



D12400 (12V40Ah)



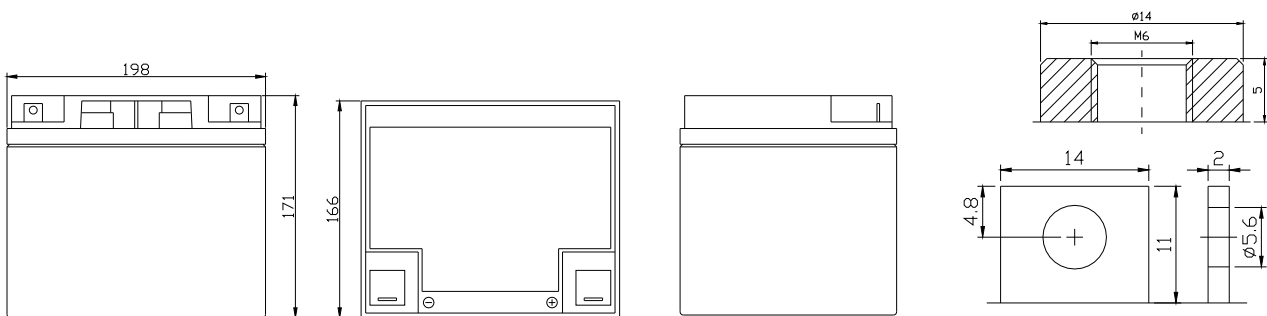
D12400 is a general purpose battery with 10 years floating design life, meet with IEC, JIS .BS and Eurobat standard. With heavy duty grid, thickness plates, special additives, **D series** battery have long and reliable standby service life. Our RA Series batteries keep high consistent for better performance in series usage.

Cells Per Unit	6
Voltage Per Unit	12
Capacity	40Ah@10hr-rate to 1.75V per cell @25°C
Weight	Approx. 13.2 Kg
Max. Discharge Current	400A (5 sec)
Internal Resistance	Approx. 8 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	12 A
Equalization and Cycle Service	14.6 to 14.8 VDC/unit Average at 25°C
Self Discharge	Dynamics batteries can be stored for more than 6 months at 25°C. Self-discharge ratio less than 3% per month at 25°C. Please charge batteries before using.
Terminal	Terminal F4/F11
Container Material	A.B.S. (UL94-HB), Flammability resistance of UL94-V1 can be available upon request.

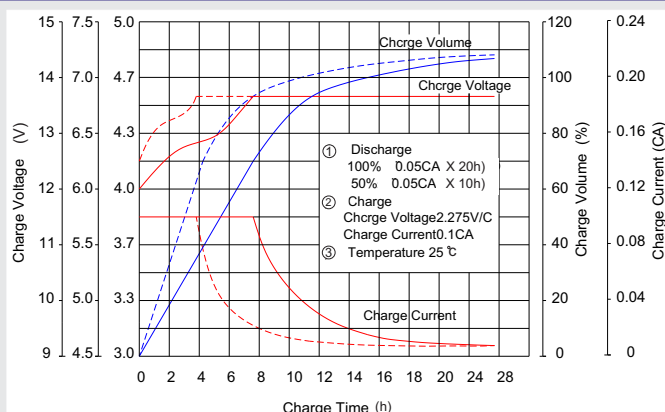


Dimensions

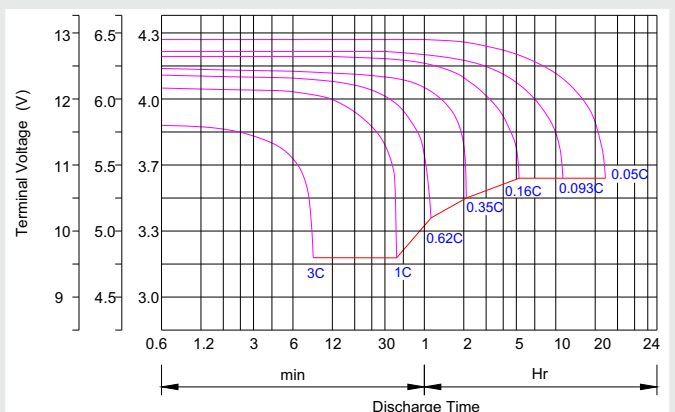
Unit: mm Dimension: 198(L) x 166(W) x 171(H)



Charge characteristic Curve for standby use



Discharge characteristic Curve



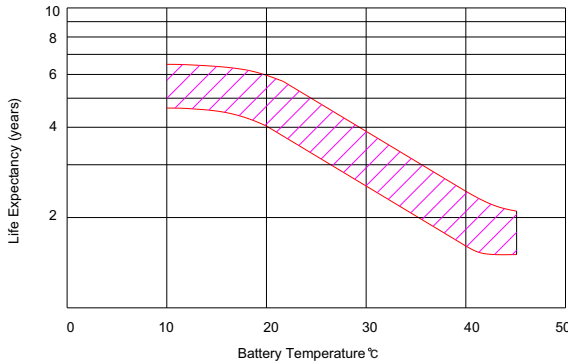
D12400

12V40Ah

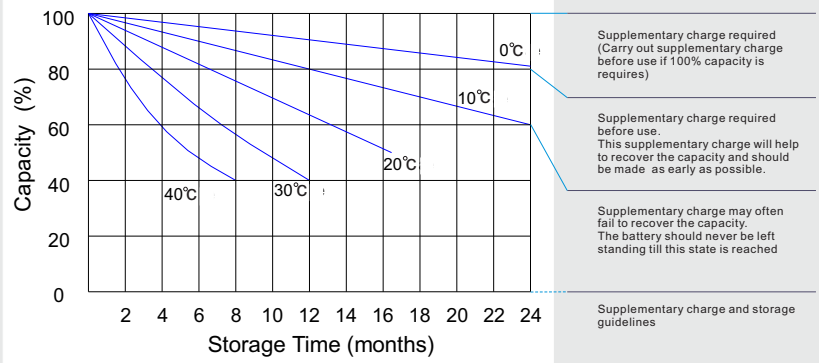


Dynamics

Effect of temperature on long term float life



Storage characteristic



Constant Current Discharge Characteristics: A (25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	139.78	102.91	74.880	46.000	26.000	14.524	10.440	8.6400	7.0720	4.9687	4.2012	2.2218
10.0V	135.74	97.920	73.344	45.240	25.880	14.414	10.400	8.6000	7.0304	4.9283	4.1608	2.1814
10.2V	131.71	94.464	72.192	44.840	25.640	14.305	10.320	8.5600	6.9888	4.8879	4.1204	2.1410
10.5V	118.27	87.168	68.736	43.720	25.400	14.196	10.280	8.4800	6.9056	4.8475	4.0800	2.1006
10.8V	106.75	79.488	63.360	41.800	24.800	13.941	10.000	8.2800	6.7808	4.7667	4.0396	2.0602
11.1V	92.928	71.040	56.832	39.160	23.560	13.322	9.5600	7.8800	6.4896	4.5648	3.9184	1.9390

Constant Power Discharge Characteristics: W(25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	1466.0	1094.3	805.75	493.16	297.36	167.08	120.48	99.840	81.869	57.657	47.240	24.952
10.0V	1426.8	1045.2	789.01	487.01	295.92	166.42	120.24	99.600	81.370	57.415	46.755	24.710
10.2V	1383.8	1010.4	778.30	481.31	293.76	164.89	119.52	99.120	81.120	56.930	46.513	24.468
10.5V	1246.1	933.65	742.14	470.36	290.88	163.36	118.80	98.400	80.371	56.446	46.029	24.226
10.8V	1120.9	847.71	681.88	448.93	283.68	160.96	115.92	95.760	79.123	55.234	45.544	23.983
11.1V	967.57	752.85	608.89	420.66	268.80	153.54	110.16	91.200	75.130	53.296	44.091	23.014

Capacity Factors With Different Temperature

Battery Type		-20°C	-10°C	0°C	5°C	10°C	20°C	25°C	30°C	40°C	45°C
GEL BATTERY	6V&12V	50%	70%	83%	85%	90%	98%	100%	102%	104%	105%
	2V	60%	75%	85%	88%	92%	99%	100%	103%	105%	106%
AGM BATTERY	6V&12V	46%	66%	76%	83%	90%	98%	100%	103%	107%	109%
	2V	55%	70%	80%	85%	92%	99%	100%	104%	108%	110%

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

Discharge Current VS. Discharge Voltage

Charging Method:

Constant Voltage	-0.2Cx2h+2.4~2.45V/Cellx24h, Max. Current 0.3CA
Constant Current	-0.2Cx2h+0.1CAx12h
Fast	-0.2Cx2h+0.3CAx4.0h

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