STAR 20-350T-LS1 Neuron

Features:

- Power supply and emergency kit integrated in one case
- Cost-effective AC/DC power supply
- Built-in active PFC function
- Low output ripple & noise
- Suitable for use in Class I and Class II luminaires
- Open & short circuit protection
- Battery protection against overcharging and deep discharge
- Lithium Ion battery

Description

Star 20-350T-LS1 Neuron is a perfect solution designed for applicable in a wide range of a modern emergency system. Star 20-350T-LS1 Neuron operates as a power supply and emergency kit integrated in one case.

The item works with power network 176-264 VAC and has IP rating 20. As a power supply Star 20-350T-LS1 Neuron has output power 20 W and output current 350 mA. As an emergency kit Star 20-350T-LS1 Neuron provides 2,7 W during 1-hour emergency mode.

The main advantages of Star 20-350T-LS1 Neuron are: integrated solution, saving time and costing for mounting, battery protection against overcharging and deep discharge, low output ripple and noise, open and short circuit protection.

Model Encoding

STAR 20-350 T LS1 Neuron

- Series name
- Emergency mode duration, h
- Slim Body
- Battery Type (Lithium Ion)
- Constant current mode
- Output current, mA
- Output power, W

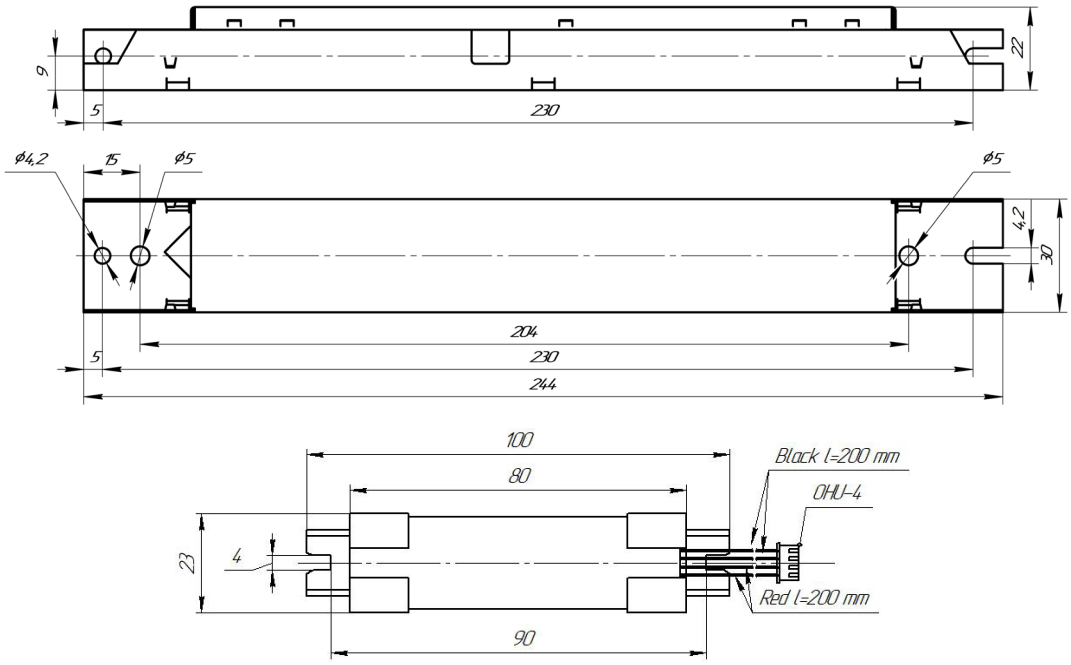
SPECIFICATION

	Model Name	Star 20-350T-LS1 Neuron
OUTPUT	RATED CURRENT	350 mA
	CONSTANT CURRENT REGION	25-57 V
	OPEN CIRCUIT VOLTAGE	75 V
	RATED POWER	20 W
	CURRENT RIPPLE	< 3,5 mA
	SET UP TIME	0,5-1 s
INPUT	VOLTAGE RANGE	176-264 VAC
	FREQUENCY RANGE	50/60 Hz
	AC CURRENT	0,15 A @ 220 VAC
	NO LOAD / STANDBY POWER CONSUMPTION	< 1 W
	POWER FACTOR	0,96 @ 50 % load
	TOTAL HARMONIC DISTORTION	≤ 15 %
	EFFICIENCY	83 %
	LEAKAGE CURRENT	< 0,3 mA
EMERGENCY MODE	OUTPUT VOLTAGE	25 -68 V
	OUTPUT POWER	2,7 W
	OUTPUT CURRENT	40 - 70 mA
	DURATION	60 min
	BATTERY TYPE	Outboard Lithium Ion
	TESTING	Test button or/and Teleport function
	LED INDICATOR	Green - charging mode, red - discharging mode
PROTECTION	OPEN CIRCUIT	Yes
	SHORT CIRCUIT	Yes
	IP RATING	IP20
	OVERVOLTAGE	Yes
	ELECTRICAL ISOLATION	Yes
ENVIROMENT	WORKING TEMPERATURE	+5...+40 °C
	STORAGE TEMPERATURE	+5..+40 °C
SAFETY & EMC	SAFETY STANDARDS	UL8750
	WITHSTAND VOLTAGE (I/P-O/P, I/P-PE, O/P-PE)	> 1,5 kV AC
	ISOLATION RESISTANCE	> 200 M Ohms
	EMC	EN 61000-3-2, 3; EN55015
		EN 61000-4-2, 3, 4, 5, 6, 8, 11
OTHERS	LIFE TIME	50 000 Hours
	DIMENSION	244 x 30 x 22 mm
	WEIGHT	0,175 kg
	PACKING	coming soon

NOTE:

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

MECHANICAL SPECIFICATION



Conversion

1. This module and associated luminaire have both an unswitched mains electricity supply and a battery. To ensure safery disconnect both before installation or maintenance work begins. The Li-Ion batteries used together with this module contain an electrolyte which can be harmful to eyes and poisonous on open wounds.
2. Installation must be carried out by a competent person. If in any doubt consult a qualified electrician.
3. Observe the correct polarity when making electrical connections.
4. Wire the module and battery into the luminaire according to the wiring diagram.
5. Within the luminaire the switched and unswitched 50 Hz supply wiring must be routed as short as possible and be kept as far away as possible from the LED leads.
6. Ensure that the module and associated battery operate within their temperature ratings. After conversion of a luminaire existing components must continue to operate below their temperature rating.
7. Check operation of the LED charge indicator by connecting the unswitched line.
8. Check operation of the LED in the emergency mode by disconnecting the unswitched supply after 15 minutes.
9. Mark the date of commissioning on the battery label.

Failure to do as mentioned above will invalidate any warranty claims.

Test mode

Emergency mode must be regularly tested to ensure that it is working and that the batteries achieve the specified duration. The converted luminaire should be energized from its battery for a period of 1-hour duration.

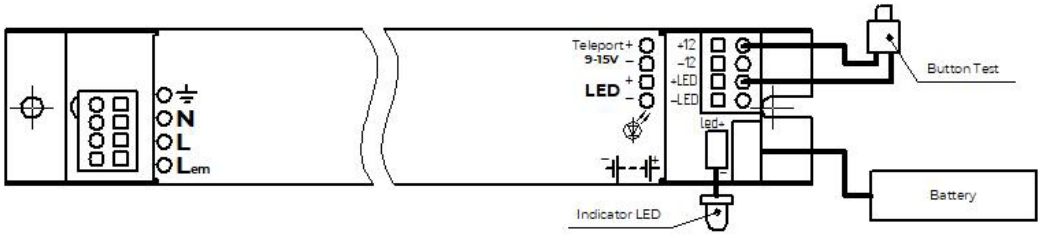
Batteries should be replaced after 4 years or earlier if the luminaire does not meet its rated duration.Because the failure of the supply could occur immediately after testing, the operational tests above should be carried out at times of least risk.

It is important that prior to the tests the unswitched supply must have been connected for at least 24 hours. Test by disconnecting the supply as described in «Test Circuit» which will simulate mains failure.

Description of the test scheme («Test circuit»)

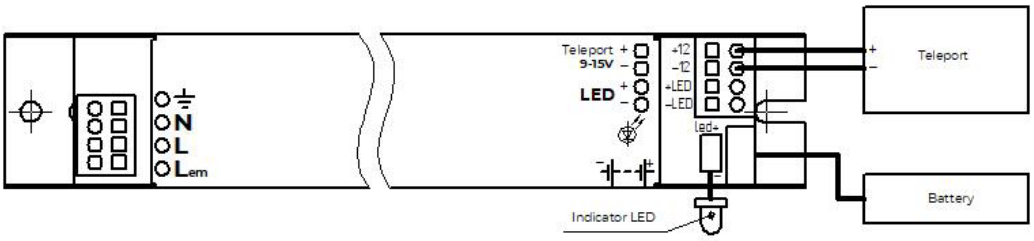
The unswitched mains supply to this module should be derived from a circuit which is continuously energized. Steps must be taken to ensure that this supply is not inadvertently interrupted at any time. Switched associated with this supply should either be sited in a position inaccessible to unauthorized persons, or be of a tamper proof type.

a) Button «Test»



The power supply allows an individual testing of the emergency kit. The button «test» should be pressed for starting the forced emergency mode. There will be switching on LED to the emergency mode. The electric power will be provided from a battery. To return to operating mode, release the button.

b) Teleport function



The emergency kit can be tested by specific function «Teleport». This function has two operates - testing of emergency mode and blocking emergency mode. It is done remotely with a Remote Testing and Control Device.

Change of Specification

Trion reserve the right to change specifications without prior notification or public announcement.

Conclusion

Every care is taken by Trion, in the design and construction of its products, to ensure that as far as is reasonably practical, the products, when properly used are safe, and without risk to health.

Do not attempt to modify this product. Any modification will render the product unsafe.

Trion will not admit any responsibility for damage, injury or loss, which may gain as a result of incorrect installation, maintenance, operation or disposal.