

Sales code: STEVAL-IHM023V3	Project code:
Company: STMicroelectronics	Project name: 1kW 3-phase motor control evaluation board featuring L6390 drivers and STGP10H60DF IGBT

Index	Quantity	Reference	Value / Generic Part Number	Package / Class	Manufacturer	Manufacturer's ordering code / Orderable Part Number
1	2	C1, C5	2n2/Y1	Y1 safety CAP - 4n7	Murata	DE1E3KX222MA5B
2	2	C2, C3	1200u/250V	elyt. capacitor, RM10mm, 30*45, 105°C	Panasonic	EET-HC2E122KA
3	1	C13	nc			
4	1	C14	220n/25V	capacitor, SMD 0805	any (AVX,...)	
5	1	C15	3.3u/450V		Panasonic	ECA2WHG3R3
6	1	C16	1u/50V	elyt. capacitor, SMD 4*4	Panasonic	EEE1HA010SR
7	1	C19	100u/25V	elyt. capacitor, SMD 8*8	Panasonic	EEE1EA101P
8	9	C66, C67, C71, C72, C73, C26, C24, C27, C28, C6, C7, C17, C18, C10, C11	100n/25V	capacitor, SMD 0805	any (AVX,...)	
9	3	C69, C70, C74	10p/25V	capacitor, SMD 0805	AVX	
10	1	C25	4.7u/25V	elyt. capacitor, SMD 4*4	Panasonic	EEE1EA4R7SR
11	1	C29	2n2/25V	capacitor, SMD 0805	any (AVX,...)	
12	1	C30	4.7n/25V	capacitor, SMD 0805	any (AVX,...)	
13	3	C31, C42, C53	330p/25V	capacitor, SMD 0805	any (AVX,...)	
14	6	C32, C33, C43, C44, C54, C55	1u/50V	capacitor, SMD 1206; 50V	AVX	12065C105KAT2A
15	6	C34, C35, C45, C46, C58, C59	10p/25V	capacitor, SMD 0805	any (AVX,...)	
16	4	C36, C47, C60, C75	1n/25V	capacitor, SMD 0805	any (AVX,...)	
17	3	C37, C48, C61	470n/25V	capacitor, SMD 0805	any (AVX,...)	
18	3	C39, C50, C62	100p/25V	capacitor, SMD 0805	any (AVX,...)	
19	1	C4	150n/X2	Foil X2 capacitor, RM 22.5mm	Arcotronics	CFAC150N; 26.5x15x6
20	3	C40, C49, C63	2n2/25V	capacitor, SMD 0805	any (AVX,...)	
21	3	C41, C51, C64	33p/25V	capacitor, SMD 0805	any (AVX,...)	
22	1	C52	330p/25V	capacitor, SMD 0805		
23	1	C65	100p/25V	capacitor, SMD 0805	any (AVX,...)	
24	1	C56	100n/25V	capacitor, SMD 0805	any (AVX,...)	
25	1	C57	470p/25V	capacitor, SMD 0805	any (AVX,...)	
26	1	C12	47n/25V	capacitor, SMD 0805	any (AVX,...)	
27	2	C8, C68	22u/6.3V	elyt. capacitor, SMD 4*4	Panasonic	EEE0JA220SR
28	2	C9, C38	10n/25V	capacitor, SMD 0805	any (AVX,...)	
29	1	RT1	10k	NTC	EPCOS	B57703M 103G 40
30	1	VR1	10R	NTC	EPCOS	B57364S 100M
31	3	R1, R3, R6	100k	resistor, SMD 1206	Vishay	
32	1	R10	13k	resistor, SMD 0805, 1%	Vishay	
33	4	R11, R14, R120, R121	5k6	resistor, SMD 0805	Vishay	
34	1	R12	nc			
35	1	R13	160R	resistor, SMD 1206	Vishay	
36	9	R112, R113, R114, R115, R116, R117, R109, R110, R111	4k7	resistor, SMD 0805	Vishay	
37	1	R18	6.8k	resistor, SMD 0805	Vishay	
38	2	R19, R108	nc			
39	4	R2, R4, R23, R24	470K	resistor, SMD 1206, 1%	Vishay	
40	3	R21, R107, R106	220R	resistor, SMD 0805	Vishay	
41	6	R22, R27, R20, R33, R74, R17	10k	resistor, SMD 0805	Vishay	
42	1	R25	560R	resistor, SMD 0805	Vishay	
43	1	R32	9k1	resistor, SMD 0805, 1%	Vishay	
44	1	R26	1k	resistor, SMD 0805, 1%	Vishay	

45	3	R28,R122,R123	2k2	resistor, SMD 0805	Vishay	
46	1	R29	100R	resistor, SMD 0805	Vishay	
47	1	R30	15k	resistor, SMD 0805	Vishay	
48	1	R31	27k	resistor, SMD 0805, 1%	Vishay	
49	1	R34	12k	resistor, SMD 0805, 1%	Vishay	
50	4	R35, R36, R57, R82	100k	resistor, SMD 0805	Vishay	
51	4	R37, R41, R58, R62	10R	resistor, SMD 0805	Vishay	
52	6	R38, R59, R85, R40, R61, R87	1k0	resistor, SMD 0805, 1%	Vishay	
53	4	R39, R45, R60, R65	120R	resistor, SMD 0805	Vishay	
54	3	R42, R63, R89	3k3	resistor, SMD 0805	Vishay	
55	3	R43, R64, R90	47k	resistor, SMD 0805, 1%	Vishay	
56	1	R44	3k6	resistor, SMD 0805, 1%	Vishay	
57	3	R46, R66, R92	3k3	resistor, SMD 0805, 1%	Vishay	
58	1	R49	nc			
59	2	R5, R9	120R	resistor, SMD 0805	Vishay	
60	3	R52, R97, R78	3k3	resistor, SMD 0805, 1%	Vishay	
61	3	R54, R76, R100	820R	resistor, SMD 0805, 1%	Vishay	
62	3	R55, R71, R101	0R15	resistor, SMD 2512, 1%, 2W	Vishay	
63	3	R56, R68, R102	nc			
64	6	R67, R70, R75, R79, R50, R53	1k0	resistor, SMD 0805, 1%	Vishay	
65	1	R69	680R	resistor, SMD 0805, 1%	Vishay	
66	1	R7	7k5	resistor, SMD 0805, 1%	Vishay	
67	6	R72, R48, R47, R77, R51, R98	1k	resistor, SMD 0805, 1%	Vishay	
68	1	R73	nc			
69	1	R8	51k	resistor, SMD 0805, 1%	Vishay	
70	1	R80	2k2	resistor, SMD 0805, 1%	Vishay	
71	1	R81	33R	resistor, SMD 0805, 1%	Vishay	
72	2	R83, R88	10R	resistor, SMD 0805	Vishay	
73	1	R104	68k	resistor, SMD 0805	Vishay	
74	1	R84	2k2	resistor, SMD 0805	Vishay	
75	2	R86, R91	120R	resistor, SMD 0805	Vishay	
76	5	R93, R95, R99, R94, R103	1k	resistor, SMD 0805, 1%	Vishay	
77	1	R96	nc			
78	1	R105	220k	resistor, SMD 0805, 1%	Vishay	
79	1	L1	47uH	SMD choke, 0.5A	Panasonic	ELL6RH470M
80	1	L2	2.2mH	SMD choke, 0.25A	Wurth	
81	1	D1	KBU6K	Diode bridge, 250VAC, 8A	Vishay	KBU6K-E4
82	7	D11, D12, D15, D16, D19, D20, D2,D23,D24	BAT48	Diode, SMD, SOD-323	STMicroelectronics	BAT48JFILM
83	8	D13, D5, D14, D17, D18, D21, D22, D10	1N4148	Universal diode, SMD, SOD80C	Fairchild	LL4148
84	2	D25, D29	BZX84B13V	Zener diode, SOT23, 13V	NXP	
85	1	D3	STPS1150	Schottky diode, DO-241AC (SMA)	STMicroelectronics	STPS1150A
86	1	D4	SM6T36	Transil, JEDEC DO-214AA	STMicroelectronics	SM6T36A
87	2	D6, D8	STTH1L06	HV diode, SMA	STMicroelectronics	STTH1L06A
88	1	D7	LED GREEN	Universal LED 3mm, 2mA	Agilent	
89	1	D9	BZV55C18SMD	Zener diode, SOD80, 18V	NXP	BZV55-C18
90	1	D27	LED YELLOW	Universal LED 3mm, 2mA	Agilent	
91	1	D28	LED RED	Universal LED 3mm, 2mA	Agilent	
92	1	D26	STTH2L06	HV diode, SMA	STMicroelectronics	STTH2L06A
93	10	Q1, Q4, Q5, Q12, Q13, Q14, Q15, Q16, Q17, Q18	BC847	NPN transistor, SOT23	NXP	BC847A
94	7	Q10, Q11, Q3, Q6, Q7, Q8, Q9	STGP10H60DF	N channel IGBT, TO220	STMicroelectronics	STGP10H60DF
95	1	Q2	BC857B	PNP transistor, SOT23	NXP	BC857B
96	1	F1	Holder	Fuse holder 5x20mm, KS21 SW	Schurter	0031.8201
97	1	F1	6.25A	Fuse 6.25A Slov, FST06.3, 5x20mm		
98	1	LS1	FINDER 4031-12	Relay 12VDC	Finder	40.31.7.012.0000
99	1	U1	LD1117S33	Linear regulator 3.3V, SOT223	STMicroelectronics	LD1117S33TR

100	1	U2	L7815	Linear regulator 15V, TO-220	STMicroelectronics	L7815ACV
101	1	U3	VIPer16	Smart PWM driver, SO-16	STMicroelectronics	VIPer16LD
102	2	U4, U8	TS391	Voltage comparator, SOT23-5	STMicroelectronics	TS391ILT
103	3	U5, U6, U7	L6390	HV low&high side driver, SO-16	STMicroelectronics	L6390D
104	1	U9	TS3431	Voltage reference, SOT23-3L	STMicroelectronics	TS3431BILT
105	1	U10	L78M05C	Linear regulator 5V, DPAK	STMicroelectronics	L78M05CDT-TR
106	1	U11	M74HC14YRM13TR	Hex Schmitt inverter SOP	STMicroelectronics	M74HC14YRM13TR
107	3	TP1, TP2, TP3	nc			
108	18	TP4 - TP24	PCB Terminal 1MM	Test pin		
109	1	J1	Connector 4P	Connector RM5mm, 4-pole male horizontal	Phoenix Contact	MSTBA 2.5/ 4-G-5.08
110	1		Connector 4P	Connector RM5mm, 4-pole female parallel	Phoenix Contact	MSTB 2.5/ 4-ST-5.08
111	1	J2	Connector 3P	Connector RM5mm, 3-pole male horizontal	Phoenix Contact	MSTBA 2.5/ 3-G-5.08
112	1		Connector 3P	Connector RM5mm, 3-pole female parallel	Phoenix Contact	MSTB 2.5/ 3-ST-5.08
113	1	J3	Con 5mm, 2P	Connector RM 5mm, 2-pole, screw	Phoenix Contact	MKDSN 1,5/2-5.08
114	1	J4	Connector 5P	Autocom HE14 5pin	Kontek	47503341054401
115	1	J5	MLW34G	MLW connector 34pins	Tyco Electronics	3-1761603-1
116	1	J6	Con 5mm, 2P	Connector RM 5mm, 2-pole, screw	Phoenix Contact	MKDSN 1,5/2-5.08
117	1	J7	Con 2.54mm 12pin	Pins RM2.54mm female, 12 pins		
118	1	J8	Con 5mm, 2P	Connector RM 5mm, 2-pole, screw	Phoenix Contact	MKDSN 1,5/2-5.08
119	1	W1	Jumper 2.54	Three pins of break way + jumper in position 3.3V		
120	1	W10	Jumper 2.54	Two pins of break way + jumper		
121	1	W11	Jumper 2.54	Three pins of break way + jumper in position 3.3V		
122	3	W13	Mounting hole	Three way HV Selector, default 3shunts position	HARWIN	H3183-05
123	1		Insulated Jumper Blue	HV Insulated Jumper, 5.08mm, default 3sh position	HARWIN	D3086-97
124	3	W3	Mounting hole	Three way HV Selector	HARWIN	H3183-05
125	1		Insulated Jumper Blue	HV Insulated Jumper, 5.08mm, default High Voltage position	HARWIN	D3086-97
126	1	W4	Jumper 2.54	Two pins of break way + jumper		
127	1	W5	Jumper 2.54	Three pins of break way + jumper in position Rbrake		
128	1	W6	Jumper 2.54	Two pins of break way		
129	1	W7	Jumper 2.54	Two pins of break way		
130	3	W9	Mounting hole	Three way HV Selector, default 3 shunts	HARWIN	H3183-05
131	1		Insulated Jumper Blue	HV Insulated Jumper, 5.08mm, default 3sh position	HARWIN	D3086-97
132	1	W14	Wire jumper	Not assembled		
133	1	W16	Jumper 2.54	Three pins of break way + jumper in position 1		
134	150mm	Het 1	Heatsink	150 mm of AL profile 8693	Pada	
135	1	Het 2	Heatsink	Heatsink for TO-220 with montage pin	Pada	
136	7		Clip for het	montage clip PADA 7704, TO-220, 10mm	Pada	
137	1		Clip for het	montage clip PADA 7703, TO-220, 15mm	Pada	

138	130mm		Isolation tape	Isolation tape, 24mm wide; apr. 130mm long, self adhesive		
139	5		Distance	Distance M3, 10mm long, Messing		DI5M3X10
140	5		Spur 3mm	3mm spur (under screw)		
141	9		Screw 3mm	Screw 3mm		