El futuro es de todos | Minenergía

IPSE
Instituto de Planificación y Promoción de Soluciones Energéticas para las Zonas No Interconectadas

D. FICHAS TÉCNICAS DE EQUIPOS INSTALADOS

ElectroHuila | DICOSELEC S.A.S. | TECNOCOL LTDA

HIGH PERFORMANCE POLYCRYSTALLINE MODULE

RSM60-6-260P-280P/4BB

60 CELL POLYCRYSTALLINE MODULE

260-280Wp POWER OUTPUT RANGE

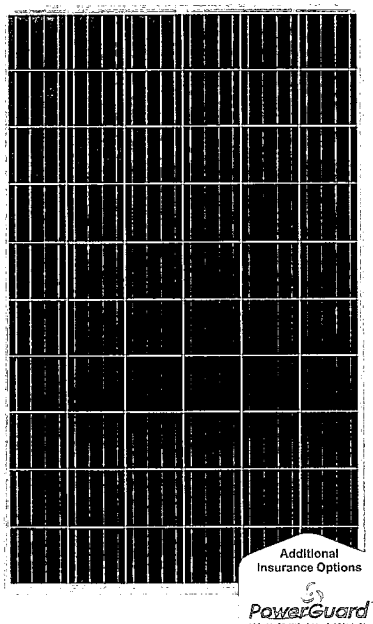
1500VDC MAXIMUM SYSTEM VOLTAGE

17.1% MAXIMUM EFFICIENCY

risen solar technology

About Risen Energy

Risen Energy is a leading, global tier 1 manufacturer of high-performance solar photovoltaic products and provider of total business solutions for residential, commercial and utility-scale power generation. The company, founded in 2002, and publicly listed in 2010, compels value generation for its chosen global customers. Techno-commercial innovation, underpinned by consummate quality and support, encircle Risen Energy's total Solar PV business solutions which are among the most powerful and cost-effective in the industry. With local market presence and strong financial bankability status, we are committed, and able, to building strategic, mutually beneficial collaborations with our partners, as together we capitalise on the rising value of green energy.



KEY SALIENT FEATURES

- Bloomberg TIER 1 — **Global, Tier 1 bankable brand, with independently certified state-of-the-art automated manufacturing**
- Photon — **Photon Independent field testing - Ranked in the top 2 of 176 international suppliers**
- **Industry leading lowest thermal co-efficient of Power**
- 12 years — **Industry leading 12 years product warranty**
- **Excellent low irradiance performance**
- PID — **Excellent PID resistance**
- **Positive tight power tolerance of 3%**
- 2 EL — **Dual stage 100% EL Inspection warranting defect-free product**
- **Module Imp binning radically reduces string mismatch losses**
- **Warranted reliability and stringent quality assurances' well beyond certified requirements**
- **Certified to withstand severe environmental conditions**
  - **Anti-reflective & anti-soiling surface minimise power loss from dirt and dust**
  - **Severe salt mist, ammonia & blown sand resistance, for seaside, farm and desert environments**
  - **Excellent mechanical load 2400Pa & snow load 5400Pa resistance**

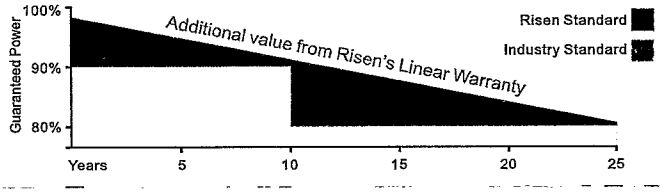
ISO9001
ISO14001
OHSAS18001

CLEAN ENERGY COUNCIL MEMBER

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Ninghai 315609,Ningbo | PRC
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LINEAR PERFORMANCE WARRANTY

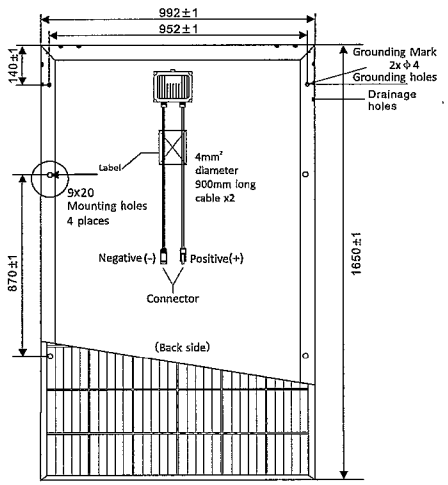
12 year Product Warranty / 25 year Linear Power Warranty

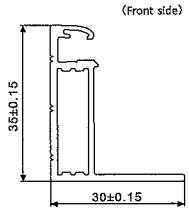


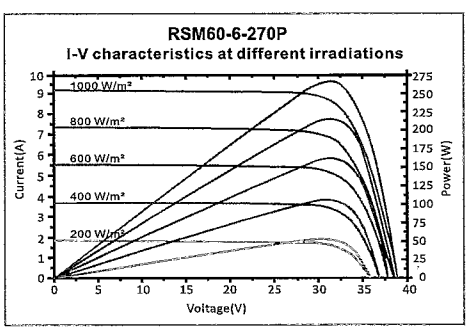
THE POWER OF RISING VALUE

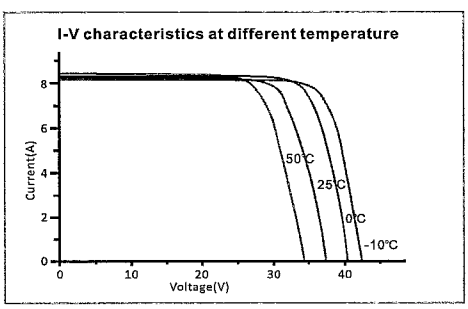
risen
solar technology

Dimension of PV Modules Unit: mm









Our Partners:

ELECTRICAL DATA(STC)

Model Number	RSM60-6-260P	RSM60-6-265P	RSM60-6-270P	RSM60-6-275P	RSM60-6-280P
Rated Power in Watts-Pmax(Wp)	260	265	270	275	280
Open Circuit Voltage-Voc(V)	37.8	38.0	38.2	38.4	38.6
Short Circuit Current-Isc(A)	9.04	9.12	9.20	9.28	9.36
Maximum Power Voltage-Vmpp(V)	30.6	30.9	31.2	31.5	31.8
Maximum Power Current-Impp(A)	8.50	8.58	8.66	8.74	8.82
Module Efficiency (%)	15.9	16.2	16.5	16.8	17.1

STC: Irradiance 1000 W/m², Cell Temperature 25°C, Air Mass AM1.5 according to EN 60904-3.

ELECTRICAL DATA(NOCT)

Model Number	RSM60-6-260P	RSM60-6-265P	RSM60-6-270P	RSM60-6-275P	RSM60-6-280P
Maximum Power-Pmax (Wp)	194	197	201	205	208
Open Circuit Voltage-Voc (V)	35.2	35.3	35.5	35.6	35.8
Short Circuit Current-Isc (A)	7.31	7.38	7.44	7.51	7.57
Maximum Power Voltage-Vmpp (V)	28.1	28.3	28.4	28.6	28.7
Maximum Power Current-Impp (A)	6.89	6.98	7.08	7.17	7.25

NOCT: Irradiance at 800 W/m², Ambient Temperature 20°C, Wind Speed 1 m/s.

MECHANICAL DATA

Solar cells	Polycrystalline 156×156 mm
Cell configuration	60 cells (6×10)
Module dimensions	1650×992×35mm
Weight	18kg
Superstrate	3.2 mm, High Transmission, Low Iron, Tempered ARC Glass
Substrate	White Backsheet
Frame	Silver Anodized Aluminium Alloy type 6063T5, Silver Color
J-Box	Potted, IP67, 1500VDC, 3 Schottky bypass diodes
Cables	4.0mm² (12AWG), 900mm length
Connector	IP67 MC4 Compatible

TEMPERATURE & MAXIMUM RATINGS

Nominal Operating Cell Temperature (NOCT)	45°C±2°C
Temperature Coefficient of Voc	-0.32%/°C
Temperature Coefficient of Isc	0.05%/°C
Temperature Coefficient of Pmax	-0.39%/°C
Operational Temperature	-40~+85°C
Maximum System Voltage	1500VDC
Max Series Fuse Rating	15A
Limiting Reverse Current	15A

PACKAGING CONFIGURATION

	40ft	20ft
Number of modules per container	840	360
Number of modules per pallet	30	30
Number of pallets per container	28	12
Packaging box dimensions (LxWxH) in mm	1680×1120×1250	1680×1120×1250
Box gross weight[kg]	580	580

CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.

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THE POWER OF RISING VALUE



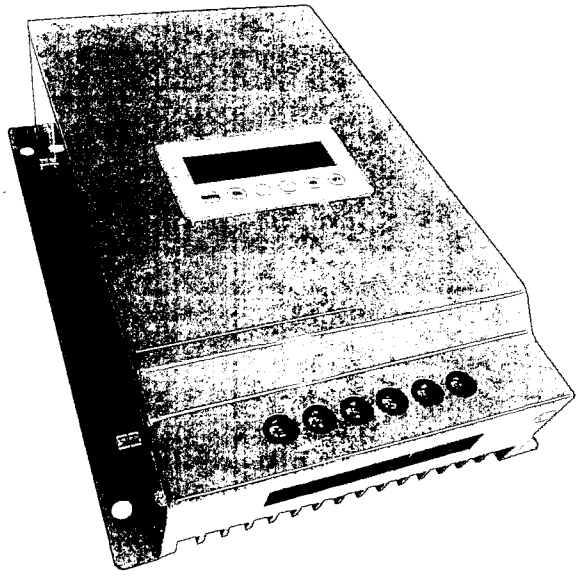
SUNWAY POWER

MPPT
PLUS SERIES
SOLAR CHARGE CONTROLLER

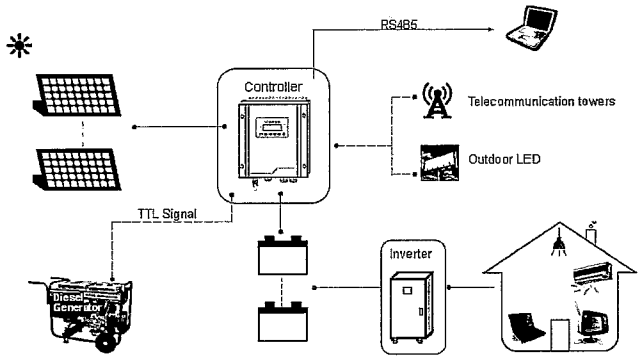


As a SME manufacture of solar controller, Sunway power using the MPPT technology to rise the efficiency of solar charging to the optimum level. The controller features a smart tracking algorithm inside that maximizes the energy from the solar PV module(s) and charge the battery. At the same time, the low voltage disconnect function (LVD) will prevent the battery from over discharging. MPPT Maximum Power Point Tracking technology increases the efficiency of your PV system and charges your battery much faster than a regular controller.

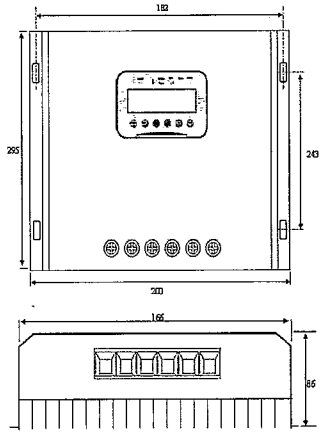
Product



Application Topology



Dimensions

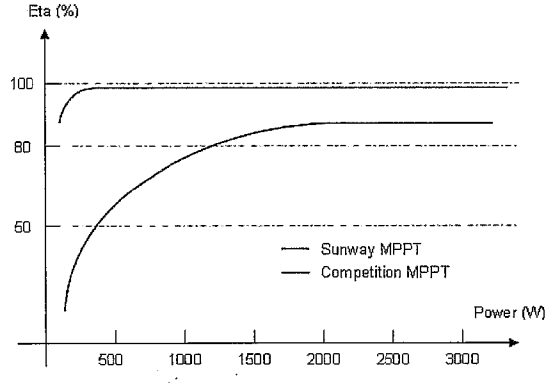


Features

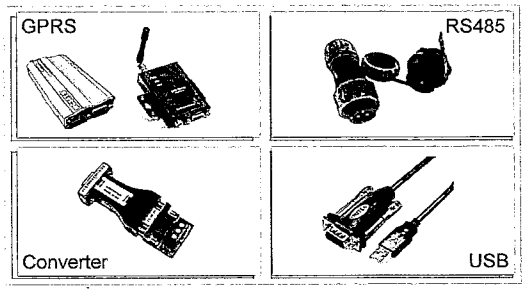
- MPPT technology increases the efficiency of your PV system
- Modular Central Unit (MCU) control
- 12/24/36/48V selectable and auto recognition
- Be suitable for Lead-Acid, GEL,AGM and Li-Fe various kinds of batteries
- Users can to modify the system parameters by setting keys
- Standard RS485 data transfer function
- TTL Control Signal is offered, suitable for PV&Diesel generator hybrid system(optional)
- Temperature compensation function (optional)
- Utility power backup function (optional)

Protection Functions

- Battery over-charge/discharge protection
- Over-current disconnect function
- Over-loading disconnect function
- Over-temperature protection
- Short circuit disconnect function
- Reverse polarity protection
- anti-reverse charging on night



Data Transfer Accessories



Technical Data

System Capability

Model type	SSCM- 12V / 24V / 36V / 48V
Max. PV input power [W]	480 /960 / 1440 / 1920 (12/24/36/48V system)
Rated charging current [A]	30 A / 40A
Min. input voltage (Vmp) [V]	15 / 28 / 43 / 58 (12/24/36/48V system)
Max. input voltage (Vmp) [V]	18 / 36 / 54 / 72 (12/24/36/48V system)
Max. PV input voltage (Voc) [V]	150
Float charge (be adjustable) [V]	14 / 28 / 42 / 56 (12/24/36/48V system)
Boost charge [V]	10 / 20 / 30 / 40 (12/24/36/48V system)
Deep discharge protection (be adjustable) [V] Load disconnect	10.5 / 21 / 31.5 / 42 (12/24/36/48V system)
Reconnect level (be adjustable) [V] With 10s delay	12 / 24 / 36 / 48 (12/24/36/48V system)
Over-voltage protection (be adjustable) [V] Cut-off charging 10s delay (be adjustable)	15 / 30 / 45 / 60 (12/24/36/48V system)
Reconnect charging [V] With 10minutes delay (be adjustable)	13.5 / 27 / 40.5 / 54 (12/24/36/48V system)

Performance

Consumption at standby [mA]	<30
Conversion Efficiency	Up to 98%
Peak of conversion efficiency	99%
Topology	Inductor
Ambient Temperature	-40℃ to +50℃ (exceed 50℃ with derating)
Ambient Humidity	0%~98% Non-condensing
Cooling Method	Natural Convection
Temperature compensation	-4mV/K(2V cell)
Altitude [m]	<2000 (without power derating)

General Data

LCD Display	LCD (16X2characters，green backlight)
Display Language	English
Data communication (option)	RS-485
Grounding	Negative
Ingress Protection Class	IP52
Dimensions (W*D*H) [mm]	200 *395 *86
Net weight [kg]	3.5

Contact Us

赛光电源
SUNWAY POWER

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Since 2008

Global Wind and Solar System control&Inverte Solution Supplier

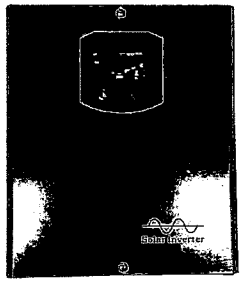
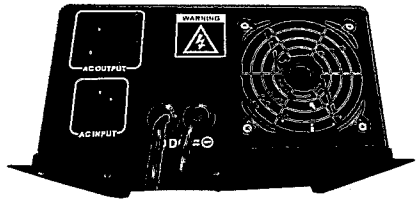
Green Energy Manufacturer

Foshan Top One Power Technology Co., Ltd
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Tel: +86 189 2951 5494 Fax: +86 757 8258 9791 www.one-solar.net
Email: henry@one-solar.net

ONE -SOLAR®

Product Data Sheet

Contact: Mr. Henry Lee Ref No: Q-18052166201
Cellphone: +86-189-2951-5494 Date: 21-May-18 Valid time: 19-Aug-18

Model		FI-801	FI-102
Photo		  	
Minimum Order Quantity		500 Sets	500 Sets
Rated Power		800W	1000W
Peak Power		2400W	3000W
Nominal battery voltage		12VDC / 24VDC	
Input	DC input range	10.5-15VDC (12V) / 21-30VDC (24V)	
	AC Mains input range	85-145VAC (120VAC)	
	AC input frequency	60Hz: 55-65Hz	
Protection	Low battery alarm	≤10.5VDC (12V) / ≤21VDC (24V)alarm	
	Low battery protection	≤10VDC (12V) / ≤20VDC (24V) automatic shutdown	
	High battery alarm	≥15VDC (12V) / ≥30VDC (24V) alarm	
	High battery protection	≥17VDC (12V) / ≥34VDC (24V) automatic shutdown	
	Over load protection	110% more than rated capacity, automatic shutdown	
	High temperature	Built-in temperature real time sensor, ≥85℃ alarm, ≥90℃ automatic shutdown	
	Short circuit protection	Automatic shutdown	
Output	Transfer efficiency	>95%	
	Output voltage	(DC battery mode) 120VAC±2%	
	Output frequency	(DC battery mode) 60Hz±1%	
	Output wave form	Pure sine wave	
	Output voltage	(AC mains mode) stable 120VAC±10% output (built-in AVR stablizer)	
	AVR output stablizer	AC mains<85VAC±5% swtich to DC battery mode, AC mains>90VAC ±5% return to AC mains mode; AC mains>145VAC±5% swtich to DC battery mode, AC mains<140VAC ±5% return to AC mains mode;	
	Output frequency	(AC mains mode) automatic tracing from AC input	
Other	Transfer time	Bult- in AC bypass replay (≤8ms)	
	Display	LCD Display with function buttons	
	Cooling system	Intelligent cooling fan control system	
		≤42℃ slow fan, ≥45℃ fast fan	
AC Charger	AC charging Voltage	13.6-14.2VDC(12V)/27.2-28.4VDC(24V)	
	AC charging current	Steady 15A	
	AC over charge protection	Battery ≧16V (12V) ≧32V (24V), stop charging after 60s alarm	
Working mode (Optional)	01	AC mains priority	
		Always use AC mains as priority input to provide AC output and automatically charge the battery, only stops charging when battery is fully charged, and only starts DC to AC converting untill AC mains is off	
	02	Energy saving	
		Loading≤10% automatic shutdown, loading≥11%-100% automatic turn on	
	03	DC battery priority	
		Always use DC battery as priority input to provide AC output, for 12V system, when battery≥13V, starts DC to AC converting; when battery≤10.5V during converting, switch to AC mains mode to provide AC output and automatically start charging the battery (for 24V system, multiply by 2 times accordingly)	
Comnunication		RS-232/RS-485 (additional option)	
Level of Production		IP20	
Environment	Working Temperature	-20~+75℃	
	Humidity	<95%	
Appearance	Product size (mm)	280*275*120mm	
	Packing size (mm)	345*315*187mm	
	Net Weight (kg)	9.0kg	9.2kg
	Gross Weight (kg)	9.5kg	9.7kg

*Product specifications are subject to change without further notice, but will be confirmed before ordered.

FUWEI

ENERGY

http://www.fwny.net/en/

6-CNJ-225

12V225Ah

Edition:2016.6

By Frank

Component	Positive plate	Negative	Container	Cover	Safety Valve	Terminal	Separator	Electrolyte
Raw Material	Lead dioxide	Lead	ABS	ABS	Rubber	Copper	AGM	GEL

Performance characteristics

Nominal Voltage 2V

Number of cell one

Nominal Capacity at 25 ℃/77 ℉

20Hr at 11.3 A to 10.75V-- 225 Ah

5Hr at 36.1 A to 10.5V-- 181 Ah

1Hr at 139 A to 9.6V-- 139 Ah

Internal Resistance

Fully charged battery at 25 ℃

≤ 3.6 mΩ

Average Self-discharge at 20 ℃/68 ℉

<3% lost of capacity per month

Operating Temperature range:

Discharge at -20~60 ℃

Charge at -10~60 ℃

Storage at -20~60 ℃

Max. discharge current at 25 ℃: 3375 A(5s)

Charge Methods constant voltage charge at 25 ℃

Cycle use---2.4~2.45V/cell;

Maximum initial charging current 67.5 A

Temperature compensation

-5mV/cell/ ℃

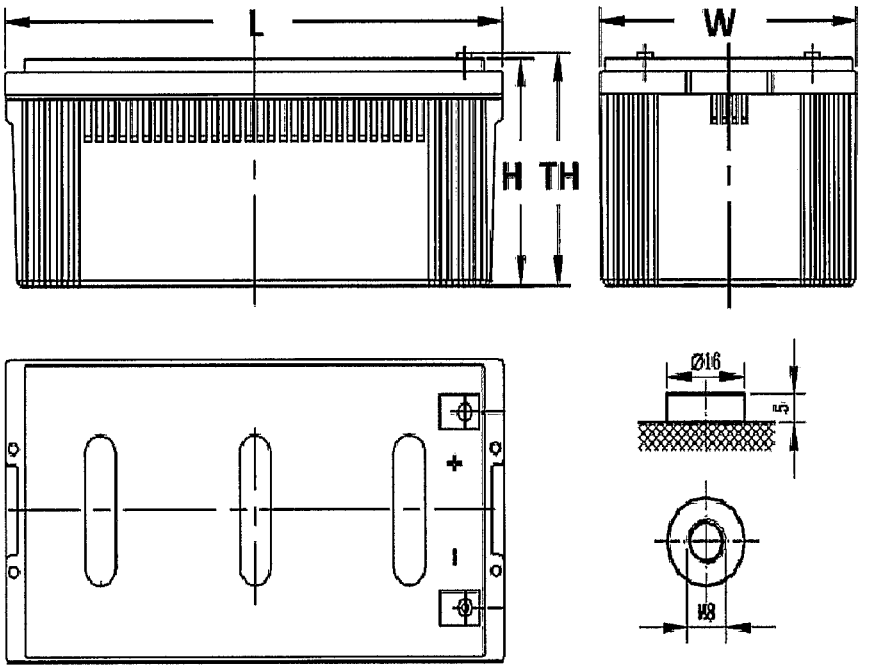
Standby use---2.25~2.30V/cell

Temperature compensation

-3mV/cell/ ℃

Cycle life is 1800 cycles @ 30% D.O.D

	Length	Width	Height	Total H	Weight	Terminal
mm/Kg	522	269	220	244	62	F12
inch/lb	20.6	10.59	8.66	9.61	137	M8



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ENERGY

http://www.fwny.net/en/

6-CNJ-225 12V225Ah

You can expect our batteries meet with the standards JIS, DIN, IEC60986-21/22 & BS6290-4.

Discharge Data

Discharge Constant Current (Amperes at 77℉ /25℃)

End Point	5mi	10mi	15mi	20mi	25mi	30mi	35mi	40mi	45mi	50mi	55mi	1h	1.5h	2h	2.5h	3h	4h	5h	6h	7h	8h	9h	10h	12h	20h
1.60V	0	525	402	323	280	245	214	192	176	162	151	139	101	82.2	68.3	59.5	47.3	39.4	34.1	30.7	27.1	24.5	22.8	19.2	11.6
1.65V	0	492	379	306	264	230	204	183	168	154	145	132	97.1	78.8	65.6	57.2	45.9	38.0	33.3	29.6	26.6	24.0	22.1	18.7	11.5
1.70V	0	460	355	287	248	216	192	173	159	146	138	126	93.7	76.1	63	55.2	44.4	37.1	32.3	28.9	25.8	23.5	21.7	18.4	11.3
1.75V	0	427	331	268	231	203	182	163	150	138	129	120	89.3	72.5	60.9	53.3	42.9	36.1	31.5	28.2	25.2	23.1	21.3	18.2	11.3
1.80V	0	394	307	250	214	188	171	153	140	129	123	113	85.8	69.1	58.6	51.2	41.6	35.2	30.7	27.6	24.5	22.6	21.0	17.9	11.1

Discharge Constant Power per cell (Watts at 77℉ /25℃)

End Point	5mi	10mi	15mi	20mi	25mi	30mi	35mi	40mi	45mi	50mi	55mi	1h	1.5h	2h	2.5h	3h	4h	5h	6h	7h	8h	9h	10h	12h	24h
1.60V	0	937	719	580	502	438	385	347	319	293	276	254	188	155	129	113	91.9	77.3	67.8	60.1	54	48.8	44.7	37.8	21.2
1.65V	0	884	680	549	475	415	368	331	305	280	265	245	182	150	125	110	89.3	75.4	66.2	58.8	52.8	48.0	44.1	37.4	20.9
1.70V	0	825	639	518	448	392	350	314	289	267	253	234	176	144	122	107	87	73.7	64.5	57.5	51.6	47.0	43.5	36.9	20.8
1.75V	0	770	601	487	421	369	332	298	274	254	240	224	170	139	118	103	84.7	71.8	62.8	56.3	50.2	46.2	42.8	36.4	20.5
1.80V	0	713	560	457	394	345	313	281	258	240	229	214	164	132	113	99.8	82.2	70	61.1	55	49	45.4	42.2	35.9	20.3

Note: The above characteristics data are average values obtained within three charge/discharge cycles not the minimum values.

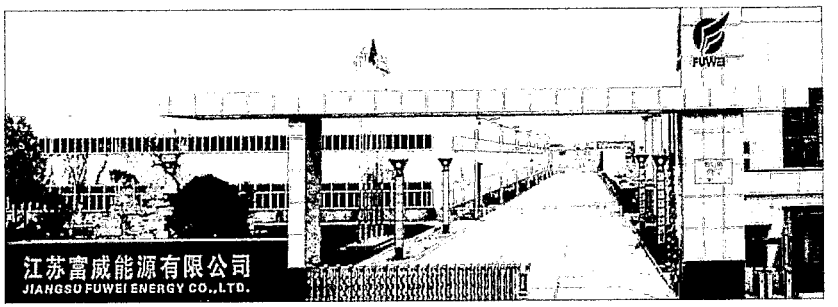
All data shall be changed without notice. FUWEI reserves the right to explain and update the information contained hereinto.

Application

- UPS
- Telecom Systems
- Electric Wheelchair
- Power Station
- Military Equipment
- Emergency Power System
- Railway System

General Features

- Environmentally friendly
- Long Service Life, in Float and Cyclic
- Lower internal Resistance
- High Reliability and Good Quality
- International Standard, JIS and DIN
- lead-tin-calcium alloy grids for long service life
- Thick pasted plates with high quality



JIANGSU FUWEI Energy CO.,LTD. Quality Achievement Brand Build Our Future

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ENERGY

http://www.fwny.net/en/

6-CNJ-225 12V225Ah

