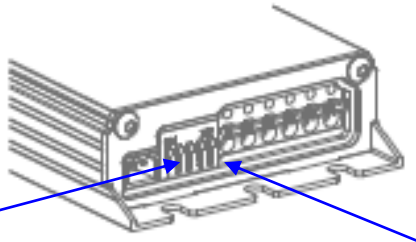
INTEGRATED LED AC + EMERGENCY DRIVER

184500

A2-EN

FEATURES

1. For normal and emergency operation of LEDs, no need an extra AC LED driver
2. Constant current, multi-current selectable output
3. Normal mode LED soft start, emergency mode conversion within 0.3 seconds
4. 1-10V dimmable
5. Emergency output (power and time) selectable
6. Auto Test
7. Slim aluminum housing
8. Suitable for indoor, dry and damp applications



Dipswitch **1/2/3**: Setting LED working current in normal mode

Dipswitch **4/5**: Setting emergency output

Driver Current Selection			
Dipswitch			SEC
1	2	3	
–	–	–	150mA (18-60V)
ON	–	–	250mA (18-60V)
–	ON	–	300mA (18-60V)
–	–	ON	350mA (18-60V)
ON	ON	–	400mA (18-60V)
ON	–	ON	450mA (18-55V)
–	ON	ON	500mA (18-50V)
ON	ON	ON	600mA (18-42V)

Emergency Output Selection						
Dipswitch		Power				Time
4	5	1Ah	2Ah	4Ah	5Ah	
–	–	1.8W	3.5W	7W	8.8W	3H
ON	–	2.6W	5.3W	10.5W	13.1W	2H
–	ON	3.5W	7W	14W	17.5W	1.5H
ON	ON	5.3W	10.5W	21W	25.2W	1H
Before use, always check dipswitch settings						

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CHARACTERISTICS

Type	184500			
Model	184500-A2-EN-8C1.0	184500-A2-EN-8C2.0	184500-A2-EN-8C4.0	184500-A2-EN-8C5.0
Rated voltage	120-2770VAC 50/60Hz			
Rated current	0.15A	0.15A	0.16A	0.17A
Rated power	31W (Max.)	32W (Max.)	34W (Max.)	36W (Max.)
Emergency output	1.8W - 3 hours 2.6W - 2 hours 3.5W - 1.5 hours 5.3W - 1 hour	3.5W - 3 hours 5.3W - 2 hours 7W - 1.5 hours 10.5W - 1 hour	7W - 3 hours 10.5W - 2 hours 14W - 1.5 hours 21W - 1 hour	8.8W - 3 hours 13.1W - 2 hours 17.5W - 1.5 hours 25.2W - 1 hour
Output voltage	18-60VDC			
Operation frequency	320kHz≥f≥50kHz			
Power Factor	≥0.9			
Battery	9.6V 1.0Ah, Ni-Cd	9.6V 2.0Ah, Ni-Cd	9.6V 4.0Ah, Ni-Cd	9.6V 5.0Ah, Ni-Cd
Charging time	24 Hours			
Discharge time	>90 Minutes			
Charging current	0.05A	0.1A	0.2A	0.25A
Life time	5 years			
Charging cycles	>500			
Operation temperature	0-50℃ (32°F-122°F)			
Output current	150mA, 250mA, 300mA, 350mA, 400mA, 450mA, 500mA, 600mA ±5%			
Efficiency	75%			
Abnormal protection	Inrush, over voltage, charging and discharging, open circuit , short circuit protection with auto reset			
Wire	0.5-1.5mm^2			
EMC standard	EN 55015, EN 61547, EN 61000-3-2, EN 61000-3-3			
Safety standard	EN 61347-1, EN 61347-2-7, EN 61347-2-13,			
Meas.module mm [inch]	L175 [6.89] x W65 [2.56] x H22 [0.87] Mounting Center: 167 [6.57]			
Meas. battery pack mm [inch]	9.6V 1.0Ah: L228 [8.98] x W30 [1.18] x H17 [0.67] Mounting Center: 217 [8.54] 9.6V 2.0Ah: L195 [7.68] x W45.5 [1.79] x H24.5 [0.96] Mounting Center: 184 [7.24] 9.6V 4.0/5.0Ah: L263 [10.35] x W65 [2.56] x H35 [1.38] Mounting Center: 252 [9.92]			

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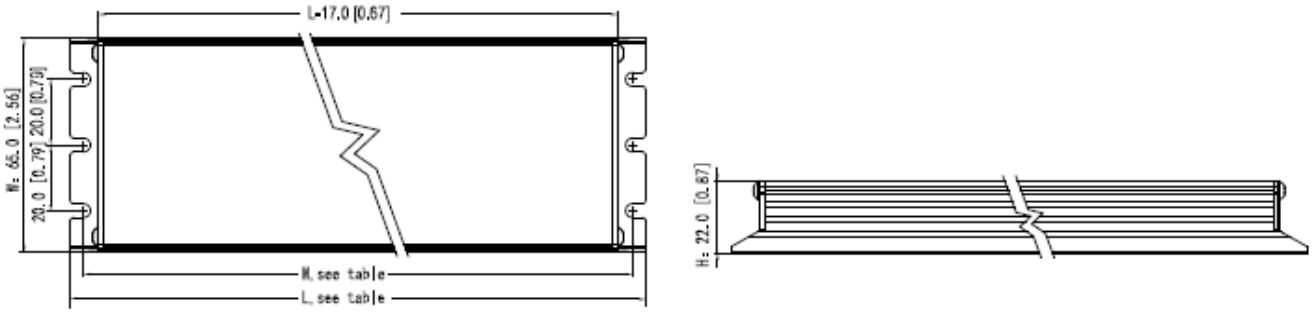
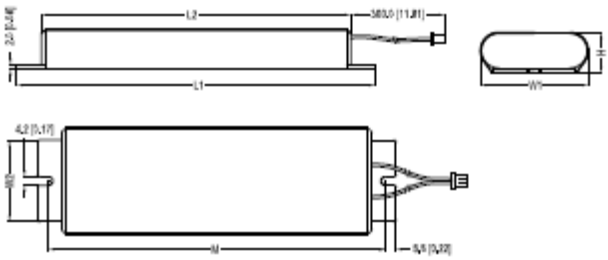
DIMENSIONS



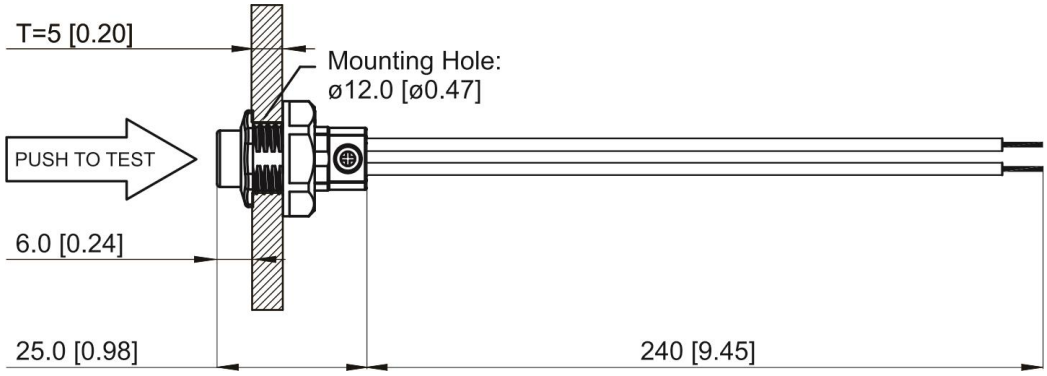
Item No.	L mm [inch]	M mm [inch]	W mm [inch]	H mm [inch]
184500	175 [6.89]	167 [6.57])	65 [2.56]	22 [0.87]

BATTERY



Battery model	Spec.	L1 mm [inch]	L2 mm [inch]	M mm [inch]	W1 mm [inch]	W2 Mm [inch]	H mm [inch]
BP-CD-8C1.0	9.6V 1.0AH	228 [8.98]	195 [7.68]	217 [8.54]	30 [1.18]	20 [0.79]	17 [0.67]
BP-CD-8C2.0	9.6V 2.0AH	195 [7.68]	170 [6.69]	184 [7.24]	45.5 [1.79]	40 [1.57]	24.5 [0.96]
BP-CD-8C4.0	9.6V 4.0AH	263 [10.35]	236 [9.29]	252 [9.92]	65 [2.56]	40 [1.57]	35 [1.38]
BP-CD-8C5.0	9.6V 5.0AH	263 [10.35]	236 [9.29]	252 [9.92]	65 [2.56]	40 [1.57]	35 [1.38]

LED TEST SWITCH (LTS)



Dimension in millimetres [inches in brackets]
Tolerance:±1mm [0.04"]

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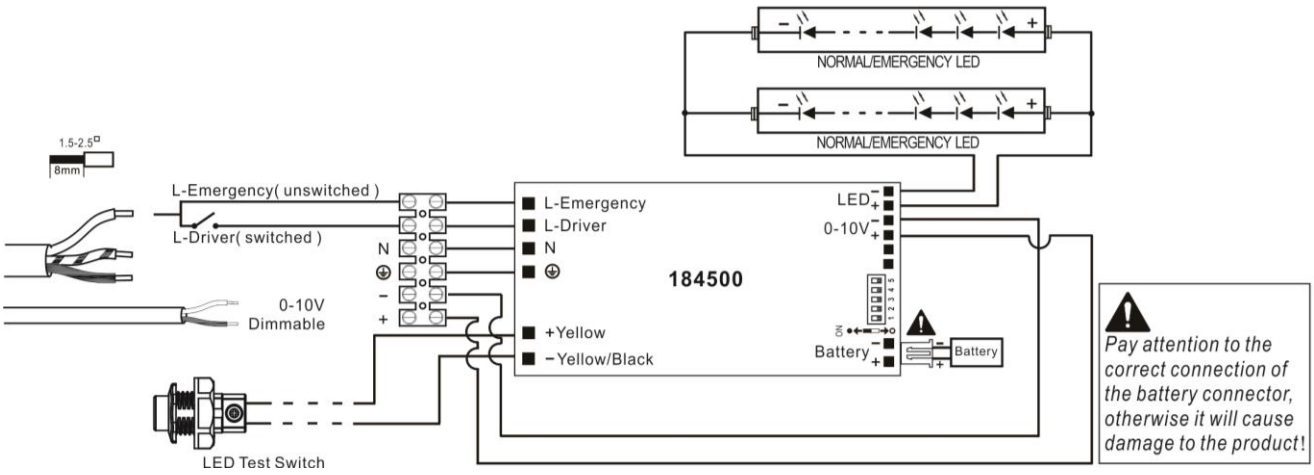
WIRING DIAGRAMS



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OPERATION/TESTING/MAINTENANCE

OPERATION

When AC power is applied, the LED test switch is illuminated, indicating that the batteries are being charged. When AC power fails, the 184500 automatically switches to emergency power, operating the lighting load at rated emergency power. During power failure, the LED test switch will be off. When the AC power is restored, the emergency 184500 switches the system back to normal mode of operation and resumes battery charging. The charging time for a full discharge is 24 hours.

TESTING AND MAINTENANCE

The following Periodic testing is recommended to ensure the system is working correctly.

1. Visually inspect the LED test switch (LTS) monthly. It should be illuminated when AC power is applied.
2. Conduct a 30-second discharge test by switching off the emergency breaker every month. The LTS will be off.
3. Conduct a full discharge test once per year.

AUTO TEST

The 184500 has an Auto Test feature which saves cost by reducing the need for manual testing.

1. Initial Auto Test

   When the system is connected properly and powered on, the 184500 will perform an initial Auto Test. If any abnormal conditions exist, the LTS will blink quickly. Once the abnormal condition is corrected, the LTS will function correctly.

2. Preprogrammed Scheduled Auto Test

a) The unit will conduct the first Monthly Auto Test after 24 hours and up to 7 days after initial power on. Then monthly tests will be performed every 30 days.

b) Annual Auto test will occur every 52 weeks after initial power on.

- Monthly Auto Test

  The Monthly Auto Test shall be executed every 30 days, and will test; Normal to emergency transfer function, emergency, charging and discharging conditions are normal. Monthly test time is approximately 30 seconds.

- Annual Auto Test

  Annual Auto Test will occur every 52 weeks after the initial 24 hours full charge, and will test; Proper initial battery voltage, a full discharge operation and acceptable battery voltage at the end of the full discharge. If the Auto Test is interrupted by a power failure, a full discharge Auto Test will occur again 24 hours after the power is restored. If the power failure causes the battery to fully discharge, the product will restart the Initial Auto Test and Preprogrammed Scheduled Auto Test.

MANUAL TEST

- Press the LTS one time to simulate emergency mode.
- Press the LTS 2 times continuously within 3 seconds to force a monthly test. After the test is completed, the next (30-day) monthly test will count from this date.
- Press the LTS 3 times continuously within 3 seconds to force an annual test. After the test is completed, the next (52-week) annual test will count from this date.
- During any manual test, press and hold the LTS for greater than 3 seconds to terminate a manual test. The Preprogrammed Scheduled Auto Test time will not change.

LED TEST SWITCH CONDITIONS

- LTS Slow Blinking: Normal Charging
- LTS On: Battery Fully Charged - Normal Condition
- LTS Off: Power Failure
- LTS Gradual Change: In Testing Mode
- LTS Quickly Blinking: Abnormal Condition - Corrective Action Required

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SAFETY INSTRUCTIONS

1. To prevent electric shock, switch off the mains power supply until installation is complete and AC power is supplied to this product.

2. This product requires an un-switched AC power supply of 120-277V, 50/60Hz.

3. Make sure all connections are in accordance with the National and any local regulations.

4.To reduce the risk of electrical shock, disconnect both normal and emergency power supplies and connector of this product before servicing.

5. The product can operate with most LED lamps. For normal operation and emergency operation of LEDs, no need an extra LED driver. The emergency power and time are selectable.

6. This product is suitable for use in dry or damp locations. Do not mount it near gas, heaters, air outlets or other hazardous locations.

7. Use this product in 0°C minimum, 50°C maximum ambient temperatures.

8. Use caution when servicing batteries. Do not attempt to dismantle the batteries. Batteries' acid can cause burns to skin and eyes. If acid is spilled on skin or in eyes, flush acid with fresh water and contact a physician immediately.

9. As this product contains batteries, please be sure to store it in an indoor environment between -20°C ~ +30°C. It must be fully charged and discharged every 6 months from the date of purchase until it is officially put into use, then recharged 30-50% and stored for another 6 months, and so on. If the battery is not used for more than 6 months, it may cause excessive self-discharge of the battery, and the resulting reduction of battery capacity is irreversible. For products with separate battery and emergency module, please disconnect the connection between battery and module for storage. Due to its chemical properties, it is a normal situation for the battery capacity to decline naturally during use. Users should take this into account when choosing products.

10. The use of accessories equipment not recommended by the manufacturer may cause an unsafe condition.

11. Do not use this product for other than intended use.

12. The product should be mounted at locations and at heights where it will not be easily accessible to unauthorized personnel.

13. Installation and servicing should be performed by qualified personnel.

14. Ensure product compatibility before final installation. Make sure the polarity is correct when connecting the batteries. Wiring should be strictly in accordance with the wiring diagram, wiring errors will damage the product. A case of safety accident or product failure caused by users' illegal operation does not belong to the scope of customer complaint acceptance, compensation or product quality assurance.

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