


LFP 高容量电芯成品外观检验标准

Appearance inspection standard for finished LFP high capacity cell

序号 NO.	缺陷名称 Defect Type	接受标准 Acceptance criteria	缺陷图片 Defect picture	标准 standard
1	二维码 QR code			<p>接受: 二维码划伤、脏污等可被扫码枪/设备识别</p> <p>拒收: 划伤, 脏污等不可被扫码枪/设备识别</p> <p>注: 贴码须符合客户要求</p> <p>Accept on: QR code scratches, dirt, etc. can be identified by code scanning gun/equipment</p> <p>Reject on: scratches, dirt, etc. cannot be identified by code scanning gun/equipment</p> <p>Note: the labeling must meet the customer's requirements</p>
2	极柱划痕 Pole scratch			<p>接受: 划痕长度$\leq 4.5\text{mm}$, 且划痕深度$\leq 0.2\text{mm}$, 且条数≤ 1条, 划痕可 1000 号以上砂纸打磨</p> <p>拒收: 打磨后不符合接受标准</p> <p>Accept on: scratch length $\leq 4.5\text{mm}$, scratch depth $\leq 0.2\text{mm}$, and the number of scratches ≤ 1. The scratches can be polished with more than 1000 grit sandpaper</p> <p>Reject on: after grinding still cannot meet the standard</p>
3	极柱凹点 Pole concave			<p>接受: 以定位孔为中心 3mm 以内: 压痕最大半径$\leq 0.2\text{mm}$, 压痕深度$\leq 0.2\text{mm}$。 以定位孔为中心 3mm 以外: ①深度$\leq 0.1\text{mm}$ 可接受; ②深度在 $0.1\sim 0.2\text{mm}$ 之间且长度$\leq 0.2\text{mm}$, 数量≤ 3 个可接受; ③深度$> 0.2\text{mm}$ 不允许。分容探针压痕可接受</p> <p>拒收: 打磨后不符合接受标准</p> <p>Accept on: within 3mm range away from the positioning hole: the maximum radius of concave$\leq 0.2\text{mm}$, or out of</p>

LFP 高容量电芯成品外观检验标准

Appearance inspection standard for finished LFP high capacity cell

				<p>3mm range away from the positioning hole, the depth of indentation $\leq 0.2\text{mm}$. Or out of the range of more than 3mm away from the positioning hole: ① depth $\leq 0.1\text{mm}$ is acceptable; ② Depth between $0.1 \sim 0.2\text{mm}$, length $\leq 0.2\text{mm}$, quantity ≤ 3, acceptable; ③ Depth $> 0.2\text{mm}$ is not allowed. Concave caused by capacity measuring probes is acceptable</p> <p>Rejected on: After grinding, it still cannot meet the standards.</p>
4	极柱脏污、污染 Pole contamination			<p>接受: 极柱表面不允许有可擦拭脏污, 不可擦拭污染可 1000 号以上砂纸打磨, 但不能遗留粉末脏污, 打磨后极柱无手感颗粒凹点</p> <p>拒收: 不符合接收标准的</p> <p>Accept on: Wipeable contamination on the pole surface is not allowed, and the non-wipeable contamination can be wiped off by 1000 grit sandpaper, but no powder is allowed. After polishing, the pole has no particle pits</p> <p>Reject on: those still can not meet the acceptance criteria</p>
5	极柱残缺 Pole column Cracking			<p>接受: 极柱面边缘往中心方向缺口尺寸长度$\leq 2\text{mm}$, 宽度$\leq 1.5\text{mm}$, 缺口 1 个可接受。</p> <p>拒收: 极柱残缺超出接受标准</p> <p>Accept on: From the edge towards the center, the crack length$\leq 2\text{mm}$, width$\leq 1.5\text{mm}$, and one maximum crack is acceptable.</p> <p>Reject on: the pole crack exceeds the standard</p>

LFP 高容量电芯成品外观检验标准

Appearance inspection standard for finished LFP high capacity cell

6	极柱胶圈 残缺 Incomplete pole rubber ring			<p>接受: 长度<5mm 周长且不露出陶瓷/金属的连续状损伤, 数量不超过 1 处可接受; 长度≤1mm, 深度≤1.3mm, 且不露出陶瓷/金属的点状损伤, 数量不超过 5 处</p> <p>拒收: 极柱胶圈残缺超出接受标准</p> <p>Accept on: continuous damage with length less than 5mm and no exposed ceramic/metal, and the number of damages is not more than 1; Length≤1mm, depth≤1.3mm, and no exposed ceramic/metal, and the number of damages is not more than 5</p> <p>Reject on: the pole rubber ring is incomplete and exceeds the acceptance standard</p>
7	极柱胶圈 污染 Pole rubber ring Contamin ation			<p>接受: 极柱胶圈不允许电解液污染</p> <p>拒收: 极柱及胶圈污染</p> <p>Accept on: the pole rubber ring should not be contaminated by electrolyte</p> <p>Rejection: pole and rubber ring contamination</p>
8	极柱腐 蚀、(如发 绿, 发白, 生锈) Pole corrosio n, (such as green, white and rusty)		<p>腐蚀等级>3 级 Corrosion grade > grade 3</p>	<p>接受: 3 级标准: 表面污渍残留不允许, 可擦除脏污不允许; 不可擦除脏污面积不超过极柱面积 1/4 可接受), 可打磨</p> <p>拒收: 腐蚀大于 1/4 面积不可擦除</p> <p>Accept on: Level 3 standard: residual stains on the surface are not allowed, and wipeable stains are not allowed; The non-wipeable stain area shall not exceed 1/4 of the area of the pole</p> <p>Reject on: corrosion area is greater than 1/4 of the area of the pole, and cannot be wipeable.</p>

LFP 高容量电芯成品外观检验标准

Appearance inspection standard for finished LFP high capacity cell

9	极柱打磨 Pole grinding			<p>接受: 可1000号以上砂纸打磨, 打磨后表面无肉眼可见的颗粒物残留</p> <p>拒收: 打磨后不符合接受标准</p> <p>Accept on: it can be polished with sandpaper of equal or more than 1000 grit, and there is no visible particle residue on the polished surface</p> <p>Reject on: after grinding, still cannot meet the standards</p>
10	极柱面黑印, 磨花 Dark Pole Surface, Scratche s			<p>接受: 可擦除脏污黑印不允许, 磨花黑印长度$\leq 5\text{mm}$, 数量≤ 2条, 超过以上标准可擦拭或打磨</p> <p>Accept on: Wipeable dark stain are not allowed. The length of black scratch is$\leq 5\text{mm}$ and the number is≤ 2. If the dark stain exceeds the above standards, but can be wiped or polished, it is also acceptable.</p>
11	防爆阀破损、变形 The explosion-proof vent is cracked, or deformed			<p>接受: 防爆阀破损、不规则变形不允许。</p> <p>Accept on: Irregular crack or deformation of the explosion-proof vent is not allowed</p>
12	防爆阀凸起 Explosion proof valve bulged			<p>接受: 防爆阀点状凸起不允许。</p> <p>Accept on: the point bulge of explosion-proof valve is not allowed.</p>



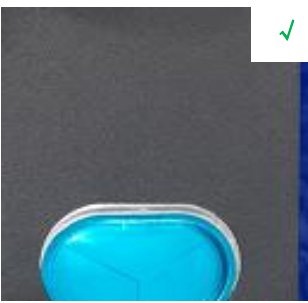

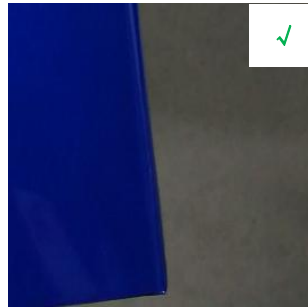



LFP 高容量电芯成品外观检验标准

Appearance inspection standard for finished LFP high capacity cell

13	防爆阀 PET 膜异常 Abnormal PET film on the explosion-proof vent			<p>接受: 不允许缺失、破损、脏污。可更换新防爆阀 PET 膜。</p> <p>Accept on: missing, damaged and stain are not allowed.</p>
14	防爆阀色差 Color difference of explosion-proof vent		NA	<p>接受: 同一组别内防爆阀颜色一致可接受, 同一组别内颜色不一致, 可沟通客户</p> <p>Accept on: the explosion-proof vent in the same group have the same color, which is acceptable. If the color in the same group is not the same, accept upon customer's approval</p>
15	防爆阀脏污、电解液 Stain or electrolyte on explosion-proof vent			<p>接受: 残胶印迹残留允许、$\phi \leq 3\text{mm}$ 残留液体、油污允许。</p> <p>拒收: $\phi > 3\text{mm}$ 残留液体、油污。</p> <p>Accept on: residual glue is allowed, residual liquid and oil stain, if the $\phi \leq 3\text{mm}$ are allowed.</p> <p>Reject on: $\phi > 3\text{mm}$ residual liquid and oil stain.</p>
16	极柱胶圈裂纹、熔接线 Pole rubber ring crack and fusion line			<p>接受: 极柱胶圈不允许裂纹, 熔接线可接受</p> <p>拒收: 极柱胶圈开裂</p> <p>Accept on: the crack of the rubber ring of the pole is not allowed, and the fusion line is acceptable</p> <p>Reject on: the pole rubber ring is cracked</p>

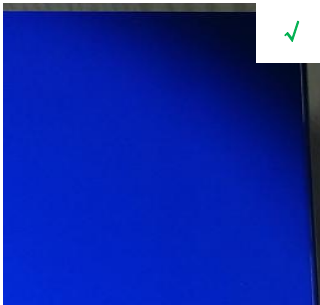

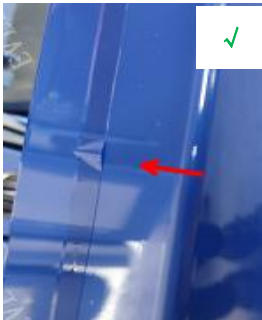
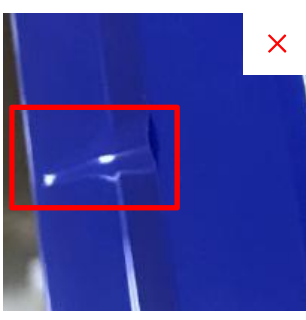
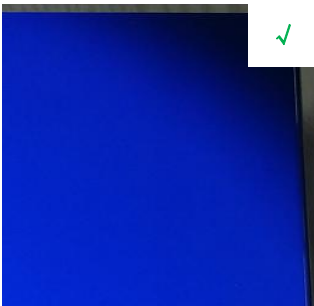

LFP 高容量电芯成品外观检验标准

Appearance inspection standard for finished LFP high capacity cell

17	极柱边缘 蓝膜突起 Blue membrane exposed at the edge of pole			<p>接受: 蓝膜不外露</p> <p>拒收: 蓝膜外露</p> <p>Accept on: the blue film is not exposed</p> <p>Reject on: blue film exposed</p>
18	密封钉翘钉 Sealing nail			<p>接受: 密封钉翘钉$\leq 0.2\text{mm}$</p> <p>拒收: 密封钉翘钉$> 0.2\text{mm}$</p> <p>Accept on: sealing nail protruded$\leq 0.2\text{mm}$;</p> <p>Reject on: sealing nail protruded$> 0.2\text{mm}$</p>
19	蓝膜破损 Blue film damage			<p>接受: 蓝膜无破损, 包覆区域不允许漏铝壳, $\leq 3\text{mm}$ 破损可打补丁, 补丁大小 $20*20\text{mm}$, 个数≤ 1 个</p> <p>拒收: 蓝膜破损</p> <p>Accept on: the blue film is not damaged, and aluminum shell shall not be exposed. If the exposed area is$\leq 3\text{mm}$, it can be patched. The size of the patch is $20 * 20\text{MM}$, and the number of patches is≤ 1</p> <p>Reject on: the blue film is damaged</p>
20	包膜异物 Coated foreign material s			<p>接受: 软质异物允许, 硬质异物不允许, 大面软质和硬质判断标准: 大面采用 300Kgf 的压力压, 如果异物对应位置的蓝膜没有发白, 则可确定为软质异物, 如果发白则为硬质异物。</p> <p>侧面异物: 用手按压, 如果对应位置蓝膜没有发白, 则可确定为软质异物, 如果发白则为硬质异物。</p> <p>Accept on: soft foreign matter is allowed, hard foreign matter is not allowed. Judgment criteria:</p>








LFP 高容量电芯成品外观检验标准

Appearance inspection standard for finished LFP high capacity cell

				<p>For the side of larger area, apply 300kgf force, if the blue film at the place of the foreign materials is not white, then it is soft materials, and if it is white, it is hard materials.</p> <p>For the side of smaler area,press by hand. If the blue film at the corresponding position is not white, then it is soft matter,if it is white, it is a hard materials.</p>
21	包膜褶皱 wrinkled film			<p>接受: 褶皱单条宽$\leq 2\text{mm}$, 且每条褶皱长度$\leq 10\text{mm}$, 且总数≤ 2条。</p> <p>Accept on: The width of single wrinkle$\leq 2\text{mm}$, length of each fold $\leq 10\text{mm}$, and total number of wrinkles≤ 2.</p>
22	包膜翘起 protrude d film			<p>接受: 电芯侧边收尾处蓝膜与蓝膜间（重合边）翘起不得超过电芯侧边缘。且总数≤ 1处。</p> <p>Accept on: at the end of the side of the cell, the blue film and the blue film (overlapping edge) shall not be tilted beyond the side edge of the cell. And the total number is ≤ 1.</p>
23	包膜气泡 bubbles in the film			<p>接受: 直径$\geq 10\text{mm}$ 不允许; $8\text{mm} < \text{直径} \leq 10\text{mm}$, 允许 1ea; $4\text{mm} < \text{直径} \leq 8\text{mm}$ 允许数量$\leq 5\text{ea}$; $2\text{mm} < \text{直径} \leq 4\text{mm}$ 每面$\leq 10\text{ea}$; 直径$\leq 2\text{mm}$ OK。可打补丁, 补丁个数≤ 1个。补丁大小: $\leq 20*20\text{mm}$</p> <p>Accept on: diameter$\geq 10\text{mm}$ is not allowed; $8\text{mm} < \text{diameter} \leq 10\text{mm}$, 1 pcs is allowed; $4\text{mm} < \text{diameter} \leq 8\text{mm}$, 5 pcs is</p>



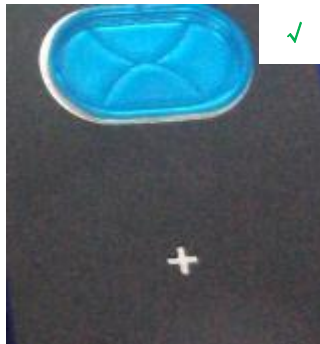

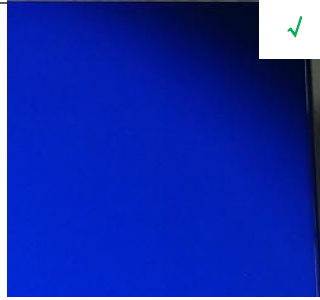
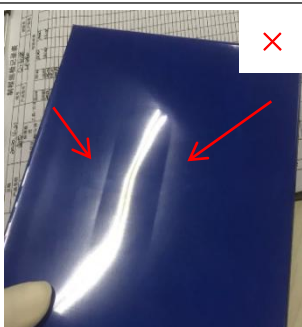

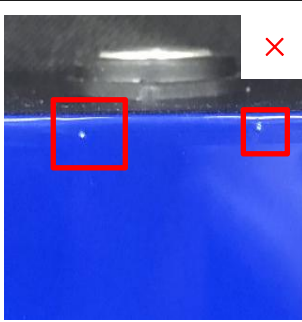
LFP 高容量电芯成品外观检验标准

Appearance inspection standard for finished LFP high capacity cell

				<p>allowed; $2\text{mm} < \text{diameter} \leq 4\text{mm}$, each side $\leq 10\text{ea}$ is allowed; Diameter $\leq 2\text{mm}$ OK. Patches can be made, and the number of patches ≤ 1. Patch size: $\leq 20 * 20\text{MM}$</p>
24	蓝膜划痕 Blue film scratch			<p>接受: 蓝膜表皮未破损, 绝缘测试 OK, 无露白可接受。Accept on: the blue film skin is not damaged, the insulation test is OK, and no white exposure is acceptable.</p>
25	包膜凹坑 Capsule pit			<p>接受: 直径 $\leq 10\text{mm}$, 且深度 $\leq 0.3\text{mm}$, 且总数量 ≤ 3 个 Accept on: diameter $\leq 10\text{mm}$, depth $\leq 0.3\text{mm}$, and total quantity ≤ 3</p>
26	蓝膜色差 Blue film color difference		NA	<p>接受: 同一组别内蓝膜无色差 Accept on: there is no color difference in the blue film in the same group</p>
27	绝缘片贴歪 Insulation sheet sticking askew			<p>接受: 绝缘片不允许超出电芯边缘; 不攀爬极柱、遮挡二维码、防爆阀。Accept on: the insulating sheet is not allowed to exceed the edge of the electric core; Do not climb pole, block QR code and explosion-proof valve.</p>

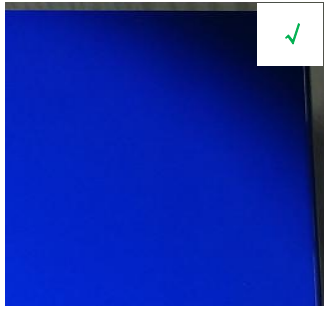



LFP 高容量电芯成品外观检验标准

Appearance inspection standard for finished LFP high capacity cell

28	绝缘片起翘 Warping of insulating sheet	 ✓	 ✗	<p>接受: 包膜绝缘片除四个角外不允许翘起, 四角起翘高度$\leq 4\text{mm}$ (图示位置)</p> <p>拒收: 不符合以上接受标准</p> <p>Accept on: the coated insulating sheet is not allowed to be warped except four corners, and the warping height of the four corners is $\leq 4\text{mm}$ (position shown in the figure)</p> <p>Reject: do not meet the above acceptance criteria</p>
29	绝缘片起皱 Wrinkling of insulating sheet	 ✓	 ✗	<p>接受: 绝缘片起皱, 无破损可接受</p> <p>Acceptable: the insulation sheet is wrinkled and acceptable without damage</p>
30	电芯大面折痕 Large surface crease of cell	 ✓	 ✗	<p>接受: 壳体折痕长度$\leq 50\text{mm}$, 且条数*宽度$\leq 2*2\text{mm}$</p> <p>Accept on: shell crease length $\leq 50\text{mm}$, and number * width $\leq 2 * 2\text{mm}$</p>
31	蓝膜顶白 Blue film top white	 ✓	 ✗	<p>接受: 蓝膜顶白不允许</p> <p>拒收: 不符合以上接受标准</p> <p>Blue film top white</p>

LFP 高容量电芯成品外观检验标准

Appearance inspection standard for finished LFP high capacity cell

32	蓝膜脏污 Blue film dirt			<p>接受: 脏污不允许</p> <p>拒收: 电芯蓝膜脏污, 电解液污染的</p> <p>Accept on: dirt is not allowed</p> <p>Rejection: the blue film of the cell is dirty and the electrolyte is polluted</p>
33	底部绝缘片异物, 贴歪、气泡 There are foreign matters on the bottom insulating sheet, sticking askew and bubbles			<p>接受: 底部绝缘片无破损, 不超出电芯边缘, 底部气泡可接受</p> <p>拒收: 超出底部边缘, 硬质异物不允许</p> <p>Accept on: the insulating sheet at the bottom is not damaged and does not exceed the edge of the cell, and the bubbles at the bottom are acceptable</p> <p>Reject: hard foreign matters beyond the bottom edge are not allowed</p>

甲方确认:

Party A confirms that:

乙方确认:

Party B confirms that: