

Product Specification [产品规格书]:	Document No	PS-2803-01
Subject [主题]: 2.80mm MPQ Series Connector Specification	Date Issued	2023/8/2
	Date Revised	/
	Version	X0

This specification is referred to the 2.80mm MPQ series Connector

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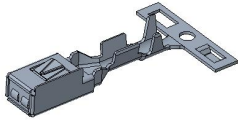
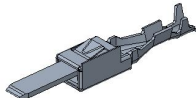
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【1.适用范围 Scope】

此种规格包括 2.80mm MPQ Series 端子连接器规格说明.

This Specification Covers the 2.80mm Series MPQ Terminal Connector Specification.

【2.规格与料号 Spec and Part number】

规格内容 Specification	产品料号 Production No.	产品图示 Picture of Product
母端/ Female Terminal	2803TXF-HY2B	
公端/ Male Terminal	2803TXM-HY2B	

【3.材质与表面处理 Disposal of Material and surface】

规格内容 Specification	材 质 Materials	表面处理 Disposal of Surface
Contact	Copper Alloy	Tin Plated: 40~120u" (1~3μm)
PIN	Copper Alloy	Tin Plated: 40~120u" (1~3μm) Ni : 30~200u" (0.75~5μm)

(上述参数请以工程图为准/Please Refer to the Project drawing for the above Specification)

【4. 额定等级 Ratings and applicable wires】

项 目 【Item】	规 格 【Standard】	
额定电压 Rated Voltage (Max.)	12V	[AC/DC]
额定电流 Rated Current (Max.)	26A	
使用温度范围 Ambient temperature Range	-40℃ ~ +125℃	

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【5.性能 PERFORMANCE】

项 目 【Item】		条 件 【Test Condition】	规 格 【Requirement】																																																																																										
5-1	产品验收检查 Inspection of as-received condition	接触区域的体积电阻符合 DIN EN 60512-2-1 连接区域的体积电阻符合 DIN EN 60512-2-1 Visual inspection Contact resistance in contact area Crimp resistance	VW75174 Rev.2018 TG0																																																																																										
5-2	机械和热张弛特性 Mechanical and thermal relaxation behavior	根据 DIN EN 60512-1-1 进行目视检查 接触法向力测试，确定法向接触力 热老化测试，持续时间 1000H,然后在相应的时间（1 小时、100 小时、200 小时、500 小时和 1 000 小时）依次取出，并测量法向力不能小于 1N。 Visual inspection /Contact normal force and Aging in dry heat	VW75174 Rev.2018 TG5																																																																																										
5-3	端子与线材间的引张强度 Conductor pull out strength	<table><tr><th rowspan="2">Cable cross-section (Cu)</th><th colspan="6">Contact size in mm</th></tr><tr><th>0.5</th><th>0.63</th><th>1.2 or 1.5</th><th>2.8</th><th>4.8</th><th>9.5</th></tr><tr><td>0.35 mm² 0.13 mm² (CuMg)</td><td colspan="5">50 N (75 N)</td><td>-</td></tr><tr><td>0.5 mm²</td><td>-</td><td colspan="4">60 N (85 N)</td><td>-</td></tr><tr><td>0.75 mm²</td><td>-</td><td colspan="4">85 N (105 N)</td><td>-</td></tr><tr><td>1.0 mm²</td><td>-</td><td>-</td><td colspan="2">108 N (125 N)</td><td>140 N (162 N)</td><td>-</td></tr><tr><td>1.5 mm²</td><td>-</td><td>-</td><td>150 N (180 N)</td><td colspan="2">150 N (180 N)</td><td>-</td></tr><tr><td>2.5 mm²</td><td>-</td><td>-</td><td>-</td><td colspan="3">200 N (235 N)</td></tr><tr><td>4.0 mm²</td><td>-</td><td>-</td><td>-</td><td>-</td><td colspan="2">310 N (325 N)</td></tr><tr><td>6.0 mm²</td><td>-</td><td>-</td><td>-</td><td>-</td><td>450 N</td><td>450 N</td></tr><tr><td>10.0 mm²</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>500 N</td></tr><tr><td>16.0 mm²</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>1 500 N</td></tr><tr><td>25.0 mm²</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>1 900 N</td></tr></table>	Cable cross-section (Cu)	Contact size in mm						0.5	0.63	1.2 or 1.5	2.8	4.8	9.5	0.35 mm² 0.13 mm² (CuMg)	50 N (75 N)					-	0.5 mm²	-	60 N (85 N)				-	0.75 mm²	-	85 N (105 N)				-	1.0 mm²	-	-	108 N (125 N)		140 N (162 N)	-	1.5 mm²	-	-	150 N (180 N)	150 N (180 N)		-	2.5 mm²	-	-	-	200 N (235 N)			4.0 mm²	-	-	-	-	310 N (325 N)		6.0 mm²	-	-	-	-	450 N	450 N	10.0 mm²	-	-	-	-	-	500 N	16.0 mm²	-	-	-	-	-	1 500 N	25.0 mm²	-	-	-	-	-	1 900 N	VW71574 Rev.2018 TG10 Refer to : VW60330 and USCAR-21 优先以 VW60330 标准 The VW60330 standard is preferred
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5-4	端子插入力与拔出力 Insertion and removal forces, mating cycle frequency	插入和拔出力，无需额外润滑剂 Sn：20 次插拔循环，Ag：50 次插拔循环 Au：100 次插拔循环 Mating and unmating forces /Mating cycles Sn: 20 mating cycles, Ag: 50 mating cycles , Au: 100 mating cycles. The insertion force may change by at most 25% compared to the initial value. The insertion and extraction forces must correspond to the drawing or the, product specification.	VW71574 Rev.2018 TG11																																																																																										

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项 目 【Item】		条 件 【Test Condition】	规 格 【Requirement】
5-5	温升/降额 Current temperature rise, derating	负载逐渐增加的电流并测量温升 要求: 测量值必须符合规格要求, 在降额图中标出以下内容: 测量值的 80% 特性曲线必须在图表中表示 (根据 DIN EN 60512-5-2), 电流是可以从 80 °C 环境温度下的降额曲线读取的电流. The 80-% characteristic curve of the measured values must be represented in the graph (as per DIN EN 60512-5-2). The nominal current is the current that can be read from the derating curve at 80 °C ambient temperature.	VW71574 Rev.2018 TG12
5-6	热时间常数 Thermal time constant	以 1/2/3/4/5 倍的额定电流加载触点并同时记录随时间推移的温度曲线, 直至稳定或达到最大值。 达到允许的温度。 Loading of a contact with 1/2/3/4/5times the nominal current and simultaneous recording of the temperature curve over time until stabilization occurs or until the max. permissible component temperature is reached.	VW71574 Rev.2018 TG14

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流程图		连接器机械测试					
参考标准	测试序列	Receiving inspection and testing 接收检验和测试	Mechanical and thermal relaxation behavior 机械和热松弛行为	Conductor pull-out strength 导体拉拔强度	Insertion and removal forces, mating cycle frequency 插拔力，配合循环频率	Current temperature rise, derating (withouth housing) 电流温升、降额(无外壳)	Thermal time constant 热时间常数
VW715 74 2018	序列 ID	A	B	D	E	F	G
	Visual inspection 目视检查	1	1,5	1,3	1,3	1,3	1,3
	Contact resistance 接触电阻	2					
	Contact normal force 接触法向力		2,4				
	Contact retention force 触点保持力						
	Conductor pull-out strength 导体拉拔强度			2			
	Cross section 横截面						
	Insertion and removal forces, mating cycle frequency 插拔力，配合周期 频率				2		
	Derating 降额					2	
	Aging in dry heat 干热老化		3				
	Thermal time constant 热时间常数						2

说明:

准备的样品应与适用于生产的说明一致，应随机从当前生产中选取