

- 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	150Ah@10hr-rate to 1.75V per cell @25°C
Weight	Approx. 45 Kg
Max. Discharge Current	75 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	45 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	Faston F5/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	561	402	293	173	97.5	59.9	39.2	32.4	25.5	18.5	15.6	8.3
1.67V	546	383	287	170	97.1	59.4	39.0	32.3	25.4	18.3	15.5	8.1
1.70V	515	369	282	168	96.2	59.0	38.7	32.1	25.2	18.2	15.3	8.0
1.75V	462	341	269	164	95.3	58.5	38.6	31.8	24.9	18.0	15.2	7.8
1.80V	417	311	248	157	93.0	57.5	37.5	31.1	24.5	17.7	15.0	7.7
1.85V	363	278	222	147	88.4	54.9	35.9	29.6	23.4	17.0	14.6	7.2

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

F.V Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.6	561	402	293	173	97.5	59.9	39.2	32.4	25.5	18.5	15.6	8.3
1.6	546	383	287	170	97.1	59.4	39.0	32.3	25.4	18.3	15.5	8.1
1.70V	515	369	282	168	96.2	59.0	38.7	32.1	25.2	18.2	15.3	8.0
1.75V	462	341	269	164	95.3	58.5	38.6	31.8	24.9	18.0	15.2	7.8
1.80V	417	311	248	157	93.0	57.5	37.5	31.1	24.5	17.7	15.0	7.7
1.85V	363	278	222	147	88.4	54.9	35.9	29.6	23.4	17.0	14.6	7.2

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

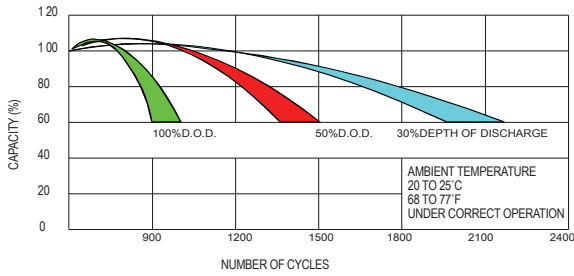
### Discharge Current vs. Discharge Voltage

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

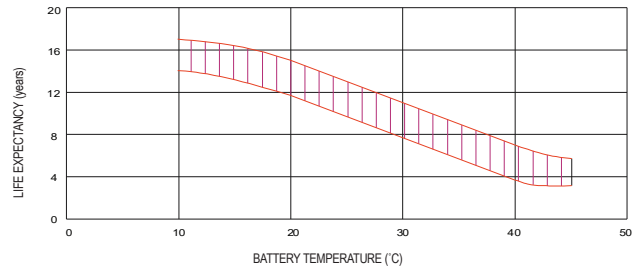
### Charging Procedures (6V series)

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

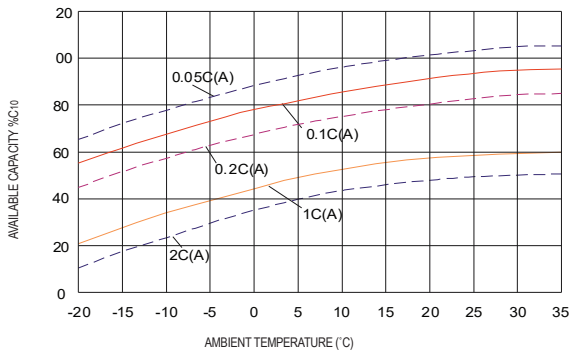
### LIFE CHARACTERISTICS OF CYCLIC USE



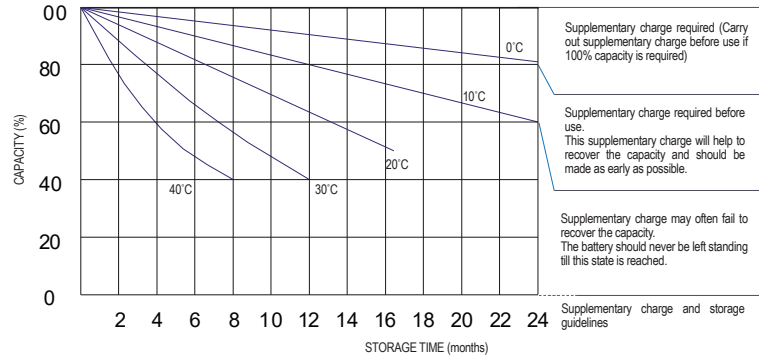
### EFFECT OF TEMPERATURE ON LONG TERM FLOAT LIFE



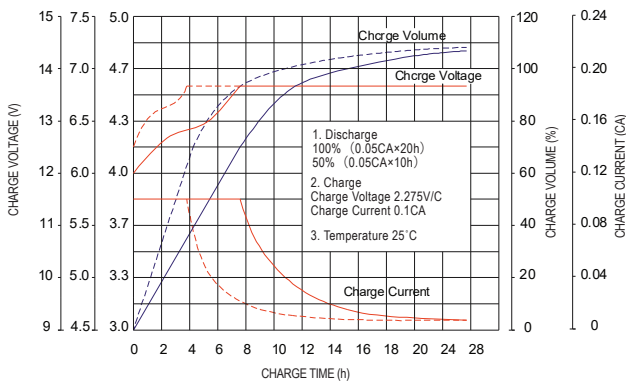
### TEMPERATURE EFFECTS CURVE



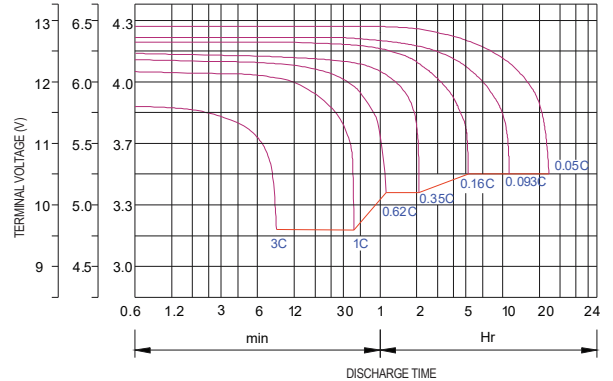
### STORAGE CHARACTERISTIC



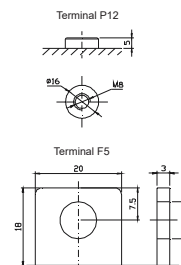
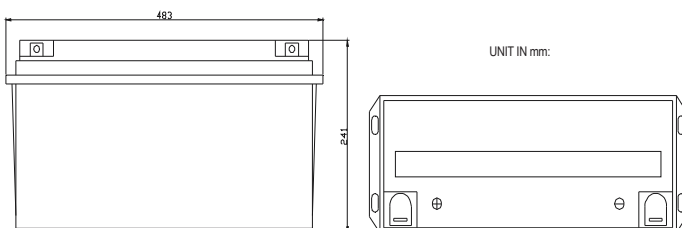
### CHARGE CHARACTERISTIC CURVE FOR STANDBY USE



### DISCHARGE CHARACTERISTIC CURVE



### DIMENSIONS



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