CHANGHONG®

SICHUAN CHANGHONG BATTERY CO., LTD.
A leading rechargeable battery expert

KGM40 NI-CD BATTERY DATA SHEET

Battery Type

Battery Model：KGM40

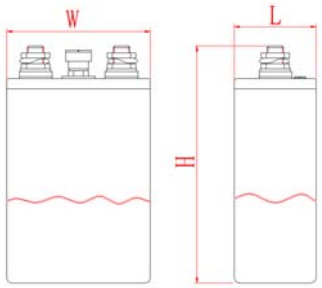
Brand：CHANGHONG

Nominal Capacity：40Ah

Nominal Voltage：1.2V

Recommended Discharge Duration：30min≤t≤3h

Work Temperature：-40℃～+60℃



Physical Properties

Height(H)：≤285mm
Length(L)：≤134mm
Width(W)：≤70mm
Max. Weight：≤3.8kg
Electrolyte Type：E3(1.2g/cm^3 KOH ＋20g/L $LiOH \cdot H_2O$)
Electrolyte Volume：0.9L

Structure

Container Material：PP
Separator Material：PP
Terminal Size：M16
Terminal Qty.： ⊕1/⊖1
Connection Torque：22 N.m±1N.m

Plates Type

Positive：Pocket type plates
Negative：Pocket type plates

Cable

Sectional area of cables：≥16mm^2

Recommended Charging Method

1) Dual-voltage charging setting（25℃）:
Equalizing charging：1.60V～1.65V
Floating Charging：1.40V～1.43V
2)Single-voltage charging setting：1.43V～1.45V

Internal Resistance/Short-circuit current

Internal Resistance：2.0mΩ～2.4mΩ　　Short-circuit current：600A

Discharge Performance

Performance after prolonged float charge of fully charged cells available current at 20℃±5℃

End off voltage V/cell	Hours							Minutes						Seconds		
	10	8	5	3	2	1.5	1	30	20	15	10	5	1	30	5	1
1.00	4.00	5.00	8.00	13.0	19.0	23.5	30.5	40.0	47.3	50.9	54.5	61.0	81.0	89.5	106	128
1.05	4.00	5.00	8.00	12.5	17.5	21.5	27.0	32.5	37.5	40.0	42.5	49.5	66.5	75.0	87.5	111
1.10	4.00	5.00	8.00	11.5	15	17.5	22	26.5	29.5	31.0	32.5	38	52.5	59.5	70.5	89.5
1.14	4.00	5.00	7.50	10.0	12.0	13.5	17.0	20.5	24.0	25.0	26.5	31.0	41.5	48.5	58.0	75.5

Performance after charging the battery for 8 hrs with $0.2I_tA$ at 20℃±5℃

End off voltage V/cell	Hours							Minutes						Seconds		
	10	8	5	3	2	1.5	1	30	20	15	10	5	1	30	5	1
1.00	4.60	5.60	8.80	13.0	19.5	25.3	35.1	48.8	57.6	62.9	68.1	76.3	101	112	132	160
1.05	4.40	5.25	8.00	12.5	18.7	24.0	32.9	41.7	49.3	52.7	55.9	66.0	88.7	100	117	148
1.10	4.20	5.00	7.73	12.4	17.9	21.9	28.5	35.9	40.4	43.1	45.7	53.5	74.0	83.9	99.3	126
1.14	4.00	4.87	7.51	11.8	15.6	18.0	23.6	29.7	35.3	37.9	39.6	46.3	62.0	72.4	86.5	113

The discharging performance data shown in our data sheet is ideal laboratory test data of newly produced single cells under laboratory conditions. These data is only for your reference, it can not be used as final performance test acceptance criteria for the products.