

Failure:

1. Varistor damaged: RT1
2. PFC power stage damaged: Q1/Q4/Q5/Q8
3. PWM power stage damaged: Q23/Q28/Q34/Q37
4. Auxiliary Power Supply damaged: R205/R144/R145/R146/U14

CPS3/24-60, CPS3/24-75, CPS3/12-80:

Repère	Type	Code	
RT1	SIOV-S14K275	30022377	
Q1/Q4/Q5/Q8	STW45NM50	30022181	
Q23/Q28/Q34/Q37	STW45NM50	30022181	
U14	CIR INTEG TOP244PN CONTROLEUR DIP8ꝰ	30032591	
R205	RES.SMD(1206)1/4W 1% 4Ω7	30029171	
R145 / R146	RES.SMD(1206)1/4W 1% 680KΩ	30022809	
R144	RES.SMD(1206)1/4W 1% 560KΩ	30022814	

1. RT1 varistor:
 - a. Charger OFF (not powered)
 - b. Check varistor : RT1 (resistance value about 380 KOhms between G and S)
 - c. If about 00hm (or really less than 330kOhm) or exploded
 - d. Replace RT1
2. PFC power stage:
 - a. Charger OFF (not powered)
 - b. Check PFC transistors of PFC : Q1/Q4/Q5/Q8 (resistance value about 380 KOhms between G and S)
 - c. If about 00hm (or really less than 380kOhm) between G and S, means Q1/Q4/Q5/Q8 are dead
 - d. Replace Q6 and/or Q13 in this case
3. PWM power stage:
 - a. Charger OFF (not powered)
 - b. Check PFC transistors of PWM : Q23/Q28/Q34/Q37 (resistance value about 220hms between G and S)
 - c. If about 00hm (or really less than 220hm) between G and S, means Q23/Q28/Q34/Q37 are dead
 - d. Replace Q23/Q28/Q34/Q37 in this case
4. Auxiliary Power Supply:

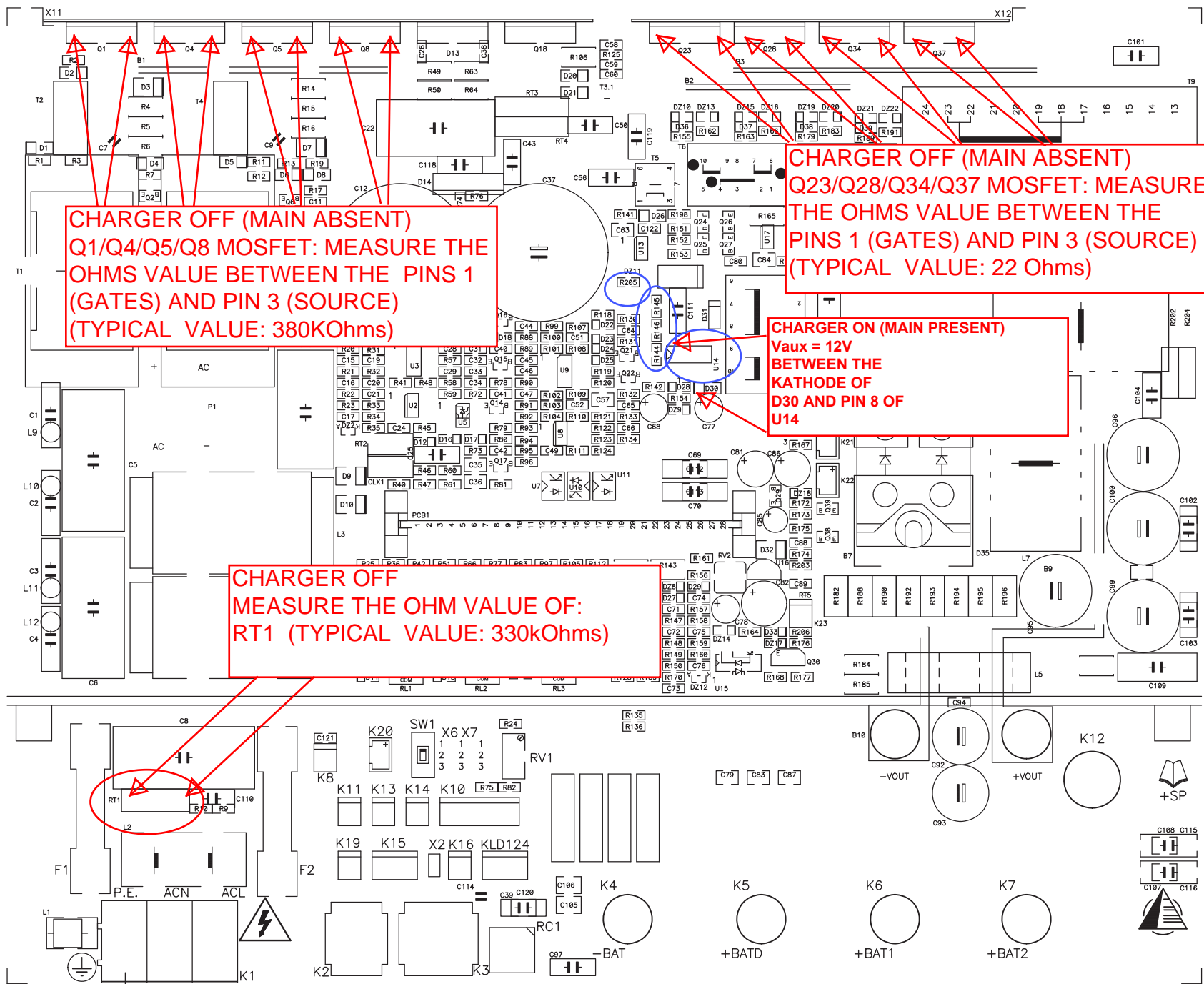
Test possible only if Q1/Q4/Q5/Q8 and Q23/Q28/Q34/Q37 are compliant

For those repairs, please follow the procedure below:

- Powered up the Charger
 - If the charger startup : 3 leds turn ON et voltage is present on output it means that the charger is working
 - If the charger doesn't startup :
 - Check if Vaux voltage(12Vdc) is present between D30 cathode(+) and pin 8 of U14(-)
 - If Vaux = 12V it means that it's not a common issue, so send the charger back to us.
 - If Vaux = 0V so :
 - Unpowered the charger

AFTER SALES PROCEDURE FOR CPS3/24-60 (AND OEM), CPS3/24-75 AND CPS3/12-80

- Replace component R205/R144/R145/R146/U14
- Powered UP the charger again :
 - If the 3 LEDs on the top are ON and, you can measure the output voltage, so charger is ok.
 - If the charger doesn't startup, please, send it back to us



CHARGER OFF (MAIN ABSENT)
Q1/Q4/Q5/Q8 MOSFET: MEASURE THE OHMS VALUE BETWEEN THE PINS 1 (GATES) AND PIN 3 (SOURCE) (TYPICAL VALUE: 380KOhms)

CHARGER OFF (MAIN ABSENT)
Q23/Q28/Q34/Q37 MOSFET: MEASURE THE OHMS VALUE BETWEEN THE PINS 1 (GATES) AND PIN 3 (SOURCE) (TYPICAL VALUE: 22 Ohms)

CHARGER ON (MAIN PRESENT)
Vaux = 12V
BETWEEN THE KATHODE OF D30 AND PIN 8 OF U14

CHARGER OFF
MEASURE THE OHM VALUE OF: RT1 (TYPICAL VALUE: 330kOhms)