

Inverter BOM

| Item | Reference | Qty | Pop | Manufacturer | Part Number | Description | Distributor | Stock Number | Value | Modifier |
|------|-----------|-----|-----|---------------------------------|--------------------------|---|-------------|------------------|------------|-------------|
| 1 | C12-15 | 4 | 1 | Panasonic - ECG | EEU-EB1H221 | Capacitor, Aluminum, 220uF, 25V, 20%, 10000 Hours, Radial | Digi-Key | P13131-ND | 220uF | 50V |
| 2 | C1-6 | 6 | 1 | EPCOS Inc | B43501A5477M | Capacitor, Aluminum, 470uF, 450V, 20%, 10000 Hours, Radial | Digi-Key | 495-4245-ND | 470uF | 450V |
| 3 | C101-109 | 9 | 1 | Kemet | C322C104K5R5TA | Capacitor, Ceramic, 0.1uF, 50V, 10%, X7R, Radial | Digi-Key | 399-4329-ND | 0.1uF | 50V |
| 4 | C46-48 | 3 | 1 | Kemet | C330C105K5R5TA | Capacitor, Ceramic, 1.0uF, 50V, 10%, X7R, Radial | Digi-Key | 399-4389-ND | 1.0uF | 50V |
| 5 | C50-53 | 4 | 1 | TDK Corporation | FK22X7R1H225K | Capacitor, Ceramic, 2.2uF, 50V, 10%, X7R, Radial | Digi-Key | 445-2896-ND | 2.2uF | 50V |
| 6 | C9 | 1 | 1 | Kemet | C317C471K2R5TA | Capacitor, Ceramic, 470pF, 200V, 10%, X7R, Radial | Digi-Key | 399-4242-ND | 470pF | 200V |
| 7 | C10-11 | 2 | 1 | TDK Corporation | FK20X7R1E685K | Capacitor, Ceramic, 6.8uF, 25V, 10%, X7R, Radial | Digi-Key | 445-5282-ND | 6.8uF | 25V |
| 8 | C136-139 | 4 | 1 | Kemet | T356K226K035AT | Capacitor, Tantalum, 22uF, 35V, 10%, Radial | Digi-Key | 399-3670-ND | 22uF | 35V |
| 9 | P1 | 1 | 1 | 3M | N3440-6202RB | Connector, Header, 30-Position, Vertical, Short Latch | Digi-Key | MHS305-ND | 2X15 | 0.100" |
| 10 | P2 | 1 | 1 | Molex | 22-23-2041 | Connector, Header, 4-Position, 0.100", Vertical, Tin | Digi-Key | WM4202-ND | 0.100" | 4-Pos |
| 11 | P3 | 1 | 1 | Molex | 22-23-2061 | Connector, Header, 6-Position, 0.100", Vertical, Tin | Digi-Key | WM4204-ND | 0.100" | 6-Pos |
| 12 | J4 | 1 | 1 | Phoenix Contact | 1715721 | Connector, Terminal Block, 2-Position, 5.08mm, 10A, 300V, PCB | Digi-Key | 277-1263-ND | 300V | 10A |
| 13 | J7-8 | 2 | 1 | Phoenix Contact | 1714971 | Connector, Terminal Block, 2-Position, 9.52mm, 30A, 600V, PCB | Digi-Key | 277-1271-ND | 600V | 30A |
| 14 | J1-3 | 3 | 1 | Phoenix Contact | 1714984 | Connector, Terminal Block, 3-Position, 9.52mm, 30A, 600V, PCB | Digi-Key | 277-1272-ND | 600V | 30A |
| 15 | J6 | 1 | 1 | Phoenix Contact | 1715747 | Connector, Terminal Block, 4-Position, 5.08mm, 10A, 300V, PCB | Digi-Key | 277-1265-ND | 4-Pos | 5.08mm |
| 16 | J5 | 1 | 1 | Phoenix Contact | 1715789 | Connector, Terminal Block, 8-Position, 5.08mm, 10A, 300V, PCB | Digi-Key | 277-1266-ND | 8-Pos | 5.08mm |
| 17 | D6-7 | 2 | 1 | Diodes Inc. | 1N5819-T | Diode, Schottky, 40V, 1A, DO41 | Digi-Key | 1N5819DICT-ND | 40V | 1A |
| 18 | D1-2 | 2 | 1 | STMicroelectronics | STTH30R06W | Diode, Ultra Fast, 600V, 30A, DO247 | Digi-Key | 497-4413-5-ND | 600V | 30A |
| 19 | F1 | 1 | 1 | Littelfuse / Wickmann Brand | 56000001319 | Fuse, Holder, TR5, 250V, 6.3A, Vertical, PCB | Digi-Key | WK0001-ND | 250V | 6.3A |
| 20 | F2 | 1 | 1 | Littelfuse / Wickmann Brand | 37216300411 | Fuse, Slow Blow, Time Lag, 250VAC, 6.3A, TR5, Radial | Digi-Key | WK4264BK-ND | 250V | 6.3A |
| 21 | HS4 | 1 | 1 | CTS Thermal Management Products | 7-340-2PP-BA | Heatsink, Black, Dual, TO220 | Digi-Key | 294-1080-ND | 9W@60°C | 3.1°C/W |
| 22 | HS1-3 | 3 | 1 | Ohmite | MA-102-55E | Heatsink, For TO247 and TO264, Black | Digi-Key | MA-102-55E-ND | Heat Sink | Aluminum |
| 23 | U9 | 1 | 1 | Texas Instruments | DCP011515DBP | IC, DC-DC Converter, Isolated,1W, 33mA, DIP14 | Digi-Key | DCP011515DBP-ND | ±15V, 33mA | 1W |
| 24 | U5-6 | 2 | 1 | International Rectifier | IR2113PBF | IC, MOSFET Driver, Hi and Low Side, DIP14 | Digi-Key | IR2113PBF-ND | 600V | 2.5A |
| 25 | U3-4 | 2 | 1 | Texas Instruments | UCC37322P | IC, MOSFET Driver, Single, Low-Side, 9-Amp, DIP8 | Digi-Key | 296-13689-5-ND | 9A | 4V~15V |
| 26 | U7 | 1 | 1 | Linear Technology | LT1368CN8#PBF | IC, Op-Amp, Dual, Rail-to-Rail, DIP8 | Digi-Key | LT1368CN8#PBF-ND | 0.065 V/μs | 1.8V~30V |
| 27 | U8 | 1 | 1 | Texas Instruments | ISO124P | IC, Op-Amp, Isolated, DIP16 | Digi-Key | ISO124P-ND | 50kHz | 2V/us |
| 28 | U10 | 1 | 1 | Texas Instruments | LT1054CP | IC, Voltage Converter, Switched Capacitor, 100mA, DIP8 | Digi-Key | 296-9591-5-ND | 100mA | 3.5 ~ 15V |
| 29 | Q1-6 | 6 | 1 | STMicroelectronics | STGW35HF60WD | IGBT, 600V, 60A, TO247 | Digi-Key | 497-10073-5-ND | 600V | 60A |
| 30 | L3-4 | 2 | 1 | AlfaMag Electronics, LLC | SH50F-0.9-330 | Inductor, Toroidal, 330uH, 0.9A, 20%, Radial | Digi-Key | TE2149-ND | 330uH | 0.9A |
| 31 | L1-2 | 2 | 1 | JW Miller A Bourns Company | 2319-H-RC | Inductor, Toroidal, 390uH, 5A, 15%, Horizontal Mount | Digi-Key | M8843-ND | 390uH | 5A |
| 32 | Q7 | 1 | 1 | Vishay/Siliconix | IRFD120PBF | MOSFET, Power, N-Channel, 100V, 1.3A, 270mOhms, DIP4 | Digi-Key | IRFD120PBF-ND | 100V | 1.3A |
| 33 | X1-6 | 6 | 0 | None | Not a part | Mounting Hole, 0.140" | None | | | Part of PCB |
| 34 | D3-5 | 3 | 1 | Diodes Inc. | 1N4007-T | Rectifier, 1000V, 1A, DO41 | Digi-Key | 1N4007DICT-ND | 1000V | 1A |
| 35 | U11 | 1 | 1 | National Semiconductor | LM2575T-15/NOPB | Regulator, Switching, 15V, 1A, 4~40V input, TO220-5 | Digi-Key | LM2575T-15-ND | 15V | 1A |
| 36 | U12 | 1 | 1 | National Semiconductor | LM2575T-5.0/NOPB | Regulator, Switching, 5V, 1A, 4~40V input, TO220-5 | Digi-Key | LM2575T-5.0-ND | 5V | 1A |
| 37 | K1 | 1 | 1 | Omnron Electronics | G4W-2212P-US-TV5-HP-DC24 | Relay, Power, DPST-NO, 24VDC Coil, PCB Mount | Digi-Key | 22245-ND | 250VAC | 15A |
| 38 | R50-53 | 4 | 1 | Yageo | MFR-25F8F-10K0 | Resistor, Metal Film, 10.0K, 0.25W, 1%, Through-Hole | Digi-Key | 10.0KXBK-ND | 10K0 | 0.25W |
| 39 | R11-12 | 2 | 1 | Yageo | MFR-25F8F-5K90 | Resistor, Metal Film, 5.90K, 0.25W, 1%, Through-Hole | Digi-Key | 5.90KXBK-ND | 5K90 | 0.25W |
| 40 | R3 | 1 | 1 | Yageo | MFR-25F8F-7K32 | Resistor, Metal Film, 7.32K, 0.25W, 1%, Through-Hole | Digi-Key | 7.32KXBK-ND | 7K32 | 0.25W |
| 41 | R4-9 | 6 | 1 | Yageo | RSF100JB-10R | Resistor, Metal Oxide Film, Flame Proof, 10, 1W, 5%, Through-Hole | Digi-Key | 10W-1-ND | 10R0 | 1W |
| 42 | R60-62 | 3 | 1 | Yageo | RSF100JB-470K | Resistor, Metal Oxide Film, Flame Proof, 470K, 1W, 5%, Through-Hole | Digi-Key | 470KW-1-ND | 470K | 1.00W |
| 43 | U1-2 | 2 | 1 | LEM USA Inc | HX 20-P | Sensor, Current, 20A, +/-15V Power, Through-Hole | Digi-Key | 398-1038-ND | 20A | Isolated |
| 44 | Z1-3 | 3 | 1 | Littelfuse Inc | V275LA20AP | Varistor, 275V, 75J, 14mm, Radial | Digi-Key | F3021-ND | 275VAC | 75J |
| | | | | | | | | | | |