Цепь
M1 1
M2 2
Com 3
Com 4
Heat 5
Heat 6
220V 7
220V 8
X1

C2 270nF 400V
VS1
R3 10k
VS2
R4 10k
VS3
R5 10k
R1 47
C3 10nF 630V
VD1 12V
C4 220uF 16V
C1 220nF 400V
R2 510
VD2 1N4148

R7 1.5k
R8 1.5k
R9 470
U1:4
U1:3
U1:1
PS2533-4

R11 470 M1
R12 470 M2
R13 470 Heater

T1
VD3 DB157
R22 100k
R10 10k
R6 10k
SyncB
SyncA
VD5 1N4148
VD6 1N4148
VD4 1N4148

+12V
DA1 7805
In Out
Gnd
C5 470uF 25V
C6 1000uF 6.3V
C7 100nF
+5V

X2
Цепь
1 +12V
2 GND
Cooler

+5V
R15 10k
1 nReset
DD1 MCU
RXD 2 PD0/RXD
TXD 3 PD1/TXD
M1 4 PD2/INT0
M2 5 PD3/INT1
Heater 6 PD4/XCK
PD5 11 PD5/T1
SyncB 12 PD6/AIN0
SyncA 13 PD7/AIN1
ZQ1 12MHz
9 XTAL1
10 XTAL2
C8 22
C9 22
+5V
7 Vcc
8 GND
ATMEGA8-PU

ADC0/PC0 23 PC0
ADC1/PC1 24 PC1
ADC2/PC2 25 PC2
ADC3/PC3 26 PC3
ADC4/PC4 27 PC4
ADC5/PC5 28 t sense
ICP1/PB0 14 PB0
OC1A/PB1 15
SS/PB2 16 PB2
MOSI/PB3 17 PB3
MISO/PB4 18 PB4
SCK/PB5 19 PB5
AVCC 20
AREF 21
GND 22
C12 100n
C13 100n
+5V

+5V
BF1 HC-12G
R21 100
R20 4.7k
VT3 BC847

+5V
X3
Цепь
TXD 1 TXD
RXD 2 RXD
3 +5V
4 GND
RS232

X5
Цепь
PB0 1
PB2 2
PB3 3
PB4 4
PB5 5
PD5 6
PC0 7
PC1 8
PC2 9
PC3 10
PC4 11
TXD 12
13
RXD 14
15
16
IDC-16MS(BH-16)
+5V
C15 1000uF 6.3V

+5V
VT1 BC857
R16 680
C11 100n
+5V
VT2 BC857
R14 22k
C10 100n
R17 3.9k*
DA2 MCP601
3 +
7
6
2 –
4
R18 10k
R19* 100
t sense
C14* 100n

X4
Цепь
Diode+ 1
Diode– 2
PBS-2

Errata:

PD5 and PB5 and correct on shematics, but incorrectly swapped in PCB

Additional diode (VD6) and pullup (R22) are added to improve AC line missing detection

* Select R17 to fit ADC input range (2.56V)

R19 and C14 are optional