

PL01X-200-50-G06 单芯直头插头组装规范

PL01X-200-50-G06 1POS 180D Plug Assembly Manual



PL01(X)-200-50-G06

键位	Key	线缆大小	Cable Size mm2
X 键	X		
Y 键	Y		
U 键	U		
V 键	V		
W 键	W		

安装步骤 Assembly Instruction

步骤1：取一套产品，拆包零件
Step1：Take out the connector and take it apart as the picture shown below



- ① 合金外壳 Alloy Shell ×1
- ② 绝缘筒 Insulation Housing ×1
- ③ 端子组件 Terminal A'ssy ×1
- ④ 尾盖 End Cap×1
- ⑤ 绝缘套 Insulation Sleeve×1
- ⑥ 内铜环 Inner Copper Ring ×1
- ⑦ 外铜环 Outer Copper Ring×1
- ⑧ 密封圈 Seal Ring ×1

步骤2：选取合适线缆(参考手册最后的附录)，按照表1尺寸剥离绝缘皮和外皮
Step2：Select the right cable(refer to the appendix), prepare the cable according to the sketch and Table 1 below

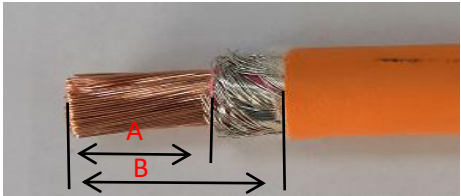
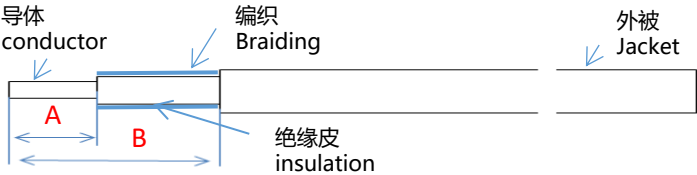
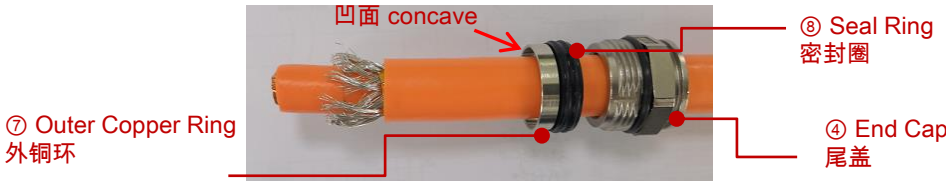


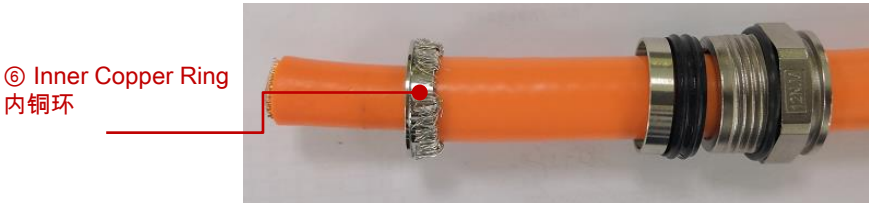
表1：剥皮尺寸
Table 1: Strip length

线材尺寸 Cable Size	A (mm)	B (mm)
50mm²	17±1	27 ±1

步骤3：取各1pcs的④尾盖, ⑧ 密封圈和⑦ 外铜环, 依次穿过线缆
Step3：Take 1pcs of ④ end cap, ⑧ seal ring and ⑦ outer copper ring and make them through the cable in the right order as the picture shown below



步骤4：将编织均匀打散反折在外被上，取1pcs的⑥内铜环穿入线缆并推到底，再将编织反折在铜环上，
Step4：Scatter the braiding evenly and fold it on the outer jacket. Take 1pcs of ⑥ inner copper ring and insert it into the cable and push it to the end, Then fold the braid on the copper ring.



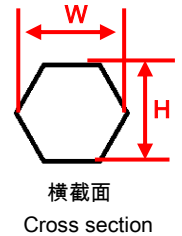
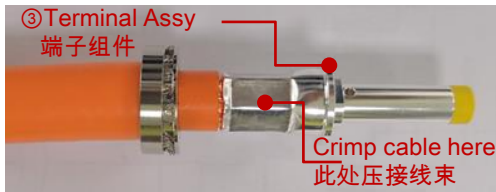
步骤5：将外铜环与内铜环按压在一起，并剪去突出的线头

Step5 : Press the outer copper ring together with the inner copper ring and cut off the protruding braid between outer copper ring and inner copper.



步骤6：取1pcs的③端子组件穿上线缆，并压接在其上(规格参照手册最后的附录,附录数据仅供参考)

Step6 : Take 1pcs of ③ terminal Assy and crimp it with the cable conductor, as the picture shown below. (please refer to the appendix for details at the end of this manual)



端子压接高宽度尺寸，“W”:为压接宽度，“H”为压接高度（压接高宽度尺寸及拉力标准参考手册后的附录）

Terminal crimping quality depends on 2 parameters: "W" crimping width and "H" crimping height.(please refer to the appendix at the end of this manual for details)

(1) 建议使用附录中的线材，如果要使用其它的线材，请联系当地销售，让他们提供延伸的产品

Cables written in the appendix are highly recommended for crimping, please contact our local sales for help if you want to use other cables out of this table

(2) 客户需要重新确认压接区域横截面和拉力测试，这两项达到压接的质量标准，端子压接需要满足压缩比要求：80-90%

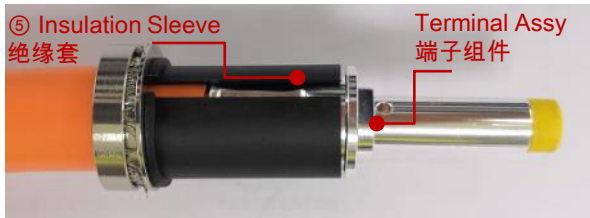
A good crimping process is determined by 3 factors: W、H and tensile test result, please confirm these 3 targets specified are met after crimping, Terminal crimping needs to meet the compression ratio requirements: 80-90%.

(3) 横截面仅供参考，客户负责采购压接工具或刀模

Cross section shape is only for reference, all crimping tools needed are supposed to be prepared by customers

步骤7：组装⑤绝缘套到端子组件压接处

Step7 : Take 1 PCS of ⑤ insulation sleeve and Assemble it to the crimping area of the terminal assembly.



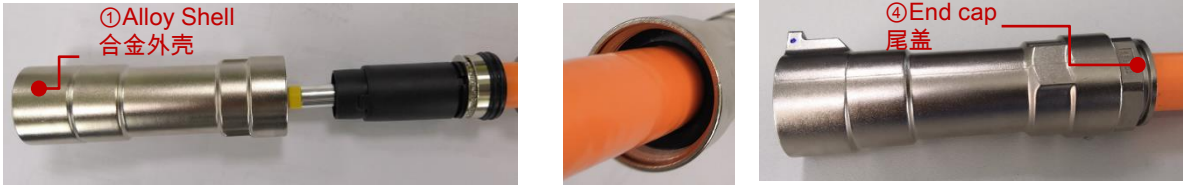
步骤8：插入端子组件到②绝缘筒上，转动使其触底

Step8 : Bring ② insulation housing through terminal Assy and rotate ② insulation housing until it arrives at a stop position



步骤9：将绝缘罩插入①合金外壳,转动使其触底; 固定外壳与电缆,以10~12N•M拧紧尾盖, 完成此端线束组装

Step9: Put insulation housing into ① alloy shell, rotate the cable to make insulation housing arrive at a stop position then screw up ④ end cap with a torque of 10~12N.m to finish the assembly as the picture shown below



步骤10：建议客户参考下面的测试参数,对线束进行绝缘电阻测试和耐压测试

Step10：Insulation resistance and dielectric withstand voltage tests are obligated to be done according to below test parameters to guarantee the good electric performance of the whole harness

10-1 绝缘电阻测试

10-1 Insulation Resistance Test

位置 Positions	测试电压 (直流) Test Voltage(DC)	测试时间 (推荐) Test Time (recommended)	绝缘电阻 Insulation Resistance
电缆芯线到壳体 Cable(power) to shell	1000 V	5S	> 500 MΩ

10-2 耐压测试

10-2 Dielectric Withstand Voltage Test

位置 Positions	测试电压 (直流) Test Voltage(DC)	测试时间 (推荐) Test Time (recommended)	漏电流 Leakage Current
电缆芯线到壳体 Cable(power) to shell	5000 V	10S	<5mA

10-3 测试说明:

警告:建议的电气测试及其参数应根据终端应用要求进行审查，以确保安全性并防止损坏其他部件。提供的参数是基于PowerLok连接器及其峰值1000VDC额定。提供的测试参数可能超出电缆组件或设备上使用的其他部件/材料的限制。

10-3 Test note:

caution: Recommended electrical tests and their parameters should be reviewed against end application requirements to ensure safety and to prevent damage to other components. Parameters provided are based on the PowerLok connectors and their peak 1000VDC rating. Test parameters provided may exceed the limit of other components/materials used on the cable assembly or device.

附录 APPENDIX

线缆压接的参考规范
Reference specification for cable crimping

线缆类型 Cable Type	电线尺寸 Cable Size	导体结构 (mm) Conductor	导体外径 (mm) Conduct or OD	电线外径(mm) Wire OD	压接高度 H(mm) Crimping height	压接宽度 W(mm) Crimping Width	参考保持力 Retention Force	刀模编号 Crimping Tool No.
Coroplast 9-2611	50mm²	1600*0.20	Max 10.0	15.8+0/-0.6	10.9±0.2	12.2±0.2	2800N	BZW-6C

版本记录 Revision history

序号 Number	变更内容 Content of change	日期 Date
1	新出 New issue	20210830



Amphenol Technical Products International provides the above product specifications for the standard PowerLok™ series of connectors to assist users in identifying the correct product for the system to which the connectors may be applied. Specifications are subject to change without notice. Contact your nearest Amphenol Corporation Sales Office for the latest specifications. All statements, information and data given herein are believed to be accurate and reliable but are presented without guarantee, warranty, or responsibility of any kind, expressed or implied. Statements of suggestions concerning possible use of our products are made without representation or warranty that any such use is free of patent infringement and are not recommendations to infringe any patent. Specifications are typical and may not apply to all connectors. Note that these specifications are derived from relevant global standards used in the automotive and industrial transportation markets, but they are not a substitute for system level design validation testing, which is the sole responsibility of the system designer and/or end user.

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