



SINGA
PREMIUM CALCIUM BATTERY



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PRODUCT STRUCTURE



1 Expanded grid
New lead-calcium design, water-loss and self-discharge rates are minimized, long cycle life.

2 Plate
Expanded grid, the most advance automatic technology worldwide, central lug, lead-calcium alloy plate. Special lead lump formula, excellent performance on high rate discharge and charge acceptance.

3 PE bag separator
Imported PE bag shape separator, high micro pore rate and small aperture, low internal resistance, good for high rate discharging

4 COS plate welding
High cranking performance and resistance to vibration

5 Terminal
Made by high intensity lead alloy, anti mechanical damage, good conductivity, suitable for high rate discharging

6 Strap and Lead part for welding
Parts are cast and weld with high conductivity lead alloy, using TTP welding technology, excellent performance on high rate startup.

7 Magic-Eye indicator
Build in indicator, display the charge status. Easy to check charging-state.

8 Battery lid
Unique acid circumfluence and air exhaust design minimize the water volatilization, prolong battery life time

9 Heat seal technology
Heat sealed design to maximum strength and liquid electrolyte to the battery.

10 PP ENCLOSURE
Polypropylene injection molding, high intension, smooth and clear surface. Anti shock and vibration structure design.

ADVANCED TECHNOLOGY



Strap casting production line



Strap stacking equipment



Lead strap



Grid expander line



Continuous pasting production line



Automatic enveloping



Automatic COS equipment



Automatic assembly & online testing

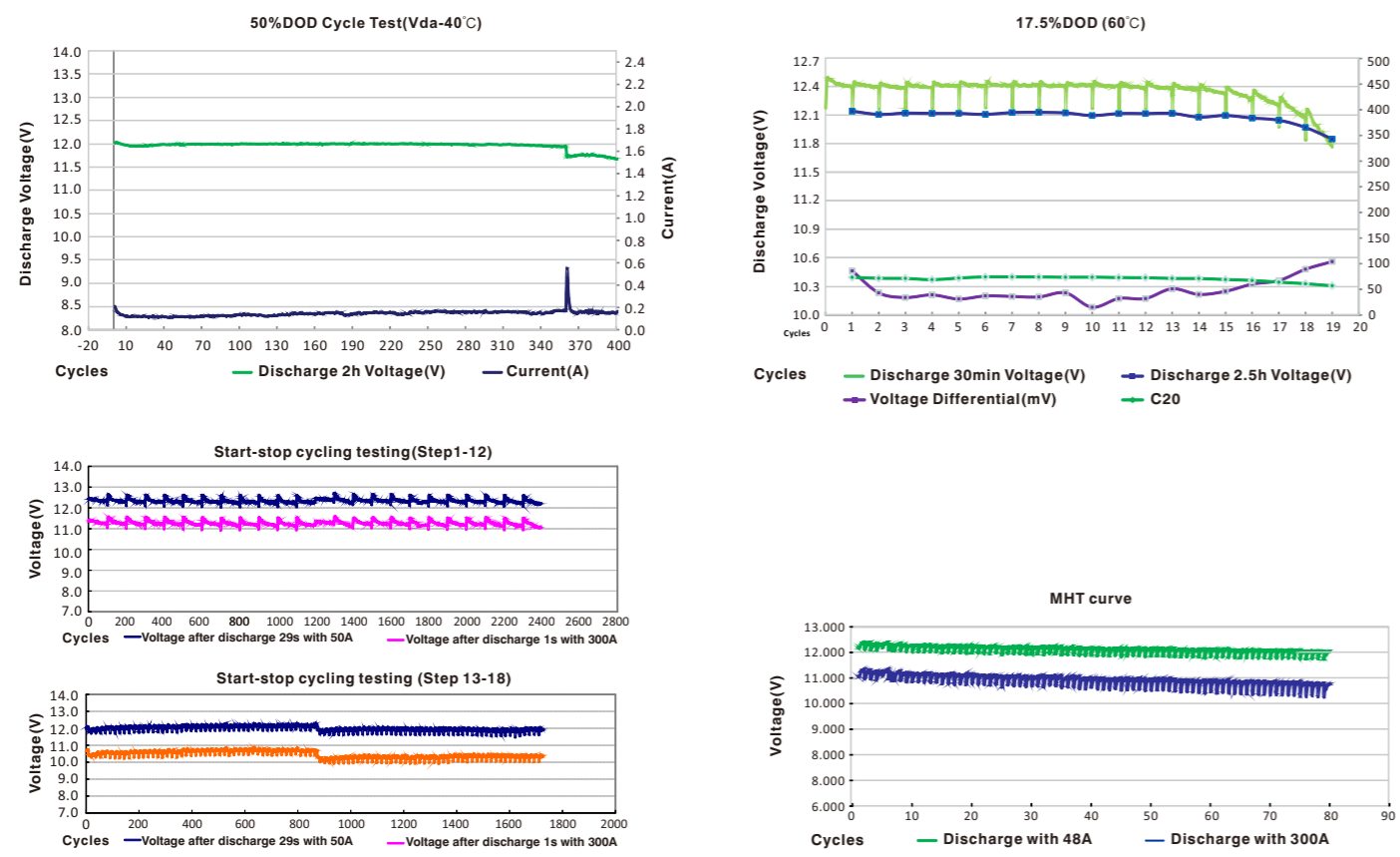
SINGA BATTERY



SPECIFICATION

| Model Number | Capacity (Ah) | RC | CCA | Maximum Overall Dimension (mm) | | | | Cell Layout | Terminal | Hold Down | Handle |
|--------------|---------------|-----|------|--------------------------------|-------|-----|-------|-------------|----------|-----------|--------|
| | | | | L | W | H | TH | | | | |
| 245H52L | 220 | 440 | 1313 | 521 | 261 | 217 | 240.5 | 3 | 1 | B0 | TS8 |
| 70027L | 200 | 430 | 1000 | 521 | 261 | 217 | 240.5 | 4 | 1 | B0 | TS8 |
| 70027R | 200 | 430 | 1000 | 521 | 261 | 217 | 240.5 | 3 | 1 | B0 | TS8 |
| 67018 | 180 | 320 | 1090 | 510 | 222 | 196 | 217 | 3 | 1 | B0 | TS8 |
| N150L | 150 | 300 | 950 | 510 | 222 | 196 | 217 | 3 | 1 | B0 | TS8 |
| N150 | 150 | 300 | 950 | 510 | 222 | 196 | 217 | 4 | 1 | B0 | TS8 |
| N120 | 120 | 230 | 800 | 504 | 183.5 | 200 | 223 | 4 | 1 | B0 | TS8 |
| N100 | 100 | 185 | 750 | 408 | 170 | 209 | 233 | 1 | 1 | B0 | TS8 |
| 60032 | 100 | 170 | 800 | 303 | 170 | 201 | 222 | 0 | 1 | B1 | TS1 |
| 60033 | 100 | 170 | 800 | 303 | 170 | 201 | 222 | 1 | 1 | B1 | TS1 |
| 105D31L | 95 | 160 | 680 | 303 | 170 | 201 | 222 | 0 | 1 | B1 | TS1 |
| 105D31R | 95 | 160 | 680 | 303 | 170 | 201 | 222 | 1 | 1 | B1 | TS1 |
| 80D26L | 70 | 110 | 550 | 259 | 174.8 | 200 | 221 | 0 | 1 | B01 | TS1 |
| 80D26R | 70 | 110 | 550 | 259 | 174.8 | 200 | 221 | 1 | 1 | B01 | TS1 |
| 57029 | 70 | 120 | 550 | 259 | 174.8 | 200 | 221 | 0 | 1 | B01 | TS1 |
| 57024 | 70 | 120 | 550 | 259 | 174.8 | 200 | 221 | 1 | 1 | B01 | TS1 |
| NS60LS | 45 | 75 | 325 | 236 | 128 | 200 | 222 | 0 | 1 | B0 | TS1 |
| 60038 | 100 | 170 | 650 | 351 | 174 | 188 | 188 | 0 | 1 | B13 | TS6 |
| 58014 | 75 | 140 | 770 | 314 | 174 | 174 | 174 | 0 | 1 | B13 | TS6 |
| 57412 | 74 | 135 | 680 | 278 | 175 | 190 | 190 | 0 | 1 | B13 | TS6 |
| 56638 | 66 | 110 | 500 | 278 | 175 | 190 | 190 | 0 | 1 | B13 | TS6 |
| 55530 | 55 | 90 | 525 | 278 | 175 | 190 | 190 | 0 | 1 | B13 | TS2 |
| 54459 | 44 | 80 | 400 | 207 | 175 | 190 | 190 | 0 | 1 | B13 | TS2 |
| 48D26L | 50 | 81 | 350 | 259 | 174.8 | 200 | 221 | 0 | 1 | B01 | TS1 |
| 48D26R | 50 | 81 | 350 | 259 | 174.8 | 200 | 221 | 1 | 1 | B01 | Ts1 |

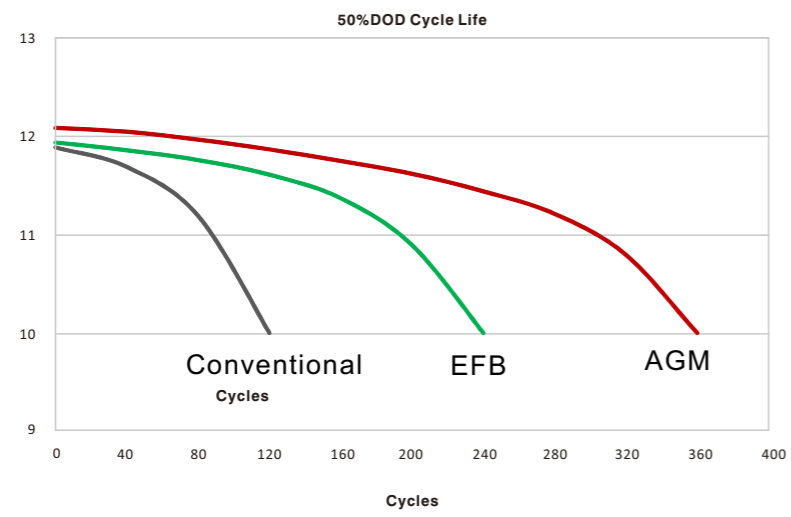
SINGA BATTERY KEY PERFORMANCE TEST CHART (I.E.: AGM H6)



TERMINAL

| | | |
|---------------------------|---------------------------|---------------------------|
| <p>Terminal 1</p> | <p>Terminal 3</p> | <p>Terminal 4</p> |
| <p>Terminal 5</p> | <p>Terminal 11</p> | <p>Terminal 12</p> |
| <p>Terminal 13</p> | <p>Terminal 19</p> | <p>Terminal 20</p> |

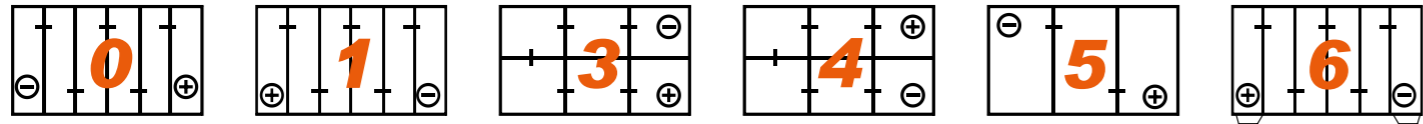
A TYPICAL CHART TO SHOW THE DIFFERENCES BETWEEN DIFFERENT TECHNOLOGIES






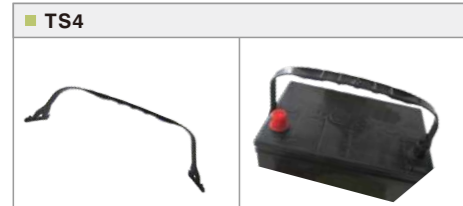





HOLD DOWN

| | | |
|------------------|-------------------|------------------|
| <p>B0</p> | <p>B1</p> | <p>B4</p> |
| <p>B9</p> | <p>B13</p> | |

LAY-OUT



HANDLES

| | | |
|--|--|--|
| <p>■ TS1</p>  | <p>■ TS2</p>  | <p>■ TS3</p>  |
| <p>■ TS4</p>  | <p>■ TS5</p>  | <p>■ TS6</p>  |
| <p>■ TS7</p>  | <p>■ TS8</p>  | <p>■ TS9</p>  |



SINGA FULLY RESPONDS TO SOCIAL RESPONSIBILITY.

Singa's core values include a high degree of ecological awareness and the meeting of its responsibilities to customers, employees, sub-contracted collaborates and the environment. Therefore, the company builds on production processes with very low environmental impact, the economic use of energy and raw materials, a closed product cycle from manufacture to recycling, and continual improvements aimed at the minimization or avoidance of pollution. The UPLUS plant has been qualified by ISO 14001 certification since the beginning of production.

