

AFTER SALES PROCEDURE FOR CPS3OEM/12-40 AND CPS3OEM/12-60
(Confidential Document which can't be share without CRISTEC authorization)

Failure:

1. Deteriorated transistor of the PFC: Q6/Q13
2. Auxiliary Power Supply deteriorated: R123/R114/R115/R116/U12 and sometimes the failure of PWM controller: U13

The simply replacement of those component is most of the time enough to fix those type of issue.
(No other damage)

For those repairs, please follow the procedure below:

- Charger OFF (not powered)
 - Check PFC Transistor Q6/Q13 :
 - If about 00hm (or really less than 380kOhm) between G and S, means Q6/Q13 are dead
 - Replace Q6 and/or Q13 in this case
 - 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 D22 cathode(+) and pin 2 of U12(-)
 - 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
 - Replace component R123/R114/R115/R116/U12
 - And also replace U13 (Preventive action)
 - 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

Note: Before each times you attempt to power UP the charger, you should measure the resistance of PWM transistor Q14/Q18 (about 415KOhms between G and S). (If the measure is about 00hm or really less than 415kOhm you should replace Q14 and Q18)

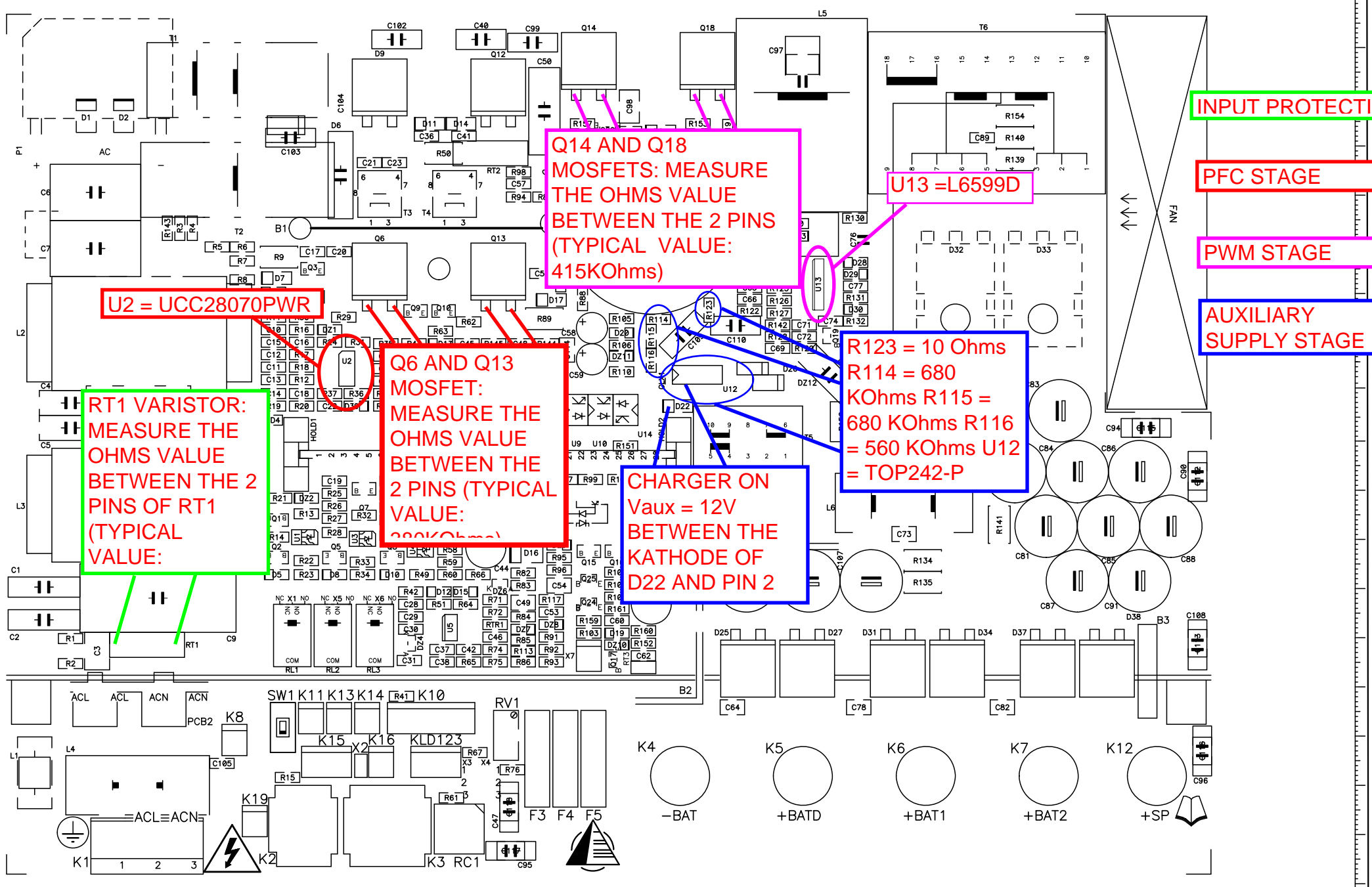
PROCEDURE SAV POUR CPS3OEM/12-40 ET CPS3OEM/12-60
 (Document confidentiel ne pouvant être diffusé sans autorisation de CRISTEC)

CPS3OEM/12-40:

Part number	Type	Code
Q6 / Q13	MOSFET SMD STB26NM60N 600V20A 0.14R D2PAK	30033467
Q14 / Q18	MOSFET SMD STB26NM60N 600V20A 0.14R D2PAK	30033467
U13	I.C. L6599D HIGHVOLTAGE RESON.CONTROLLER	30032418
U12	I.C. TOP242-P PWM SWITCH PLASTIC DIP-8B	30032562
R123	RES.SMD(1206)1/4W 1% 10Ω	30030817
R114 / R115	RES.SMD(1206)1/4W 1% 680KΩ	30022809
R116	RES.SMD(1206)1/4W 1% 560KΩ	30022814

CPS3OEM/12-60:

Part number	Type	Code
Q6 / Q13	MOSFET SMD STB26NM60N 600V20A 0.14R D2PAK	30033467
Q14 / Q18	MOSFET SMD STB26NM60N 600V20A 0.14R D2PAK	30033467
U13	I.C. L6599D HIGHVOLTAGE RESON.CONTROLLER	30032418
U12	I.C. TOP242-P PWM SWITCH PLASTIC DIP-8B	30032562
R123	RES.SMD(1206)1/4W 1% 10Ω	30030817
R114 / R115	RES.SMD(1206)1/4W 1% 680KΩ	30022809
R116	RES.SMD(1206)1/4W 1% 560KΩ	30022814



INPUT PROTECTION

PFC STAGE

PWM STAGE

AUXILIARY SUPPLY STAGE

U2 = UCC28070PWR

RT1 VARISTOR:
MEASURE THE OHMS VALUE BETWEEN THE 2 PINS OF RT1 (TYPICAL VALUE: ...)

Q6 AND Q13 MOSFET:
MEASURE THE OHMS VALUE BETWEEN THE 2 PINS (TYPICAL VALUE: 280KOhms)

Q14 AND Q18 MOSFETS: MEASURE THE OHMS VALUE BETWEEN THE 2 PINS (TYPICAL VALUE: 415KOhms)

CHARGER ON Vaux = 12V BETWEEN THE KATHODE OF D22 AND PIN 2

R123 = 10 Ohms
R114 = 680 KOhms
R115 = 680 KOhms
R116 = 560 KOhms
U12 = TOP242-P

U13 = L6599D



Layer
SILK-SCREEN TOP PLANE

Title
CPS3-2M CDS3-2M RANGE M.B.

File
C1068-5

Date 09.07.2009
Scale 1:1

Drawn by C.B.D.
Checked S.A. - F.F.