo ON (Timel to 3) Turbo ON (Timel to 2) Turbo ON (Time3) OCP Test Function Turbo OFF Turbo ON	56 Arms	75 Arms	1 Sec to 99999 0 A to 112.5 A 2.5 0.15 ms to 112.5 Arms 225 Arms (x2) *3 0.01 Sec to 0.01 Sec to 1.15 ec to 10 1.15 ec to 10 1.15 ec to 10	9 Sec (>27 H) 0 A to 112.5 A 3 V 999.99 ms 112.5 Arms 225 Arms (x2) *3 333.33 Sec 0 0.50 Sec 600.00 Sec 999.9 Sec 3 Sec 199999 Sec or Cont. to 1 Sec ms	112.5 Arms	112.5 Arms
UVP (VTH) Battery Discha UPS Transfer Current Range Fuse Test Mod Max. Current Trip & Non-Trip Time Meas. Accurac RepeatCycle Short/OPP/OCP	Time e Turbo OFF (CC1 to 3) Turbo ON (CC3) Turbo ON (CC1 to 2) Turbo ON (Time1 to 3) Turbo ON (Time1 to 2) Turbo ON (Time3) CCY CCP Test Function Turbo ON Turbo ON Turbo ON Turbo ON	56 Arms 112 Arms (x2) *3	75 Arms 150 Arms (x2) *3	1 Sec to 99999 0 A to 112.5 A 2.5 0.15 ms to 112.5 Arms 225 Arms (x2) *3 0.01 Sec to 0.01 Sec to 0.1 Sec to ±0.00 0 to \$ 0.1 Sec to 10	9 Sec (>27 H) 0 A to 112.5 A 3 V 999.99 ms 112.5 Arms 225 Arms (x2) *3 333.33 Sec 0 0.50 Sec 600.00 Sec 999.9 Sec 3 Sec 19999 Sec or Cont. to 1 Sec ms to 10 Steps	112.5 Arms 225 Arms (x2) *3	112.5 Arms 225 Arms (x2) *3
UVP (VTH) Battery Discha UPS Transfer Current Range Fuse Test Mod Max. Current Trip & Non-Trip Time Meas. Accurac RepeatCycle Short/OPP/OCP Step	Time e Turbo OFF (CC1 to 3) Turbo ON (CC3) Turbo ON (CC1 to 2) Turbo ON (Timel to 3) Turbo ON (Timel to 2) Turbo ON (Time3) Turbo ON (Time3)	56 Arms 112 Arms (x2) *3 56 Arms	75 Arms 150 Arms (x2) *3	1 Sec to 99991 0 A to 112.5 A 2.5 0.15 ms to 112.5 Arms 225 Arms (x2) *3 0.01 Sec to 0.01 Sec to 0.1 Sec to 10.0 O.1 Sec to	9 Sec (>27 H) 0 A to 112.5 A 3 V 999.99 ms 112.5 Arms 225 Arms (x2) *3 333.33 Sec 0 0.50 Sec 600.00 Sec 999.9 Sec 3 Sec 19999 Sec or Cont. to 1 Sec ms to 10 Steps 112.5 Arms	112.5 Arms 225 Arms (x2) *3	112.5 Arms 225 Arms (x2) *3

SPECIFICATIONS						
	AEL-5006-350-56	AEL-5008-350-75	AEL-5012-350-112.5	AEL-5015-350-112.5	AEL-5019-350-112.5	AEL-5023-350-112.5
Programmable Inrush Current Simulation	on: Istart- Istop/ Tsep					
Istart,Inrush Start Current	0 A to 112 A	0 A to 150 A	0 A to 225 A	0 A to 225 A	0 A to 225 A	0 A to 225 A
Inrush Step Time			0.1 ms to	o 100 ms		
Istop,Inrush Stop Current	0 A to 56 A	0 A to 75 A	0 A to 112.5 A	0 A to 112.5 A	0 A to 112.5 A	0 A to 112.5 A
Programmable Surge Current Simulatio	n S1/T1 - S2/T2 - S3/T3					
S1 and S2 Current	0 A to 112 A	0 A to 150 A	0 A to 225 A	0 A to 225 A	0 A to 225 A	0 A to 225 A
T1 and T2 Time			0.01 Sec	to 0.5 Sec		
S3 Current	0 A to 56 A	0 A to 75 A	0 A to 112.5 A	0 A to 112.5 A	0 A to 112.5 A	0 A to 112.5 A
T3 Time			0.01 Sec to 9.9	99 Sec or Cont.		
MEASUREMENTS						
VOLTAGE READBACK V METER						
Range			50	0 V		
Resolution			0.0			
Accuracy			±0.05 % of (re			
Parameter			Vrms,V Ma	0 0,		
CURRENT READBACK A METER			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	.,, = . p.:		
Range	28 Arms/56 Arms	37.5 Arms/75 Arms	56.25 Arms/112.5 Arms	56.25 Arms/112.5 Arms	56.25 Arms/112.5 Arms	56.25 Arms/112.5 Arm
Resolution	0.6 mA/1.2 mA	0.8 mA/1.6 mA	1.2 mA/2.4 mA	1.2 mA/2.4 mA	1.2 mA/2.4 mA	1.2 mA/2.4 mA
Accuracy	0.0 11/1/1.2 11/1	0.0 111/1/1.0 111/1	,	range) @ 50/60 Hz	1.2 110 () 2.3 110 (1.2 110 () 2.4 110 (
Parameter			Irms,I Max	0,1-1		
WATT READBACK W METER			11113,1 1012	ywiii,± ipk		
Range	5600 W	7500 W	11250 W	15000 W	18750 W	22500 W
Resolution	0.1 W	0.125 W	0.1875 W	0.25 W	0.3125 W	0.375 W
Accuracy *4	0.1 W	0.1 W 0.125 W 0.1875 W 0.25 W 0.3125 W 0.375 W ± 0.5 % of (reading+ range) @ 50/60 Hz ± 2 % of (reading+ range)				
VA METER		;		nd To Vrms and Arms)	
POWER FACTOR METER			vimsxAims Correspo	nd to viins and Aims		
	T		± 0.000	+- 1.000		
Range						
Accuracy			±(0.002±(0.	001/PF) x F)		
Frequency M ETER (Hz)	T		DC, 40 Hz	- h- 440 LI-		
Range						
Accuracy			0.1	1 %		
Other Parameter METER						
		VA, VAR, CF I, Ipeak, Im	ax, Imin Vmax, Vmin, IHD, VHI	D, ITHU, VIHU		
OTHERS						
Startup Loading				ring Inverter/ UPS startup		
Load ON / OFF Angle		0 to 359 degree can be programmed for the angle of load ON and load OFF loading				
Half Cycle and SCR/TRIAC Loading		Positive or Negativ	e half cycle, 90° Trailing edge or I		an be programmed	
Master/Slave (3 Phase or Parallel			Yes,1 master and	<u>'</u>		
External Programming Input (Option)			FS / 10 Vdc, R			
External SYNC Input		TTL				
Vmonitor (Isolated)			± 500 V	/± 10 V		
Imonitor (Isolated)	± 168 Apk / ± 10 Vpk	± 225 Apk / ± 10 Vpk	± 337.5 Apk / ± 10 Vpk	± 337.5 Apk / ± 10 Vpk	± 337.5 Apk / ± 10 Vpk	± 337.5 Apk / ± 10 Vpk
Interface (Option)			GPIB, RS-23	2, LAN, USB		
MAX. Power Consumption	270 VA	270 VA	390 VA	510 VA	630 VA	750 VA
Operation Temperature *2			0°C to	40 °C		
Current of Input Impedance (mA) @ 50/60 Hz, @ 400 Hz	~V x 0.9, ~V x 6.6	~V x 1.2, ~V x 8.8	~V x 1.8, ~V x 13.2	~V x 2.4, ~V x 17.6	~V x 3.0, ~V x 22	~V x 3.6, ~V x 26.4
Dimension (H x W x D)	458 mm x 480 mm x 590 mm	458 mm x 480 mm x 590 mm	636 mm x 480 mm x 590 mm	814 mm x 480 mm x 590 mm	1283 mm x 600 mm x 600 mm	1283 mm v 600 mm v 600 mi
Weight	58 kg	70 kg	105 kg	740 kg	260 kg	295 kg
	l 20 KB	/U Kg	I IOD KB	/40 Kg	ZOU Kg	ZJJ Kg

^{*1} ms (millisiemens) is the unit of conductance(G), one siemens equal to $1/\Omega$ *2 Operating temperature range is 0 °C to 40 °C, all specification apply for 25 °C±5 °C, Except as noted *3 Turbo mode for up to 2X Current rating & Power rating support Fuse, Short/OCP/OPP test function *4 The specification apply for current less than 20 Arms *All specifications apply for 50/60 Hz. *All specifications subject to change Input AC Power : 100 Vac to 230 Vac \pm 10 %, 50/60 Hz Cooling : Advanced Fan Cooled

SPECIFICA	TIONS						
		AEL-5006-425-56	AEL-5008-42.5-7.5	AEL-5012-425-112.5	AEL-5015-425-112.5	AEL-5019-425-112.5	AEL-5023-425-112.5
Power (W)		5600 W	7500 W	11250 W	15000 W	18750 W	22500 W
Current (Ampe	ere)	56 Arms/ 168 Apeak	75 Arms / 225 Apeak	112.5 Arms/ 337.5 Apeak	112.5 Arms/ 337.5 Apeak	112.5 Arms/ 337.5 Apeak	112.5 Arms/ 337.5 Apeak
Voltage (Volt)					Vrms / 600 Vdc		
FREQUENCY				DC,40 Hz to 440 Hz (CC,CP Mode	e), DC to 440 Hz(LIN,CR,CV Mod	e)	
Over Power Pr		5000 VV	7075 \\	77070 5) V	15750.84	10007.5.3%	02505.14
Over Power Pr	otection	5880 Wrms or Programmable	7875 Wrms or Programmable	11812.5 Wrms or Programmable	15750 Wrms or Programmable	19687.5 Wrms or Programmable	23625 Wrms or Programmable
Over Current F	Protection	58.8 Arms, or	78.75 Arms, or	118.125 Arms or	118.125 Arms or	118.125 Arms or	118.125 Arms or
		Programmable	Programmable	Programmable	Programmable	Programmable	Programmable
Over Vlotage F					ms/630 Vdc		
Over Temp.Pro				Y	'es		
OPERATION							
	ent Mode for Sine-Wave	0.A to EC.A	0.4 +- 75.4	0 A to 112.5 A	0 A to 112.5 A	0 A to 112.5 A	0.44-112.54
Range Resolution		0 A to 56 A 1 mA/ 16 bits	0 A to 75 A 1.25 mA/ 16 bits	1.875 mA / 16 bits	1.875 mA / 16 bits	1.875 mA / 16 bits	0 A to 112.5 A 1.875 mA / 16 bits
Accuracy		T HIA/ TO DIES	· '	ting + 0.2 % of range) @ 50/60 H			1.873 HIA / 10 DIES
	ntCurrent Mode for Sine-V	Vave, Square-Wave or Quasi-Squ		g	- range) @		
Range		0 A to 56 A	0 A to 75 A	0 A to 112.5 A	0 A to 112.5 A	0 A to 112.5 A	0 A to 112.5 A
Resolution		1 mA/ 16 bits	1.25 mA/ 16 bits	1.875 mA / 16 bits	1.875 mA / 16 bits	1.875 mA / 16 bits	1.875 mA / 16 bits
Accuracy		,	±(0.1 % of set	ting + 0.2 % of range) @ 50/60 H	Iz ±0.5 % of (setting + range) @	DC and 400 Hz	
Constant Resis	stance Mode						
Range		1 ohm to 20 kohm	0.8 ohm to 16 kohm	0.533 ohm to 10.666 kohm	0.533 ohm to 10.666 kohm	0.533 ohm to 10.666 kohm	0.533 ohm to 10.666 kohr
Resolution*1		0.016666 mS / 16 bits	0.020832 mS / 16 bits	0.031248 mS / 16 bits	0.031248 mS / 16 bits	0.031248 mS / 16 bits	0.031248 mS / 16 bits
Accuracy			±0.2 % of (s	etting+ range) @ 50/60 Hz,±(0.5	% of setting + 2 % of range) @ [OC and 400 Hz	
Constant Volta	age Mode						
Range Resolution					5 Vrms / 600 Vdc .1 V		
Accuracy					- range) @ 50/60 Hz		
Constant Power	er Mode			±0.2 /0 01 (3ctting +	80/ 00/112		
Range	er mode	5600 W	7500 W	11250 W	15000 W	18750 W	22500 W
Resolution		0.1 W	0.1 W	1 W	1 W	1 W	1 W
Accuracy *4				±0.5 % of (setting+ range) @ 50	0/60 Hz,±2 % of (setting+ range)		
CREST FACTO	R (CC & CP MODE ONL	Y)		, , , ,	, , , , ,		
Range				√2	2 to 5		
Resolution				C).1		
Accuracy				(0.5 % / Irr	ms)+ 1 % FS		
POWER FACTO	OR (CC&CP MODE ONL)	()					
Range					ag or Lead		
Resolution					.01 % FS		
Accuracy TEST MODE				17	% F3		
UPS Efficient N	Measurement			Non-Lin	ear Mode		
Operating Free					Iz to 440 Hz		
Current Range	· ·	0 A to 56 A	0 A to 75 A	0 A to 112.5 A	0 A to 112.5 A	0 A to 112.5 A	0 A to 112.5 A
PF Range		***************************************			to 1	***************************************	
Measuring Effi	iciency for PV Systems,			Pacietiva : No	on-Linear Mode		
	onersfor THD 80 %						
Operating Free	· ·		ı		Iz to 440 Hz		1
Current Range		0 A to 56 A	0 A to 75 A	0 A to 112.5 A	0 A to 112.5 A	0 A to 112.5 A	0 A to 112.5 A
Resistive Rang		1 ohm to 20 kohm	0.8 ohm to 16 kohm	0.533 ohm to 10.666 kohm	0.533 ohm to 10.666 kohm	0.533 ohm to 10.666 kohm	0.533 ohm to 10.666 kohm
UVP (VTH)	Function (CC,LIN,CR,CP)			F0.1/ / 125	: V/rms / 600 V/ds		
UPS Back-Up	Time				5 Vrms / 600 Vdc 99 Sec (>27 H)		
	arge Function (CC,LIN,CR,	CP)		1 300 10 3333	v · · · · · · · · · · · · · · · ·		
UVP (VTH)	(,,)	•		50 Vrms to 425	5 Vrms / 600 Vdc		
Battery Discha	rge Time				99 Sec (>27 H)		
UPS Transfer	Time						
Current Range		0 A to 56 A	0 A to 75 A	0 A to 112.5 A	0 A to 112.5 A	0 A to 112.5 A	0 A to 112.5 A
UVP (VTH)					5 V		
Time Range				0.15 ms to	999.99 ms		
Fuse Test Mod			T		1		T
Max. Current	Turbo OFF (CC1 to 3)	56 Arms	75 Arms	112.5 Arms	112.5 Arms	112.5 Arms	112.5 Arms
	Turbo ON (CC3) Turbo ON (CC1 to 2)	112 A (2) #2	350 A (2) ±2	225 A (2) #2	225 A (2) #2	225 A (2) #2	225 A (2)
Trip &	Turbo ON (CC1 to 2) Turbo OFF (Time1)	112 Arms (x2) *3	150 Arms (x2) *3	225 Arms (x2) *3	225 Arms (x2) *3 333.33 Sec	225 Arms (x2) *3	225 Arms (x2) *3
irip & Non-Trip	Turbo OFF (Time I)				to 0.50 Sec		
Time	(Time1 to 2)			0.01 360			
	Turbo ON (Time3)				o 600.00 Sec		
OFF Time					999.9 Sec		
Meas. Accurac	су				03 Sec		
RepeatCycle				0 to	99999		
	CP Test Function				0.0		
ShortTime	Turbo OFF				0 Sec or Cont.		
ODDIOCE	Turbo ON				to 1 Sec 0 ms		
OPP/OCP Step Time	Turbo OFF Turbo ON				o to 10 Steps		
OCP Istop	Turbo ON Turbo OFF	56 Arms	75 Arms	112.5 Arms	112 5Arms	112 5Arms	112 5Arms
OCF ISTOP	Turbo OFF	112 Arms	150 Arms	225 Arms	225 Arms	225 Arms	225 Arms
OPP Pstop	Turbo OFF	5600 W	7500 W	11250 W	15000 W	18750 W	225 Arris 22500 W
2 1 310p	Turbo ON	11200 W	15000 W	22500 W	30000 W	37500 W	45000 W
					30000 11	3,300 11	

SPECIFICATIONS						
	AEL-5006-425-56	AEL-5008-42.5-7.5	AEL-5012-425-112.5	AEL-5015-425-112.5	AEL-5019-425-112.5	AEL-5023-425-112.5
Programmable Inrush Current Simulation	on: Istart- Istop/ Tsep					
lstart,Inrush	0 A to 112 A	0 A to 150 A	0 A to 225 A	0 A to 225 A	0 A to 225 A	0 A to 225 A
Inrush Step Time			0.1 ms to	o 100 ms		
Istop,Inrush Stop Current	0 A to 56 A	0 A to 75 A	0 A to 112.5 A	0 A to 112.5 A	0 A to 112.5 A	0 A to 112.5 A
Programmable Surge Current Simulatio	n S1/T1 - S2/T2 - S3/T3	I.			•	
S1 and S2 Current	0 A to 112 A	0 A to 150 A	0 A to 225 A	0 A to 225 A	0 A to 225 A	0 A to 225 A
T1 and T2 Time			0.01 Sec	to 0.5 Sec		
S3 Current	0 A to 56 A	0 A to 75 A	0 A to 112.5 A	0 A to 112.5 A	0 A to 112.5 A	0 A to 112.5 A
T3 Time			0.01 Sec to 9.9	99 Sec or Cont.		
MEASUREMENTS						
VOLTAGE READBACK V METER						
Range			60	0 V		
Resolution			0.0	1 V		
Accuracy			±0.05 % of (re	ading + range)		
Parameter			Vrms,V Max	,		
CURRENT READBACK A METER	1		· · · · · · · · · · · · · · · · · · ·			
Range	28 Arms/56 Arms	37.5 Arms/75 Arms	56.25 Arms/112.5 Arms	56.25 Arms/112.5 Arms	56.25 Arms/112.5 Arms	56.25 Arms/112.5 Arm
Resolution	0.6 mA/1.2 mA	0.8 mA/1.6 mA	1.2 mA/2.4 mA	1.2 mA/2.4 mA	1.2 mA/2.4 mA	1.2 mA/2.4 mA
Accuracy			± 0.1 % of (reading +		,	,
Parameter			Irms,I Max			
WATT READBACK W METER				,·····, =· F ··		
Range	5600 W	7500 W	11250 W	15000 W	18750 W	22500 W
Resolution	0.1 W	0.125 W	0.1875 W	0.25 W	0.3125 W	0.375 W
Accuracy *4	0.1 11		± 0.5 % of (reading+ range) @ 50			0.575 W
VA METER				7	,	
POWER FACTOR METER						
Range	I		± 0.000	to 1.000		
Accuracy			±(0.002±(0.			
Frequency M ETER (Hz)			_(=,====(=			
Range	I		DC,40 Hz	to 440 Hz		
Accuracy			0.1			
Other Parameter METER				7,0		
Other Faranceer WETER		VA VAR CE I Ineak Im	ax, Imin Vmax, Vmin, IHD, VHI	D ITHD VTHD		
OTHERS		,, c, , peak, III	, , , , , , , , , , , , , , ,	-,		
Startup Loading			Yes, Power on loading du	ring Inverter / LIPS startun		
Load ON / OFF Angle		0 to 359	degree can be programmed for the	· , .	F loading	
Half Cycle and SCR/TRIAC Loading			e half cycle, 90° Trailing edge or I			
Master/Slave (3 Phase or Parallel		1 OSITIVE OF INEGATIV	Yes, 1 master and		an oc programmed	
External Programming Input (Option)			FS / 10 Vdc, R	<u>'</u>		
External SYNC Input			13/10 vac, 10			
Vmonitor (Isolated)			±600 V			
Imonitor (Isolated)	± 168 Apk / ± 10 Vpk	± 225 Apk / ± 10 Vpk	± 337.5 Apk / ± 10 Vpk	± 337.5 Apk / ± 10 Vpk	± 337.5 Apk / ± 10 Vpk	± 337.5 Apk / ± 10 Vpk
Interface (Option)	1 100 Apk / ± 10 Vpk		GPIB, RS-23		_ ± 337.3 Apk / ± 10 Vpk	Apk / = 10 Vpi
MAX. Power Consumption	270 VA	270 VA	390 VA	510 VA	630 VA	750 VA
Operation Temperature *2	270 VA	270 VA	0 °C to		AV UCO	/30 VA
Current of Input Impedance (mA)					I	
@ 50/60 Hz, @ 400 Hz	~V x 0.9,~V x 6.6	~V x 1.2, ~V x 8.8	~V x 1.8, ~V x 13.2	~V x 2.4, ~V x 17.6	~V x 3.0, ~V x 22	~V x 3.6, ~V x 26.4
Dimension (H x W x D)	458 mm x 480 mm x 590 mm	458 mm x 480 mm x 590 mm	636 mm x 480 mm x 590 mm	814 mm x 480 mm x 590 mm	1283 mm x 600 mm x 600 mm	1283 mm x 600 mm x 600
Weight	58 kg	70 kg	105 kg	140 kg	260 kg	295 kg
•	30 %	/ V "B	105 %	1 2 2	1 200 %	277 %

^{*1} ms (millisiemens) is the unit of conductance(G), one siemens equal to $1/\Omega$
*2 Operating temperature range is 0 °C to 40 °C, all specification apply for 25 °C±5 °C, Except as noted
*3 Turbo mode for up to 2X Current rating & Power rating support Fuse, Short/OCP/OPP test function
*4 The specification apply for current less than 20 Arms
*All specifications apply for 50/60 Hz.
*All specifications subject to change
Input AC Power : 100 Vac to 230 Vac ± 10 %, 50/60 Hz
Cooling : Advanced Fan Cooled

SPECIFICA	ATIONS						
		AEL-5003-480-18.75	AEL-5004-480-28				
Power (W)		2800 W	3750 W				
Current (Ampere) Voltage (Volt)		18.75 Arms / 56.25 Apeak	28 Arms / 84 Apeak				
FREQUENCY	Range	50 Vrms to 480 Vrms / 700 Vdc DC,40 Hz to 70 Hz(CC,CP Mode), DC to 70 Hz(LIN,CR,CV Mode)					
PROTECTIONS							
Over Power Pr	rotection	2940 Wrms or Programmable	3937.5 Wrms or Programmable				
Over Current	Protection	19.687 Arms or Programmable	29.4 Arms or Programmable				
Over Vlotage I			/ 735 Vdc				
Over Temp.Pr		Ye	es				
OPERATION Constant Curr	ent Mode for Sine-Wave						
Range	ent wode for Sine-wave	0 A to 18.75 A	0 A to 28 A				
Resolution		0.3725 mA / 16 bits	0.5 mA / 16 bits				
Accuracy		±(0.1 % of setting + 0.2 % of range) @ 50/60 H	z, ± 0.5 % of (setting + range) @ DC and 400 Hz				
Linear Consta	nt Current Mode for Sine-	Wave, Square-Wave or Quasi-Square Wave, PWM W	ave				
Range		0 A to 18.75 A	0 A to 28 A				
Resolution		0.3125 mA/ 16 bits	0.5 mA/ 16 bits				
Accuracy Constant Resi	stance Mode	±(0.1 % of setting + 0.2 % of range) @ 50/60 Hz	z, ±0.5 % of (setting + range) @ DC and 400 H:				
Range		4 ohm to 80 Kohm	2.5 ohm to 50 Kohm				
Resolution *1		0.004166 mS / 16 bits	0.006666 mS / 16 bits				
Accuracy		±2 % of (setting + range) @ 50/60 Hz, ±(0.5 9	·				
Constant Volta	age Mode						
Range		50 Vrms to 480					
Resolution		0.01					
Accuracy Constant Pow	er Mode	±(0.1 % of setting	+ U. 1 % OT range)				
Range	CI IVIOUE	2800 W	3750 W				
Resolution		0.1 W	0.1 W				
Accuracy *4			50/60 Hz,±2 % of (setting+ range)				
CREST FACTO	OR (CC & CP MODE ONL	Y)					
Range		√2 to 5					
Resolution		0.50/ //					
Accuracy POWER FACT	OR ICCSCD MODE ONLY	(0.5 % /lrm	15) +1 % +5				
Range	OR (CC&CP MODE ONL)	0 to 1 La	g or Lead				
Resolution		0.0					
Accuracy		1 %	FS				
TEST MODE							
UPS Efficient I		Non-Line					
Operating Fre	quency	Auto, 40 Hz to 70 Hz 0 A to 18.75 A 0 A to 28 A					
CurrentRange PF Range		0 A to 18.73 A					
	iciency For PV Systems,						
	onersfor THD 80 %	Resistive+ Non-Linear Mode					
Operating Fre	· ·	Auto, 40 H					
CurrentRange		0 A to 18.75 A 4 ohm to 80 Kohm	0 A to 28 A 2.5 ohm to 50 Kohm				
Resistive Rang	ge Function (CC,LIN,CR,CP)	4 onm to 80 Konm	2.3 onm to 30 konm				
UVP (VTH)	runction (ee,Env,ex,er)	50 Vrms to 480	Vrms / 700 Vdc				
UPS Back-Up	Time	1 Sec to 99999	<u>'</u>				
Battery Discha	arge Function (CC,LIN,CR	(CP)					
UVP (VTH)		50 Vrms to 480					
BatteryDischa	<u> </u>	1 Sec to 99999	9 Sec (>27 H)				
UPS Transfer		0.4 to 10.75 A	0 4 to 20 4				
CurrentRange UVP (VTH)		0 A to 18.75 A	0 A to 28 A				
Time Range		0.15 ms to					
Fuse Test Mod	de	55 1113 to					
Max. Current	Turbo OFF (CC1 to 3)	30.754	30 A				
	Turbo ON (CC3)	18 75Arms	28 Arms				
	Turbo ON (CC1 to 2)	37.5 Arms (x2) *3	56.0 Arms (x2) *3				
Trip &	Turbo OFF	0.01 Sec to	333.33 Sec				
Non-Trip Time	(Time1 to 3) Turbo ON	0.01 Sect.	o 0.50 Sec				
	(Time1 to 2)	0.01 Sec to 0.50 Sec					
Turbo ON (Time3)		0.01 Sec to 600.00 Sec					
OFF Time		0.1 Sec to					
Meas. Accurac	су	± 0.00					
RepeatCycle	CP Test Function	0 to 9	צבצני				
Short/OPP/OCP Test Function ShortTime Turbo OFF		0.1 Sec to 10	Sec or Cont.				
	Turbo ON		to 1 Sec				
OPP/OCP	Turbo OFF	100					
C. T.	Turbo ON	100 ms, up	to 10 Steps				
Step Time							
OCP Istop	Turbo OFF	18.75 Arms	28.0 Arms				
OCP Istop	Turbo OFF Turbo ON	37.5 Arms	56.0 Arms				
	Turbo OFF						

PEL-022 GPIB Card



PEL-023 RS-232 Card



PEL-024 LAN Card



PEL-025 USB Card



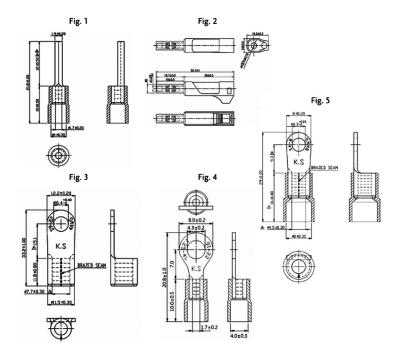
PEL-028 HANDLES, U-shaped handle (for AEL-5006/5008/5012/5015)



PEL-029 HANDLES Rack Accessories (for AEL-5002/5003/5004)



SPECIFICATIONS					
	AEL-5003-480-18.75	AEL-5004-480-28			
Programmable Inrush Current Simulati	on: Istart-Istop/ Tsep				
Istart, Inrush StartCurrent	0 A to 37.5 A	0 A to 56 A			
Inrush Step Time	0.1 ms to	o 100 ms			
!stop, Inrush Stop Current	0 A to 18.75 A	0 A to 28 A			
Programmable Surge Current Simulation	on S1/T1 - S2/T2 - S3/T3				
SI and S2 Current	0 A to 37.5 A	0 A to 56 A			
TI and T2 Time	0.01 Sec	to 0.5 Sec			
S3 Current	0 A to 18.75 A	0 A to 28 A			
T3 Time	0.01 Sec to 9.9	99 Sec or Cont.			
MEASUREMENTS					
VOLTAGE READBACK V METER					
Range	70	0 V			
Resolution	0.01	25 V			
Accuracy	± 0.05 % of (re	eading + range)			
Parameter	·	k/Min, ±Vpk			
CURRENT READBACK A METER	1	r			
Range	9.375 Arms/18.75 Arms	14 Arms/28 Arms			
Resolution	0.2 mA/0.4 mA	0.3 mA/0.6 mA			
Accuracy	,	+ range) @ 50/60 Hz			
Parameter	Irms, I Ma	5 , - ,			
WATT READBACK W METER	11113,11110	y will, Tipk			
Range	2800 W	3750 W			
Resolution	0.05 W	0.0625 W			
Accuracy *4					
VA METER	±0.5 % of (reading+ range) @ 50/60 Hz, ±2 % of (reading+ range)				
POWER FACTOR METER	Vrmsx Arms Correspond To Vrms and Arms				
Range	± 0.000	to 1 000			
Accuracy	± 0.000 ±(0.002±(0.				
Frequency M ETER (Hz)	±(0.002±(0.	001/F1 / X1 /			
	DC 40 H-	z to 70 Hz			
Range	<u>'</u>	%			
Accuracy Other Parameter METER	0.1	70			
	AD CE I level have had Very Veria IIID VIII	TILL VILLE			
OTHERS VA, V	/AR, CF_I, Ipeak, Imax, Imin Vmax, Vmin, IHD, VHI	J, ITHU, VIHU			
	V B	Lucius Investor / LIDC starters			
Startup Loading		luring Inverter / UPS startup			
Load ON / OFF Angle		ne angle of load ON and load OFF loading			
Half Cycle and SCR/TRIAC Loading	Positive or Negative half cycle, 90° Trailing edge or I				
Master/Slave (3 Phase or Parallel	<u> </u>	upto 7 slave units			
External Programming Input (Option)	FS / 10 Vdc, R				
External SYNC Input	TTL				
Vmonitor (Isolated)	± 700 V	·			
Imonitor (Isolated)	± 56.25 Apk / ± 10 Vpk	± 84 Apk / ± 10 Vpk			
Interface (Option)	GPIB, RS-23				
MAX. Power Consumption	1) VA			
Operation Temperature *2	0 °C to	0 40 °C			
Current of Input Impedance (mA) @ 50/60 Hz, @ 400 Hz	~V x 0.3, ~V x 2.2	~V x 0.4, ~V x 2.95			
Dimension (H x W x D)	177 mm x 440 mm x 558 mm	177 mm x 440 mm x 558 mm			
Weight	27.5 kg	33.5 kg			



- *1 ms (millisiemens) is the unit of conductance(G), one siemens equal
- to 1/\Omega^2 \text{ 20 perating temperature range is 0 °C to 40 °C, all specification apply for 25 °C±5 °C, Except as noted

 *3 Turbo mode for up to 2X Current rating & Power rating support Fuse, Short/OCP/OPP test function

 *4 The specification apply for current less than 20 Arms

 *All specifications apply for 50/60 Hz.

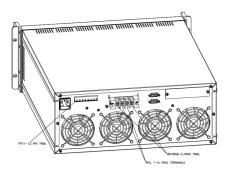
 *All specifications subject to change without notice.

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

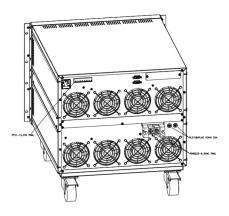
- Cooling : Advanced Fan Cooled

STANDARD ACCESSORIES

HD-DSUB: 15pin MALE to MALE 150cm x 1 PTV1-12 PIN TRML : Please refer to Fig.1 x 6



AEL-5002-xxx-18.75/AEL-5003-xxx-28/AEL-5004-xxx-37.5 PVL 1-4 RING TERMINALS : Please refer to Fig.4 x 2 RNYBS8-4 RING TRML : Please refer to Fig.5 x 2



AEL-5006-xxx-56/AEL-5008-xxx-78/AEL-5012-xxx-112.5/ AEL-5015-xxx-112.5/AEL-5019-xxx-112.5/AEL-5023-xxx/112.5 **SLS10B** RED PLUG CONN 20A RED : Please refer to Fig.2;

The terminal is used for Vsense $\,x\,1\,$

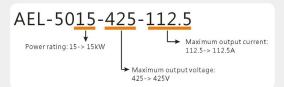
SLS10B BLK PLUG CONN 20A BLK: Please refer to Fig.2;

The terminal is used for Vsense x 1

RNB S22-6 RING TRML, #4 : Please refer to Fig.3 x 2

ORDERING INFORMATION

```
AEL-5002-350-18.75
                       350 V / 18.75 A / 1875 W
                                                  AC & DC Electronic Load
AEL-5003-350-28
                                                  AC & DC Electronic Load
                       350 V / 28 A / 2800 W
AEL-5004-350-37.5
                       350 V / 37.5 A / 3750 W
                                                  AC & DC Electronic Load
AEL-5006-350-56
                       350 V / 56 A / 5600 W
                                                  AC & DC Electronic Load
AEL-5008-350-75
                       350 V / 75 A / 7500 W
                                                  AC & DC Electronic Load
AEL-5012-350-112.5
                       350 V / 112.5 A / 11250 W
                                                 AC & DC Electronic Load
AEL-5015-350-112.5
                       350 V / 112.5 A / 15000 W
                                                 AC & DC Electronic Load
AEL-5019-350-112.5
                       350 V / 112.5 A / 18750 W
                                                  AC & DC Electronic Load
AEL-5023-350-112.5
                       350 V / 112.5 A / 22500 W
                                                  AC & DC Electronic Load
AEL-5002-425-18.75
                       425 V / 18.75 A / 1875 W
                                                  AC & DC Electronic Load
                       425 V / 28 A / 2800 W
                                                  AC & DC Electronic Load
AEL-5003-425-28
AEL-5004-425-37.5
                       425 V / 37.5 A / 3750 W
                                                  AC & DC Electronic Load
AEL-5006-425-56
                       425 V / 56 A / 5600 W
                                                  AC & DC Electronic Load
                                                  AC & DC Electronic Load
AEL-5008-425-75
                       425 V / 75 A / 7500 W
                                                  AC & DC Electronic Load
AEL-5012-425-112.5
                       425 V / 112.5 A / 11250 W
                                                  AC & DC Electronic Load
AEL-5015-425-112.5
                       425 V / 112.5 A / 15000 W
AEL-5019-425-112.5
                       425 V / 112.5 A / 18750 W
                                                  AC & DC Electronic Load
                                                 AC & DC Electronic Load
AEL-5023-425-112.5
                       425 V / 112.5 A / 22500 W
                       480 V / 18.75 A / 2800 W
                                                 AC & DC Electronic Load
AEL-5003-480-18.75
AEL-5004-480-28
                                                  AC & DC Electronic Load
                       480 V / 28 A / 3750 W
```



OPTIONAL ACCESSORIES

PEL-022 C	GPIB Card	GTL-246	USB Cable, USB 2.0, A-B Type, 1200 mm
PEL-023 R	S-232 Card	GTL-248	GPIB Cable, Double Shielded, 2000 mm
PEL-024 L	AN Card	GTL-250	GPIB Cable, Double Shielded, 600 mm
PEL-025 ∪	JSB Card		,

PEL-028 HANDLES, U-shaped handle (fixed to the bracket) (for AEL-5006/5008/5012/5015)

PEL-029 HANDLES Rack Accessories (for AEL-5002/5003/5004)

PEL-030 GPIB+RS-232 Card

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

Specifications subject to change without notice.

AEL-5000ID2BH_202507_500

Global Headquarters

GOOD WILL INSTRUMENT CO., LTD.

No.7-1, Ihongsing Road, Tucheng Dist., New Taipei City 236, Taiwan T +886-2-2268-0389 F +886-2-2268-0639 E-mail: marketing@goodwill.com.tw

China Subsidiary

GOOD WILL INSTRUMENT (SUZHOU) CO., LTD.

No. 521, Zhujiang Road, Snd, Suzhou Jiangsu 215011 China T +86-512-6661-7177 F +86-512-6661-7277

Malaysia Subsidiary

GOOD WILL INSTRUMENT (SEA) SDN. BHD.

No. 1-3-18, Elit Avenue, Jalan Mayang Pasir 3, 11950 Bayan Baru, Penang, Malaysia T +604-6111122 F +604-6115225

Europe Subsidiary

GOOD WILL INSTRUMENT EURO B.V.

De Run 5427A, 5504DG Veldhoven, THE NETHERLANDS T +31 (0)40-2557790 F +31 (0)40-2541194

U.S.A. Subsidiary

INSTEK AMÉRICA CORP.

5198 Brooks Street Montclair, CA 91763, U.S.A. T +1-909-399-3535 F +1-909-399-0819

Japan Subsidiary

TEXIO TECHNOLOGY CORPORATION.

7F Towa Fudosan Shin Yokohama Bldg., 2-18-13 Shin Yokohama, Kohoku-ku, Yokohama, Kanagawa, 222-0033 Japan T+81-45-620-2305 F+81-45-534-7181

Korea Subsidiary

GOOD WILL INSTRUMENT KOREA CO., LTD.

Room No.503, Gyeonginro 775 (Mullae-Dong 3Ga, Ace Hightech-City B/D 1 Dong), Yeongduengpo-Gu, Seoul 150093, Korea T+82-2-3439-2205 F+82-2-3439-2207

India Subsidiary

GW INSTEK INDIA LLP.

2F, No. 20/1, Salarpuria Galleria Building, Bellary Road, Kashi Nagar, Byatarayanapura, Bangalore, Karnataka 560092 India T +91-80-4203-3235











LinkedIn

bsite Fac

ebook