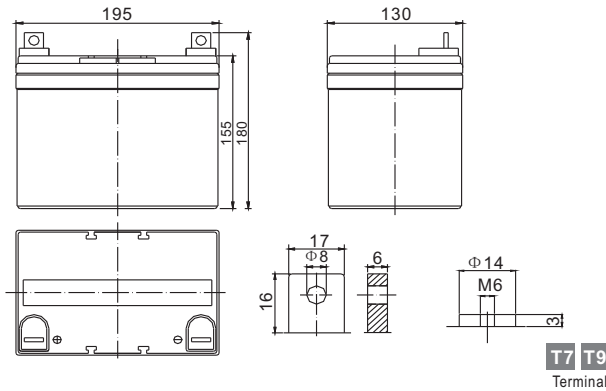


# Standard Series

## GPL 12-33 12V33Ah

### Dimension(mm)



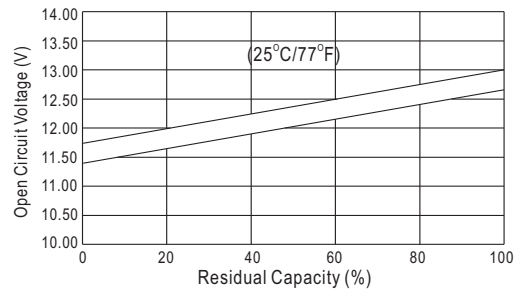
### Specification

Nominal Voltage		12 V
Capacity(10HR, 25°C)		33 Ah
Dimension	Length	195mm (7.7inch)
	Width	130mm (5.1inch)
	Height	155mm (6.1inch)
	Total Height(T7/T9)	180mm (7.1inch)/166mm(6.7inch)
Approx. Weight		10.2kg (22.5lbs)

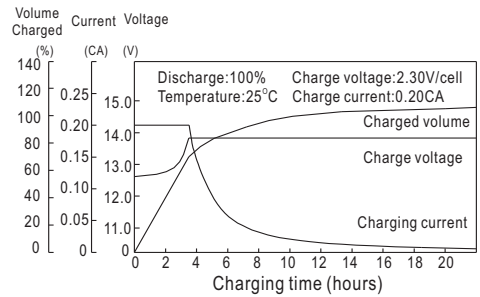
### Characteristics

Capacity 20°C (68°F) To 1.70V/Cell	20 hour rate	34.4Ah
	10 hour rate	33Ah
	5 hour rate	29.8Ah
	1 hour rate	20Ah
	15 min rate	13.9Ah
Internal resistance(Fully charged, 25°C)		Approx. 10mΩ
Capacity affected by temperature (10HR)	40°C	102%
	25°C	100%
	0°C	85%
	-15°C	65%
Self-discharge (25°C)	3 month	Remaining Capacity: 91%
	6 month	Remaining Capacity: 82%
	12 month	Remaining Capacity: 65%
Nominal operating temperature		25°C ±3°C(77°F ±5°F)
Operating temperature range		-15°C~50°C(5°F~122°F)
Float charging voltage(25°C)		13.50 to 13.80V
Cyclic charging voltage(25°C)		14.50 to 14.90V
Maximum charging current		9.9A
Terminal material		Lead
Maximum discharge current		330A(5 Sec.)

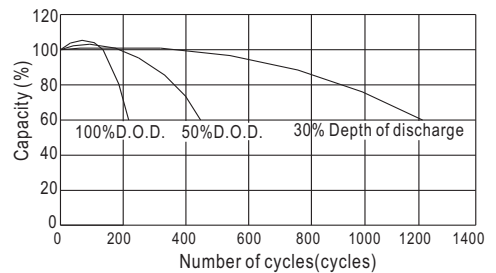
### The Relationship for Open Circuit Voltage and Residual Capacity (25°C)



### Charging Characteristics(25°C)



### Cycle Life(25°C)



### Constant Current Discharge Characteristics (A, 25°C)

F.V/TIME	5min	10min	15min	30min	60min	3h	5h	10h	20h
9.60V	110	70.5	58.0	34.0	20.8	8.85	6.07	3.35	1.74
10.2V	105	67.0	55.6	32.6	20.0	8.60	5.95	3.33	1.72
10.8V	98.6	63.0	52.8	31.0	19.0	8.25	5.77	3.30	1.68

### Constant Power Discharge Characteristics (Watt, 25°C)

5min	10min	15min	30min	60min	3h	5h	10h	20h
1155	762	637	381	237	104	71.7	40.0	20.9
1101	724	611	365	228	101	70.3	39.8	20.6
1035	680	580	348	205	97	68.2	39.4	20.2