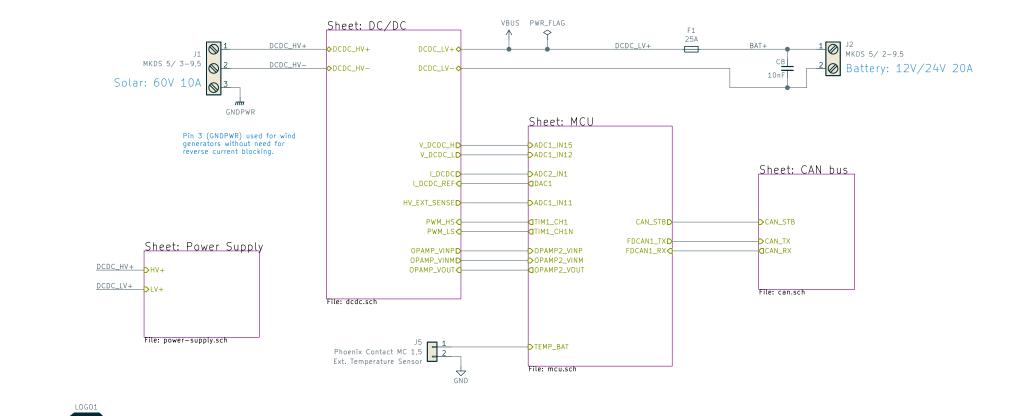
MPPT charge controller for DIN rail mounting











Housing: Phoenix Contact BC series - Bottom: 2896267 - Top: 2202302

- Cover: 2896160

MPPT	2420	RC
1911 1 1	2720	IV C

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Sheet: /

File: mppt-2420-rc.sch

Author: Martin Jäger Size: A4

Date: 2020-05-30 Rev: 0.1.1 KiCad E.D.A. kicad 5.1.5 Page: 1/5

LIBRE**SOLAR**

DC/DC power stage DCDC_HV+ D14 SS14FL +12V HS_DRV IPP045N10N3G RV2 N 82V LS_DRV L1 ₽HV_EXT_SENSE SW_NODE -♦DCDC_LV+ D15 SS14FL 33μΗ Q2 IPP LS_DRV IPP045N10N3G C6 NPO/COG MMBT3904 D8 2.5V DCDC_HV- < →DCDC_LV-Q8 NT1 NT2 IPP045N10N3G \Rightarrow GNDPWR GND MOSFET for reverse polarity protection and PV reverse current blocking The HV_EXT_SENSE pin can be used to detect and enable a dump load connected to HV- in a wind charge controller setup (generator connected to HV+ and GNDPWR) +3.3V MOSFET driver D16 1N4148 +12V I_DCDC_REFD EE J 1 VDD HB C10 PWM_HSD 2 HI GND **─**DV_DCDC_H 100nF SHUNT_P 3 LI PWM_LSDно 6 SW_NODE HS ◆ DI_DCDC SHUNT_N LS_DRV VSS LO GND LM5107 GNDPWR \uparrow GND GND ►DV_DCDC_L MPPT 2420 RC GND GND Use MCU internal OPAMP if U3 is not populated. Libre Solar Technologies GmbH LIBRE**SOLAR** Website: http://libre.solar Sheet: /DC/DC/ File: dcdc.sch Author: Martin Jäger If not stated otherwise, all MLCC 50V X7R Size: A4 Date: 2020-05-30 Rev: 0.1.1 KiCad E.D.A. kicad 5.1.5 Page: 2/5

