



# Sound/Speaker System Battery

## 12FM10 (24V10Ah)

LONGWAY speaker batteries are designed and developed according to the characteristics of instant large current, deep discharge, easy over-discharge and high-frequency vibration required in the use of speaker. The product has the advantages of long cycle life, good performance of large current discharge, low self-discharge rate, strong recovery ability of over-discharge, strong anti-vibration ability, etc., which can meet the special performance requirements of speaker batteries. Products pass UL, CE, RoHS certification, and can be shipped by sea or air.



General Feature	Applications
<ul style="list-style-type: none"> <li>High reliability, safe without leakage, can be used in any position</li> <li>Excellent recovery performance after deep discharge</li> <li>Environmentally friendly products Meet EU battery directive RoHS and REACH standards</li> <li>Maintenance free</li> <li>Widely applicable temperature range, can be used at -20°C~60°C</li> <li>Low self-discharge rate. The average monthly self-discharge rate of the battery is less than 2.5% (It is recommended to recharge after storage for 6 months or before use)</li> </ul>	<ul style="list-style-type: none"> <li>Outdoor battery speaker</li> <li>Portable video speaker</li> <li>Outdoor song on-demand stereo</li> <li>Wireless Bluetooth speaker</li> <li>Wireless line array speaker</li> <li>Square dance speaker</li> <li>And company meeting, wedding hosting, outdoor activities and other audio</li> </ul>

Performance	Dimensions												
Nominal Voltage: 24V (12cell)	<table border="1"> <tr> <td>Length</td> <td>193.0mm</td> <td>7.60inch</td> </tr> <tr> <td>Width</td> <td>152.0mm</td> <td>5.98inch</td> </tr> <tr> <td>Height</td> <td>93.0mm</td> <td>3.66inch</td> </tr> <tr> <td>Total height</td> <td>99.0mm</td> <td>3.90inch</td> </tr> </table>	Length	193.0mm	7.60inch	Width	152.0mm	5.98inch	Height	93.0mm	3.66inch	Total height	99.0mm	3.90inch
Length		193.0mm	7.60inch										
Width		152.0mm	5.98inch										
Height		93.0mm	3.66inch										
Total height		99.0mm	3.90inch										
Capacity @25°C													
20hr Rate (0.50A): 11.0Ah @ to 1.75V/cell													
3hr Rate (2.50A): 8.25Ah @ to 1.70V/cell													
27min Rate (10.0A): 5.50Ah @ to 1.60V/cell													
Weight: Approx (6.00 ± 3%)kg (13.23lbs)													
Internal Resistance: Approx 37.0mΩ fully charged @25°C													
Maximum Discharge Current: 105A(3sec)													
Terminal: F2													
Operating Temperature Range: Discharge:-20°C~60°C; Charge:0°C~50°C; Storage:-20°C~40°C													
Container Material: ABS(UL94 HB)/UL94-V0 Optional													

Battery use
<b>Cycle use</b> <ol style="list-style-type: none"> <li>Limit the initial charging current to no more than 2.10A</li> <li>Keep charging voltage at 28.80-30.00 V/unit, and continue charging at least 3 hours after the charging current reduces to 0.14A to ensure full charge</li> <li>The compensation coefficient of charging voltage and temperature is -5mv/cell /°C</li> </ol>
<b>Float use</b> <ol style="list-style-type: none"> <li>Limit the initial charging current to no more than 2.10A</li> <li>Keep charging voltage at 27.00-27.60 V/unit. When the voltage reaches the constant voltage the current gradually decreases until the battery is fully charged and continues to charge</li> <li>The compensation coefficient of charging voltage and temperature is -3mv/cell /°C</li> </ol>

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 Add: Kaiying Industrial Area, Chengxiang Town, Anxi, Quanzhou, Fujian Province, China  
 KY-IOP-LW24-10B B0.May 2023

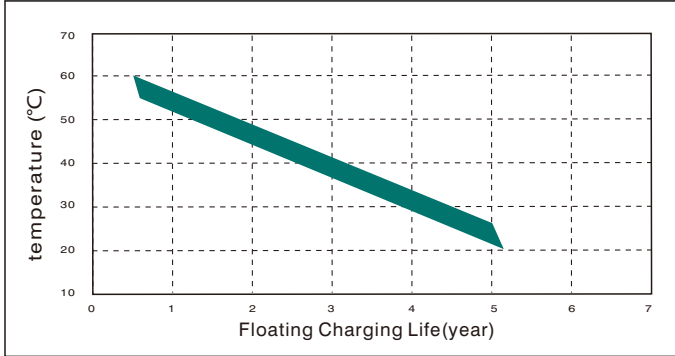
Note: This information usually describes use only and is not intended to make any warranties or promises regarding the battery, Battery specifications and battery design are subject to change without prior notice. Please contact LONGWAY Battery for the latest information



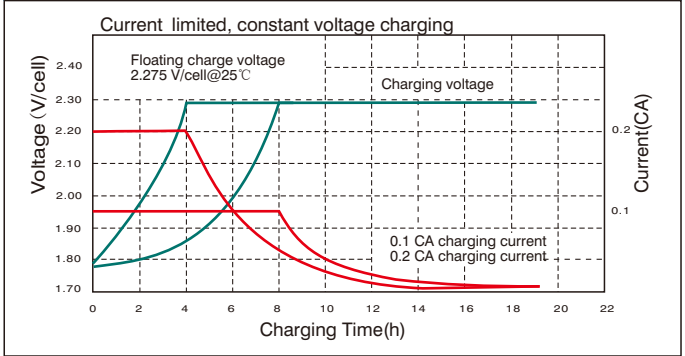
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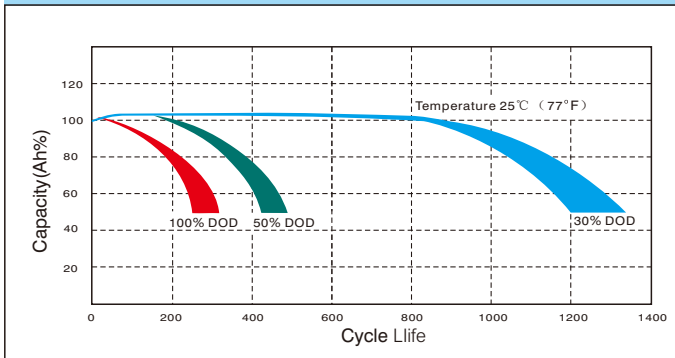
### Floating Charging Life VS Temperature



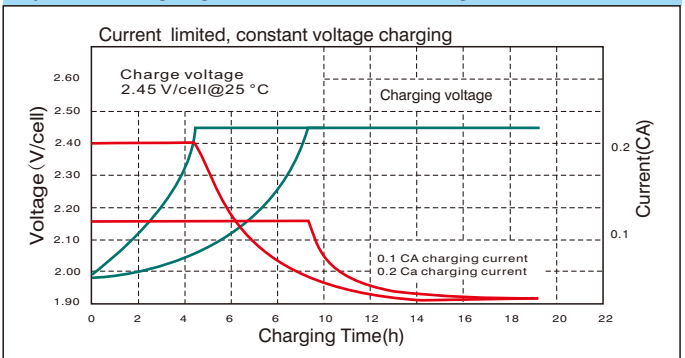
### Floating Charging Characteristics Diagram



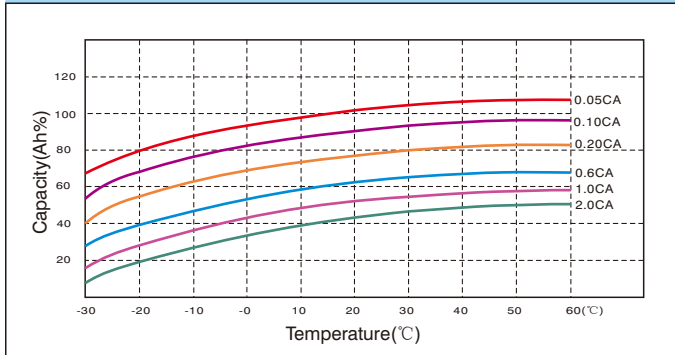
### Cycle Life



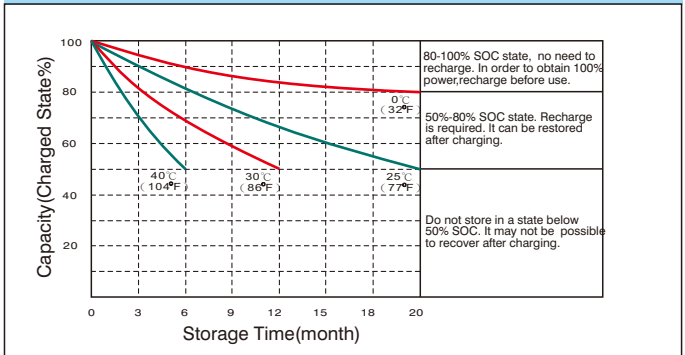
### Cycle charging characteristic diagram



### Temperature and capacity characteristics



### Self-discharge characteristic



### Constant current characteristics(A,25°C )

F.V/TIME	5min	10min	15min	30min	60min	90min	2h	3h	5h	10h	20h
19.2	41.8	26.4	20.9	12.1	6.99	3.90	3.34	1.95	1.23	1.03	0.61
19.8	40.5	25.6	20.4	11.8	6.81	3.87	3.32	1.94	1.22	1.02	0.61
20.4	39.7	25.1	20.1	11.6	6.71	3.85	3.29	1.93	1.21	1.02	0.61
21.0	38.0	24.0	19.4	11.3	6.50	3.81	3.26	1.91	1.20	1.01	0.61
21.6	37.3	23.6	19.1	11.0	6.37	3.77	3.22	1.89	1.19	1.01	0.61

### Constant power discharge characteristic ( W,25°C )

F.V/TIME	5min	10min	15min	30min	60min	90min	2h	3h	5h	10h	20h
19.2	903	580	461	277	160	90.7	77.7	46.2	29.2	24.7	14.7
19.8	876	562	450	270	158	90.1	78.1	46.0	29.0	24.5	14.7
20.4	858	551	443	266	155	89.6	77.4	45.5	28.7	24.4	14.6
21.0	822	528	429	258	150	88.7	76.6	45.1	28.5	24.3	14.5
21.6	806	518	421	253	148	87.8	75.8	44.6	28.2	24.3	14.5



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