microcontroller

File: microcontroller.kicad_sch

power

File: power.kicad_sch

current monitoring

File: current monitoring.kicad_sch

scr

File: controlling 230v.kicad_sch

regulator

File: regulator_5v to 3.kicad_sch

Phase_SCR

Phase_IN

F1
Polyfuse

R1
B72214S0271K101

Neutral

PS1
HLK−10M05

| 1 | AC/L | +Vout | 4 |
| 2 | AC/N | −Vout | 3 |

+5v

GND

H3
Phase_IN

H1
Earth

H2
Neutral

Phase_IN

Earth

Neutral

H4
Phase_OUT

H8
Earth

H9
Neutral

Phase_OUT

Earth

Neutral

+5v

C1
100nf

R2
1k

GND

U2
ACS712xLCTR−05B

D1
LED

Phase_OUT

1 IP+ VCC 8

VIOUT 7 Current_monitor

Neutral

3 IP− FILTER 6

GND 5

C2
1nf

GND

U3
MOC3021S

+3.3v — 1 ANODE   MAIN_TERMINAL 6
       2 CATHODE   SUBSTRATE 5
       3 NC   MAIN_TERMINAL 4

R12
330R

R11
100R

Q1
BTA12−800BWRG

Phase_OUT — 1 A1   G 3
                   A2 2 — Phase_SCR

R10
220R

R9
1k

PWM_IN

R8
10k

Q2
2STR1215

GND

GND

R4
10k

ZCR_OUT

R7   **R6**   **R5**
270k   **270k**   **270k**

Phase_SCR

Q3
2STR2160

R3
10k

+3.3v

+5v

U4
AMS1117-3.3

3 VI VO 2

GND
1

C3
10uf

C4
100nf

+3.3v

GND