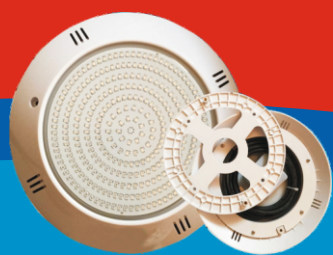




*Committed to Excellence*





# UNDERWATER LIGHTS





This build-up lamp is easy to install.  
Our lights give a nice wide beam of light which in turn gives a nice effect in the pool. We use quality SMD LEDs.

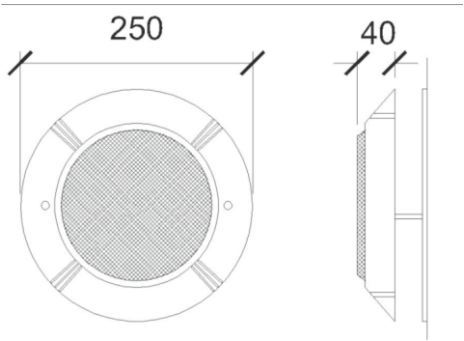
Technical Information	
Max. energy consumption	25 W
LEDs	387
LED Chip	SMD
Colour Temperature	COOL WITHE, WARM WITHE, BLUE, RGB
Light Colour	2700k-6500k
Light output lumen at	2000-2100 (Similar to lumen output of 250/300W halogen)
Beam angle	120°
Working environment	-25° C~45° C
Max. installation depth	15
Voltage	DC 12 V
Material	RESIN
Dimensions ø	176mm thick 30mm
Cable length	3 Meter
Type of pools	Resistant to chlorine, salt and pool chemicals
Working Lifetime	50, 000 hr
Warranty	2 years
Certificate	Ip68 / ROHS / CE

Technical Information	
Max. energy consumption	35 W
LEDs	535
LED Chip	SMD
Colour Temperature	2700k-6500k
Light colour	COOL WITHE, WARM WITHE BLUE,
Light output lumen at	2500-3500 (Similar to lumen output of 250/300W halogen)
Beam angle	120°
Working environment	-25° C~45° C
Max. installation depth	15
Voltage	DC 12 V
Material	RESIN
Dimensions ø	176 mm thick 30 mm
Cable length	3 Meter
Type of pools	Resistant to chlorine, salt and pool chemicals
Working Lifetime	50, 000 hr
Warranty	2 years
Certificate	Ip68 / ROHS / CE

# WALL MOUNTED LAMP POOL

## TUWL 20 30

Technical Information	
Max. energy consumption	20 W
LEDs	315
LED Chip	SMD
Colour temperature	COOL WITHE, WARM WITHE, BLUE, RGB
Light colour	2700k-6500k
Light output lumen at	1500-1800 (Similar to lumen output of 250/300W halogen)
Beam angle	120°
Working environment	-25° C~45° C
Max. installation depth	15
Voltage	DC 12 V
Material	RESIN
Dimensions ø	176 mm thick 30 mm
Cable length	3 Meter
Type of pools	Resistant to chlorine, salt and pool chemicals
Working Lifetime	50, 000 hr
Warranty	2 years
Certificate	Ip68 / ROHS / CE



Technical Information	
Max. energy consumption	30 W
LEDs	535
LED Chip	SMD
Colour temperature	COOL WITHE, WARM WITHE, BLUE, RGB
Light colour	2700k-6500k
Light output lumen at	2500-3500 (Similar to lumen output of 250/300W halogen)
Beam angle	120°
Working environment	-25° C~45° C
Max. installation depth	15
Voltage	DC 12 V
Material	RESIN
Dimensions ø	176 mm thick 30 mm
Cable length	3 Meter
Type of pools	Resistant to chlorine, salt and pool chemicals
Working Lifetime	50, 000 hr
Warranty	2 years
Certificate	Ip68 / ROHS / CE



# TUWLT 8-10 ULTRA-FLAT

## ONLY 8 MM SLIM



This ultra-flat, only 8 mm slim, swimming pool lamp is made for all types of swimming pools and spa baths.

The LEDs are quality SMD LEDs with a high light output.

The light is very easy to assemble and is ultra-flat.

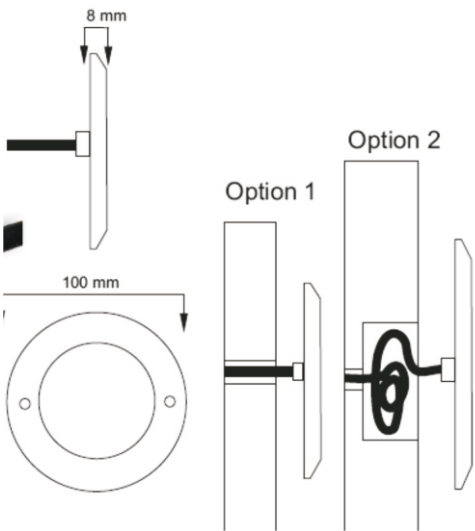
Comes with a white, highly chlorine resistant plastic ring of high quality.

Technical information max energy consumption 8/10w	
Color temperature	2700k-6500k
Beam angle	120°
Working environment	-25° C~45° C
Max. installation depth	15
Voltage	DC 12 V
Material	RESIN
Cable length	3 Meter
Type of pools	Resistant to chlorine, salt and pool chemicals
Working Lifetime	50, 000 hr
Warranty	2 years
Certificate	IP68 / ROHS / CE

The lamps are also available with a black background.

They can be mounted in two ways:

- Directly against the wall without cable space
- On cable space (this is the best way)



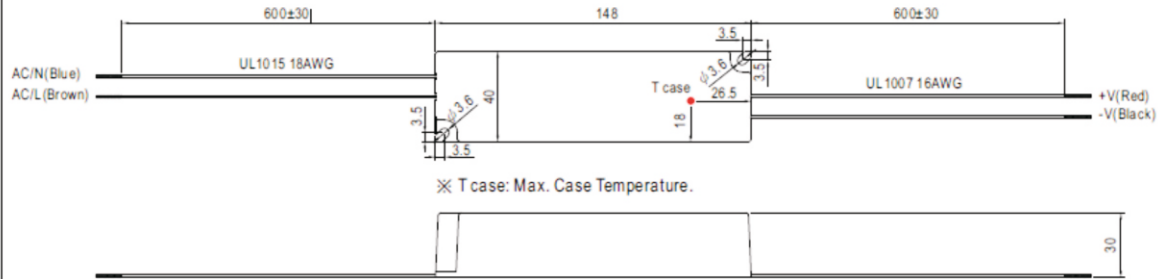
# TDRI SERIES



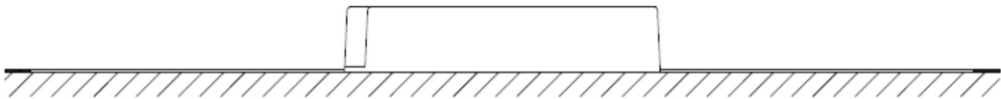
Mode						
OUTPUT	DC VOLTAGE	5V	12V	15V	24V	36V
	RATED CURRENT	5A	3A	2.4A	1.5A	1A
	CURRENT RANGE	0 ~ 6A (Note.7)	0 ~ 3A	0 ~ 2.4A	0 ~ 1.5A	0 ~ 1A
	RATED POWER	30W	36W	36W	36W	36W
	RIPPLE & NOISE (max.) Note.2	80mVp-p	120mVp-p	120mVp-p	150mVp-p	150mVp-p
	VOLTAGE TOLERANCE Note.3	±6.0%	±5.0%			
	LINE REGULATION	±1.0%				
	LOAD REGULATION	±4.0%	±2.0%			
	SETUP, RISE TIME Note.6	500ms, 20ms / 230VAC 500ms, 20ms / 115VAC at full load				
	HOLD UP TIME (Typ.)	50ms/230VAC 16ms/115VAC at full load				
INPUT	VOLTAGE RANGE Note.4	90 ~ 264VAC 127 ~ 370VDC				
	FREQUENCY RANGE	47 ~ 63Hz				
	EFFICIENCY (Typ.)	77%	84%	84%	85%	85%
	AC CURRENT (Typ.)	1.1A/115VAC 0.7A/230VAC				
	INRUSH CURRENT(Typ.)	COLD START 55A (width=510μs measured at 50% peak) at 230VAC				
	MAX. No. of PSUs on 16A CIRCUIT BREAKER	4 units (circuit breaker of type B) / 7 units (circuit breaker of type C) at 230VAC				
	LEAKAGE CURRENT	0.25mA / 240VAC				
PROTECTION	OVERLOAD	110 ~ 150% rated output power				
		Protection type : Hiccup mode, recovers automatically after faulty condition is removed				
	OVER VOLTAGE	5.75 ~ 6.75V	13.8 ~ 16.2V	17.25 ~ 20.25V	27.6 ~ 32.4V	41.4 ~ 48.6V
		Protection type : Shut down o/p voltage, re-power on to recover				
ENVIRONMENT	WORKING TEMP.	-30 ~ ±65℃ (Refer to "Derating Curve")				
	WORKING HUMIDITY	20 ~ 90% RH non-condensing				
	STORAGE TEMP, HUMIDITY	-40 ~ +80℃, 10 ~ 95% RH				
	TEMP. COEFFICIENT	±0.03%/°(0 ~ 50°)				
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes				
SAFETY & EMC	SAFETY STANDARDS	UL1310 class 2, CAN/CSA No. 223-M91, IP67 approved ; design refer to TUV EN60950-1				
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC				
	ISOLATION RESISTANCE	I/P-O/P: > 100M Ohms / 500VDC / 25℃/ 70% RH				
	EMC EMISSION	Compliance to EN55022 (CISPR22) Class B, EN61000-3-2 Class A, EN61000-3-3				
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level, criteria A				
OTHERS	MTBF	743.5Khr min. MIL-HDBK-217F (25℃)				
	DIMENSION	148*40*30mm (L*W*H)				
	PACKING	0.34kg; 40pcs/14.6kg/0.63CUFT				



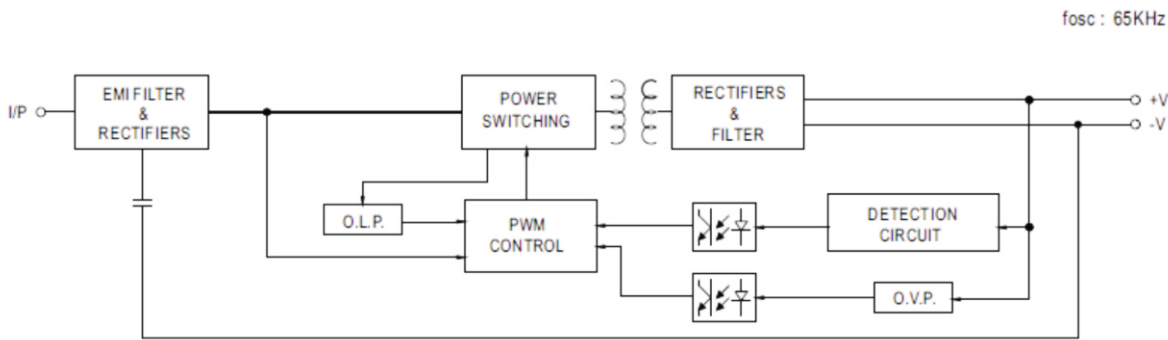
# 35W Single Output Switching Power Supply Mechanical Specification



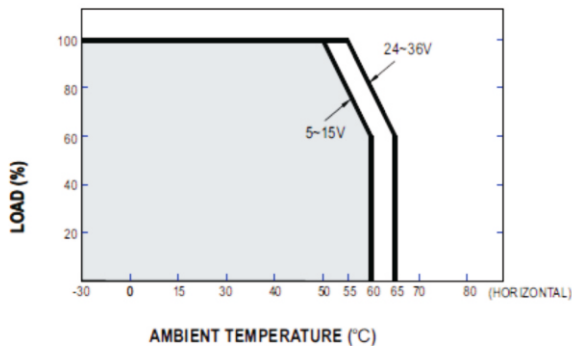
Recommend Mounting Direction



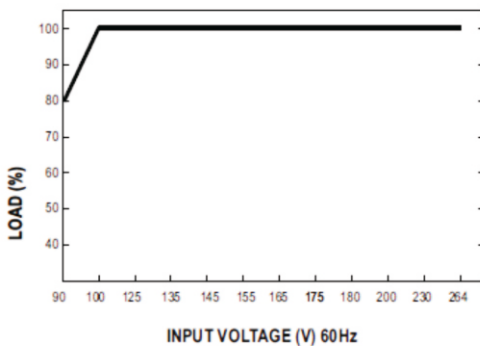
Block Diagram



Derating Curve



Static Characteristics





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