Emergency LED Drivers & Inverters ▶▶

Overview: Bluetooth 5.0 Mesh Range (with App)

	Input Voltage	Input Current	U-out Max.	Output Wattage / LED Current / Voltage	Max. Emergency Output Power	Battery Pack	RJ12 Port for Sensor Connection	Sensor Head Options	Test Method Self-test via Bluetooth	Optional Accessory	Page
NEW! HBEM01	220-240Vac	162-150mA	60V	8-17.5W / 350mA / 24-50V 12-25W / 500mA / 24-50V 16-25W / 700mA / 24-36V	2W/3W	BPC83 BPC84	√	Category C, see pg. 88	√	LED indicator, Test switch	**223**
NEW! HBEM02	220-240Vac	Max. 25mA	60V	2W / 85-40mA / 24-55V 3W / 125-60mA / 24-55V 4W / 160-80mA / 24-55V	2W/3W/4W	BPC83 BPC84	√	Category C, see pg. 88	√	LED indicator, Test switch	**223**
NEW! HBEM03	220-240Vac	162-150mA	60V	8-17.5W / 350mA / 24-50V 12-25W / 500mA / 24-50V 16-35W / 700mA / 24-50V 21.6-40W / 900mA / 24-45V	2W/3W /4W/5W	BPC83 BPC84	√	Category C, see pg. 88	√	LED indicator, Test switch	**223**
NEW! HBEM04	220-240Vac	Max. 25mA	60V	2W / 85-40mA / 24-55V 3W / 125-60mA / 24-55V 4W / 160-80mA / 24-55V 5W / 200-100mA / 24-55V	2W/3W /4W/5W	BPC83 BPC84	√	Category C, see pg. 88	√	LED indicator, Test switch	**223**
NEW! HBEM05	220-240Vac	Max. 25mA	60V	6W / 250-100mA / 24-55V 8W / 330-145mA / 24-55V 10W / 415-180mA / 24-55V 12W / 500-220mA / 24-55V	6W/8W /10W/12W	BPC83 BPC84	√	Category C, see pg. 88	√	LED indicator, Test switch	**223**

NEW! HBEM8200/F

pg. 225

NEW! HBIREM29 Series (with PIR sensor)

pg. 225

- 220-240Vac
- DALI-to-Bluetooth converter/translator module;
- Point-to-point control
- Provides power supply to the 3rd party standard DALI/DALI-2 emergency driver;
- Convert/Translate a standard DALI/DALI-2 emergency driver output to Bluetooth output,

	Input Voltage	Input Current	U-out Max.	Output Wattage / LED Current / Voltage	Emergency Output Power	Battery Pack	RJ12 Port for Sensor Connection	Sensor Head Options	Test Method Self-test via Bluetooth	Optional Accessory	Page
HEM02	220-240Vac	19mA - 21mA	68V	40mA (60V); 320mA (8V)	3W	BPC01 BPC02 BPC10 BPC11			Manual test	LED indicator, Test switch, Insulated terminal cover	**227**
HEM07	220-240Vac	16mA - 18mA	68V	40mA (60V); 300mA (9V)	3W	BPC01 BPC02 BPC10 BPC11			Manual test	LED indicator, Test switch	**227**
HEM06-T	220-240Vac	13mA - 16mA	75V	3W / 260mA-40mA / 12-70V 6W / 350mA-80mA / 12-70V	3W 6W	BPC05 BPC14 BPC20			Self-test	LED indicator, Test switch, Insulated Terminal Cover	**227**
HEM07-T	220-240Vac	19mA - 15mA	65V	40mA (55V) 230mA (12V)	3W	BPC01 BPC02 BPC10 BPC11			Self-test	LED indicator, Test switch	**228**
HEM09	220-240Vac	200mA - 150mA	62V	18W/ 350mA /10-52V 26W/ 500mA /10-52V 28W/ 550mA /10-52V 30W/ 700mA /10-43V 30W/ 750mA /10-40V 23W/ 900mA /10-25V	3W 4W 6W	BPC30 BPC31	√	SAM7, SAM7/FM SAM7/AA	Self-test	LED indicator, Test switch, Insulated Terminal Cover	**226**
HEM09H	220-240Vac	220mA - 160mA	33V	30W/900mA/10~33V 30W/1050mA/10~29V 25W/1200mA/10~21V 20W/1400mA/10~14V	3W 4W 6W	BPC30 BPC31	√	SAM7, SAM7/FM SAM7/AA	Self-test	LED indicator, Test switch, Insulated Terminal Cover	**226**

Overview: Batteries

	Battery Type & Specification	Size (mm)	Duration	Accessories	Page
BPC83	LiFePO4, 6.4V, 3.4Ah	110x55x27	>3h @3W >3h @2W	Battery bracket, LED indicator, Test switch	228
BPC84	LiFePO4, 6.4V, 3.4Ah	170x30x27	>3h @3W >3h @2W	Battery bracket, LED indicator, Test switch	228
BPC01	3 cells, C type, NiMH battery, 3.6V, 4.0AH	235x22x22	>3h @3W	Battery bracket, green LED indicator, Test switch (optional)	228
BPC02	3 cells, C type, NiMH battery, 3.6V, 4.0AH	77x50x28	>3h @3W	Battery bracket, green LED indicator, test switch (optional)	228
BPC05	6 cells, SC type, NiMH battery, 7.2V, 2.5AH	168x50x28	>3h @3W	Battery bracket, Green LED indicator, Buzzer, Test switch	229
BPC10	3 cells, D type, D4000, Nicd battery, 3.6V, 4.0AH	215x37x37.5	>3h @3W	Battery bracket, green LED indicator, Test switch (optional)	228
BPC11	3 cells, D type, D4000, Nicd battery, 3.6V, 4.0AH	100x65x36	>3h @3W	Battery bracket, green LED indicator, Test switch (optional)	228
BPC14	6 cells, SC type, SC1800, Nicd battery, 7.2V, 1.8AH	165x46x27	>3h @3W	Battery bracket, Green LED indicator, Buzzer, Test switch	229
BPC20	6 cells, D type, D4000, Nicd battery, 7.2V, 4.0Ah	230x72.5x39.5	>3h @6W	Battery bracket, Green LED indicator, Buzzer, Test switch	229
BPC30	6 cells, SC type NiCd battery, 7.2V, 1.8Ah	175x50x30	>3h @3W >1.5h @4W >1.5h @6W	Battery bracket, Green LED indicator, Buzzer, Test switch	229
BPC31	6 cells, SC type NiMH battery, 7.2V, 1.8Ah	190x33x30	>3h @3W >1.5h @4W >1.5h @6W	Battery bracket, Green LED indicator, Buzzer, Test switch	229

Common Highlight Features for HBEM series:

- **Bluetooth**® 5.0 SIG Mesh (*See full details on pg. 01-02)
- Input: 220V-240VAC, 50/60Hz
- Constant Emergency Wattage (CW)
- Multiple current selection / emergency power / time selection via DIP-Switches
- Four emergency working modes for options

- Monthly / Yearly self-test with auto report generation
- Retrievable usage data and history record
- Automatic email notification when detecting fault
- Works with LiFePO$_4$ battery
- Optional motion sensor pluggable (Sensor-Dim)
- Optional LED indicator & test switch accessory

NEW! HBEM01

- Emergency driver
- Constant Current (CC)
- Size: L * W * H = 108mm * 69mm * 22.2mm
- Max. emergency output power: 2W / 3W
- Max. loading: 25W
- Dimmable (via Bluetooth & Switch-Dim)
- Switch-Dim (PUSH) terminal
- Max. Output Power/Current/Voltage range:
  8-17.5w / 350mA / 24-50V, 12-25W / 500mA / 24-50V
  16-25W / 700mA / 24-36V

NEW! HBEM02

- Emergency inverter (for on/off)
- Size: L * W * H = 160mm * 40.5mm * 22mm
- Max. emergency output power: 2W / 3W / 4W
- Max. Output Power/Current/Voltage range:
  2W / 85-40mA / 24-55V, 3W / 125-60mA / 24-55V
  4W / 160-80mA / 24-55V

NEW! HBEM03

- Emergency driver
- Constant Current (CC)
- Size: L * W * H = 140.6mm * 79.2mm * 23mm
- Max. emergency output power: 2W / 3W / 4W
- Max. loading: 45W
- Switch-Dim (PUSH) terminal
- Optional terminal-caps for stand-alone installation
- Max. Output Power/Current/Voltage range:
  8-17.5w / 350mA / 24-50V, 12-25W / 500mA / 24-50V
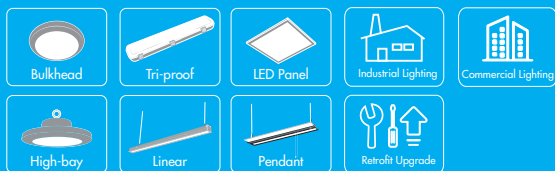 16-35W / 700mA / 24-50V, 21.6-40W / 900mA / 24-45V

NEW! HBEM04

- Emergency inverter (for DALI dimmable driver)
- Size: L * W * H = 108mm * 69mm * 22.2mm
- Max. emergency output power: 2W / 3W / 4W / 5W
- Max. loading: 5W
- Switch-Dim (PUSH) terminal
- Max. Output Power/Current/Voltage range:
  2W / 85-40mA / 24-55V, 3W / 125-60mA / 24-55V
  4W / 160-80mA / 24-55V, 5W / 200-100mA / 24-55V

- Emergency inverter (for DALI dimmable driver)
- Size: L * W * H = 140.6mm * 79.2mm * 23mm
- Max. emergency output power: 6W / 8W / 10W / 12W
- Max. loading: 12W
- Switch-Dim (PUSH) terminal
- Optional terminal-caps for stand-alone installation
- Max. Output Power/Current/Voltage range:
  6W / 250-100mA / 24-55V, 8W / 330-145mA / 24-55V
  10W / 415-180mA / 24-55V, 12W / 500-220mA / 24-55V

NEW! HBEM05

Suitable for

- Bulkhead
- Tri-proof
- LED Panel
- Industrial Lighting
- Commercial Lighting
- High-bay
- Linear
- Pendant
- Retrofit Upgrade

+

Free Combination!
(Total 20 sensor head options, applicable to HBEM01, HBEM02, HBEM03, HBEM04 & HBEM05)

SAM20D2/PRO
NEW!
Commissioning Tools
iOS / Android / Web
See pg. 88

SAM20D2/H
NEW!
Commissioning Tools
iOS / Android / Web
See pg. 89

SAM20
Commissioning Tools
iOS / Android / Web
See pg. 89

SAM21
Commissioning Tools
iOS / Android / Web
See pg. 89

SAM22
Commissioning Tools
iOS / Android / Web
See pg. 89

SAM22/AA
Commissioning Tools
iOS / Android / Web
Optiaonl Surface Mount Box HA07
See pg. 89

SAM23
NEW!
Commissioning Tools
iOS / Android / Web
See pg. 89

HIR05
Commissioning Tools
iOS / Android / Web
See pg. 89

HIR05/FM
Commissioning Tools
iOS / Android / Web
See pg. 89

HIR05/AA
Commissioning Tools
iOS / Android / Web
Optiaonl Surface Mount Box HA07
See pg. 90

HIR07
Commissioning Tools
iOS / Android / Web
See pg. 90

HIR11/S
Commissioning Tools
iOS / Android / Web
See pg. 90

HIR11/F
Commissioning Tools
iOS / Android / Web
See pg. 90

HIR11/C
Commissioning Tools
iOS / Android / Web
See pg. 90

HIR11/AA
Commissioning Tools
iOS / Android / Web
Optiaonl Surface Mount Box HA07
See pg. 90

HIR12
Commissioning Tools
iOS / Android / Web
See pg. 90

HIR63
NEW!
Commissioning Tools
iOS / Android / Web
See pg. 90

HIR63 with HA04
NEW!
Commissioning Tools
iOS / Android / Web
See pg. 91

HIR63 with HA05
NEW!
Commissioning Tools
iOS / Android / Web
See pg. 91

HIR63/R
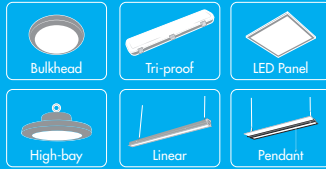NEW!
Commissioning Tools
iOS / Android / Web
See pg. 91

NEW!

HBEM8200/F

DALI
CE UKCA ⚠

Suitable for

- Bulkhead
- Tri-proof
- LED Panel
- High-bay
- Linear
- Pendant

- ❂ Bluetooth® 5.0 SIG Mesh (*See full details on pg. 05-11)
- Input: 220V-240VAC, 50/60Hz
- DALI-to-Bluetooth converter/translator module
- Convert/Translate a standard DALI/DALI-2 emergency driver output to Bluetooth output, so that user can view, edit & manage the emergency system through high-end Koolmesh platform
- User can then enjoy all the powerful & convenient features in Koolmesh platform, including automatic email notification upon detecting fault, automatic monthly/yearly (functional/duration test) emergency report generation etc...
- Point-to-point control: 1pc HBEM8200/F module for 1pc 3rd party DALI/DALI-2 emergency driver
- HBEM8200/F & the 3rd party standard DALI/DALI-2 emergency driver does not connect to central DALI PSU. HBEM8200/F provides power supply to the 3rd party standard DALI/DALI-2 emergency driver
- With Bluetooth gateway HBGW01, user can remotely control the emergency system via Koolmesh mobile/tablet app & web app platform
- Module settings via mobile/tablet app & PC web platform
- 2 Switch-Dim (PUSH) terminals

NEW!

HBIREM29 Series

HBIREM29	HBIREM29/R	HBIREM29/W	HBIREM29/H	HBIREM29/RH
Low-bay	Reinforced Low-bay	Wide range Low-bay	High-bay	Reinforced High-bay (with 3-pyro design)
• Max height: 6m • Max detection range: Ø =9m	• Max height: 6m • Max detection range: Ø =10m	• Max height: 6m • Max detection range: Ø =18m	• Max height: 15m (forklift)/12m (human) • Max detection range: Ø =24m (forklift)/20m (human)	• Max height: 20m (forklift)/12m (human) • Max detection range: Ø =40m (forklift)/30m (human)

DALI
CE UKCA ⚠

Optional: Surface Mount Box (IP20/IP65)

HA03: Default IP20;
IP65 is optional upon request

Tool-free Installation!

Removable Terminal Blocks and Clips

Optional: Blind Insert/Blanking Plate

Blind option 1
(Aisle detection)

Blind option 2
(180° detection)

Suitable for

- Commercial Lighting
- Industrial Lighting
- Retrofit Upgrade

Technical Data & Specifications

- Input: 220-240VAC   50/60Hz
- Output (Max Loading): 80mA DALI power supply
- Warming-up period: 20s
- Passive infrared (PIR) detection
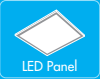- Ta: -20°C ~ +50°C

Features & Functions

- ❂ Bluetooth® 5.0 SIG Mesh (*See full details on pg. 05-11)
- DALI-to-Bluetooth converter/translator module
- Convert/Translate a standard DALI/DALI-2 emergency driver output to Bluetooth output, so that user can view, edit & manage the emergency system through high-end Koolmesh platform
- User can then enjoy all the powerful & convenient features in Koolmesh platform, including automatic email notification upon detecting fault, automatic monthly/yearly (functional/duration test) emergency report generation etc...
- Point-to-point control: 1pc HBIREM29 module for 1pc 3rd party DALI/DALI-2 emergency driver

- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Daylight sensor: Photocell, except HBIREM29/W: Photodiode (PD)
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- HBIREM29 & the 3rd party standard DALI/DALI-2 emergency driver does not connect to central DALI PSU. HBEM8200/F provides power supply to the 3rd party standard DALI/DALI-2 emergency driver
- With Bluetooth gateway HBGW01, user can remotely control the emergency system via Koolmesh mobile/tablet app & web app platform
- Sensor settings via mobile/tablet app & PC web platform
- 2 Switch-Dim (PUSH) terminals
- Optional IP20/IP65 ceiling mount box accessory HA03
- Optional blind insert / blanking plate accessory (Not applicable on HBIR29/W, HBIR29/RH)
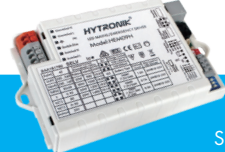- Tool-free installation: removable terminal blocks and clips

HEM09

CE UKCA

Suitable for

Bulkhead Tri-proof LED Panel

- Constant Current (CC)
- Constant Emergency Wattage (CW)
- Size: L * W * H = 140.6mm * 79.2mm * 23 mm
- Input: 220V-240VAC, 50/60Hz
- Max. emergency output power: 3W / 4W / 6W
- Dual wattage and duration selection:
  >3h @3W; >1.5h @4W; >1.5h @6W
- Multiple current selection / emergency power via DIP-Switches
- Automatic output current adjustment
- With self-testing function, maintenance free
- Wide range of LEDs in series (10~52V)
- Works with NiMH battery / Nicd battery
- 1-10V dimming control with relay output
- Switch-Dim (PUSH) terminal
- Three protection mode with auto-retart
- Sensor settings via handset HRC-05
- Optional motion sensor pluggable (Sensor-Dim)
- Optional LED indicator & test switch accessory
- Optional terminal-caps for stand-alone installation
- Max. Output Power/Current/Voltage range:
  18W/ 350mA /10-52V, 26W/ 500mA /10-52V
  28W/ 550mA /10-52V, 30W/ 700mA /10-43V
  30W/ 750mA /10-40V, 23W/ 900mA /10-25V

HEM09H

CE UKCA

Suitable for

Bulkhead Tri-proof LED Panel

- Constant Current (CC)
- Constant Emergency Wattage (CW)
- Size: L * W * H = 140.6mm * 79.2mm * 23 mm
- Input: 220V-240VAC, 50/60Hz
- Max. emergency output power: 3W / 4W / 6W
- Dual wattage and duration selection:
  >3h @3W; >1.5h @4W; >1.5h @6W
- Multiple current selection / emergency power via DIP-Switches
- Automatic output current adjustment
- With self-testing function, maintenance free
- Wide range of LEDs in series (10~33V)
- Works with NiMH battery / Nicd battery
- 1-10V dimming control with relay output
- Switch-Dim (PUSH) terminal
- Three protection mode with auto-retart
- Sensor settings via handset HRC-05
- Optional motion sensor pluggable (Sensor-Dim)
- Optional LED indicator & test switch accessory
- Optional terminal-caps for stand-alone installation
- Max. Output Power/Current/Voltage range:
  30W/900mA/10~33V, 30W/1050mA/10~29V
  25W/1200mA/10~21V, 20W/1400mA/10~14V

+ **Free Combination!**
(Total 3 sensor head options, applicable to HEM09 & HEM09H)

SAM7
HRC-11
Remote Controller
See pg. 81

SAM7/AA
HRC-05
Remote Controller
Optiaonl Surface Mount Box HA07
See pg. 81

SAM7/FM
HRC-05
Remote Controller
See pg. 81

HEM02

Suitable for

Industrial Lighting   Commercial Lighting

CE   UK CA

- Constant Current (CC)
- Size: L * W * H = 150mm * 53.5mm * 30.5mm
- Input: 220V-240VAC, 50/60Hz
- Max. emergency output power: 3W
- Automatic output current adjustment
- With manual test function
- Wide range of LEDs in series (8~60V)
- Three protection mode with auto-retart
- Deep discharge protection
- Works with NiMH battery / Nicd battery
- Optional LED indicator & test switch accessory
- Optional terminal-caps for stand-alone installation

HEM06-T

- Constant Current (CC)
- Size: L * W * H = 150mm * 53.5mm * 30.5mm
- Input: 220V-240VAC, 50/60Hz
- Max. emergency output power: 3W
- Dual wattage and duration selection: 3W @ 3hrs; 6W @ 1h
- Automatic output current adjustment
- With self-testing function, maintenance free
- Wide range of LEDs in series (12~70V)
- Three protection mode with auto-retart
- Deep discharge protection
- Works with NiMH battery / Nicd battery
- Optional LED indicator & test switch accessory
- Optional terminal-caps for stand-alone installation

Suitable for

Industrial Lighting   Commercial Lighting

CE   UK CA

HEM07

Suitable for

Bulkhead   Tri-proof   Linear   Pendant

CE   UK CA
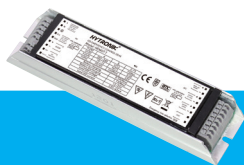
- Constant Current (CC)
- Size: L * W * H = 160mm * 40.5mm * 22mm
- Input: 220V-240VAC, 50/60Hz
- Max. emergency output power: 3W
- Automatic output current adjustment
- With manual test function
- Wide range of LEDs in series (9~60V)
- Three protection mode with auto-retart
- Deep discharge protection
- Works with NiMH battery / Nicd battery
- Optional LED indicator & test switch accessory

HEM07-T

Suitable for

CE UKCA

Bulkhead Tri-proof Linear Pendant

- Constant Current (CC)
- Size: L * W * H = 180mm * 40.5mm * 22mm
- Input: 220V-240VAC, 50/60Hz
- Max. emergency output power: 3W
- Dual wattage and duration selection: 3W @ 3hrs; 3W @ 1h
- Automatic output current adjustment
- With self-testing function, maintenance free
- Wide range of LEDs in series (12~55V)
- Three protection mode with auto-retart
- Deep discharge protection
- Works with NiMH battery / Nicd battery
- Optional LED indicator & test switch accessory

Batteries

Options for HBEM01, HBEM02, HBEM03, HBEM04:

BPC83

Voltage: 6.4V
Capacity: 3.4Ah
Size: 110 * 55 * 27 (mm)
Duration: > 3h @ 3W
Recharge time: 16h
Accessories:
Battery bracket, LED indicator, Test switch

BPC84

Voltage: 6.4V
Capacity: 3.4Ah
Size: 170 * 30 * 27 (mm)
Duration: > 3h @ 3W
Recharge time: 16h
Accessories:
Battery bracket, LED indicator, Test switch

Options for HEM02, HEM07, HEM07-T:

BPC01

Voltage: 3.6V
Capacity: 4.0Ah
Size: 235 * 22 * 22 (mm)
Duration: > 3h @ 3W
Recharge time: 16h
Accessories:
Battery bracket, LED indicator, Test switch

BPC02

Voltage: 3.6V
Capacity: 4.0Ah
Size: 77 * 50 * 28 (mm)
Duration: > 3h @ 3W
Recharge time: 16h
Accessories:
Battery bracket, LED indicator, Test switch

BPC10

Voltage: 3.6V
Capacity: 4.0Ah
Size: 215 * 37 * 37.5 (mm)
Duration: > 3h @ 3W
Recharge time: 16h
Accessories:
Battery bracket, LED indicator, Test switch

BPC11

Voltage: 3.6V
Capacity: 4.0Ah
Size: 100 * 65 * 36 (mm)
Duration: > 3h @ 3W
Recharge time: 16h
Accessories:
Battery bracket, LED indicator, Test switch

Full Product Specifications - - - Batteries

BPC05

Voltage: 7.2V

Capacity: 2.5Ah

Size: 168 * 50 * 28 (mm)

Duration: > 3h @ 3W

Recharge time: 16h

Accessories:

Battery bracket, LED indicator, Test switch

BPC14

Voltage: 7.2V

Capacity: 1.8Ah

Size: 165 * 46 * 27 (mm)

Duration: > 3h @ 3W

Recharge time: 16h

Accessories:

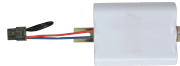Battery bracket, LED indicator, Test switch

BPC20

Voltage: 7.2V

Capacity: 4.0Ah

Size: 230 * 72.5 * 39.5 (mm)

Duration: > 3h @ 6W

Recharge time: 16h

Accessories:

Battery bracket, LED indicator, Test switch

BPC30

Voltage: 7.2V

Capacity: 1.8Ah

Size: 175 * 50 * 30 (mm)

Duration: > 3h @ 3W; > 1.5h @ 4W; > 1.5h @ 6W

Recharge time: 16h

Accessories:

Battery bracket, LED indicator, Test switch

BPC31

Voltage: 7.2V

Capacity: 1.8Ah

Size: 190 * 33 * 30 (mm)

Duration: > 3h @ 3W; > 1.5h @ 4W; > 1.5h @ 6W

Recharge time: 16h

Accessories:

Battery bracket, LED indicator, Test switch