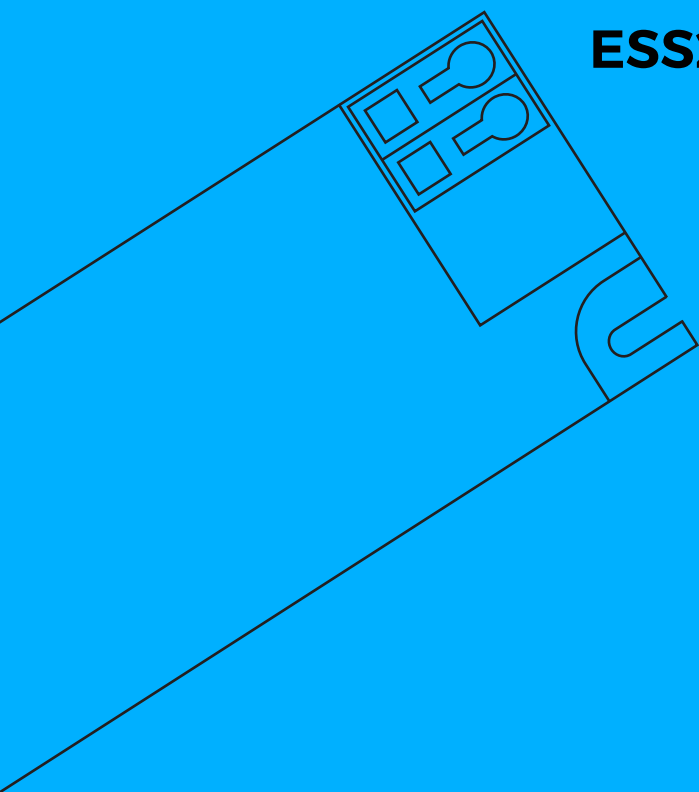


COLOSSUSTM

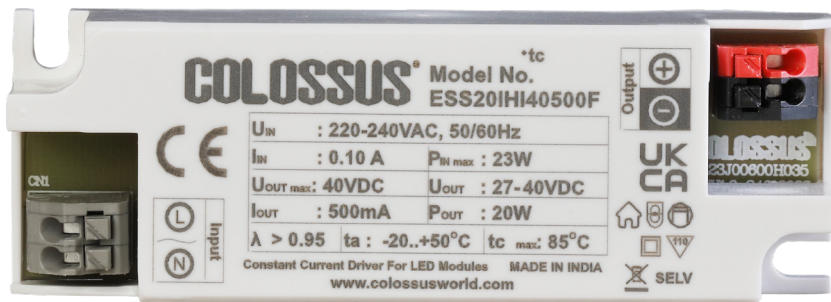
Excellence inside

DATASHEET

ESS20IHI40500F



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 >85%(@100% Load)
- Power factor >0.95, 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: 50,000 hours @ $t_c \leq t_{c_{max}}$

Functions

- Application oriented operation for maximum compatibility

Applications



Office



Shops



House

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	380VAC for 2hrs

Output Data

Constant current

Output Current Tolerance	±5%
Max. Ripple Output Current(With Led Load)	<5%
Max Starting Time	<1s

Interface And Dimming Operation

Dimming Interface	None
-------------------	------

Power Factor

240V(@ Full Load)	>0.95
-------------------	-------

Efficiency(typ.)

Full Load	>85%
-----------	------

Protections

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

Connection Terminals

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

Wire Lengths

Max. Wire Length To Led Module	<1m
--------------------------------	-----

Protection

Surge	4kV
High Voltage	380V

Temperatures (Operation)

Model No.	Ambient(ta)	Case (tc)
ESS20IHI40500F	-20°C... +50°C	Max + 85°C

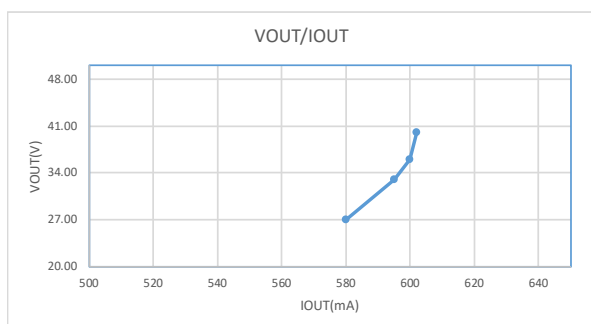
Product Specifications

Model No.	Input Current (max)	Input Power (max)	THD	Power Factor	Efficiency	Output Current	Output Voltage	Output Power (max)
ESS20IHI40500F	100mA	23W	<10%	>0.95	>85%	500mA	27-40V	20W

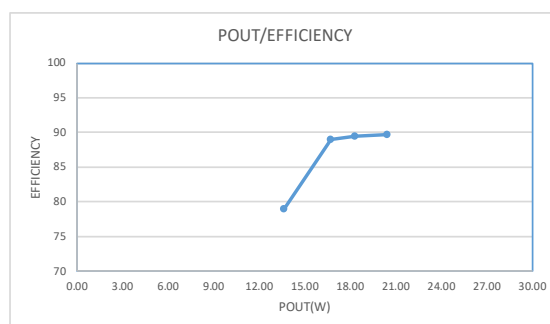
All specifications with 240VAC/50Hz are nominal operation and 100% load.

Graphs

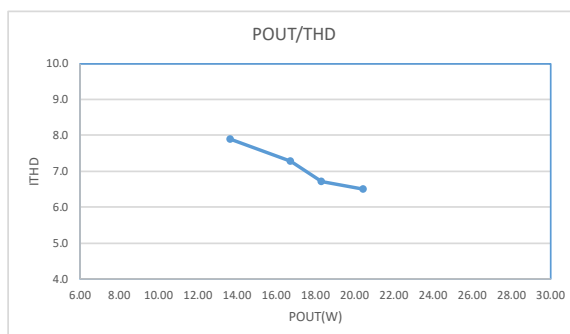
Operating Window



Efficiency Vs Output Power



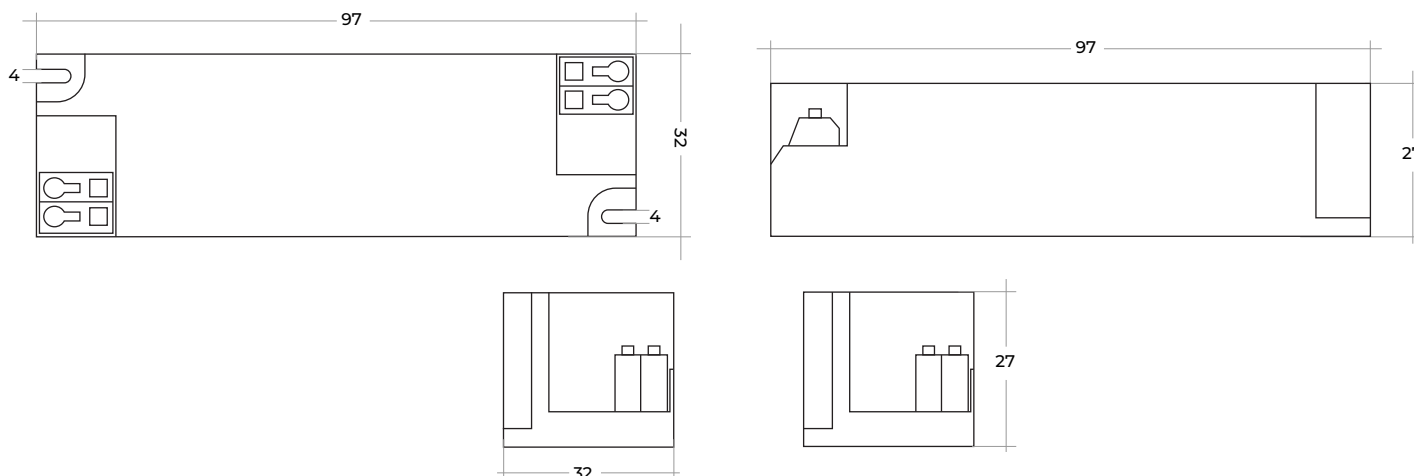
THD Vs Output Power



Housing Properties

Degree of protection	IP20
Casing	Polycarbonate, White

Housing Dimensions



Dimensions	97x32x27mm
Tolerance	± 1mm
Weight	60gm

Wiring Diagrams



Expected Lifetime

Lifetime	50,000 hours
Warranty	5 years

Logistics Data

Model No.	ESS20IHI40500F
Weight (gm)	60gm