



Hahga[®]

SMART LIGHTING SOLUTION



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2026
Product
Selection Manual



Hahga[®]
SMART LIGHTING SOLUTION

Powering **Brilliance**
Illuminating **Futures**

ABOUT US

Hahga[®]
SMART LIGHTING SOLUTION



Comprehensive performance testing



Power Testing



EMI EMC Testing Area



Surge test Machine



Automatic glue filling machine

HAHGA TECHNOLOGY CO., LTD

Hahga Technology Co., Ltd. is a high-tech enterprise specializing in the research, production and sales of LED driver. Hahga is determined to become a leading provider of LED power supply and intelligent system solution. We are committed to bringing excellent performance and high reliability LED driver and smart lighting system to commercial, household, industrial, road and other environments that require lighting, and contribute the strength of Hahga people to the world's green lighting and human-centric lighting.

Headquartered in Zhongshan, the hometown of lightings, Hahga business covers more than 50 countries and regions including Europe, America, Southeast Asia, and the Middle East, and continues to create value for more than 2,000 customers worldwide. Hahga products cover commercial lighting, home lighting, industrial lighting, outdoor landscape lighting, smart lighting and other application scenarios, providing customers with competitive, safe and reliable products, solutions and services.

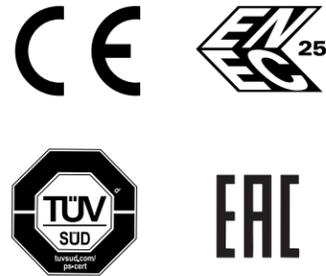
We will build a win-win ecosystem with direct and indirect customers, suppliers, universities, research institutes, etc. so as to promote technological progress and industrial development.



Hahga®

SMART LIGHTING SOLUTION

CERTIFICATION WE OFFER



NAME RULES OF DRIVER

HA -D KSX 014 BF -CC X

Hahga Model High Perform Series

Dimming Function

D: DALI O: 0/1-10V
T: Triac WF: Wifi
ZB: Zigbee RF: RF2.4G remote
N: Non-Dimming

Case Model

Same case will have different function

Power

Rated Output Power
or Max Rated Output Power

Input Voltage Range

A: 90-265VAC
B: 200-240VAC

CC/CV

CC: Constant Current
CV: Constant Voltage

Variation

For CC: Rated Current
For CV: Rated Voltage
X: Smart Current Switchable (DIP/Tunable/NFC)

TECHNOLOGIES WE OFFER



-  CE RoHS CB ENEC EAC certification available
-  All series product Flicker free
-  Protection: Over Voltage/ Short Circuit/Over Temp.
-  CLO Constant Lumen Output system
-  Surge Protection 1KV/2KV/4KV
-  Indoor IP20 / Outdoor IP67
-  NFC / DIP Switchable
-  DALI2/D4i/0-10V/1-10V/PWM/TRIAC Dimming
-  Wireless Dimming Via Bluetooth / Zigbee / Wifi
-  3 / 5 / 7 Years warranty



ELITE
-5YEARS WARRANTY

Indoor Driver

CC Galvanic Isolated LED Driver	2
CC Non-Isolated LED Driver	3-4

IP66 Outdoor Driver

Galvanic Isolated LED Driver(Non Dim/ 3in1 Dim) Flicker Free	5
Galvanic Isolated LED Driver(Non Dim/ 3in1 Dim)	6
Non-Isolated LED Driver(Non Dim/ 3in1 Dim) Flicker Free	7
Non-Isolated LED Driver Small size	8



Elite Series

 3/5 years warranty

Elite
5 Year Warranty

INDOOR

ON-OFF

Indoor LED Driver

Galvanic Isolated / Flicker Free

CC IP20 Flicker Free DIP

Galvanic Isolated
Current ripple: $<\pm 1\%$
Dimming Type: /
Dimming Range: /
Dimming Depth: /
Protection: No-Load/ Short Circuit/ Overload
Start Time: $<0.5s/220V$
Power Factor: >0.95
Ambient Temp.: $-20\sim+50^{\circ}C$
Max Case Temp.: $85^{\circ}C$
Warranty: 5-Year
Switch: DIP-Switchable



Model	Rated Output Power	Rated Input Voltage	Output Voltage	Output Current	Efficiency (full load)	Dimension (mm)
HA-NSVE020AF-CCX400	5.3-12.8W	220-240VAC 50/60Hz 220-240VDC	21-51V	250mA	82%	118*31*21mm
	6.3-15.3W			300mA	83%	
	7.3-17.9W			350mA	84%	
	8.4-20.4W			400mA	85%	
HA-NSVE040SF-CCX400	12.5-40.0W	220-240VAC 50/60Hz 220-240VDC	50-160V	250mA	90%	143*31*21mm
	15.0-40.0W			300mA	90%	
	17.5-40.2W			350mA	90%	
	20.0-40.0W			400mA	90%	

ON-OFF

Indoor LED Driver
Non-Isolated / Flicker Free



Current ripple: ±1%
Dimming Type: /
Dimming Range: /
Dimming Depth: /
Protection: No-Load/ Short Circuit/ Overload
Start Time: <0.5s/220V
PowerFactor:>0.95
Ambient Temp.: -20~+55°C
Max Case Temp.: 90°C
Warranty: 5-Year
Application: Down light, Panel Light, Track light, etc
Switch: DIP-Switchable



ON-OFF

Indoor LED Driver
Non-Isolated / Flicker Free



Current ripple: ±5%
Dimming Type: /
Dimming Range: /
Dimming Depth: /
Protection: No-Load/ Short Circuit/ Overload
Start Time: <0.5s/220V
Ambient Temp.: -20~+50°C
Max Case Temp.: 75°C
Warranty: 3-Year
Application: Down light, Panel Light, Track light, etc
Switch: DIP-Switchable



Model	Rated Output Power	Rated Input Voltage	Output Voltage	Output Current	Efficiency (full load)	Power Factor (full load)
HA-NKVS020BF-CCX350	5.0-21.0W	220-240VAC 50/60Hz 220-240VDC	24-105V	200mA	93%	118*31*21mm
	6.0-21.0W		24-84V	250mA	92%	
	7.2-21.6W		24-72V	300mA	92%	
	8.4-21.0W		24-60V	350mA	91%	
HA-NKVS040BF-CCX350	10.0-40.0W	220-240VAC 50/60Hz 220-240VDC	50-200V	200mA	95%	143*31*21mm
	12.5-40.0W		50-160V	250mA	95%	
	15.0-40.5W		50-135V	300mA	93.8%	
	17.5-40.3W		50-115V	350mA	93.5%	
HA-NKVS050BF-CCX350	10.0-44.0W	220-240VAC 50/60Hz 220-240VDC	50-220V	200mA	95%	143*31*21mm
	12.5-50.0W		50-200V	250mA	95%	
	15.0-50.4W		50-168V	300mA	94%	
	17.5-50.8W		50-145V	350mA	94%	

Model	Rated Output Power	Rated Input Voltage	Output Voltage	Output Current	Efficiency (full load)	Power Factor (full load)
HA-NSVT036AF-CC260	12.0-36.0W	170-265VAC 50/60Hz	36-120V	260mA	92%	118*20*13mm
HA-NSVT050AF-CC260	24.0-50.0W	170-265VAC 50/60Hz	70-165V	260mA	93%	118*20*13mm
HA-NSVT060AF-CC280	36.0-60.0W	170-265VAC 50/60Hz	54-180V	280mA	93%	151*20*17mm
HA-NSVT070AF-CCX400	40W	170-265VAC 50/60Hz	54-180V	250mA	94%	197*20*17mm
	50W			300mA		
	60W			350mA		
	70W			400mA		

**0-10V
ON-OFF**

IP66 Outdoor LED Driver
Galvanic-Isolated / Flicker Free



Galvanic Isolated Flicker Free
Current ripple: ±3%
Dimming Type: /
Dimming Range: /
Dimming Depth: /
Protection: No-Load/ Short Circuit/ Overload
Start Time: <1s@230V
Power Factor:>0.9
Ambient Temp.: -40~+60°C
Max Case Temp.: 80°C
Warranty: 5-Year
Application: Street Light, Flood light

-A: Normal Non-Dim type with ADJ switchable Current
-B: 3 in 1 Dim (0-10V PWM Rx) with ADJ switchable Current

Model	Rated Power	Rated Input Voltage	Output Voltage	Output Current	Efficiency (full load)	Dimension (mm)
GA-SCX030G043-A/B	30W	100-277V AC 50/60Hz	25-40V	0.4-0.9A	85%	144*49*33.2mm
GA-SCX050G043-A/B	50W	100-277V AC 50/60Hz	25-40V	1.2-1.5A	88%	144*49*33.2mm
GA-SCX075G043-A/B	75W	100-277V AC 50/60Hz	25-40V	1.15-2.3A	90%	164*53*33.2mm
GA-SCX100G043-A/B	100W	100-277V AC 50/60Hz	24-40V	1.5-3.0A	90%	164*53*33.2mm
GA-SCX100G056-A/B			36-56V	1.0-2.0A	90%	
GA-SCX150G043-A/B	150W	100-277V AC 50/60Hz	24-40V	2.4-4.5A	90%	186*60*38mm
GA-SCX150G056-A/B			36-56V	1.5-3.0A	90%	
GA-SCX200G043-A/B	200W	100-277V AC 50/60Hz	24-40V	3.0-6.0A	90%	213*67*38mm
GA-SCX200G056-A/B			36-56V	2.7-4.5A	90%	
GA-SCX240G043-A/B	240W	100-277V AC 50/60Hz	24-40V	3.6-7.5A	90%	227*67*38mm
GA-SCX240G056-A/B			36-56V	2.5-5.0A	90%	
GA-SCX300G043-A/B	300W	100-277V AC 50/60Hz	24-40V	4.5-9.0A	90%	227*84*43.2mm
GA-SCX300G056-A/B			36-56V	3.2-5.9A	90%	

**0-10V
ON-OFF**

IP66 Outdoor LED Driver
Galvanic-Isolated



Galvanic Isolated
Dimming Type: /
Dimming Range: /
Dimming Depth: /
Protection: No-Load/ Short Circuit/ Overload
Start Time: <1s@230V
Power Factor:>0.9
Ambient Temp.: -40~+60°C
Max Case Temp.: 80°C
Warranty: 5-Year
Application: Street Light, Flood light

-A: Normal Non-Dim type with ADJ switchable Current
-B: 3 in 1 Dim (0-10V PWM Rx) with ADJ switchable Current

Model	Rated Power	Rated Input Voltage	Output Voltage	Output Current	Efficiency (full load)	Dimension (mm)
GA-SCF036G048-A/B	36W	100-277V AC 50/60Hz	27-48V	0.6-1.2A	85%	144*49*33.2mm
GA-SCF050G048-A/B	50W	100-277V AC 50/60Hz	27-48V	0.9-1.8A	88%	144*49*33.2mm
GA-SCF075G048-A/B	75W	100-277V AC 50/60Hz	27-48V	1.5-2.4A	90%	164*53*33.2mm
GA-SCF100G048-A/B	100W	100-277V AC 50/60Hz	27-48V	1.5-3.0A	90%	176*57*35mm
GA-SCF100G056-A/B			30-56V	1.5-3.0A	90%	
GA-SCF150G048-A/B	150W	100-277V AC 50/60Hz	27-48V	2.0-4.5A	90%	186*60*38mm
GA-SCF150G056-A/B			30-56V	2.0-4.5A	90%	
GA-SCF200G048-A/B	200W	100-277V AC 50/60Hz	27-48V	3.0-3.6A	90%	213*67*38mm
GA-SCF200G056-A/B			30-56V	2.3-4.5A	90%	
GA-SCF250G048-A/B	240W	100-277V AC 50/60Hz	27-48V	3.6-7.3A	90%	213*67*38mm
GA-SCF250G056-A/B			30-56V	3.6-7.5A	90%	
GA-SCF250G080-A/B	300W	100-277V AC 50/60Hz	65-80V	1.8-3.5A	90%	230*67*38mm
GA-SCF300G048-A/B			27-48V	4.5-9.0A	90%	
GA-SCF300G056-A/B	300W	100-277V AC 50/60Hz	30-56V	4.3-8.7A	90%	230*67*38mm
GA-SCF300G080-A/B			65-80V	2.0-4.1A	90%	

**0-10V
ON-OFF**

IP66 Outdoor LED Driver
Flicker Free



Non-Galvanic isolated , Flicker free
Current ripple: ±5%
Dimming Type: /
Dimming Range: /
Dimming Depth: /
Protection: No-Load/ Short Circuit/ Overload
Start Time: <1s/230V
Power Factor:>0.9
Ambient Temp.: -40~+60°C
Max Case Temp.: 85°C
Warranty: 5-Year
Application: Down light, Panel Light, Track light



-A: Normal Non-Dim type with ADJ switchable Current
-B: 3 in 1 Dim (0-10V PWM Rx) with ADJ switchable Current

Model	Rated Power	Rated Input Voltage	Output Voltage	Output Current	Efficiency (full load)	Dimension (mm)
GA-SCT100S260-A/B	100W	100-277V AC 50/60Hz	180-260V	0.3-0.6A	94%	176*57*35mm
GA-SCT150S260-A/B	150W	100-277V AC 50/60Hz	180-260V	0.5-0.8A	94%	176*57*35mm
GA-SCT200S260-A/B	200W	100-277V AC 50/60Hz	180-260V	0.7-1.0A	94%	176*57*35mm
GA-SCT240S260-A/B	240W	100-277V AC 50/60Hz	180-260V	0.8-1.2A	94%	176*57*35mm
GA-SCT300S260-A/B	300W	100-277V AC 50/60Hz	180-260V	0.9-1.6A	94%	176*57*35mm

ON-OFF

CC LED Driver
Flicker Free



Galvanic Isolated (For 50W)
Dimming Type: /
Dimming Range: /
Dimming Depth: /
Protection: No-Load/ Short Circuit/ Overload
Start Time: <1s/230V
P.F.:>0.9
Ambient Temp.: -20~+60°C
Max Case Temp.: 85°C
Warranty: 3-Year
Application: Down light, Panel Light, Track light



Model	Rated Power	Rated Input Voltage	Output Voltage	Output Current	Efficiency (full load)	Dimension (mm)
HA-NTSG050AF-CC1500	50W	100-277V AC 50/60Hz	24-36V	1500mA	88%	90*30*23mm
HA-NTS100AF-CC1150	100W	100-277V AC 50/60Hz	55-85V	1150mA	89%	85*29*18mm
HA-NTS150AF-CC1700	150W	100-277V AC 50/60Hz	55-85V	1700mA	90%	104*31*18mm

INDOOR Series

PREMIUM
-5YEARS WARRANTY

DALI-2 Dim Driver

CC DALI Flexible Driver (DIP)	13
CV DALI Flexible Driver	14
CV DALI Linear Driver	15
CV DALI Metal case Driver	16

0/1-10V Dim Driver

CC 1-10V Dim Flexible Driver (DIP)	18
CV 1-10V Dim Metal case Driver	19
CV 1-10V Dim Linear Driver	20

Triac Dim Driver

CC Triac Dim Flexible Driver (DIP)	22
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Track light Driver

1 way 2 wire Driver	24
3 way 4 wire Driver	25
3 way 4 wire Driver (pro)	26

ON/OFF Driver

CC Plastic Driver	29
CC Plastic Driver(DIP)	30
CC Metal case Driver(DIP)(Industrial)	31-32
CC Metal case Driver(DIP)	33
CC Metal case Driver(DIP)(SELV)	34
CC Metal case Driver(DIP)(Galvanic Iso High V output)	35
CV PC case Driver	36
CV Metal case Driver	37
CV Linear Driver	38

OUTDOOR Series

PREMIUM
-5YEARS WARRANTY

3in1 Dim LED Driver (with no dim Version)

Programming CC IP67 3in1 Dim Driver(Iso)(Flicker Free)	40
Programming CC IP67 3in1 Dim Driver(Iso)	41
Programming CC IP67 3in1 Dim Driver(Flicker Free)	42
CC IP67 Non-Dim Driver(Flicker Free)	43-44
CC IP67 0-10V Dim Driver (High Power 400W)	45
CV IP67 0-10V Dim Power Supply	47
CV IP67 Non-Dim Power Supply	48

UFO Highbay Driver

IP65 UFO Highbay Driver	50
IP65 0-10V Dim UFO Highbay Driver	50
IP65 0-10V Dim UFO Highbay Driver With 12V AUX	50

EMERGENCY Series

PREMIUM
-5YEARS WARRANTY

Constant Power Emergency Convertor

IP65 UFO Emergency Convertor	52
IP20 Built-in Battery Convertor	53
IP20 Separated Battery Convertor	54
IP20 Driver & convertor 2in1	55
IP20 DC230V Output Separated Convertor	56
IP20 DIP Built-in Convertor	57

DALI-2

Indoor Series



5 years warranty

DALI

Flexible LED Driver DT6/8
Galvanic-Isolated / Flicker Free



Current ripple: ±1%
Dimming Type: DALI-2 PUSH DT6/DT8
Dimming Range: 0.1%-100%
Dimming Depth: 0.1%
Protection: No-Load/ Short Circuit/ Overload
Start Time: <0.5s/220V
Power Factor:>0.95
Ambient Temp.: -20~+45°C
Max Case Temp.: 90°C
Warranty: 5-Year
Application: Down light, Panel Light, Track light
Switch: DIP-Switchable
Function: Removable cord grip for Built-in or Independent Use



DALI

Flexible LED Driver
Galvanic-Isolated / Flicker Free



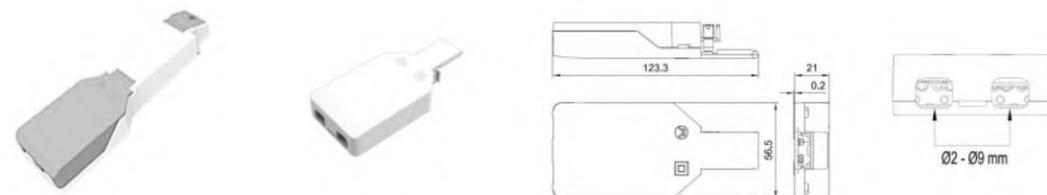
Current ripple: ±1%
Dimming Type: DALI-2 PUSH
Dimming Range: 0.1%-100%
Dimming Depth: 1%
Protection: No-Load/ Short Circuit/ Overload
Start Time: <0.5s/220V
Power Factor:>0.95
Ambient Temp.: -25~+45°C
Max Case Temp.: 90°C
Warranty: 5-Year
Application: Strip light
Function: Removable cord grip for Built-in or Independent Use



Model	Rated Output Power	Rated Input Voltage	Output Voltage	Output Current	Efficiency (full load)	Dimension (mm)
HA-DRS012BF-CCX450 DT6/DT8	0.9-4.2W	220-240VAC 50/60Hz 198-264VDC	9-42V	100mA	77%	133*38*21mm
	1.3-6.3W		9-42V	150mA	81%	
	1.7-8.4W		9-42V	200mA	83.5%	
	2.2-10.5W		9-42V	250mA	84%	
	2.6-12.0W		9-40V	300mA	85%	
	3.0-11.9W		9-34V	350mA	85%	
	3.4-12.0W		9-30V	400mA	85%	
	3.8-11.7W		9-26V	450mA	85%	
HA-DRS012BF-CCX700 DT6/DT8	3.0-10.5W	220-240VAC 50/60Hz 198-264VDC	9-30V	350mA	83%	133*38*21mm
	3.4-12.0W		9-30V	400mA	84%	
	3.8-11.7W		9-26V	450mA	83%	
	4.2-12.0W		9-24V	500mA	82%	
	4.6-11.6W		9-21V	550mA	81%	
	5.0-12.0W		9-20V	600mA	81%	
	5.4-11.7W		9-18V	650mA	80%	
	5.8-11.9W		9-17V	700mA	80%	
HA-DRS020BF-CCX700 DT6/DT8	3.0-14.7W	220-240VAC 50/60Hz 198-264VDC	9-42V	350mA	86%	133*38*21mm
	3.4-16.8W		9-42V	400mA	86%	
	3.8-18.9W		9-42V	450mA	86%	
	4.2-20.0W		9-40V	500mA	86%	
	4.6-19.8W		9-36V	550mA	86%	
	5.0-19.8W		9-33V	600mA	86%	
	5.4-19.5W		9-30V	650mA	86%	
	5.8-19.6W		9-28V	700mA	86%	
HA-DRS040BF-CCX1050 DT6/DT8	6.3-29.4W	220-240VAC 50/60Hz 198-264VDC	9-42V	700mA	89%	156*43*21mm
	6.7-31.5W		9-42V	750mA	89%	
	7.2-33.6W		9-42V	800mA	89%	
	7.6-35.7W		9-42V	850mA	89%	
	8.1-37.8W		9-42V	900mA	89%	
	8.5-39.9W		9-42V	950mA	89%	
	9.0-40.0W		9-40V	1000mA	89%	
	9.4-39.9W		9-38V	1050mA	89%	

Suitable for Cable connector

Model	Rated Output Power	Rated Input Voltage	Output Voltage	Output Current	Efficiency (full load)	Dimension (mm)
HA-DRV030BF-CV	3-30W	220-240VAC 50/60Hz 190-290VDC	24V 48V	0.125-1.25A 0.062-0.62A	90% 91%	135*36*25mm
HA-DRV060BF-CV	3-60W	220-240VAC 50/60Hz 190-290VDC	24V 48V	0.125-2.50A 0.062-1.25A	91% 92%	151.5*40*31mm
HA-DRV120BF-CV	30-120W	220-240VAC 50/60Hz 190-290VDC	24V	1.25-5A	92%	253*42.5*31mm
HA-DRV180BF-CV	54-180W	220-240VAC 50/60Hz 190-290VDC	24V	2.25-7.5A	92%	253*42.5*31mm
HA-DRV250BF-CV	75-250W	220-240VAC 50/60Hz 190-290VDC	24V	3.12-10.42A	92%	270*50*31mm



DALI

Linear Driver

Galvanic-Isolated / Flicker Free



Voltage ripple: $\pm 1\%$
 Dimming Type: DALI-2 PUSH
 Dimming Range: 1%-100%
 Dimming Depth: 0.1%
 Protection: No-Load/ Short Circuit/ Overload
 Start Time: $< 0.5s/220V$
 Power Factor: > 0.95
 Ambient Temp.: $-20 \sim +45^{\circ}C$
 Max Case Temp.: $+90^{\circ}C$
 Warranty: 5-Year
 Application: :Strip light



DALI

Metal Case Driver

Galvanic-Isolated / Flicker Free



Voltage ripple: $\pm 1\%$
 Dimming Type: DALI-2 PUSH
 Dimming Range: 1%-100%
 Dimming Depth: 0.1%
 Protection: No-Load/ Short Circuit/ Overload
 Start Time: $< 0.5s/220V$
 Power Factor: > 0.95
 Ambient Temp.: $-25 \sim +50^{\circ}C$
 Max case Temp.: $+85^{\circ}C$
 Warranty: 5-Year
 Application: Strip light



Model	Power Range(Max)	Rated Input Voltage	Output Voltage	Output Current	Efficiency (full load)	Dimension (mm)
HA-DKL030BF-CV24	30W	220-240VAC 50/60Hz 180-280VDC	24V	0-1250mA	85%	300*30*16mm
HA-DKL060BF-CV24	60W	220-240VAC 50/60Hz 180-280VDC	24V	0-2500mA	86%	300*30*16mm
HA-DKL100BF-CV24	100W	220-240VAC 50/60Hz 180-280VDC	24V	0-4170mA	92%	350*30*18mm
HA-DKL150BF-CV24	150W	220-240VAC 50/60Hz 180-280VDC	24V	0-6250mA	93%	350*30*18mm
HA-DKL250BF-CV24	250W	220-240VAC 50/60Hz 180-280VDC	24V	0-10420mA	93%	400*40*22mm

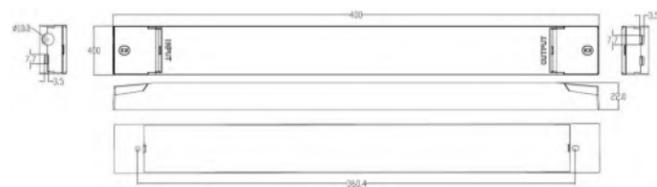
HA-DKL030BF-CV24
HA-DKL060BF-CV24



HA-DKL100BF-CV24
HA-DKL150BF-CV24

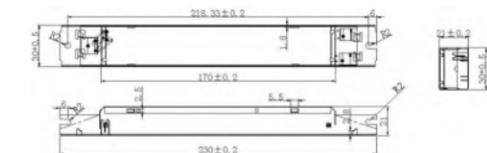


HA-DKL250BF-CV24



Model	Power Range(Max)	Rated Input Voltage	Output Voltage	Output Current	Efficiency (full load)	Power Factor (full load)
HA-DKT030BF-CV24	30W	220-240VAC 50/60Hz 180-280VDC	24V	0-1250mA	83%	230*30*21mm
HA-DKT060BF-CV24	60W	220-240VAC 50/60Hz 180-280VDC	24V	0-2500mA	87%	250*30*21mm
HA-DKT100BF-CV24	100W	220-240VAC 50/60Hz 180-280VDC	24V	0-4200mA	92%	360*40*21mm
HA-DKT150BF-CV24	150W	220-240VAC 50/60Hz 180-280VDC	24V	0-6250mA	92%	360*40*21mm

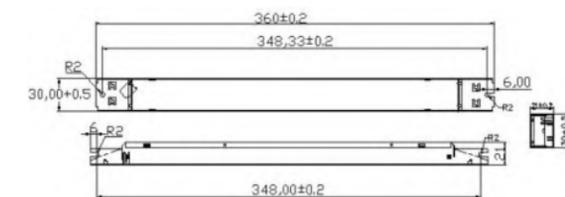
HA-DKT030BF-CV24



HA-DKT060BF-CV24



HA-DKT100BF-CV24
HA-DKT150BF-CV24



Premium
5 Year Warranty

INDOOR

1-10V

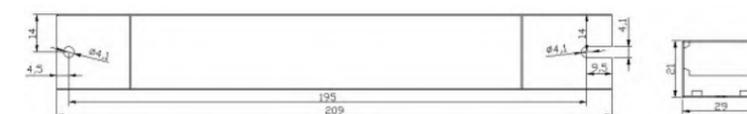
Metal Case Driver
Galvanic-Isolated / Flicker Free



Current ripple: ±1%
 Dimming Type: 0-10V / 10V PWM / 0-10K Resistance
 Dimming Range: 1%-100%
 Dimming Depth: 0.1%
 Protection: No-Load/ Short Circuit/ Overload
 Start Time: <0.5s/220V
 Power Factor:>0.9
 Ambient Temp.: -10~+50°C
 Max Case Temp.: +90°C
 Warranty: 5-Year
 Application: Down light, Panel Light, Track light , Triproof light
 Switch: DIP-Switchable
 Function: 12V Assistant Power supply(AUX 12V)



Model	Rated Output Power	Rated Input Voltage	Output Voltage	Output Current	Efficiency (full load)	Power Factor (full load)
HA-IOV025AF-CCX450	14W	100-277VAC 50/60Hz	30-54V	240mA	88%	209*29*21mm
	18W			310mA	88%	
	22W			380mA	90%	
	25W			450mA	90%	
HA-IOV040AF-CCX 730	30W	100-277VAC 50/60Hz	30-54V	540mA	88%	209*29*21mm
	40W			730mA	90%	
HA-IOV080AF-CCX1400	57W	100-277VAC 50/60Hz	30-54V	1040mA	89%	209*29*21mm
	66W			1185mA	89%	
	70W			1250mA	90%	
	80W			1400mA	91%	



0/1-10V

Indoor Series



5 years warranty

1-10V

Metal Case Driver
Galvanic-Isolated / Flicker Free

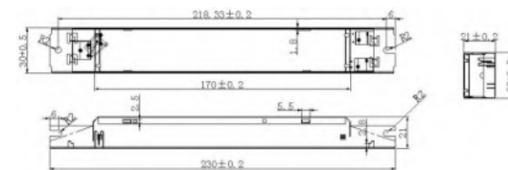


Voltage ripple: $\pm 1\%$
Dimming Type: 1-10V PWM
Dimming Range: 1%-100%
Dimming Depth: 0.1%
Protection: No-Load/ Short Circuit/ Overload
Start Time: $<0.5s/220V$
Ambient Temp.: $-25\sim+50^{\circ}C$
Power Factor: >0.95
Max Case Temp.: $+90^{\circ}C$
Warranty: 5-Year
Application: Strip light

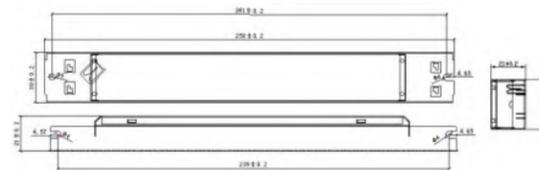


Model	Power Range(Max)	Rated Input Voltage	Output Voltage	Output Current	Efficiency (full load)	Power Factor (full load)
HA-IKT030BF-CV24	30W	220-240VAC 50/60Hz 180-280VDC	24V	0-1250mA	83%	230*30*21mm
HA-IKT060BF-CV24	60W	220-240VAC 50/60Hz 180-280VDC	24V	0-2500mA	87%	250*30*21mm
HA-IKT100BF-CV24	100W	220-240VAC 50/60Hz 180-280VDC	24V	0-4200mA	92%	360*40*21mm
HA-IKT150BF-CV24	150W	220-240VAC 50/60Hz 180-280VDC	24V	0-6250mA	92%	360*40*21mm

HA-IKT030BF-CV24

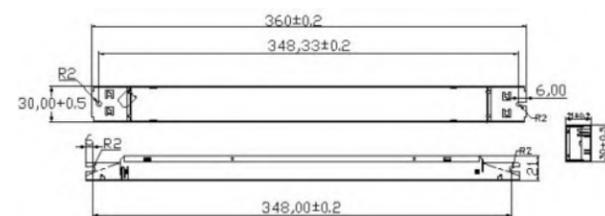


HA-IKT060BF-CV24



HA-IKT100BF-CV24

HA-IKT150BF-CV24



1-10V

Metal Case Driver
Galvanic-Isolated / Flicker Free



Voltage ripple: $\pm 1\%$
Dimming Type: 1-10V PWM
Dimming Range: 1%-100%
Dimming Depth: 0.1%
Protection: No-Load/ Short Circuit/ Overload
Start Time: $<0.5s/220V$
Power Factor: >0.95
Ambient Temp.: $-20\sim+45^{\circ}C$
Max Case Temp.: $+90^{\circ}C$
Warranty: 5-Year
Application: :Strip light



Model	Power Range(Max)	Rated Input Voltage	Output Voltage	Output Current	Efficiency (full load)	Dimension (mm)
HA-IKL030BF-CV24	30W	220-240VAC 50/60Hz 180-280VDC	24V	0-1250mA	85%	300*30*16mm
HA-IKL060BF-CV24	60W	220-240VAC 50/60Hz 180-280VDC	24V	0-2500mA	86%	300*30*16mm
HA-IKL100BF-CV24	100W	220-240VAC 50/60Hz 180-280VDC	24V	0-4170mA	92%	350*30*18mm
HA-IKL150BF-CV24	150W	220-240VAC 50/60Hz 180-280VDC	24V	0-6670mA	93%	350*30*18mm
HA-IKL250BF-CV24	250W	220-240VAC 50/60Hz 180-280VDC	24V	0-10420mA	93%	400*40*22mm
HA-IKL100BF-CV48	100W	220-240VAC 50/60Hz 180-280VDC	48V	0-2100mA	92%	350*30*18mm
HA-IKL150BF-CV48	150W	220-240VAC 50/60Hz 180-280VDC	48V	0-3125mA	93%	350*30*18mm
HA-IKL250BF-CV48	250W	220-240VAC 50/60Hz 180-280VDC	48V	0-5210mA	93%	400*40*22mm

HA-IKL030BF-CV24

HA-IKL060BF-CV24



HA-IKL100BF-CV24

HA-IKL150BF-CV24

HA-IKL100BF-CV48

HA-IKL150BF-CV48



HA-IKL250BF-CV24

HA-IKL250BF-CV48



Premium
5 Year Warranty

INDOOR

Triac

Flexible Phase Driver
Galvanic-Isolated / Flicker Free



Current ripple: ±1%
Dimming Type: Triac
Dimming Range: /
Protection: No-Load/ Short Circuit/ Overload
Start Time: <0.5s/220V
Power Factor: >0.95
Ambient Temp.: -20~+50°C
Max Case Temp.: +90°C
Warranty: 5-Year
Application: Down light, Panel Light, Track light
Switch: DIP-Switchable
Function: Removable cord grip for Built-in or Independent Use



Triac Dim

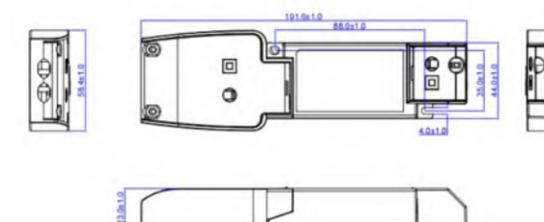
Indoor Series



5 years warranty

Model	Rated Output Power	Rated Input Voltage	Output Voltage	Output Current	Efficiency (full load)	Dimension (mm)
HA-TKSX030BF-CCX900	1.4-6.2W	220-240VAC 50/60Hz 180-280VDC	9-42V	150	71%	97.5*44*23mm Small side Cover 137.6*44*23mm Large cover 191.6*58.4*23mm
	1.8-8.0W			200	76%	
	2.3-10.4W			250	80%	
	2.7-12.3W			300	82%	
	3.1-14.4W			350	83%	
	3.5-16.2W			400	84%	
	4.0-18.7W			450	85%	
	4.4-20.6W			500	86%	
	5.0-23.3W			550	86%	
	5.4-25.2W			600	87%	
	5.9-27.5W			650	87%	
	6.3-29.4W			700	87%	
	6.8-30.0W			750	87%	
	7.2-29.4W			800	87%	
7.7-29.8W	850	87%				
HA-TKSX040BF-CCX1050	2.7-12.2	220-240VAC 50/60Hz 180-280VDC	9-42V	300	81%	97.5*44*23mm Small side Cover 137.6*44*23mm Large cover 191.6*58.4*23mm
	3.1-14.2			350	81%	
	3.6-16.6			400	82%	
	4.1-18.7			450	83%	
	4.5-20.7			500	84%	
	4.9-22.7			550	85%	
	5.4-25.1			600	85%	
	5.9-27.2			650	86%	
	6.3-29.0			700	86%	
	6.7-31.1			750	86%	
	7.2-33.4			800	87%	
	7.7-35.5			850	87%	
	8.1-37.3			900	87%	
	8.5-39.4			950	87%	
9.0-39.8	1000	87%				
9.4-39.6	1050	87%				

Suitable for Cable connector





Track Light

Indoor Series



5 years warranty

Elite
5 Year Warranty

INDOOR

ON-OFF

Built-in Track Adaptor
Galvanic-Isolated / Flicker Free/ 2 Wires



Current ripple: ±1%
 Dimming Type: -
 Dimming Range: -
 Dimming Depth: -
 Protection: No-Load/ Short Circuit/ Overload
 Start Time: <0.5s/220V
 Ambient Temp.: -20~+45°C
 Max Case Temp.: +85°C
 Power Factor : >0.9
 Warranty: 5-Year
 Application: Down light, Panel Light, Track light
 Size: 118×34.4×45mm
 Switch: DIP-Switchable



Model	Rated Output Power	Rated Input Voltage	Output Voltage	Output Current	Efficiency (full load)	Dimension (mm)
HA-RTW014BF-CCX350-2	3.0-8.0W	220-240VAC 50/60Hz	15-40V	200mA	82%	118*34.4*45mm
	3.7-10.0W			250mA	82%	
	4.5-12.0W			300mA	85%	
	5.2-14.0W			350mA	86%	
HA-RTW032BF-CCX800-2	7.5-20.0W	220-240VAC 50/60Hz	15-40V	500mA	86%	118*34.4*45mm
	9.0-24.0W			600mA	87%	
	10.5-28.0W			700mA	88%	
	12.0-32.0W			800mA	88%	
HA-RTW040BF-CCX1000-2	10.5-28.0W	220-240VAC 50/60Hz	15-40V	700mA	88%	118*34.4*45mm
	12.0-32.0W			800mA	89%	
	13.5-36.0W			900mA	89%	
	15.0-40.0W			1000mA	89%	



ON-OFF

Built-in Track Adaptor
Galvanic-Isolated / Flicker Free/ 4 Wires



Current ripple: $\pm 1\%$
Dimming Type: -
Dimming Range: -
Dimming Depth: -
Protection: No-Load/ Short Circuit/ Overload
Start Time: $< 0.5s/220V$
Power Factor: > 0.95
Ambient Temp.: $-20 \sim +45^\circ C$
Max Case Temp.: $+85^\circ C$
Warranty: 5-Year
Application: Track light
Switch: DIP-Switchable



ON-OFF

Built-in Track Adaptor PRO
Galvanic-Isolated / Flicker Free/ 4 Wires



Current ripple: $\pm 1\%$
Dimming Type: -
Dimming Range: -
Dimming Depth: -
Protection: No-Load/ Short Circuit/ Overload
Start Time: $< 0.5s/220V$
Power Factor: > 0.95
Ambient Temp.: $-20 \sim +45^\circ C$
Max Case Temp.: $+85^\circ C$
Warranty: 5-Year
Application: Down light, Panel Light, Track light
Switch: DIP-Switchable

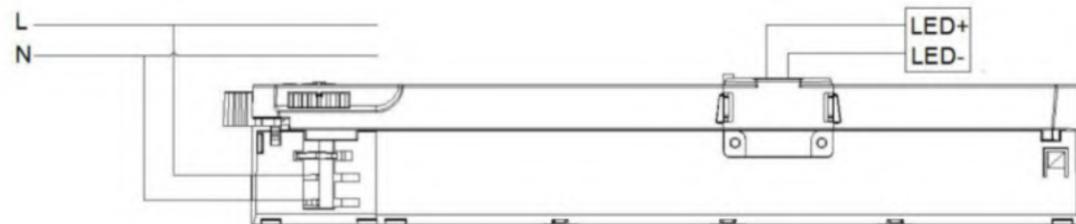
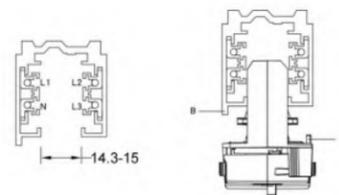


Model	Rated Output Power	Rated Input Voltage	Output Voltage	Output Current	Efficiency (full load)	Dimension (mm)
HA-RTS025BF-CCX600-4	10.8-18.9W	220-240VAC 50/60Hz 220-240VDC	24-42V	450mA	91%	158*31*45
	12.0-21.0W			500mA	91%	
	13.2-23.1W			550mA	91.5%	
	14.4-25.2W			600mA	91.5%	
HA-RTS034BF-CCX800-4	15.6-27.3W	220-240VAC 50/60Hz 220-240VDC	24-42V	650mA	91%	158*31*45
	16.8-29.4W			700mA	91%	
	18.0-31.5W			750mA	91.5%	
	19.2-33.6W			800mA	91.5%	
HA-RTS042BF-CCX1000-4	20.4-35.3W	220-240VAC 50/60Hz 220-240VDC	24-42V	850mA	91%	158*31*45
	21.3-37.8W			900mA	91%	
	22.8-39.9W			950mA	91%	
	24.0-42.0W			1000mA	91%	

Model	Rated Output Power	Rated Input Voltage	Output Voltage	Output Current	Efficiency (full load)	Dimension (mm)
HA-RTW020BF-CCX500-4	3.0-6.0W	220-240VAC 50/60Hz 220-240VDC	20-40V	150mA	80%	128*31*45
	4.0-8.0W			200mA	80%	
	5.0-10.0W			250mA	83%	
	6.0-12.0W			300mA	83%	
	7.0-14.0W			350mA	85%	
	8.0-16.0W			400mA	85%	
	9.0-18.0W			450mA	85%	
HA-RTW030BF-CCX700-4	2.0-8.4W	220-240VAC 50/60Hz 220-240VDC	10-42V	200mA	86%	158*31*45
	2.5-10.5W			250mA	87%	
	3.0-12.6W			300mA	88%	
	3.5-14.7W			350mA	88%	
	4.0-16.8W			400mA	89%	
	4.5-18.9W			450mA	89%	
	5.0-21.0W			500mA	90%	
	5.5-23.1W			550mA	90%	
	6.0-25.2W			600mA	90%	
	6.5-27.3W			650mA	91%	
HA-RTW042BF-CCX1050-4	3.0-12.6W	220-240VAC 50/60Hz 220-240VDC	10-42V	300mA	85%	158*31*45
	3.5-14.7W			350mA	86%	
	4.0-16.8W			400mA	86%	
	4.5-18.9W			450mA	87%	
	5.0-21.0W			500mA	87%	
	5.5-23.1W			550mA	88%	
	6.0-25.0W			600mA	89%	
	6.5-27.3W			650mA	90%	
	7.0-29.7W			700mA	91%	
	7.5-31.5W			750mA	91%	
	8.0-33.6W			800mA	91%	
	8.5-34.0W			850mA	91%	
	9.0-36.0W			900mA	91%	
9.5-38.0W	950mA	91%				
10.0-40.0W	1000mA	92%				
10.5-42.0W	1050mA	92%				
HA-RTW060BF-CCX1400-4	27.0-44.0W	220-240VAC 50/60Hz 220-240VDC	25-40V	1100mA	86%	250*31*45
	30.0-48.0W			1200mA	87%	
	22.5-52.0W			1300mA	87%	
	25.0-56.0W			1400mA	87%	

SUITABLE FOR TRACKS

No	Brand	Track Model	System
1	Global	XTS11 & XTSC611	3P
2	A.A.G STUCCHI	9000-1-ST	3P
3	Eutrac	25-106	3P
4	Unipro	T32B	3P
5	PowerGEAR	Pro-0431&Pro-D631R	3P
6	ERCO	1079301000	3P



ON-OFF

Indoor Series



ERAC



5 years warranty



ON-OFF

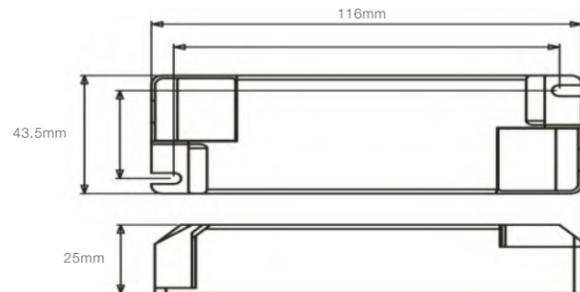
Plastic Case CC Driver DIP
Galvanic-Isolated / Flicker Free



Current ripple: $\pm 1\%$
Dimming Type: -
Dimming Range: -
Dimming Depth: -
Protection: No-Load/ Short Circuit/ Overload
Start Time: $<0.5s/220V$
Power Factor: >0.9
Ambient Temp.: $-20 \sim +45^{\circ}C$
Max Case Temp.: $+85^{\circ}C$
Warranty: 5-Year
Application: Down light, Panel Light, Track light
Size: $116 \times 43.5 \times 25mm$
Switch: DIP-Switchable



Model	Rated Output Power	Rated Input Voltage	Output Voltage	Output Current	Efficiency (full load)	Dimension (mm)
HA-NSMX030BF-CCX750	16.2-24.0W	220-240VAC 50/60Hz	27-42V	600mA	85%	116*43.5*25mm
	17.5-26.0W			650mA	85%	
	18.9-28.0W			700mA	85%	
	20.5-30.0W			750mA	85%	
HA-NSMX036BF-CCX900	20.5-30.0W	220-240VAC 50/60Hz	27-42V	750mA	85%	116*43.5*25mm
	21.6-32.0W			800mA	85%	
	22.9-34.0W			850mA	85%	
	24.3-36.0W			900mA	85%	
HA-NSMX042BF-CCX1050	24.3-36.0W	220-240VAC 50/60Hz	27-42V	900mA	85%	116*43.5*25mm
	25.6-38.0W			950mA	85%	
	27.0-40.0W			1000mA	85%	
	28.3-42.0W			1050mA	85%	



ON-OFF

Plastic Case CC Driver
Galvanic-Isolated / Flicker Free



Current ripple: $\pm 1\%$
Dimming Type: -
Dimming Range: -
Dimming Depth: -
Protection: No-Load/ Short Circuit/ Overload
Start Time: $<0.5s/220V$
Power Factor: >0.9
Ambient Temp.: $-20 \sim +45^{\circ}C$
Max Case Temp.: $+85^{\circ}C$
Warranty: 5-Year
Application: Down light, Panel Light, Track light



Model	Rated Output Power	Rated Input Voltage	Output Voltage	Output Current	Efficiency (full load)	Dimension (mm)
HA-NSM004BF-CC100	2.7-4.0W	220-240VAC 50/60Hz	27-42	100mA	77%	91.5*36*25mm
HA-NSM006BF-CC150	3.7-6.0W	220-240VAC 50/60Hz	25-40	150mA	80%	91.5*36*25mm
HA-NSM008BF-CC200	5.0-8.0W	220-240VAC 50/60Hz	25-40	200mA	80%	91.5*36*25mm
HA-NSM010BF-CC250	6.2-10.0W	220-240VAC 50/60Hz	27-42	250mA	82%	91.5*36*25mm
HA-NSM012BF-CC300	8.1-12.0W	220-240VAC 50/60Hz	27-42	300mA	83%	91.5*36*25mm
HA-NSM014BF-CC350	9.4-14.0W	220-240VAC 50/60Hz	27-42	350mA	83%	91.5*36*25mm
HA-NSM016BF-CC400	10.0-16.0W	220-240VAC 50/60Hz	25-40	400mA	86%	102*36*25mm
HA-NSM018BF-CC450	11.2-18.0W	220-240VAC 50/60Hz	25-40	450mA	86%	102*36*25mm
HA-NSM020BF-CC500	12.5-20.0W	220-240VAC 50/60Hz	25-40	500mA	86%	102*36*25mm
HA-NSM022BF-CC550	13.7-22.0W	220-240VAC 50/60Hz	25-40	550mA	87%	102*36*25mm
HA-NSM024BF-CC600	15.0-24.0W	220-240VAC 50/60Hz	25-40	600mA	85%	102*36*25mm
HA-NSM026BF-CC650	17.5-26.0W	220-240VAC 50/60Hz	27-42	650mA	85%	116*43.5*25mm
HA-NSM028BF-CC700	18.9-28.0W	220-240VAC 50/60Hz	27-42	700mA	86%	116*43.5*25mm
HA-NSM030BF-CC750	20.2-30.0W	220-240VAC 50/60Hz	27-42	750mA	86%	116*43.5*25mm
HA-NSM032BF-CC800	21.6-32.0W	220-240VAC 50/60Hz	27-42	800mA	86%	116*43.5*25mm
HA-NSM034BF-CC850	22.9-34.0W	220-240VAC 50/60Hz	27-42	850mA	86%	116*43.5*25mm
HA-NSM036BF-CC900	24.3-36.0W	220-240VAC 50/60Hz	27-42	900mA	88%	116*43.5*25mm
HA-NSM038BF-CC950	25.6-38.0W	220-240VAC 50/60Hz	27-42	950mA	88%	116*43.5*25mm
HA-NSM040BF-CC1000	27.0-40.0W	220-240VAC 50/60Hz	27-42	1000mA	88%	116*43.5*25mm
HA-NSM042BF-CC1050	28.3-42.0W	220-240VAC 50/60Hz	27-42	1050mA	88%	116*43.5*25mm
HA-NHSM044BF-CC1150	31.0-44.0W	220-240VAC 50/60Hz	27-42	1150mA	87%	160*45*32mm
HA-NHSM050BF-CC1200	32.4-50.0W	220-240VAC 50/60Hz	27-42	1200mA	87%	160*45*32mm
HA-NHSM055BF-CC1300	35.1-55.0W	220-240VAC 50/60Hz	27-42	1300mA	87%	160*45*32mm

ON-OFF

Metal Case CC Driver PRO
NO-Galvanic-Isolated / Flicker Free

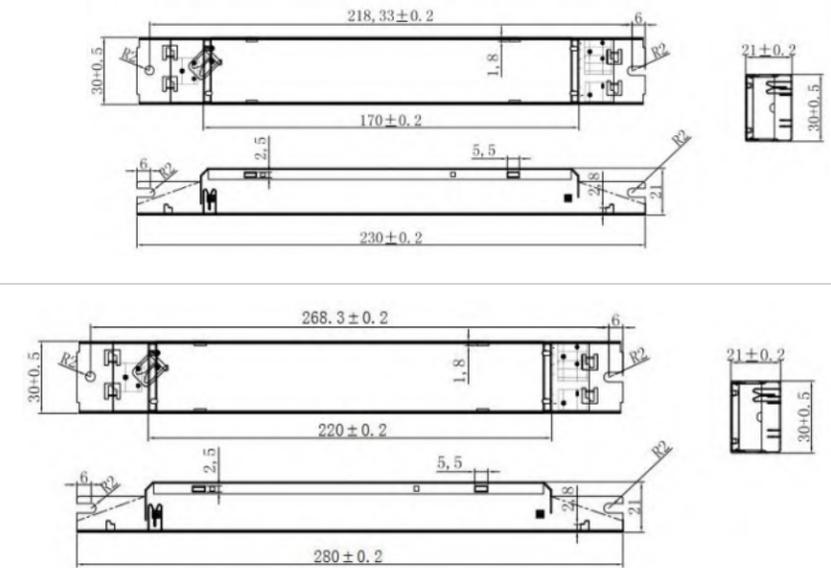


DIP



Current ripple: ±1%
Dimming Type: -
Dimming Range: -
Dimming Depth: -
Protection: No-Load/ Short Circuit/ Overload
Start Time: <0.5s/220V
Power Factor:>0.95
Ambient Temp.: -20~+50°C
Max Case Temp.: +85°C
Warranty: 5-Year
Application: Down light, Panel Light, Track light, Triproof light
Switch: DIP-Switchable

Model	Rated Output Power	Rated Input Voltage	Output Voltage	Output Current	Efficiency (full load)	Dimension (mm)
HA-NKUT025BF-CCX300	3.0-10.5W	198-264VAC 50/60Hz 178-280VDC	15-70V	150mA	85%	230*30*22mm
	4.0-14.0W			200mA	86%	
	6.0-17.5W			250mA	88%	
	6.0-21.0W			300mA	89%	
HA-NKUT025BF-CCX350	4.0-14.0W	198-264VAC 50/60Hz 178-280VDC	15-70V	200mA	87%	230*30*22mm
	5.0-17.5W			250mA	89%	
	6.0-21.0W			300mA	90%	
	7.0-24.5W			350mA	90%	
HA-NKUT035BF-CCX500	7.0-24.5W	198-264VAC 50/60Hz 178-280VDC	15-70V	350mA	89%	230*30*22mm
	8.0-28.0W			400mA	89%	
	9.0-31.5W			450mA	90%	
	10.0-35.0W			500mA	90%	
HA-NKUT050BF-CCX300	7.5-25.5W	198-264VAC 50/60Hz 178-280VDC	50-170V	150mA	90%	230*30*22mm
	10.0-34.0W			200mA	90%	
	12.5-42.5W			250mA	91%	
	15.0-51.0W			300mA	92%	
HA-NKUT055BF-CCX350	10.0-37.0W	198-264VAC 50/60Hz 178-280VDC	50-185V	200mA	90%	230*30*22mm
	12.5-46.2W		250mA	91%		
	15.0-55.5W		300mA	92%		
	17.5-66.0W		350mA	92%		
HA-NKUT070BF-CCX300	7.5-33.0W	198-264VAC 50/60Hz 178-280VDC	50-220V	150mA	90%	230*30*22mm
	10.0-44.0W			200mA	91%	
	12.5-55.0W			250mA	92%	
	15.0-66.0W			300mA	93%	
HA-NKUT070BF-CCX350	10.0-40.0W	198-264VAC 50/60Hz 178-280VDC	50-220V	200mA	91%	230*30*22mm
	12.5-50.0W		250mA	92%		
	15.0-60.0W		300mA	92%		
	17.5-70.0W		350mA	93%		
HA-NKUT070BF-CCX500	17.5-49.0W	198-264VAC 50/60Hz 178-280VDC	50-140V	350mA	91%	280*30*22mm
	20.0-56.0W			400mA	92%	
	22.5-63.0W			450mA	92%	
	25.0-70.0W			500mA	93%	



Model	Rated Output Power	Rated Input Voltage	Output Voltage	Output Current	Efficiency (full load)	Dimension (mm)
HA-NKUT090BF-CCX500	21.0-63.0W	198-264VAC 50/60Hz 178-280VDC	50-180V	350mA	92%	280*30*22mm
	24.0-72.0W			400mA	93%	
	27.0-81.0W			450mA	94%	
	30.0-90.0W			500mA	94%	
HA-NKUT110BF-CCX500	59.9-89.9W	198-264VAC 50/60Hz 178-280VDC	171-257V	350mA	92%	280*30*22mm
	60.0-90.0W		120-180V	500mA	94%	
	59.9-90.2W		109-164V	550mA	94%	
	59.5-90.3W		85-129V	700mA	95%	
HA-NKUT150BF-CCX700	21.0-77.0W	198-264VAC 50/60Hz 178-280VDC	50-220V	350mA	92%	280*30*22mm
	24.0-88.0W			400mA	93%	
	27.0-99.0W			450mA	94%	
	30.0-110.0W			500mA	95%	
HA-NKUT150BF-CCX700S	27.5-121.0W	198-264VAC 50/60Hz 178-280VDC	50-220V	550mA	92%	280*30*22mm
	30.0-132.0W			600mA	93%	
	32.5-143.0W			650mA	94%	
	35.0-154.0W			700mA	95%	
HA-NKUT150BF-CCX700S	90.0-150.0W	198-264VAC 50/60Hz 178-280VDC	180-300V	500mA	94%	280*30*22mm
	89.6-149.8W		128-214V	700mA	95%	
HA-NKUT165BF-CCX700	27.5-126.5W	198-264VAC 50/60Hz 178-280VDC	50-230V	550mA	92%	280*30*22mm
	30.0-138.0W			600mA	93%	
	32.5-149.5W			650mA	94%	
	35.0-161.0W			700mA	95%	

ON-OFF

Metal Case CC Driver
NO-Galvanic-Isolated / Flicker Free



Current ripple: ±1%
Dimming Type: -
Dimming Range: -
Dimming Depth: -
Protection: No-Load/ Short Circuit/ Overload
Start Time: <0.5s/220V
Power Factor:>0.95
Ambient Temp.: -20~+55°C
Max Case Temp.: +90°C
Warranty: 5-Year
Application: Down light, Panel Light, Track light, Triproof light
Switch: DIP-Switchable



ON-OFF

Metal Case CC Driver DIP
Galvanic-Isolated / Flicker Free



Current ripple: ±1%
Dimming Type: -
Dimming Range: -
Dimming Depth: -
Protection: No-Load/ Short Circuit/ Overload
Start Time: <0.5s/220V
Power Factor:>0.95
Ambient Temp.: -20~+50°C
Max Case Temp.: +85°C
Warranty: 5-Year
Application: Down light, Panel Light, Track light, Triproof light
Size: 153*27.8*21 / 230*30*21mm
Switch: DIP-Switchable



Model	Rated Output Power	Rated Input Voltage	Output Voltage	Output Current	Efficiency (full load)	Dimension (mm)
HA-NKUS020BF-CCX250	3.8-16.5W	198-264VAC 50/60Hz 178-280VDC	50-220V	75mA	93.6%	128*27.8*21mm
	2.0-21.0W		50-210V	100mA	94%	
	6.3-21.0W		50-156V	125mA	93.2%	
	7.5-21.0W		50-140V	150mA	93%	
	8.8-21.0W		50-120V	175mA	93%	
	10.0-21.0W		50-105V	200mA	92%	
	11.3-21.0W		50-93V	225mA	91.6%	
	12.5-21.0W		50-84V	250mA	90.8%	
HA-NKUS020BF-CCX350	3.0-15.0W	198-264VAC 50/60Hz 178-280VDC	24-105V	200mA	93.1%	128*27.8*21mm
	3.7-18.0W		24-84V	250mA	92.6%	
	4.5-21.0W		24-72V	300mA	91.9%	
	5.2-24.0W		24-60V	350mA	91%	
HA-NKUS040BF-CCX450	5.0-22.0W	198-264VAC 50/60Hz 178-280VDC	50-220V	100mA	93%	152.6*27.8*21mm
	7.5-33.0W		50-220V	150mA	94%	
	10.0-40.0W		50-200V	200mA	95%	
	12.5-40.0W		50-160V	250mA	95%	
	15.0-40.3W		50-135V	300mA	94%	
	17.5-40.3W		50-115V	350mA	94%	
	20.0-40.0W		50-100V	400mA	93%	
	22.5-40.0W		50-89V	450mA	92%	
HA-NKUS040BF-CCX350	10.0-40.0W	198-264VAC 50/60Hz 178-280VDC	50-200V	200mA	95%	152.6*27.8*21mm
	12.0-40.0W		50-160V	250mA	95%	
	15.0-40.0W		50-135V	300mA	93.8%	
	17.5-40.0W		50-115V	350mA	93.5%	
HA-NKUS050BF-CCX500	7.5-33.0W	198-264VAC 50/60Hz 178-280VDC	50-220V	150mA	95.2%	152.6*27.8*21mm
	10.0-44.0W		50-220V	200mA	95.5%	
	12.5-50.0W		50-220V	250mA	95.4%	
	15.0-50.0W		50-167V	300mA	95.4%	
	17.5-50.0W		50-142V	350mA	94.3%	
	20.0-50.0W		50-125V	400mA	93.5%	
	22.5-50.0W		50-112V	450mA	93.4%	
	25.0-50.0W		50-100V	500mA	92.7%	
HA-NKUS050BF-CCX350	10.0-44.0W	198-264VAC 50/60Hz 178-280VDC	50-200V	200mA	95%	152.6*27.8*21mm
	12.5-50.0W		50-160V	250mA	95%	
	15.0-50.0W		50-135V	300mA	94%	
	17.5-50.0W		50-115V	350mA	94%	
HA-NKUS060BF-CCX350	10.0-38.0W	198-264VAC 50/60Hz 178-280VDC	50-170V	200mA	95%	165*30*21mm
	12.5-47.0W		50-170V	250mA	95%	
	15.0-56.0W		50-170V	300mA	94%	
	17.5-61.0W		50-170V	350mA	94%	

Model	Rated Output Power	Rated Input Voltage	Output Voltage	Output Current	Efficiency (full load)	Dimension (mm)
HA-NKUE040AF-CCX1000	14.7-35.7W	198-264VAC 50/60Hz 178-280VDC	21-51V	700mA	90%	153*27.8*21mm
	16.8-40.8W		21-51V	800mA		
	18.9-40.5W		21-45V	900mA		
	21.0-40.0W		21-40V	1000mA		
HA-NKUE060AF-CCX1400	23.1-56.1W	198-264VAC 50/60Hz 178-280VDC	21-51V	1100mA	90%	230*30*21mm
	25.2-61.2W		21-51V	1200mA		
	27.3-58.5W		21-45V	1300mA		
	29.4-58.8W		21-42V	1400mA		

ON-OFF

Metal Case CC Driver DIP
Galvanic-Isolated / Flicker Free



Galvanic isolate with high output voltage

Current ripple: ±1%
Dimming Type: -
Dimming Range: -
Dimming Depth: -
Protection: No-Load/ Short Circuit/ Overload
Start Time: <0.5s/220V
Ambient Temp.: -20~+50°C
Max Case Temp.: +85°C
Power Factor: >0.95
Warranty: 5-Year
Application: Down light, Panel Light, Track light, Triproof light
Switch: DIP-Switchable



ON-OFF

Plastic CV LED Driver
Galvanic-Isolated / Flicker Free



Voltage ripple: ±2%
Dimming Type: -
Dimming Range: -
Dimming Depth: -
Protection: No-Load/ Short Circuit/ Overload
Start Time: <0.5s/220V
Power Factor:>0.95
Ambient Temp.: -20~+50°C
MaxCase Temp.: +85°C
Warranty: 5-Year
Application: Strip light



Model	Rated Output Power	Rated Input Voltage	Output Voltage	Output Current	Efficiency (full load)	Dimension (mm)
HA-NSLT040BF-CCX400	12.5-40.0W	198-264VAC 50/60Hz 178-280VDC	50-160V	250mA	90%	152*27.8*21mm
	15.0-40.5W		50-135V	300mA	90%	
	17.5-40.2W		50-115V	350mA	90%	
	20.0-40.0W		50-100V	400mA	90%	
HA-NSLT065BF-CCX500	39.0-65.0W	198-264VAC 50/60Hz 178-280VDC	111-186V	350mA	90%	230*30*21mm
	39.0-65.0W		78-130V	500mA	90%	
HA-NSLT065BF-CC300	39.0-66.0W	198-264VAC 50/60Hz 178-280VDC	130-220V	300mA	90%	230*30*21mm
HA-NSLT065BF-CC700	39.2-65.1W	198-264VAC 50/60Hz 178-280VDC	56-93V	700mA	90%	230*30*21mm
HA-NSLT090BF-CCX700	59.8-90.0W	198-264VAC 50/60Hz 178-280VDC	171-287V	350mA	90%	280*30*21mm
	60.0-90.0W		120-180V	500mA	90%	
	59.9-90.2W		109-164V	550mA	90%	
	59.5-90.3W		85-129V	700mA	90%	
HA-NSLT120BF-CC700	90.0-120.0W	198-264VAC 50/60Hz 178-280VDC	125-170V	700mA	90%	280*30*21mm

Model	Rated Output Power	Rated Input Voltage	Output Voltage	Output Current	Efficiency (full load)	Dimension (mm)
HA-NRV030BF-CV	3-30W	220-240VAC 50/60Hz 190-290VDC	24V 48V	0.125-1.25A 0.062-0.62A	87% 86%	135*36*25mm
HA-NRV060BF-CV	3-60W	220-240VAC 50/60Hz 190-290VDC	24V 48V	0.125-2.50A 0.062-1.25A	89% 88%	151.5*40*31mm
HA-NRV120BF-CV	30-120W	220-240VAC 50/60Hz 190-290VDC	24V	1.25-5A	93%	253*42.5*31mm
HA-NRV180BF-CV	54-180W	220-240VAC 50/60Hz 190-290VDC	24V	2.25-7.5A	93%	253*42.5*31mm
HA-NRV250BF-CV	75-250W	220-240VAC 50/60Hz 190-290VDC	24V	3.12-10.42A	94%	270*50*31mm



ON-OFF

Metal Case CV LED Driver
Galvanic-Isolated / Flicker Free



Voltage ripple: $\pm 1\%$
Dimming Type: -
Dimming Range: -
Dimming Depth: -
Protection: No-Load/ Short Circuit/ Overload
Start Time: $< 0.5s/220V$
Power Factor: > 0.95
Ambient Temp.: $-25 \sim +50^{\circ}C$
Max Case Temp.: $+85^{\circ}C$
Warranty: 5-Year
Application: Strip light



ON-OFF

Linear LED Driver
Galvanic-Isolated / Flicker Free



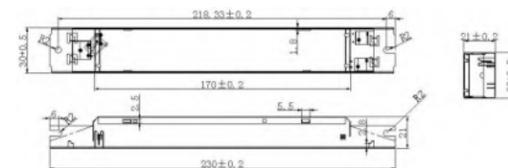
Voltage ripple: $\pm 1\%$
Dimming Type: -
Dimming Range: -
Dimming Depth: -
Protection: No-Load/ Short Circuit/ Overload
Start Time: $< 0.5s/220V$
Power Factor: > 0.95
Ambient Temp.: $-20 \sim +45^{\circ}C$
Max Case Temp.: $+85^{\circ}C$
Warranty: 5-Year
Application: :Strip light



Model	Power Range(Max)	Rated Input Voltage	Output Voltage	Output Current	Efficiency (full load)	Dimension (mm)
HA-NKT030BF-CV24	30W	198-264VAC 50/60Hz 178-280VDC	24V	0-1250mA	83%	230*30*21mm
HA-NKT060BF-CV24	60W	198-264VAC 50/60Hz 178-280VDC	24V	0-2500mA	87%	250*30*21mm
HA-NKT100BF-CV24	100W	198-264VAC 50/60Hz 178-280VDC	24V	0-4200mA	92%	360*40*21mm
HA-NKT150BF-CV24	150W	198-264VAC 50/60Hz 178-280VDC	24V	0-6250mA	92%	360*40*21mm

Model	Power Range(Max)	Rated Input Voltage	Output Voltage	Output Current	Efficiency (full load)	Dimension (mm)
HA-NKL030BF-CV24	30W	220-240VAC 50/60Hz 180-280VDC	24V	0-1250mA	85%	300*30*16mm
HA-NKL060BF-CV24	60W	220-240VAC 50/60Hz 180-280VDC	24V	0-2500mA	86%	300*30*16mm
HA-NKL100BF-CV24	100W	220-240VAC 50/60Hz 180-280VDC	24V	0-4170mA	92%	350*30*18mm
HA-NKL150BF-CV24	150W	220-240VAC 50/60Hz 180-280VDC	24V	0-6670mA	93%	350*30*18mm
HA-NKL250BF-CV24	250W	220-240VAC 50/60Hz 180-280VDC	24V	0-10420mA	93%	400*40*22mm
HA-NKL100BF-CV48	100W	220-240VAC 50/60Hz 180-280VDC	48V	0-2100mA	92%	350*30*18mm
HA-NKL150BF-CV48	150W	220-240VAC 50/60Hz 180-280VDC	48V	0-3125mA	93%	350*30*18mm
HA-NKL250BF-CV48	250W	220-240VAC 50/60Hz 180-280VDC	48V	0-5210mA	93%	400*40*22mm

HA-NKT030BF-CV24

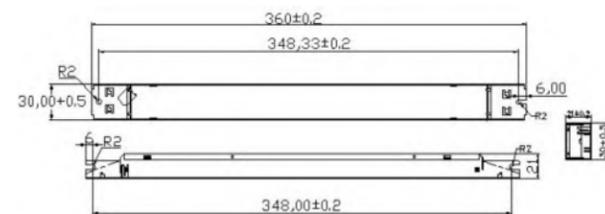


HA-NKT060BF-CV24



HA-NKT100BF-CV24

HA-NKT150BF-CV24



HA-NKL030BF-CV24

HA-NKL060BF-CV24



HA-NKL100BF-CV24

HA-NKL150BF-CV24

HA-NKL100BF-CV48

HA-NKL150BF-CV48



HA-NKL250BF-CV24

HA-NKL250BF-CV48



OUTDOOR

IP67 Series

Smart Driver for Street light

Programmable:

0-10V / 10-0V / 0-5V / 5-0V Dimming
 Timing
 CLO Constant Lumen Output
 Temperature management

Premium
5 Year Warranty

OUTDOOR

Hahga[®]
SMART LIGHTING SOLUTION

**0-10V
ON-OFF**

IP67 CC Driver
Galvanic-Isolated / Flicker free



Programming: 0-10V 10-0V Reverse Dimming / Timing / CLO

Case: Aluminum
 Current ripple: 5%
 Dimming Type: 0-10V PWM
 Dimming Range: 1%-100%
 Dimming Depth: 0.1%
 Protection: No-Load / Short Circuit / Overload
 Start Time: <0.5s/220V
 Power Factor: >0.95
 Ambient Temp.: -40~+65°C
 Max Case Temp.: +90°C
 Warranty: 5-Year
 Application: Wallwasher, Street light, High bay.

N-: Non Dim Version
 I-: 3-in-1 Dim Version (0-10V & PWM & Rx)



Model	Rated Output Power	Rated Input Voltage	Output Voltage	Output Current	Efficiency (full load)	Dimension (mm)
HA-ICHX030AF-CC1000	30W	100-277VAC 50/60Hz 120-277VDC	27-56V	300-1000mA	89%	132*52*20mm
HA-ICHX050AF-CC1500	50W	100-277VAC 50/60Hz 120-277VDC	27-56V	600-1500mA	90%	132*52*20mm
HA-ICHX075AF-CC2100	75W	100-277VAC 50/60Hz 120-277VDC	27-56V	900-2100mA	91%	149*61*33mm
HA-ICHX100AF-CC3000	100W	100-277VAC 50/60Hz 120-277VDC	27-56V	1300-3000mA	91%	167*61*33mm
HA-ICHX150AF-CC4500	150W	100-277VAC 50/60Hz 120-277VDC	27-56V	1800-4500mA	91%	190*69*36mm
HA-ICHX200AF-CC5600	200W	100-277VAC 50/60Hz 120-277VDC	27-56V	2600-5600mA	93%	211*69*36mm
HA-ICHX240AF-CC6700	240W	100-277VAC 50/60Hz 120-277VDC	27-56V	3500-6700mA	93%	225*69*36mm
HA-ICHX320AF-CC7650	320W	100-277VAC 50/60Hz 120-277VDC	27-56V	4200-7560mA	94%	230*69*44mm
HA-ICHX050AF-CC1050	50W	100-277VAC 50/60Hz 120-277VDC	36-72V	500-1050mA	90%	132*52*20mm
HA-ICHX075AF-CC1050	75W	100-277VAC 50/60Hz 120-277VDC	54-108V	500-1050mA	91%	149*61*33mm
HA-ICHX100AF-CC1050	100W	100-277VAC 50/60Hz 120-277VDC	71-143V	500-1050mA	92%	167*61*33mm
HA-ICHX150AF-CC1050	150W	100-277VAC 50/60Hz 120-277VDC	95-214V	500-1050mA	92%	190*69*36mm
HA-ICHX200AF-CC1050	200W	100-277VAC 50/60Hz 120-277VDC	143-286V	500-1050mA	93.5%	211*69*36mm
HA-ICHX240AF-CC1050	240W	100-277VAC 50/60Hz 120-277VDC	171-343V	500-1050mA	94%	225*69*36mm
HA-ICHX320AF-CC1050	320W	100-277VAC 50/60Hz 120-277VDC	228-428V	500-1050mA	95%	230*69*44mm

**0-10V
ON-OFF**

IP67 CC Driver
Galvanic-Isolated



Programming: 0-10V 10-0V Reverse Dimming/ Timing / CLO

Case: Aluminum
Dimming Type: 0-10V PWM
Dimming Range: 1%-100%
Dimming Depth: 0.1%
Power Factor:>0.95
Protection: No-Load/ Short Circuit/ Overload
Start Time: <0.5s/220V
Ambient Temp.: -40~+65°C
Max Case Temp.: +90°C
Warranty: 5-Year
Application: :Wallwasher, Street light, High bay.



N-: Non Dim Version
I-: 3-in-1 Dim Version (0-10V & PWM & Rx)

Model	Rated Output Power	Rated Input Voltage	Output Voltage	Output Current	Efficiency (full load)	Dimension (mm)
HA-ICHF030BF-CC1000	30W	200-277V AC 50/60Hz	20-38V	300-1000mA	89	132*52*28mm
HA-ICHF030BF-CC750			32-56V	200-750mA	89	
HA-ICHF050BF-CC1600	50W	200-277V AC 50/60Hz	20-38V	700-1600mA	89	132*52*28mm
HA-ICHF050BF-CC1200			32-56V	500-1200mA	89	
HA-ICHF075BF-CC2400	75W	200-277V AC 50/60Hz	20-38V	1300-2400mA	90	149*61*33mm
HA-ICHF075BF-CC1800			32-56V	800-1800mA	90	
HA-ICHF100BF-CC3200	100W	200-277V AC 50/60Hz	20-38V	1900-3200mA	90	167*61*33mm
HA-ICHF100BF-CC2400			32-56V	1300-2400mA	90	
HA-ICHF150BF-CC4700	150W	200-277V AC 50/60Hz	20-38V	2600-4700mA	90	190*69*36mm
HA-ICHF150BF-CC3600			32-56V	1700-3600mA	90	
HA-ICHF200BF-CC6300	200W	200-277V AC 50/60Hz	20-38V	3900-6300mA	91	211*69*36mm
HA-ICHF200BF-CC4800			32-56V	2600-4800mA	91	
HA-ICHF240BF-CC7500	240W	200-277V AC 50/60Hz	20-38V	5200-7500mA	91	240*69*36mm
HA-ICHF240BF-CC5800			32-56V	3500-5800mA	91	
HA-ICHF050BF-CC1050	50W	200-277V AC 50/60Hz	36-72V	500-1050mA	89	132*52*28mm
HA-ICHF075BF-CC1050	75W	200-277V AC 50/60Hz	54-108V	500-1050mA	89	149*61*33mm
HA-ICHF100BF-CC1050	100W	200-277V AC 50/60Hz	71-143V	500-1050mA	90	167*61*33mm
HA-ICHF150BF-CC1050	150W	200-277V AC 50/60Hz	107-214V	500-1050mA	92	190*69*36mm
HA-ICHF200BF-CC1050	200W	200-277V AC 50/60Hz	95-190V	500-1050mA	92	211*69*36mm
HA-ICHF240BF-CC1050	240W	200-277V AC 50/60Hz	114-228V	500-1050mA	93	240*69*36mm

**0-10V
ON-OFF**

IP67 CC Driver
NO-Isolated / Flicker Free



Programming: 0-10V 10-0V Reverse Dimming/ Timing / CLO

Case: Aluminum
Current ripple: 5%
Dimming Type: 0-10V PWM
Dimming Range: 1%-100%
Dimming Depth: 0.1%
Protection: No-Load/ Short Circuit/ Overload
Start Time: <0.5s/220V
Power Factor:>0.95
Ambient Temp.: -40~+55°C
Max Case Temp.: +90°C
Warranty: 5-Year
Application: :Wallwasher, Street light, High bay.



N-: Non Dim Version
I-: 3-in-1 Dim Version (0-10V & PWM & Rx)

Model	Rated Output Power	Rated Input Voltage	Output Voltage	Output Current	Efficiency (full load)	Dimension (mm)
HA-ICHT030AF-CCX300	30W	100-277VAC 50/60Hz	90-150V	150-300mA	90%	109*56*32mm
HA-ICHT030AF-CCX150		120-277VDC	180-260V	70-150mA	90%	
HA-ICHT050AF-CCX500	50W	100-277VAC 50/60Hz	90-150V	250-500mA	92%	109*56*32mm
HA-ICHT050AF-CCX250		120-277VDC	180-260V	120-250mA	92%	
HA-ICHT075AF-CCX750	75W	100-277VAC 50/60Hz	90-150V	350-700mA	93%	159*56*32mm
HA-ICHT075AF-CCX380		120-277VDC	180-260V	180-380mA	93%	
HA-ICHT100AF-CCX1000	100W	100-277VAC 50/60Hz	90-150V	500-1000mA	93%	159*56*32mm
HA-ICHT100AF-CCX500		120-277VDC	180-260V	250-500mA	93%	
HA-ICHT120AF-CCX1200	120W	100-277VAC 50/60Hz	90-150V	600-1200mA	94%	162*56*32mm
HA-ICHT120AF-CCX600		120-277VDC	180-260V	300-600mA	94%	
HA-ICHT150AF-CCX1500	150W	100-277VAC 50/60Hz	90-150V	750-1500mA	95%	162*56*32mm
HA-ICHT150AF-CCX750		120-277VDC	180-260V	400-750mA	95%	
HA-ICHT200AF-CCX2000	200W	100-277VAC 50/60Hz	90-150V	1000-2000mA	94%	179*68*37mm
HA-ICHT200AF-CCX1000		120-277VDC	180-260V	600-1000mA	94%	
HA-ICHT240AF-CCX2400	240W	100-277VAC 50/60Hz	90-150V	1200-2400mA	94%	179*68*37mm
HA-ICHT240AF-CCX1200		120-277VDC	180-260V	750-1200mA	94%	
HA-ICHT320AF-CCX1600	320W	100-277VAC 50/60Hz	180-260V	900-1600mA	95.5%	214*68*37mm
		120-277VDC				

ON-OFF

IP67 CC Driver
Galvanic-Isolated



Case: Aluminum
Dimming Type: -
Dimming Range: -
Dimming Depth: -
Power Factor: >0.95
Protection: No-Load/ Short Circuit/ Overload
Start Time: <0.5s/220V
Ambient Temp.: -40~+55°C
Max Case Temp.: +90°C
Warranty: 5-Year
Application: :Wallwasher, Street light, High bay.



Model	Rated Output Power	Rated Input Voltage	Output Voltage	Output Current	Efficiency (full load)	Dimension (mm)
HA-NVE008AF-CC300	8W	120-277VAC 50/60Hz	14-28V	300mA	82%	62*53*26mm
HA-NVE012AF-CC300	12W	120-277VAC 50/60Hz	21-42V	300mA	85%	62*53*26mm
HA-NVE012AF-CC600			11-22V	600mA	85%	
HA-NVE024AF-CC300			36-72V	300mA	85%	
HA-NVE024AF-CC350	24W	120-277VAC 50/60Hz	34-68V	350mA	85%	66*53*26mm
HA-NVE024AF-CC600			21-42V	600mA	85%	
HA-NVE024AF-CC700			19-36V	700mA	85%	
HA-NVE040AF-CC450			44-88V	450mA	87%	
HA-NVE040AF-CC500			40-80V	500mA	87%	
HA-NVE040AF-CC600	40W	120-277VAC 50/60Hz	33-66V	600mA	87%	76*53*26mm
HA-NVE040AF-CC700			29-58V	700mA	87%	
HA-NVE040AF-CC900			21-42V	900mA	87%	
HA-NVE040AF-CC1050			19-38V	1050mA	87%	
HA-NVE050AF-CC600			43-86V	600mA	89%	
HA-NVE050AF-CC700			36-72V	700mA	90%	
HA-NVE050AF-CC900			28-56V	900mA	89%	
HA-NVE050AF-CC1050	50W	120-277VAC 50/60Hz	24-48V	1050mA	89%	78*64*32mm
HA-NVE050AF-CC1200			21-42V	1200mA	89%	
HA-NVE050AF-CC1350			19-39V	1350mA	88%	
HA-NVE050AF-CC1500			18-36V	1500mA	88%	

Model	Rated Output Power	Rated Input Voltage	Output Voltage	Output Current	Efficiency (full load)	Dimension (mm)
HA-NVE060AF-CC700			43-86V	700mA	90%	
HA-NVE060AF-CC900			33-66V	900mA	90%	
HA-NVE060AF-CC1050	60W	120-277VAC 50/60Hz	29-58V	1050mA	89%	78*64*32mm
HA-NVE060AF-CC1200			24-48V	1200mA	89%	
HA-NVE060AF-CC1400			21-42V	1400mA	89%	
HA-NVE060AF-CC1800			17-33V	1800mA	88%	
HA-NVE060AF-CCX1900			19-38V	1050-1900mA	88%	
HA-NVE060AF-CCX1430	60W	120-277VAC 50/60Hz	28-56V	750-1430mA	89%	78*64*32mm
HA-NVE060AF-CCX1050			43-86V	500-1050mA	89%	
HA-NVE080AF-CCX2500			19-35V	1500-2500mA	90%	
HA-NVE080AF-CCX1900	80W	120-277VAC 50/60Hz	28-56V	1050-1900mA	90%	91*64*32mm
HA-NVE080AF-CCX1050			56-112V	500-1050mA	90%	
HA-NVE100AF-CCX3000	100W	120-277VAC 50/60Hz	19-38V	1800-3000mA	89%	106*64*32mm
HA-NVE100AF-CCX2500			28-56V	1500-2500mA	90%	
HA-NVE150AF-CCX4700	150W	120-277VAC 50/60Hz	19-38V	2800-4700mA	90%	138*64*32mm
HA-NVE150AF-CCX3600			28-56V	2100-3600mA	90%	
HA-NVE200AF-CCX6250	200W	120-277VAC 50/60Hz	19-38V	3750-6250mA	90%	173*64*32mm
HA-NVE200AF-CCX4800			28-56V	2700-4800mA	90%	
HA-NVE240AF-CCX7500	240W	120-277VAC 50/60Hz	32-38V	4500-7500mA	90%	192*64*32mm
HA-NVE240AF-CCX5700			42-56V	3500-5700mA	90%	



Premium
5 Year Warranty

OUTDOOR

0-10V

IP67 CC Driver

Galvanic-Isolated / Flicker Free



Case: Aluminum
Current ripple: 5%
Dimming Type: 0-10V PWM resist 3in1
Dimming Range: 1% - 100%
Dimming Depth: 0.1%
Protection: No-Load/ Short Circuit/ Overload
Start Time: <0.5s/220V
Power Factor: >0.95
Ambient Temp.: -40~+50°C
Max Case Temp.: +80°C
Warranty: 5-Year
Application: : Wallwasher, Street light, High bay.



Model	Rated Output Power	Rated Input Voltage	Output Voltage	Output Current	Efficiency (full load)	Dimension (mm)
HA-ICHK400AF-CC9500	400W	90-265VAC 50/60Hz	27-42V	9500mA	90%	260*89*43mm
HA-ICHK400AF-CC6700	400W	90-265VAC 50/60Hz	43-60V	6700mA	90%	260*89*43mm
HA-ICHK400AF-CC5000	400W	90-265VAC 50/60Hz	60-80V	5000mA	91%	260*89*43mm
HA-ICHK400AF-CC4000	400W	90-265VAC 50/60Hz	80-100V	4000mA	91%	260*89*43mm
HA-ICHK400AF-CC3330	400W	90-265VAC 50/60Hz	100-120V	3330mA	92%	260*89*43mm

OUTDOOR

IP67 CV Series

0-10V

IP67 CV Driver
Galvanic-Isolated / Flicker free



Case: Aluminum
Voltage ripple: 5%
Dimming Type: 0-10V
Dimming Range: 1%-100%
Dimming Depth: 0.1%
Protection: No-Load/ Short Circuit/ Overload
Start Time: <0.5s/220V
Ambient Temp.: -40~+50°C
Max Case Temp.: +85°C
Warranty: 5-Year
Application: :Strip light



Model	Power Range(Max)	Rated Input Voltage	Output Voltage	Output Current	Efficiency (full load)	Dimension (mm)
HA-IO100AF-CV	100W	90-265VAC 50/60Hz 100-390VDC	12V	0-8.3A	90%	186*68*39mm
			24V	0-4.1A	90%	
			36V	0-2.7A	91%	
			48V	0-2A	91%	
HA-IO120AF-CV	120W	90-265VAC 50/60Hz 100-390VDC	12V	0-10A	90%	186*68*39mm
			24V	0-5A	90%	
			36V	0-3.3A	91%	
			48V	0-2.5A	91%	
HA-IO150AF-CV	150W	90-265VAC 50/60Hz 100-390VDC	12V	0-12.5A	90%	196*68*39mm
			24V	0-6.25A	90%	
			36V	0-4.16A	91%	
			48V	0-3.12A	91%	
HA-IO200AF-CV	200W	90-265VAC 50/60Hz 100-390VDC	12V	0-16.6A	90%	236*68*39mm
			24V	0-8.3A	90%	
			36V	0-5.5A	91%	
			48V	0-4.1A	91%	
HA-IO240AF-CV	240W	90-265VAC 50/60Hz 100-390VDC	12V	0-20A	90%	236*68*39mm
			24V	0-10A	90%	
			36V	0-6.6A	91%	
			48V	0-5A	91%	
HA-IO300AF-CV	300W	90-265VAC 50/60Hz 100-390VDC	12V	0-25A	90%	280*95*50mm
			24V	0-12.5A	90%	
			36V	0-8.3A	91%	
			48V	0-6.25A	91%	
HA-IO350AF-CV	350W	90-265VAC 50/60Hz 100-390VDC	24V	0-14.5A	90%	280*95*50mm
			36V	0-9.7A	90%	
			48V	0-7.2A	90%	
HA-IO400AF-CV	400W	90-265VAC 50/60Hz 100-390VDC	24V	0-16.6A	90%	280*95*50mm
			36V	0-11.1A	90%	
			48V	0-8.3A	90%	

ON-OFF

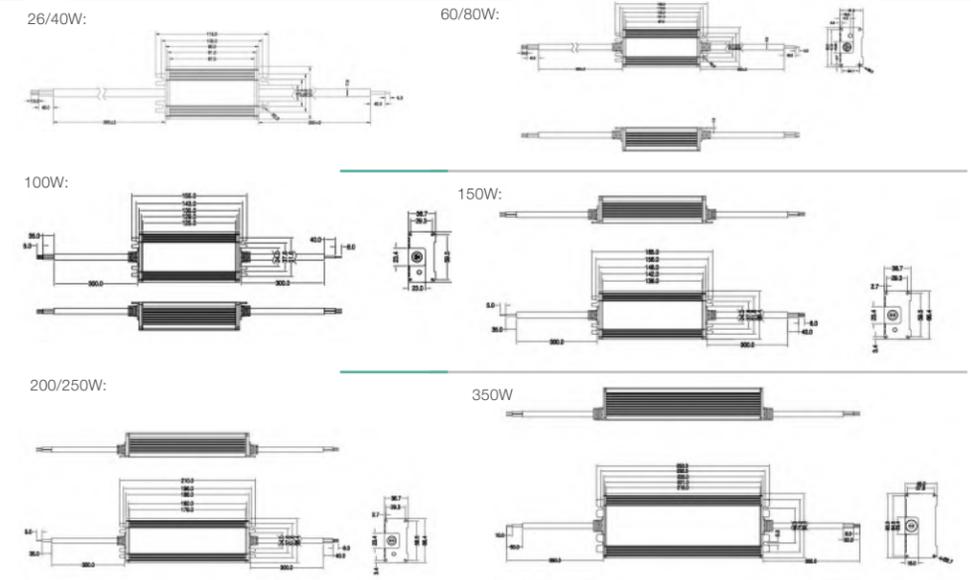
IP67 CV Driver
Galvanic-Isolated / Flicker Free



Case: Aluminum
Voltage ripple: 5%
Dimming Type: -
Dimming Range: -
Dimming Depth: -
Protection: No-Load/ Short Circuit/ Overload
Start Time: <0.5s/220V
Power Factor:>0.95
Ambient Temp.: -40~+50°C
MaxCase Temp.: +90°C
Warranty: 5-Year
Application: :Wallwasher, Street light, High bay.



Model	Power Range(Max)	Rated Input Voltage	Range Input Voltage	Output Voltage	Efficiency (full load)	Power Factor (full load)
HA-NKP026BF-CV	26W	220-240VAC 50/60Hz	176-264VAC	12/24/36V	88	115*53*31.5mm
HA-NKP040BF-CV	40W	220-240VAC 50/60Hz	176-264VAC	12/24/36V	88	115*53*31.5mm
HA-NKP060BF-CV	60W	220-240VAC 50/60Hz	176-264VAC	12/24/36V	88	125*53*31.5mm
HA-NKP080BF-CV	80W	220-240VAC 50/60Hz	176-264VAC	12/24/36/48V	90	125*53*31.5mm
HA-NKP100BF-CV	100W	220-240VAC 50/60Hz	176-264VAC	12/24/36/48V	91	155*66.4*36.7mm
HA-NKP150BF-CV	150W	220-240VAC 50/60Hz	176-264VAC	12/24/36/48V	92	165*66.4*36.7mm
HA-NKP200BF-CV	200W	220-240VAC 50/60Hz	176-264VAC	12/24/36/48V	93	210*66.4*36.7mm
HA-NKP250BF-CV	250W	220-240VAC 50/60Hz	176-264VAC	12/24/36/48V	93	210*66.4*36.7mm
HA-NKP350BF-CV	350W	220-240VAC 50/60Hz	176-264VAC	24/36/48V	93	250*90*45mm





UFO Driver Series

Premium
5 Year Warranty

OUTDOOR

ON/OFF
0-10V
12V AUX

IP65 UFO Driver
NO-Isolated / Flicker free



Case: Aluminum
Current ripple: 5%
Dimming Type: -/ 0-10V PWM
Dimming Range: 1%-100%
Dimming Depth: 0.1%
Protection: No-Load/ Short Circuit/ Overload
Start Time: <0.5s/220V
Power Factor:>0.95
Ambient Temp.: -40~+65°C
Max case Temp.: +90°C
Warranty: 5-Year
Application: : High bay.

Current & Wattage Turnable



Model	Rated Output Power	Rated Input Voltage	Output Voltage	Output Current	Efficiency (full load)	Dimension (mm)
HA-UNS120AF-CC950	120W	100-277VAC 50/60Hz	100-180V	500-950mA	93.5%	Ø126*56mm
HA-UNS150AF-CC1400	150W	100-277VAC 50/60Hz	100-180V	750-1400mA	94.3%	Ø126*56mm
HA-UNS200AF-CC1800	200W	100-277VAC 50/60Hz	100-180V	1000-1800mA	94.5%	Ø127*60mm
HA-UNS240AF-CC2200	240W	100-277VAC 50/60Hz	100-180V	1200-2200mA	94.5%	Ø127*60mm
HA-UNS120AF-CC600	120W	100-277VAC 50/60Hz	180-260V	350-600mA	93.5%	Ø126*56mm
HA-UNS150AF-CC750	150W	100-277VAC 50/60Hz	180-260V	450-750mA	94.3%	Ø126*56mm
HA-UNS200AF-CC1000	200W	100-277VAC 50/60Hz	180-260V	600-1000mA	94.5%	Ø127*60mm
HA-UNS240AF-CC1200	240W	100-277VAC 50/60Hz	180-260V	750-1200mA	94.5%	Ø127*60mm

Optional Functon

UIS

IP65 UFO 0-10V Driver
NO-Isolated / Flicker free

UVS

IP65 UFO 0-10V Driver with 12V AUX
NO-Isolated / Flicker free





EMERGENCY Series

Premium
5 Year Warranty

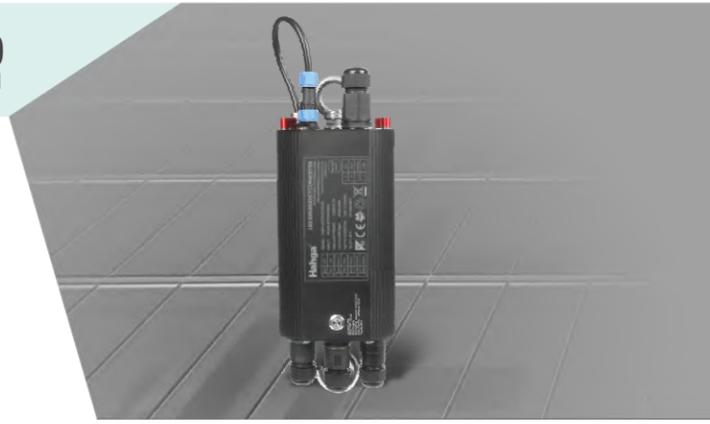
EMERGENCY

Hahga[®]
SMART LIGHTING SOLUTION

EMERGENCY IP65 EL Driver for UFO Constant Power / Battery Separated

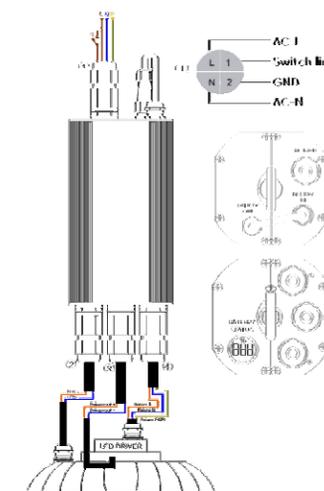


Case: Aluminum
 Battery Separated
 Output Mode: Constant Power
 Load Power: Max 320W
 Output Power : 10-50W
 Battery: Li-ion/ LiFePO4
 Suit for Lamp Class: Class I
 Protection: No-Load/ Short Circuit/ Overload
 Ambient Temp.: 0~+60°C
 MaxCase Temp.: +70°C
 Warranty: 3-Year
 Size:
 Converter: 262*105*105mm



Emergency pack customized

Model	Rated Input Voltage	Discharge Power	Discharge Voltage	Battery	Discharge Time
HAEM30-P15F180	110-277VAC 50/60Hz	10-50W	30-280Vdc	LiFePO4 12.8V	60-180min
HAEM30-P15L180	110-277VAC 50/60Hz	10-50W	30-280Vdc	Li-ion 14.8V	60-180min



Premium
5 Year Warranty

EMERGENCY

EMERGENCY IP20 EL Driver
Constant Power / Battery Built-in



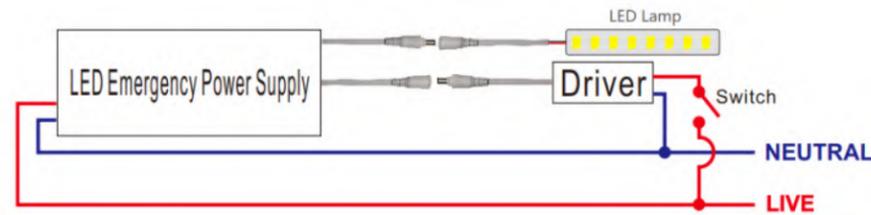
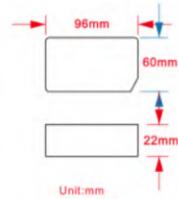
Case: Plastic
Battery Built-in
Output Mode: Constant Power
Output Type: Non-Maintained
Load Power: 3-50W
Battery: Li-ion
Suit for Lamp Class: Class II
Protection: No-Load/ Short Circuit/ Overload
Ambient Temp.: 0~+50°C
MaxCase Temp.: +70°C
Warranty: 3-Year
Size:

HAEM03-L03PL 96*60*22mm

Emergency pack customized



Model	Rated Input Voltage	Discharge Power	Discharge Voltage	Battery	Discharge Time
HAEM03-L03PL	85-265VAC 50/60Hz	3W	18-175Vdc	Li-ion 3.7V 1200mA	120min



Premium
5 Year Warranty

EMERGENCY

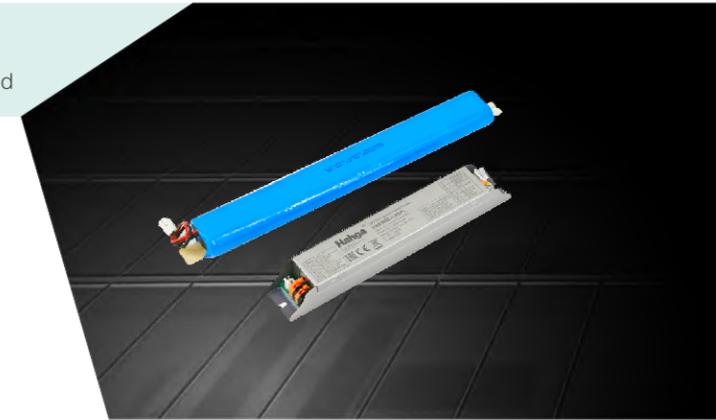
EMERGENCY IP20 EL Driver
Constant Power / Battery Separated



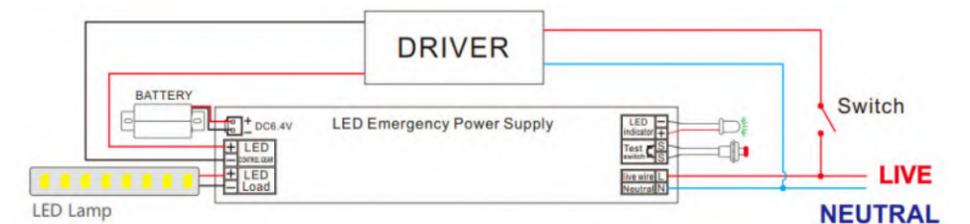
Case: Plastic
Battery Separated
Output Mode: Constant Power
Output Type: Non-Maintained
Load Power: 3-50W
Battery: Li-ion/ LiFePO4
Suit for Lamp Class: Class II
Protection: No-Load/ Short Circuit/ Overload
Ambient Temp.: 0~+50°C
MaxCase Temp.: +70°C
Warranty: 3-Year
Size:

Converter: 206*32*25mm

Emergency pack customized



Model	Rated Input Voltage	Discharge Power	Discharge Voltage	Battery	Discharge Time
HAEM05-P03PF	110-240VAC 50/60Hz	3W	18-175Vdc	LiFePO4 6.4V 1500mAh	180min
HAEM05-P05PL	110-240VAC 50/60Hz	5W	18-175Vdc	Li-ion 11.1V 3600mAh	180min
HAEM05-P05PF	110-240VAC 50/60Hz	5W	18-175Vdc	LiFePO4 6.4V 1800mAh	90min
HAEM05-P08PL	110-240VAC 50/60Hz	8W	18-175Vdc	Li-ion 7.4V 2400mAh	120min



Premium
5 Year Warranty

EMERGENCY

EMERGENCY IP20 2in1 EL Driver
Constant Power / Battery Built-in



Case: Metal
Driver & Emergency Converter 2 in 1
Flicker Free
Battery Built-in
Output Mode: Constant Power
Output Type: Non-Maintained
Load Power: 3-50W
Battery: Li-ion
Suit for Lamp Class: Class II
Protection: No-Load/ Short Circuit/ Overload
Ambient Temp.: 0~+50°C
MaxCase Temp.: +70°C
Warranty: 3-Year
Size:
242*40*27mm



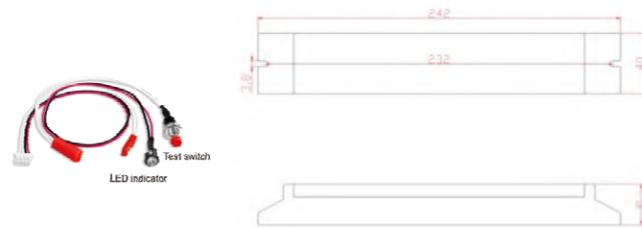
Emergency pack customized

Driver Data

Model	Rated Output Power	Rated Input Voltage	Output Voltage	Output Current	Efficiency (full load)	Power Factor (full load)
HAEM07-M08PL	20W	110-240VAC 50/60Hz	50-80Vdc	225mA Max250mA	90%	0.9

Emergency Converter Data

Model	Rated Input Voltage	Discharge Power	Discharge Voltage	Battery	Discharge Time
HAEM07-M08PL	110-240VAC 50/60Hz	3/5/8W	18-175Vdc	Li-ion 7.4V 2400mA	180/120/90min



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Premium
5 Year Warranty

EMERGENCY

EMERGENCY IP20 EL Driver
Constant Power / Battery Separated



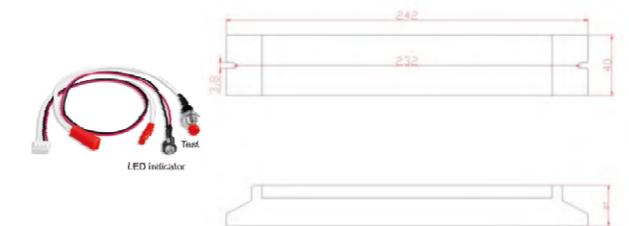
Case: Metal
Battery Separated
Output Mode: Constant Power
Output Type: Non-Maintained
Load Power: 3-50W
Battery: Li-ion/ LiFePO4
Suit for Lamp Class: Class II
Protection: No-Load/ Short Circuit/ Overload
Ambient Temp.: 0~+50°C
Max Case Temp.: +70°C
Warranty: 3-Year
Size:
Converter: 242*40*27mm



Emergency pack customized

Model	Rated Input Voltage	Discharge Power	Discharge Voltage	Battery	Discharge Time
HAEM07-H020PL	110-240VAC 50/60Hz	5W* 10W* 20W*	220-240Vdc	Li-ion 11.1V 2400mA	240min 120min 60min

*Customized, not DIP Function



EMERGENCY

IP20 EL Driver

Constant Power / Battery Built-in



Case: Plastic
 Battery Separated
 Output Mode: Constant Power
 Output Type: Non-Maintained
 Load Power: 3-50W
 Battery: Li-ion/ LiFePO4
 Suit for Lamp Class: Class II
DIP Switchable
 Protection: No-Load/ Short Circuit/ Overload
 Ambient Temp.: 0~+50°C
 MaxCase Temp.: +70°C
 Warranty: 3-Year
 Size:
 100*65*30mm

Emergency pack customized



Model	Rated Input Voltage	Discharge Power	Discharge Voltage	Battery	Discharge Time
HAEM11-L08PL	110-240VAC 50/60Hz	3W 5W 8W	18-175Vdc	Li-ion 7.4V 2400mA	240min 180min 120min

