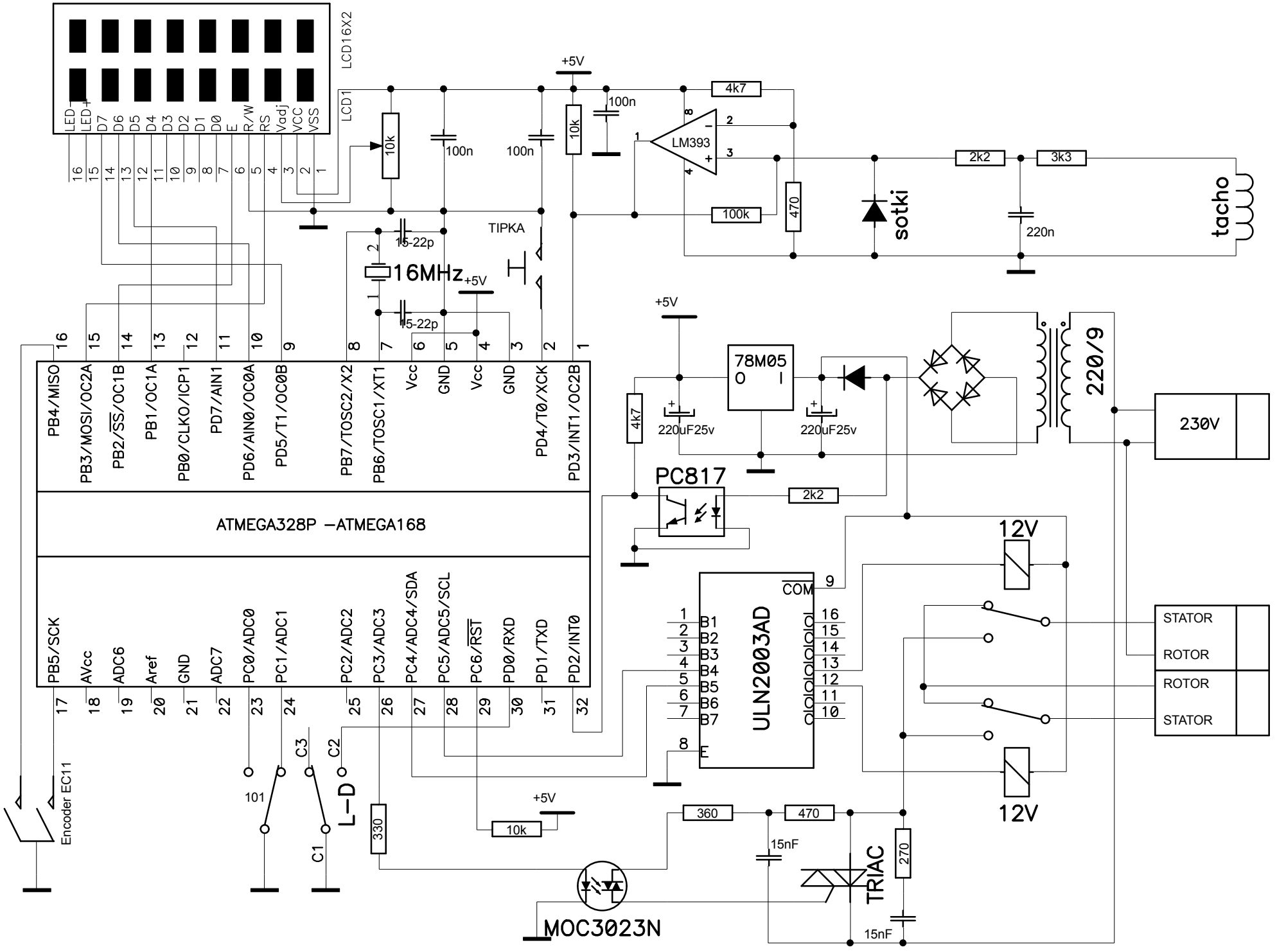
LCD16X2
LCD1
LED-
LED+
D7
D6
D5
D4
D3
D2
D1
D0
E
R/W
RS
Vadj
VCC
VSS
10k
100n
100n
10k
100n
+5V
4k7
LM393
100k
470
sotki
2k2
3k3
220n
tacho
TIPKA
15-22p
16MHz
15-22p
+5V
PB4/MISO
PB3/MOSI/OC2A
PB2/SS/OC1B
PB1/OC1A
PB0/CLKO/ICP1
PD7/AIN1
PD6/AIN0/OC0A
PD5/T1/OC0B
PB7/TOSC2/X2
PB6/TOSC1/XT1
Vcc
GND
Vcc
GND
PD4/T0/XCK
PD3/INT1/OC2B
ATMEGA328P –ATMEGA168
PB5/SCK
AVcc
ADC6
Aref
GND
ADC7
PC0/ADC0
PC1/ADC1
PC2/ADC2
PC3/ADC3
PC4/ADC4/SDA
PC5/ADC5/SCL
PC6/RST
PD0/RXD
PD1/TXD
PD2/INT0
+5V
4k7
220uF25v
78M05
220uF25v
220/9
230V
PC817
2k2
12V
COM
ULN2003AD
B1
B2
B3
B4
B5
B6
B7
E
STATOR
ROTOR
ROTOR
STATOR
12V
Encoder EC11
101
C1
C3
C2
L-D
330
10k
+5V
360
470
15nF
TRIAC
270
15nF
MOC3023N