

## Bill of Materials

TI DESIGNS TIDA-00779 REVB
High Efficiency and Cost Competitive 3.5kw Power Factor Correction

Qty	Reference	Part Description	Manufacturer	Manufacturer Part Number	Note
1	PCB	Printed Circuit Board	Any	TIDA-00779	Fitted
1	BR1	Diode, Bridge Rectifier, GPP 35A 800V GBJ	Micro Commercial Co	GBJ3508	Fitted
3	C1, C2, C22	CAP, Film, 2.2 μF, 630 V, +/- 10%, TH	TDK	B32923C3225K	Fitted
1	C3	CAP, Film, 1 μF, 630 V, +/- 10%, 0.018 ohm, TH	TDK	B32923C3105K	Fitted
3	C4, C5, C18	CAP, ALUMINIUM, RADIAL, 680 uF, 450 V, 20%, TH	NICHICON	LGG2W681MELC50	Fitted
6	C6, C7, C8, C9, C23, C26	CAP CER 2200PF 400VAC 20% RADIAL DISC 10mm Dia	TDK	CD90ZU2GA222MYNKA	Fitted
1	C10	CAP, CERM, 3300 pF, 50 V, +/- 10%, X7R, 0603	MuRata	GRM188R71H472KA01D	Fitted
1	C11	CAP, CERM, 820 pF, 50 V, +/- 10%, X7R, 0603	Kemet	C0603C821K5RACTU	Fitted
2	C12, C17	CAP, CERM, 1 µF, 25 V, +/- 10%, X7R, 0603_095		C0603C105K3RACTU	Fitted
1	C13	CAP, CERM, 0.39 µF, 16 V, +/- 10%, X7R, 0603	Kemet	C0603C394K4RACTU	Fitted
1	C14	CAP, CERM, 8.2 µF, 25 V, +/- 10%, X5R, 0603	AVX	0603ZD475KAT2A	Fitted
1	C15	CAP, CERM, 2700 pF, 100 V, +/- 5%, X7R, 0603	AVX	06031C272JAT2A	Fitted
1	C16	CAP, CERM, 0.1 µF, 16 V, +/- 5%, X7R, 0603	AVX	0603YC104JAT2A	Fitted
1	C19	CAP, AL, 10uF, 35V, +/-20%, 0.95 ohm, TH	Nichicon	UPW1V100MDD6	Fitted
1	C20	CAP, CERM, 10uF, 25 V, +/- 10%, X5R, 0805	TDK	C2012X5R1E106K125AB	Fitted
1	C21	CAP, CERM, 1000 pF, 1000 V, +/- 5%, X7R, 1206		1206AC102KAT1A	Fitted
1	C24	CAP, CERM, 0.47 µF, 16 V, +/- 10%, X7R, 0603	Kemet	C0603C474K4RACTU	Fitted
1	C25	CAP CER 10UF 50V 20% X5R 1206	Taiyo Yuden	UMK316BBJ106ML-T	Fitted
1	C27	CAP, CERM, 220 pF, 50 V, +/- 10%, X7R, 0603	TDK	C1608X7R1H221K	Fitted
<del>.</del>	C28	CAP, CERM, 1 µF, 50 V, +/- 10%, X7R, 0603	Taiyo Yuden	UMK107AB7105KA-T	Fitted
2	D1, D3	Diode, 600 V, 30 A, TH	Fairchild	FFH30S60S	Fitted
1	D2	Diode, Switching-Bridge, 600 V, 3 A, TH	Vishay-Semiconductor	1N5406	Fitted
3	D4, D8, D10	Diode, Schottky, 30V, 0.2A, SOD-323	Fairchild	BAT54HT1G	Fitted
1	D5	Diode, Ultrafast, 100V, 0.15A, SOD-123	Diodes Inc.	1N4148W-7-F	Fitted
2	D6, D7	Diode, P-N, 1000 V, 1 A, 3.9x1.7x1.8mm	Comchip Technology	CGRM4007-G	Fitted
1	D9	Diode, Zener, 12V, 300mW, SOD-323	NXP Semiconductor	BZX384-C12,115	Fitted
2	D11, D12	Diode, Switching, 100 V, 0.2 A, SOD-323	Micro Commercial Components	MMDL914-TP	Fitted
1	F1	FUSE CLIP, CARTRIDGE, 250V, 30A, PCB	Littelfuse	30A	Fitted
1	HS1	HEATSINK ALUM Black Anodized, Board Mount	Assmann	Customized	Fitted
1	J3	Header, 100mil, 6x1, Tin, TH	Sullins Connector Solutions	PEC06SAAN	Fitted
3	R4, R5, R45	RES, 0.01, 1%, 5 W, TH	TBD	R01	Fitted
6	R1, R10, R15, R19, R23, R42	RES, 10.0 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW060310K0FKEA	Fitted
1	L4	Differential inductor, 10uH, TH	QingDao YunLu Energy Technology CO.,LTD	Customized	Not-Fitted
1	K1	Single-Pole, 240VAC, 30A	HONGFA	HF105F-1/12DT-1HS	Fitted
1	R2	PTC, 47 ohm	TDK	B470	Fitted
1	L1	INDUCTOR, 790uH, 30A, 10%, TH	QingDao YunLu Energy Technology CO.,LTD	029E1-001	Fitted
2	L2, L3	INDUCTOR, CHOKE, COMMON MODE, 2.5 mH, 30 A, TH	QingDao YunLu Energy Technology CO.,LTD	LT38-4P-014	Fitted
2	Q1, Q6	MOSFET, N-CH, 600 V, 37.9 A, TO-247	Infineon Technologies	IPW60R099P6	Fitted
1	Q2	Transistor, PNP, 40V, 0.2A, SOT-23	Fairchild Semiconductor	MMBT3906	Fitted
2	Q3, Q5	MOSFET, N-CH, 60V, 0.17A, SOT-23	Diodes Inc.	2N7002-7-F	Fitted
1	Q4	Transistor, NPN, 45 V, 0.1 A, SOT-23	ON Semiconductor	BC847CLT1G	Not Fitted

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2	R3, R40	RES, 22, 5%, 0.25 W, 1206	Vishay-Dale	CRCW120622R0JNEA	Fitted
4	R6, R7, R20, R21	RES, 332 k, 1%, 0.25 W, 1206	Vishay-Dale	CRCW1206332KFKEA	Fitted
4	R8, R22, R25, R26	RES, 340 k, 1%, 0.25 W, 1206	Vishay-Dale	CRCW1206340KFKEA	Fitted
1	R9	RES, 13.0 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW060313K0FKEA	Fitted
1	R11	RES, 221 ohm, 1%, 0.1W, 0603	Vishay-Dale	CRCW0603221RFKEA	Fitted
1	R12	RES, 47.0 k, 0.5%, 0.1 W, 0603	Yageo America	RT0603DRE0747KL	Fitted
1	R13	RES, 10, 1%, 0.25 W, 1206	Vishay-Dale	CRCW1206100RFKEA	Fitted
1	R14	RES, 13.7 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW060313K7FKEA	Not Fitted
2	R16, R17	RES, 6.8 k, 5%, 0.1 W, 0603	Vishay-Dale	CRCW06036K80JNEA	Fitted
1	R18	RES, 15.4, 1%, 0.1 W, 0603	Vishay-Dale	CRCW060315R4FKEA	Fitted
2	R24, R41	RES, 4.7, 5%, 0.25 W, 1206	Vishay-Dale	CRCW12064R70JNEA	Fitted
1	R27	RES, 221 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW0603221KFKEA	Fitted
1	R28	RES, 300K, 1%, 1 W, TH	Vishay-Dale	CRM2512-FX-43R2ELF	Fitted
4	R29, R30, R32, R33	RES, 62 k, 5%, 1 W, 2512	Vishay-Dale	CRCW251262K0JNEG	Fitted
1	R31	RES, 47.5 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW060347K5FKEA	Fitted
4	R34, R35, R36, R37	RES, 221 k, 1%, 0.25 W, 1206	Vishay-Dale	CRCW1206221KFKEA	Fitted
1	R38	RES, 21.0 k, 1%, 0.25 W, 1206	Vishay-Dale	CRCW120621K0FKEA	Fitted
1	R39	RES, 1.00 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW06031K00FKEA	Fitted
1	R43	RES, 100, 0.5%, 0.1 W, 0603	Yageo America	RT0603DRE07100RL	Fitted
1	R44	RES, 0, 5%, 0.25 W, 1206	Yageo America	RC1206JR-070RL	Fitted
1	RV1	Varistor 275V RMS 10MM Radial, TH	EPCOS Inc	S10K275E2	Fitted
1	S1	Switch, Slide, SPST, Top Slide	Copal Electronics	KCD3-101N	Fitted
8	TP1, TP2, TP3, TP4, TP5, TP7, TP8, TP9	Test Point, Miniature, Red, TH	Keystone	5000	Fitted
2	TP6, TP10	Test Point, Miniature, Black, TH	Keystone	5001	Fitted
1	U1	8-PIN CONTINUOUS CONDUCTION MODE (CCM) PFC CONTROLLER, D0008A	Texas Instruments	UCC28180D	Fitted
1	U2	Dual 5-A High-Speed Low-Side Gate Driver, D0008A	Texas Instruments	UCC27531D	Fitted
1	U3	0.5°C Accurate 2-Pin Digital Output Temperature Sensor	Texas Instruments	LMT01	Fitted

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