

- Unique European energy storage technology
- Fully certified
- Specially designed to use for all solar applications even in extreme temperature conditions
- Super long life time, leakage and maintenance free Terminals at the front for easy connection
- Durable and sustainable with extra long cycles



## SPECIFICATION

Cells Per Unit	6
Voltage Per Unit	12
Capacity	200Ah@10hr-rate to 1.75V per cell @25°C
Weight	Approx. 60 Kg
Max. Discharge Current	1000 A(5 sec)
Internal Resistance	Approx. 4 mΩ
Operating Temperature Range	Discharge: -20°C ~ 60°C Charge: 0°C ~ 50°C Storage: -20°C ~ 60°C
Normal Operating Temperature Range	25°C ± 5°C
Float Charging Voltage	13.6 to 13.8 VDC/unit Average at 25°C
Recommended Maximum Charging Current Limit	60 A
Equalization and Cycle Service	14.4 to 15.0 VDC/unit Average at 25°C
Self Discharge	Hollandia batteries can be stored for more than 6 months at 25°C. Please charge batteries before using. For higher temperature, the time interval will be shorter.
Terminal	Terminal F16/F12
Container Material	A.B.S. (UL94-HB) Flammability resistance of UL94-V1 can be available upon request.

### Constant Current Discharge Characteristics Unit: A(25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	748	536	390	230	130.0	79.8	52.2	43.2	34.0	24.6	20.8	11.0
1.67V	728	510	382	226	129.4	79.2	52.0	43.0	33.8	24.4	20.6	10.8
1.70V	686	492	376	224	128.2	78.6	51.6	42.8	33.6	24.2	20.4	10.6
1.75V	616	454	358	219	127.0	78.0	51.4	42.4	33.2	24.0	20.2	10.4
1.80V	556	414	330	209	124.0	76.6	50.0	41.4	32.6	23.6	20.0	10.2
1.85V	484	370	296	196	117.8	73.2	47.8	39.4	31.2	22.6	19.4	9.6

### Constant Power Discharge Characteristics Unit:W(25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	1341	981	722	433	247.8	153.0	100.4	83.2	65.6	47.6	39.0	20.6
1.67V	1314	937	707	427	246.6	152.4	100.2	83.0	65.2	47.4	38.6	20.4
1.70V	1240	905	697	422	244.8	151.0	99.6	82.6	65.0	47.0	38.4	20.2
1.75V	1117	837	665	413	242.4	149.6	99.0	82.0	64.4	46.6	38.0	20.0
1.80V	1004	760	611	394	236.4	147.4	96.6	79.8	63.4	45.6	37.6	19.8
1.85V	867	675	546	369	224.0	140.6	91.8	76.0	60.2	44.0	36.4	19.0

All mentioned values are average values.

### Charging Procedures (12V series)

Application	Charge Voltage (V)			Max. Charge Current
	Temperature	Set point	Allowable range	
Cycle Use	25°C	14.7	14.4 ~ 15.0	0.3C
Standby	25°C	13.7	13.6 ~ 13.8	0.3C

Charge the batteries at least once every six months, if they are stored at 25°C

Constant Voltage	14.4~15.0V, 5~11h, Max. Current 0.1CA
Constant Current	0.1CA×5h
Fast	0.3CA×1.7h

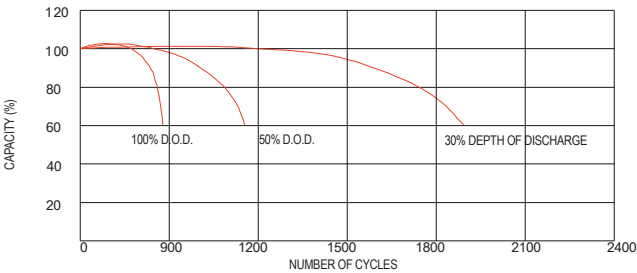
### Discharge Current vs. Discharge Voltage

Final Discharge Voltage V/cell	1.75V	1.70V	1.60V
Discharge Current (A)	(A) ≤ 0.2C	0.2C < (A) < 1.0C	(A) ≥ 1.0C

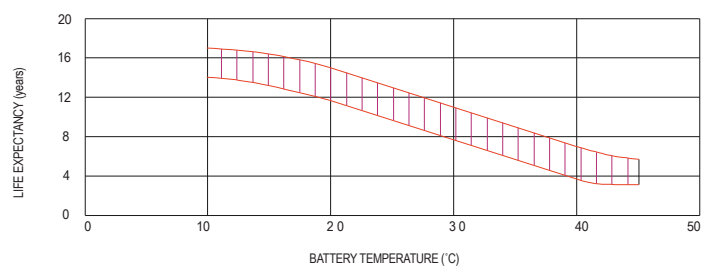
### Charging Procedures (6V series)

Application	Charge Voltage (V)			Max Current Charge
	Temperature	Set point	Allowable range	
Cycle Use	25°C	7.35	7.25 ~ 7.45	0.3C
Standby	25°C	6.85	6.8 ~ 6.9	0.3C

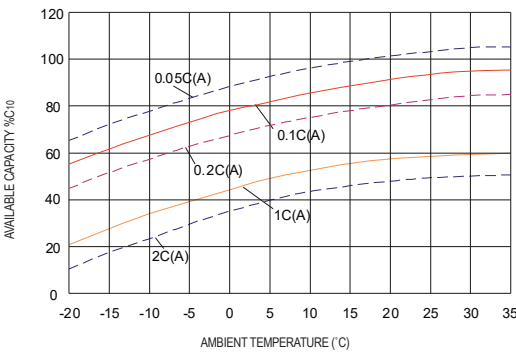
### LIFE CHARACTERISTICS OF CYCLIC USE



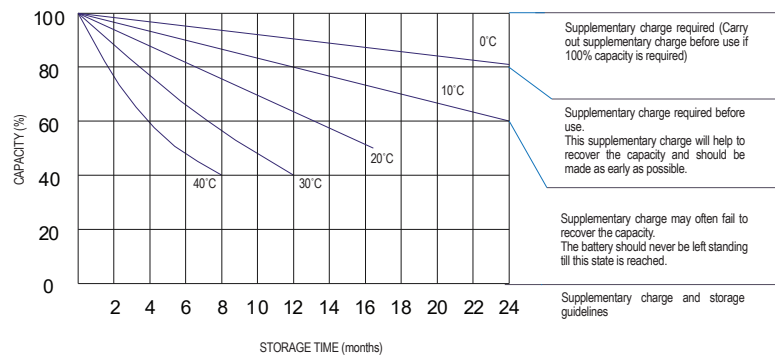
### EFFECT OF TEMPERATURE ON LONG TERM FLOAT LIFE



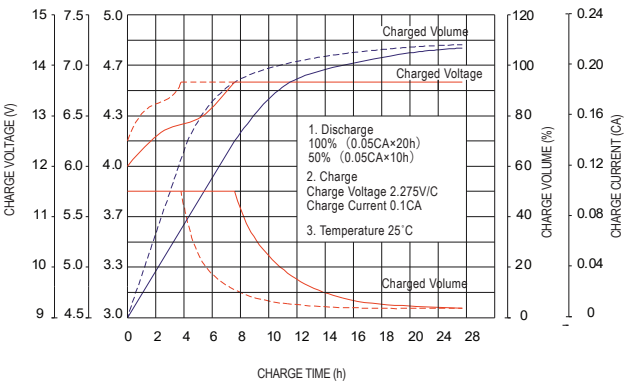
### TEMPERATURE EFFECTS CURVE



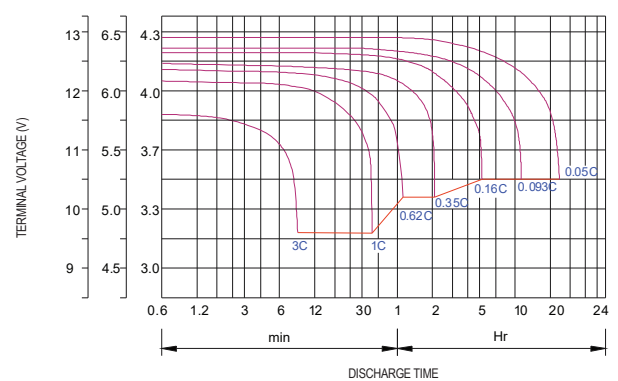
### STORAGE CHARACTERISTIC



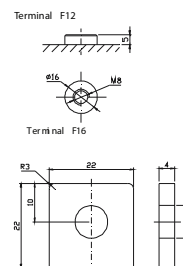
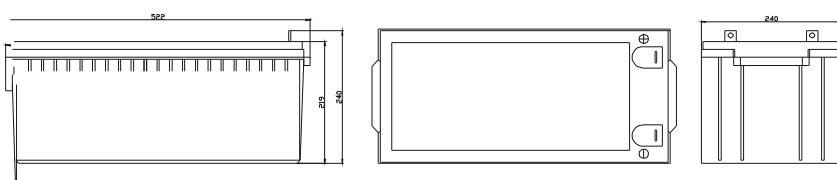
### CHARGE CHARACTERISTIC CURVE FOR STANDBY USE



### DISCHARGE CHARACTERISTIC CURVE



### DIMENSIONS



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