

Constant current linear driver  
CWL Series



**Features**

- Output flick-free, meets the new requirements of ErP certification
- Built in active PFC function, high PF, low THD
- Dual-stage circuit design, work stable
- Withstand 380VAC high voltage short-time shock
- SELV and Class I design, suitable for use built-in of the light
- Passed ENEC-TUV, CE, RCM, UKCA, CCC and other certifications
- IP20 protection grade, indoor use
- Nominal life-time up to 100,000 h
- 5-year guarantee

**Functions**

- Support central emergency application (100% output in DC input)
- Support self-contained emergency application
- Protective features (short-circuit, no-load protection )

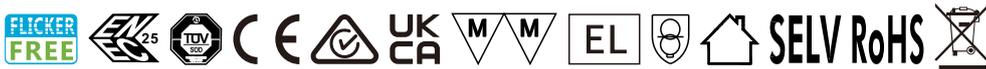
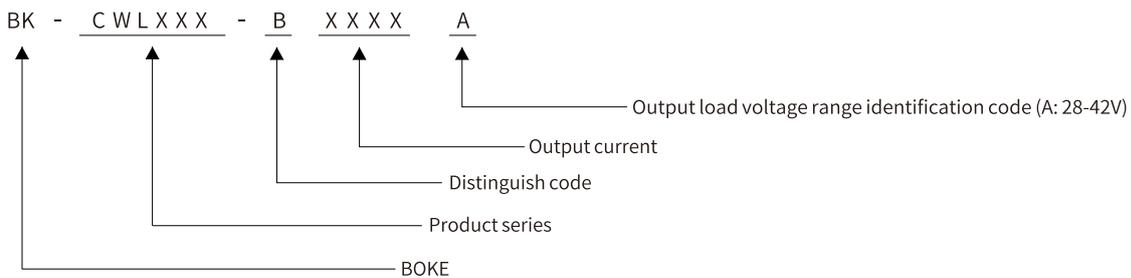
**Suitable for lights**

- Suitable for lights with built-in driver such as track light
- Not suitable for lights with built-in drivers

**Typical applications**

- LED indoor lighting
- LED office lighting
- LED commercial lighting

**Model coding rules of CWL series**



**Selection table of CWL series(just output power of 10.5w-80w)**

Model	Input voltage	Output power	Output voltage	Output current	Dimension
BK-CWL009-BxxxxA	200-240VAC	10.5W	28-42VDC	0.15-0.25A	L158*W30*H21mm
BK-CWL013-BxxxxA	200-240VAC	14.0W	28-42VDC	0.25-0.35A	L158*W30*H21mm
BK-CWL018-BxxxxA	200-240VAC	18.0W	28-42VDC	0.30-0.45A	L158*W30*H21mm
BK-CWL022-BxxxxA	200-240VAC	22.0W	28-42VDC	0.40-0.60A	L158*W30*H21mm
BK-CWL030-xxxxA	200-240VAC	31.5W	28-42VDC	0.55-0.75A	L195*W30*H21mm
BK-CWL040-xxxxA	200-240VAC	40.0W	28-42VDC	0.75-1.05A	L195*W30*H21mm
BK-CWL050-xxxxA	200-240VAC	50.4W	28-42VDC	0.75-1.25A	L285*W30*H21mm
BK-CWL060-xxxxA	200-240VAC	60.0W	28-42VDC	1.20-1.60A	L285*W30*H21mm
BK-CWL080-xxxxA	200-240VAC	80.0W	28-42VDC	1.40-2.00A	L355*W36*H23mm

**Technical data**

Product model	BK-CWL009-B0250A		
<b>Output parameters</b>			
Regulation method	Constant Current		
Rated output current	0.15-0.25A		
Rated output voltage	28-42V		
Rated output power	10.5W Max		
Output current adjustment	N/A		
Output current ripple LF	±2%		
Output current accuracy	±5%		
Linear regulation	±5%		
Load regulation	±5%		
No load output voltage	50V		
Flicker-free(typical)	Modulation depth =0.211% (100Hz), Pst LM = 0.071, SVM = 0.005 (The above parameters are obtained from testing the panel lights)		
<b>Input parameters</b>			
Rated input voltage	200-240VAC 200-240VDC		
Rated input voltage	180-264VAC 180-264VDC		
Input voltage shock	<380 VAC, 1 h		
Input current	<0.15A (AC input)		
Input frequency	0/50/60Hz		
Input power factor	0.95 (230V AC & Full load)		
Input THD	15% (230V AC & Full load)		
Efficiency(typical)	83% (230V AC & Full load)		
In-rush current	4A peak ,220us duration(50 % Ipeak), see the description below for details		
Start/Switchover/Turn off	<0.5s(AC start),<0.5s(DC start),<0.3s(AC/DC switchover),<0.5s(Turn off )		
Switching cycles	> 50,000 switching cycles		
Power consumption	Full load(Pmax):10.5W, No load(Pno): <0.5W, On stand-by(Psb) : N/A, Network stand-by(Pnet) : N/A		
<b>Safety</b>			
Withstand voltage	I/P-O/P:3750VAC,I/P-FG:1750VAC,O/P-FG:500VAC		
Mains surge capability	L-N:2KV,L-FG/N-FG:2KV		
Leakage current	<0.7mA (230V AC & Full load)		
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH		
<b>Control interface</b>			
DALI dimming port	N/A		
PushDIM dimming port	N/A		
1-10V 3in1 dimming port	N/A		
Auxiliary power supply	N/A		
Dimming range	N/A		
Dimming drive mode	N/A		
<b>Emergency support</b>			
Central emergency system	Supported(100% output in DC input)		
Self-contained emergency	Supported		
<b>Environment &amp; Life time</b>			
Operating temperature	Ta=-20-60°C		
Case temperature	Tc=90°C		
Operating humidity	5-85% RH, not condensed		
Storage temp./humidity	-40-80°C, 5-85% RH, not condensed		
IP grade	IP20		
MTBF	500,000H,MIL-HDBK-217F(25°C)		
Life-time	Nominal life-time up to 100,000 h, see the description below for details		
Vibration resistant	10~500Hz,5G 12min./1cycle,period for 72min. each along X,Y,Z axes		
Acoustic Noise	<25dB(30cm, Full load)		
Environmental protection	RoHS		
<b>Certifications and standards</b>			
Certified	ENEC-TUV, RCM, EMC, CE, UKCA, CCC		
Safety	EN61347-1, EN61347-2-13, EN62384		
EMC	EN55015, EN61000-3-2 , EN61000-3-3, EN61000-4-2,3,4,5,6,8,11, EN61547		
DALI-2	N/A		
EL	Compatible IEC 61347-2- 13 Annex J , compatible with EN 60598-2-22 and EN 50172		
RF	N/A		

**Remarks**

1.By default, all parameter are measured at 230VAC input, full load and 25°C of ambient temperature.

**Technical data**

Product model	BK-CWL013-B0300A	BK-CWL013-B0350A	
<b>Output parameters</b>			
Regulation method	Constant Current	Constant Current	
Rated output current	0.25-0.3A	0.31-0.35A	
Rated output voltage	28-42V	28-40V	
Rated output power	12.6W Max	14W Max	
Output current adjustment	N/A	N/A	
Output current ripple LF	±2%	±2%	
Output current accuracy	±5%	±5%	
Linear regulation	±5%	±5%	
Load regulation	±5%	±5%	
No load output voltage	50V	50V	
Flicker-free(typical)	Modulation depth = 0.256% (100Hz), Pst LM = 0.071, SVM = 0.005 (The above parameters are obtained from testing the panel lights)		
<b>Input parameters</b>			
Rated input voltage	200-240VAC 200-240VDC		
Rated input voltage	180-264VAC 180-264VDC		
Input voltage shock	<380 VAC, 1 h		
Input current	<0.15A (AC input)		
Input frequency	0/50/60Hz		
Input power factor	0.95 (230V AC & Full load)		
Input THD	15% (230V AC & Full load)		
Efficiency(typical)	84% (230V AC & Full load)		
In-rush current	4.18A peak, 224us duration(50 % Ipeak), see the description below for details		
Start/Switchover/Turn off	<0.5s(AC start), <0.5s(DC start), <0.3s(AC/DC switchover), <0.5s(Turn off)		
Switching cycles	> 50,000 switching cycles		
Power consumption	Full load(Pmax):14W, No load(Pno): <0.5W, On stand-by(Psb): N/A, Network stand-by(Pnet): N/A		
<b>Safety</b>			
Withstand voltage	I/P-O/P:3750VAC,I/P-FG:1750VAC,O/P-FG:500VAC		
Mains surge capability	L-N:2KV,L-FG/N-FG:2KV		
Leakage current	<0.7mA (230V AC & Full load)		
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH		
<b>Control interface</b>			
DALI dimming port	N/A		
PushDIM dimming port	N/A		
1-10V 3in1 dimming port	N/A		
Auxiliary power supply	N/A		
Dimming range	N/A		
Dimming drive mode	N/A		
<b>Emergency support</b>			
Central emergency system	Supported(100% output in DC input)		
Self-contained emergency	Supported		
<b>Environment &amp; Life time</b>			
Operating temperature	Ta=-20-60°C		
Case temperature	Tc=90°C		
Operating humidity	5-85% RH, not condensed		
Storage temp./humidity	-40-80°C, 5-85% RH, not condensed		
IP grade	IP20		
MTBF	500,000H,MIL-HDBK-217F(25°C)		
Life-time	Nominal life-time up to 100,000 h, see the description below for details		
Vibration resistant	10~500Hz,5G 12min./1cycle,period for 72min. each along X,Y,Z axes		
Acoustic Noise	<25dB(30cm, Full load)		
Environmental protection	RoHS		
<b>Certifications and standards</b>			
Certified	ENEC-TUV, RCM, EMC, CE, UKCA, CCC		
Safety	EN61347-1, EN61347-2-13, EN62384		
EMC	EN55015, EN61000-3-2, EN61000-3-3, EN61000-4-2,3,4,5,6,8,11, EN61547		
DALI-2	N/A		
EL	Compatible IEC 61347-2- 13 Annex J, compatible with EN 60598-2-22 and EN 50172		
RF	N/A		

**Remarks**

1.By default, all parameter are measured at 230VAC input, full load and 25°C of ambient temperature.

**Technical data**

Product model	BK-CWL018-B0400A	BK-CWL018-B0450A	
<b>Output parameters</b>			
Regulation method	Constant Current	Constant Current	
Rated output current	0.3-0.4A	0.41-0.45A	
Rated output voltage	28-42V	28-40V	
Rated output power	16.8W Max	18W Max	
Output current adjustment	N/A	N/A	
Output current ripple LF	±2%	±2%	
Output current accuracy	±5%	±5%	
Linear regulation	±5%	±5%	
Load regulation	±5%	±5%	
No load output voltage	50V	50V	
Flicker-free(typical)	Modulation depth = 0.236% (100Hz), Pst LM = 0.031, SVM = 0.005 (The above parameters are obtained from testing the panel lights)		
<b>Input parameters</b>			
Rated input voltage	200-240VAC 200-240VDC		
Rated input voltage	180-264VAC 180-264VDC		
Input voltage shock	<380 VAC, 1 h		
Input current	<0.2A (AC input)		
Input frequency	0/50/60Hz		
Input power factor	0.95 (230V AC & Full load)		
Input THD	10% (230V AC & Full load)		
Efficiency(typical)	86% (230V AC & Full load)		
In-rush current	5.23A peak, 242us duration(50% Ipeak), see the description below for details		
Start/Switchover/Turn off	<0.5s(AC start), <0.5s(DC start), <0.3s(AC/DC switchover), <0.5s(Turn off)		
Switching cycles	> 50,000 switching cycles		
Power consumption	Full load(Pmax):18W, No load(Pno): <0.5W, On stand-by(Psb): N/A, Network stand-by(Pnet): N/A		
<b>Safety</b>			
Withstand voltage	I/P-O/P:3750VAC,I/P-FG:1750VAC,O/P-FG:500VAC		
Mains surge capability	L-N:2KV,L-FG/N-FG:2KV		
Leakage current	<0.7mA (230V AC & Full load)		
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH		
<b>Control interface</b>			
DALI dimming port	N/A		
PushDIM dimming port	N/A		
1-10V 3in1 dimming port	N/A		
Auxiliary power supply	N/A		
Dimming range	N/A		
Dimming drive mode	N/A		
<b>Emergency support</b>			
Central emergency system	Supported(100% output in DC input)		
Self-contained emergency	Supported		
<b>Environment &amp; Life time</b>			
Operating temperature	Ta=-20-60°C		
Case temperature	Tc=90°C		
Operating humidity	5-85% RH, not condensed		
Storage temp./humidity	-40-80°C, 5-85% RH, not condensed		
IP grade	IP20		
MTBF	500,000H,MIL-HDBK-217F(25°C)		
Life-time	Nominal life-time up to 100,000 h, see the description below for details		
Vibration resistant	10~500Hz,5G 12min./1cycle,period for 72min. each along X,Y,Z axes		
Acoustic Noise	<25dB(30cm, Full load)		
Environmental protection	RoHS		
<b>Certifications and standards</b>			
Certified	ENEC-TUV, RCM, EMC, CE, UKCA, CCC		
Safety	EN61347-1, EN61347-2-13, EN62384		
EMC	EN55015, EN61000-3-2, EN61000-3-3, EN61000-4-2,3,4,5,6,8,11, EN61547		
DALI-2	N/A		
EL	Compatible IEC 61347-2-13 Annex J, compatible with EN 60598-2-22 and EN 50172		
RF	N/A		

**Remarks**

1.By default, all parameter are measured at 230VAC input, full load and 25°C of ambient temperature.

**Technical data**

Product model	BK-CWL022-B0500A	BK-CWL022-B0550A	BK-CWL022-B0600A
<b>Output parameters</b>			
Regulation method	Constant Current	Constant Current	Constant Current
Rated output current	0.4-0.5A	0.51-0.55A	0.56-0.60A
Rated output voltage	28-42V	28-40V	28-38V
Rated output power	21W Max	22W Max	22.8W Max
Output current adjustment	N/A	N/A	N/A
Output current ripple LF	±2%	±2%	±2%
Output current accuracy	±5%	±5%	±5%
Linear regulation	±5%	±5%	±5%
Load regulation	±5%	±5%	±5%
No load output voltage	50V	50V	50V
Flicker-free(typical)	Modulation depth =0.269% (100Hz), Pst LM = 0.031, SVM = 0.005 (The above parameters are obtained from testing the panel lights)		
<b>Input parameters</b>			
Rated input voltage	200-240VAC 200-240VDC		
Rated input voltage	180-264VAC 180-264VDC		
Input voltage shock	<380 VAC, 1 h		
Input current	<0.2A (AC input)		
Input frequency	0/50/60Hz		
Input power factor	0.95 (230V AC & Full load)		
Input THD	10% (230V AC & Full load)		
Efficiency(typical)	86% (230V AC & Full load)		
In-rush current	5.23A peak ,248us duration(50 % Ipeak), see the description below for details		
Start/Switchover/Turn off	<0.5s(AC start),<0.5s(DC start),<0.3s(AC/DC switchover),<0.5s(Turn off )		
Switching cycles	> 50,000 switching cycles		
Power consumption	Full load(Pmax):22.8W, No load(Pno): <0.5W, On stand-by(Psb) : N/A, Network stand-by(Pnet) : N/A		
<b>Safety</b>			
Withstand voltage	I/P-O/P:3750VAC,I/P-FG:1750VAC,O/P-FG:500VAC		
Mains surge capability	L-N:2KV,L-FG/N-FG:2KV		
Leakage current	<0.7mA (230V AC & Full load)		
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH		
<b>Control interface</b>			
DALI dimming port	N/A		
PushDIM dimming port	N/A		
1-10V 3in1 dimming port	N/A		
Auxiliary power supply	N/A		
Dimming range	N/A		
Dimming drive mode	N/A		
<b>Emergency support</b>			
Central emergency system	Supported(100% output in DC input)		
Self-contained emergency	Supported		
<b>Environment &amp; Life time</b>			
Operating temperature	Ta=-20-60°C		
Case temperature	Tc=90°C		
Operating humidity	5-85% RH, not condensed		
Storage temp./humidity	-40-80°C, 5-85% RH, not condensed		
IP grade	IP20		
MTBF	500,000H,MIL-HDBK-217F(25°C)		
Life-time	Nominal life-time up to 100,000 h, see the description below for details		
Vibration resistant	10~500Hz,5G 12min./1cycle,period for 72min. each along X,Y,Z axes		
Acoustic Noise	<25dB(30cm, Full load)		
Environmental protection	RoHS		
<b>Certifications and standards</b>			
Certified	ENEC-TUV, RCM, EMC, CE, UKCA, CCC		
Safety	EN61347-1, EN61347-2-13, EN62384		
EMC	EN55015, EN61000-3-2 , EN61000-3-3, EN61000-4-2,3,4,5,6,8,11, EN61547		
DALI-2	N/A		
EL	Compatible IEC 61347-2- 13 Annex J , compatible with EN 60598-2-22 and EN 50172		
RF	N/A		

**Remarks**

1.By default, all parameter are measured at 230VAC input, full load and 25°C of ambient temperature.

## Technical data

Product model	BK-CWL030-0750A
<b>Output parameters</b>	
Regulation method	Constant Current
Rated output current	0.5-0.75A
Rated output voltage	28-42V
Rated output power	31.5W Max
Output current adjustment	N/A
Output current ripple LF	±2%
Output current accuracy	±5%
Linear regulation	±5%
Load regulation	±5%
No load output voltage	50V
Flicker-free(typical)	Modulation depth =0.240% (100Hz), Pst LM = 0.011, SVM = 0.007 (The above parameters are obtained from testing the panel lights)
<b>Input parameters</b>	
Rated input voltage	200-240VAC 200-240VDC
Rated input voltage	180-264VAC 180-264VDC
Input voltage shock	<380 VAC, 1 h
Input current	<0.3A (AC input)
Input frequency	47-63Hz
Input power factor	0.95 (230V AC & Full load)
Input THD	10% (230V AC & Full load)
Efficiency(typical)	89% (230V AC & Full load)
In-rush current	17.8A peak, 197us duration(50% Ipeak), see the description below for details
Start/Switchover/Turn off	<0.5s(AC start), <0.5s(DC start), <0.3s(AC/DC switchover), <0.5s(Turn off)
Switching cycles	> 50,000 switching cycles
Power consumption	Full load(Pmax):31.5W, No load(Pno): <0.5W, On stand-by(Psb) : N/A, Network stand-by(Pnet) : N/A
<b>Safety</b>	
Withstand voltage	I/P-O/P:3750VAC,I/P-FG:1750VAC,O/P-FG:500VAC
Mains surge capability	L-N:2KV,L-FG/N-FG:2KV
Leakage current	<0.7mA (230V AC & Full load)
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH
<b>Control interface</b>	
DALI dimming port	N/A
PushDIM dimming port	N/A
1-10V 3in1 dimming port	N/A
Auxiliary power supply	N/A
Dimming range	N/A
Dimming drive mode	N/A
<b>Emergency support</b>	
Central emergency system	Supported(100% output in DC input)
Self-contained emergency	Supported
<b>Environment &amp; Life time</b>	
Operating temperature	Ta=-20-60°C
Case temperature	Tc=90°C
Operating humidity	5-85% RH, not condensed
Storage temp./humidity	-40-80°C, 5-85% RH, not condensed
IP grade	IP20
MTBF	500,000H,MIL-HDBK-217F(25°C)
Life-time	Nominal life-time up to 100,000 h, see the description below for details
Vibration resistant	10~500Hz,5G 12min./1cycle,period for 72min. each along X,Y,Z axes
Acoustic Noise	<25dB(30cm, Full load)
Environmental protection	RoHS
<b>Certifications and standards</b>	
Certified	ENEC-TUV, RCM, EMC, CE, UKCA, CCC
Safety	EN61347-1, EN61347-2-13, EN62384
EMC	EN55015, EN61000-3-2, EN61000-3-3, EN61000-4-2,3,4,5,6,8,11, EN61547
DALI-2	N/A
EL	Compatible IEC 61347-2- 13 Annex J, compatible with EN 60598-2-22 and EN 50172
RF	N/A

## Remarks

1.By default, all parameter are measured at 230VAC input, full load and 25°C of ambient temperature.

**Technical data**

Product model	BK-CWL040-0950A	BK-CWL040-1000A	BK-CWL040-1050A
<b>Output parameters</b>			
Regulation method	Constant Current	Constant Current	Constant Current
Rated output current	0.75-0.95A	0.96-1A	1.01-1.05A
Rated output voltage	28-42V	28-40V	28-38V
Rated output power	39.9W Max	40W Max	39.9W Max
Output current adjustment	N/A	N/A	N/A
Output current ripple LF	±2%	±2%	±2%
Output current accuracy	±5%	±5%	±5%
Linear regulation	±5%	±5%	±5%
Load regulation	±5%	±5%	±5%
No load output voltage	50V	50V	50V
Flicker-free(typical)	Modulation depth =0.166% (100Hz), Pst LM = 0.000, SVM = 0.005 (The above parameters are obtained from testing the panel lights)		
<b>Input parameters</b>			
Rated input voltage	200-240VAC 200-240VDC		
Rated input voltage	180-264VAC 180-264VDC		
Input voltage shock	<380 VAC, 1 h		
Input current	<0.35A (AC input)		
Input frequency	47-63Hz		
Input power factor	0.95 (230V AC & Full load)		
Input THD	10% (230V AC & Full load)		
Efficiency(typical)	89% (230V AC & Full load)		
In-rush current	20.5A peak, 262us duration(50% Ipeak), see the description below for details		
Start/Switchover/Turn off	<0.5s(AC start), <0.5s(DC start), <0.3s(AC/DC switchover), <0.5s(Turn off)		
Switching cycles	> 50,000 switching cycles		
Power consumption	Full load(Pmax):40W, No load(Pno): <0.5W, On stand-by(Psb): N/A, Network stand-by(Pnet): N/A		
<b>Safety</b>			
Withstand voltage	I/P-O/P:3750VAC,I/P-FG:1750VAC,O/P-FG:500VAC		
Mains surge capability	L-N:2KV,L-FG/N-FG:2KV		
Leakage current	<0.7mA (230V AC & Full load)		
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH		
<b>Control interface</b>			
DALI dimming port	N/A		
PushDIM dimming port	N/A		
1-10V 3in1 dimming port	N/A		
Auxiliary power supply	N/A		
Dimming range	N/A		
Dimming drive mode	N/A		
<b>Emergency support</b>			
Central emergency system	Supported(100% output in DC input)		
Self-contained emergency	Supported		
<b>Environment &amp; Life time</b>			
Operating temperature	Ta=-20-60°C		
Case temperature	Tc=90°C		
Operating humidity	5-85% RH, not condensed		
Storage temp./humidity	-40-80°C, 5-85% RH, not condensed		
IP grade	IP20		
MTBF	500,000H,MIL-HDBK-217F(25°C)		
Life-time	Nominal life-time up to 100,000 h, see the description below for details		
Vibration resistant	10~500Hz,5G 12min./1cycle,period for 72min. each along X,Y,Z axes		
Acoustic Noise	<25dB(30cm, Full load)		
Environmental protection	RoHS		
<b>Certifications and standards</b>			
Certified	ENEC-TUV, RCM, EMC, CE, UKCA, CCC		
Safety	EN61347-1, EN61347-2-13, EN62384		
EMC	EN55015, EN61000-3-2, EN61000-3-3, EN61000-4-2,3,4,5,6,8,11, EN61547		
DALI-2	N/A		
EL	Compatible IEC 61347-2-13 Annex J, compatible with EN 60598-2-22 and EN 50172		
RF	N/A		

**Remarks**

1.By default, all parameter are measured at 230VAC input, full load and 25°C of ambient temperature.

## Technical data

Product model	BK-CWL050-1200A	BK-CWL050-1250A	
<b>Output parameters</b>			
Regulation method	Constant Current	Constant Current	
Rated output current	0.75-1.2A	1.21-1.25A	
Rated output voltage	28-42V	28-40V	
Rated output power	50.4W Max	50W Max	
Output current adjustment	N/A	N/A	
Output current ripple LF	±2%	±2%	
Output current accuracy	±5%	±5%	
Linear regulation	±5%	±5%	
Load regulation	±5%	±5%	
No load output voltage	50V	50V	
Flicker-free(typical)	Modulation depth =0.201% (100Hz), Pst LM = 0.028, SVM = 0.006 (The above parameters are obtained from testing the panel lights)		
<b>Input parameters</b>			
Rated input voltage	200-240VAC 200-240VDC		
Rated input voltage	180-264VAC 180-264VDC		
Input voltage shock	<380 VAC, 1 h		
Input current	<0.4A (AC input)		
Input frequency	47-63Hz		
Input power factor	>0.95 (230V AC & Full load)		
Input THD	<10% (230V AC & Full load)		
Efficiency(typical)	90% (230V AC & Full load)		
In-rush current	23.1A peak ,302us duration(50 % Ipeak), see the description below for details		
Start/Switchover/Turn off	<0.5s(AC start),<0.5s(DC start),<0.3s(AC/DC switchover),<0.5s(Turn off)		
Switching cycles	> 50,000 switching cycles		
Power consumption	Full load(Pmax):50.4W, No load(Pno): <0.5W, On stand-by(Psb) : N/A, Network stand-by(Pnet) : N/A		
<b>Safety</b>			
Withstand voltage	I/P-O/P:3750VAC,I/P-FG:1750VAC,O/P-FG:500VAC		
Mains surge capability	L-N:2KV,L-FG/N-FG:2KV		
Leakage current	<0.7mA (230V AC & Full load)		
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH		
<b>Control interface</b>			
DALI dimming port	N/A		
PushDIM dimming port	N/A		
1-10V 3in1 dimming port	N/A		
Auxiliary power supply	N/A		
Dimming range	N/A		
Dimming drive mode	N/A		
<b>Emergency support</b>			
Central emergency system	Supported(100% output in DC input)		
Self-contained emergency	Supported		
<b>Environment &amp; Life time</b>			
Operating temperature	Ta=-20-60°C		
Case temperature	Tc=90°C		
Operating humidity	5-85% RH, not condensed		
Storage temp./humidity	-40-80°C, 5-85% RH, not condensed		
IP grade	IP20		
MTBF	500,000H,MIL-HDBK-217F(25°C)		
Life-time	Nominal life-time up to 100,000 h, see the description below for details		
Vibration resistant	10~500Hz,5G 12min./1cycle,period for 72min. each along X,Y,Z axes		
Acoustic Noise	<25dB(30cm, Full load)		
Environmental protection	RoHS		
<b>Certifications and standards</b>			
Certified	ENEC-TUV, RCM, EMC, CE, UKCA, CCC		
Safety	EN61347-1, EN61347-2-13, EN62384		
EMC	EN55015, EN61000-3-2 , EN61000-3-3, EN61000-4-2,3,4,5,6,8,11, EN61547		
DALI-2	N/A		
EL	Compatible IEC 61347-2- 13 Annex J , compatible with EN 60598-2-22 and EN 50172		
RF	N/A		

## Remarks

1.By default, all parameter are measured at 230VAC input, full load and 25°C of ambient temperature.

**Technical data**

Product model	BK-CWL060-1400A	BK-CWL060-1500A	BK-CWL060-1550A	BK-CWL060-1600A
<b>Output parameters</b>				
Regulation method	Constant Current	Constant Current	Constant Current	Constant Current
Rated output current	1.2-1.4A	1.41-1.5A	1.51-1.55A	1.56-1.6A
Rated output voltage	28-42V	28-40V	28-38V	28-36V
Rated output power	58.8W Max	60W Max	58.9W Max	57.6W Max
Output current adjustment	N/A	N/A	N/A	N/A
Output current ripple LF	±2%	±2%	±2%	±2%
Output current accuracy	±5%	±5%	±5%	±5%
Linear regulation	±5%	±5%	±5%	±5%
Load regulation	±5%	±5%	±5%	±5%
No load output voltage	50V	50V	50V	50V
Flicker-free(typical)	Modulation depth =0.136% (100Hz), Pst LM = 0.057, SVM = 0.003 (The above parameters are obtained from testing the panel lights)			
<b>Input parameters</b>				
Rated input voltage	200-240VAC 200-240VDC			
Rated input voltage	180-264VAC 180-264VDC			
Input voltage shock	<380 VAC, 1 h			
Input current	<0.45A (AC input)			
Input frequency	47-63Hz			
Input power factor	0.95 (230V AC & Full load)			
Input THD	10% (230V AC & Full load)			
Efficiency(typical)	90% (230V AC & Full load)			
In-rush current	27.3A peak, 332us duration(50% Ipeak), see the description below for details			
Start/Switchover/Turn off	<0.5s(AC start), <0.5s(DC start), <0.3s(AC/DC switchover), <0.5s(Turn off)			
Switching cycles	> 50,000 switching cycles			
Power consumption	Full load(Pmax):60W, No load(Pno): <0.5W, On stand-by(Psb): N/A, Network stand-by(Pnet): N/A			
<b>Safety</b>				
Withstand voltage	I/P-O/P:3750VAC,I/P-FG:1750VAC,O/P-FG:500VAC			
Mains surge capability	L-N:2KV,L-FG/N-FG:2KV			
Leakage current	<0.7mA (230V AC & Full load)			
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH			
<b>Control interface</b>				
DALI dimming port	N/A			
PushDIM dimming port	N/A			
1-10V 3in1 dimming port	N/A			
Auxiliary power supply	N/A			
Dimming range	N/A			
Dimming drive mode	N/A			
<b>Emergency support</b>				
Central emergency system	Supported(100% output in DC input)			
Self-contained emergency	Supported			
<b>Environment &amp; Life time</b>				
Operating temperature	Ta=-20-60°C			
Case temperature	Tc=90°C			
Operating humidity	5-85% RH, not condensed			
Storage temp./humidity	-40-80°C, 5-85% RH, not condensed			
IP grade	IP20			
MTBF	500,000H,MIL-HDBK-217F(25°C)			
Life-time	Nominal life-time up to 100,000 h, see the description below for details			
Vibration resistant	10~500Hz,5G 12min./1cycle,period for 72min. each along X,Y,Z axes			
Acoustic Noise	<25dB(30cm, Full load)			
Environmental protection	RoHS			
<b>Certifications and standards</b>				
Certified	ENEC-TUV, RCM, EMC, CE, UKCA, CCC			
Safety	EN61347-1, EN61347-2-13, EN62384			
EMC	EN55015, EN61000-3-2, EN61000-3-3, EN61000-4-2,3,4,5,6,8,11, EN61547			
DALI-2	N/A			
EL	Compatible IEC 61347-2- 13 Annex J, compatible with EN 60598-2-22 and EN 50172			
RF	N/A			

**Remarks**

1.By default, all parameter are measured at 230VAC input, full load and 25°C of ambient temperature.

**Technical data**

Product model	BK-CWL080-1900A	BK-CWL080-1950A	BK-CWL080-2000A
<b>Output parameters</b>			
Regulation method	Constant Current	Constant Current	Constant Current
Rated output current	1.4-1.9A	1.91-1.95A	1.96-2A
Rated output voltage	28-42V	28-41V	28-40V
Rated output power	79.8W Max	79.95W Max	80W Max
Output current adjustment	N/A	N/A	N/A
Output current ripple LF	±2%	±2%	±2%
Output current accuracy	±5%	±5%	±5%
Linear regulation	±5%	±5%	±5%
Load regulation	±5%	±5%	±5%
No load output voltage	50V	50V	50V
Flicker-free(typical)	Modulation depth =0.135% (100Hz), Pst LM = 0.005, SVM = 0.004 (The above parameters are obtained from testing the panel lights)		
<b>Input parameters</b>			
Rated input voltage	200-240VAC 200-240VDC		
Rated input voltage	180-264VAC 180-264VDC		
Input voltage shock	<380 VAC, 1 h		
Input current	<0.5A (AC input)		
Input frequency	47-63Hz		
Input power factor	>0.95 (230V AC & Full load)		
Input THD	<10% (230V AC & Full load)		
Efficiency(typical)	90% (230V AC & Full load)		
In-rush current	19A peak, 142us duration(50 % Ipeak), see the description below for details		
Start/Switchover/Turn off	<0.5s(AC start), <0.5s(DC start), <0.3s(AC/DC switchover), <0.5s(Turn off)		
Switching cycles	> 50,000 switching cycles		
Power consumption	Full load(Pmax):80W, No load(Pno): <0.5W, On stand-by(Psb) : N/A, Network stand-by(Pnet) : N/A		
<b>Safety</b>			
Withstand voltage	I/P-O/P:3750VAC,I/P-FG:1750VAC,O/P-FG:500VAC		
Mains surge capability	L-N:2KV,L-FG/N-FG:2KV		
Leakage current	<0.7mA (230V AC & Full load)		
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH		
<b>Control interface</b>			
DALI dimming port	N/A		
PushDIM dimming port	N/A		
1-10V 3in1 dimming port	N/A		
Auxiliary power supply	N/A		
Dimming range	N/A		
Dimming drive mode	N/A		
<b>Emergency support</b>			
Central emergency system	Supported(100% output in DC input)		
Self-contained emergency	Supported		
<b>Environment &amp; Life time</b>			
Operating temperature	Ta=-20-60°C		
Case temperature	Tc=90°C		
Operating humidity	5-85% RH, not condensed		
Storage temp./humidity	-40-80°C, 5-85% RH, not condensed		
IP grade	IP20		
MTBF	500,000H,MIL-HDBK-217F(25°C)		
Life-time	Nominal life-time up to 100,000 h, see the description below for details		
Vibration resistant	10~500Hz,5G 12min./1cycle,period for 72min. each along X,Y,Z axes		
Acoustic Noise	<25dB(30cm, Full load)		
Environmental protection	RoHS		
<b>Certifications and standards</b>			
Certified	ENEC-TUV, RCM, EMC, CE, UKCA, CCC		
Safety	EN61347-1, EN61347-2-13, EN62384		
EMC	EN55015, EN61000-3-2, EN61000-3-3, EN61000-4-2,3,4,5,6,8,11, EN61547		
DALI-2	N/A		
EL	Compatible IEC 61347-2- 13 Annex J, compatible with EN 60598-2-22 and EN 50172		
RF	N/A		

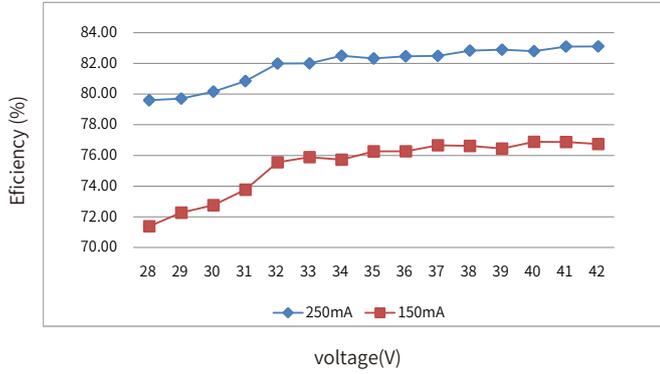
**Remarks**

1.By default, all parameter are measured at 230VAC input, full load and 25°C of ambient temperature.

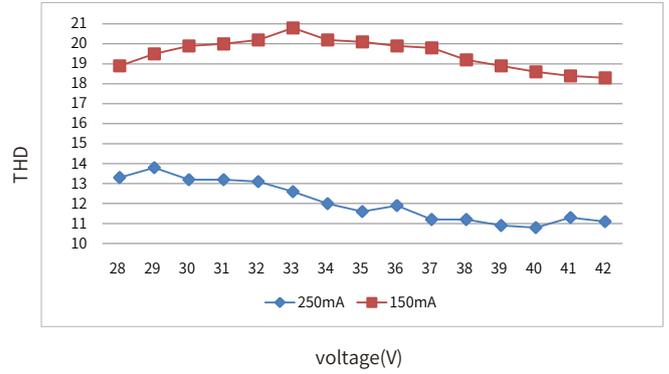
Electrical values

**BK-CWL009-B0250A**

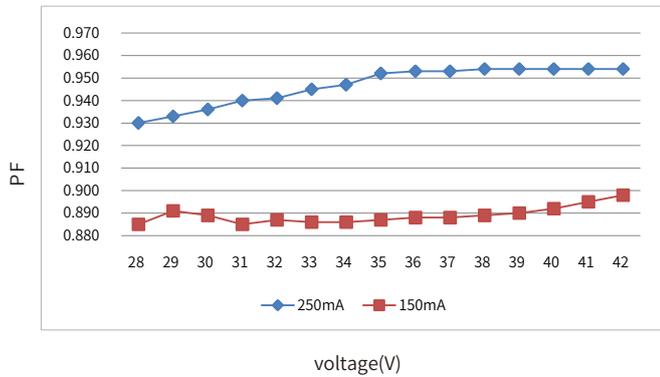
Efficiency vs voltage



THD vs. voltage

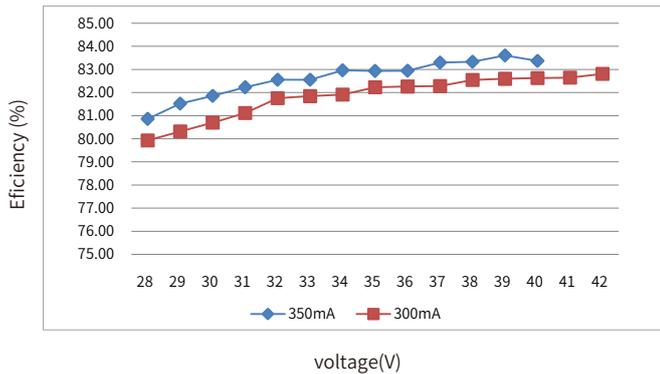


Power factor vs. voltage

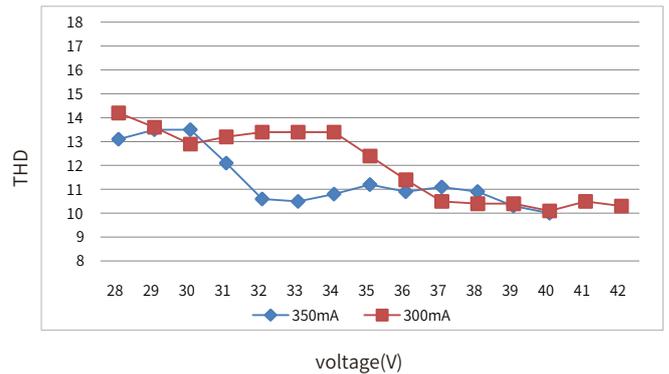


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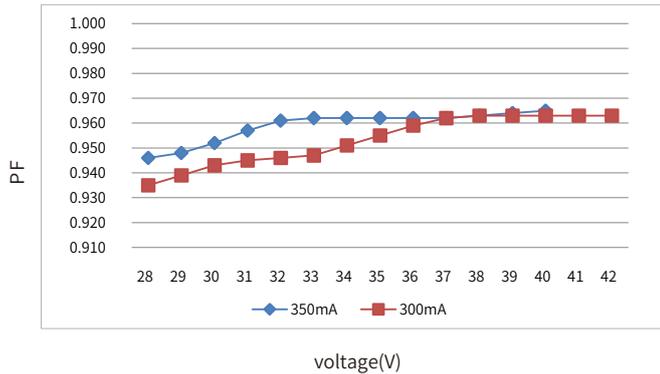
Efficiency vs voltage



THD vs. voltage



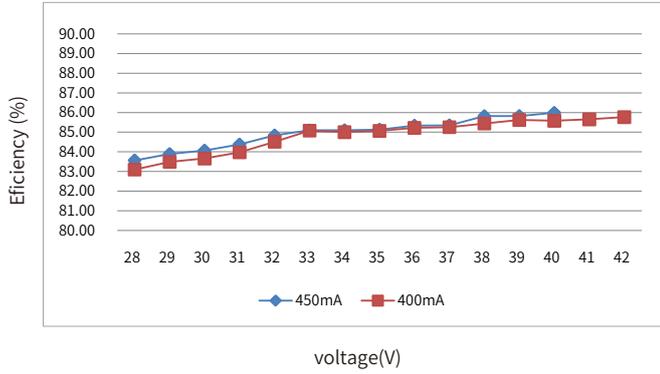
Power factor vs. voltage



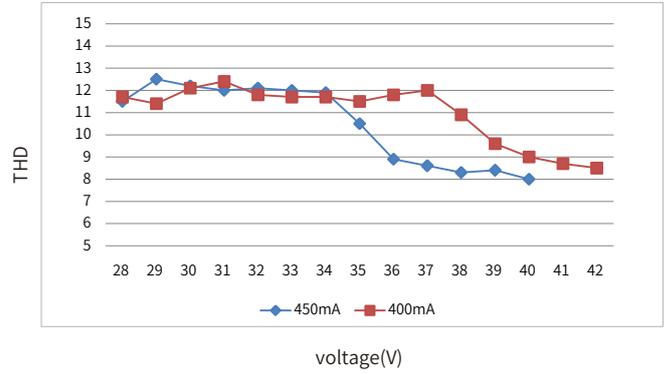
Electrical values

**BK-CWL018-B0450A**

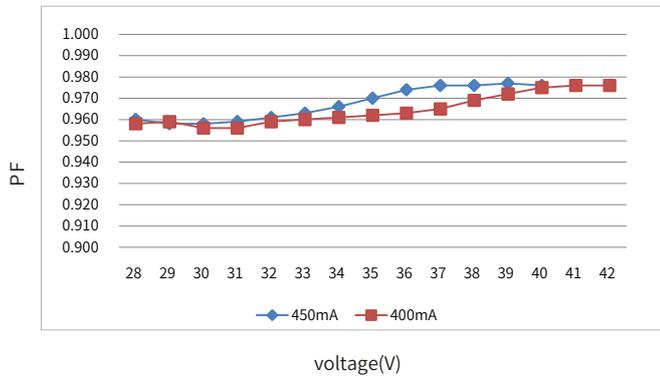
Efficiency vs voltage



THD vs. voltage

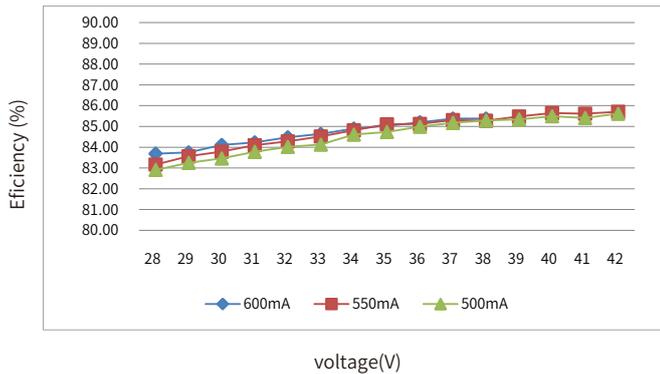


Power factor vs. voltage

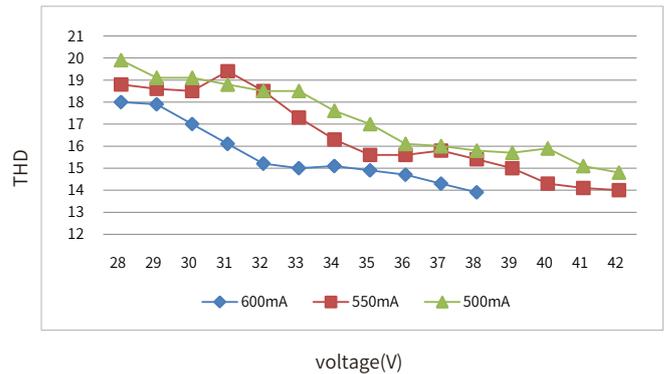


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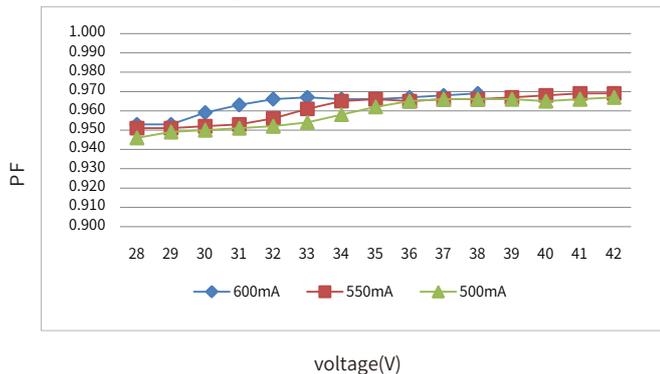
Efficiency vs voltage



THD vs. voltage



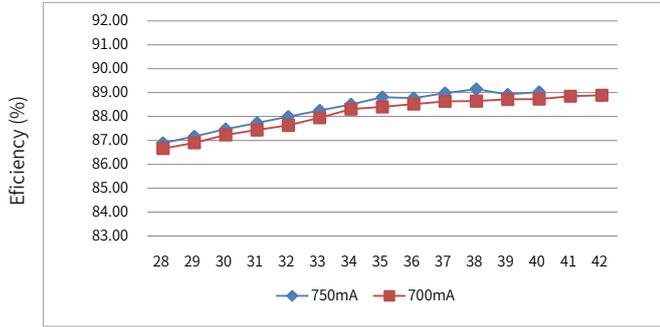
Power factor vs. voltage



Electrical values

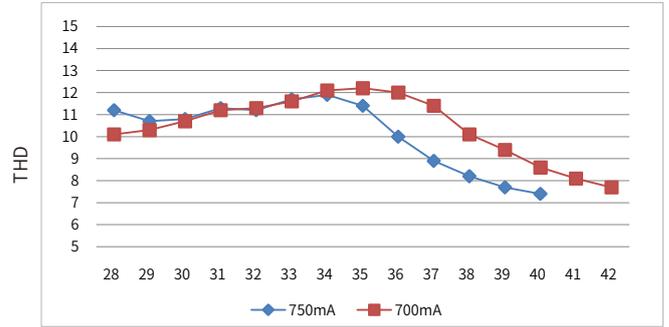
**BK-CWL030-0750A**

Efficiency vs voltage



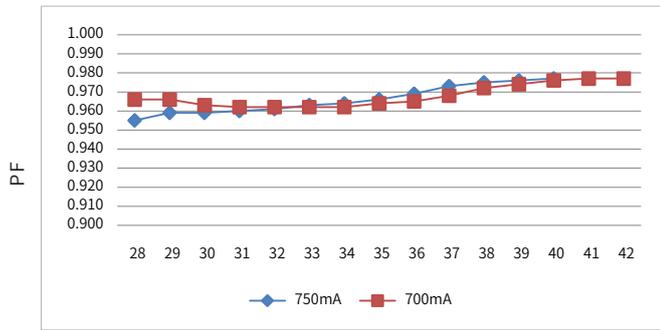
voltage(V)

THD vs. voltage



voltage(V)

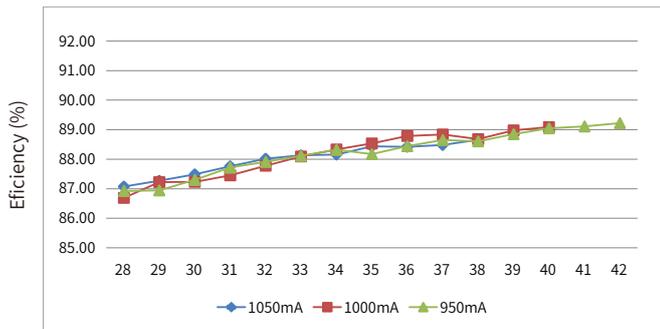
Power factor vs. voltage



voltage(V)

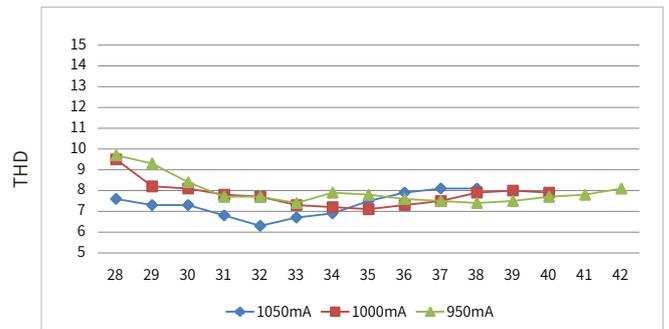
**BK-CWL040-1000A**

Efficiency vs voltage



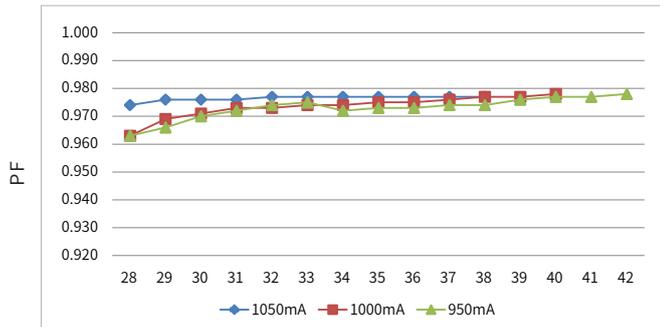
voltage(V)

THD vs. voltage



voltage(V)

Power factor vs. voltage

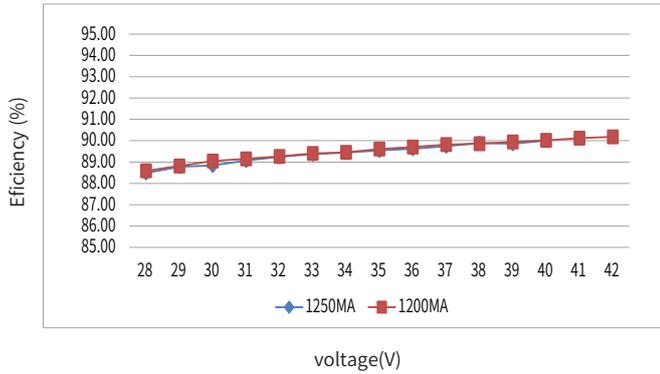


voltage(V)

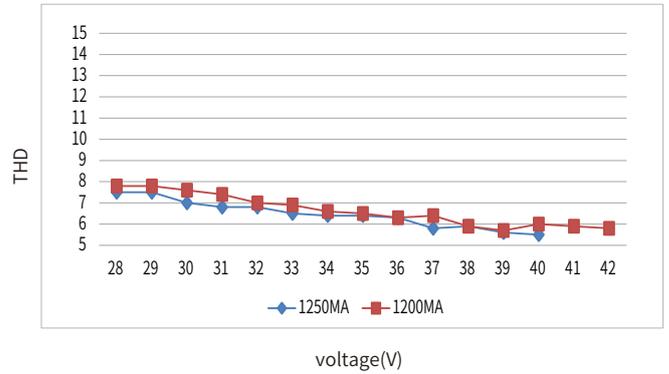
Electrical values

**BK-CWL050-1250A**

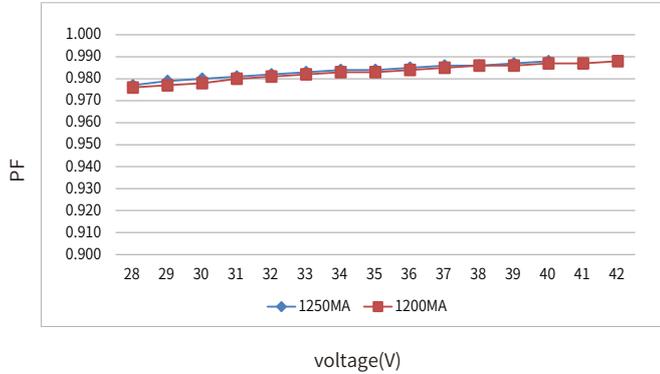
Efficiency vs voltage



THD vs. voltage

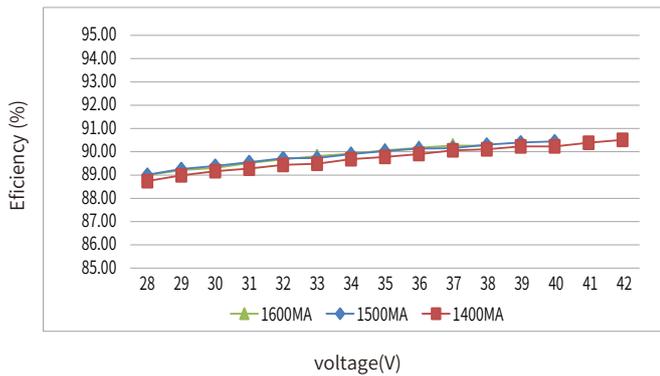


Power factor vs. voltage

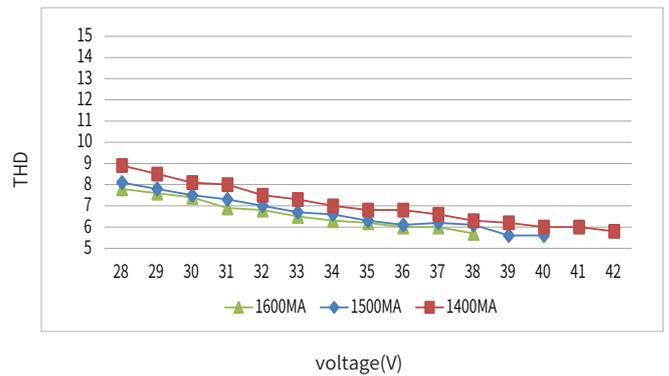


**BK-CWL060-1600A**

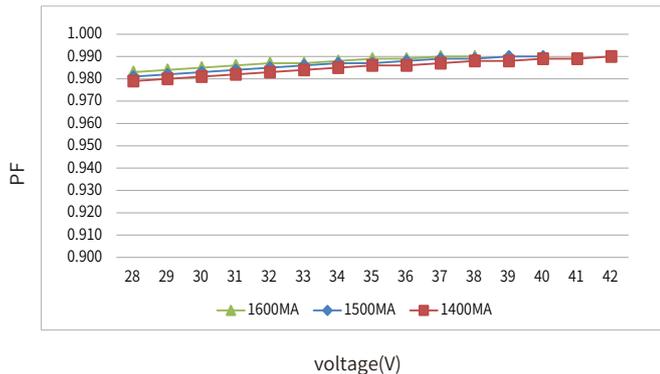
Efficiency vs voltage



THD vs. voltage



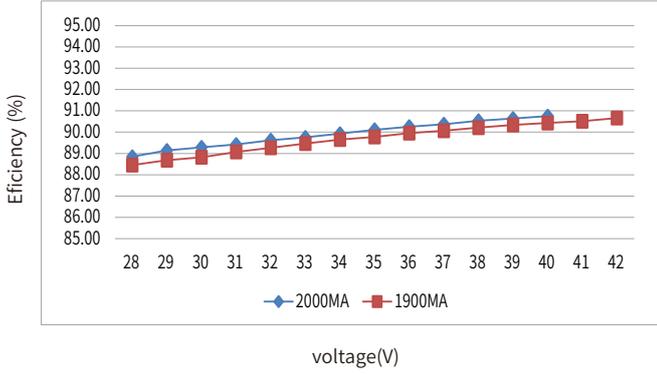
Power factor vs. voltage



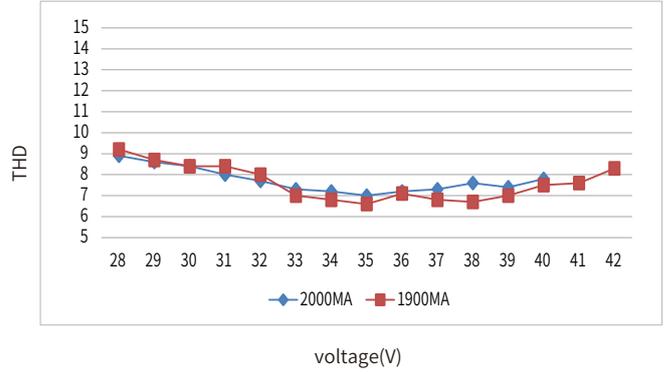
**Electrical values**

**BK-CWL080-2000A**

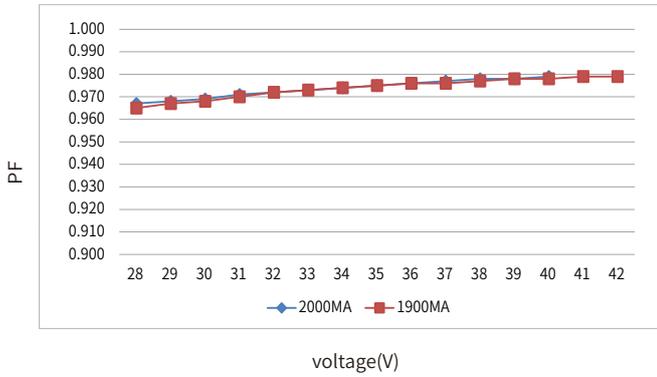
Efficiency vs voltage



THD vs. voltage



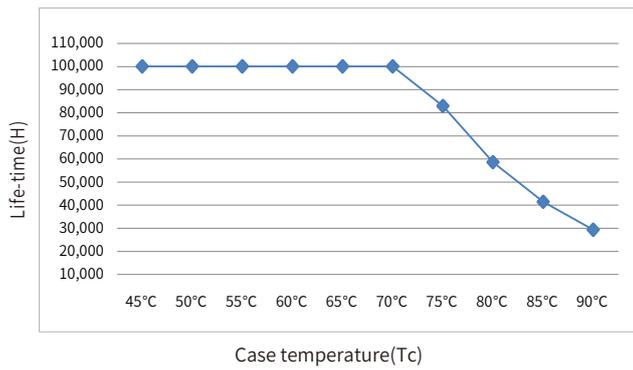
Power factor vs. voltage



**Expected life-time**

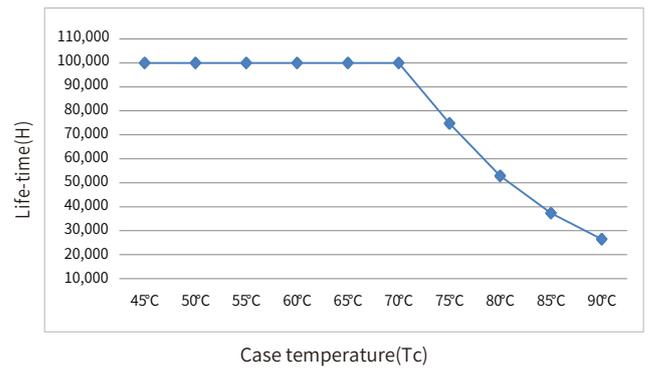
**BK-CWL009-B0250A**

Life-time vs. case temperature



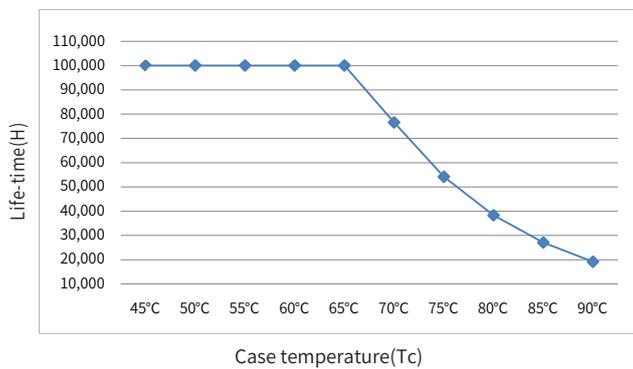
**BK-CWL013-B0350A**

Life-time vs. case temperature



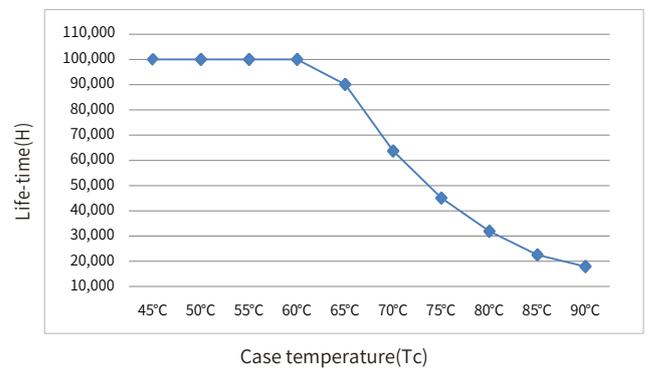
**BK-CWL018-B0450A**

Life-time vs. case temperature



**BK-CWL022-B0600A**

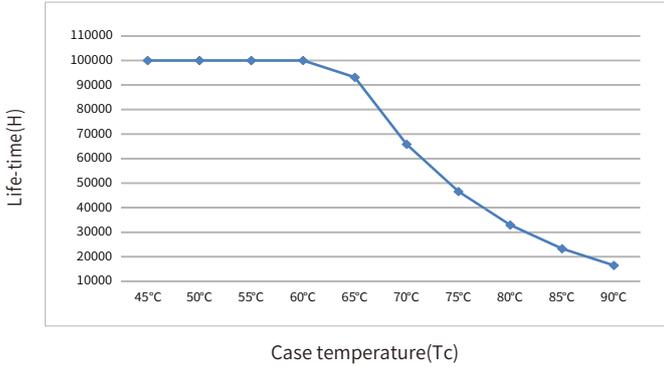
Life-time vs. case temperature



**Expected life-time**

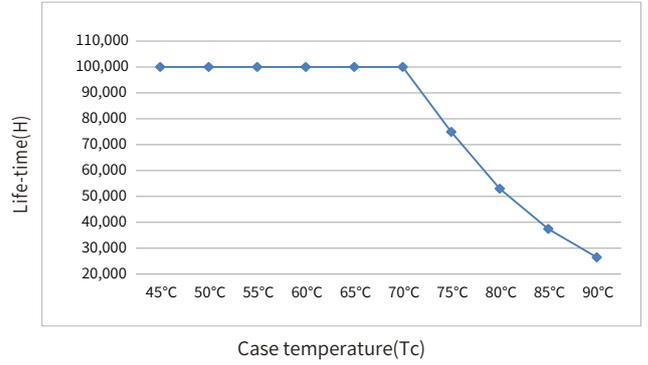
**BK-CWL030-0750A**

Life-time vs. case temperature



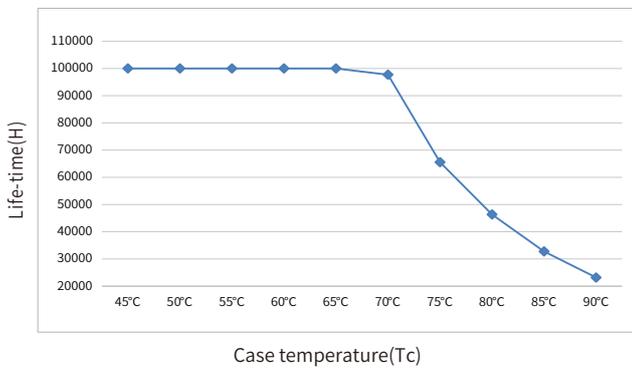
**BK-CWL040-1000A**

Life-time vs. case temperature



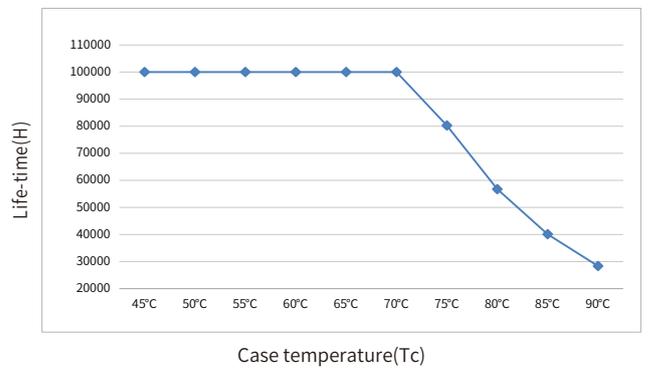
**BK-CWL050-1250A**

Life-time vs. case temperature



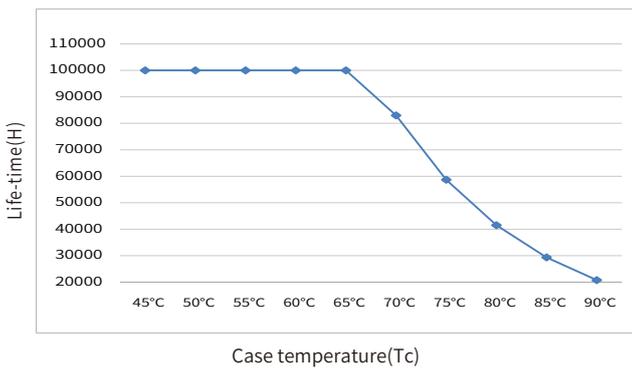
**BK-CWL060-1600A**

Life-time vs. case temperature



**BK-CWL080-2000A**

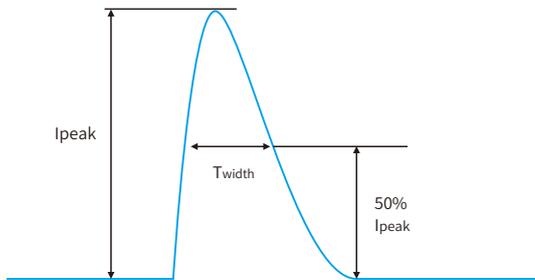
Life-time vs. case temperature



- The life-time of the LED driver is shown in the figure above (calculated based on the 90% survival rate).
- The relation of tc to ta temperature depends also on the luminaire design.

## Surge

Model	I <sub>peak</sub>	T <sub>width</sub>	Condition	Relative number of MCB														Unit: pcs
				B10	B13	B16	B20	B25	C10	C13	C16	C20	C25	D10	D13	D16	D20	
BK-CWL009-B0250A	4A	220us	AC 230V, Full load, Cold start, T <sub>a</sub> ≤ 30°C, MCB is not installed side by side	71	92	113	142	177	118	154	189	236	295	123	160	198	247	309
BK-CWL013-B0350A	4.18A	224us		66	86	105	132	165	99	129	159	199	248	99	129	159	199	248
BK-CWL018-B0450A	5.23A	242us		48	62	76	96	119	61	79	98	122	153	61	79	98	122	153
BK-CWL022-B0600A	5.23A	248us		48	62	76	96	119	61	79	98	122	153	61	79	98	122	153
BK-CWL030-0750A	17.8A	197us		18	23	28	35	44	29	38	47	59	74	45	58	71	89	112
BK-CWL040-1000A	20.5A	262us		11	15	18	23	28	19	24	30	38	47	35	46	56	70	88
BK-CWL050-1250A	23.1A	302us		8	11	13	16	20	14	18	22	27	34	27	35	44	55	68
BK-CWL060-1600A	27.3A	332us		6	10	12	15	19	13	16	20	25	31	23	30	38	47	59
BK-CWL080-2000A	19A	142us		18	23	28	36	44	18	23	28	36	44	18	23	28	36	44



### Remarks

- The number of drives mounted under different MCBs in the table is the maximum value. Please do not exceed this number during installation.
- Calculation uses typical values from ABB series S200 as a reference.
- Different brands and models of miniature circuit breakers, the number of drives mounted will be slightly different.
- If the ambient temperature of the MCB installation exceeds 30°C or multiple MCBs are installed side by side, the number of drives mounted will be reduced and the calculation needs to be recalculated.
- Electrician's usually consider Type B for household lighting and Type C for commercial lighting application.

## Functions

### Output short-circuit behaviour

- Output short-circuit will not damage the driver.
- After removing the short-circuit fault point, the drive will automatically restore output.

### Output no-load operation

- Output no-load will not damage the driver.
- Please turn off the power supply of the driver first if you need to connect the LED load.

Label

CWL009

<b>INPUT</b>	<p>Constant Current LED Driver  <b>MODEL: BK-CWL009-B0250A</b>                  INPUT: 200-240V <math>\approx</math> 0/50/60Hz 0.15A Max. <math>\lambda</math>: 0.9C                  OUTPUT: 28-42V <math>\approx</math> 250mA 10.5W Max. 50VDC Max.                  For LED modules use only                  MADE IN CHINA                  www.bokedriver.com</p>		<b>OUTPUT</b> LED+ LED-
AC/L DC+ AC/N DC- NC PFI wire prep. 0.75-1.5mm <sup>2</sup> 8-9mm			

CWL013

<b>INPUT</b>	<p>Constant Current LED Driver  <b>MODEL: BK-CWL013-B0350A</b>                  INPUT: 200-240V <math>\approx</math> 0/50/60Hz 0.15A Max. <math>\lambda</math>: 0.9C                  OUTPUT: 28-40V <math>\approx</math> 350mA 14W Max. 50VDC Max.                  For LED modules use only                  MADE IN CHINA                  www.bokedriver.com</p>		<b>OUTPUT</b> LED+ LED-
AC/L DC+ AC/N DC- NC PFI wire prep. 0.75-1.5mm <sup>2</sup> 8-9mm			

CWL018

<b>INPUT</b>	<p>Constant Current LED Driver  <b>MODEL: BK-CWL018-B0450A</b>                  INPUT: 200-240V <math>\approx</math> 0/50/60Hz 0.2A Max. <math>\lambda</math>: 0.95                  OUTPUT: 28-40V <math>\approx</math> 450mA 18W Max. 50VDC Max.                  For LED modules use only                  MADE IN CHINA                  www.bokedriver.com</p>		<b>OUTPUT</b> LED+ LED-
AC/L DC+ AC/N DC- NC PFI wire prep. 0.75-1.5mm <sup>2</sup> 8-9mm			

CWL022

<b>INPUT</b>	<p>Constant Current LED Driver  <b>MODEL: BK-CWL022-B0600A</b>                  INPUT: 200-240V <math>\approx</math> 0/50/60Hz 0.2A Max. <math>\lambda</math>: 0.95                  OUTPUT: 28-38V <math>\approx</math> 600mA 22.8W Max. 50VDC Max.                  For LED modules use only                  MADE IN CHINA                  www.bokedriver.com</p>		<b>OUTPUT</b> LED+ LED-
AC/L DC+ AC/N DC- NC PFI wire prep. 0.75-1.5mm <sup>2</sup> 8-9mm			

CWL030

<b>INPUT</b>	<p>Constant Current LED Driver  <b>MODEL: BK-CWL030-0750A</b>                  INPUT: 200-240V <math>\approx</math> 50/60Hz 0.3A Max. <math>\lambda</math>: 0.95                  OUTPUT: 28-42V <math>\approx</math> 750mA 31.5W Max.                  50VDC Max.                  For LED modules use only                  MADE IN CHINA                  www.bokedriver.com</p>		<b>OUTPUT</b> LED+ LED-
AC-L AC-N NC PFI wire prep. 0.75-1.5mm <sup>2</sup> 8-9mm			

CWL040

<b>INPUT</b>	<p>Constant Current LED Driver  <b>MODEL: BK-CWL040-1000A</b>                  INPUT: 200-240V <math>\approx</math> 50/60Hz 0.35A Max. <math>\lambda</math>: 0.95                  OUTPUT: 28-40V <math>\approx</math> 1000mA 40W Max.                  50VDC Max.                  For LED modules use only                  MADE IN CHINA                  www.bokedriver.com</p>		<b>OUTPUT</b> LED+ LED-
AC-L AC-N NC PFI wire prep. 0.75-1.5mm <sup>2</sup> 8-9mm			

CWL050

<b>INPUT</b>	<p>Constant Current LED Driver  <b>MODEL: BK-CWL050-1250A</b>                  INPUT: 200-240V <math>\approx</math> 50/60Hz 0.4A Max. <math>\lambda</math>: 0.95                  OUTPUT: 28-40V <math>\approx</math> 1250mA 50W Max.                  50VDC Max.                  For LED modules use only                  MADE IN CHINA                  www.bokedriver.com</p>		<b>OUTPUT</b> LED+ LED-
AC-L AC-N NC PFI wire prep. 0.75-1.5mm <sup>2</sup> 8-9mm			

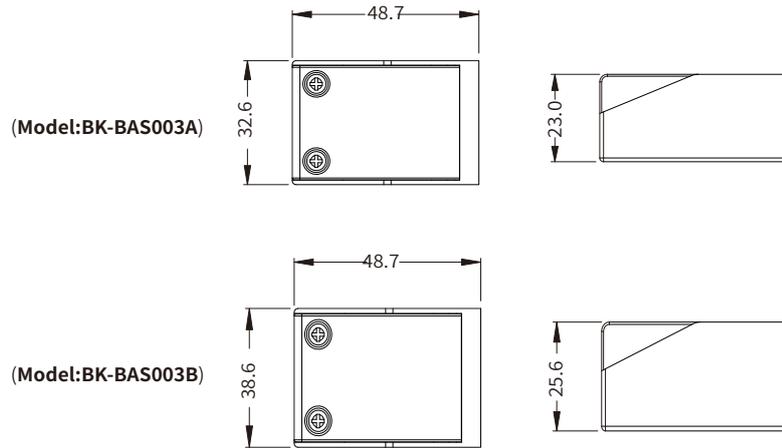
CWL060

<b>INPUT</b>	<p>Constant Current LED Driver  <b>MODEL: BK-CWL060-1500A</b>                  INPUT: 200-240V <math>\approx</math> 50/60Hz 0.45A Max. <math>\lambda</math>: 0.95                  OUTPUT: 28-40V <math>\approx</math> 1500mA 60W Max.                  50VDC Max.                  For LED modules use only                  MADE IN CHINA                  www.bokedriver.com</p>		<b>OUTPUT</b> LED+ LED-
AC-L AC-N NC PFI wire prep. 0.75-1.5mm <sup>2</sup> 8-9mm			

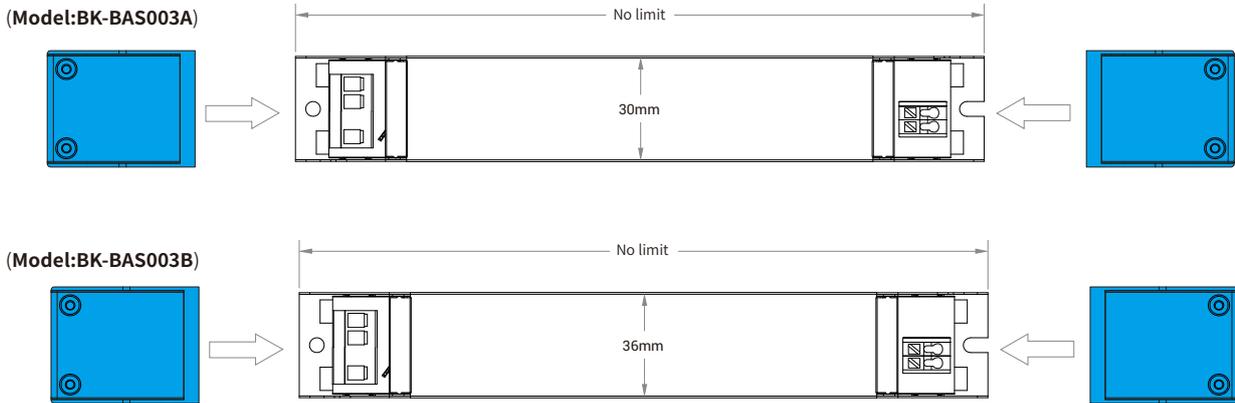
CWL080

<b>INPUT</b>	<p>Constant Current LED Driver  <b>MODEL: BK-CWL080-2000A</b>                  INPUT: 200-240V <math>\approx</math> 50/60Hz 0.5A Max. <math>\lambda</math>: 0.95                  OUTPUT: 28-40V <math>\approx</math> 2000mA 80W Max. 50VDC Max.                  For LED modules use only                  MADE IN CHINA                  www.bokedriver.com</p>		<b>OUTPUT</b> LED+ LED-
AC-L AC-N NC PFI wire prep. 0.75-1.5mm <sup>2</sup> 8-9mm			

Optional accessories



Installation diagram of accessories

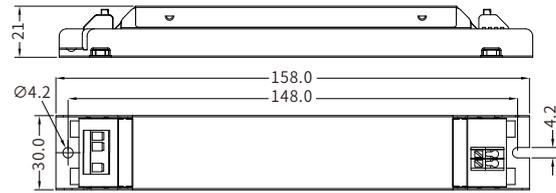


### Mechanical Specification

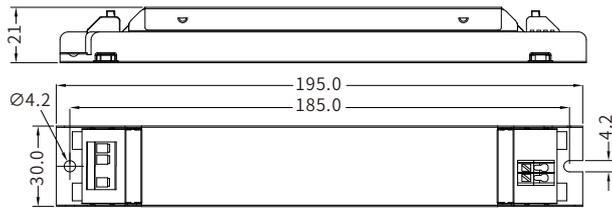
#### Size(Excluding accessories)

Unit:mm

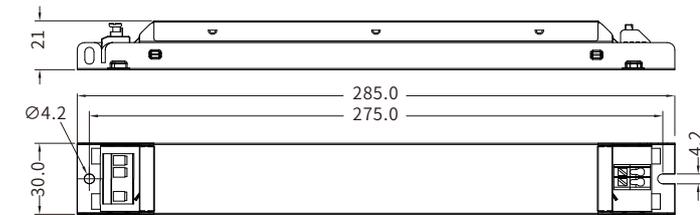
CWL009/CWL013/CWL018/CWL022



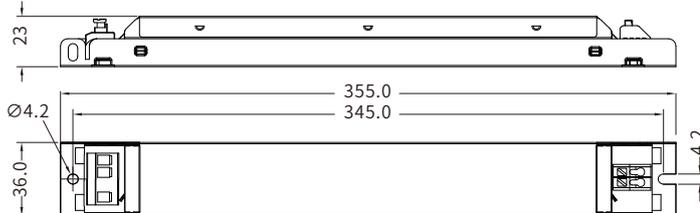
CWL030/CWL040



CWL050/CWL060



CWL080

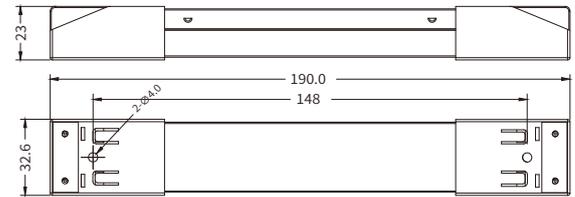


### Mechanical Specification

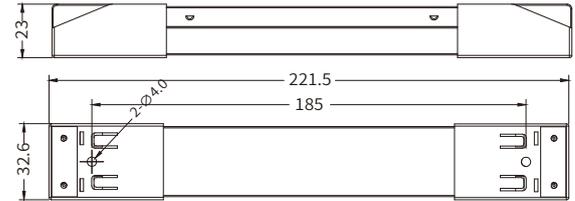
#### Size(Include accessories)

Unit:mm

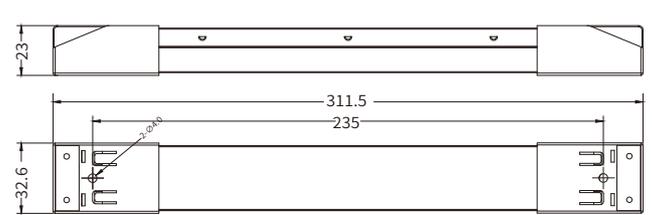
CWL009/CWL013/CWL018/CWL022



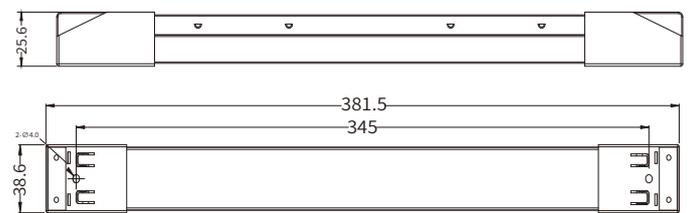
CWL030/CWL040



CWL050/CWL060



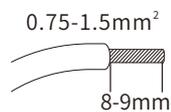
CWL080



#### INPUT

Number	function	colour
1	ACL	orange
2	ACN	orange
3	NC	gray
4	FG	gray

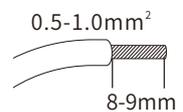
#### Input wire



#### OUTPUT

Number	function	colour
1	LED+	red
2	LED-	black

#### Output wire



### Installation note

#### Hot plug-in

- Hot plug-in is not supported due to residual output voltage of > 0 V.

#### Wiring guidelines

- All connections must be kept as short as possible to ensure good EMI behaviour.
- Mains leads should be kept apart from LED Driver and other leads (ideally 5 – 10 cm distance)
- Max. length of output wires is 2 m.
- Incorrect wiring can damage LED modules.

#### Mounting screw specifications and torque

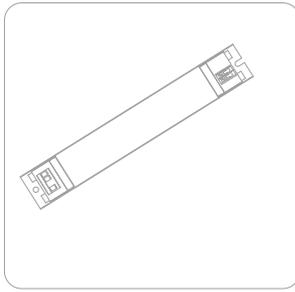
- Max. torque at the clamping screw: 0.5 Nm / M4

#### Replace LED module

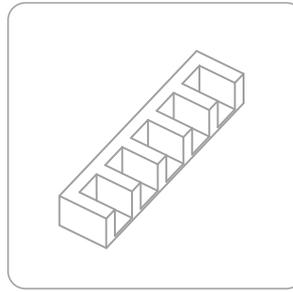
1. Mains off
2. Remove LED module
3. Wait for 5 seconds
4. Connect LED module again

## Packaging

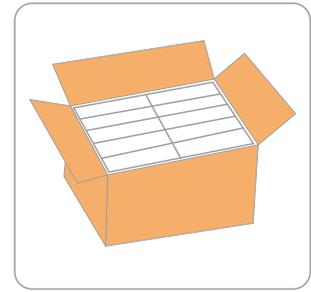
(Excluding accessories)



Product



Pearl wool

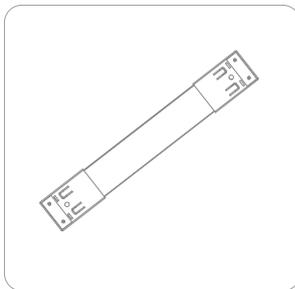


14pcs\*5layer=70pcs/CTN  
 10pcs\*4layer=40pcs/CTN  
 8pcs\*5layer=40pcs/CTN  
 7pcs\*4layer=28pcs/CTN

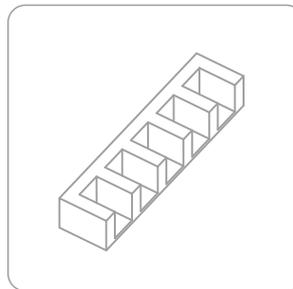
Model	Product size	Weight	Pearl wool	Carton size	Packing	N.W	G.W
CWL009	L158*W30*H21mm	91g	L319*W30*H75mm	L415*W330*H190mm	70pcs	6.37kg	8.30kg
CWL013	L158*W30*H21mm	91g	L319*W30*H75mm	L415*W330*H190mm	70pcs	6.37kg	8.30kg
CWL018	L158*W30*H21mm	95g	L319*W30*H75mm	L415*W330*H190mm	70pcs	6.65kg	8.60kg
CWL022	L158*W30*H21mm	105g	L319*W30*H75mm	L415*W330*H190mm	70pcs	7.50kg	9.80kg
CWL030	L195*W30*H21mm	150g	L285*W66.3*H50mm	L465*W285*H230mm	40pcs	6.00kg	8.50kg
CWL040	L195*W30*H21mm	150g	L285*W66.3*H50mm	L465*W285*H230mm	40pcs	6.00kg	8.50kg
CWL050	L285*W30*H21mm	200g	L405*W30*H65mm	L415*W330*H190mm	40pcs	8.00kg	10.5kg
CWL060	L285*W30*H21mm	235g	L405*W30*H65mm	L415*W330*H190mm	40pcs	9.50kg	12.0kg
CWL080	L355*W36*H23mm	380g	L364*W28*H105mm	L435*W375*H150mm	28pcs	10.7kg	13.0kg

## Packaging

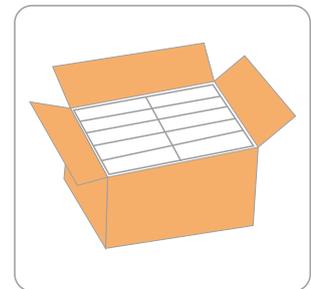
(Include accessories)



Product



Pearl wool



10pcs\*4layer=40pcs/CTN  
 8pcs\*5layer=40pcs/CTN  
 7pcs\*4layer=28pcs/CTN

Model	Product size	Weight	Pearl wool	Carton size	Packing	N.W	G.W
CWL009	L190*W32.6*H23mm	111g	L285*W66.3*H50mm	L465*W285*H230mm	40pcs	4.44kg	6.74kg
CWL013	L190*W32.6*H23mm	111g	L285*W66.3*H50mm	L465*W285*H230mm	40pcs	4.44kg	6.74kg
CWL018	L190*W32.6*H23mm	115g	L285*W66.3*H50mm	L465*W285*H230mm	40pcs	4.60kg	6.90kg
CWL022	L190*W32.6*H23mm	125g	L285*W66.3*H50mm	L465*W285*H230mm	40pcs	5.00kg	7.30kg
CWL030	L221.5*W32.6*H23mm	170g	L285*W66.3*H50mm	L465*W285*H230mm	40pcs	6.80kg	9.50kg
CWL040	L221.5*W32.6*H23mm	170g	L285*W66.3*H50mm	L465*W285*H230mm	40pcs	6.80kg	9.50kg
CWL050	L311.5*W32.6*H23mm	220g	L435*W30*H65mm	L450*W350*H180mm	40pcs	8.80kg	11.5kg
CWL060	L311.5*W32.6*H23mm	255g	L435*W30*H65mm	L450*W350*H180mm	40pcs	10.2kg	12.5kg
CWL080	L381.5*W38.6*H25.6mm	405g	L405*W30*H65mm	L435*W375*H150mm	28pcs	11.5kg	13.5kg

### Additional information

1. The life and MTBF of the product are for reference only, and do not represent a warranty statement. If the drive has been turned on, there is no warranty.
2. For more information, please send an email to [info@bokedriver.com](mailto:info@bokedriver.com).