

Bill of Material

Sales code:	Project code:
STEVAL-ISA019V3	
Company:	Project name:
STMicroelectronics	3-phase 80W SMPS with very wide-range input voltage based on the L6565 and ESBT STC04IE170HP

Index	Quantity	Reference	Value / Generic Part Number	Package / Class	Manufacturer	Manufacturer's ordering code / Orderable Part Number	Supplier	Supplier's ordering code
1	2	C1,C2	220uF	electrolytic capacitor, 450V, snap-in, 25*45	HITACHI, Kendeil		Semic Trade	HP3, 220u/450V,25*45
2	2	C3,C4	1000uF/35V	electrolytic capacitor, 35V, 105°C, 12.5*25, low ESR	Rubycon	35ZL1000M12.5X25	Farnell	1144710
3	1	C5	47uF/35V	electrolytic capacitor, 35V, 105°C, 5*11	Rubycon	35ZLH47M5X11	Farnell	8126747
4	1	C6	100nF	SMD ceramic capacitor CERCAP X7R/50V - 1206	any			
5	2	C12	1nF	SMD ceramic capacitor CERCAP X7R/50V - 0805	any			
6	1	C9	470pF	SMD ceramic capacitor CERCAP NPO/50V - 0805	any			
7	1	C10	10pF	SMD ceramic capacitor CERCAP NPO/50V - 0805	any			
8	1	C11	2n2	SMD ceramic capacitor CERCAP X7R/50V - 0805	any			
9	1	C13	10n	SMD ceramic capacitor CERCAP X7R/50V - 0805	any			
10	1	C7	6n8; 1600VDC	B32653A1682000; Polypropylene film pulse capacitor, 1600VDC, 7.5*16*26.5; 22.5	Epcos	B32653A1682000	Epcos	B32653A1682000
11	1	C8	150n	SMD ceramic capacitor CERCAP X7R/50V - 1206	any			
12	1	D11	LL4148	SMD universal diode	any	Vishay	GM	917-001
13	1	D9	BZV55C3.0V	zener diode SMD - SOD80, 3.0V	any	BZV55C3.0SMD	GM	919-008
14	3	D7,D8,D10	STTH108A	SMD diode, high voltage ultrafast, 800V, 1A, SMA	ST	STTH108A	ST	STTH108A
15	1	D6	STPS1150A	SMD diode, power schottky, 150V, 1A, SMA	ST	STPS1150A	ST	STPS1150A
16	1	D5	STPS20120D	SMD diode, power schottky, 120V, 20A, TO-220AB	ST	STPS20120D	ST	STPS20120D
17	4	D1,D2,D3,D4	1N4007	HV diode, 1000V, 1A, DO-41	1N4007	GM, 1N4007	GM	220-002
18	1	F1	T1A	fuseholder verticalall montage, SI-HA#122100	Schurter	SI-HA#122100	GM	000-045
19	1	F1		fuse 1A slow, 250VAC	Schurter	FSF01 H	GM	633-241
20	2	het1, het2	8437/38/STB	heatsink, 8437/38/STB Pin 2.2mm, Rthjc = 11.5°C/W	Pada		Semic Trade	8437/38/STB
21	1	J1	ARK700I/2	connector ARK700I/2, RM=5.08mm	ARK700I/2	ARK700I/2	GM	821-022
22	1	J3	ARK500/2	connector ARK500/2, RM=5mm	ARK500/2	ARK500/2	GM	821-017
23	4		KDI6M3X08	distance column M3, 8mm	any	KDI6M3X08	GM	623-084
24	1		clip 00002952	clip for heatsink 8437	Pada		Semic Trade	clip 00002952
25	1	Q1	STC04IE170HP	4A, 1700V, TO-247 4 leads, isolated	ST	STC04IE170HP	ST	STC04IE170HP
26	2	R2, R3	200k	resistor, size 0204, metal film, 250V, 0.4W, 1%	any		GM	119-125
27	1	R12	10R	SMD standard film resistor - 1206 - 1%	any			
28	2	R6, R7	39k	resistor, size 0414, metal film, 500V, 2W, 5%	any		GM	114-083
29	2	R9, R10	1M1	SMD standard film resistor - 1206 - 1%	any			
30	1	R18	10k	SMD standard film resistor - 1206 - 1%	any			
31	1	R11	1R	SMD standard film resistor - 1206 - 1%	any			
32	1	R11b	0R	SMD standard film resistor - 0805 - 1%	any			
33	1	R13	1k0	SMD standard film resistor - 0805 - 1%	any			
34	1	R14	56k	SMD standard film resistor - 0805 - 1%	any			
35	1	R15	1k	SMD standard film resistor - 0805 - 1%	any			
36	2	R16, R17	1R6	resistor, size 0207, metal film, 250V, 0.6W, 1%	any		GM	110-006
37	1	R24	1k5	SMD standard film resistor - 0805 - 1%	any			
38	1	R23	3k3	SMD standard film resistor - 0805 - 1%	any			
39	2	R19, R20	47k	SMD standard film resistor - 0805 - 1%	any			
40	1	R21	15k	SMD standard film resistor - 0805 - 1%	any			
41	1	R22	2k7	SMD standard film resistor - 0805 - 1%	any			
42	1	R5	2R2	resistor, size 0207, metal film, 250V, 0.6W, 1%	any		GM	110-009
43	1	R8	1M1	resistor, size 0207, metal film, 250V, 0.6W, 1%	any		GM	110-146
44	1	R26	1k2	resistor, size 0207, metal film, 250V, 0.6W, 5%	any		GM	114-220
45	2	R1, R4	180k	resistor, size 0204, metal film, 250V, 0.4W, 1%	any		GM	119-216
46	1	T1	45371	Egston power transformer	EGSTON	45371	EGSTON	45371
47	1	T2	46836	Current transformer, Toroid 12.5mm, 46836	EGSTON	46836	EGSTON	46836
48	1	U1	L6565N	STMicroelectronics, PWM SMPS controller, DIP-8	ST	L6565N	ST	L6565N
49	1	ISO1	PC817B	optocoupler, SHARP, DIP-4	Sharp	PC817B	GM	523-130
50	1	U4	TL431AID	Voltage Reference, 2.5V, 1%, TO-92, -40...105°C	ST	TL431AID	ST	TL431AID
51	1	NTC1	10R	NTC resistor 10R; 16mm	Epcos	B57237S0100L00	Epcos	B57237S0100L00
52	4			Screw M3; 8mm long				