

PROJECT NAME:

STEVAL-IHM034V2

## BILL OF MATERIALS

1	Quantity	Reference	Part / Value	Tolerance %	Voltage Current	WATT	TECNOLOGY information	PACKAGE	Manufacturer	Manufacturer Code	More Info
2	1	B1	USER				Surface Mount Tactile Switch	SMD	Any		RS code: 183-701
3	1	B2	RESET				Surface Mount Tactile Switch	SMD	Any		RS code: 183-701
4	2	C77,C51	47uF	+/-20%	10V		Aluminium electrolytic capacitor	SMT	Panasonic	EEE1AA470SP	RS code:536-9843
5	1	C1	47uF	+/-20%	25V		Aluminium electrolytic capacitor	SMD	Any		RS code: 537-0225
6	22	C2,C3,C4,C5,C6,C7,C10,C12,C25,C42,C61,C62,C67,C72,C71,C69,C64,C63,C59,C83,C85,C75	100nF	+/-10%	50V		Ceramic capacitor X7R	SMD 0805			
7	4	C8,C84,C95,	1nF	+/-10%	50V		Ceramic capacitor X7R	SMD 0805			
8	11	C11,R14,R16,R17,R38,R99,R97,C47,C48,C53,C54	NC	Do Not Fit	Do Not Fit	Do Not Fit	Do Not Fit	Do Not Fit	Do Not Fit	Do Not Fit	Do Not Fit
9	2	C65,C66	22pF	+/-10%	50V		Ceramic capacitor X7R	SMD 0805	Any		
10	1	C68	1uF	+/-10%	16V		tantalum capacitor	SMD			RS code:496-4043
11	6	C28,C29,C30,C31,C32,C33	4.7uF	+/-10%	50V		Ceramic capacitor X7R	SMD 1206	Any		
12	1	C21	0.22uF	+/-20%	300V		X2 Capacitor	Through Hole			Distrelec code: 820765
13	1	C70	10uF	+/-10%	16V		Ceramic capacitor X7R	SMD			RS code:106-846
14	2	C22,C23	220uF	+/-20%	450V		Electrolytic Capacitor	Through Hole			RS code: 575-147
15	1	C74	2.2uF	+/-20%	450V		Electrolytic Capacitor	Through Hole			RS code: 193-7256
16	3	C45,C50,C52	2.2uF	+/-10%	50V		Ceramic capacitor X7R	SMD 0805	Any	450YK2.2M10X12.5	
17	2	C26,C108,C86	470nF	+/-10%	50V		Ceramic capacitor X7R	SMD 0805	Any		
18	3	C94,C96,C97	5.6nF	+/-10%	50V		Ceramic capacitor X7R	SMD 0805	Any		
19	1	C27	4.7nF	+/-10%	50V		Ceramic capacitor X7R	SMD 0805	Any		
20	3	C34,C46,C49	10nF	+/-10%	50V		Ceramic capacitor X7R	SMD 0805	Any		
21	3	C93,C76,C82	22uF	+/-20%	25V		Aluminium electrolytic capacitor	SMT	Panasonic	EEE1EA220SP	RS: 536-9893
22	3	C87,C92,C35	22nF	+/-10%	50V		Ceramic capacitor X7R	SMD 0805	Any		
23	1	C90	1uF	+/-5%	25V		Aluminium electrolytic capacitor	SMD 0805	Any		
24	1	C88	10uF	+/-20%	6.3V		CERAMIC SMT CAPACITOR	1206	Murata	GRM31CR60J106KA01L	RS: 653-0541
25	4	C78,C79,C80,C81,	100pF	+/-10%	50V		Ceramic capacitor X7R	SMD 0805	Any		
26	3	C105,C106,C107	330pF	+/-10%	50V		Ceramic capacitor X7R	SMD 0603	Any		
27	1	C104	680pF	+/-10%	50V		Ceramic capacitor X7R	SMD 0603	Any		
28	1	C73	100nF	+/-5%	630VCC		Polyester Film capacitor	Through Hole	Panasonic	ECQE6104JF	RS:622-4943
29	1	C91	220nF	+/-5%	25V		Ceramic capacitor X7R	0805	Any		
30	1	C89	100uF	+/-20%	25V		Aluminium electrolytic capacitor	SMT	Panasonic	ECEV1EA101P	RS code: 628-4024 RS code: 214-5903
31	2	C55, C56	2.2nF	+/-20%	400V		Y1 Ceramic capacitor	Through Hole			
32	6	C98,C99,C100,C101,C102,C103	10pF	+/-20%	25V		Ceramic capacitor X7R	SMD 0603	Any		
33	6	D1,D2,D7,D8,D23,D24	LL4148				Switching diode	SOD-80			Distrelec code: 601496
34	1	D3	RED LED SMD				Chip LED	SMD 0805			Distrelec code: 250154
35	1	D4	STTH15R06D				Turbo 2 ultrafast high voltage rectifier	TO-220	STMicroelectronics	STTH15R06D	ST-SUPPLY
36	1	D5	GF1M		1000V/1A		Rectifier diode	DO214BA	Vishay	GF1M	RS code: 629-1123
37	1	D6	8A/400V Ac diode bridge		400V/8A		Single-Phase Bridge Rectifier	Through Hole	Vishay	KBUR8-E4	RS code: 634-9288
38	1	D19	1N4148WT				HIGH CONDUCTANCE FAST SWICHING DIODE	SOD 523	FAIRCHILD	1N4148WT	rs code: 708-2163
39	3	D20,D21,D22	STTH106A				TURBO 2 ULTRAFAST HIGH VOLTAGE RECTIFIER	SMA	STMicroelectronics	STTH106A	ST-SUPPLY
40	3	D16,D18,D27	BAT48Z				Small signal Schottky diodes	SOD-123	STMicroelectronics	BAT48ZFILM	ST-SUPPLY
41	1	D13	GREEN LED SMD				Chip LED	SMD 0805	Any		Distrelec code: 250158
42	1	D25	1N5406		600V/3A		Rectifier diode	DO201AD	Any		RS code: 628-9574
43	1	D26	SMAJ15A				Transil	SMA	STMicroelectronics	SMAJ15A-TR	ST-SUPPLY
44	1	L1	FCM1608KF-601T03		600ohm/100MHz		Ferrite Bead	SMD 0603	WURTH		Distrelec code: 330821
45	1	F1	Fuse		250V/10A		Time lag fuse	-	RS		RS code: 563-334
46	1	SOCKET for F1	SOCKET for F1				SOCKET for F1	Through Hole	Schurter	31.8231	RS code: 336-7851
47	2	JP1,JP2	JUMPER				3 way single row strip line connector (male connector) 2.54mm pitch	Vertical Through Hole	Any		RS code: 495-8470
48	1	J1	SPI				5 way way single row strip line connector (male connector) 2.54mm pitch	Vertical Through Hole	Any		RS code: 495-8470
49	1	J2	2M_MC_CONNECTOR				34 way IDC low profile boxed header 2.54mm pitch	Vertical Through Hole	Any		RS code: 473-8311
50	3	JP5,JP6,JP7	JUMPER				2 way single row strip line connector (male connector) 2.54mm pitch	Vertical Through Hole	Any		RS code: 495-8470
51	1		Jumper				Female Jumper 2.54mm Black	Through Hole	Any		
52	1	J13	JTAGISWD				20 way IDC low profile boxed header 2.54mm pitch	Vertical Through Hole	Any		RS code: 461-770
53	1	J9	PFC BOOST INDUCTOR				2 way vertical closed header,5.08mm pitch vertical	Through Hole	Phoenix Contact		RS code: 189-6199
54	3						2 way parallel rising clamp,5.08mm	Through Hole	Phoenix Contact		RS code: 189-6010
55	1	J10	AC MAINS				4 way vertical closed header,5.08mm pitch vertical	Through Hole	Phoenix Contact		RS code: 189-6228
56	1						4 way parallel rising clamp,5.08mm	Through Hole	Phoenix Contact		RS code: 189-6032
57	1	J11	PFC_OUT				2 way vertical closed header,5.08mm pitch vertical	Through Hole	Phoenix Contact		RS code: 189-6199
58	1	J12	MOTOR				3 way vertical closed header,5.08mm pitch vertical	Through Hole	Phoenix Contact		RS code: 189-6212
59	1						3 way parallel rising clamp,5.08mm	Through Hole	Phoenix Contact		RS code: 189-6026
60	1	J15	PFC BOOST INDUCTOR				2 way vertical closed header,5.08mm pitch vertical	Through Hole	Phoenix Contact		RS code: 189-6199
61	1	LS1	FINDER 4031-12		12V/10A		Rele 12V 12A	Through Hole	Finder	40.31.7.012.0000	RS code: 351-601
62	1	NTC1	10				Coated-Disk NTC Thermistor	Through Hole	Epcos	B57364-S100-M	Distrelec code: 730723
63	1	NTC2	NTC 10k				Temperature Measurement Probe Assemblies	Through Hole	Epcos	B57703M103G	RS code: 191-2128
64	1	P1	DB9-Female				9 way r/a PCB D female,US footprint 8.1mm	Through Hole	Any		RS code: 542-8043
65	1	Q1	STGW35HF60WD				35A, 600V ultrafast IGBT	TO-247	STMicroelectronics	STGW35HF60WD	ST-SUPPLY
66	1	Q2	BC847				NPN Transistor	Through Hole	NXP	BC847	RS code: 436-7953
67	1	Q3	TLV431CDBZR				V-Ref Adjustable 1.24V to 6V	SOT-23	Texas Instruments	TLV431CDBZRG4	RS code: 661-9635
68	2	R90,R41	240	+/-1%		1/8W	Resistor	SMD 0805			
69	1	R7	330	+/-1%		1/8W	Resistor	SMD 0805			
70	1	R8	360	+/-1%		1/8W	Resistor	SMD 0805			
71	4	R11,R87,R91,R106	3.3k	+/-1%		1/8W	Resistor	SMD 0805			
72	3	R15,R118,R119	10k				Trimmer	Through Hole	Bourns	3386F-1-103LF	
73	1	R72	680	+/-1%		1/8W	Resistor	SMD 0805	Any		
74	2	R27,R26	10k	+/-1%		1/8W	Resistor	SMD 0805	Any		
75	7	R1,R2,R98,R76,R80,R110,R109	0	+/-1%		1/8W	Resistor	SMD 0805	Any		
76	2	R19,R52	100	+/-1%		1/8W	Resistor	SMD 0805	Any		

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77	1	R81	220	±-1%		1/8W	Resistor	SMD 0805	Any		
78	1	R22	160	±-1%		1/4W	Resistor	SMD 1206	Any		
79	1	R23	6.8	±-1%		1/8W	Resistor	SMD 0805	Any		
80	2	R25,R9	47	±-1%		1/8W	Resistor	SMD 0805	Any		
81	2	R29,R94	100k	±-1%		1/8W	Resistor	SMD 0805	Any		
82	6	R30,R32,R35,R40,R21,R120	0.033	±-1%		3W	Resistor	SMD 2512	DISTRELEC	DISTRELEC-71.52.11	Distrelec code: 715211
83	3	R37,R96,R95,R121	4.7k	±-1%		1/8W	Resistor	SMD 0805	Any		
84	1	R103	15K	±-1%		1/8W	Resistor	SMD 0805	Any		
85	4	R43,R44,R82,R83	470k	±-1%		1/8W	Resistor	SMD 0805	Any		
86	3	R105,R108,R101	1.5k	±-1%		1/8W	Resistor	SMD 0805	Any		
87	1	R102	6.8K	±-1%		1/8W	Resistor	SMD 0805	Any		
88	1	R88	3.9K	±-1%		1/8W	Resistor	SMD 0805	Any		
89	1	R89	15K	±-1%		1/8W	Resistor	SMD 0805	Any		
90	1	R86	560	±-1%		1/8W	Resistor	SMD 0805	Any		
91	2	R48,R85	6.8k	±-1%		1/8W	Resistor	SMD 0805	Any		
92	4	R92,R93,R104,R107	220K	±-1%		1/8W	Resistor	SMD 0805	Any		
93	2	R75,R51	3k	±-1%		1/8W	Resistor	SMD 0805	Any		
94	6	R54,R62,R63,R70,R65,R74	2.87k	±-1%		1/8W	Resistor	SMD 0805	Any		
95	14	R55,R56,R59,R60,R64,R67,R68,R71,R24,R57,R58, R66,R69,R73	1k	±-1%		1/8W	Resistor	SMD 0805	Any		
96	1	R36	110	±-1%		1/8W	Resistor	SMD 0805	Any		
97	3	R84,R53,R61	11k	±-1%		1/8W	Resistor	SMD 0805	Any		
98	1	R100	53K	±-1%		1/8W	Resistor	SMD 0805	Any		
99	1	R10	120	±-1%		1/8W	Resistor	SMD 0805	Any		
100	6	R111,R112,R113,R114,R115,R116	1K	±-1%		1/8W	Resistor	SMD 0603	Any		
101	1	R117	1.2K	±-1%		1/4W	Resistor	SMD 1206	Any		
102	15	TP1,TP2,TP3,TP4,TP5,TP6,TP7,TP8,TP9,TP10,TP 11,TP12,TP13,TP14,TP15	TEST POINT 3				1 way single row strip line connector (male connector) 2.54mm pitch	Through Hole	Any		RS code: 101-2391
103	1	T1	1.41mH/15-3.3V		15-3.3V	2.55W	Transformer-	Through Hole	MAGNETICA	2092.0001	
104	1	U1	L78L33ACUTR				Positive voltage regulators	SOT-89	STMicroelectronics	L78L33ACUTR	ST-SUPPLY
105	1	U2	ST3232CTR				± 15 kV ESD protection 3 to 5.5 V low power, up to 250 kbps, RS-232 drivers and receivers	TSSOP16	STMicroelectronics	ST3232CTR	ST-SUPPLY
106	2	U3,U4	SFH6156-2T				Optocoupler phototrans	SMD	Vishay/Semiconductors	SFH6156-2T	RS code: 2841190
107	1	U13	LM193				Low power single voltage comparator	SO8	STMicroelectronics	LM193D	ST-SUPPLY
108	1	U11	STM32F103RCT6				HIGH-density performance line ARM-based 32-bit MCU	LQFP64	STMicroelectronics	STM32F103RCT6	ST-SUPPLY
109	1	U6	L6391				High-voltage high and low side driver	SO-14	STMicroelectronics	L6391	ST-SUPPLY
110	1	U7	STGIPS20C60				IGBT Intelligent power module (IPM) 18 A - 600 V	SDIP-25L_molded	STMicroelectronics	STGIPS20C60	ST-SUPPLY
111	1	U14	LD1117S33TR				Low drop fixed and adjustable positive voltage regulators	SOT-223	STMicroelectronics	LD1117S33TR	ST-SUPPLY
112	1	U15	VIPER16LD				Low Power OFF-Line SMPS Primary Switcher	SO-16	STMicroelectronics	VIPER16LD	ST-SUPPLY
113	1	U10	TSV914				Rail-to-rail input/output 8 MHz operational amplifiers	SO-14	STMicroelectronics	TSV914ID	ST-SUPPLY
114	1	J14	PCB DC power socket		12 V / 1A		Mini DC Power socket 2.5mm	Through Hole	RS	448-376	RS code: 448-376
115	1	Heatsink	L=140mm				Heatsink	Through Hole	PADA(www.pada.it)	G8425140	
116	4		Distance				Distance M3, 10mm long, plastic, with screw, for corners		Any		
117											
118	1	X1	8MHz (with socket)				8 MHzCrystal	Through Hole	Any		RS code: 547-6200
119	1	SOCKET for X1	SOCKET for X1				2 way single row strip line connector (female connector) 2.54mm pitch	Through Hole	Any		Distrelec code: 120324
120	1	kit for TO220 insulation					mica,sleeve for screw				
121	1	kit for TO247 insulation					mica				
122	4	SPACER	SPACER L=10 x 3 mm				NYLON			R.S.325-667	R.S.325-667
123	4	ISO metric ivory nylon 6.6 full NUT,M3	NYLON-NUT				NYLON-NUT			R.S.625-701	R.S.625-701
124	1	PFC inductor	1mH		12A RMS				MAGNETICA	2006.0008	