



48kWH system

Advanced lead nano carbon deep cycle battery

SYSTEM CHARACTERISTICS					
System Parts number		RE-SLR48VSYS-02			
Total Energy		48kWH@25°C(77°F)			
Usable Energy		33.6kWH@Max DOD70% @25°C(77°F)			
Cycle performance		5,000cycles@DOD70%, 4,000cycle@DOD80%			
Warranty		10 years limited warranty			
Nominal Voltage		48VDC(24pcs of battery)			
Battery cell(SLR1000-2)	Capacity	1,000Ah@10hr			
Battery Cell(SER1000-2)	Voltage	2VDC			
Max Charge Current		200A(*1)			
Max Discharge Current/time		250A(*2) (Current Configuration)			
		6,000A(5sec), 3,000A(1min)*3(Custom)			
Acceptable		Partial State of Charge condition			
Operating temperature		-15°C~45°C(5°F~113°F)			
Recommend storage temperature		5°C~30°C(41°F~86°F)			
Short Circuit Current		10,500			
Internal Resistance		0.3mΩ			
Scalability	Strings	Max 600V (>600V required custom)			
Scalability	Parallel	Max 6			
CERTIFICATION					
Safety	Cell	UL			
Salety	System	UL1973 with BMS			
Performance		IEC61427(proven over 17 years of life)			
Hazardous Materials Classification		8			
Transportation		UN2800			
Ingress Rating		IP30			
DIMENSIONS AND WEIGHT					
	Width	29.74 inch			
Dimensions	Height	79.86 inch			
	Depth	23.15 inch			
Empty Rack Weight		300 LBS(136kg)			
System Weight		3845 LBS(1744kg)			



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ACCESSORY	
Rack 6H shelf	
Circuit Breaker (250A)	
Insulated Terminal Bolts	
Short/Long Bus Bar	
Lexan Shield	
Flex Conductor POS/NEG	
Wiring Kit	

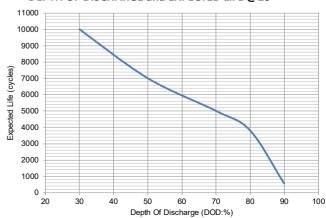
- *1) Please refer backpage for recommending charge method
- *2) Limited by 10Kamps interrupting current, 100% single pole circuit breaker
- *3) Please ask consult for system configuration

DOD:Depth of Discharge

FINAL VOLTAGE PER CELL by DEPTH OF DISCHARGE & DISCHARGE RATE

HOL	JR	20	12	10	9	8	7
CA/Ah		0.061/61	0.088/88	0.1/100	0.11/110	0.12/120	0.13/130
DOI	D			,			
30	%	2.07	2.07	2.05	2.05	2.05	2.05
40	%	2.06	2.06	2.04	2.04	2.04	2.03
50	%	2.04	2.04	2.00	2.00	2.00	2.00
60	%	2.02	2.02	1.98	1.98	1.98	1.98
70	%	2.00	2.00	1.95	1.95	1.95	1.95
80	%	1.97	1.97	1.94	1.93	1.93	1.93

DEPTH OF DISCHARGE and EXPECTED LIFE @25



 $\mbox{\ensuremath{\%}}\mbox{Note}$: It is time to replace all batteries when the batteries reach the expected life (cycles) or the maximum length of use (15 years), whichever comes first.

CHARGING EFFICIENCY

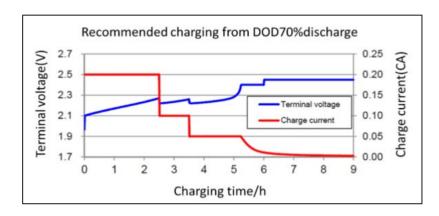
RECOMMENDED CHARGING (CONSTANT CURRENT)

- Bulk : 0.2CA(200A) MAX, Constant Current Charge up to 2.4VPC - Absorption : 0.1CA(100A) MAX, Constant Voltage Charge 60-90 mins

- Float Application : Not Applicable

- Equalization : 0.025CA(25A) MAX Constant Voltage Charge 2.8VPC for 3 hours

- Recommended equalization charge frequency (whichever comes first):
 - Once per month or,
 - When discharge amount reaches 3.5-5 times of rated capacity or,
 - Longer if individual cell voltage are monitored



Maximum DOD: 70%DOD/30%SOC Recommended DOD: 50%DOD/50%SOC

Example Charge and Discharge Cycle: Most Chargers have charging current limits on average 120A

- Discharge condition: DOD70%(0.1CA*6h)
- Charging condition
 - Normal charge:
 - 0.1CA for 6h, estimated 90%SOC
 - Equalization charge:
 - 0.025CA for 2.5h after charged (to 104% of rated capacity)

Efficiency of discharge and charge:

- -Approximately 88% at normal charge condition
- -Approximately 83% at equalization charge condition

