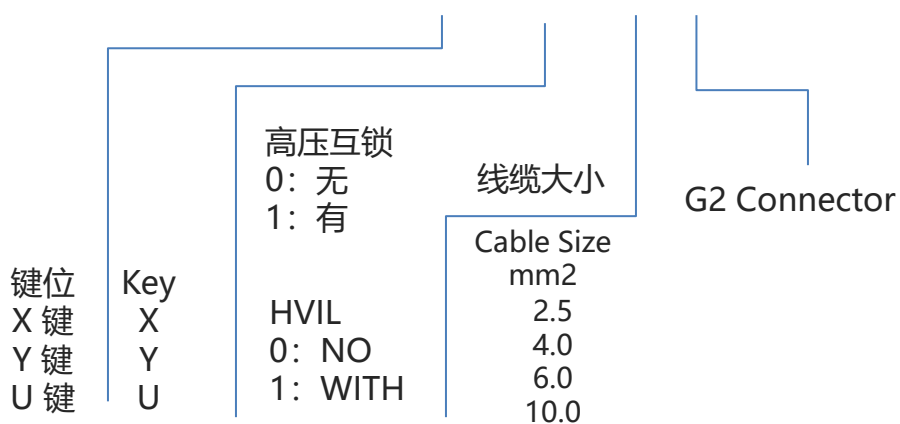


PowerLok™ 4.0 二代两芯插头组装规范

PowerLok™ 4.0 G2 2POS Plug Assembly Manual



PL182(X)-6(X)-XX-2



安装步骤

Assembly Instruction

步骤1：取出连接器，如图所示零件

Step1：Unpack all components as shown below



- ① 连接器主体 Connector Body ×1
- ② 金属垫片 Metal Gasket ×1
- ③ 屏蔽弹片 Shielding Spring ×1
- ④ 端子 Terminal ×2
- ⑤ 铜套 Copper Sleeve ×2
- ⑥ 密封圈 Seal ×1
- ⑦ 后盖 Back Cover ×1

★ 备注 Note：

PL182(X)-6(1)-10-2 没有该部件。

PL182(X)-6(1)-10-2 does not have this component.

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，编织均匀打散后反折并剪掉多余屏蔽线

Step2：Select the right cable(refer to the appendix), prepare the cable according to the sketch and Table 1 below, Disperse the braiding Evenly and fold back it then cut off excessive braiding wire as shown below

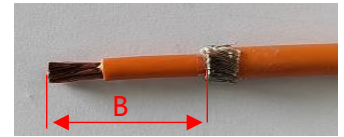
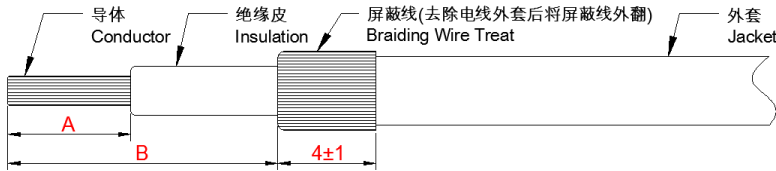


表1：剥皮尺寸
Table 1: Strip length

线缆规格 Cable Size	直径 OD (mm)	绝缘皮剥线长度 Strip length "A" (mm)	外皮剥线长度 Jacket strip length "B"(mm)
2.5mm ²	5.2±0.2	8±0.5	26±1
4mm ²	5.8±0.2	9±0.5	27±1
6mm ²	6.7±0.3	9±0.5	27±1
10mm ²	8.6+/-0.3	10.5±0.5	27±1

步骤3：3-1 拿取⑦后盖，⑥密封圈，⑤铜套，自左端依次穿过已剥好的线缆

3-2 采用专用六角刀具将二个铜环依次压接在屏蔽线上，压紧后铜环的抗拉拔力不少于 89 N

Step3：3-1 Take ⑦ back cover ⑥ seal ⑤ copper sleeve, insert cables through their holes from left in sequence

3-2 Crimp ⑤ copper sleeves with the hexagonal crimping tool and the minimum retention force is 89N

剥线端
Stripping end



步骤4：自左端穿上④端子，用专用压接工具将其压接在线缆导体上，压接后线缆抗拉拔力不小于如下表格数值
 Step4：Insert cable conductor into ④ terminal then crimp it with the specific crimping tool, the retention force should respect the values in the table below

线缆规格 Cable size	保持力 Min retention force
2.5mm ²	200 N
4mm ²	310 N
6mm ²	450 N
10mm ²	500 N



拉拔力需要配合压接截面的金相分析，客户才能判断压接质量合格，芯线压缩比要求为 80~90%。

Customers need to reconfirm cross section on crimping area and pull out force test to confirm the quality of crimp process, Terminal crimping must meet the compression ratio of conductor requirements: 80~90%.

步骤5：取 ③屏蔽弹片，②金属垫片，自左端依次穿过线缆，注意屏蔽弹片不应明显变形。
 Step5：Take ③ Shielding Spring and ② Metal Gasket, make cables insert through them from the left in sequence, Note that shielding spring should not be deformed significantly.



★ 备注 Note：

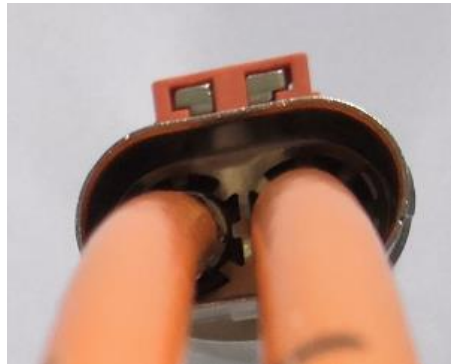
PL182(X)-6(1)-10-2 没有部件②。

PL182(X)-6(1)-10-2 does not have component ②.

步骤6：拿出接头主体 ①，将端子推进接头底部，至听到一声“咔”响表示已插到位。
 Step6：Push terminals to bottom of the connector body ①. It will be in place when it clicks.

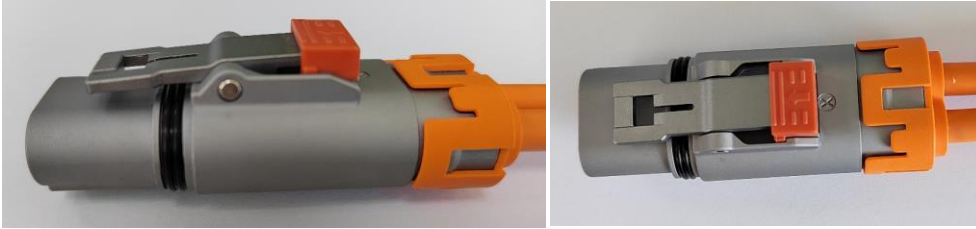


大孔边 Big hole side



步骤7：将密封圈装进连接器主体里，扣上后盖，完成组装。

Step7 : Push the seal into the bottom of connector body and buckle up back cover to finish the assembly.



步骤 8：在电缆组装好后需要做绝缘电阻和耐压测试，建议客户参考下面的测试参数

Step 8: Need to do the Insulation Resistance and DWV test after cable assembly. It is recommended that the customer refer to the following test parameters

8-1 绝缘电阻测试

8-1 Insulation Resistance Test

位置 Positions	测试电压 Test Voltage	测试时间 (推荐) Test Time (recommended)	绝缘电阻 Insulation Resistance
电缆到壳体 Cable(power) to shell	1000 VDC	5S	> 500 MΩ
电缆到高压互锁 Cable(power) to HVIL	1000 VDC	5S	> 500 MΩ
高压互锁到壳体 HVIL to shell	1000 VDC	1S	> 100 MΩ

8-2 耐压测试

8-2 Dielectric Withstand Voltage Test

位置 Positions	测试电压 Test Voltage	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 VDC	10S	<5mA
电缆芯线到高压互锁 Cable(power) to HVIL	5000 VDC	10S	<5mA
高压互锁到壳体 HVIL to shell	500 VDC	1S	<5mA

8-3 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连接器和其峰值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。

6-3 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

线缆参考规范
Reference specification for cable

线缆类型 Cable Type	电线尺寸 Cable Size	导体结构(mm) Conductor	导体外径(mm) Conductor OD	电线外径(mm) Wire OD
屏蔽线 Shielding cable	2.5mm ²	217*0.12	2.10	5.20±0.2
	4.0mm ²	350*0.12	2.90	5.80±0.2
	6.0mm ²	525*0.12	3.60	6.70±0.3
	10.0mm ²	874*0.12	4.65	8.60±0.3



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