

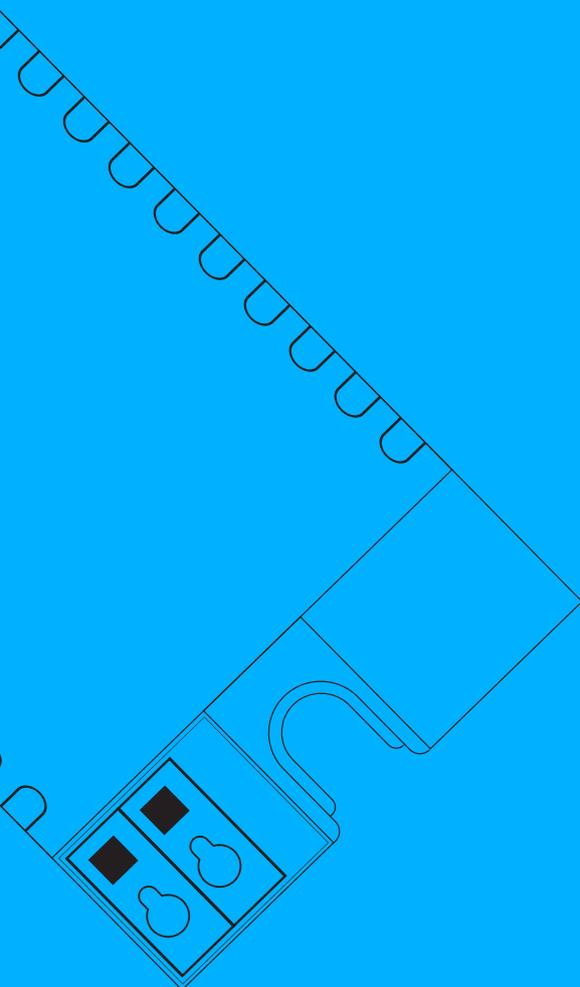
# COLOSSUS<sup>TM</sup>

*Excellence inside*

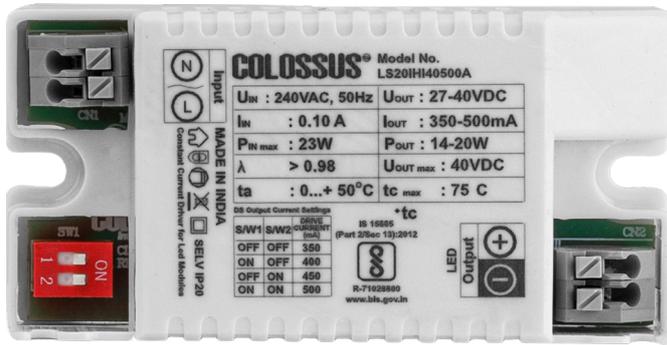
**DATASHEET**

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**LS20IHI40500A**



Version: 01



<https://colossusworld.com/>

\*Image is for viewing purpose. Technical Data not to be drawn from above image.

### Approval Markings:



### Product Description

- Constant current driver for led modules
- Input voltage 240VAC
- High efficiency >86%(@100% Load)
- Power factor >0.98, THD <10%(@100%Load)
- For use in combination with luminaries of protection class II.
- Protection Against Abnormal Operating Conditions Like Input Over Voltage Protection, Under Voltage Protection, Short Circuit Protection, Open Voltage Protection, Overload Protection.
- Surge protection 4KV
- Nominal Life Time: 30,000 hours @  $t_c \leq t_{c\max}$

### Functions

- Application oriented operation for maximum compatibility

### Applications



## Technical Data

### Mains Voltage Supply

Rated Voltage Range	240VAC
Rated Frequency	50/60 Hz
Max. Admissible Input Voltage Range(AC)	175-265VAC
Total Harmonic Distortion (THD)	<10% (@Full Load)
Mains Voltage Withstanding Capacity	400VAC for 2hrs (with overvoltage shutdown)

### Output Data

#### Constant current

Output Current Tolerance	±5%
Max Starting Time	<1s

### Interface And Dimming Operation

Dimming Interface	None
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### Power Factor

240V(@ Full Load)	>0.98
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### Efficiency(typ.)

Full Load	>88%
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### Protections

Open Circuit	<50VDC
Output Short Circuit Operation	YES
Input Over Voltage Cutoff	300VAC ±10%
Input Under Voltage Cutoff	100VAC ±10%

### Connection Terminals

	For solid Or stranded wire
Type	Push Terminal
Wire Cross Section	0.5mm <sup>2</sup> - 1.5mm <sup>2</sup>
Wire Stripping Length	8.5mm - 9.5mm

### Wire Lengths

Max. Wire Length To Led Module	<1m
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### Protection

Surge	4kV
High Voltage	400V

### Temperatures (Operation)

Model No.	Ambient( $t_a$ )	Case ( $t_c$ )
LS20IH140500A	0°C... +50°C	Max + 75°C

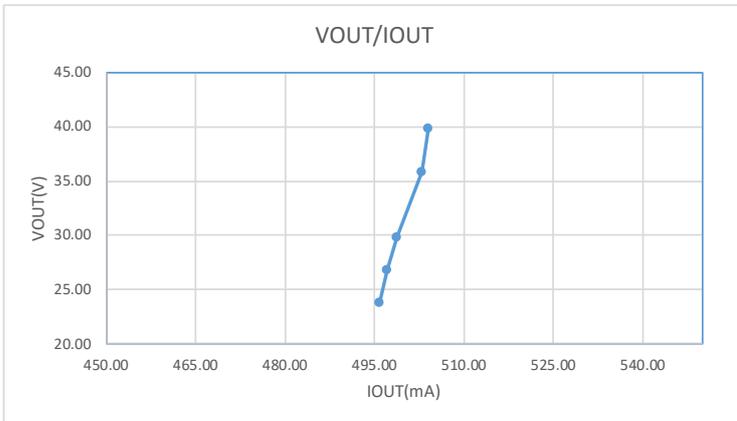
### Product Specifications

Model No.	Input Current (max)	Input Power (max)	THD	Power Factor	Efficiency	Output Current	Output Voltage	Output Power (max)
LS20IH140500A	100mA	23W	<10%	>0.98	>88%	350-500mA	27-40V	20W

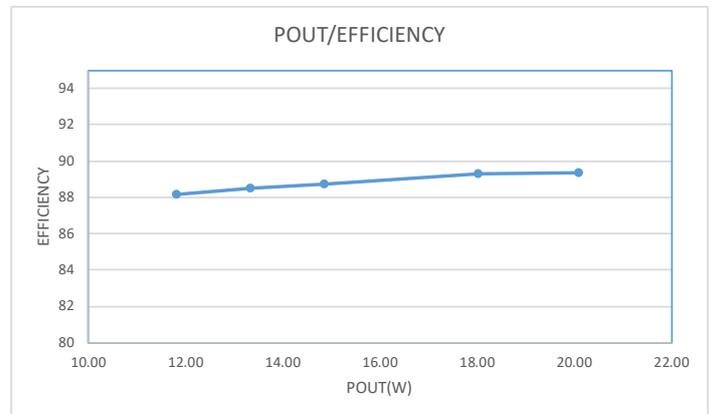
All specifications with 240 VAC are nominal operation and 100% load.

### Graphs

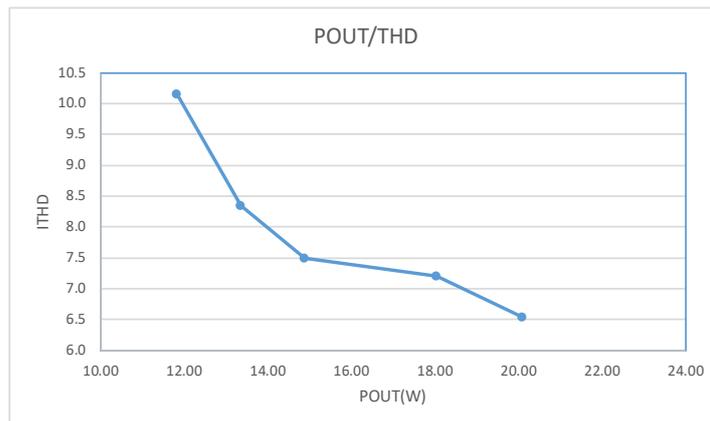
Operating Window



Efficiency Vs Output Power



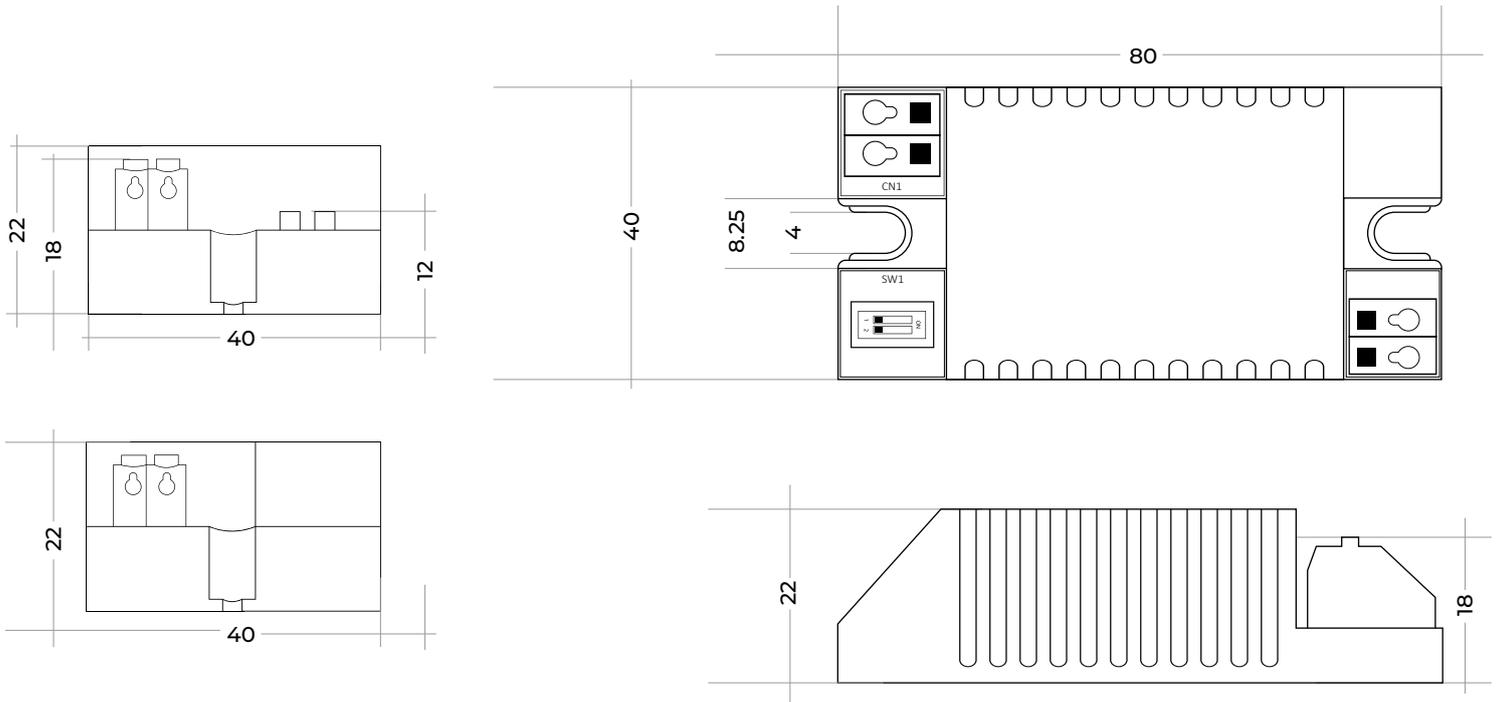
THD Vs Output Power



## Housing Properties

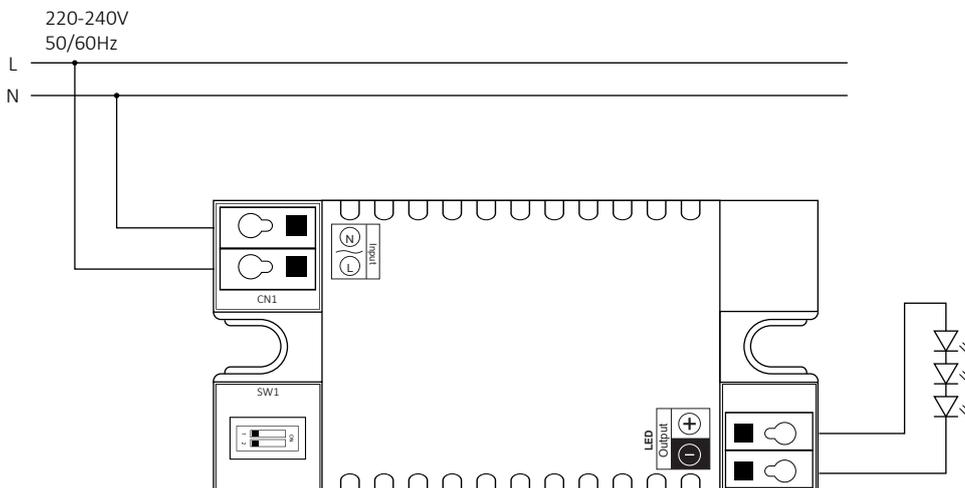
Degree of protection	IP20
Casing	Polycarbonate, White

## Housing Dimensions

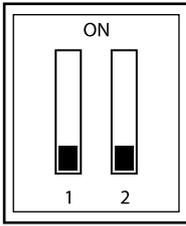


<b>Dimensions</b>	80x40x22mm
<b>Tolerance</b>	± 1mm
<b>Weight</b>	50 gm

## Wiring Diagrams



## Switch Configuration



SW1	SW2	Current(mA)
OFF	OFF	350
ON	OFF	400
OFF	ON	450
ON	ON	500

SW1	SW2	Input Voltage (V)	Input Current (mA)	Input Power (P)	THD	Power Factor	Efficiency	Output Current (mA)	Output Voltage (V)	Output Power (P)
OFF	OFF	240	71.84	16.31	8.4	0.98	89	366.4	39.82	14.59
ON	OFF	240	80.69	18.34	8.3	0.98	90	412.8	39.82	16.44
OFF	ON	240	89.60	20.47	7.3	0.99	90	461.4	39.82	18.37
ON	ON	240	89.39	22.55	7.3	0.99	90	508.8	39.82	20.26

\*Only for reference with respect to DIP Switch.

## Expected Lifetime

Lifetime	30,000 hours
Warranty	2 years

## Logistics Data

Model No.	LS20IH140500A
Weight (gm)	50 gm