

PROJECT NAME: STEVAL-ISF003V1

BILL OF MATERIALS

Item	Quantity	Reference	Part / Value	Voltage / Watt / Ampere	Type / TECNOLOGY informations	Tolerance	Package	Manufacturer	Manufacturer's ordering code / Orderable Part Number
1	4	C1,C2,C21,C38	100nF	50V	ceramic capacitor	+/- 10 %	smd_0805		
2	1	C3	47nF	600V	Y2 capacitor	+/- 20 %	15mm pitch		
3	5	C4,C5,C8,C9,C44	2.2nF	440VAC	Y2 capacitor	+/- 20 %	7.5mm pitch		
4	2	C6,C7	68nF	300V	X2 capacitor	+/- 20 %	15mm pitch		
5	7	C10,C11,C12,C13,C20,C24,C25	10nF	50V	ceramic capacitor	+/- 10 %	smd_0805		
6	1	C15	4.7nf	50V	ceramic capacitor	+/- 10 %	smd_0805		
7	2	C16,C18	470pf	50V	ceramic capacitor	+/- 10 %	smd_0805		
8	4	C14,C19,C26,C27	1uF	25V	ceramic capacitor	+/- 10 %	smd_0805		
9	1	C22	10uF	16V	ceramic capacitor	+/- 10 %	smd_0805		
10	1	C23	680nF	25V	ceramic capacitor	+/- 10 %	smd_0805		
11	1	C28	220uF	16V	aluminium capacitor	+/- 10 %	radial_smd		
12	1	C29	1,5mF	16V	Farnell	+/-10 %	radial_smd		
13	2	C30,C41	330nF	50V	ceramic capacitor	+/- 10 %	smd_0805		
14	1	C32	220uF	63V	aluminium capacitor	+/- 10 %	radial_smd		
15	3	C33,C39,C42	100uF	16V	aluminium capacitor	+/- 10 %	radial_smd		
16	1	C34	10uF	450V	aluminium capacitor	+/- 10 %	radial_smd		
17	1	C35	22uF	450V	aluminium capacitor	+/- 10 %	radial_smd		
18	1	C36	2.2uF	63V	aluminium capacitor	+/- 10 %	radial_smd		
19	1	C37	680pF	50V	ceramic capacitor	+/- 10 %	smd_0805		
20	1	C40	1n	50V	ceramic capacitor	+/- 10 %	smd_0805		
22	1	DZ1	P6KE440A	440 V / 600 W	TVS diode	N/A	through hole	ST	P6KE440A
23	1	D1	BZX55C30	30V	zener diode	N/A	through hole		
24	2	D4,D5	STTH1210-Y	12A / 1000V	standard diode	N/A	TO-220	ST	STTH1210-Y
25	2	D6,D14	LED		AlGaAs Red LED	N/A	smd_flat_top	AVAGO TECHNOLOGIES	HLMF-Q156-H0031
26	1	D7	BZX55C5V6	5.6 V	zener diode	N/A	through hole		
27	1	D8	BZX55C15	15 V	zener diode	N/A	through hole		
28	2	D9,D10	STBR6012-Y	1200V / 60A	standard diode	N/A	TO-247	ST	STBR6012-Y
29	4	D11,D12,D13,D16	1N4007	1000V / 1A	standard diode	N/A	DO-41		
30	3	D15,D18,D20	STPS1150	150 V / 1 A	rectifier diode	N/A	DO-41	ST	STPS1150
31	1	D17	1.5KE300A	300V / 1.5 kW	TVS diode	N/A	DO-201		
32	1	D19	STTH1106	600V / 1A	rectifier diode	N/A	DO-41	ST	STTH1106
33	1	D21	D1N4148	100V / 0.15A	signal diode	N/A	DO-35		
34	3	D22,D23,D24	BAR43S	30V / 100mA	double serie schottky	N/A	SOT23		
35	1	F1	FUSE		fuseholder 6.3 X 32 mm	N/A	through hole		
36	1	GT1	GTD_EC600X	600V / 5 kA	gas tube discharge	N/A	through hole		
37	1	J1			HEADER, VERTICAL, 5.08MM, 4WAY	N/A	through hole		
38	5	J2,J3,J6,J7,J8			Wire-To-Board Connector	N/A	through hole / press fit	WURTH ELEKTRONIK	7461383
39	2	J9,J10			Board-To-Board Connector	N/A	through hole		
40	1	J11			Wire-To-Board Connector	N/A	through hole		
41	5	J12,J13,J14,J17,J19			Wire-To-Board Connector	N/A	through hole		
42	1	J15			Wire-To-Board Connector	N/A	through hole		
43	1	J16			Wire-To-Board Connector	N/A	through hole		
45	1	LED1			bicolor LED	N/A	smd_PLCC-3	VISHAY	VLMV3100-GS08
46	1	L1		0.9mH/32A	common mode choke	N/A	through hole	WURTH ELEKTRONIK	7448053201
47	1	L2		1mH	power inductor	N/A		WURTH ELEKTRONIK	744741102
48	2	MG1,MG2	LAM 3 K 100 12	1KW	heatsink	N/A		FISHER ELEKTRONIK	LAM 3 K 100 12
48a	5	MG1,MG2- lock-in retaining spring	THFU 2		lock-in retaining spring			FISHER ELEKTRONIK	THFU2
49	1	Q1	BUL216	800 V/4A	high voltage NPN	N/A			
50	1	Q2	STQ1NK80ZR-AP	800V/300mA	N power MOSFET	N/A		ST	STQ1NK80ZR-AP
51	2	Q3,Q5	2N2907A	60V/600mA	PNP bipolar	N/A			
52	1	Q4	STN4NF03L	30V/6.5A	N MOSFET transistor	N/A		ST	STN4NF03L
53	1	R2	56R	PTC_56R_440VAC	PTC THERMISTOR	N/A		EPCOS	B59107J130A20
54	2	R3,R4	100	0805_0.125w		+/-10%	smd_0805		
55	1	R5	2.5k	2.5k / 5W		+/-5%	through hole		

56	4	R6,R7,R8,R9	250k	0.125W		+/-10%	smd_0805		
57	2	R10,R12	2.7M	0.33W		+/-10%	through hole		
58	1	R11	3.3k	0.125W		+/-10%	through hole		
59	3	R13,R19,R53	1k	0.125W		+/-10%	smd_0805		
60	2	R14,R20	270	0.125W		+/-10%	smd_0805		
61	4	R15,R16,R21,R22	390	0.125W		+/-10%	smd_0805		
62	2	R17, R23	30	2W		+/-5%	through hole		
63	1	R18	10	0.125W		+/-10%	smd_0805		
64	6	R24,R25,R31,R32,R37,R38	1M	0.25W		+/-10%	smd_1206		
65	2	R26,R27	300	0.125W		+/-10%	smd_1206		
66	3	R28,R35,R40	21.5k	0.25W		+/-10%	smd_1206		
67	1	R39	39K	0.125W		+/-10%	smd_0805		
68	3	R41,R42,R52	10k	0.125W		+/-10%	smd_0805		
69	1	R43	75	0.125W		+/-10%	smd_0805		
70	1	R44	1.5k	0.125W		+/-10%	smd_0805		
71	2	R45,R46	47	1W		+/-5%	through hole	TE connectivity	EP1W47RJ
72	1	R47	36k	0.125W		+/-10%	smd_0805		
73	1	R48	10k	0.125W		+/-10%	smd_0805		
74	1	R49	20k	0.125W		+/-10%	smd_0805		
75	1	R50	22k	0.125W		+/-10%	smd_0805		
76	1	R51	150	0.125W		+/-10%	smd_0805		
77	3	R54,R55,R56	470k	0.25W		+/-10%	through hole		
78	2	R57,R58	250k	0.25W		+/-10%	through hole		
79	1	R59	10k	0.05W	linear potentiometer	+/-20%	through hole	ALPS	RK09K1130AP5
80	2	SIOV1,SIOV7	S14K250	250VAC_roud_varistor_14mm	250VAC_roud_varistor_14mm	N/A	through hole		
81	2	SIOV2,SIOV3	S14K385	385VAC_roud_varistor_14mm	385VAC_roud_varistor_14mm	N/A	through hole		
82	1	SW1	HV-discharge		DPDT ON-(ON)	N/A	through hole	RS	8UD8WR2C2M2RES
83	1	SW2	switch_HVDC	28V/5A	SPDT ON-(ON)	N/A	through hole	RS	5MS1S402AM2QES
84	20	TP1 to TP20	test point		test point	N/A	through hole	VERO	20-136
85	2	T1,T2	TN5050H	1200V / 50 A	automotive SCR	N/A		ST	TN5050H-12WY
86	1	T3	myrra74010	12W	flyback transformer - E16	N/A	through hole	MYRRA	74010
87	2	U1,U2	LTV-817	50mA	optocoupler	N/A	DIP4	LITE ON	LTV-817M-A
88	1	U3	TS861	10V	CMOS comparator	N/A	soic 8	ST	TS861AIDT
89	1	U5	BS170	60V/0.15mA	N MOSFET transistor	N/A	SOT-23		
90	1	U6	LM35		temp sensor	N/A	TO-220	TI	LM35DT
91	1	U7	STM8S003F3P6		microcontroller	N/A	TSSOP-20	ST	STM8S003F3P6
92	1	U8	L78M12CDT	12V / 500 mA	12V regulator	N/A	DPAK	ST	L78M12CDT
93	2	U9,U10	LM2931	5V/100mA	5V regulator	N/A	DPAK	ST	LM2931ADT50R
94	1	U11	viper26LD		SMPS controller		SOIC16	ST	viper26LD
95	4	nylon spacer	10 x3mm		nylon			Any	Any
96	4	nuts	M3x 5.4mm		nylon			Any	Any