AMPOWER

Durathon E4815 Telecom Battery

General Data

Nominal Energy	15	kWh
Nominal Capacity	276	Ah
Ambient Conditions[1]	-40 to 65	ºC
Humidity	<95%	RH
Altitude	<3,000	m
Warm-up Time[2]	<16	hours
Max Internal Heater Power	600	W
Avg Heater Power Consumption, CDC[3]	<10	W
Heater Power Consumption, Float	<130	W
Internal Low Voltage Disconnect[4]	-43.7 to -47.9	VDC

Battery Certifications

UL 1973 Listed
CE (EMC)
NEBS Level 3 (GR-63-Core, GR-1089) and Outside of Plant (GR-3108)[5]
FCC/CIPR22/NEBS Class A
ETSI EN 300 132, ETSI EN 300 386
REACH
RoHS 6/6
ISTA 2B
Product of GE ecomagination

Technical Data

Charge Discharge Cycling

| CDC Operating Voltages:		
Recharge	-55.5	VDC
Charge Start[4]	-47.4 to -48.5	VDC
Charge Time Setting[6]	1 to 2.5	hour
Cycling Load Range	0.8 to 2.4	kW
Max Recharge Current	100	A
Cycles Between Return to Top of Charge (TOC)[7]	40	cycles

Power Availability/Backup

Usable Energy[8]	13	kWh
Usable Capacity[8]	250	Ah
Operating Voltages:		
Recharge	-55.5	VDC
Open Circuit	-54.2	VDC
Discharge Load Range[9]	0.8 to 4	kW
Max Recharge Current	100	A
Projected Float Life	15	Yr

Interconnects

Battery Terminals	Single ¼"-20 threaded stud per pole
Ground Connection	Standard: Single M6 Optional: Double lug with NEBS configuration (N)
Communication	RS485, MODBUS
Ingress Protection (IP)	IP 20
Digital Outputs	2 Form C
Status Lights	2 LEDs

Ordering Options

Battery Model	Fusing	H[10] (mm)	D[10] (mm)	W[10] (mm)	Weight (kg)
E4815-AA-01x[†]	1 contactor, no fuse	319	663	526	147
E4815-AB-01x	1 contactor, no fuse	303	638	509	147
E4815-AA-02x	2 contactors, 175A fuse	319	663	526	147
E4815-AB-02x	2 contactors, 175A fuse	303	638	509	147

[†]Special configurations

Front View

BMS

Top View
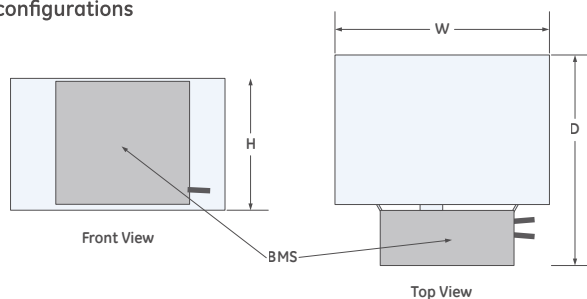
x	Configuration
A	Anderson Connector
B	Portuguese
C	California (USA)
F	French
H	Arabic
I	Italian
J	Japanese

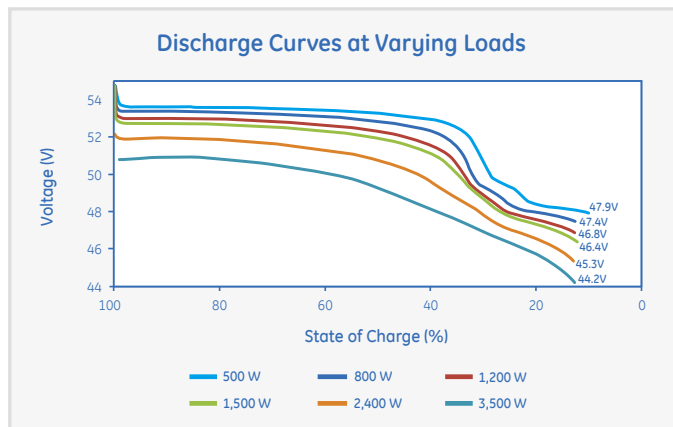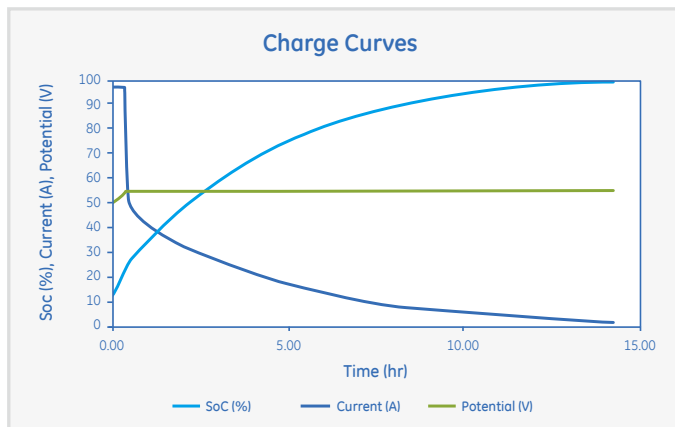| x	Configuration
K	Turkish
N	NEBS
R	Russian
S	Chinese
T	Spanish
V	Vietnamese

Example:

E4815-AA-01NC = 48V, 15kWh, 1 contactor, no fuse configuration, NEBS certified, California configured.

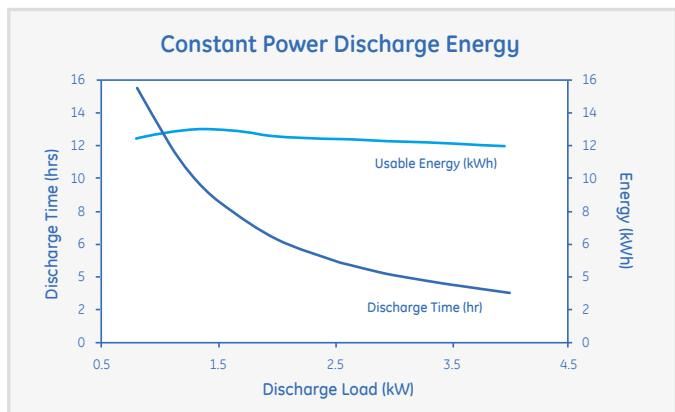## Advocating Green Energy   Perfecting Human Life

COSTPLUS INC.

Performance Characteristics

The performance data presented below is based on testing done at labs at 25°C and applies to ambient temperatures from -40°C to 65°C at beginning of life (BOL). Actual performance may vary. Discharge curves apply after 24-hour charge cycle.

Charge Curves

|	From 13% State of Charge to...					
	50%	60%	70%	80%	90%	95%
Charge Time (hr)	2.1	3.0	4.2	5.7	8.2	10.2

Discharge Curves at Varying Loads

47.9V
47.4V
46.8V
46.4V
45.3V
44.2V

Legend: 500 W, 800 W, 1,200 W, 1,500 W, 2,400 W, 3,500 W

Constant Power Discharge Energy

	Load (W)						
	800	1,200	1,600	2,000	2,400	3,000	4,000
Energy (kWh)	12.5	13	13	12.6	12.5	12.3	12
Discharge Time (hr)	15.6	10.8	8.1	6.3	5.2	4.1	3

Constant Current Discharge Capacity
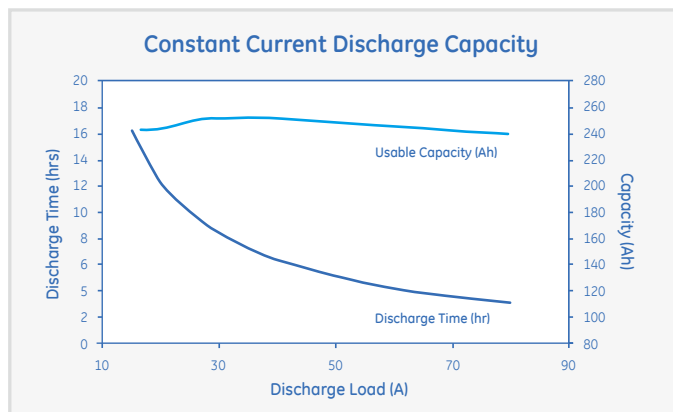
	Current (A)						
	15	20	25	30	40	60	80
Capacity (Ah)	243	244	250	252	252	246	240
Discharge Time (hr)	16.2	12.2	10	8.4	6.3	4.1	3

Cycle Life Projection – At Varying Loads

Partial state of charge operation. Cycle life defined as the number of cycles after which <80% of the battery's BOL energy throughput remains. Battery projected to experience continued linear reduction in energy throughput below 80%.

Projected Cycle Life

Legend: 800 W, 1,600 W, 2,400 W
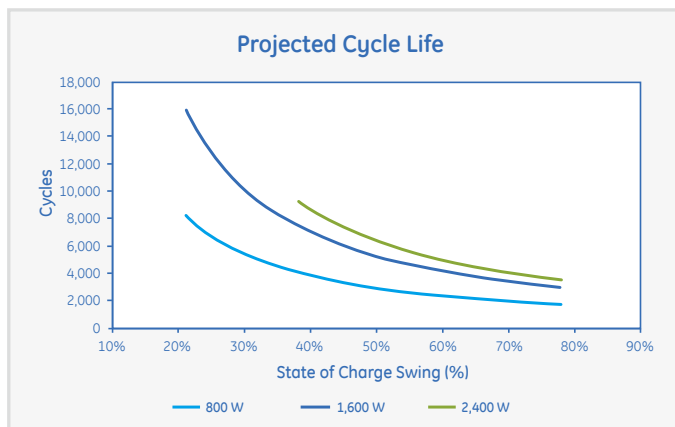
[1] Ambient conditions apply to BMS electronics:
- 5°C to 55°C no performance impact
- -40°C to 5°C and 55°C to 60°C reduced performance
- 60°C to 65°C non-destructive with ability to automatically reconnect

[2] After warm-up, battery is ready to charge or discharge

[3] When continuously charged and discharged at rated load

[4] Exact voltage is load-dependent

[5] With NEBS Configuration (N)

[6] Charge times: Loads >2kW = 2.5 hours; Loads <2kW = 1 to 2.5 hours

[7] Battery does not need to be taken offline to return to top of charge

[8] C/10 rate at beginning of life

[9] Discharge above 2.4kW must be preceded by 24 hour charge

[10] Dimensions are nominal

*Durathon is a trademark of Zhjiang AMPower Co.,Ltd.

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