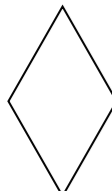
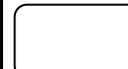
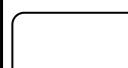


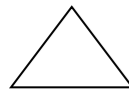
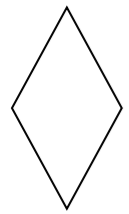
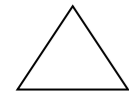


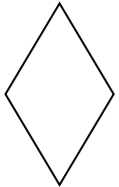
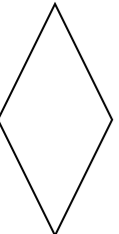
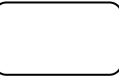
## Control plan of Encapsulated transformer




| Product category    |   | Encapsulated transformer       |   | Distribution Department  | Technology Department                              | Edition                     | A1                                 | Page   | Total 6 pages                                    |                        |                  |
|---------------------|---|--------------------------------|---|--|--|-----------------------------|------------------------------------|--|--|------------------------|------------------|
| Engineering process |   | Name                           | Control items   | Control requirements   | Test method  | Using equipment and fixture | Inspection frequency and quantity  |  |  | Responsible department | person in charge |
| NO                  | Process   |                                |   |  |  |                             |                                    | Operation specification  | Record form                                      |                        |                  |
| 1                   |    | Incoming inspection            | 1. Check the appearance, size, performance and package of materials as required       | Inspect according to the raw material inspection specification       | Visual / instrumental measurement                  | Calipers and micrometers    | According to GB / t2828.1 level II | "Standard for inspection and identification of raw materials and components" | "Inspection list of purchased materials"         | QC                     | IQC inspector    |
|                     |   |                                | 2. When checking the performance, the assembly can be confirmed.                      | Inspect according to the raw material inspection specification       | Instrumental measurement                           | Digital bridge              | Standard sampling                  | "Raw material drawings"  | "Report on corrective and preventive measures"   |                        |                  |
|                     |   |                                | 3. Pay attention to check the incoming material number, material name, quantity, etc. | Inspect according to the raw material inspection specification       | Visual   | Measuring fixture           |                                    | "Control procedure for unqualified products"                                 | "Inspection requisition for purchased materials" |                        |                  |
| 2                   |  | Warehouse storage              | Material storage and placement  | Check the material name, quantity, code, etc                         | Operate according to "warehouse management system" | /                           | /                                  | "Storage period of main raw materials and components"                        | "Inspection list of purchased materials"         | Warehouse Department   | Supervisor       |
|                     |   |                                | Check the name, quantity and code of the material                                     |  |  |                             |                                    | "Warehouse management system"  |  |                        |                  |
| 3                   |  | Material preparation and issue | Check the material name, quantity, material code, etc                                 | Confirm that the specification and quantity of materials are correct | /  | /                           | /                                  |  | "Material requisition"                           | Warehouse Department   | Warehouse keeper |
|                     |   |                                | Check with BOM to make sure the material is correct                                   |  |  |                             |                                    |  |  |                        |                  |

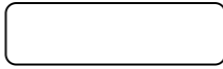
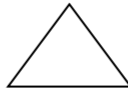
|   |   |            |   |  |                                     |                             |                                 |                         |                                     |                       |          |                        |                        |                 |                    |
|---|---|------------|---|--|-------------------------------------|-----------------------------|---------------------------------|-------------------------|-------------------------------------|-----------------------|----------|------------------------|------------------------|-----------------|--------------------|
| 4 |    | Winding    | 1.Wire specification, number of turns, winding direction, position of wire hanging to pin | 1.Check the specification of copper wire   | Survey visual operation instruction | Automatic winding machine   | 10PCS/time (Once every 4 hours) | "Operation instruction" | "First article confirmation record" | manufacture equipment | Operator |                        |                        |                 |                    |
|   |   |            | 2.Counting status / winder status   | 2.The setting of the number of turns, winding direction and position of wire hanging to pin should be correct. The inspector should test the number of turns of the first five packages after starting the machine |                                     |                             |                                 |                         |                                     |                       |          | Equipment man          |                        |                 |                    |
|   |   |            | 3.Arrangement effect and winding tightness  | 3.The wire arrangement is even and flat, the wire package can not be overweight, and it is not easy to install the iron core   |                                     |                             |                                 |                         |                                     |                       |          |                        | Production line leader |                 |                    |
|   |   |            | 4.Tape specification, number of layers and position of beginning and end                  | 4.The tape is undamaged and crimped. The number of layers shall be in accordance with the operation instruction, and knot at 1 / 2 of the side of the Bobbin   |                                     |                             |                                 |                         |                                     |                       |          |                        |                        | Quality control | executive director |
|   |   |            | 5.The number and height of enamelled wire wound on the pin                                | 5.The height of enameled wire winding on the pin is appropriate, and the number of turns of enameled wire winding on the pin is in accordance with the operation instruction.                                      |                                     |                             |                                 |                         |                                     |                       |          |                        |                        |                 |                    |
|   |   |            | 6.Copper resistance value of each winding and winding tension value of each wire          | 6.Copper resistance value of each winding and winding tension value of each wire diameter shall meet the requirements of technical documents   |                                     |                             |                                 |                         |                                     |                       |          |                        |                        |                 |                    |
| 5 |  | Tin solder | 1.Tin furnace temperature, soldering time   | 1.Tin furnace temperature $420 \pm 20$ °C, for 1-3s  | measure visual                      | Automatic soldering machine | 10PCS/time (Once every 4 hours) | "Operation instruction" | "Tin pot temperature record"        | manufacture equipment | Operator |                        |                        |                 |                    |
|   |   |            | 2.Effect of soldering   | 2.The solder joint shall be bright without burr, the pin shall be free of oxidation, and the solder joint shall not exceed the fulcrum   |                                     |                             |                                 |                         |                                     |                       |          | Production line leader |                        |                 |                    |
|   |   |            | 3.Solder should be free of transverse tin tip, black head, foreign body and other defects | 3.The size meets the requirements, and the pin is bright without foreign matter  |                                     |                             |                                 |                         |                                     |                       |          |                        |                        |                 |                    |
|   |   |            | 4.Solder depth  | 4.It should not be too deep to avoid scalding the package. No false welding or missed welding is allowed. The Bobbin is not deformed and damaged   |                                     |                             |                                 |                         |                                     |                       |          |                        |                        |                 |                    |

|   |   |  |   |   |                       |                                       |                                    |                         |                                     |             |  |
|---|---|--|---|---|-----------------------|---------------------------------------|------------------------------------|-------------------------|-------------------------------------|-------------|--|
| 6 |    | Coil inspection                                  | 1. Turn on the lights, magnifying glass                             | 1. Observe with magnifying glass if necessary   | measure               | /                                     | 5PCS/time<br>(Once every 4 hours)  | "Operation instruction" | "First article confirmation record" | manufacture | Operator<br>Production line leader   |
|   |   |  | 2. Check the coil appearance  | 1. Check that the coil has no slot, bad tin staining, over full wire package, serious deflection, etc               | visual                |                                       |                                    |                         | "IPQC inspection daily report"      |             |  |
| 7 |    | Turn to turn withstand voltage test              | 1. Set instrument parameters, test conditions, proofread samples    | Before testing, set the test conditions according to the equipment operation instructions and proofread the samples | measure               | Turn to turn withstand voltage tester | 5PCS/time<br>(Once every 4 hours)  | "Operation instruction" | "First article confirmation record" | manufacture | Operator<br>Production line leader   |
|   |   |  | 2. Test pin position  | Sine wave, no disturbance   | visual                |                                       |                                    |                         | "IPQC inspection daily report"      |             |  |
| 8 |    | Assembling iron core                             | 1. Iron core material specification                                 | 1. Material and specification   | measure               | scissors                              | 10PCS/time<br>(Once every 4 hours) | "Operation instruction" | "First article confirmation record" | manufacture | Operator<br>Production line leader   |
|   |   |  | 2. No deformation or dislocation of assembly of iron core           | 2. No deformation of iron core and no abnormal size matching  | visual                |                                       |                                    |                         | "IPQC inspection daily report"      |             |  |
|   |   |  | 3. The E-piece and I-piece of iron core are combined together       | 3. Flat, no foreign matter, flat, compact, not loose, no warping, less strip, deformation                           | Operation instruction |                                       |                                    |                         | "Equipment spot inspection record"  |             |  |
| 9 |  | Preliminary measurement of electrical properties | 1. Set instrument parameters, test conditions and proofread samples | Before testing, set the test conditions according to the equipment operation instructions and proofread the samples | measure               | Digital bridge<br>Turn ratio tester   | 10PCS/time<br>(Once every 4 hours) | "Operation instruction" | "First article confirmation record" | manufacture | Operator<br>Production line leader<br>Supervisor<br>IPQC quality inspector |
|   |   |  | 2. Test pin position  | Work according to the operation instruction   | Operation instruction |                                       |                                    |                         | "IPQC inspection daily report"      |             |  |
|   |   |  | 3. No-load current, loss, no-load voltage, load voltage test        | The values meet the requirements of the operation instruction   |                       |                                       |                                    |                         | "Equipment spot inspection record"  |             |  |

|    |   |                        |   |   |   |                             |                                    |                         |  |                       |                                    |
|----|---|------------------------|---|---|---|-----------------------------|------------------------------------|-------------------------|--|-----------------------|------------------------------------|
| 10 |    | epoxy potting compound | <ol style="list-style-type: none"> <li>1. Process control of glue filling machine</li> <li>2. The proportion of potting glue</li> <li>3. A. B glue quantity control, A + B glue quantity and height control, bubble control. Air pressure control</li> <li>4. Equipment cleaning after operation</li> <li>5. Does the dispensing head enter the filling hole</li> <li>6. Machine stop time</li> <li>7. Make sure to add glue A and B normally</li> <li>8. Fixture plane and surface cleaning control</li> <li>9. Management and control of dispensing machine surface cleaning</li> <li>10. Machine glue filling</li> </ol> | <ol style="list-style-type: none"> <li>1. In line with the model of the product produced</li> <li>2. A: B ratio</li> <li>3. Refer to the operation instructions of the dispensing machine</li> </ol>  | <ol style="list-style-type: none"> <li>1. Computer settings</li> <li>2. Computer setting, vacuum defoaming function, visual inspection</li> <li>3. Operation instruction</li> </ol> | potting machine             | (Once every 4 hours)               | "Operation instruction" | <p>"Maintenance record of potting machine"</p> <p>"Repair record of glue filling machine"</p> <p>"Spot check list of glue filling equipment and instruments"</p> | manufacture equipment | Operator<br>Production line leader |
| 11 |  | Correction pin         | <ol style="list-style-type: none"> <li>1. Check and confirm with Correction pin plate</li> <li>2. Size of product</li> <li>3. Pin solder and pin length</li> <li>4. PCB board combination</li> </ol>  | <ol style="list-style-type: none"> <li>1. According to the equipment maintenance operation, fill in the spot inspection record</li> <li>2. The dimensions meet the requirements, such as pin distance, row distance, pin thickness, pin length, etc</li> <li>3. The pin length meets the requirements and does not affect the effective insertion of PCB</li> <li>4. Can easily insert PCB board</li> </ol> | measure<br>visual   | Correction pin plate        | 10PCS/time<br>(Once every 4 hours) | "Operation instruction" | <p>"First article confirmation record"</p> <p>"IPQC inspection daily report"</p>   | manufacture           | Operator<br>Production line leader |
| 12 |  | Second dip tin         | <ol style="list-style-type: none"> <li>1. Tin furnace temperature, soldering time</li> <li>2. Effect of soldering</li> <li>3. Solder should be free of transverse tin tip, black head, foreign body and other defects</li> <li>4. Solder depth</li> </ol>   | <ol style="list-style-type: none"> <li>1. Tin furnace temperature <math>420 \pm 20</math> °C for 1-2s</li> <li>2. The pins should be bright without burr and oxidation</li> <li>3. The size meets the requirements, and the pin is bright without foreign matter</li> <li>4. Don't be too deep to avoid scalding the shell and slag at the bottom</li> </ol>  | measure<br>visual   | Automatic soldering machine | 10PCS/time<br>(Once every 4 hours) | "Operation instruction" | <p>"Tin pot temperature record"</p> <p>"First article confirmation record"</p> <p>"IPQC inspection daily report"</p>   | manufacture           | Operator<br>Production line leader |

|    |   |                       |   |   |                       |                                    |                                    |  |  |                                |  |
|----|---|-----------------------|---|---|-----------------------|------------------------------------|------------------------------------|--|--|--------------------------------|--|
| 13 |    | Electrical test       | 1.Test Value                              | 1.All test values should be within the range of process   | measure               | Digital bridge                     | 10PCS/time<br>(Once every 4 hours) | "Operation instruction"  | "First article confirmation record"  | manufacture<br>Quality control | Operator<br>Production line leader<br>Supervisor<br>IPQC quality inspector |
|    |   |                       | 2.Calibration of test instruments         | 2.Calibrate the standard sample before testing the product  | Operation instruction | Multi function safety tester       |                                    |  | "IPQC inspection daily report"<br>"Safety testing instrument spot inspection record" |                                |  |
| 14 |   | Laser coding          | 1.Size of Identification                  | 1.The dimensions meet the requirements  | measure               | Laser code printer                 | 10PCS/time<br>(Once every 4 hours) | "Operation instruction"  | "First article confirmation record"  | manufacture                    | Operator<br>Production line leader   |
|    |   |                       | 2.Identification writing, content         | 2.The handwriting is clear, non overlapping and the content is correct  | visual                | ruler                              |                                    |  | "IPQC inspection daily report"   |                                |  |
|    |   |                       | 3.location of Identification              | 3.Operate according to the operation instruction  |                       |                                    |                                    |  |  |                                |  |
| 15 |   | Appearance inspection | 1.Product size, integrity and neatness    | All dimensions shall conform to the process, and no part shall be damaged or contaminated with debris                     | measure<br>visual     | calipers<br>tensimeter<br>scissors | 10PCS/time<br>(Once every 4 hours) | "Operation instruction"<br>"Standard for appearance inspection of Encapsulated transformers" | "First article confirmation record"<br>"IPQC inspection daily report"                | manufacture                    | Operator<br>Production line leader<br>Supervisor                           |
|    |   |                       | 2.The quality of soldering tin            | The pin shall be smooth without burr, oblique head, black head, foreign matter, oxidation, copper leakage or scratch, etc |                       |                                    |                                    |  |  |                                |  |
|    |   |                       | 3.Whether the product is in the dry state | All products must be dried  |                       |                                    |                                    |  |  |                                |  |
|    |   |                       | 4.Shell appearance                        | The shell is clean and clean without stains   |                       |                                    |                                    |  |  |                                |  |
|    |   |                       | 5.Identification content                  | The identification content is clear and correct, the position is correct, and there is no missing code                    |                       |                                    |                                    |  |  |                                |  |
| 16 |  | packing               | 1.Packaging materials and methods         | 1.Please refer to the operation instruction for specific packaging method   | measure<br>visual     | Electronic balance                 | 10PCS/time<br>(Once every 4 hours) | "Operation instruction"  | "First article confirmation record"<br>"IPQC inspection daily report"                | manufacture                    | Operator<br>Production line leader<br>Supervisor                           |
|    |   |                       | 2.Number of packages                      | 2.The products shall be placed in order, and less or mixed loading is strictly prohibited                                 |                       |                                    |                                    |  |  |                                |  |
|    |   |                       | 3.Identification of outer box             | 3.The content of material identification card is correct  |                       |                                    |                                    |  |  |                                |  |

|    |   |                                     |  |  |  |   |            |   |                                |           |                                      |
|----|---|-------------------------------------|--|--|--|---|------------|---|--------------------------------|-----------|--------------------------------------|
| 17 |  | Quality control sampling inspection | The appearance of the whole product, test value, all dimensions, identification of the outer box | According to product inspection standard, test all data All of them shall meet the requirements and be recorded. After they are qualified, they shall be stamped with the qualified seal and the outer box identification shall be fully inspected | measure<br>visual<br>Operation instruction | / | GB/T2828.1 | "Operation instruction"<br>"Product inspection standard"<br>"Sampling standard" | "IPQC inspection daily report" | QC        | Supervisor<br>IPQC quality inspector |
| 18 |  | put in storage                      | 1.Quantity   | 1.The quantity should be consistent with the physical quantity   | visual                                     | / | /          | /   | Warehouse entry form           | Warehouse | Warehouse keeper                     |
|    |   |                                     | 2.Outer box  | 2.Check whether the outer box is stamped with a qualified seal.  |  |   |            |   |                                |           |                                      |
| 19 |  | deliver goods                       | 1.Quantity   | 1.The quantity should be consistent with the physical quantity   | visual                                     | / | /          | /   | Out of warehouse form          | Warehouse | Warehouse keeper                     |
|    |   |                                     | 2.Outer box  | 2..Check whether the outer box is stamped with a qualified seal.   |  |   |            |   |                                |           |                                      |

**Symbol description:**                      **Ordinary work station**                       **Special station**                       **Key station** 