

# STAR 100 Aqua



## Features:

- Constant Current mode output
- Built-in active PFC function
- Efficiency up to 90,5 %
- Low output ripple & noise
- Dimming: 0-10 V, resistor, PWM
- Wide operating temperature range
- Suitable for use in Class I luminaires
- Open & short circuit protection
- Over temperature protection
- Over voltage protection
- Surge protection up to 4 kV



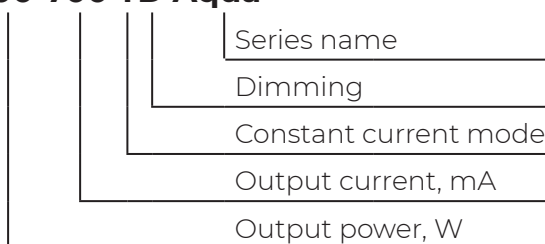
## Description

Star 100 Aqua series was designed for applicable in a street LED luminaires. Star 100 Aqua series operates with power network 176-264 VAC and have IP rating 67. The power supplies Star 100-700TD Aqua with output current 700 mA respectively available at this moment.

The main advantages of Star 100 Aqua are: power factor up to 0,99; efficiency up to 90,5 %; low output ripple and noise; extended temperature range from - 50 to + 60 °C without derating; compliance with EMC and Safety standards; open and short circuit protection, over temperature protection, over voltage protection.

## Model Encoding

### STAR 100-700 TD Aqua



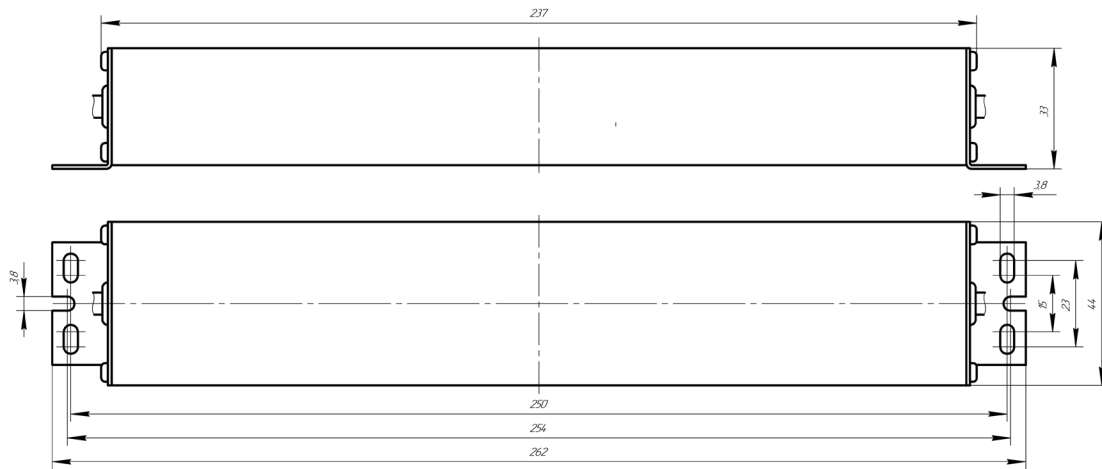
## SPECIFICATION

	Model Name	Star 100-700TD Aqua
OUTPUT	RATED CURRENT	700 mA
	CONSTANT CURRENT REGION	64-140 V
	OPEN CIRCUIT VOLTAGE	161 V
	RATED POWER	100 W
	CURRENT RIPPLE	< 7 mA
	CURRENT TOLERANCE	±5 %
	SET UP TIME	0,5-1 s
INPUT	VOLTAGE RANGE	176-264 VAC
	FREQUENCY RANGE	50/60 Hz
	AC CURRENT	0,55 A @ 220 VAC
	NO LOAD / STANDBY POWER CONSUMPTION	< 1 W
	INRUSH CURRENT	8 A @ 220 VAC
	POWER FACTOR	0,99 @ 50 % load
	TOTAL HARMONIC DISTORTION	≤ 20 %
	EFFICIENCY	90,5 %
PROTECTION	LEAKAGE CURRENT	< 0,3 mA
	OPEN CIRCUIT	Yes
	SHORT CIRCUIT	Yes
	OVER VOLTAGE	Yes
	OVER TEMPERATURE	Yes
	DIMMING	0-10 V, resistor, PWM
ENVIRONMENT	IP RATING	IP67
	WORKING TEMPERATURE	-50...+60 °C
	STORAGE TEMPERATURE	-45...+40 °C
	WORKING HUMIDITY	≤ 95 %, RH non-condensing
SAFETY & EMC	VIBRATION	10 ~ 500 Hz, 5G 12 min./1cycle, period for 72min. each along X, Y, Z axes
	SAFETY STANDARDS	UL8750
	WITHSTAND VOLTAGE (I/P-O/P, I/P-PE, O/P-PE)	> 1,5 kV AC
	ISOLATION RESISTANCE	> 200 M Ohms
OTHERS	EMC	EN 61000-3-2, 3; EN55015 EN 61000-4-2, 3, 4, 5, 6, 8, 11
	LIFE TIME	50 000 Hours
	DIMENSION	262 x 44 x 33 mm
	WEIGHT	0,585 kg
	PACKING	405 x 315 x 160 mm, 24 pcs., 15,3 kg

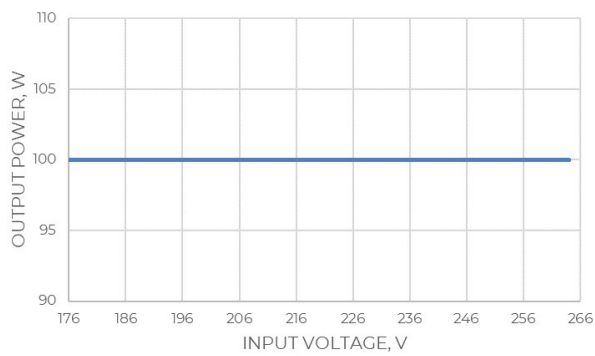
### NOTE:

All parameters were measured at power network 220 VAC, rated current and 25 °C of ambient temperature Measurement accuracy 3 - 5 %.

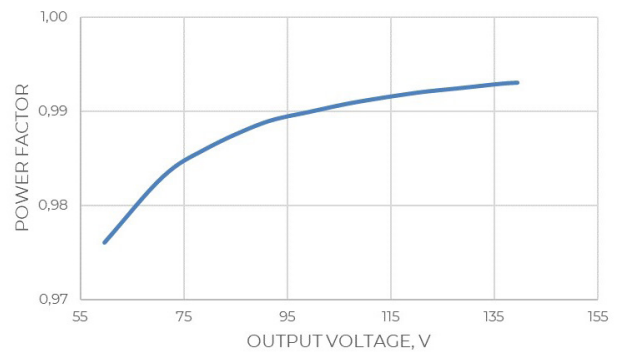
# MECHANICAL SPECIFICATION



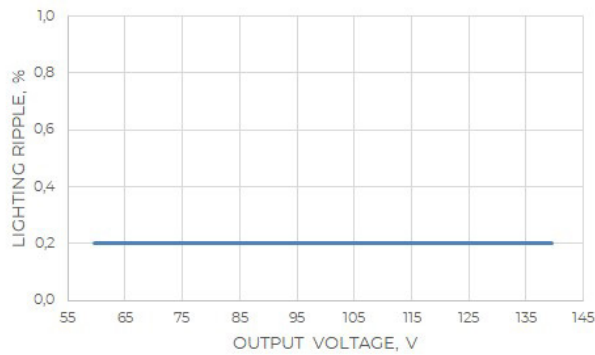
**STATIC CHARACTERISTIC**



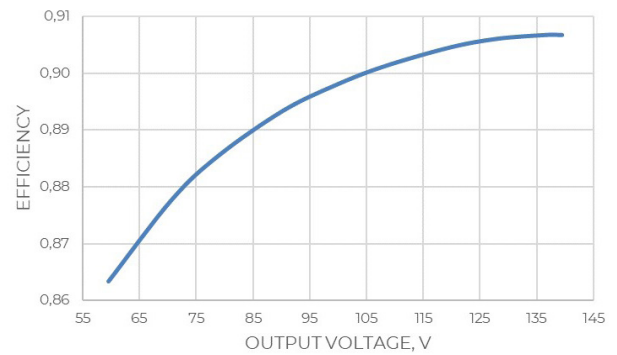
**POWER FACTOR**



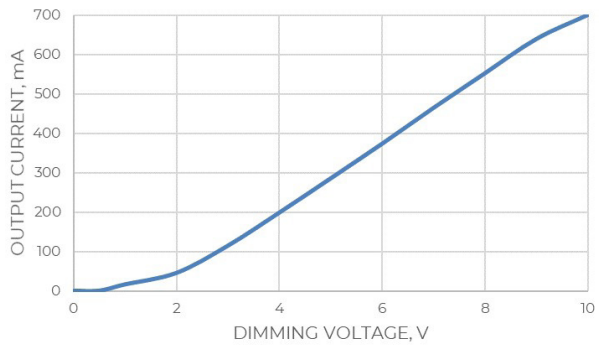
**LIGHTING RIPPLE**



**EFFICIENCY vs OUTPUT VOLTAGE**



OUTPUT CURRENT vs DIMMING VOLTAGE



Dimming voltage	$I_{rated} = 700 \text{ mA}$
0	0
3	115
6	390
9	670
10	700