

YGD Series - General Purpose

YGD 12-24 (12V 24Ah)

Specifications

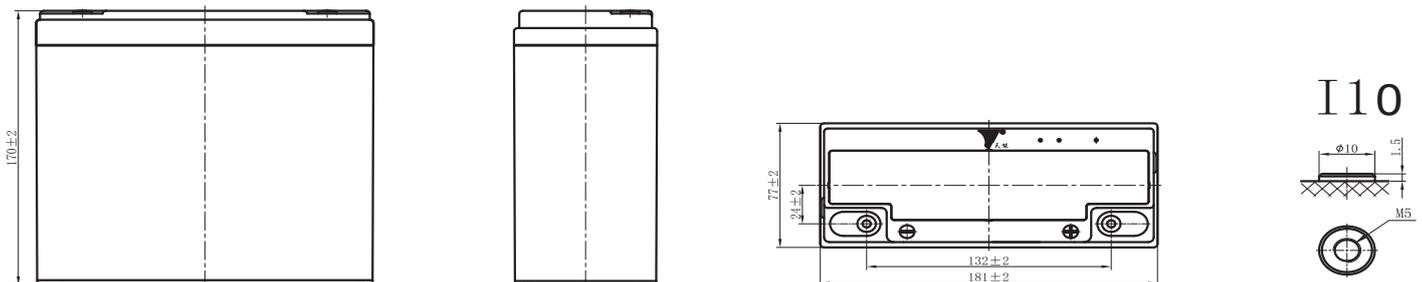
Rated Voltage	12V	
Nominal Capacity	80Ah	1.80 (C 20, 1.80V/cell)
Dimension	Length	181±2mm/7.13±0.08inch
	Width	77±2mm/3.03±0.08inch
	Container Height	170±2mm/6.69±0,08inch
	Total Height	170±2mm/6.69±0,08inch
Approx Weight	6,5 kg	
Terminal	I1	
Container Material	ABS	
Rated Capacity (25°C)	28 Ah	(20hr, 1.80V/cell)
	26 Ah	(10hr, 1.75V/cell)
	24 Ah	(5hr, 1.75V/cell)
	23 Ah	(2hr, 1.75V/cell)
Operating Temp. Range	Discharge	-15~50°C (5~122°F)
	Charge	0~40°C (32~104°F)
	Storage	-15~40°C (5~104°F)
	Effect of temp. to Capacity	25±3°C (77±5°F)
Nominal Operating Temp. Range	25±3°C (77±5°F)	
Cycle Use	Initial Charging Current less than 4.6A. Voltage 14.75V~14.85V at 25°C (77°F)Temp. Coefficient -24mV/°C	
Standby Use	Initial Charging Current less than 4.6A. Voltage 13.7V~13.9V at 25°C (77°F)Temp. Coefficient -18mV/°C	
Effect of temp. to Capacity	40 ° C	106%
	25 ° C	100%
	0 ° C	85%
	-15 ° C	72%
Self Discharge	YGD series batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	



Applications

- Kids Electric Bike
- Electric Motorcycle
- E-scooter
- Electric Tricycle
- Wheelchair
- Sweeper

Layout



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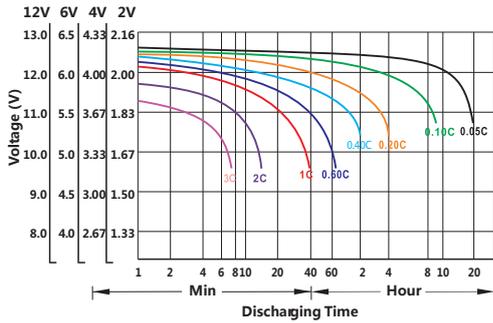
Constant Current Discharge (A)@25°C (77°F)

F.V/Time	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	31.5	22.5	17.8	10.5	7.18	5.43	4.40	3.81	3.02	2.49	1.35
1.80V/cell	32.6	23.1	18.4	10.8	7.34	5.60	4.58	3.95	3.09	2.55	1.40
1.75V/cell	33.5	24.0	19.1	11.5	7.73	5.86	4.87	4.15	3.19	2.60	1.43
1.70V/cell	34.4	24.6	19.7	11.7	7.89	6.00	4.91	4.23	3.26	2.67	1.46
1.67V/cell	35.1	25.5	20.4	11.8	8.00	6.16	5.06	4.32	3.34	2.72	1.47
1.60V/cell	36.1	26.1	20.8	12.2	8.29	6.33	5.13	4.43	3.42	2.81	1.48

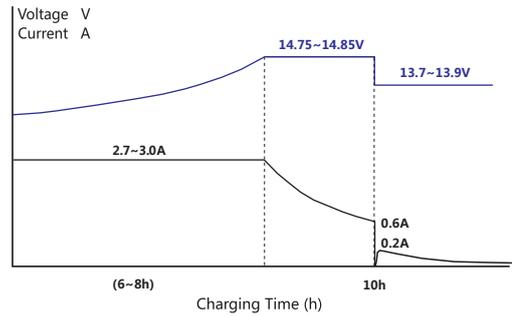
Constant Power Discharge (W/cell) @25°C (77°F)

F.V/Time	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	60.5	43.5	34.6	20.9	14.3	10.9	8.82	7.59	5.98	4.92	2.66
1.80V/cell	62.3	44.5	35.5	21.5	14.6	11.2	9.12	7.85	6.12	5.03	2.74
1.75V/cell	63.8	46.2	36.8	22.8	15.4	11.7	9.65	8.20	6.29	5.13	2.78
1.70V/cell	65.1	47.0	37.8	23.0	15.6	11.9	9.70	8.31	6.40	5.23	2.83
1.67V/cell	66.0	48.2	38.9	23.1	15.7	12.1	9.9	8.42	6.48	5.28	2.84
1.60V/cell	67.2	49.1	39.3	23.7	16.1	12.3	10.0	8.56	6.59	5.40	2.85

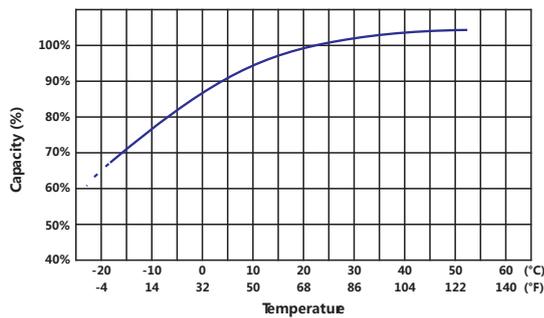
Discharging Characteristics @25°C (77°F)



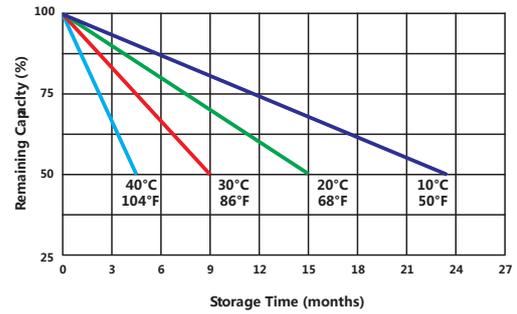
Charging Characteristics @25°C (77°F)



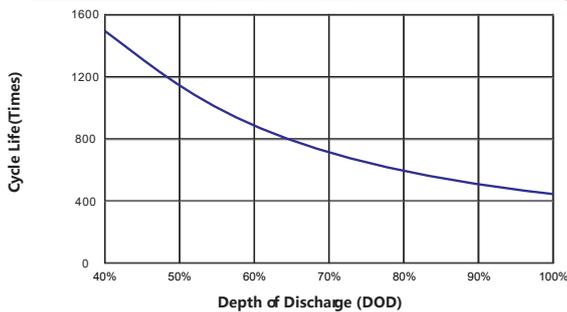
Capacity vs Temperature



Self-discharge vs Time



Cycle Life vs Depth of Discharge @25°C (77°F)



Cycle Life vs Remaining Capacity @25°C (77°F)

