

Sealed Lead Acid Battery PS20-12



Datasheet

Nominal Voltage		12V
Rated Capacity(C20)		20Ah
Capacity 25C(77F)	20 Hour rate(1.8V)	20Ah
	3 Hour rate(1.8V)	15.45Ah
	1 Hour rate(1.75V)	12.5Ah
Internal Resistance	25C(Full Charged Battery)	13mΩ
Capacity at Different Temperatures (10 hour)	40C(104F)	102%
	25C(77F)	100%
	0C(32F)	85%
	-15C(5F)	65%
Self-discharge (Remaining Cap) 25C(77F)	3 months later	91%
	6 months later	82%
	12 months later	64%
Charge Method 25C(77F)	Floating Charge	Voltage:13.6V-13.8V Current, 0.15C/max
	Equalizing Charge	Voltage:14.2V-14.5V Current, 0.25C/max

Specification

Dimension	Length	180±3mm
	Width	77±3mm
	Total Height	167±3mm
Terminal		T3
Net Weight		6.0kg±3%
Gross Weight		6.5kg±3%

Certification



Application

- Control System, Alarm System, Power System, Railway System Emergency
- Light, Lighting System, Backup Power Supply, UPS
- Telecom Equipment, Fire and Security System, Power Station
- Electric Tools, Electric Toys

Features

- Excellent anti-impact and anti-seismic capability due to high-strength ABS container and compact structure
- Low internal resistance, excellent anti-corrosion and charging acceptance capability due to special lead-based multi-element alloy grid

Advantages

- Design Life: 15 years
- Safe and Reliable Seal
- High Specific Energy, Low Internal Resistance, Low Self-discharge Rate Excellent
- Charging Acceptance and High sealing Reaction Efficiency
- New plate manufacturing process, getting higher active material utilization rate
- High-purity electrolyte and special additives, getting lower self-discharge rate
- Multi-layer sealing technology and special sealant ensure that the battery has no leakage of electrolyte and sulfuric acid mist, and then ensure that the battery Safe and reliable

Constant current discharge parameters : A(25°C)

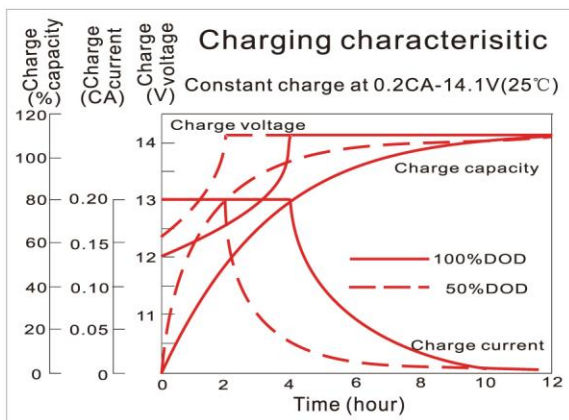
End voltage (V/cell)	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.6	52.05	38.76	20.63	13.08	7.374	5.371	4.351	3.622	2.406	2.053	1.074
1.65	50.65	37.72	20.17	12.79	7.261	5.238	4.284	3.571	2.362	2.001	1.063
1.7	48.23	36.55	20.03	12.75	7.199	5.226	4.252	3.549	2.342	1.998	1.041
1.75	45.21	34.53	19.43	12.65	7.175	5.185	4.242	3.525	2.333	1.981	1
1.8	42.29	32.52	18.82	12.45	7.141	5.125	4.232	3.504	2.309	1.951	0.982

Constant power discharge parameters : W/cell(25°C)

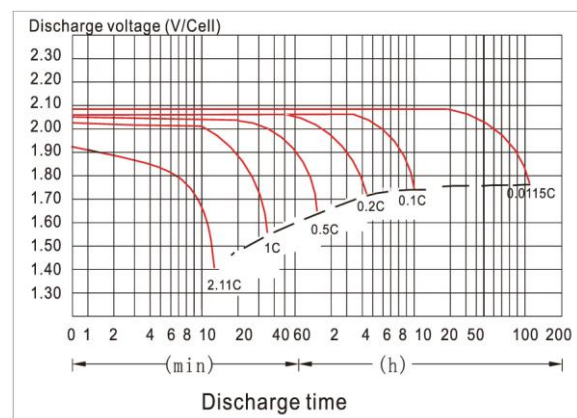
End voltage (V/cell)	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.6	95.01	71.41	39.39	25.95	14.68	10.69	8.671	7.228	4.784	4.101	2.214
1.65	92.44	69.47	38.82	25.48	14.45	10.47	8.509	7.129	4.724	4.003	2.158
1.7	89.63	68.53	38.57	25.25	14.34	10.45	8.501	7.079	4.681	3.991	2.133
1.75	85.54	65.33	37.73	25.19	14.31	10.35	8.475	7.033	4.655	3.966	2.093
1.8	80.71	62.06	36.87	24.84	14.23	10.28	8.436	7.009	4.619	3.906	2.007

Discharge and Charge Characteristics

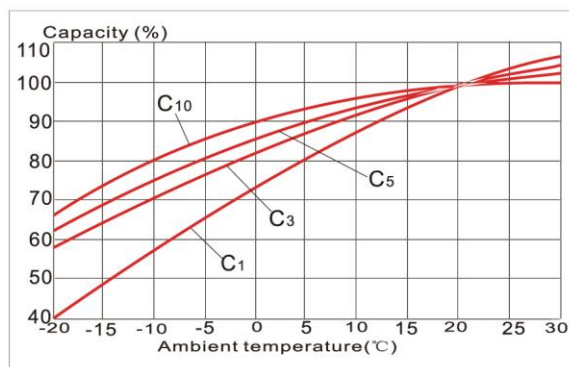
Charge Characteristics Curve



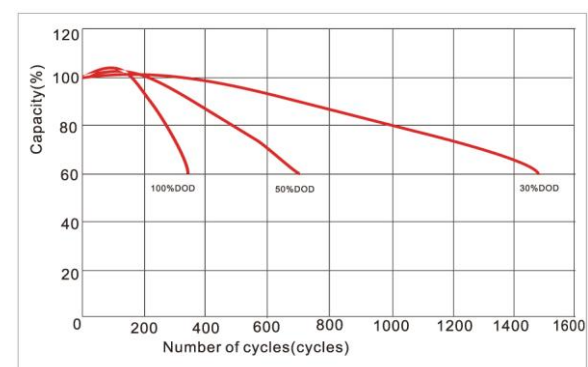
Discharge Characteristics Curve



Temperature Effects on Capacity



Cycle Life in Relation to Depth of Discharge



Battery main material

Name	Positive Plate	Negative Plate	Battery Case	Battery Cover	Safety Valve	Terminal	Seperator	Electrolyte
Material	High tin Lead Alloy	Lead Alloy	ABS	ABS	Rubber	Lead/Copper	Fiberglass	Sulfuric Acid