



EVLPWD\_FAN&PUMP - Bill of materials

Reference	Part Value	Description	Package	Manufacturer	Part Number
C1,C2,C4,C8	100pF/25V	SMT Ceramic Capacitor	Size 0603		
C3,C27	47nF/25V	SMT Ceramic Capacitor	Size 0603		
C6,C7,C14,C15,C17	10pF/25V	SMT Ceramic Capacitor	Size 0603		
C9,C12,C13,C16,C58,C59,C60	NM	SMT ceramic capacitor	Size 0603		
C10,C18,C19,C31,C47,C52	100nF/25V	SMT Ceramic Capacitor	Size 0603		
C11	1nF/25V	SMT Ceramic Capacitor	Size 0603		
C20,C21,C25	470nF/25V	SMT ceramic capacitor	Size 0603		
C22,C23,C24,C26,C28,C29,C32,C56	33pF/25V	SMT Ceramic Capacitor	Size 0603		
C30	2.2nF/25V	SMT Ceramic Capacitor	Size 0603		
C33,C37	68uF/400V	THT Electrolytic Capacitor	Diam. 16mm p. 7.5mm	Würth	860021000000
C34	68nF	SMT ceramic capacitor	Size 1210	WURTH ELEKTRONIK	885342209005 or equivalent
C35	10nF/25V	SMT Ceramic Capacitor	Size 0603		
C36,C38	150 nF	WCAP-FTX2 Film Capacitors	7x13 mm, Pitch 10 mm	WURTH ELEKTRONIK	890324023025CS or equivalent
C39,C40	2.2nF	WCAP-CSSA Ceramic Capacitors	Size 2211	WURTH ELEKTRONIK	8853522130151 or equivalent
C41	22uF/25V	SMD Aluminum Elect. Capacitor	5x5.4 mm	Panasonic	EEE1EA220WR or equivalent
C42	150nF/25V	SMT ceramic capacitor	Size 0603		
C43	430p/25V	SMT ceramic capacitor	Size 0603		
C44	33nF/25V	SMT ceramic capacitor	Size 0603		
C45	1uF/25V	SMT ceramic capacitor	Size 0805		
C46	100nF/25V	SMT ceramic capacitor	Size 0805		
C48	4.7uF/25V	SMT Ceramic Capacitor	Size 0603		
C49	22uF	THT Electrolytic Capacitor	Diam. 5mm, pitch 2mm		
C50	10uF/25V	SMT Ceramic Capacitor	Size 0603		
C51	22uF/10V	SMT Ceramic Capacitor	Size 1206		
C53,C57	1uF/25V	SMT ceramic capacitor	Size 0603		
C54,C55	220nF/25V	SMT Ceramic Capacitor	Size 0603		
D4,D5,D8	BZX38450-C3V3X	Low-current voltage regulator diodes	SOD323 (SC-76)	Nexperia	BZX38450-C3V3X or equivalent
D6,D7,D9,D14	BAT54J	40V, 300mA Small signal Schottky SMT Diode	SOD-323	STMicroelectronics	BAT54JFILM or equivalent
D10,D11,D12	N.M.	Turbo 2 Ultrafast High-Voltage Rectifier	SMA	STMicroelectronics	STTH1L06A
D13	RDBF254-13	2.5A SURFACE MOUNT FAST BRIDGE RECTIFIER	DBF	DIODES INCORPORATED	RDBF254-13 or equivalent
D15	1N4148WS	Small Signal Fast Switching Diode	SOD-323F	VISHAY	1N4148WS-E3-08 / -E3-18 or equivalent
D16	N.M.	ZENER 3V3	SOD-123		
D17,D18	STTH1L06	Turbo 2 Ultrafast High Voltage Rectifier	DO-41	STMicroelectronics	STTH1L06/RL or equivalent
F1	UMT 250	Surface Mount Fuse, Time-Lag T, 250Vac,125Vdc	UMT250-SCHURTER	Schurter	3403.0171.11
JP1	OPEN	SMT Jumper	Soldering pads		
JP2	CLOSED	SMT Jumper	Soldering pad		
JP3,JP4,JP6	OPEN	SMT Jumper	Soldering pad		
JP5	CLOSED 2-4	SMT Jumper	Soldering pads		
JP7,JP8,JP12	N.M.				
JP9	CLOSED 1-2	Strip connector 3 pos, 2.54 mm	1x3 pins	Amphenol FCI	68000-403HLF or equivalent
J1,J4	STRIP 1x4	Strip connector 4 pos, 2.54 mm	1x4 pins	Amphenol FCI	68000-404HLF or Equivalent
J2	SAMTEC FTSH-107-01-L-DV-K-A	SMT Micro Header pitch 1.27 mm		SAMTEC	
J3	STRIP 1x5	Strip connector 5 pos, 2.54 mm	1x5 pins	WURTH ELEKTRONIK	61300511121 or equivalent
J5	STRIP 1x5	Strip connector 5 pos, 2.54 mm	1x5 pins	Amphenol FCI	68000-405HLF or equivalent
J6,J7,J8,J11	PAD_4_7D2_4MM	Solder Pad	Diam. 4.7, hole diam. 2.4 mm		
J10	MORSV-508-2P_screw	Connector terminal block T.H. 2 positions 5.08 mm	2 poles, Pitch 5.08	Phoenix Contact	1715721 or Equivalent
J12	CLOSED 2-3	Strip connector 6 pos, 2.54 mm	1x6 pins	WURTH ELEKTRONIK	61300611121 or equivalent
LD1	YELLOW	Yellow LED	Size 0603	WURTH ELEKTRONIK	150060YS75000 or equivalent
LD2	GREEN	Green LED	Size 0603		
L1	4mH	WE-CMB Common Mode Power Line Choke	XS	Würth Elektronik	744821240 or equivalent
L2	2.2mH	WE-PD HV SMT Power Inductor (High Voltage)	Size 1210	Würth Elektronik	7687709222 or equivalent
NTC1	B57153S0	NTC Thermistor for Inrush current limiting	Diam. 8.5xL6xH13 mm max	TDK	B57153S0100M0 or equivalent
RV1	820572711	Disk Varistor Standard WE-VD	Diam. 9 mm, pitch 5 mm	WURTH ELEKTRONIK	820572711 or equivalent
R1,R4,R6,R13,R16,R20	20k	SMT Resistor	Size 0603		
R3,R9,R11,R15,R19,R23,R73	4.7k	SMT Resistor	Size 0603		
R5,R10,R21,R60,R62,R63,R65,R66,R	1K	SMT resistor	Size 0603		

R7,R14,R22,R44,R45,R46	10k	SMT Resistor	Size 0603		
R12,R52,R53,R55	N.M.	SMT Resistor	Size 0603		
R17,R24,R25	100k	SMT Resistor	Size 0603		
R28,R31,R32,R33,R54,R83,R85,R86	0R	SMT Resistor	Size 0603		
R34	39k	SMT Resistor	Size 0603		
R35	330R	SMT Resistor	Size 0603		
R36,R37,R41,R42,R49,R50	200k	SMT Resistor	Size 1206		
R38,R39	100R	SMT Resistor	Size 0603		
R40,R43,R56	3.3k	SMT Resistor	Size 0603		
R47,R48,R51	1.8k	SMT Resistor	Size 0603		
R57,R58,R59	27R	SMT resistor	Size 0805		
R61,R64	47k	SMT Resistor	Size 0603		
R67	56k	SMT Resistor	Size 0603		
R69	N.M.	NTC Resistor	Hole 0.8 mm		
R70,R95,R97	1k5	SMT Resistor	Size 0603		
R71,R93,R94	750m 1/2W 1%	SMT resistor	Size 1206	Welwyn C.	RCWE1206R750FKEA or Equivalent
R74,R75	470k	SMT Resistor	Size 1206		
R77,R79	680k	SMT resistor	Size 0805		
R78	7.5k	SMT Resistor	Size 0805		
R80	110k	SMT resistor	Size 0603		
R81	82k	SMT resistor	Size 0603		
R82	9.1k	SMT resistor	Size 0603		
R84	0R	SMT resistor	Size 0805		
R87	12k	SMT resistor	Size 0603		
R88	1.5k	SMT Resistor	Size 1206		
R89		100 SMT Resistor	Size 0603		
R91	22k	SMT Resistor	Size 0603		
R98,R99	NM	SMT Resistor	Size 0805		
SW1,SW2	4.30483E+11	CMS TACTILE SWITCHES - 6x6 J-bend		WURTH ELECTRONIK	430483025816 or equivalent
TP1,TP3,TP4,TP5,TP7,TP8,TP9,TP10,	N.M.	TP for Probe	Diam. 1.27, Hole 0.8mm		
TP6	TP-ANELLO_1mm-ROSSO	Red bead terminal, diam. 1.02mm	Diam. 2,54 , Hole 1mm	Vero Technologies	20-313137 or equivalent
TP20	TP-ANELLO_1mm-NERO	Black bead terminal, diam. 1.02mm	Diam. 2,54 , Hole 1mm	Vero Technologies	20-2137 or equivalent
TP26	TPTH-ANELLO-1MM	THT Ring Test Point		Keystone	5003 or equivalent
TP31,TP32,TP33	N.M.	TP for Probe	Diam. 1.27, Hole 0.8mm		Diam. 1.27, Hole 0.8mm
U1	STM32G071RBT6	Arm Cortex-M0+ 32-bit MCU, up to 128 KB Flash, 36 KB RAM, 4x USART, timers, ADC, DAC, comm. I/Fs, 1.7-3.6V	LQFP-64	STMicroelectronics	STM32G071RBT6
U2	TSV994	Rail-to-rail input/output 20 MHz GBP operational amplifiers	SO14	STMicroelectronics	TSV994IPT / IYDT or Equivalent
U3	PWD5T60	High-density power driver, High voltage three-phase bridge with integrated gate driver	Advanced QFN 12x12x1.0 mm	STMicroelectronics	PWD5T60 / TR
U4	VIPer011LS	Energy saving off-line high voltage converter	SSOP10	STMicroelectronics	VIPer011LS/TR
U5	AZ1117H-3.3TRG1	LOW DROPOUT LINEAR REGULATOR	SOT-223	Diodes Incorporated	AZ1117H-3.3TRG1 or equivalent
XT1	ABM8AIG-8.000MHZ-8	Automotive & Industrial Grade Ceramic Base SMD Crystal		ABRACON	ABM8AIG-8.000MHZ-8-V1R-T or equivalent
	P.C.B. EVLPWD_FAN&PUMP				