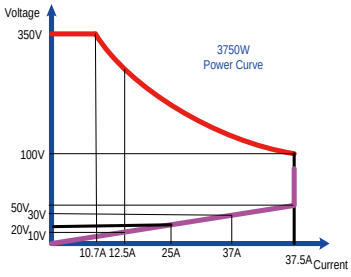
3270 Series AC & DC Electronic Load

MODEL		3270	3271	3272	3273	3274
Power (W)	Turbo OFF	3750 W	2800W	1875 W	3750 W	2800W
	Turbo ON	7500W (x2)*	5600W (x2)*	3750W (x2)*	7500W (x2)*	5600W (x2)*
Current(Ampere)	Turbo OFF	37.5 Arms / 112.5Apeak	28 Arms / 84Apeak	18.75 Arms / 56.25Apeak	28 Arms / 84Apeak	18.75 Arms / 56.25Apeak
	Turbo ON	75.0Arms/112.5Apeak (x2)*	56Arms/84Apeak (x2)*	37.5Arms/56.25Apeak (x2)*	56Arms/84Apeak (x2)*	37.5Arms/56.25Apeak (x2)*
Voltage(Volt)		50~350Vrms / 500Vdc				

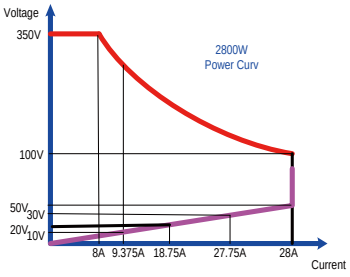
MODEL		32701	32702
Power (W)	Turbo OFF	7500 W	11250 W
	Turbo ON	15000W (x2)*	22500W (x2)*
Current(Ampere)	Turbo OFF	75.0 Arms / 225 Apeak	112.5 Arms / 337.5Apeak
	Turbo ON	150.0Arms/225Apeak (x2)*	225Arms/337.5Apeak (x2)*
Voltage(Volt)		50~350Vrms / 500Vdc	

* Turbo ON can double the power and Current ratings

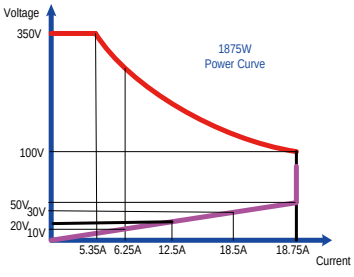
Power Curve



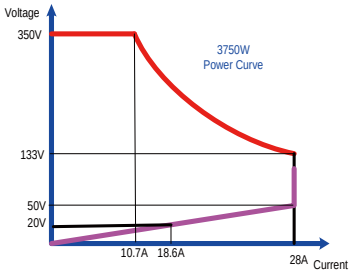
3270 Power Curve



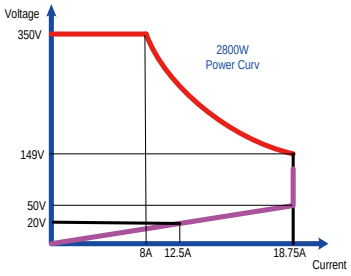
3271 Power Curve



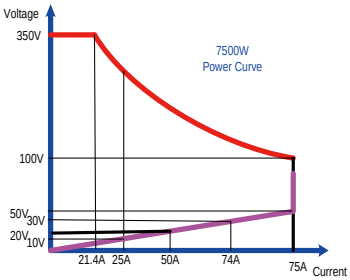
3272 Power Curve



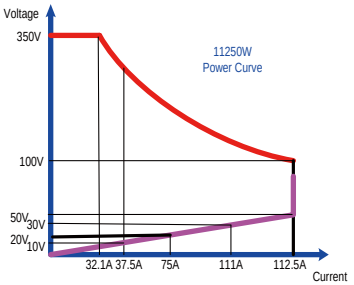
3273 Power Curve



3274 Power Curve



32701 Power Curve



32702 Power Curve

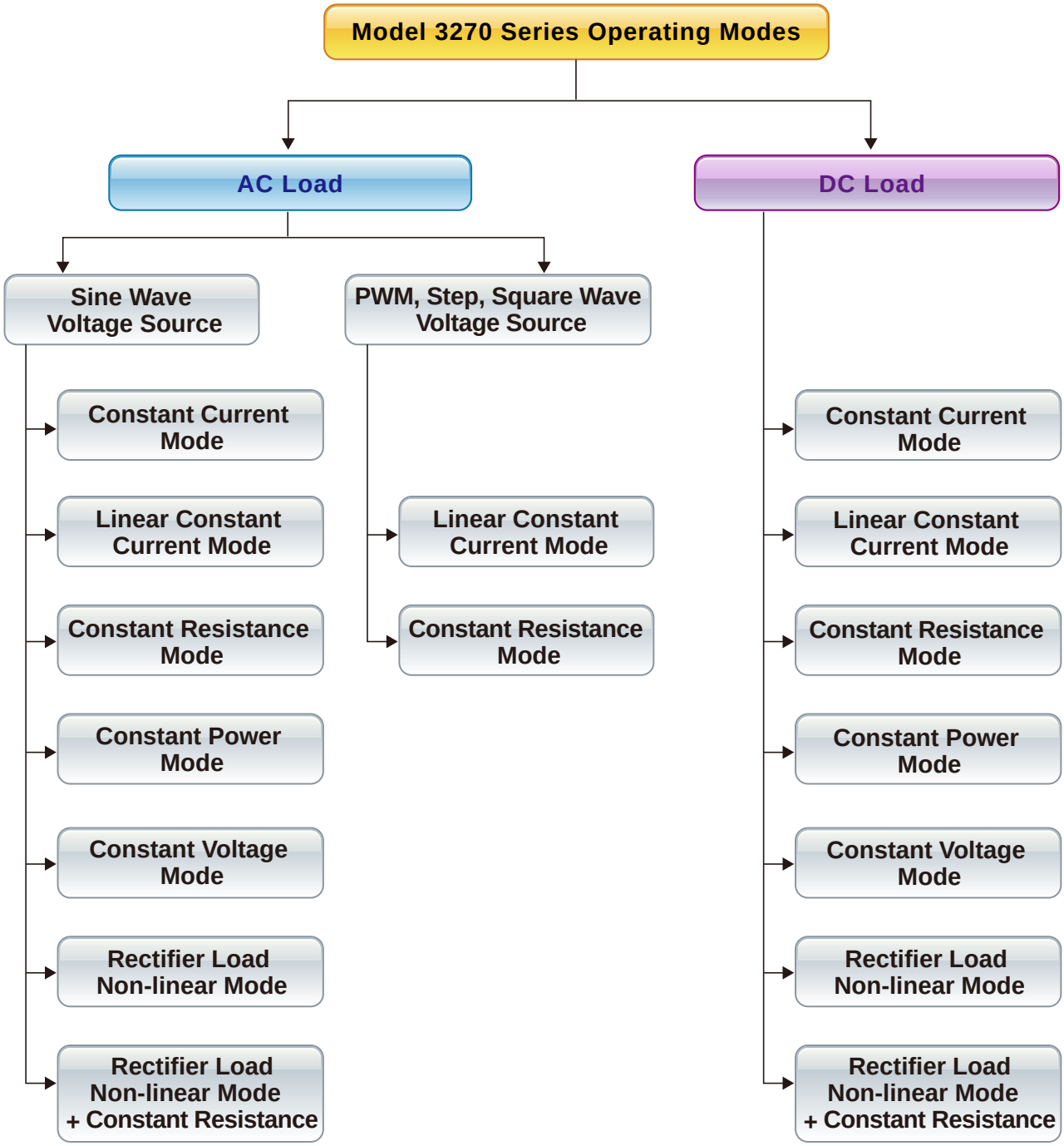
Features

- 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 : 1.414~5.0
- Power factor（PF) range : 0~1 lead or（-1~0）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
- Three units parallel up to 90KW and three-phase △ or Y load connection can be synchronized control by one master unit
- 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 0-359 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.
- Frequency Range : DC, 40~440Hz
- 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℃
- Optional interface：GPIB、RS232、USB、LAN
- The most complete measurement capabilities

  3270 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

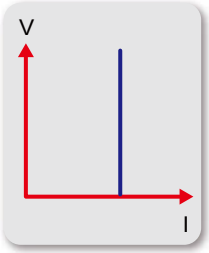
  In addition to these measurement functions, it also provides time measurement，products such as UPS, fuses and circuit breakers etc. trip or blow time and transfer time for Off-line UPS

Complete AC and DC load modes

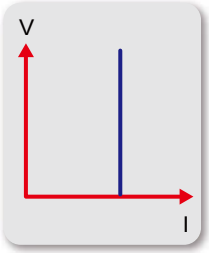


- AC Load Mode

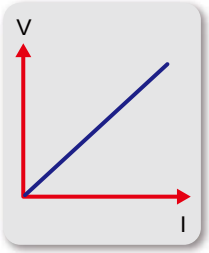
Constant Current Mode



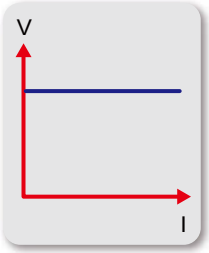
Linear Constant Current Mode



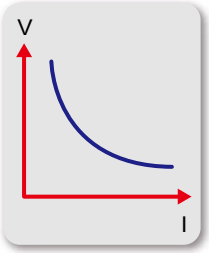
Constant Resistance Mode



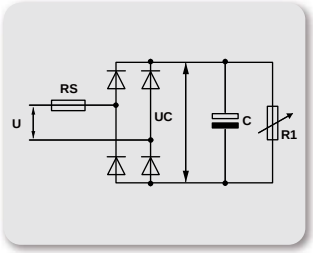
Constant Voltage Mode



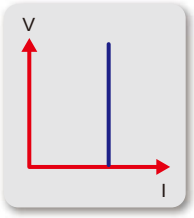
Constant Power Mode



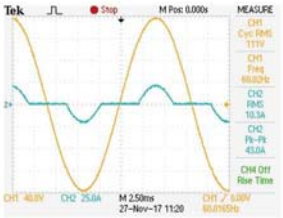
Rectifier Load Mode



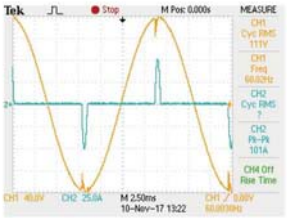
- CC Mode：In the constant current mode of AC Load, can be applied to sine wave voltage source, providing CF, PF test of linear load.



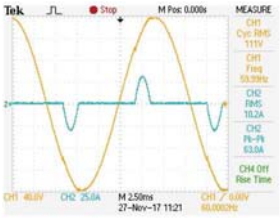
CC mode



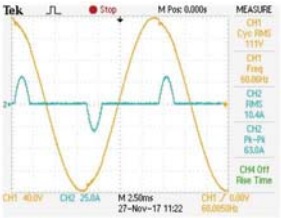
CC mode, CF=2



CC mode, CF=5

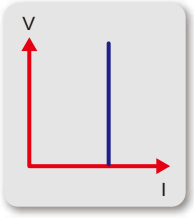


CC mode, PF= +0.5

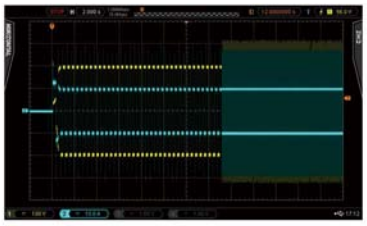


CC mode, PF= -0.5

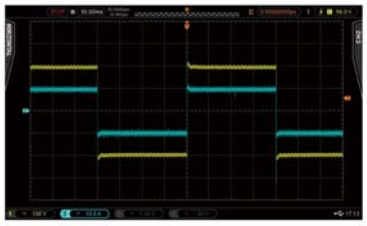
- Linear Constant Current Mode：Can be applied to sine wave and non-sine wave voltage source, as shown in the PWM inverter driver, step voltage source, and off-line UPS sine wave switch to square wave, square wave switch to sine wave.



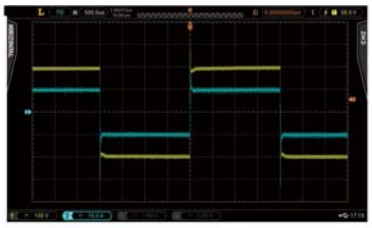
Linear CC mode



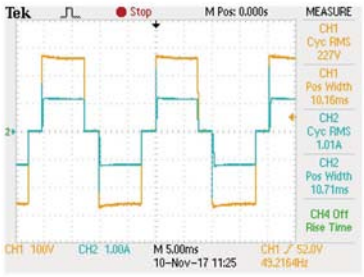
Linear CC mode, PWM 10A 2.5Hz to 250Hz



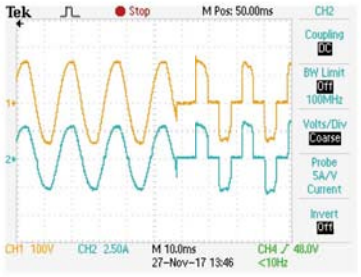
Linear CC mode, PWM 10A 2.5Hz



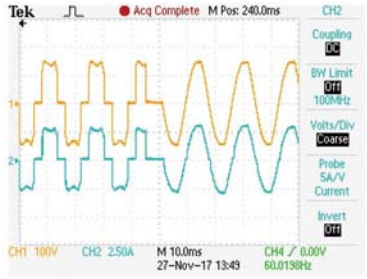
Linear CC mode, PWM 10A 250Hz



Linear CC mode, Step 10A

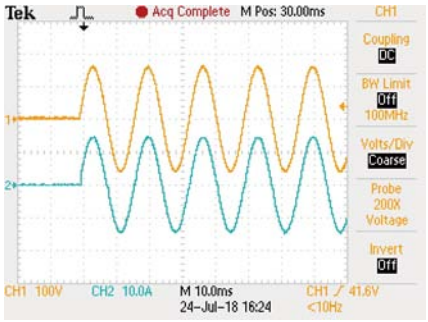


Linear CC mode, UPS Sine to Square waveform

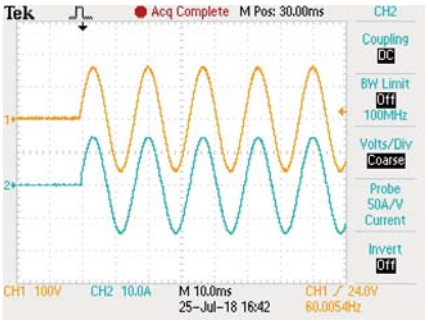


Linear CC mode, UPS Square to Sine waveform

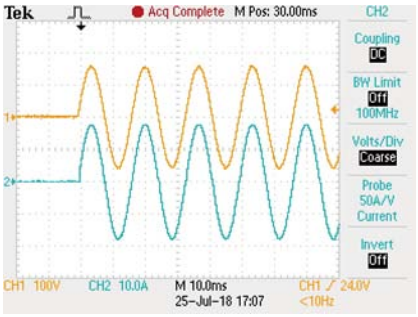
- Supported on-load start-up：at first set Load ON to support on-load start-up, inverter or uninterruptible power supply is start-up directly with the set load current, used to verify whether the Inverter is stable when the load is connected during start-up.



CC 10A on-load boot

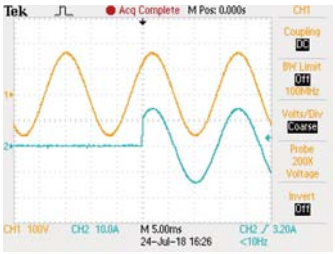


CR 10A on-load boot

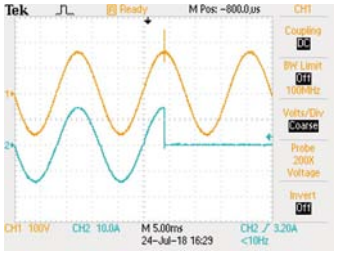


CV 10A on-load boot

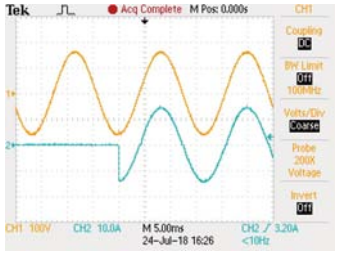
- Supports the loading and unloading current angle control ; the loading and unloading current angle range of 0-359 degrees can be programmed to verify whether the Inverter output voltage transient response is stable during the actual electrical appliance is connected or turn ON / OFF randomly it can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



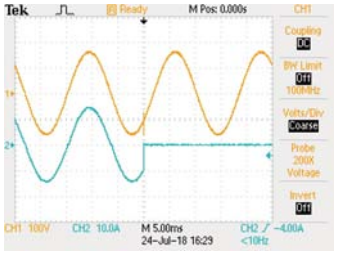
45 degrees loading



90 degrees unloading

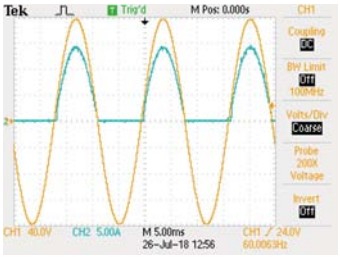


270 degrees loading

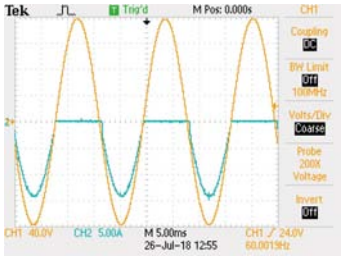


315 degrees unloading

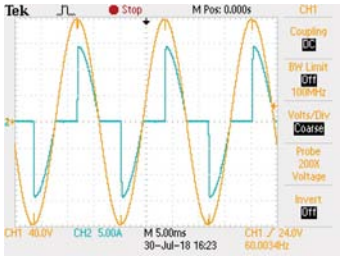
- Support positive half-cycle or negative half-cycle loading ; it can be used to verify whether the Inverter output voltage remains stable when the actual appliance has only positive half-cycle or negative half-cycle load current.



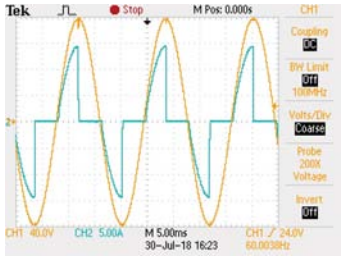
Positive half-cycle



negative half-cycle



90 degrees TRIAC/SCR current waveforms Leading edge

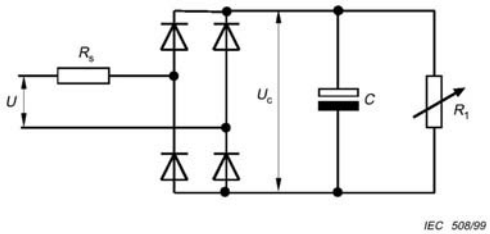


90 degrees current waveforms Leading edge

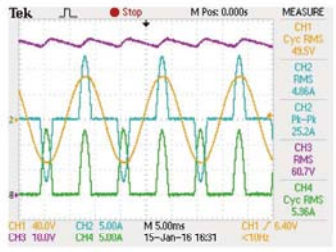
AC rectified load simulation meet the IEC62040-3 and IEC61683 test specifications

(IEC62040-3 UPS Efficiency Measurement non-Linear and IEC61683 Resistive Plus Non-Linear) 3270 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, 3270 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.

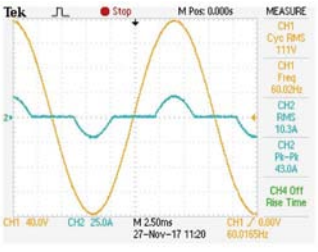
Rectifier Load Mode

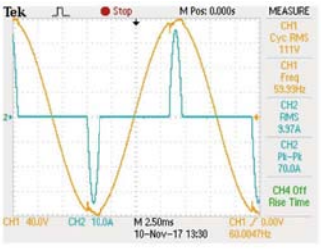


IEC 508/99

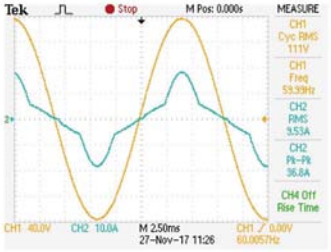


The actual V / A waveform

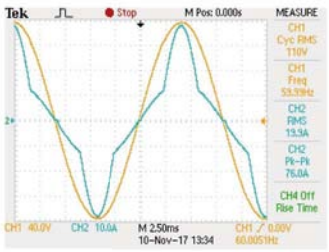




Non-Linear CC mode for UPS test



110V, 5A + 22ohm Test Waveform

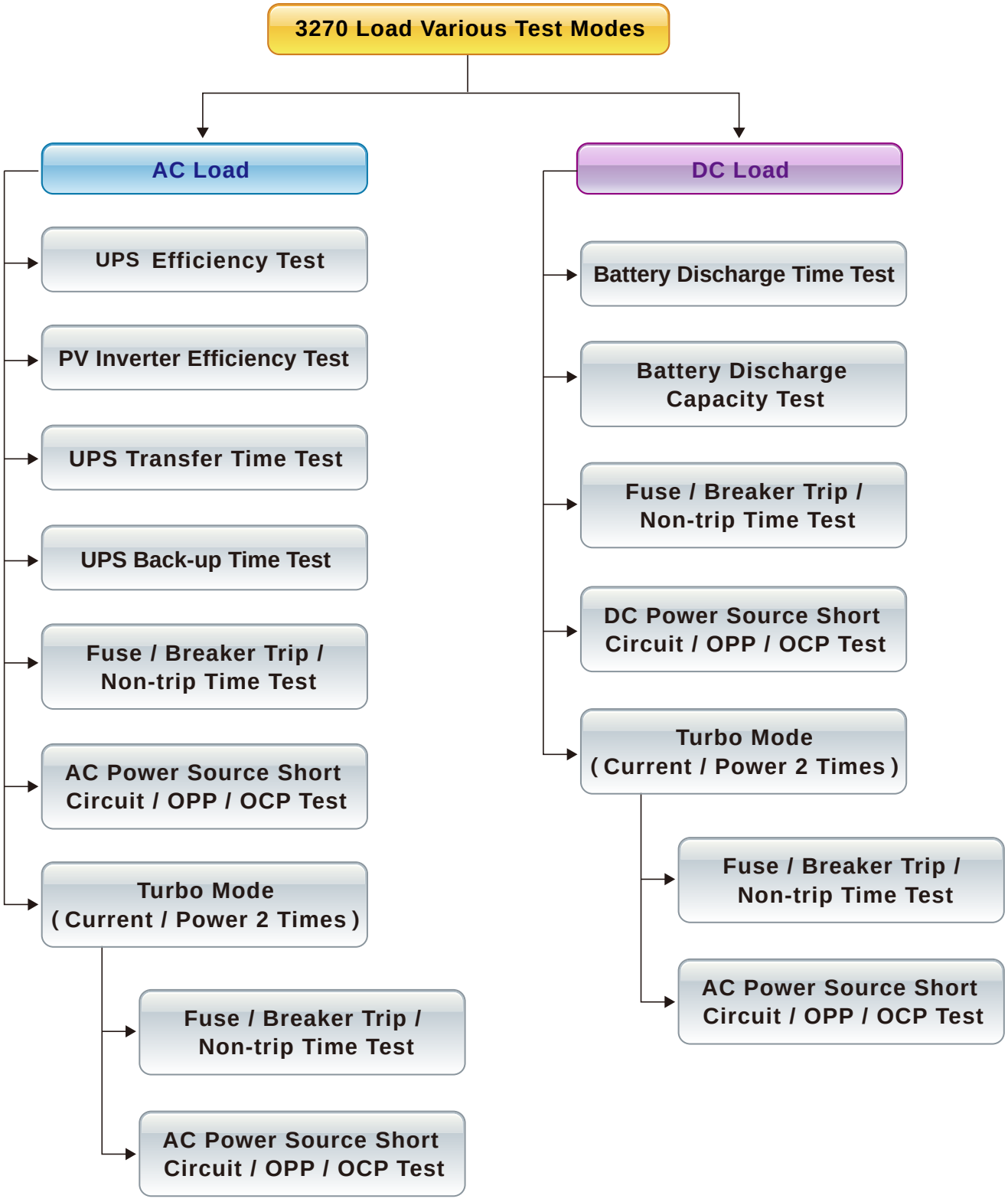


110V, 10A + 11ohm Test Waveform

PV Inverter test Non-Linear CC + Resistive mode (CC+CR)

3270 Load Various Test Modes

The 3270 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 3270 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 3270 as an example, the maximum test current can be doubled to 75A. That is, when the Turbo mode of the 3270 series is ON, the test current value can reach to 2 units 3270 series (normal mode) within 1 second test period.

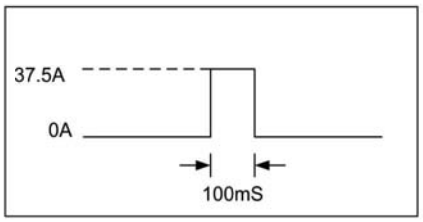
Fuse

Breaker

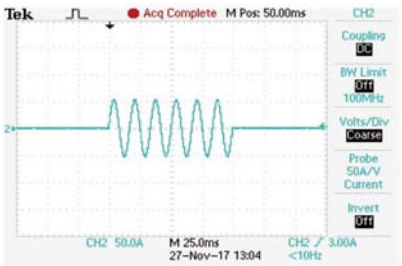
PTC

MODEL		3270	3271	3272	3273	3274	32701	32702
Power (W)		3750 W	2800W	1875 W	3750 W	2800W	7500 W	11250W
Current(Ampere)		37.5 Arms / 112.5Apeak	28 Arms / 84Apeak	18.75 Arms / 56.25Apeak	28 Arms / 84Apeak	18.75 Arms / 56.25Apeak	75 Arms / 225Apeak	112.5 Arms / 337.5Apeak
Voltage(Volt)		50~350Vrms / 500Vdc						
Fuse Test mode								
Max. Current	Turbo OFF	37.5Arms	28.0Arms	18.75Arms	28.0Arms	18.75Arms	75 Arms	112.5 Arms
	Turbo ON	75.0Arms (x2)	56.0Arms (x2)	37.5Arms (x2)	56.0Arms (x2)	37.5Arms (x2)	150 Arms(x2)	225 Arms(x2)
Trip & Non-Trip Time	Turbo OFF	0.1 ~ 9999.9sec.						
	Turbo ON	0.1 ~ 1.0sec.						
Meas. Accuracy		±0.003 Sec.						
Repeat Cycle		0 ~ 255						
Short / OPP / OCP Test Function								
Short Time	Turbo OFF	0.1S ~ 10Sec. Or Cont.						
	Turbo ON	0.1S ~ 1Sec						
OPP/OCP Step Time	Turbo OFF	100ms						
	Turbo ON	100ms, up to 10 Steps						
OCP Istop	Turbo OFF	37.5Arms	28.0Arms	18.75Arms	28.0Arms	18.75Arms	75 Arms	112.5 Arms
	Turbo ON	75.0Arms	56.0Arms	37.5Arms	56.0Arms	37.5Arms	150 Arms	225 Arms
OPP Pstop	Turbo OFF	3750W	2800W	1875W	3750W	2800W	7500 W	11250 W
	Turbo ON	7500W	5600W	3750W	7500W	5600W	15000 W	22500 W

Turbo OFF, Short 100ms 37.5A Test result screen

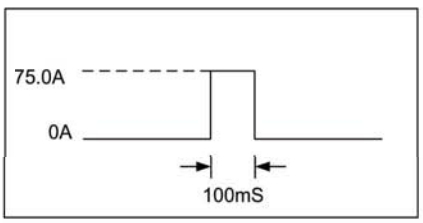


Turbo OFF, Short 100ms 37.5A Setting

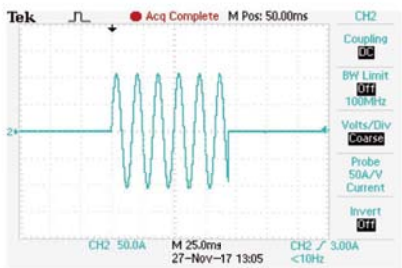


Turbo OFF, Short 100ms 37.5A The actual test waveform

Turbo ON, Short 100ms 75.0A Test result screen

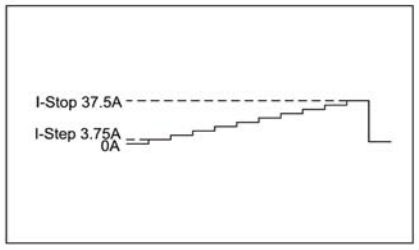


Turbo ON, Short 100ms 75.0A Setting

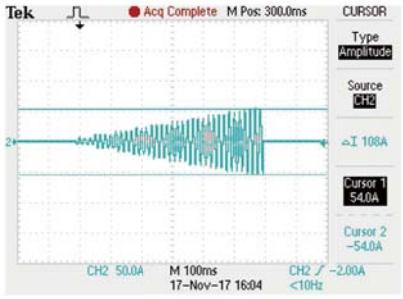


Turbo ON, Short 100ms 75.0A The actual test waveform

Turbo OFF, OCP Istep 3.75 A Istop 37.5A
Test result screen

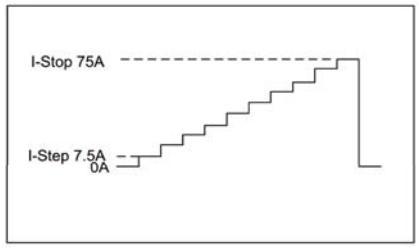


Turbo OFF, OCP Istep 3.75 A Istop 37.5A
Setting

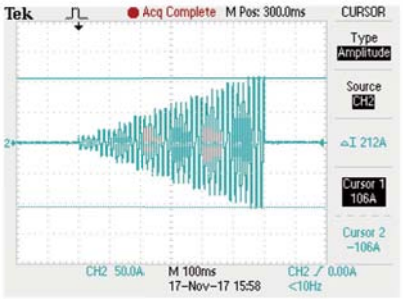


Turbo OFF, OCP Istep 3.75 A Istop 37.5A
The actual test waveform

Turbo ON, OCP Istep 7.5 A Istop 75A
Test result screen



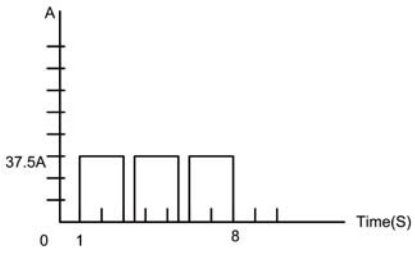
Turbo ON, OCP Istep 7.5 A Istop 75.0A
Setting



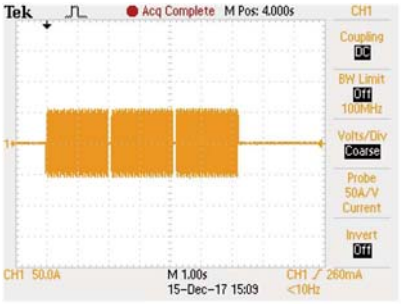
Turbo ON, OCP Istep 7.5 A Istop 75.0A
The actual test waveform

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 3270 Series AC & DC electronic load detects a voltage lower than 1.0V, 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 3270 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

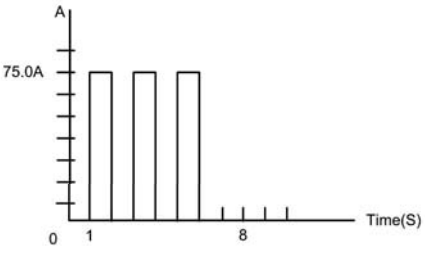


Setting：Turbo：OFF, Fuse ON
CC pulse 37.5A, 2S, Test 3 cycles

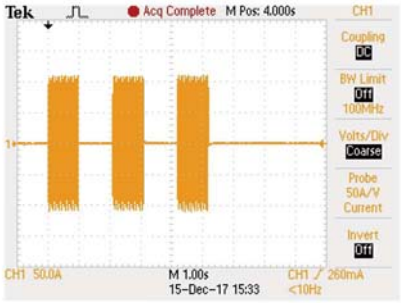


Turbo : OFF, Fuse ON, CC pulse 37.5A, 2S,
Test 3 cycles the actual test waveform

Turbo ON, Fuse mode
Test result screen



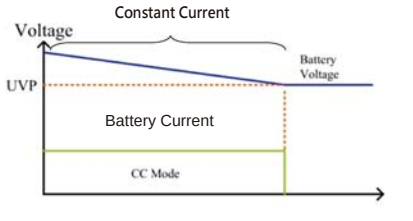
Setting：Turbo：ON, Fuse ON
CC pulse 75.0A, 1S, Test 3 cycles



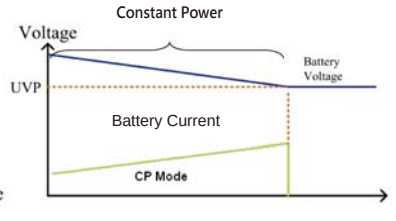
Turbo : ON, Fuse ON, CC pulse 75A, 1S,
Test 3 cycles the actual test waveform

Battery test function

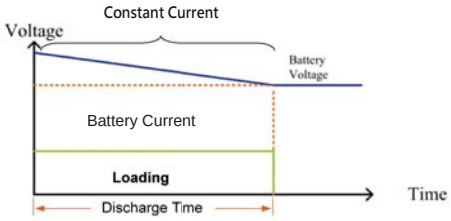
3270 series AC & DC electronic load has built-in new TYPE1 ~ TYPE3 battery discharge test, you can select the desired battery test mode, the test results can be directly displayed on the LCD display for battery AH capacity, the voltage value after discharge and the cumulative discharge time.



CC + UVP Battery discharge mode
Type 1



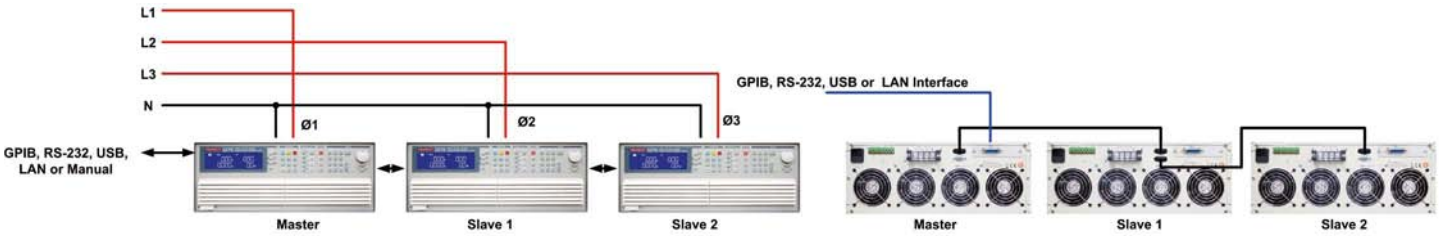
CP + UVP Battery discharge mode
Type 2

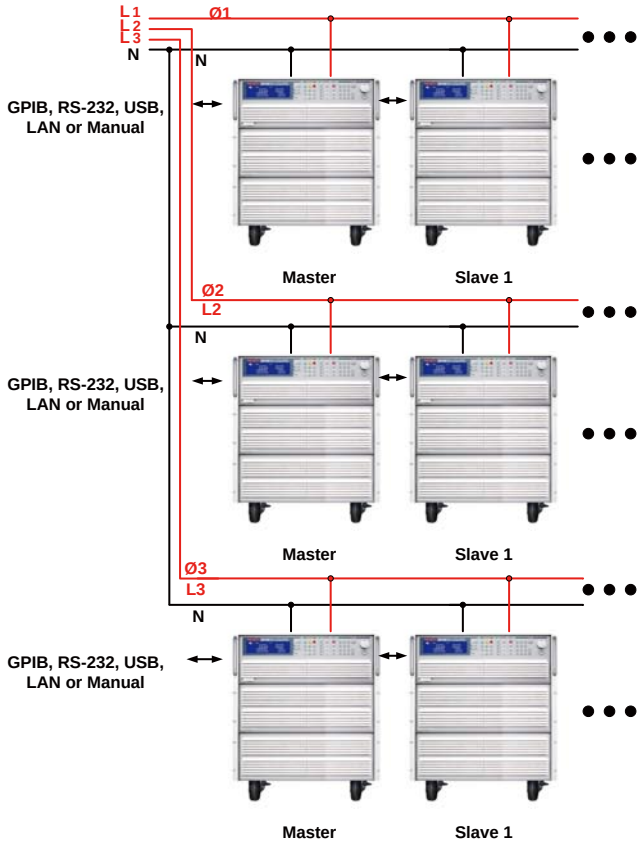


Programmed Battery Discharge Time
Type 3

Parallel and three-phase control

The 3270 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 3270 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.



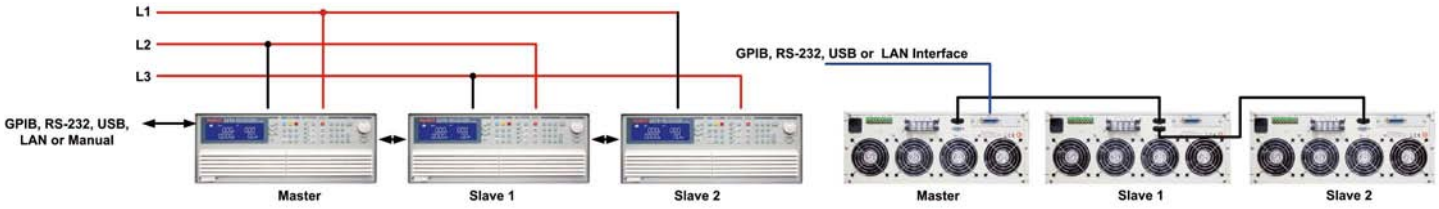


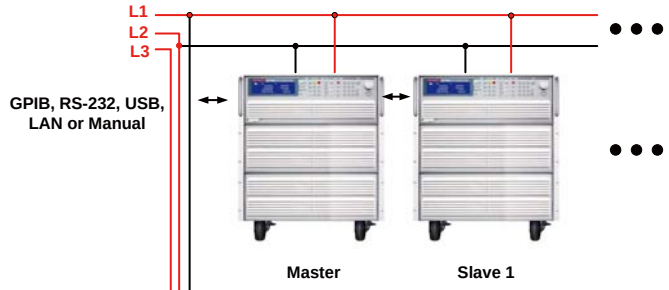
Support I master and up to 7 slaves operation. Maximum up to 8 units can be connected in parallel, total power of single-phase can up to 90 kW

Support I master and up to 7 slaves operation. Maximum up to 8 units can be connected in parallel, total power of single-phase can up to 90 kW

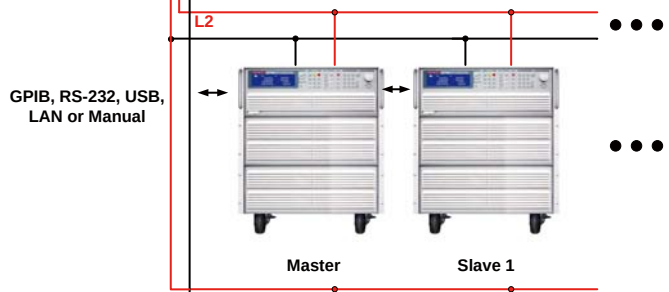
Support I master and up to 7 slaves operation. Maximum up to 8 units can be connected in parallel, total power of single-phase can up to 90 kW

Maximum power of single-phase can up to 90KW, 3-phase total power up to 270KW 3-phase △ or Y Connection

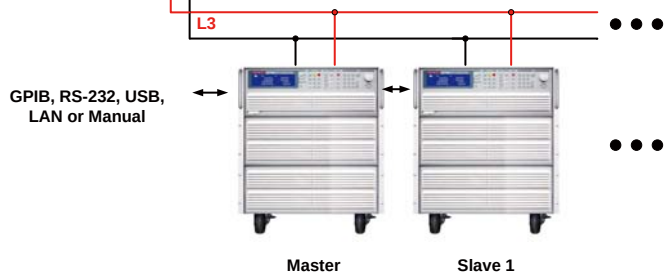




Support I master and up to 7 slaves operation.
Maximum up to 8 units can be connected in parallel, total power of single-phase can up to 90 kW

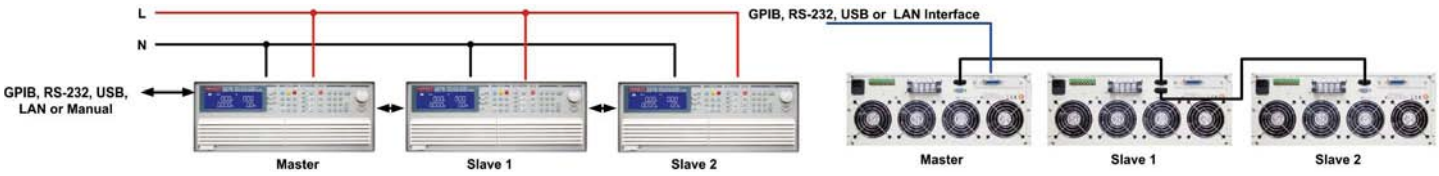


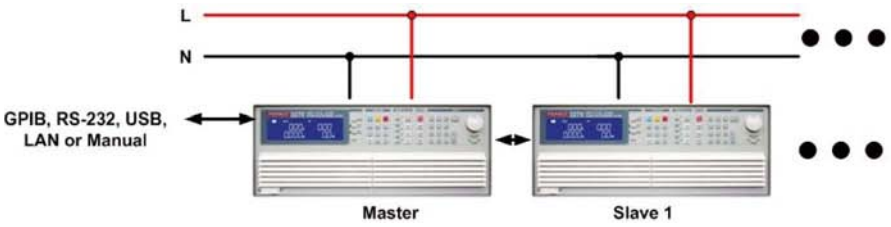
Support I master and up to 7 slaves operation.
Maximum up to 8 units can be connected in parallel, total power of single-phase can up to 90 kW



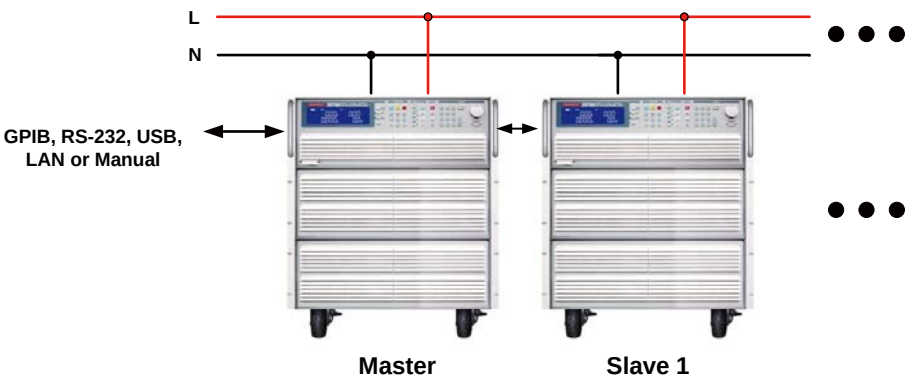
Support I master and up to 7 slaves operation.
Maximum up to 8 units can be connected in parallel, total power of single-phase can up to 90 kW

Maximum power of single-phase can up to 90KW, 3-phase total power up to 270KW 3-phase △ or Y Connection parallel connection





Support I master and up to 7 slaves operation.
Maximum up to 8 units can be connected in parallel, total power of single-phase can up to 30 kW



Support I master and up to 7 slaves operation.
Maximum up to 8 units can be connected in parallel, total power of single-phase can up to 90 kW

Parallel connection

Panel instructions

1	**LCD Multi-function display** Four meters can display the voltage value at the same time 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）	3	**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
		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 / 50Hz/ 60Hz / 400Hz。
		5	**Test function keys** Can select Short / OPP / OCP /Non-L / NL-CR /Fuse / Batt (Battery Discharge) / Trans (UPS transfer time) test functions.
2	**Meter switch button** V / A / W keys can set the display Rms / Peak / Max / Min，Meter key can select PF / CF / FREQ，switchable display WATT / VA / VAR keys，THD key choose to display THD	6	Numeric keypad
		7	Knob setting
		8	Switch
		9	Cursor and button setting

10	AC power input connector	13	**Master-slave control connector** 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
11	Vmonitor、Imonitor、Analog input、SYNC input Input terminal		
12	Vload, Vsense Input terminal	14	Communication interface (GPIB、RS-232、USB、LAN)

Order Information

- **3270** 350V, 37.5A, 3750W
- **3271** 350V, 28A, 2800W
- **3272** 350V, 18.75A, 1875W
- **3273** 350V, 28A, 3750W
- **3274** 350V, 1875A, 2800W

32701 350V, 75A, 7500W

32702 350V, 112.5A, 11250W

Optional Interface：

1. GPIB Card
2. RS232 Card
3. USB Card
4. LAN Card

Specifications

MODEL		3270	3271	3272	3273	3274
Power (W)		3750 W	2800W	1875 W	3750 W	2800W
Current(Ampere)		37.5 Arms / 112.5Apeak	28 Arms / 84Apeak	18.75 Arms / 56.25Apeak	28 Arms / 84Apeak	18.75 Arms / 56.25Apeak
Voltage(Volt)		50~350Vrms / 500Vdc				
FREQUENCY Range		DC,40~440Hz (CC,CP Mode) , DC~440Hz (LIN,CR,CV Mode)				
PROTECTIONS						
Over Power Protection		≒ 3937.5 Wrms or Programmable	≒ 2940 Wrms or Programmable	≒ 1968.75 Wrms or Programmable	≒ 3937.5 Wrms or Programmable	≒2940 Wrms or Programmable
Over Current Protection		≒ 39.375 Arms or Programmable	≒ 29.4 Arms or Programmable	≒ 19.687 Arms or Programmable	≒ 29.4 Arms or Programmab	≒19.687 Arms or Programmable
Over Vlotage Protection		≒ 367.5 Vrms / 525Vdc				
Over Temp. Protection		Yes				
OPERATION MODE						
Constant Current Mode for Sine-Wave						
Range		0 ~ 37.5A	0 ~ 28A	0 ~ 18.75A	0 ~ 28A	0 ~ 18.75A
Resolution		0.625mA / 16bits	0.5mA / 16bits	0.3125mA / 16bits	0.5mA / 16bits	0.3125mA / 16bits
Accuracy		± (0.1% of setting + 0.2% of range) @ 50/60Hz , ± 0.5% of (setting + range)				
Linear Constant Current Mode for Sine-Wave, Square-Wave or Quasi-Square Wave, PWM Wave						
Range		0~37.5A	0 ~ 28A	0 ~ 18.75A	0~28A	0 ~ 18.75A
Resolution		0.625mA / 16bits	0.5mA / 16bits	0.3125mA / 16bits	0.5mA / 16bits	0.3125mA / 16bits
Accuracy		± (0.1% of setting + 0.2% of range) @ 50/60Hz , ± 0.5% of (setting + range)				
Constant Resistance Mode						
Range		1.6 ohm ~ 32K ohm	2.0 ohm ~ 40K ohm	3.2 ohm ~ 64K ohm	2.0 ohm ~ 40K ohm	3.2 ohm ~ 64K ohm
Resolution *1		0.010416mS / 16bits	0.0078137mS / 16bits	0.0052083mS / 16bits	0.0083333mS / 16bits	0.0052083mS / 16bits
Accuracy		±0.2% of (setting + range) @ 50/60Hz , ± (0.5% of setting + 2% of range)				
Constant Voltage Mode						
Range		50 ~ 350Vrms / 500Vdc				
Resolution		0.1V				
Accuracy		±(0.1% of reading + 0.1% of range)				
Constant Power Mode						
Range		3750W	2800W	1875W	3750W	2800W
Resolution		0.1W	0.1W	0.1W	0.1W	0.1W
Accuracy		±(0.1% of reading + 0.1% of range)				
CREST FACTOR (CC & CP MODE ONLY)						
Range		√2~5				
Resolution		0.1				
Accuracy		(0.5% / Irms) + 1%F.S.				
POWER FACTOR (CC & CP MODE ONLY)						
Range		0~1 Lag or Lead				
Resolution		0.01				
Accuracy		1%F.S.				
TEST MODE						
UPS Efficient Measurement		Non-Linear Mode				
Operating Frequency		Auto : 40 ~ 440Hz				
Current Range		0 ~ 37.5A	0 ~ 28A	0 ~ 18.75A	0 ~ 28A	0 ~ 18.75A
PF Range		0~1				
MEASURING EFFICIENCY FOR PV SYSTEMS, POWER CONDITIONERS for THD 80%		Resistive + Non-Linear Mode				
Operating Frequency		Auto ; 40 ~ 440Hz				
Current Range		0 ~ 37.5A	0 ~ 28A	0 ~ 18.75A	0 ~ 28A	0 ~ 18.75A
Resistive Range		1.6 ohm ~ 32K ohm	2.0 ohm ~ 40K ohm	3.2 ohm ~ 64K ohm	2.0 ohm ~ 40K ohm	3.2 ohm ~ 64K ohm
UPS Back-Up function(CC,LIN,CR,CP)						
UVP(V_{TH})		50 ~ 350Vrms / 500Vdc				
UPS Back-Up Time		1 ~ 99999 Sec. (>27H)				
Battery Discharge function(CC,LIN,CR,CP)						
UVP (V_{TH})		50 ~ 350Vrms / 500Vdc				
Battery Discharge Time		1 ~ 99999 Sec. (>27H)				
UPS Transfer Time						
Current Range		0 ~ 37.5A	0 ~ 28A	0 ~ 18.75A	0 ~ 28A	0 ~ 18.75A
UVP (V_{TH})		2.5V				
Time range		0.15mS ~ 999.99mS				
Fuse Test mode						
Max. Current	Turbo OFF	37.5Arms	28.0Arms	18.75Arms	28.0Arms	18.75Arms
	Turbo ON	75.0Arms (x2) *3	56.0Arms (x2) *3	37.5Arms (x2) *3	56.0Arms (x2)*3	37.5Arms (x2) *3
Trip & Non-Trip Time	Turbo OFF	0.1 ~ 9999.9sec.				
	Turbo ON	0.1 ~ 1.0sec.				
Meas. Accuracy		±0.003 Sec.				
Repeat Cycle		0 ~ 255				
Short/OPP/OCP Test Function						
Short Time	Turbo OFF	0.1S ~ 10Sec. Or Cont.				
	Turbo ON	0.1S ~ 1Sec				
OPP/OCP Step Time	Turbo OFF	100ms				
	Turbo ON	100ms, up to 10 Steps				
OCP Istop	Turbo OFF	37.5Arms	28.0Arms	18.75Arms	28.0Arms	18.75Arms
	Turbo ON	75.0Arms *3	56.0Arms *3	37.5Arms *3	56.0Arms *3	37.5Arms *3
OPP Pstop	Turbo OFF	3750W	2800W	1875W	3750W	2800W
	Turbo ON	7500W	5600W	3750W	7500W	5600W
MEASUREMENTS						
VOLTAGE READBACK A METER						
Range		500V				
Resolution		0.01V				
Accuracy		±0.05% of (reading +range)				
Parameter		Vrms,V Max/Min,+/-Vpk				
CURRENT READBACK A METER						
Range		18.75Arms / 37.5Arms	14Arms / 28Arms	9.375Arms / 18.75Arms	14Arms / 28Arms	9.375Arms / 18.75Arms
Resolution		0.4mA / 0.8mA	0.3mA / 0.6mA	0.2mA / 0.4mA	0.3mA / 0.6mA	0.2mA / 0.4mA
Accuracy		±0.05% of (reading + range) @ 50/60Hz , ±0.2% of (reading + range)				
Parameter		Irms,I Max/Min,+/-Ipk				
WATT READBACK W METER						
Range		3750W	2800W	1875W	3750W	2800W
Resolution		0.0625W	0.05W	0.03125W	0.0625W	0.05W
Accuracy		±0.1% of (reading + range)				
VA METER		Vrms×Arms Correspond To Vrms and Arms				
Power Factor METER						
Range		+/- 0.000~1.000				
Accuracy		±(0.002±(0.001/PF)*F)				
Frequency METER(V)						
Range		DC,40~440Hz				
Accuracy		0.1%				
Other Parameter METER						
		VA, VAR, CF_I, Ipeak, Imax., Imin. Vmax., Vmin., I_{HD}, V_{HD}, I_{THD}, V_{THD}				
OTHERS						
Start up loading		Yes , Power on loading during Inverter / UPS start up				
Load ON / OFF Angle		0 ~ 359 degree can be programmed for the angle of load ON and load OFF loading				
Half cycle and SCR/TRIAC loading		Postive or Negative half cycle, 90° Trailing edge or Leading edge current waveform can be programmed				
Master/Slave (3 Phase Application)		Yes, 1 master and upto 7 slave units				
External programming input		F.S / 10Vdc, Resulotion 0.1V				
External SYNC input		TTL				
Vmonitor (Isolated)		±500V / ±10V				
Imonitor (Isolated)		GPIB ; RS-232 ; LAN ; USB				
Interface (OPTION)		±112.5Apk / ±10Vpk	±84Apk / ±10Vpk	±56.25Apk / ±10Vpk	±84Apk / ±10Vpk	±56.25Apk / ±10Vpk
Operation Temperature *2		0 ~ 40 ℃				
Current of input impedance(mA) @ 50/60Hz		Approximate V x 0.6	Approximate V x 0.45	Approximate V x 0.3	Approximate V x 0.4	Approximate V x 0.3
Dimension (H x W x D)		177 x 440 x 558 mm				
Weight		33.5Kg	27.5Kg	21.5Kg	33.5Kg	27.5Kg

Input AC Power：115/230 Vac ±10%
50/60Hz
Cooling：Advanced Fan Cooled

*1 ms (millisiemens) is the unit of conductance(G), one siemens equal to 1/kΩ
*2 Operating temperature range is 0~40℃, all specification apply for 25℃±5℃, Except as noted
*3 Turbo mode for up to 2X Current rating & Power rating support Fuse, Short/OCP/OPP test function

Specifications

MODEL		32701	32702
Power (W)		7500 W	11250W
Current(Ampere)		75 Arms / 225Apeak	112.5 Arms / 337.5Apeak
Voltage(Volt)		50~350Vrms / 500Vdc	
FREQUENCY Range		DC,40~440Hz (CC,CP Mode) , DC~440Hz (LIN,CR,CV Mode)	
PROTECTIONS			
Over Power Protection		≒ 7875Wrms or Programmable	≒ 11812.5Wrms or Programmable
Over Current Protection		≒ 78.75 Arms, or Programmable	≒ 118.125 Arms or Programmable
Over Vlotage Protection		≒ 367.5 Vrms / 525Vdc	
Over Temp. Protection		Yes	
OPERATION MODE			
Constant Current Mode for Sine-Wave			
Range		0 ~ 75A	0 ~ 112.5A
Resolution		1.25mA / 16bits	1.875mA / 16bits
Accuracy		± (0.1% of setting + 0.2% of range) @ 50/60Hz , ± 0.5% of (setting + range)	
Linear Constant Current Mode for Sine-Wave, Square-Wave or Quasi-Square Wave, PWM Wave			
Range		0 ~ 75A	0 ~ 112.5A
Resolution		1.25mA / 16bits	1.875mA / 16bits
Accuracy		± (0.1% of setting + 0.2% of range) @ 50/60Hz , ± 0.5% of (setting + range)	
Constant Resistance Mode			
Range		0.8 ohm ~ 16K ohm	0.533 ohm ~ 10.666K ohm
Resolution *1		0.020832mS / 16bits	0.031248mS / 16bits
Accuracy		±0.2% of (setting + range) @ 50 / 60Hz , ± (0.5% of setting + 2% of range)	
Constant Voltage Mode			
Range		50 ~ 350Vrms / 500Vdc	
Resolution		0.1V	
Accuracy		±0.2% of （ reading + range） @ 50/60Hz , ±0.4% of （ reading + range）	
Constant Power Mode			
Range		7500W	11250W
Resolution		0.1W	1W
Accuracy		±0.2% of （ reading + range） @ 50 / 60Hz , ±0.4% of （ reading + range）	
CREST FACTOR (CC & CP MODE ONLY)			
Range		√2~5	
Resolution		0.1	
Accuracy		(0.5% / Irms) + 1%F.S.	
POWER FACTOR (CC & CP MODE ONLY)			
Range		0~1 Lag or Lead	
Resolution		0.01	
Accuracy		1%F.S.	
TEST MODE			
UPS Efficient Measurement		Non-Linear Mode	
Operating Frequency		Auto ; 40 ~ 440Hz	
Current Range		0 ~ 75A	0 ~ 112.5A
PF Range		0~1	
MEASURING EFFICIENCY FOR PV SYSTEMS, POWER CONDITIONERS for THD 80%		Resistive + Non-Linear Mode	
Operating Frequency		Auto ; 40 ~ 440Hz	
Current Range		0 ~ 75A	0 ~ 112.5A
Resistive Range		0.8 ohm ~ 16K ohm	0.533 ohm ~ 10.666K ohm
UPS Back-Up function(CC,LIN,CR,CP)			
UVP(V_{TH})		50 ~ 350Vrms / 500Vdc	
UPS Back-Up Time		1 ~ 99999 Sec. (>27H)	
Battery Discharge function(CC,LIN,CR,CP)			
UVP (V_{TH})		50 ~ 350Vrms / 500Vdc	
Battery Discharge Time		1 ~ 99999 Sec. (>27H)	
UPS Transfer Time			
Current Range		0 ~ 75A	0 ~ 112.5A
UVP (V_{TH})		2.5V	
Time range		0.15mS ~ 999.99mS	
Fuse Test mode			
Max. Current	Turbo OFF	75 Arms	112.5 Arms
	Turbo ON	150 Arms (x2)*3	225 Arms (x2)*3
Trip & Non-Trip Time	Turbo OFF	0.1 ~ 9999.9sec.	
	Turbo ON	0.1 ~ 1.0sec.	
Meas. Accuracy		±0.003 Sec.	
Repeat Cycle		0 ~ 255	
Short/OPP/OCP Test Function			
Short Time	Turbo OFF	0.1S ~ 10Sec. Or Cont.	
	Turbo ON	0.1S ~ 1Sec	
OPP/OCP Step Time	Turbo OFF	100ms	
	Turbo ON	100ms, up to 10 Steps	
OCP Istop	Turbo OFF	75 Arms	112.5 Arms
	Turbo ON	150 Arms	225 Arms
OPP Pstop	Turbo OFF	7500 W	11250 W
	Turbo ON	15000 W	22500 W
MEASUREMENTS			
VOLTAGE READBACK A METER			
Range		500 V	
Resolution		0.01 V	
Accuracy		±0.05% of (reading + range)	
Parameter		Vrms,V Max / Min,+/-Vpk	
CURRENT READBACK A METER			
Range		37.5Arms / 75Arms	56.25Arms / 112.5Arms
Resolution		0.8mA / 1.6mA	1.2mA / 2.4mA
Accuracy		±0.1% of （ reading + range） @ 50/60Hz , ±0.4% of （ reading + range）	
Parameter		Irms,I Max/Min,+/-Ipk	
WATT READBACK W METER			
Range		7500W	11250W
Resolution		0.125W	0.1875W
Accuracy		±0.2% of （ reading + range） @ 50 / 60Hz , ±0.4% of （ reading + range）	
VA METER		Vrms×Arms Correspond To Vrms and Arms	
Power Factor METER			
Range		+/- 0.000~1.000	
Accuracy		± (0.002± (0.001 / PF) *F)	
Frequency METER(V)			
Range		DC,40 ~ 440Hz	
Accuracy		0.1%	
Other Parameter METER			
		VA, VAR, CF_I, Ipeak, Imax., Imin. Vmax., Vmin., I_{HD}, V_{HD}, I_{THD}, V_{THD}	
OTHERS			
Start up loading		Yes , Power on loading during Inverter / UPS start up	
Load ON / OFF Angle		0 ~ 359 degree can be programmed for the angle of load ON and load OFF loading	
Half cycle and SCR/TRIAC loading		Postive or Negative half cycle, 90° Trailing edge or Leading edge current waveform can be programmed	
Master/Slave (3 phase or Parallel application)		Yes, 1 master and upto 7 slave unit	
External programming input		±225Apk / ±10Vpk	F.S / 10Vdc, Resulotion 0.1V ±337.5Apk / ±10Vpk
External SYNC input		TTL	
Vmonitor (Isolated)		±500V / ±10V	
Imonitor (Isolated)			
Interface (OPTION)		GPIB ; RS-232 ; LAN ; USB	
Operation Temperature *2		0 ~ 40 ℃	
Current of input impedance(mA) @ 50/60Hz		Approximate V x 1.2	Approximate V x 1.8
Dimension (H x W x D)		458 x 480 x 593 mm	636 x 480 x 593 mm
Weight		70Kg	105Kg

Input AC Power：
115/230 Vac ±10% , 50/60Hz
Cooling：Advanced Fan Cooled

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