

COTEK

COTEK

Professional Power Solutions Design and Manufacturing

Rack Mount Power Systems

Powerful Solutions for Critical Data and
Telecom Applications

Telecom / Datacom



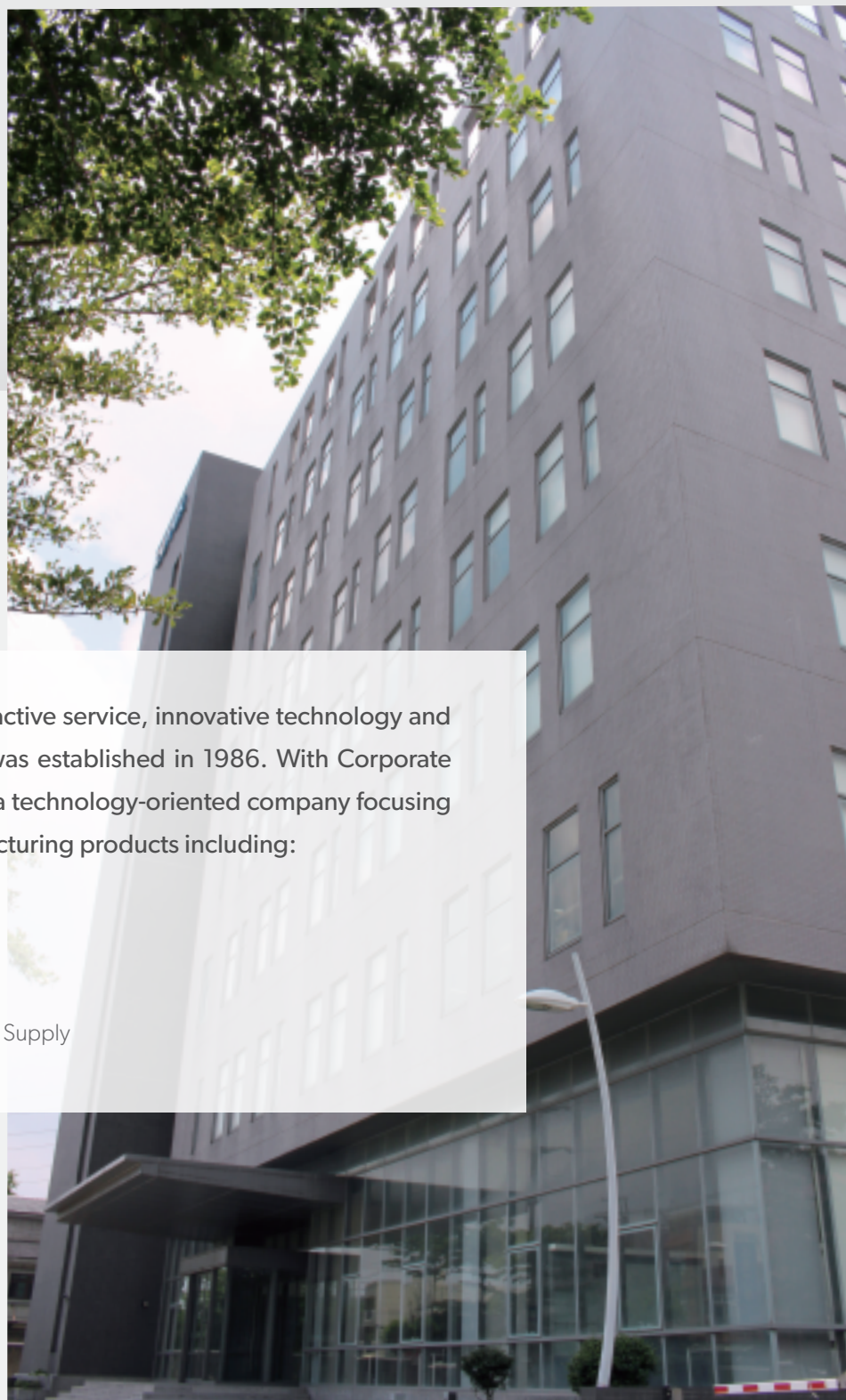
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COTEK ELECTRONIC IND. CO., LTD

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2021 / 2022 Product Catalog



COTEK is committed to providing proactive service, innovative technology and total quality assurance since COTEK was established in 1986. With Corporate Offices in Tao-yuan, Taiwan, COTEK is a technology-oriented company focusing on developing, designing and manufacturing products including:

- 1 DC / AC Pure Sine Wave Inverter
- 2 Inverter / Charger
- 3 Battery Charger
- 4 AC / DC Switching Mode Power Supply



Why COTEK

One-stop shopping

Diverse power product lines that fulfill our business partner's power requirement across multiple sectors (AC/DC, DC/AC, Chargers and Inverter Chargers)

World-Class R&D Team

30 years' software & hardware development capability

Product Safety Approvals

Meet the global latest safety standards

Flexibility

To provide off-the-shelf and customized design service

Prompt Service

Authorized distributor partners in over 38 countries to ensure local services in the same time zone

Production Experience

Sold more than 20 million pcs to the worldwide market



D&B Top 1000 Elite SME Award
D-U-N-S Number : 65-728-6662

COTEK Headquarters, Taiwan

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Applications



- 1 Telecom, Data Center
- 2 Uninterruptable Power System (UPS)
- 3 Rack mount Power Backup System



Energy Station System (ESS)

Satellite / Power Station



Railway



Broadcasting Radio Station

Rack Mount Power Systems

Powerful Solutions for Mission Critical Equipment

DC Power and AC Power

COTEK Rack Mount Power System provides reliable and high-quality DC & AC power solutions, designed with advanced power electronic and microprocessor technology.

MBS

Maintenance Manual Bypass Switch
(65A, 130A, 260A)

Modular Battery

(Built at the request)

DC power



RA-3048 SMR S-platform

This platform provides 100A @ 48V capability in a 2U rack structure



RA-3048 SMR M-platform

This platform provides 200A @ 48V capability in a 4U rack structure

AC power



SR-2500/3500

2500VA/3500VA inverter module support

- 100-120Vac & 200-240Vac
- 24Vdc / 48Vdc version



SR-1600 PLUS

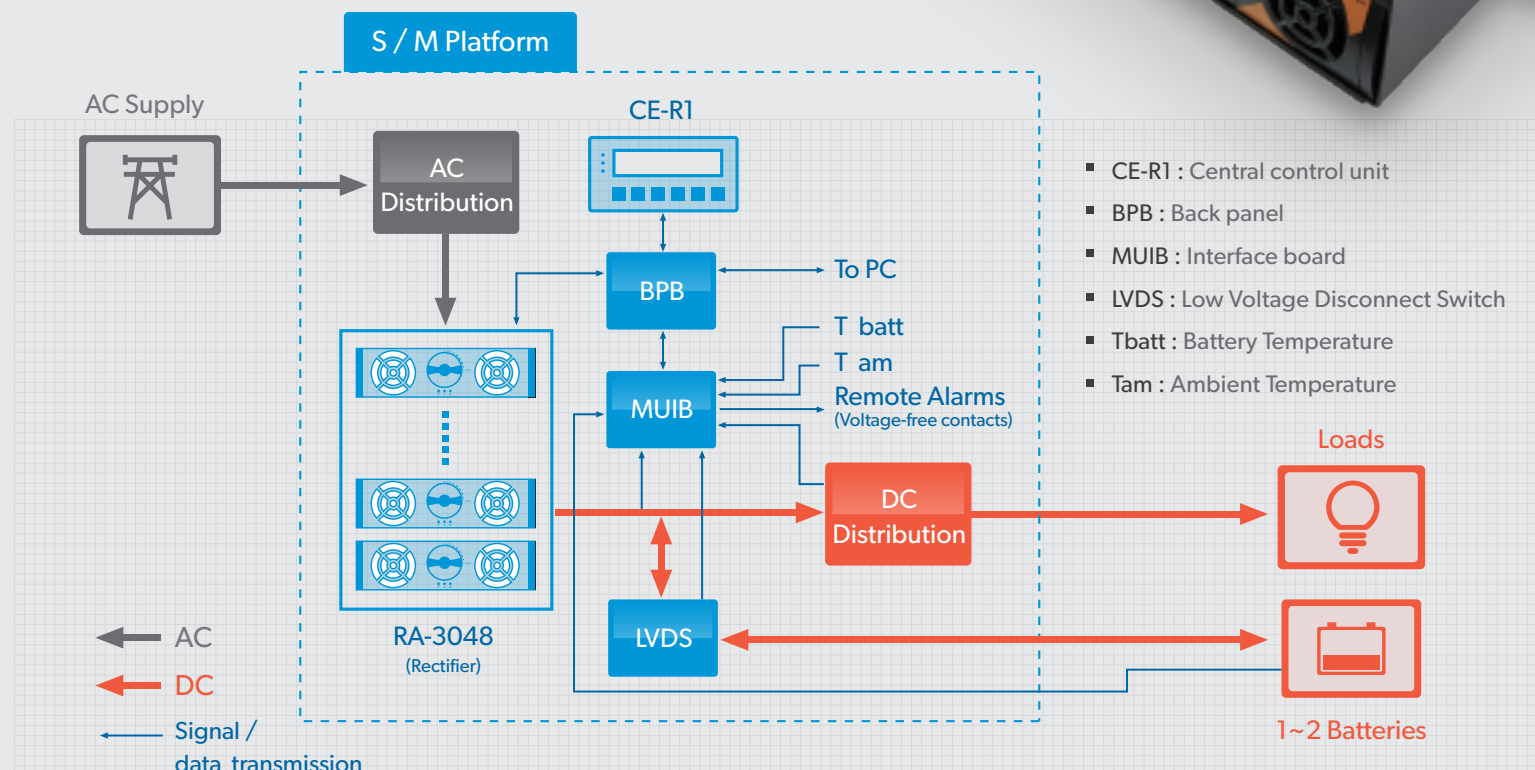
1600VA inverter module support

- 100-120Vac & 200-240Vac
- 24Vdc / 48Vdc version

Modular Switching Mode Rectifier

RA-3048

RA-3048 Switching Mode Rectifier is a modular and reliable design AC-DC power system. Single module can output 3KW @ 220Vac which is a compact and high power density solution to provide 48Vdc power under telecom/ industrial applications. Regular stocking items S & M-platform are available for constant planning

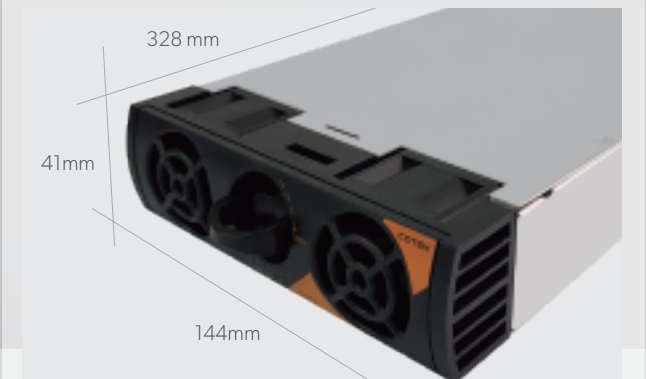


Scan QR Code to view
the User's Manual

1 High efficiency >95%



2 Compact but Powerful (3KW, 1U high per module)

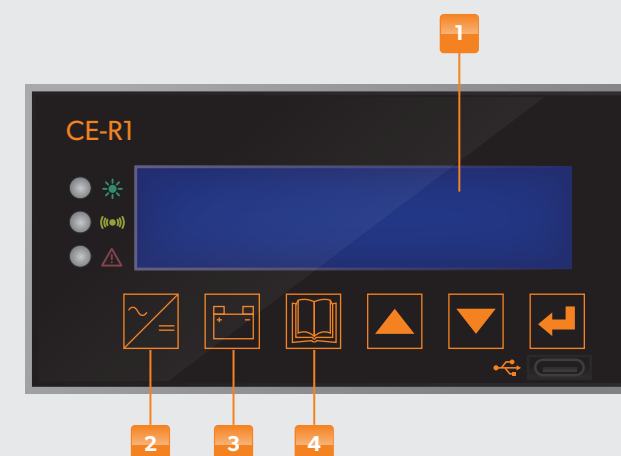


3 Hot-swappable / hot-pluggable during operation



4 Active load sharing and battery monitoring by CE-R1

CE-R1 (Central Control Unit) Setting



- 1 Main menu
System level related parameter settings
- 2 SMR button
SMR related parameter settings
- 3 Battery button
Battery status and charging settings
- 4 Alarms log
Event log display

AC power



Features

Modular Inverters

SR-1600 PLUS



Patented technology

US Patent no. : US10-530-267

The SR-1600 Plus is a highly reliable, modular design DC-AC inverter system, designed with advanced power electronic and microprocessor technology

1 Seamless switch between AC and DC

0 Second transfer-switch between AC and DC, avoid damage to the instrument caused by transient voltage

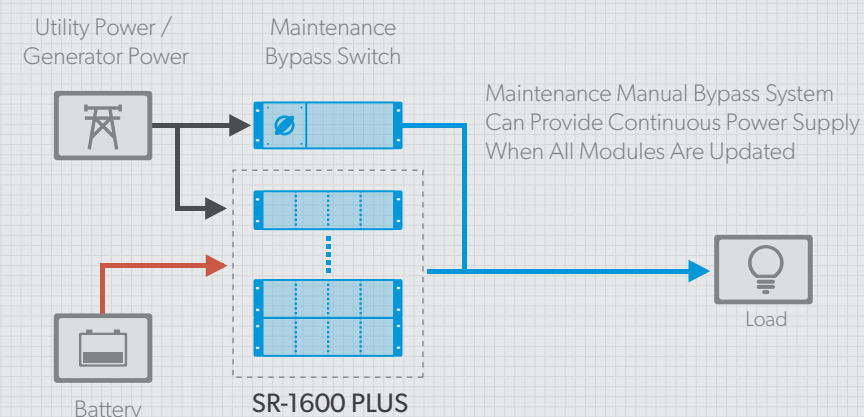


2 Output Efficiency Up to 95%

Reduce energy loss and heat dissipation



3 Built-in Static Transfer Switch



Block diagram

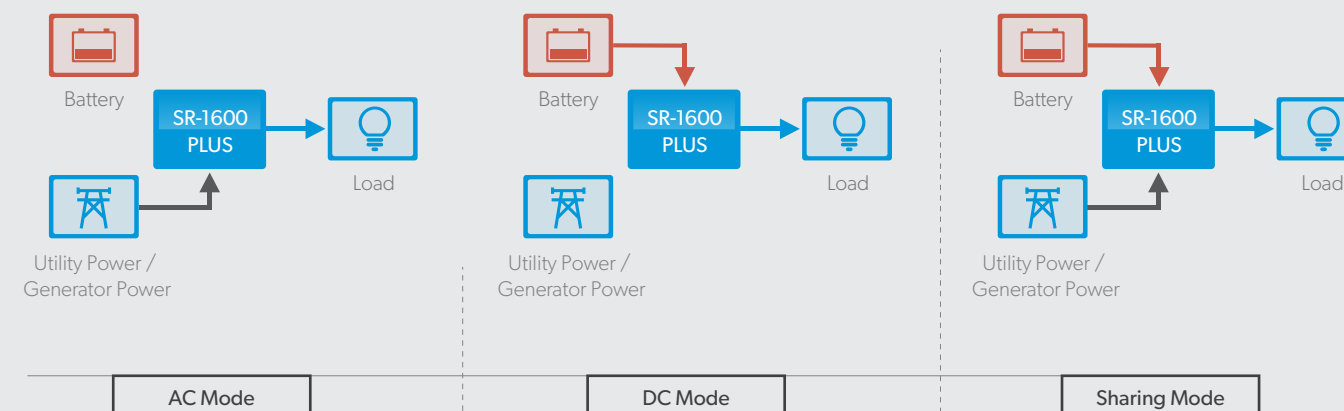
Support output parallel connection and redundancy (N+1)

4 modules in one 2U shelf :
6.4KW

Support up to 8 shelves :
51.2KW

Easy Maintenance by Hot Plug and Swappable Module

3-in-1 Operating Modes



AC power



Features

Rackmount Inverters

SR-2500/3500



Parallel redundancy design

- N+1 redundancy
- Scalable power
- AC bypass



1 1Φ3W / 3Φ4W Power Systems

Suitable for commercial & industrial applications



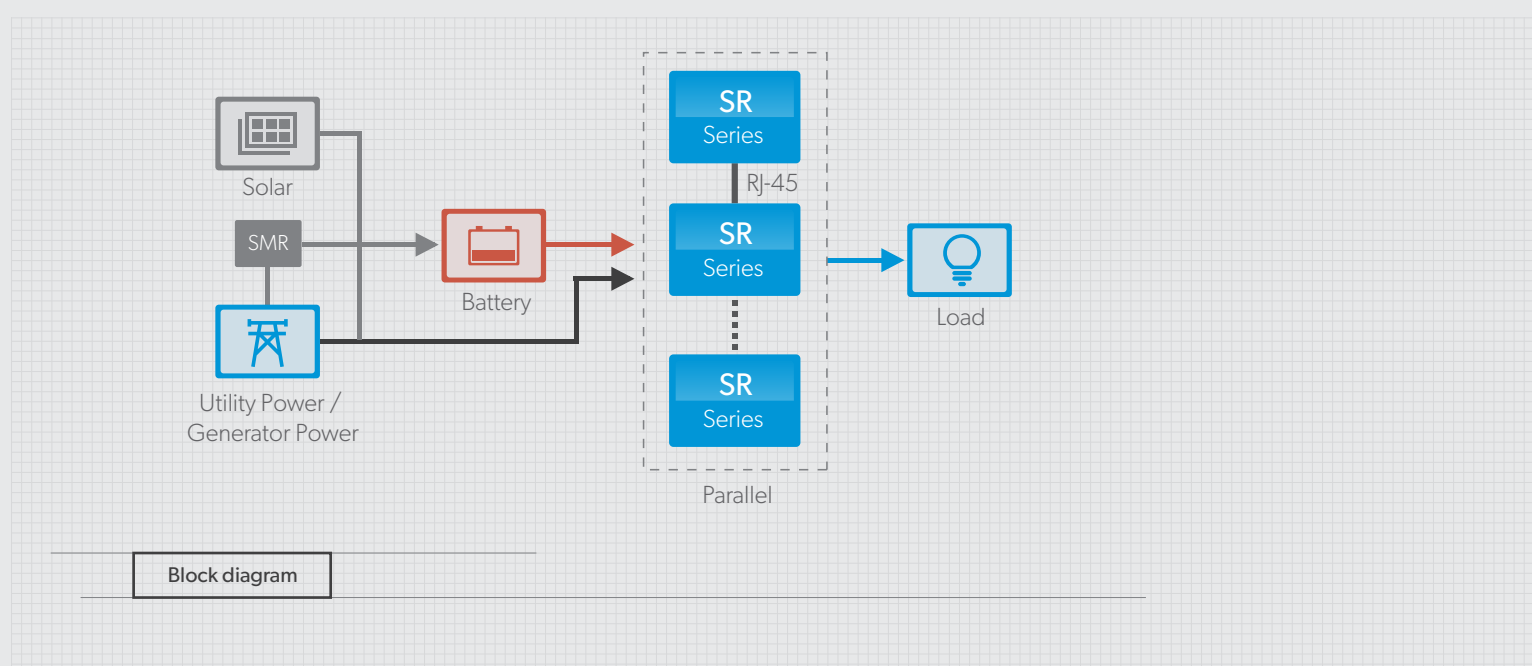
2 AC output types: Terminal and socket

Flexible for deviated AC loads : Fixed installation (Terminal) and Temporary use (Socket)



3 Static Transfer Switches (STS)

Provide uninterrupted power to your load such as PC or storage device.



SR-1000T



- Standard 19" 1U rack mount
- Pure sine wave output (THD < 2%)
- User-friendly LCM module
- RS-232 communication port
- Selectable on-line / off-line modes



Scan QR Code to view the User's Manual



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DC Power
System Packs



1 S-platform RA-3048 x 3 + CE-R1

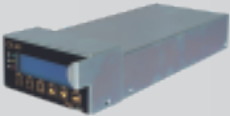


2 M-platform RA-3048 x 5 + CE-R1

Accessories



RA-3048
3000W Switching Mode Rectifier(SMR) module



CE-R1
Central Control Unit



Circuit Breaker



LVDS



AC input switch



Battery DC switch



SPD



Load Breaker
Alarm DIP Switch

AC Power
System Packs



1 2U 1 rack + 4 module



2 2U + CR-21 PLUS
1 rack + 3 module + CR-21 PLUS + SN-1 PLUS

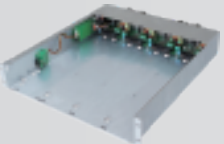


3 4U + CR-21 PLUS
2 rack + 7 module + CR-21 PLUS + SN-1 PLUS

Accessories



Module
1600VA inverter module support



Rack
Maintenance Manual Bypass Switch (65A, 130A, 260A)



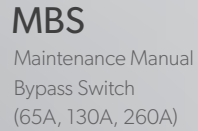
SN-1 Plus
Display and Setting via SNMP Ethernet (NMS / Web Browser)



CR-21 Plus
Display & Setting via LCM Controller



FAN Module
Front-end changeable fan module



MBS
Maintenance Manual Bypass Switch (65A, 130A, 260A)

Dummy Module
For the empty module space fulfillment

	S-Platform	M-Platform
COTEK Part Number	01-C101-0001	01-C101-0002
Output Power (N+1)*	6KW	12KW
Maximum Output DC Current (N+1)	125 A	250 A
Total Height	2U (3.5")	4U (7")
Controller Slots	1	1
Rectifier Slots	3	5
Protected Load Outputs	Up to 4	Up to 10
Protected Battery Sets	Up to 2	Up to 2
Surge Protection Device	No	Yes
LVDS Switch	Up to 1	Up to 2
Additional Distribution Panel Option	No	Yes
Distribution Dimensions	2U (3.5") 19" (rack) Depth: 10.12"	4U (7") 19" (rack) Depth: 10.12"
DC terminal type	1. TB Terminal 2. Euroblock terminal	

* N+1 means a spare module is used for redundant supply, not regular output supply.

Rack height	Present		Future (Expandability)		Maximum	
	No. Module	VA	No. Module	VA	No. Module	VA
1 2U	1	1600	3	4800	4	6400
	2	3200	2	3200		
	3	4800	1	1600		
	4	6400	0	0		
2 2U + CR-21 PLUS	1	1600	2	3200	3	4800
	2	3200	1	1600		
	3	4800	0	0		
3 4U+ CR-21 PLUS	1	1600	6	9600	7	11200
	2	3200	5	8000		
	3	4800	4	6400		
	4	6400	3	4800		
	5	8000	2	3200		
	6	9600	1	1600		
	7	11200	0	0		

Specification

	S-platform		M-platform	
AC Output				
Rating Power	1200W / 1600VA	1600W / 1600VA	1200W / 1600VA	1600W / 1600VA
Short Time Overload Capacity	150% rated power (15 seconds)			
Nominal Voltage (AC)	120VAC		230VAC	
Output Voltage Range (AC)	100~120VAC ± 3%		200~240VAC ± 2%	
Efficiency AC Mode	94%		95%	
Efficiency DC Mode	89%	90%	90%	91%
Frequency Range	50 / 60 Hz			
THD (Above 80% Resistive Load)	< 3%			
Turn ON Delay	<10 sec.			
Crest Factor at Nominal Power	DC mode: 3 times nominal current	AC mode: 6 times nominal current	DC mode: 3 times nominal current	AC mode: 10 times nominal current
AC Input				
Nominal Voltage (AC)	120VAC		230VAC	
Voltage Range (AC)	90~130VAC ± 3% (adjustable from 75V to 132.5V)		180~260VAC ± 2% (adjustable from 150V to 265V)	
Power Factor@Rating Power	> 0.99			
Frequency Range	50 / 60 Hz			
Synchronization Range	47~53 Hz, 57~63 Hz			
DC Input				
Nominal Voltage (DC)	24VDC	48VDC	24VDC	48VDC
Voltage Range (DC)	18~34VDC ± 3%	36~68VDC ± 3%	18~34VDC ± 3%	36~68VDC ± 3%
Nominal Current (at 24Vdc/48Vdc)	56A	37A	56A	37A
Max. Input Current (15 Sec.)	90A	60A	90A	60A
Control & Signal				
Indicator	LED, Buzzer Alarm, Event Log			
Advanced Control	RS-485 (Modbus) embedded, CR-21 Plus (Optional), SN-1 Plus SNMP (Optional)			
Protection				
Input / Output Protection	Over Voltage, Under Voltage, Overload, Over Temperature, Reverse Polarity, Short Circuit			
Transfer Performance				
Inverter / Utility AC	0 sec.			
Environment				
Operating Temp.	Full Load -25°C ~ 40°C ; Power De-rating from 40°C to 60°C			
Storage Temp.	-40°C ~ 70°C , 95% RH non-condensing			
Safety & EMC				
Safety Standards	Meet UL62368-1		EN62368-1	
EMC Standards	FCC class B		EN55032 Class B; EN55024; EN300386 EN 61000-3-2, -3-3, -6-1, -6-3; IEC 61000-4-2, 3, 4, 5, 6, 8, 11	
Other				
Dimension (WxHxD) - Module	105x83x410 mm / 4.13x3.27x16.14 inch			
Dimension (WxHxD) - Shelf	446x85x509 mm / 17.56x3.35x20.04 inch			
Packing	Module : 3.8kg; 4pcs / 17.2kg; Shelf : 6.5kg; 1pc / 7.5kg			

Packing Information

	DC Input	AC Input	AC Output	Connection Type	PCS/CTN	N.W./CTN (KGS)	G.W./CTN (KGS)	CBM /CTN	PCS /PLT	CARTONS/ PLT
SR -1000	24V, 48V		97-123V, 194-246V	IEC, HW	2	15	16	0.08	64	32
SR - 1600 Module	24V, 48V	75-132V, 150-265V	100-120V, 200-240V	HW	4	15.2	16.8	0.09	80	20
SR - 1600 Rack		75-132V, 150-265V	100-120V, 200-240V	HW	1	6.5	7.5	0.08	16	16

*The above information is for reference only, subject to change without notice

SR-1600
PLUS

DC Power System
DC Rectifier

	RA-3048
Input	
Voltage	Wide Input Range: 100-275 Vac, Max 3kW (100-184 Vac at de-rated output power)
Current (maximum)	16 ARMS
Frequency	45-66 Hz
Power Factor	>0.99 at 50-100% load
Input Protection	Fuse
THD	<5% at full load; satisfies requirements of EN61000-3-2
Efficiency	> 95% (Load 40%~80%)
Surge Protection	IEEE C 62.41 / IEC 61000-4-5 / IEC 61000-4-4
Output	
Voltage	54 Vdc (adjustable range : 45-58 Vdc)
Static Regulation	±1.0% (10-100% load)
Current (maximum)	62.5 A (@ 48 Vdc)
Power (Max)	3000W @ 220Vac; 1000W @ 100Vac
Current sharing (10-100% load)	±5% of maximum current from 10 to 100% load sharing from CE-R1
Protection	Overvoltage-only faulty unit shunt down; Overcurrent-can sustain short circuit at output terminals indefinitely; Over-temperature - gradual reduction of current limit if heat-sink temperature exceeds pre-set limit
Dynamic Regulation	±5.0% for 10-90% or 90-10% load variation, output voltage regulation time < 2.5%. +/-1% within2ms of step change.
Output Noise	<2mVrms Psophometric weighting;< 10mVrms 10kHz - 100MHz; < 100mV peak to peak 0~30MHz bandwidth
Ripple	< 100 mV peak to peak, 30 MHZ bandwidth
Other Specifications	
Surge Protection	IEC 61000-4-4 / IEC 61000-4-5 / IEEE C62.41
EMC	Emission : EN 61000-6-3; EN 61000-3-2; EN 61000-3-3. Immunity: EN61000-6-1; EN 61000-6-2.
Inrush Current	<28.5 Arms peak at nominal mains voltage
Voltage Withstand Test	3.0 kVac - input and output (4.25 kVDC primary- secondary); 1.5kVac - input earth (2.12kVDC primary-ground)
Safety	UL 60950-1, UL62368-1 3rd , IEC62368-13rd , EN62368-1 3rd
Isolation	1.5 kVAC -input to earth, 500 VDC -output to earth
Environmental	
Acoustic noise,full load	< 55 dBA @ Tambient = 40°C
Operating temperature	Operating range -10°C ~ 70°C; derated power at 50°C ~ 70°C ; humidity 5-95% RH non-condensing
Storage temperature	-40 to +85°C ; humidity 0-99% RH non-condensing
Cooling	Fan (front to back airflow, temperature and output current regulated speed)
Mechanical	
Dimension (W x H x D)mm	144 x 41 x 328 mm
Weight	2.1 kg (4.6 lbs)

AC Power System

Rack Mount Inverter

	SR-1600-124 PLUS	SR-1600-148 PLUS	SR-1600-224 PLUS	SR-1600-248 PLUS
AC Output				
Rating Power	1200W / 1600VA	1600W / 1600VA	1200W / 1600VA	1600W / 1600VA
Short Time Overload Capacity	150% rated power (15 seconds)			
Nominal Voltage (AC)	120VAC		230VAC	
Output Voltage Range (AC)	100~120VAC ± 3%		200~240VAC ± 2%	
Efficiency AC Mode	94%		95%	
Efficiency DC Mode	89%	90%	90%	91%
Frequency Range	50 / 60 Hz			
THD (Above 80% Resistive Load)	< 3%			
Turn ON Delay	<10 sec.			
Crest Factor at Nominal Power	DC mode: 3 times nominal current	AC mode: 6 times nominal current	DC mode: 3 times nominal current	AC mode: 10 times nominal current
AC Input				
Nominal Voltage (AC)	120VAC		230VAC	
Voltage Range (AC)	90~130VAC ± 3% (adjustable from 75V to 132.5V)		180~260VAC ± 2% (adjustable from 150V to 265V)	
Power Factor@Rating Power	> 0.99			
Frequency Range	50 / 60 Hz			
Synchronization Range	47~53 Hz, 57~63 Hz			
DC Input				
Nominal Voltage (DC)	24VDC	48VDC	24VDC	48VDC
Voltage Range (DC)	18~34VDC ± 3%	36~68VDC ± 3%	18~34VDC ± 3%	36~68VDC ± 3%
Nominal Current (at 24Vdc/48Vdc)	56A	37A	56A	37A
Max. Input Current (15 Sec.)	90A	60A	90A	60A
Control & Signal				
Indicator	LED, Buzzer Alarm, Event Log			
Advanced Control	RS-485 (Modbus) embedded, CR-21 Plus (Optional), SN-1 Plus SNMP (Optional)			
Protection				
Input / Output Protection	Over Voltage, Under Voltage, Overload, Over Temperature, Reverse Polarity, Short Circuit			
Transfer Performance				
Inverter / Utility AC	0 sec.			
Environment				
Operating Temp.	Full Load -25°C ~ 40°C ; Power De-rating from 40°C to 60°C			
Storage Temp.	-40°C ~ 70°C , 95% RH non-condensing			
Safety & EMC				
Safety Standards	Meet UL62368-1		EN62368-1	
EMC Standards	FCC class B		EN55032 Class B; EN55024; EN300386 EN 61000-3-2, -3-3, -6-1, -6-3; IEC 61000-4-2, 3, 4, 5, 6, 8, 11	
Other				
Dimension (WxHxD) - Module	105x83x410 mm / 4.13x3.27x16.14 inch			
Dimension (WxHxD) - Shelf	446x85x509 mm / 17.56x3.35x20.04 inch			
Packing	Module : 3.8kg; 4pcs / 17.2kg; Shelf : 6.5kg; 1pc / 7.5kg			

	SR-1000T	SR-2500	SR-3500
AC Output			
Rating Power	1200W / 1600VA	1600W / 1600VA	1200W / 1600VA
Short Time Overload Capacity	150% rated power (15 seconds)		
Nominal Voltage (AC)	120VAC		230VAC
Output Voltage Range (AC)	100~120VAC ± 3%		200~240VAC ± 2%
Efficiency AC Mode	94%		95%
Efficiency DC Mode	89%	90%	90%
Frequency Range	50 / 60 Hz		
THD (Above 80% Resistive Load)	< 3%		
Turn ON Delay	<10 sec.		
Crest Factor at Nominal Power	DC mode: 3 times nominal current	AC mode: 6 times nominal current	DC mode: 3 times nominal current
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Nominal Current (at 24Vdc/48Vdc)	56A	37A	56A
Max. Input Current (15 Sec.)	90A	60A	90A
Control & Signal			
Indicator	LED, Buzzer Alarm, Event Log		
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Dimension (WxHxD) - Shelf	446x85x509 mm / 17.56x3.35x20.04 inch		
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Packing Information

	DC Input	AC Input	AC Output	Connection Type	PCS/CTN	N.W./CTN (KGS)	G.W./CTN (KGS)	CBM /CTN	PCS /PLT	CARTONS/ PLT
SR -1000	24V, 48V		97-123V, 194-246V	IEC, HW	2	15	16	0.08	64	32
SR - 1600 Module	24V, 48V	75-132V, 150-265V	100-120V, 200-240V	HW	4	15.2	16.8	0.09	80	20
SR - 1600 Rack		75-132V, 150-265V	100-120V, 200-240V	HW	1	6.5	7.5	0.08	16	16

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