故障排除指导 Troubleshooting Guide

DC 600
CC 模式空载电压低 LOW OCV IN CC MODE

CC 模式空载电压低
Low OCV in CC mode

焊机模式设置是否正确？
Is the welding mode correct?
否 No → 将模式设置为 CC
Set the welding mode to CC

是 Yes

焊机触发开关是否设为 ON？
Is the TERMINALS ON/REMOTE Switch set to ON position?
否 No → 将焊机触发开关设为 ON
Set the TERMINALS ON/REMOTE Switch to ON position

是 Yes

控制板供电 LED 指示灯是否常亮？
Is the power supply indicating LED on the Control Board lighting?
否 No → 控制板 J2-3/J2-4 是否有 42V？
Is 42V present on J2-3/J2-4 of the Control Board?
是 Yes → 更换控制板
Replace the Control Board

否 No → 控制变压器输入接线是否正确？
Is the input connection of Control Transformer correct?
否 No → 修复接线
Repair the connection

是 Yes → 更换控制变压器
Replace the Control Transformer

LED1 = 42V INPUT
LED2 = VOLTAGE FEEDBACK
LED3 = 24 VDC SUPPLY
LED4 = FAULT
LED5 = SCR CONTROL SIGNAL

控制板指示灯含义
Indicators on Control Board

是 Yes

主接触器输出电压是否正常？
Is the output voltage of the Main Contactor correct?
否 No → 主接触器线圈 115V 是否正常？
Is 115V present on the coil of Main Contactor?
是 Yes → 更换接触器
Replace the Contactor

否 No → 主接触器线圈回路是否导通？
Is the coil of Main Contactor conductive normally?
否 No → 检查更换温度传感器
Check and replace thermostats

是 Yes → 更换控制板
Replace the Control Board

LED1 - 2 = SCRS 1 - 2 FIRING SIGNAL
LED3 - 4 = SCRS 3 - 4 FIRING SIGNAL
LED5 - 6 = SCRS 5 - 6 FIRING SIGNAL
LED7 - 8 - 9 = INPUT PHASE ANGLE VOLTS
LED10 = 2/4 INPUT CONTROL

触发板指示灯含义
Indicators on Firing Board

是 Yes

触发板 LED 7/8/9 是否常亮？
Are the LEDs 7/8/9 of Firing Board always on?
否 No → 触发板 J5 的 5&6，7&8，15&16 是否有 34V？
Is 34V present on J5-5/J5-6, J5-7/J5-8, J5-15/J5-16 of Firing Board?
否 No → 更换主变压器
Replace the Main Transformer

是 Yes → 更换触发板
Replace the Firing Board

是 Yes

焊机输出+与 J4-1/2/3/4/5/6 之间 SCR 触发电压 6V 是否正常？
Is the SCR firing voltage 6V present on positive terminal and J4-1/2/3/4/5/6?
否 No → 触发板 LED 10 是否正常亮起？
Is LED 10 of Firing Board lighting normally?
否 No → 检查&更换触发开关
Repair/replace output/firing switch

是 Yes → 更换接触器
Replace the Contactor

是 Yes

更换可控硅
Replace the SCR

以下测试是在输入网压在390V AC 情况下进行测试的

CV 模式下空载电压可调为12-56 V DC
CC 模式下空载电压不可调 为 75VDC
拔掉一根SCR触发信号之后
CV模式下空载电压为12-56 V DC
CC模式下空载电压为70VDC
拔掉两根SCR触发信号之后
CV模式下空载电压为12-56 VDC
CC模式下空载电压为66VDC

SCR的触发电压是6V

结论：
一个SCR给焊机在CC模式下带来5V的压降

Test result (390V input power):
Each SCR will make 5V voltage drop-down of OCV in CC mode

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