

<b>潜在失效模式及后果分析</b>				文件编号: JY-DFMEA-COV-05 (V0)		
<b>Potential Failure Mode and Effects Analysis (DFMEA)</b>				File No.: JY-DFMEA-COV-05 (V0)		
型号:	CH500	过程责任:	品管部、生产部、工程技术部		编制人:	虞慧明
Model No.:	CH500	Responsible:	Quality Department; Product Department, Engineering Department		Issued by:	Yu Huiming
类型:	对流式取暖器	关键日期:			编制日期:	2017-10-14
Product designation	Convactor	Date:			Issue Date:	2017-10-14
核心小组:	虞慧明 -- 工程技术部; 谢金山 -- 品管部; 唐水仙 -- 生产部					
Team:	Yu Huiming -- Engineering Department; Xin Jinshan -- Quality Department; Tang Shuixian -- Product Department					

序号 Nr.	项目功能 Function	要求 Requirement	潜在失效模式 Potential Failure Mode	潜在失效后果 Potential Failure Effects	严重度 S	级别 Level	潜在失效起因/机理 Potential Failure Reason	频度 O	现行设计控制 -预防 -探测 Control-Prevention-Detection	探测度 D	R P N	建议措施 Suggested Action	责任及目标完成日期 Responsible by / Date	措施结果 Result				
														采取的措施 Action	S	O	D	R P N
1	功能 Function	功率 450-520W 在 +5% / -10% Power 2000W (deviation +5% / -10%)	设计发热管功率不合格 Heating element is failed	功率超标 Power over the deviation	9	☆	功率过小使发热量小 Lower power result in poor heat	2	选择优质的供应商产品 Select valued supplier	3	54	发热管功率 进货检验 Take power inspection during incoming test	工程部 品管部 Engineering Department Quality Department	进货检验进行验证 Verify the incoming test	9	2	3	54

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		热量 Heat efficiency	发热量达不到设计要求 Heat efficiency cannot meet the demand	发热量小, 使内部温升便高 Heat efficiency is small and temperature rise inside is high	9	☆	进风口与出风口设计不合理 Inlet and outlet is unreasonable in design	2	设计合理进风口与出风口大小 Design the reasonable inlet and outlet	3	54	参考之前产品设计经验 Refer to previous design experience	研发部 Design Department	设计合理进风口与出风口大小 Design the reasonable inlet and outlet	9	2	3	54
2	外观 Design	符合客户要求 Meet customer's demand	客户不满意 Not satisfied	外观不美观, 使顾客不满意 Design is poor, result in not satisfied by customer	8	△	样件没经客户确认 Sample is not confirmed by customer	2	按客户确认的造型, 送样得到客户外观确认 Arrange sample for customer's checking firstly	3	48	无 N/A	工程部 外贸部 Engineering Department I&E Department	加强跟客户的沟通 Improve the contact with customer	8	3	2	48

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3	进风板孔距 Size of inlet	安规要求 Meet EU requirement	孔的间距尺寸为5mm, 标准是0.5焦耳冲3次, 8.6测试指通不过 Size of hole is 5mm Demand: 0.5j/3 times, finger test 8.6 failure	不符合安规, 测试指直接碰到发热管 Not in accordance with EU standard, can pass the heating element during finger test	9	☆	间隙过大 The size of hole is too big	2	设计合理的间隙 Design the reasonable hole distance	3	54	参考之前产品设计经验 Refer to previous design experience	研发部 Design Department	设计合理间隙并测试 Design the reasonable hole distance	9	2	3	54
4	可调金属温控寿命 Life time of thermostat	可调寿命5K次 Life time: 5K times	调温不准 Temperature is not accurate	顾客投诉 Customer's complaint	9	☆	双金属片感温度不够 Detector is not good	2	选择已被认可的供应商产品 Select valued supplier	3	40	对可调温控进行寿命测试 Take life time test	工程部 Engineering Department	对可调温控测试并保持记录 Keep record for lifetime test	9	2	3	40
5	发热丝触调温控寿命 Lifetime of thermal cut-out	寿命达10K次 Life time: 10K times	在非正常工作状态不起保护作用 Cannot work when abnormal handling	引发火灾的问题 Fire	9	☆	内部双金属片结构不好 Construction is bad	2	选择已被认可的供应商产品 Select valued supplier	3	40	对发热丝进行寿命测试 Take life time test	工程部 Engineering Department	对发热丝寿命测试并保持记录 Keep record for lifetime test	9	2	3	40
6	发热丝寿命 Lifetime of heating element	寿命5K小时 Life time: 5K hours	多次开启后失效 Heating element is failed after some times	寿命NG Lifetime: NG	9	☆	内部结构不好 Construction is bad	2	选择已被认可的供应商产品 Select valued supplier	3	40	对发热丝进行寿命测试 Take life time test	工程部 Engineering Department	对发热丝寿命测试并保持记录 Keep record for lifetime test	9	2	3	40

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7	电源线 Supply cord	电源线弯曲 10K 次 Bending: 10K times	电源线过载或 断裂 Overload or broken	机器不工作 或短路 The appliance is not working or short circuit	9	☆	弯曲测试后 内部线断裂 Internal wire is broken after bending test	2	选择已被认可的 供应商产品 Select valued supplier	3	54	对插头进行 导通和电气 强度测试 Take	工程部 Engineering Department	测试并保存记 录 Test and keep the record	9	2	3	54
		插头部分 Plug	高压击穿 Hi-pot failure	机器不工作 或短路 The appliance is not working or short circuit	9	☆	包塑飞丝或 内部线过近 Internal wire too close	2	选择已被认可的 供应商产品 Select valued supplier	3	54	加强进货检 验的强度 Improve incoming test	工程部 Engineering Department	测试并保存记 录 Test and keep the record	9	2	3	54
8	内部线 Internal wire	弯曲 10K 次 Bending: 10K times	内部线过载或 断裂 Overload or broken	机器不工作 或短路 The appliance is not working or short circuit	9	☆	弯曲测试后 内部线断裂 Internal wire is broken after bending test	2	选择已被认可的 供应商产品 Select valued supplier	3	54	加强进货检 验的强度 Improve incoming test	工程部 品管部 Engineering Department Quality Department	增加抽检的数 量 Increase random inspection	9	2	3	54
9	塑料提手 Plastic	阻燃等级符 合安规 Fire resistance level is in accordance with EU	塑料阻燃不合 格 Fire resistance failed	达不到要 求不符合 安规 Not in accordance with EU standard	9	☆	塑料不合格 Plastic failed	2	选择已被认可的 供应商产品 Select valued supplier	3	54	加强进货检 验的强度 Improve incoming test	工程部 品管部 Engineering Department Quality Department	增加抽检的数 量 Increase random inspection	9	2	3	54

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		环保 RoHS/REACH	要符合环保要求 Meet the demand of RoHS/REACH	产品不能出货 Cannot ship	9	☆	有害物质超标 Over the standard	2	选择已被认可的供应商产品 Select valued supplier	3	54	加强进货检验的强度 Improve incoming test	工程部 品管部 Engineering Department Quality Department	增加抽检的数量 Increase random inspection	9	2	3	54
10	外壳 Outer plate	外观 Appearance	客户的投诉 Customer's complaint	产品卖不出 Cannot sale	8	☆	表面有凹痕或划痕 Dent or scratch	2	车间专职检验 Set a station for checking it during production	2	32	加强员工的培训和抽检次数 Improve training and increase random test	工程部 品管部 生产部 Engineering Department Quality Department Product Department	加强员工的培训和抽检次数 Improve training and increase random test	8	2	2	32
		环保 RoHS/REACH	喷塑材料要符合环保 Painting in accordance with RoHS/REACH	不符合环保不能出货 Cannot ship	9	☆	喷塑材料有害物质超标 Over the standard	2	选用合格物料	3	54	加强进货检验的强度 Improve incoming test	工程部 品管部 Engineering Department Quality Department	增加抽检的数量 Increase random inspection	9	2	3	54
11	整机测试 Final Inspection	符合安规要求 In accordance with EU	功率、接地、高压、功能、外观、有无杂物 Input power consumption / Earth resistance test/Hi-pot test/ Basic function test/ Appearance checking	产品不能出货 Cannot ship	9	☆	功能不完整 Function is not complete	2	控制车间生产 Control the production	3	54	加强员工的培训和抽检次数 Improve training and increase random test	工程部 品管部 生产部 Engineering Department Quality Department Product Department	加强员工的培训和抽检次数 Improve training and increase random test	9	2	3	54

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