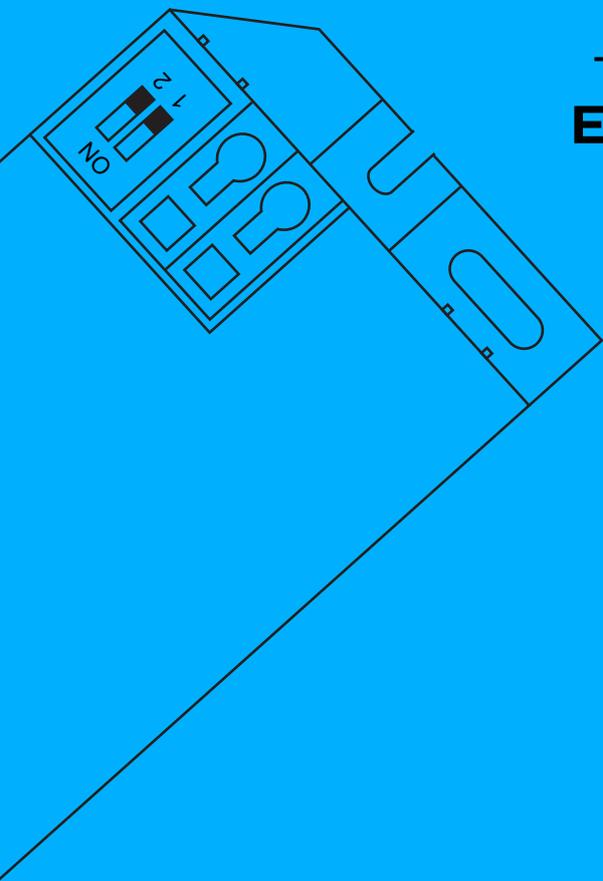


COLOSSUSTM

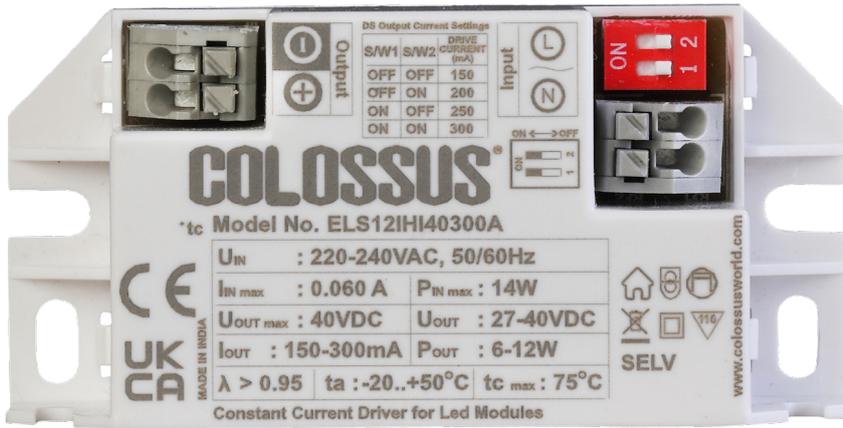
Excellence inside

DATASHEET

ELS12IHI40300A



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 @ tc ≤ tc_{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 | 380VAC for 2hrs |

Output Data

Constant current

| | |
|---|------|
| Output Current Tolerance | ±5% |
| Max. Ripple Output Current(With Led Load) | <30% |
| 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

| | |
|-----------------------|---|
| | For solid Or stranded wire |
| Type | Push Terminal |
| Wire Cross Section | 0.5mm ² - 1.5mm ² |
| Wire Stripping Length | 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) |
| ELS12IHI40300A | -20°C... +50°C | Max + 75°C |

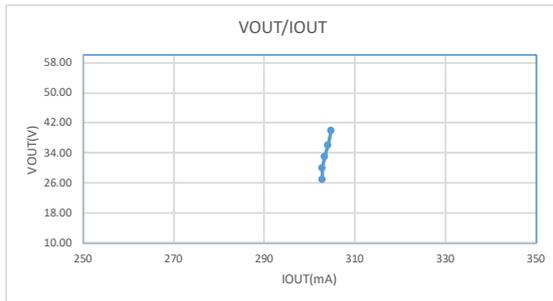
Product Specifications

| Model No. | Input Current (max) | Input Power (max) | THD | Power Factor | Efficiency | Output Current | Output Voltage | Output Power (max) |
|----------------|---------------------|-------------------|------|--------------|------------|----------------|----------------|--------------------|
| ELS12IHI40300A | 60mA | 14W | <10% | >0.95 | >85% | 150-300mA | 27-40V | 12W |

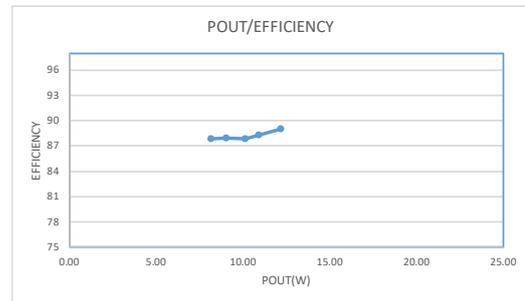
All specifications with 240VAC/50Hz are nominal operation and 100% load.

Graphs

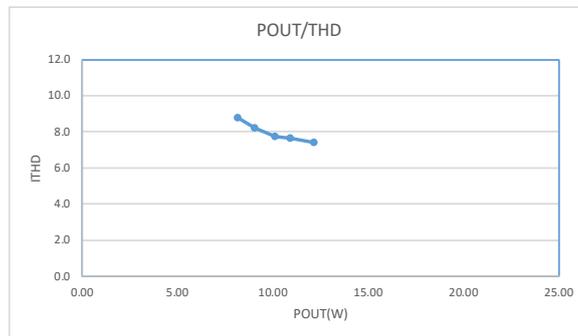
Operating Window



Efficiency Vs Output Power



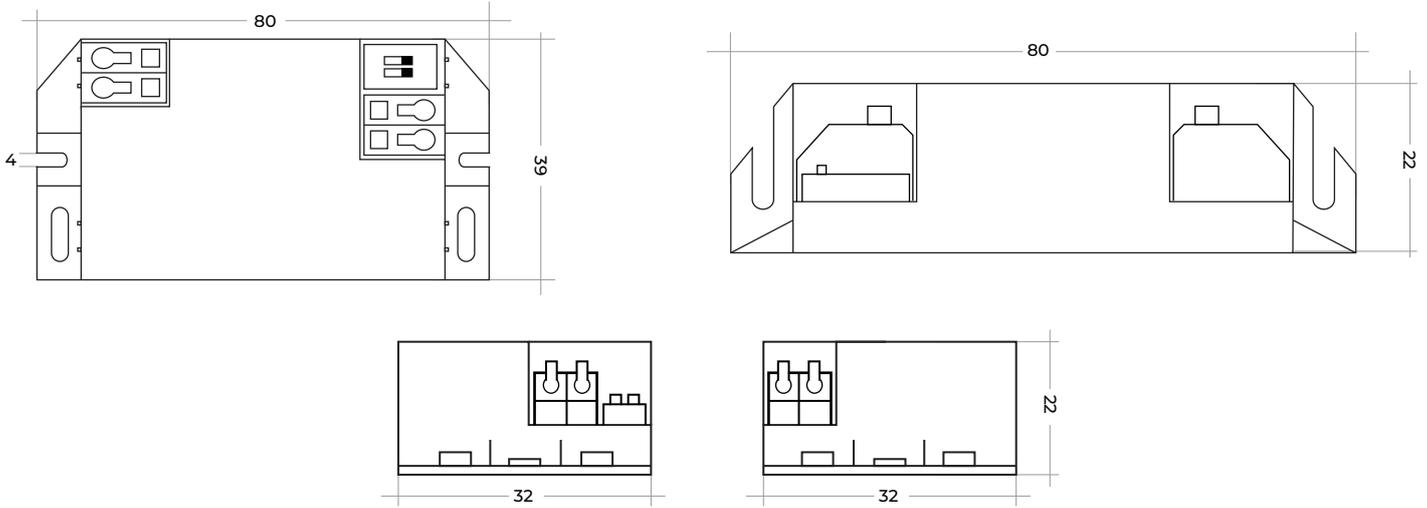
THD Vs Output Power



Housing Properties

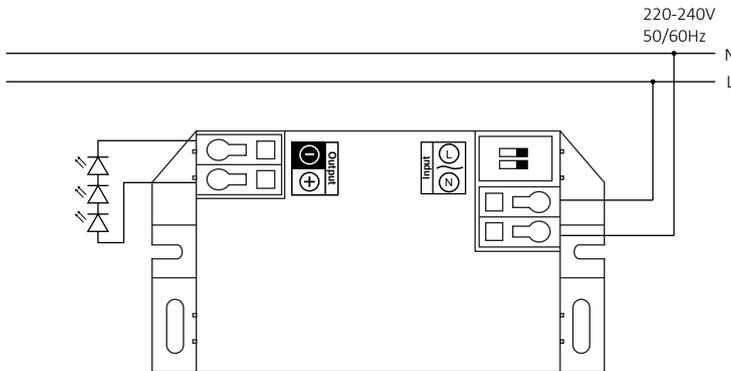
| | |
|----------------------|----------------------|
| Degree of protection | IP20 |
| Casing | Polycarbonate, White |

Housing Dimensions



| | |
|-------------------|------------|
| Dimensions | 80x39x22mm |
| Tolerance | ± 1mm |
| Weight | 40gm |

Wiring Diagrams



Expected Lifetime

| | |
|-----------------|--------------|
| Lifetime | 50,000 hours |
| Warranty | 5 years |

Logistics Data

| | |
|--------------------|----------------|
| Model No. | ELS12IHI40300A |
| Weight (gm) | 40gm |