# Test Procedure for the NCP5104

ON Semiconductor®

**29-Oct-07**

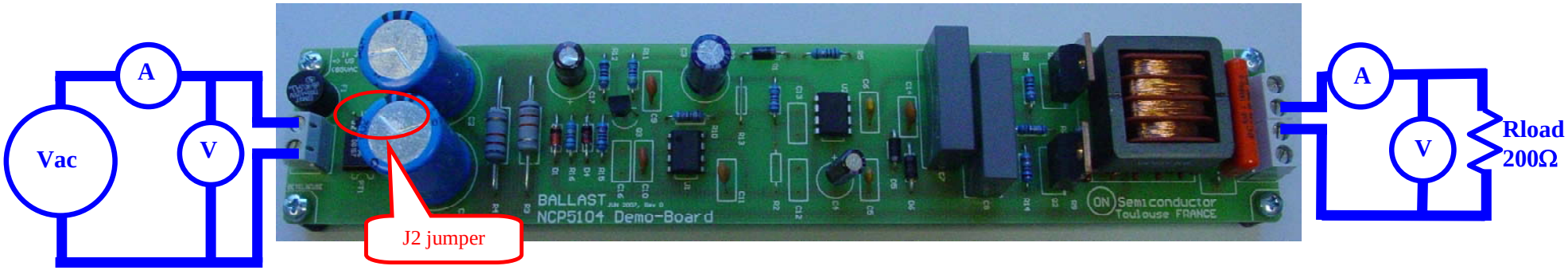


**Table 1: Required Equipment**

| | | |
|---|---|---|
| AC power source can be able to deliver 230Vrms or 110Vrms | two volt-meters | two ampere-meters |
| 1 resistive load: 200 Ω / 50 W | One NCP5104 Evaluation Board | |

**Test Procedure:**

1. **First of all check if you need or not the jumper #2 (J2 on the board close the diode bridge). This jumper must be removed in case of European mains (230 Vac input voltage) and have to placed in case of US mains (110 Vac). This jumper is used to build a voltage doublers just after the bridge diode in case of US mains input voltage range.**

2. **Connect the test setup as shown above:**
   - **AC source**
   - **Voltmeter and Ampere meter on the load**
   - **Load on the output**

3. **Apply 230 Vac if European mains or 110 Vac for the US mains on the input connector.**

4. **Compare Iload and Vload with the following table according your input mains voltage.**

5. **If you get the correct output and input voltage, you can now connect a 36 W fluorescent tube on the output (see the ballast connection figure).**

**Test results:**

| Input mains | J2 | Vin (Vrms) | Iin (Arms) | Vload (Vrms) | Iload (Arms) |
|---|---|---|---|---|---|
| European | Removed | 230 V | 278 mA | 303 V | 370 mA |
| US | Yes ➔ max input voltage: 132 Vrms | 110 V | 514 mA | 263 V | 340 mA |

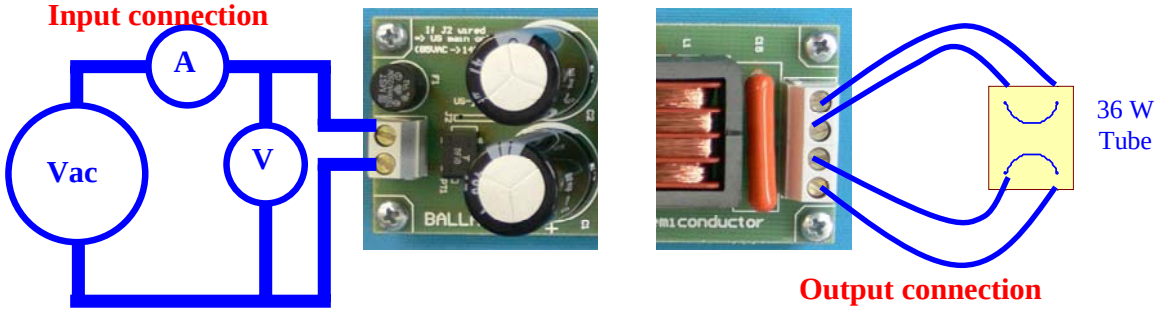


**Figure 1: Ballast connection**