

50W to 600W Single Output General Purpose Power Supplies

<https://product.tdk.com/en/power/rws-b>
www.emea.lambda.tdk.com/rws-b



The RWS50B to RWS6000B AC-DC power supplies are designed to provide solid performance at an economical price. 50, 100, 150, 300 and 600W ratings are available with output voltages from 5V to 48V. All models are certified to IEC62368-1 with UL508 on select models. These 7-year warranty products meet both Class B radiated and conduction EMI standards. The 300W models have a remote on/off option and the 600W have options for remote on/off, parallel operation, DC Good and remote sense.

Features	Benefits
• Seven Year Warranty	• Low Cost of Ownership
• Conservatively Rated Electrolytic Capacitors	• Long Field Life
• Class B Conducted and Radiated EMI	• Easier System EMC Compliance
• UL508 Certified on Select Models	• Suitable for Industrial Control Equipment

Model Selector								
Model	Voltage (V)	Adjustable Range (V)	Max Current (A)	Max Output Power (W)	Ripple Noise (mV)	Input Current (A) 115/230Vac	Efficiency (typ)% 115/230Vac	UL508 Certification
RWS50B-5	5	4.5 - 5.75	10	50	120	1.0 / 0.65	78 / 79	Yes
RWS100B-5	5	4.5 - 5.75	14	70	120	0.9 / 0.45	77.5 / 79	Yes
RWS150B-5	5	4.5 - 5.75	21	105	120	1.3 / 0.7	77.5 / 79.5	Yes
RWS300B-5	5	4.5 - 5.75	50	250	120	3.1 / 1.6	75 / 78.5	-
RWS600B-5	5	4.5 - 5.75	100	500	120	6.2 / 3.2	74 / 77.5	-
RWS50B-12	12	10.8 - 13.8	4.3	51.6	150	1.0 / 0.65	83 / 84	Yes
RWS100B-12	12	10.8 - 13.8	8.5	102	150	1.2 / 0.6	83 / 84	Yes
RWS150B-12	12	10.8 - 13.8	13	156	150	1.8 / 0.9	84.5 / 87.5	Yes
RWS300B-12	12	10.8 - 13.8	25	300	150	3.6 / 1.9	79.5 / 82.5	Yes
RWS600B-12	12	10.8 - 13.8	50	600	150	6.6 / 3.6	82 / 84.5	-
RWS100B-15	15	13.5 - 17.25	6.8	102	150	1.2 / 0.6	84 / 85	-
RWS150B-15	15	13.5 - 17.25	10	150	150	1.8 / 0.9	84.5 / 87.5	-
RWS300B-15	15	13.5 - 17.25	20	300	150	3.6 / 1.9	81.5 / 84.5	Yes
RWS600B-15	15	13.5 - 17.25	40	600	150	6.6 / 3.6	82 / 84.5	-
RWS50B-24	24	21.6 - 27.6	2.2	52.8	150	1.0 / 0.65	86 / 87	Yes
RWS100B-24	24	21.6 - 27.6	4.5	108	150	1.2 / 0.6	86 / 87.5	Yes
RWS150B-24	24	21.6 - 27.6	6.5	156	150	1.8 / 0.9	86.5 / 89.5	Yes
RWS300B-24	24	21.6 - 27.6	12.5	300	150	3.6 / 1.9	85 / 88	Yes
RWS600B-24	24	21.6 - 27.6	25	600	150	6.6 / 3.6	85 / 88.5	Yes
RWS150B-28	28	25.2 - 32.2	5.4	151.2	180	1.8 / 0.9	86.5 / 89.5	-
RWS300B-36	36	32.4 - 41.4	8.4	302.4	200	3.6 / 1.9	85 / 88	Yes
RWS600B-36	36	32.4 - 41.4	16.7	601.2	200	6.6 / 3.6	85 / 88.5	-
RWS50B-48	48	43.2 - 52.8	1.1	52.8	200	1.0 / 0.65	87 / 88	-
RWS100B-48	48	43.2 - 52.8	2.1	100.8	200	1.2 / 0.6	86 / 87	-
RWS150B-48	48	43.2 - 52.8	3.3	158.4	200	1.8 / 0.9	86.5 / 89.5	-
RWS300B-48	48	43.2 - 52.8	6.3	302.4	200	3.6 / 1.9	85 / 88	Yes
RWS600B-48	48	43.2 - 52.8	12.5	600	200	6.6 / 3.6	85 / 88.5	-

RWS50B-	12	/	-
Output voltage 5, 12, 15, 24, 28, 36, 48		blank No options /CO2 Double sided board coating /FO DC Good and parallel (600W only) /R Remote On/Off (600W only) /RFO Remote on/off, DC Good and parallel (600W only)	

Related Products

Type	Part Number	Description
Higher power RWS-B models	RWS1000B , RWS1500B	1000W to 1500W single output AC-DC power supplies
DIN rail mounting bracket	DIN-04	RWS50B DIN rail bracket
DIN rail mounting bracket	DIN-05	RWS100B DIN rail bracket
DIN rail mounting bracket	DIN-06	RWS150B DIN rail bracket
DIN rail mounting bracket	DIN-07	RWS300B DIN rail bracket

Specifications

Model		RWS50B	RWS100B	RWS150B	RWS300B	RWS600B
Input						
AC Input Voltage Range	Vac	85 - 265 (300 peak for 5s)				
DC Input Voltage Range(1)	Vdc	120 - 370				120 - 330
Input Frequency	Hz	47 - 63				
Input Current (115/230Vac)	A	See model selector table				
Inrush Current at 200Vac (typ) (Cold Start)	A	36	30	32	34	40
Leakage Current	uA	<750, typically 175 at 115Vac 63Hz				
Power Factor (100/200Vac)	-	Not specified	0.95 / 0.90			
Harmonic Compliance	-	Designed to meet IEC61000-3-2				
Hold Up Time (typ) at 110/220Vac Input	ms	20 (15 at 100Vac input)	20			
Efficiency	-	See model selector table				
Conducted & Radiated EMI	-	EN55011/EN55032-B, FCC Class B, VCCI-B				
Immunity	-	See immunity table				
Safety Certifications and Markings	-	IEC/UL/CSA/EN62368-1, UL508 (see model selector), CE Mark and UKCA Mark				

Immunity

Test	Standard	Test Level	Criteria	Notes
ESD	EN61000-4-2	Air ± 8 kV and contact ± 4 kV	B	See IEC61000 immunity test report on website
Radiated Susceptibility	EN61000-4-3	80M -1GHz: 10V/m 1.4 - 2.0GHz: 3V/m 2.0 - 2.7GHz: 1V/m	A	
Electrical Fast Transient Burst	EN61000-4-4	± 2 kV	B	
Surge	EN61000-4-5	Normal ± 2 kV Common ± 4 kV	B	
Conducted Susceptibility	EN61000-4-6	10Vrms	A	
Magnetic Fields	EN61000-4-8	30A/m	A	
Voltage Dips	EN61000-4-11	30% 500ms 60% 10ms 100% 20ms 100% 5000ms	B B A B	
SEMI F47 Line Dip	SEMI F47			At input voltages > 200Vac

Specifications						
Model		RWS50B	RWS100B	RWS150B	RWS300B	RWS600B
Output						
Output Voltage Adjustment	-	See model selector table				
Switching Frequency	kHz	100	120, PFC 65			190, PFC 50-70
Line Regulation	mV	5V: 20, 12V: 48, 15V: 60, 24V: 96, 28V: 112, 36V: 144, 48V: 192				
Load Regulation	mV	5V: 40, 12V: 96, 15V: 120, 24V: 192, 28V: 224, 36V: 288, 48V: 384				
External Load Capacitance	uF	RWS50B: 5-12V, 10,000, 24V: 3,300, 48V: 400, RWS100B-600B: 10,000				
Ripple & Noise	-	See model selector table				
Temperature Coefficient	%/°C	0.02				
Minimum Load	-	No minimum load required				
Overcurrent Protection	%	>105. Constant current characteristics				
Overvoltage Protection	%	115-140. Cycle AC line to reset				
Remote Sense	-	None				See options
Remote On/Off	-	None				See options
Parallel Operation	-	None				See options
Environmental						
Operating Temperature ⁽²⁾	°C	-20 to +70. See note (2) or installation manuals on website				
Humidity (non condensing)	%RH	Operating: 30 - 90, storage: 10 - 90				
Storage Temperature	°C	-30 to +75				
Cooling	-	Convection			Forced air - internal fan	
Altitude	m	3000				
Withstand Voltage (For 1 minute)	Vac	Input to Ground 2,000, Input to Output 3,000, Output to Ground 500 for 1 minute				
Vibration (Non operating)	-	10-55Hz (Sweep for 1min.) 19.6m/s ² Constant X,Y,Z 1 hour each				
Shock (Non operating)	-	Less than 196m/s ² , 11ms, ±X, ±Y, ±Z 3 times each				
Other						
Weight (Typ)	g	230	400	480	900	1600
Size (LxWxH)	mm	81.5 x 82 x 34	108 x 94 x 39	128 x 94 x 41	170 x 102 x 41	190 x 120 x 61
Size (LxWxH)	Inches	3.21 x 3.23 x 1.34	4.25 x 3.7 x 1.54	5.04 x 3.7 x 1.61	6.7 x 4.02 x 1.61	7.48 x 4.72 x 2.4
Case Material	-	Metal				
MTBF - Telcordia SR-332 issue 3*	Hours	4,170,949	1,978,533	2,235,743	2,027,824	2,157,340
Warranty	yrs	7				

Notes

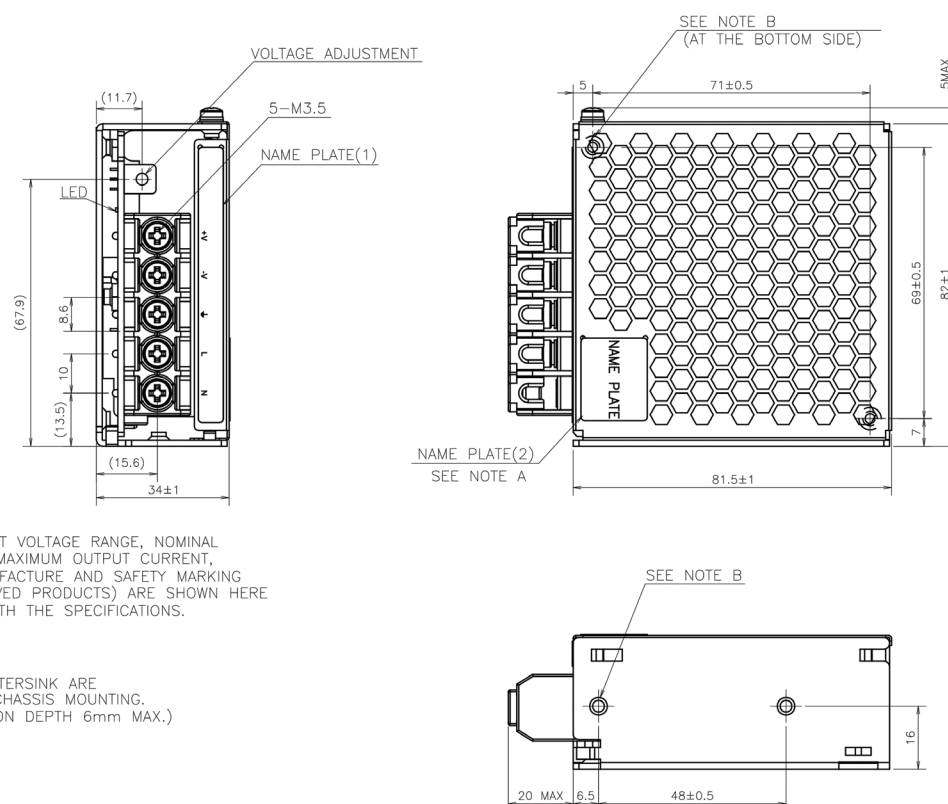
See website for detailed specifications, test methods and [installation manual](#)

*25°C ambient, full load, 24Vdc input

(1) Safety certified for AC input only

(2) RWS50-100B derates linearly above 45°C to 20% load at 70°C, 150B derates above 40°C and 300-600B derates above 50°C to 50% load at 70°C

Outline Drawing RWS50B

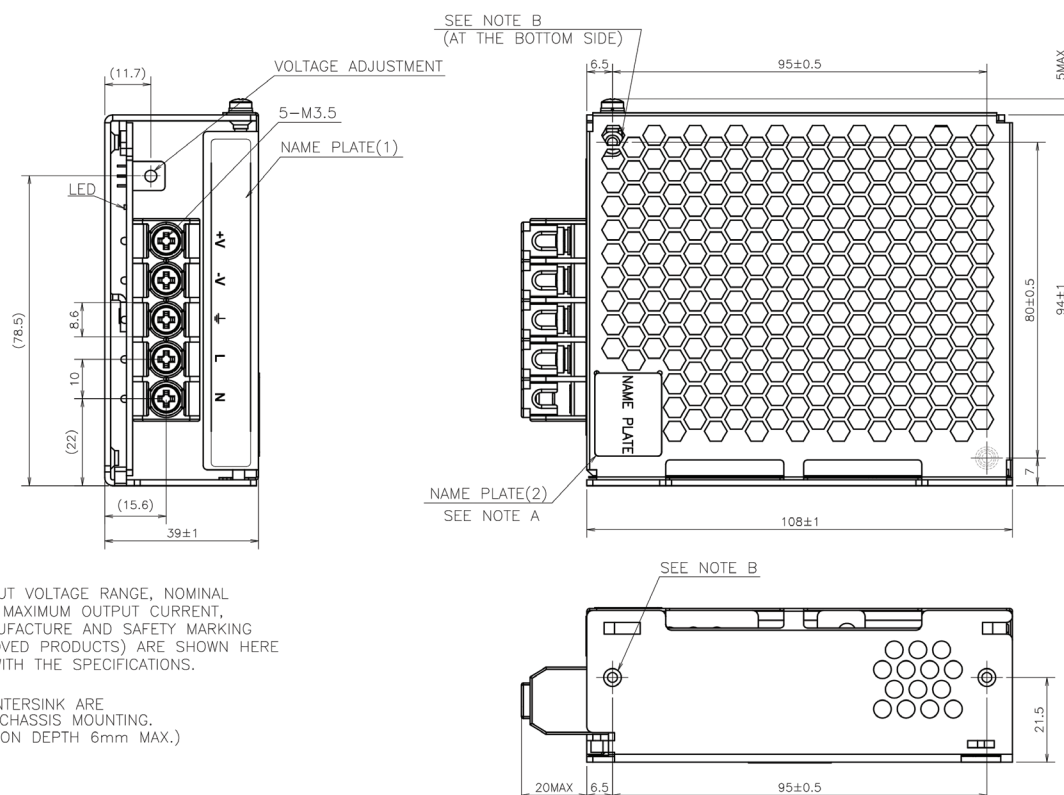


NOTES

A: MODEL NAME, INPUT VOLTAGE RANGE, NOMINAL OUTPUT VOLTAGE, MAXIMUM OUTPUT CURRENT, COUNTRY OF MANUFACTURE AND SAFETY MARKING (FOR ONLY APPROVED PRODUCTS) ARE SHOWN HERE IN ACCORDANCE WITH THE SPECIFICATIONS.

B: 4-M3 BR & COUNTERSINK ARE FOR CUSTOMER'S CHASSIS MOUNTING. (SCREW PENETRATION DEPTH 6mm MAX.)

Outline Drawing RWS100B



NOTES

A: MODEL NAME, INPUT VOLTAGE RANGE, NOMINAL OUTPUT VOLTAGE, MAXIMUM OUTPUT CURRENT, COUNTRY OF MANUFACTURE AND SAFETY MARKING (FOR ONLY APPROVED PRODUCTS) ARE SHOWN HERE IN ACCORDANCE WITH THE SPECIFICATIONS.

B: 4-M3 BR & COUNTERSINK ARE FOR CUSTOMER'S CHASSIS MOUNTING. (SCREW PENETRATION DEPTH 6mm MAX.)

Technical drawing of the HPS-1000 power supply unit, showing three views: front, top, and side.

Front View:

- Overall width: 118 ± 0.5
- Overall height: 69 ± 0.5
- Bottom flange height: 5 MAX
- Bottom flange width: 18
- Terminal block width: 128 ± 1
- Mesh pattern: Honeycomb
- Labels: NAME PLATE, NAME PLATE(2) SEE NOTE A
- Note: SEE NOTE B (AT THE BOTTOM SIDE)

Top View:

- Overall width: 74.5
- Overall height: 41 ± 1
- LED indicator: LED
- Voltage adjustment: VOLTAGE ADJUSTMENT
- Terminal block: 5-M3.5
- Label: NAME PLATE(1)
- Note: SEE NOTE A

Side View:

- Overall width: 20 MAX
- Overall height: 14
- Bottom flange width: 109 ± 0.5
- Bottom flange height: 26.5
- Note: SEE NOTE B

B : 4-M3 BR & COUNTERSINK ARE
FOR CUSTOMER'S CHASSIS MOUNTING.
(SCREW PENETRATION DEPTH 6mm MAX.)

Technical drawing of the E10-1000 power supply unit, showing front, top, and side views with dimensions and notes.

Front View Dimensions:

- Overall width: 157.5±0.5
- Overall height: 102±1
- Input terminal block height: 31.3
- Output terminal block height: 10
- Terminal block spacing: 7-M3.5
- LED indicator: (11.2)
- Voltage adjustment potentiometer: (11.2)
- Name plate (1): (15.1)
- Overall depth: 41±1

Top View Dimensions:

- Overall width: 157.5±0.5
- Overall height: 102±1
- Input terminal block height: 31.3
- Output terminal block height: 10
- Terminal block spacing: 7-M3.5
- LED indicator: (11.2)
- Voltage adjustment potentiometer: (11.2)
- Name plate (1): (15.1)
- Overall depth: 41±1

Side View Dimensions:

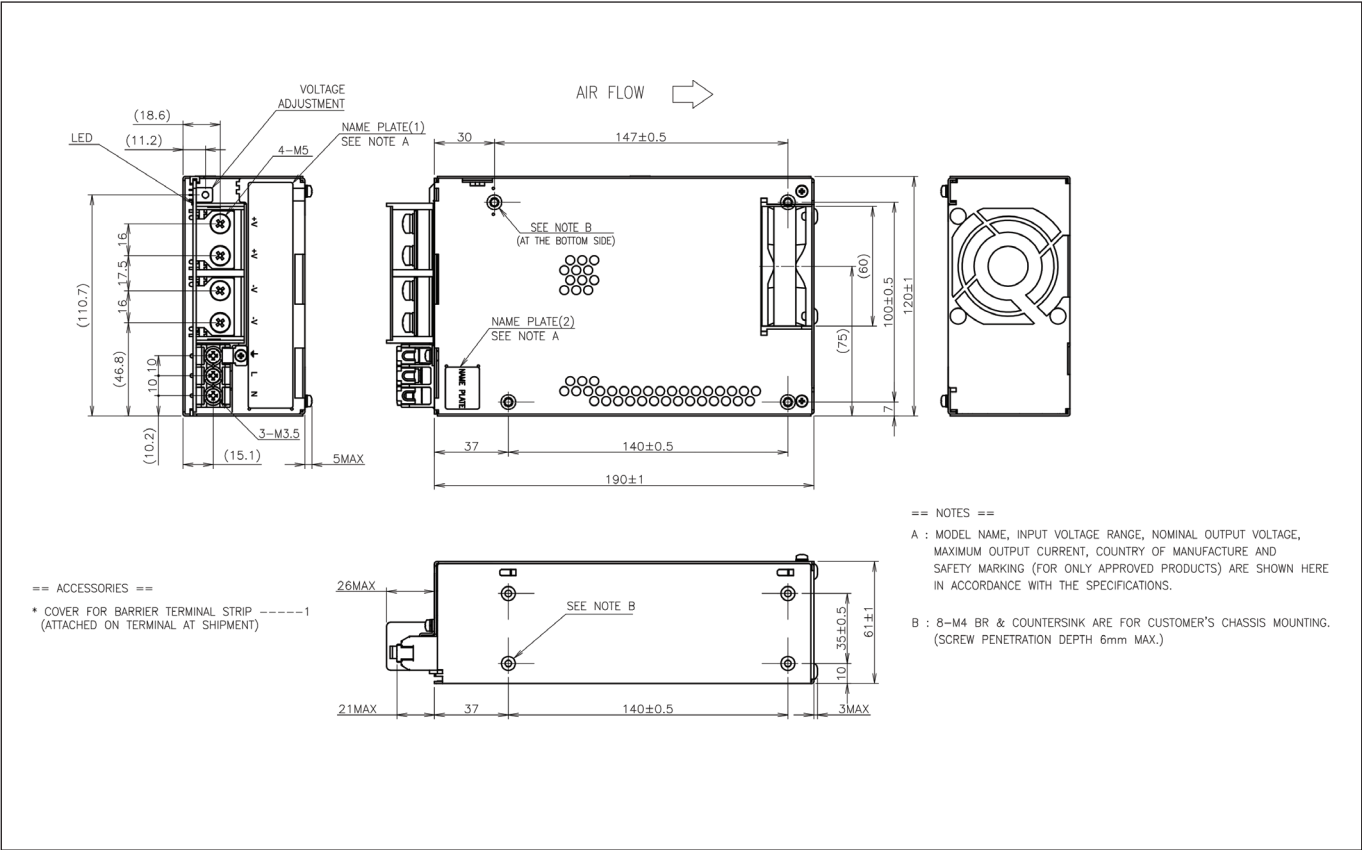
- Overall width: 157.5±0.5
- Overall height: 102±1
- Input terminal block height: 31.3
- Output terminal block height: 10
- Terminal block spacing: 7-M3.5
- LED indicator: (11.2)
- Voltage adjustment potentiometer: (11.2)
- Name plate (1): (15.1)
- Overall depth: 41±1

Notes:

- == NOTES ==
- A : MODEL NAME, INPUT VOLTAGE RANGE, OUTPUT VOLTAGE, MAXIMUM OUTPUT CURRENT, COUNTRY OF MANUFACTURE AND DATE OF MANUFACTURE (FOR ONLY APPROVED PRODUCTS) IN ACCORDANCE WITH THE SPECIFICATION.
- B : 4-M3 BR & COUNTERSINK ARE FOR CUSTOMER'S CHASSIS MOUNTING. (SCREW PENETRATION DEPTH 6mm MAX.)

B : 4-M3 BR & COUNTERSINK ARE
FOR CUSTOMER'S CHASSIS MOUNTING.
(SCREW PENETRATION DEPTH 6mm MAX.)

Outline Drawing RWS600B





TDK-Lambda France SAS

Tel: +33 1 60 12 71 65
france@fr.tdk-lambda.com
www.emea.lambda.tdk.com/fr



Italy Sales Office

Tel: +39 02 61 29 38 63
info.italia@it.tdk-lambda.com
www.emea.lambda.tdk.com/it



Netherlands

info@nl.tdk-lambda.com
www.emea.lambda.tdk.com/nl



TDK-Lambda Germany GmbH

Tel: +49 7841 666 0
info@de.tdk-lambda.com
www.emea.lambda.tdk.com/de



Austria Sales Office

Tel: +43 2256 655 84
info@at.tdk-lambda.com
www.emea.lambda.tdk.com/at



Switzerland Sales Office

Tel: +41 44 850 53 53
info@ch.tdk-lambda.com
www.emea.lambda.tdk.com/ch



Nordic Sales Office

Tel: +45 8853 8086
info@dk.tdk-lambda.com
www.emea.lambda.tdk.com/dk



TDK-Lambda UK Ltd.

Tel: +44 (0) 12 71 85 66 66
info@uk.tdk-lambda.com
www.emea.lambda.tdk.com/uk



TDK-Lambda Ltd.

Tel: +9 723 902 4333
info@tdk-lambda.co.il
www.emea.lambda.tdk.com/il



C.I.S.

Commercial Support:

Tel: +7 (495) 665 2627

Technical Support:

Tel: +7 (812) 658 0463
info@tdk-lambda.ru
www.emea.lambda.tdk.com/ru



TDK-Lambda Americas

Tel: +1 800-LAMBDA-4 or 1-800-526-2324
powersolutions@us.tdk-lambda.com
www.us.lambda.tdk.com



TDK Electronics do Brasil Ltda

Tel: +55 11 3289-9599
sales.br@tdk-electronics.tdk.com
www.tdk-electronics.tdk.com/en



TDK-Lambda Corporation

Tel: +81-3-6778-1113
www.jp.lambda.tdk.com



TDK-Lambda (China) Electronics Co. Ltd.

Tel: +86 21 6485-0777
powersolutions@cn.tdk-lambda.com
www.lambda.tdk.com.cn



TDK-Lambda Singapore Pte Ltd.

Tel: +65 6251 7211
tls.mkt@sg.tdk-lambda.com
www.sg.lambda.tdk.com



TDK India Private Limited, Power Supply Division

Tel: +91 80 4039-0660
mathew.philip@in.tdk-lambda.com
www.sg.lambda.tdk.com

