



**FEATURES**

- PCB Mount Switching Power Modules
- Fully Encapsulated Plastic Case
- 90-264 VAC, 47-440Hz Universal Input
- Regulated Output
- Low Ripple and Noise
- Class II Construction



**MODELS LIST**

SINGLE OUTPUT							
Product No.	TEM15-S3.3	TEM15-S5	TEM15-S7.35	TEM15-S9	TEM15-S12	TEM15-S15	TEM15-S24
Output Voltage (VDC)	3.3 VDC	5 VDC	7.35 VDC	9 VDC	12 VDC	15 VDC	24 VDC
Max. Output Current (mA)	3000mA	3000mA	2040mA	1666mA	1250mA	1000mA	625mA
Load Regulation (10-100%)	1%	1%	1%	1%	1%	1%	1%
Max Capacitive Load	40000µF	10000µF	4700µF	3000µF	1100µF	1000µF	820µF

DUAL OUTPUTS						
Product No.	TEM15-D0505		TEM15-D1212		TEM15-D1515	
	Output 1	Output 2	Output 1	Output 2	Output 1	Output 2
Output Voltage (VDC)	+5 VDC	-5 VDC	+12 VDC	-12 VDC	+15 VDC	-15 VDC
Max. Output Current (mA)	1500mA	1500mA	625mA	625mA	500mA	500mA
Load Regulation (10-100%)	1% (symmetric load)	1% (symmetric load)	1% (symmetric load)	1% (symmetric load)	1% (symmetric load)	1% (symmetric load)
Cross Regulation	5%	5%	3%	3%	3%	3%
Max Capacitive Load	+4700µF	-4700µF	+560µF	-560µF	+500µF	-500µF

TRIPLE OUTPUTS						
Product No.	TEM15-T0512			TEM15-T0515		
	Output 1	Output 2	Output 3	Output 1	Output 2	Output 3
Output Voltage (VDC)	5 VDC	+12 VDC	-12 VDC	5 VDC	+15 VDC	-15 VDC
Max. Output Current (mA)	2000mA	200mA	200mA	2000mA	150mA	150mA
Load Regulation (10-100%)	1%	5% (symmetric)	5% (symmetric)	1%	5% (symmetric)	5% (symmetric)
Cross Regulation	1%	5%	5%	1%	5%	5%
Max. Capacitive Load	10000µF	+470µF	-470µF	10000µF	+600µF	-600µF

### INPUT SPECIFICATIONS

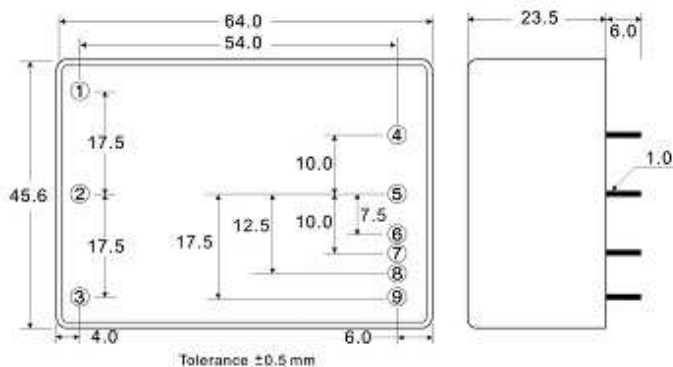
Input Voltage Range .....	90~264 VAC or 100~375 VDC
Input Frequency .....	47~440Hz
Input Current .....	220mA max. @ 115 VAC 118mA max. @ 230 VAC
Inrush Current .....	10A max. @ 115 VAC 20A max. @ 230 VAC
Leakage Current .....	0.1mA max. @ 115 VAC 0.2mA max. @ 230 VAC
Recommended External Fuse ...	2.0A slow blow type

### OUTPUT SPECIFICATIONS

Output Wattage .....	15W max.
Output Voltage .....	See tables
Voltage Accuracy, Single .....	±2% max.
Dual .....	±2% max.
Triple .....	±3% max.
Minimum Load, Single .....	Not required
Dual .....	10%
Triple .....	25%
Line Regulation, Single .....	0.5% max.
Dual .....	0.5% max.
Triple .....	2% max.
Ripple & Noise* .....	1% of Vout
Hold-up Time .....	20ms min.
Switching Frequency .....	132KHz
Overcurrent Protection .....	Above 105% rated output power
Overvoltage Protection .....	Zener diode clamp
Short-circuit Protection .....	Hiccup mode, indefinite (automatic-recover)
Over Temperature Protection .....	100°C
Input-Output Isolation .....	4000 VAC

\*Ripple & Noise are measured at 20MHz of bandwidth with 0.1µF & 47µF capacitors in parallel.

### MECHANICAL DRAWING



### GENERAL SPECIFICATIONS

Efficiency .....	83% max.
Operating Temperature .....	-25°C to +70°C
Derating .....	Derate linearly from 100% @ 50°C to 50% @ 70°C
Case Temperature .....	+95°C max.
Cooling .....	Free-air convection
Storage Temperature .....	-40°C to +100°C
Temperature Coefficient .....	±0.01%/°C
Relative Humidity .....	95% RH
MTBF .....	200K to 400K hours at full load, 25°C ambient, calculated per MIL-HDBK-217F
Dimensions (LxWxH) .....	2.52 x 1.79 x 0.92 inches (64.0 x 45.6 x 23.5 mm)
Case Material .....	Plastic resin with fiberglass case, UL 94V-0 rated
Weight .....	120g

### EMC & SAFETY STANDARDS

Safety Standards .....	UL 60601-1, IEC60601-1, EN 60601-1
Safety Approvals .....	UL, cUL, CB
EMI (PFI Conducted) .....	EN55011, Class B
EMC Standards .....	EN60601-1-2
ESD Susceptibility .....	EN60601-1-2
Radiated Susceptibility .....	EN60601-1-2
EFT / Burst .....	EN60601-1-2
Surge .....	EN60601-1-2
Conducted Susceptibility .....	EN60601-1-2

All specifications typical at nominal input voltage, full load and +25°C after warm-up time unless otherwise noted.

### PIN CHART

PIN NO.	SINGLE	DUAL	TRIPLE
1	NO PIN	NO PIN	NO PIN
2	AC IN (L)	AC IN (L)	AC IN (L)
3	AC IN (N)	AC IN (N)	AC IN (N)
4	-DC OUT	-DC OUT	+5V RTN
5	NO PIN	COMMON	+5V OUT
6	NO PIN	NO PIN	-DC OUT
7	+DC OUT	+DC OUT	NO PIN
8	NO PIN	NO PIN	COMMON
9	NO PIN	NO PIN	+DC OUT