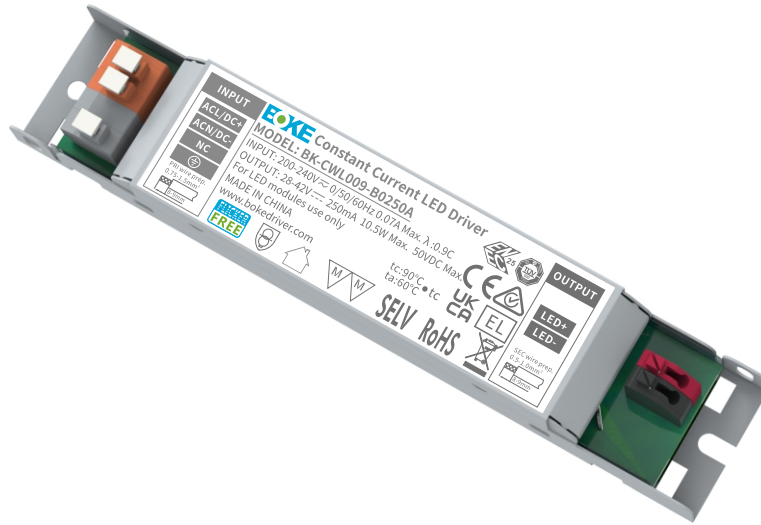


Constant current linear driver
CWL Series



Features

- Output flick-free, meets the new requirements of ErP certification
- High PF, high efficiency, 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 luminaires
- Passed CE, ENEC, UKCA, RCM, CCC, EL and other certifications
- IP20 protection grade, indoor use
- Nominal life-time up to 100,000 h
- 5.5-year guarantee

Functions

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

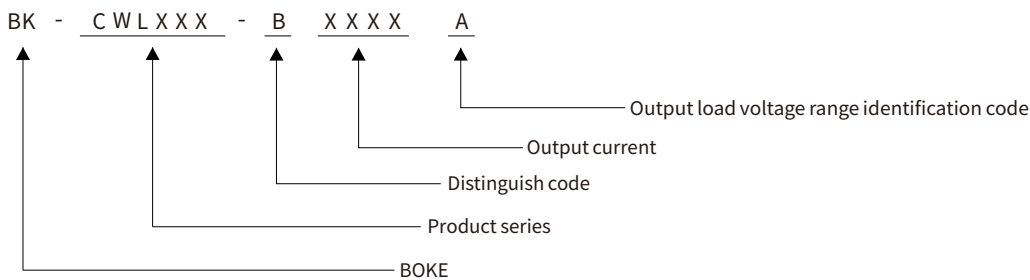
Suitable for lights

- Suitable for linear lights, tri-proof lights, working lights, bracket lights and other linear or ultra-thin lights etc.

Typical applications

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

Model coding rules of CWL series



Model list

Model	Input voltage	Output power	Output voltage	Output current	Dimension
BK-CWL009-BxxxxA	200-240VAC/DC	10.5W MAX.	28-42VDC	0.15-0.25A	L158*W30*H21mm
BK-CWL013-BxxxxA	200-240VAC/DC	14.0W MAX.	28-40/42VDC	0.3-0.35A	L158*W30*H21mm
BK-CWL018-BxxxxA	200-240VAC/DC	18.0W MAX.	28-40/42VDC	0.35-0.45A	L158*W30*H21mm
BK-CWL022-BxxxxA	200-240VAC/DC	22.8W MAX.	28-38/40/42VDC	0.45-0.6A	L158*W30*H21mm
BK-CWL030-BxxxxA	200-240VAC/DC	31.5W MAX.	28-42VDC	0.55-0.75A	L195*W30*H21mm
BK-CWL040-BxxxxA	200-240VAC/DC	40.0W MAX.	28-38/40/42VDC	0.8-1.05A	L195*W30*H21mm
BK-CWL050-BxxxxA	200-240VAC/DC	50.4W MAX.	28-40/42VDC	1-1.25A	L285*W30*H21mm
BK-CWL060-BxxxxA	200-240VAC/DC	62.7W MAX.	28-38/40/42VDC	1.25-1.65A	L285*W30*H21mm
BK-CWL080-BxxxxA	200-240VAC/DC	80.0W MAX.	28-40/41/42VDC	1.5-2A	L355*W30*H21mm

Technical data

Product model	BK-CWL009-B0250A
Output parameters	
Regulation method	Constant Current
Rated output current range	0.15-0.25A
Rated output voltage range	28-42VDC
Rated output power	10.5W Max
Output current adjustment	Fixed output
Output current ripple LF	±3%
Output current accuracy	±5%
Linear regulation	±5%
Load regulation	±5%
No load output voltage	50VDC
Flicker-free(typ.)	Flickering percent(IEEE 1789)=0.211%(100Hz), Flicker index(IEEE 1789)=0.001(100Hz), Pst LM = 0.071, SVM = 0.005, (The above parameters are obtained from testing the panel lights)
Input parameters	
Rated input voltage	200-240VAC 200-240VDC
Input voltage range	180-264VAC 180-264VDC
Input voltage shock	<380 V AC
Input current	<0.07A (Rated input voltage)
Input frequency	0/50/60Hz
Input PF/Input DF(typ.)	PF: 0.95,DF: 0.96 ,see the electrical values below for details
Input THD(typ.)	11% ,see the electrical values below for details
Efficiency(typ.)	83% ,see the electrical values below for details
In-rush current(typ.)	8A 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	> 100,000 switching cycles
Power consumption(typ.)	Full load(Pin):12.7W, No load(Pno): N/A, On stand-by(Psb) : N/A, Network stand-by(Pnet) : N/A
Safety	
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(90°/270° , 5 times each with an interval of 60s)(Performance criterion:B)
Leakage current(typ.)	0.29mA
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH
Control interface	
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
Emergency support	
Central emergency system	Supported
Self-contained emergency	Supported
Environment & Life time	
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, Normal operation)
Environmental protection	RoHS
Certifications and standards	
Certification	CE,ENEC,UKCA,RCM,CCC,EL
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, 50Hz, full load and 25°C of ambient temperature.

Technical data

Product model	BK-CWL013-B0300A	BK-CWL013-B0350A	
Output parameters			
Regulation method	Constant Current	Constant Current	
Rated output current range	0.3A	0.35A	
Rated output voltage range	28-42VDC	28-40VDC	
Rated output power	12.6W Max	14W Max	
Output current adjustment	Fixed output		
Output current ripple LF	±3%		
Output current accuracy	±5%		
Linear regulation	±5%		
Load regulation	±5%		
No load output voltage	50VDC		
Flicker-free(typ.)	Flickering percent(IEEE 1789)=0.256%(100Hz), Flicker index(IEEE 1789)=0.002(100Hz), Pst LM = 0.071, SVM = 0.005, (The above parameters are obtained from testing the panel lights)		
Input parameters			
Rated input voltage	200-240VAC 200-240VDC		
Input voltage range	180-264VAC 180-264VDC		
Input voltage shock	<380 VAC		
Input current	<0.09A (Rated input voltage)		
Input frequency	0/50/60Hz		
Input PF/Input DF(typ.)	PF: 0.96,DF: 0.97 ,see the electrical values below for details		
Input THD(typ.)	10% ,see the electrical values below for details		
Efficiency(typ.)	83.5% ,see the electrical values below for details		
In-rush current(typ.)	8.36A 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	> 100,000 switching cycles		
Power consumption(typ.)	Full load(Pin):16.8W, No load(Pno): N/A, On stand-by(Psb) : N/A, Network stand-by(Pnet) : N/A		
Safety			
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(90°/270° , 5 times each with an interval of 60s)(Performance criterion:B)		
Leakage current(typ.)	0.55mA		
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH		
Control interface			
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		
Emergency support			
Central emergency system	Supported		
Self-contained emergency	Supported		
Environment & Life time			
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, Normal operation)		
Environmental protection	RoHS		
Certifications and standards			
Certification	CE,ENEC,UKCA,RCM,CCC,EL		
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, 50Hz, full load and 25°C of ambient temperature.

Technical data

Product model	BK-CWL018-B0400A	BK-CWL018-B0450A	
Output parameters			
Regulation method	Constant Current	Constant Current	
Rated output current range	0.35-0.4A	0.45A	
Rated output voltage range	28-42VDC	28-40VDC	
Rated output power	16.8W Max	18W Max	
Output current adjustment	Fixed output		
Output current ripple LF	±3%		
Output current accuracy	±5%		
Linear regulation	±5%		
Load regulation	±5%		
No load output voltage	50VDC		
Flicker-free(typ.)	Flickering percent(IEEE 1789)=0.242%(100Hz), Flicker index(IEEE 1789)=0.001(100Hz), Pst LM = 0.031, SVM = 0.005, (The above parameters are obtained from testing the panel lights)		
Input parameters			
Rated input voltage	200-240VAC 200-240VDC		
Input voltage range	180-264VAC 180-264VDC		
Input voltage shock	<380 VAC		
Input current	<0.11A (Rated input voltage)		
Input frequency	0/50/60Hz		
Input PF/Input DF(typ.)	PF: 0.97,DF: 0.98 ,see the electrical values below for details		
Input THD(typ.)	8% ,see the electrical values below for details		
Efficiency(typ.)	86% ,see the electrical values below for details		
In-rush current(typ.)	10.4A 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	> 100,000 switching cycles		
Power consumption(typ.)	Full load(Pin):20.9W, No load(Pno): N/A, On stand-by(Psb) : N/A, Network stand-by(Pnet) : N/A		
Safety			
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(90°/270° , 5 times each with an interval of 60s)(Performance criterion:B)		
Leakage current(typ.)	0.26mA		
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH		
Control interface			
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		
Emergency support			
Central emergency system	Supported		
Self-contained emergency	Supported		
Environment & Life time			
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, Normal operation)		
Environmental protection	RoHS		
Certifications and standards			
Certification	CE,ENEC,UKCA,RCM,CCC,EL		
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, 50Hz, full load and 25°C of ambient temperature.

Technical data

Product model	BK-CWL022-B0500A	BK-CWL022-B0550A	BK-CWL022-B0600A
Output parameters			
Regulation method	Constant Current	Constant Current	Constant Current
Rated output current range	0.45-0.5A	0.55A	0.6A
Rated output voltage range	28-42VDC	28-40VDC	28-38VDC
Rated output power	21W Max	22W Max	22.8W Max
Output current adjustment	Fixed output		
Output current ripple LF	±3%		
Output current accuracy	±5%		
Linear regulation	±5%		
Load regulation	±5%		
No load output voltage	50VDC		
Flicker-free(typ.)	Flickering percent(IEEE 1789)=0.280%(100Hz), Flicker index(IEEE 1789)=0.002(100Hz), Pst LM = 0.031, SVM = 0.005, (The above parameters are obtained from testing the panel lights)		
Input parameters			
Rated input voltage	200-240VAC 200-240VDC		
Input voltage range	180-264VAC 180-264VDC		
Input voltage shock	<380 VAC		
Input current	<0.15A (Rated input voltage)		
Input frequency	0/50/60Hz		
Input PF/Input DF(typ.)	PF: 0.97,DF: 0.98 ,see the electrical values below for details		
Input THD(typ.)	14% ,see the electrical values below for details		
Efficiency(typ.)	85.5% ,see the electrical values below for details		
In-rush current(typ.)	10.5A 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	> 100,000 switching cycles		
Power consumption(typ.)	Full load(Pin):26.7W, No load(Pno): N/A, On stand-by(Psb) : N/A, Network stand-by(Pnet) : N/A		
Safety			
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(90°/270° , 5 times each with an interval of 60s)(Performance criterion:B)		
Leakage current(typ.)	0.42mA		
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH		
Control interface			
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		
Emergency support			
Central emergency system	Supported		
Self-contained emergency	Supported		
Environment & Life time			
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, Normal operation)		
Environmental protection	RoHS		
Certifications and standards			
Certification	CE,ENEC,UKCA,RCM,CCC,EL		
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, 50Hz, full load and 25°C of ambient temperature.

Technical data

Product model	BK-CWL030-B0750A
Output parameters	
Regulation method	Constant Current
Rated output current range	0.55-0.75A
Rated output voltage range	28-42VDC
Rated output power	31.5W Max
Output current adjustment	Fixed output
Output current ripple LF	±3%
Output current accuracy	±5%
Linear regulation	±5%
Load regulation	±5%
No load output voltage	50VDC
Flicker-free(typ.)	Flickering percent(IEEE 1789)=0.136%(100Hz), Flicker index(IEEE 1789)=0.000(100Hz), Pst LM = 0.000, SVM = 0.001, (The above parameters are obtained from testing the panel lights)
Input parameters	
Rated input voltage	200-240VAC 200-240VDC
Input voltage range	180-264VAC 180-264VDC
Input voltage shock	<380 V AC
Input current	<0.21A (Rated input voltage)
Input frequency	0/50/60Hz
Input PF/Input DF(typ.)	PF: 0.98,DF: 0.98 ,see the electrical values below for details
Input THD(typ.)	9% ,see the electrical values below for details
Efficiency(typ.)	89% ,see the electrical values below for details
In-rush current(typ.)	12.38A peak ,264us 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	> 100,000 switching cycles
Power consumption(typ.)	Full load(Pin):35.4W, No load(Pno): N/A, On stand-by(Psb) : N/A, Network stand-by(Pnet) : N/A
Safety	
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:4KV(90°/270° , 5 times each with an interval of 60s)(Performance criterion:A)
Leakage current(typ.)	0.35mA
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH
Control interface	
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
Emergency support	
Central emergency system	Supported
Self-contained emergency	Supported
Environment & Life time	
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, Normal operation)
Environmental protection	RoHS
Certifications and standards	
Certification	CE,ENEC,UKCA,RCM,CCC,EL
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, 50Hz, full load and 25°C of ambient temperature.

Technical data

Product model	BK-CWL040-B0950A	BK-CWL040-B1000A	BK-CWL040-B1050A
Output parameters			
Regulation method	Constant Current	Constant Current	Constant Current
Rated output current range	0.8-0.95A	1A	1.05A
Rated output voltage range	28-42VDC	28-40VDC	28-38VDC
Rated output power	39.9W Max	40W Max	39.9W Max
Output current adjustment	Fixed output		
Output current ripple LF	±3%		
Output current accuracy	±5%		
Linear regulation	±5%		
Load regulation	±5%		
No load output voltage	50VDC		
Flicker-free(typ.)	Flickering percent(IEEE 1789)=0.153%(100Hz), Flicker index(IEEE 1789)=0.000(100Hz), Pst LM = 0.000, SVM = 0.002, (The above parameters are obtained from testing the panel lights)		
Input parameters			
Rated input voltage	200-240VAC 200-240VDC		
Input voltage range	180-264VAC 180-264VDC		
Input voltage shock	<380 V AC		
Input current	<0.24A (Rated input voltage)		
Input frequency	0/50/60Hz		
Input PF/Input DF(typ.)	PF: 0.98,DF: 0.98 ,see the electrical values below for details		
Input THD(typ.)	7% ,see the electrical values below for details		
Efficiency(typ.)	89% ,see the electrical values below for details		
In-rush current(typ.)	14.125A peak ,272us 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	> 100,000 switching cycles		
Power consumption(typ.)	Full load(Pin):44.9W, No load(Pno): N/A, On stand-by(Psb) : N/A, Network stand-by(Pnet) : N/A		
Safety			
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:4KV(90°/270° , 5 times each with an interval of 60s)(Performance criterion:A)		
Leakage current(typ.)	0.28mA		
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH		
Control interface			
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		
Emergency support			
Central emergency system	Supported		
Self-contained emergency	Supported		
Environment & Life time			
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, Normal operation)		
Environmental protection	RoHS		
Certifications and standards			
Certification	CE,ENEC,UKCA,RCM,CCC,EL		
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, 50Hz, full load and 25°C of ambient temperature.

Technical data

Product model	BK-CWL050-B1200A	BK-CWL050-B1250A	
Output parameters			
Regulation method	Constant Current	Constant Current	
Rated output current range	1-1.2A	1.25A	
Rated output voltage range	28-42VDC	28-40VDC	
Rated output power	50.4W Max	50W Max	
Output current adjustment	Fixed output		
Output current ripple LF	±3%		
Output current accuracy	±5%		
Linear regulation	±5%		
Load regulation	±5%		
No load output voltage	50VDC		
Flicker-free(typ.)	Flickering percent(IEEE 1789)=0.286%(100Hz), Flicker index(IEEE 1789)=0.001(100Hz), Pst LM = 0.011, SVM = 0.006, (The above parameters are obtained from testing the panel lights)		
Input parameters			
Rated input voltage	200-240VAC 200-240VDC		
Input voltage range	180-264VAC 180-264VDC		
Input voltage shock	<380 VAC		
Input current	<0.28A (Rated input voltage)		
Input frequency	0/50/60Hz		
Input PF/Input DF(typ.)	PF: 0.97,DF: 0.97 ,see the electrical values below for details		
Input THD(typ.)	9% ,see the electrical values below for details		
Efficiency(typ.)	89% ,see the electrical values below for details		
In-rush current(typ.)	18.3A peak ,300us 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	> 100,000 switching cycles		
Power consumption(typ.)	Full load(Pin):56.6W, No load(Pno): N/A, On stand-by(Psb) : N/A, Network stand-by(Pnet) : N/A		
Safety			
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(90°/270° , 5 times each with an interval of 60s)(Performance criterion:B)		
Leakage current(typ.)	0.43mA		
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH		
Control interface			
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		
Emergency support			
Central emergency system	Supported		
Self-contained emergency	Supported		
Environment & Life time			
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, Normal operation)		
Environmental protection	RoHS		
Certifications and standards			
Certification	CE,ENEC,UKCA,RCM,CCC,EL		
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, 50Hz, full load and 25°C of ambient temperature.

Technical data

Product model	BK-CWL060-B1450A	BK-CWL060-B1500A	BK-CWL060-B1650A
Output parameters			
Regulation method	Constant Current	Constant Current	Constant Current
Rated output current range	1.25-1.45A	1.5A	1.55-1.65A
Rated output voltage range	28-42VDC	28-40VDC	28-38VDC
Rated output power	60.9W Max	60W Max	62.7W Max
Output current adjustment	Fixed output		
Output current ripple LF	±3%		
Output current accuracy	±5%		
Linear regulation	±5%		
Load regulation	±5%		
No load output voltage	50VDC		
Flicker-free(typ.)	Flickering percent(IEEE 1789)=0.104%(100Hz), Flicker index(IEEE 1789)=0.001(100Hz), Pst LM = 0.008, SVM = 0.002, (The above parameters are obtained from testing the panel lights)		
Input parameters			
Rated input voltage	200-240VAC 200-240VDC		
Input voltage range	180-264VAC 180-264VDC		
Input voltage shock	<380 V AC		
Input current	<0.38A (Rated input voltage)		
Input frequency	0/50/60Hz		
Input PF/Input DF(typ.)	PF: 0.98,DF: 0.98 ,see the electrical values below for details		
Input THD(typ.)	7% ,see the electrical values below for details		
Efficiency(typ.)	90.5% ,see the electrical values below for details		
In-rush current(typ.)	27.6A peak ,300us 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	> 100,000 switching cycles		
Power consumption(typ.)	Full load(Pin):69.3W, No load(Pno): N/A, On stand-by(Psb) : N/A, Network stand-by(Pnet) : N/A		
Safety			
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(90°/270° , 5 times each with an interval of 60s)(Performance criterion:B)		
Leakage current(typ.)	0.53mA		
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH		
Control interface			
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		
Emergency support			
Central emergency system	Supported		
Self-contained emergency	Supported		
Environment & Life time			
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, Normal operation)		
Environmental protection	RoHS		
Certifications and standards			
Certification	CE,ENEC,UKCA,RCM,CCC,EL		
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, 50Hz, full load and 25°C of ambient temperature.

Technical data

Product model	BK-CWL080-B1900A	BK-CWL080-B1950A	BK-CWL080-B2000A
Output parameters			
Regulation method	Constant Current	Constant Current	Constant Current
Rated output current range	1.5-1.9A	1.95A	2A
Rated output voltage range	28-42VDC	28-41VDC	28-40VDC
Rated output power	79.8W Max	79.95W Max	80W Max
Output current adjustment	Fixed output		
Output current ripple LF	±3%		
Output current accuracy	±5%		
Linear regulation	±5%		
Load regulation	±5%		
No load output voltage	50VDC		
Flicker-free(typ.)	Flickering percent(IEEE 1789)=0.122%(100Hz), Flicker index(IEEE 1789)=0.000(100Hz), Pst LM = 0.000, SVM = 0.004, (The above parameters are obtained from testing the panel lights)		
Input parameters			
Rated input voltage	200-240VAC 200-240VDC		
Input voltage range	180-264VAC 180-264VDC		
Input voltage shock	<380 VAC		
Input current	<0.45A (Rated input voltage)		
Input frequency	0/50/60Hz		
Input PF/Input DF(typ.)	PF: 0.97,DF: 0.98 ,see the electrical values below for details		
Input THD(typ.)	9% ,see the electrical values below for details		
Efficiency(typ.)	90% ,see the electrical values below for details		
In-rush current(typ.)	33A peak ,330us 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	> 100,000 switching cycles		
Power consumption(typ.)	Full load(Pin):88.9W, No load(Pno): N/A, On stand-by(Psb) : N/A, Network stand-by(Pnet) : N/A		
Safety			
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(90°/270° , 5 times each with an interval of 60s)(Performance criterion:B)		
Leakage current(typ.)	0.57mA		
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH		
Control interface			
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		
Emergency support			
Central emergency system	Supported		
Self-contained emergency	Supported		
Environment & Life time			
Operating temperature	Ta=-20-60°C		
Case temperature	Tc=95°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, Normal operation)		
Environmental protection	RoHS		
Certifications and standards			
Certification	CE,ENEC,UKCA,RCM,CCC,EL		
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		

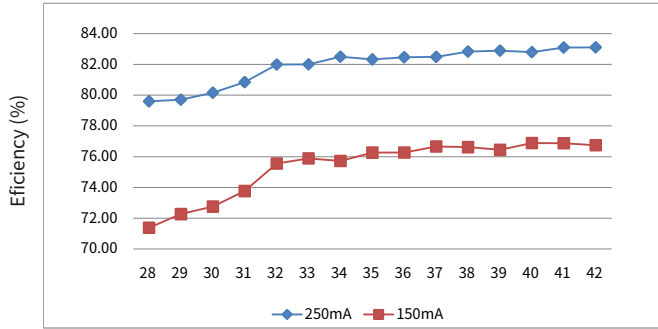
Remarks

1.By default, all parameter are measured at 230VAC input, 50Hz, full load and 25°C of ambient temperature.

Electrical values

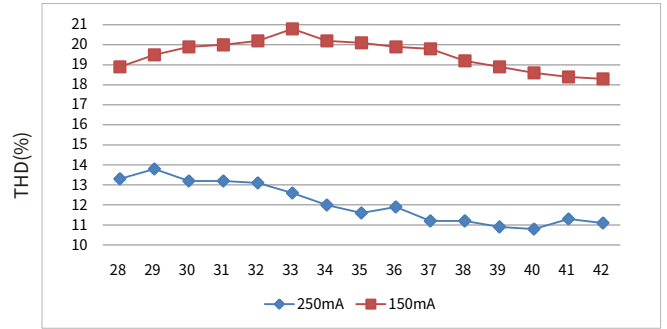
BK-CWL009-B

Efficiency vs voltage



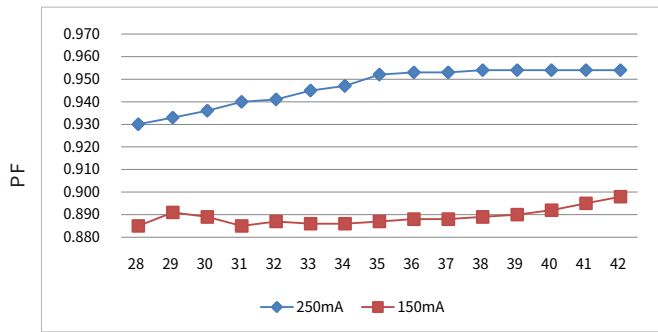
voltage(V)

THD vs. voltage



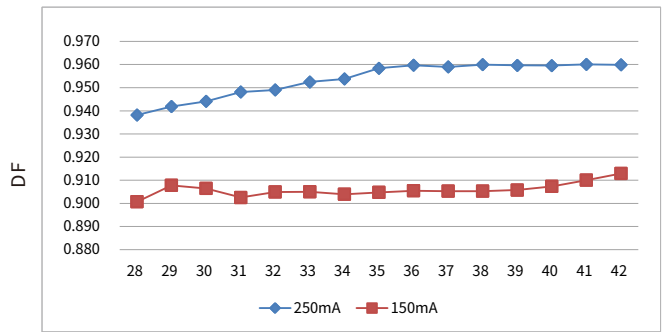
voltage(V)

Power factor vs. voltage



voltage(V)

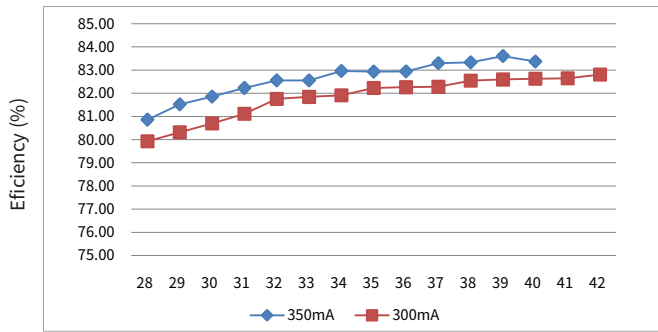
Displacement factor vs. voltage



voltage(V)

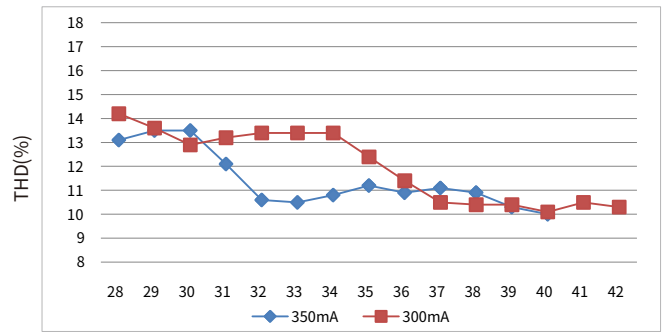
BK-CWL013-B

Efficiency vs voltage



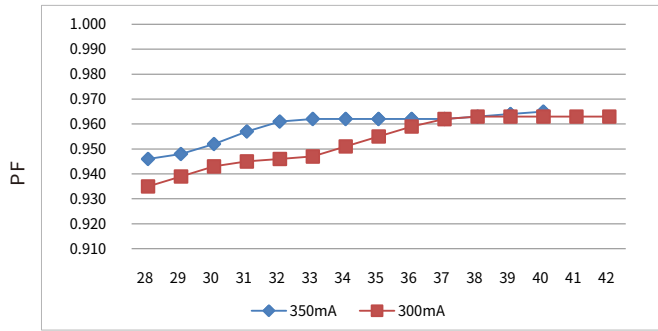
voltage(V)

THD vs. voltage



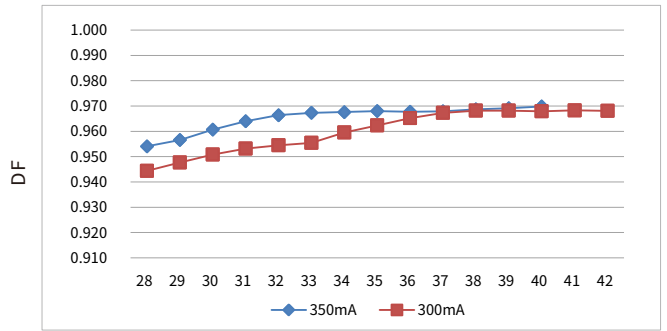
voltage(V)

Power factor vs. voltage



voltage(V)

Displacement factor vs. voltage

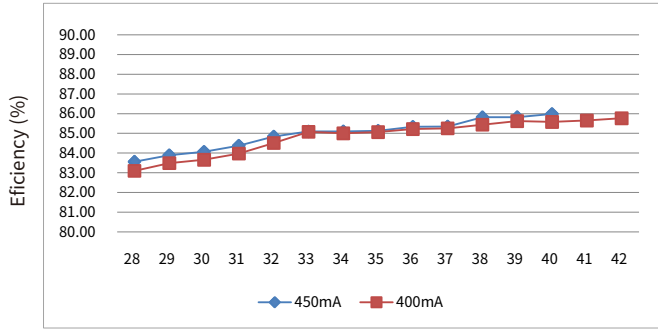


voltage(V)

Electrical values

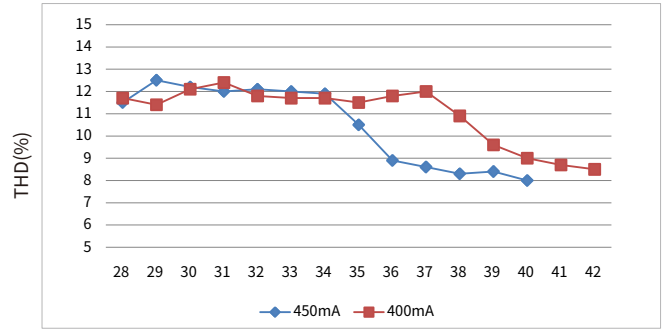
BK-CWL018-B

Efficiency vs voltage



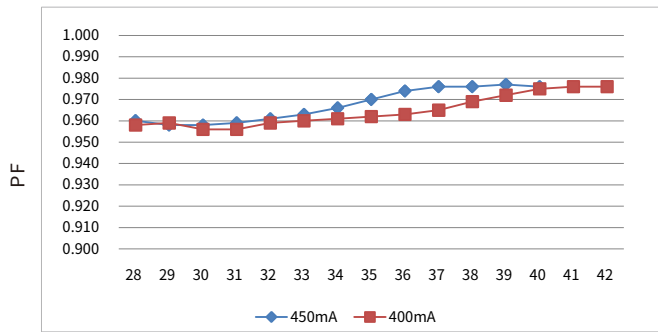
voltage(V)

THD vs. voltage



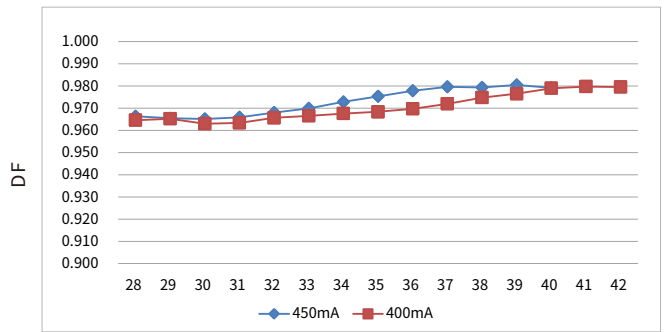
voltage(V)

Power factor vs. voltage



voltage(V)

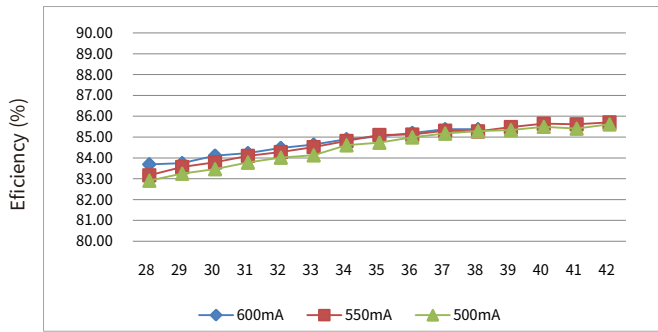
Displacement factor vs. voltage



voltage(V)

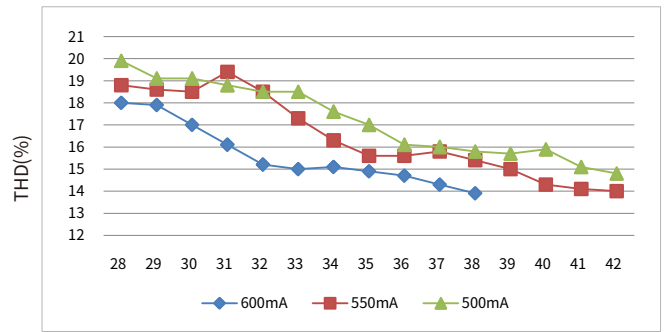
BK-CWL022-B

Efficiency vs voltage



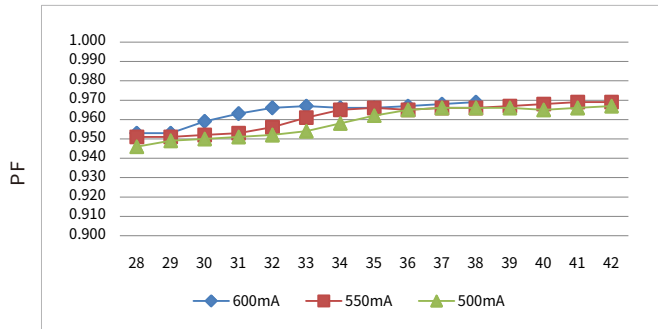
voltage(V)

THD vs. voltage



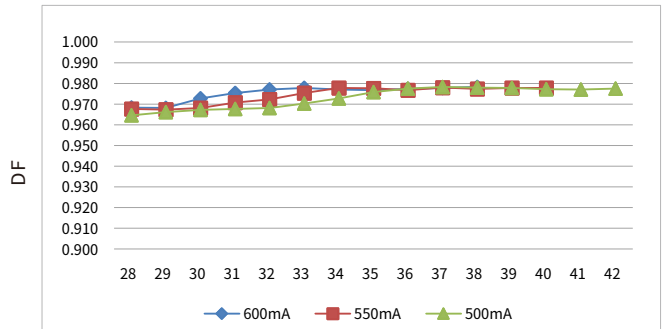
voltage(V)

Power factor vs. voltage



voltage(V)

Displacement factor vs. voltage

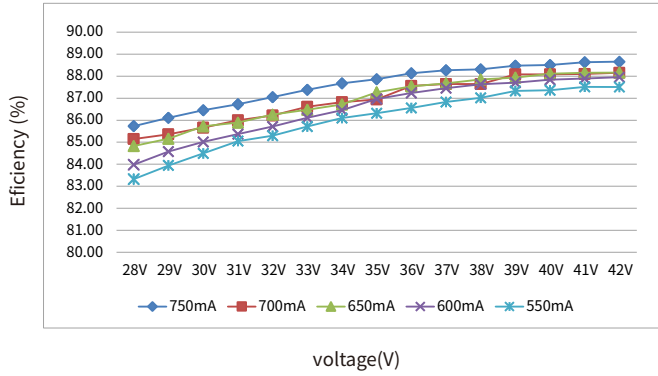


voltage(V)

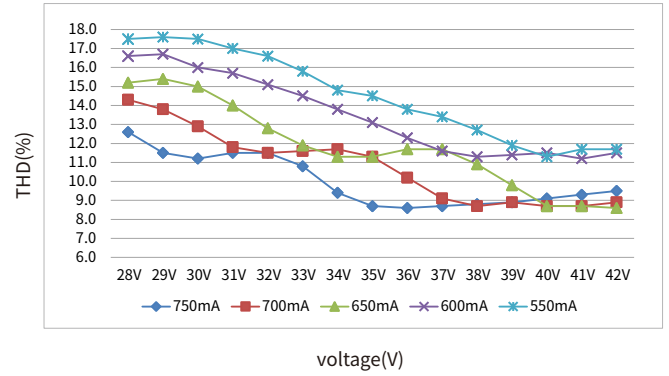
Electrical values

BK-CWL030-B

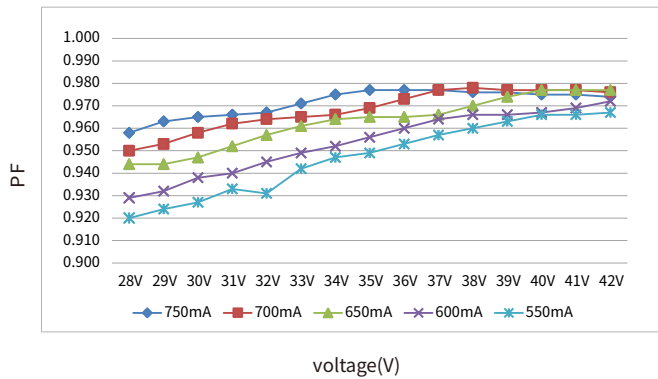
Efficiency vs voltage



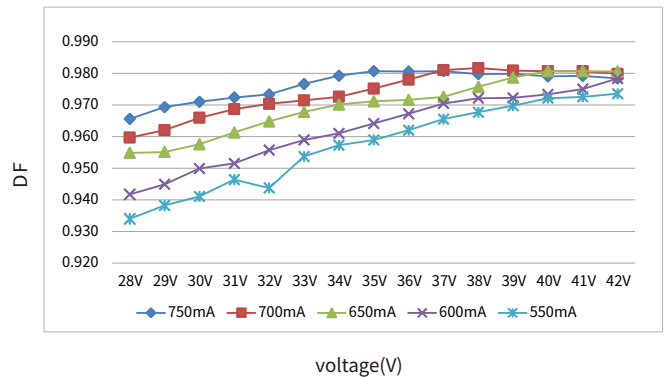
THD vs. voltage



Power factor vs. voltage

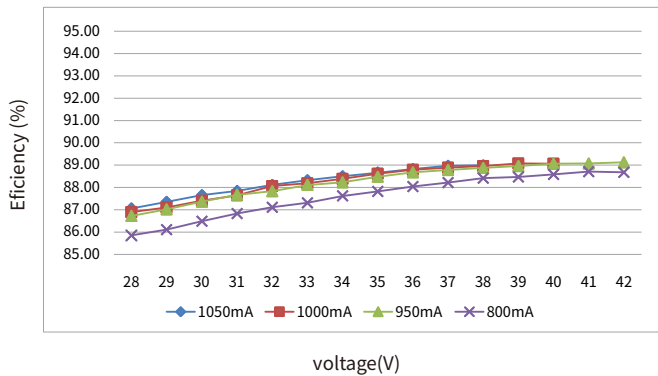


Displacement factor vs. voltage

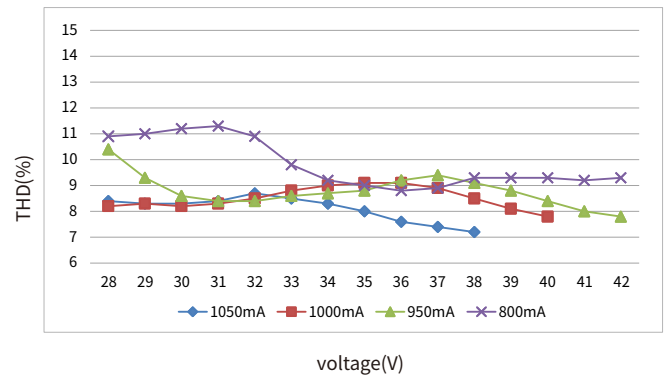


BK-CWL040-B

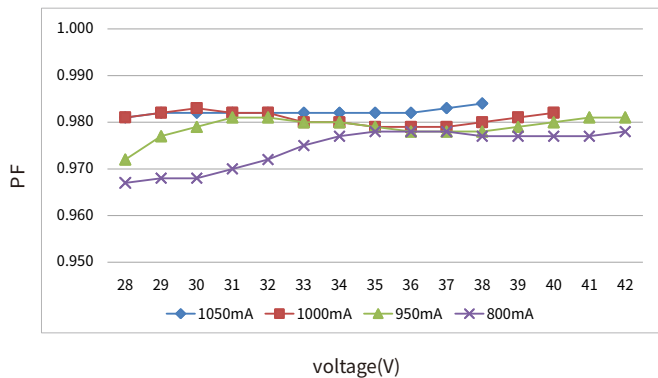
Efficiency vs voltage



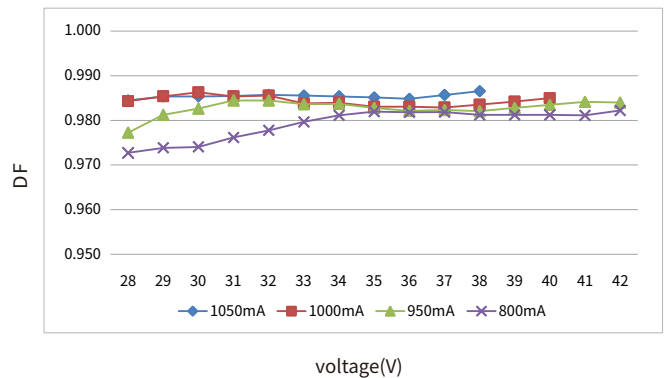
THD vs. voltage



Power factor vs. voltage



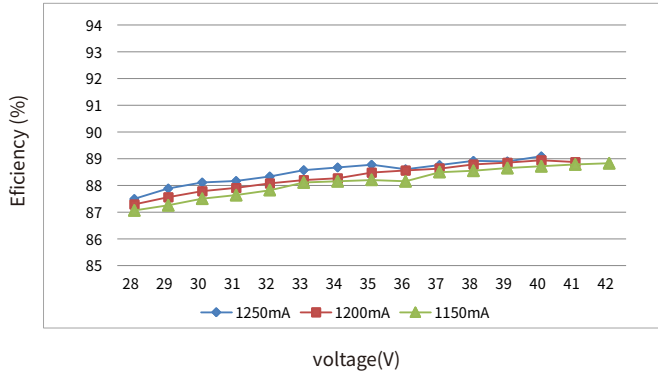
Displacement factor vs. voltage



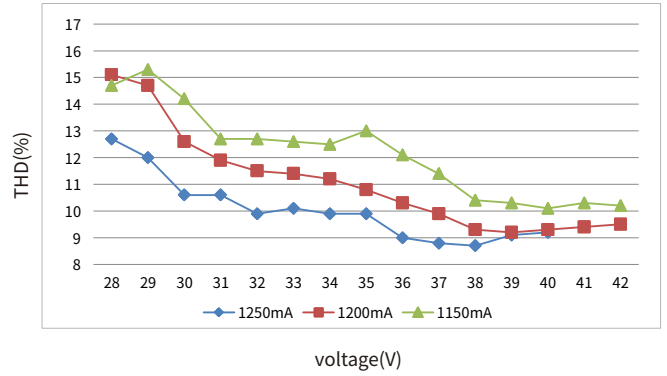
Electrical values

BK-CWL050-B

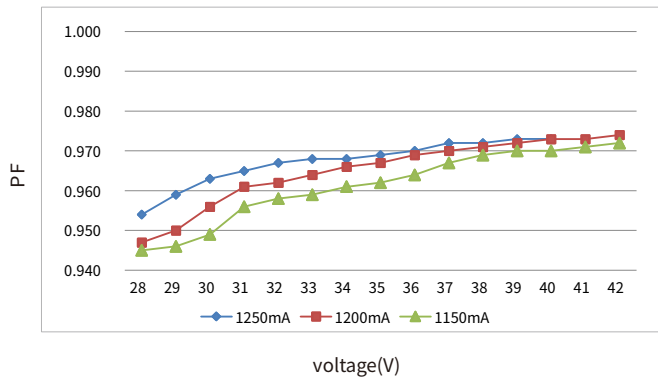
Efficiency vs voltage



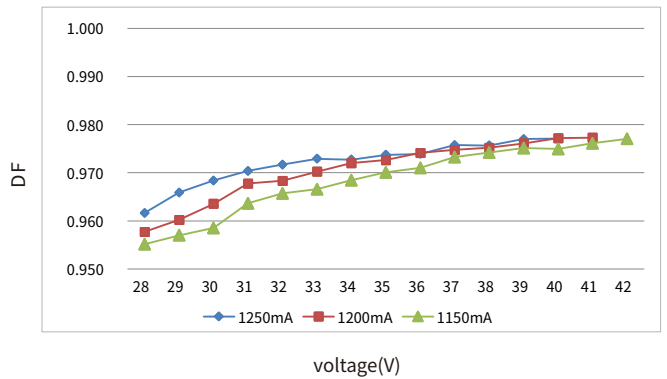
THD vs. voltage



Power factor vs. voltage

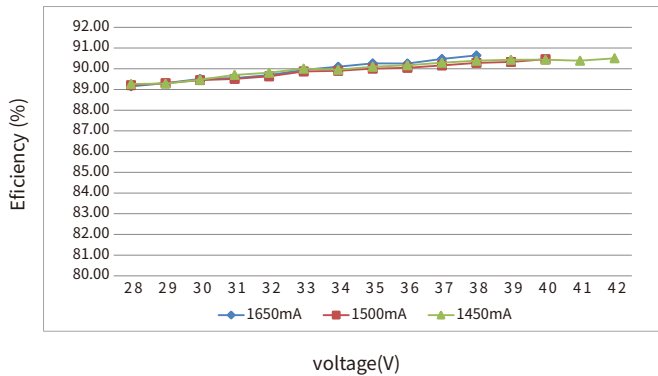


Displacement factor vs. voltage

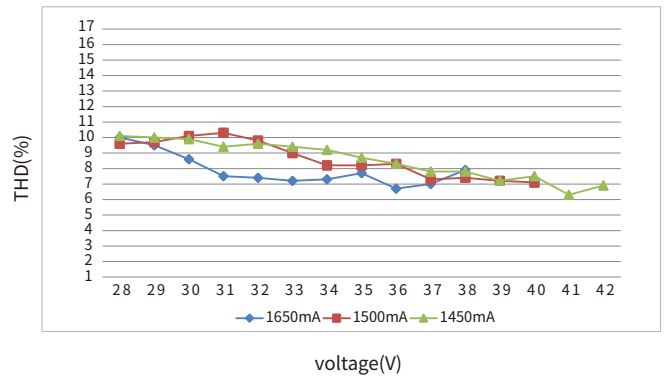


BK-CWL060-B

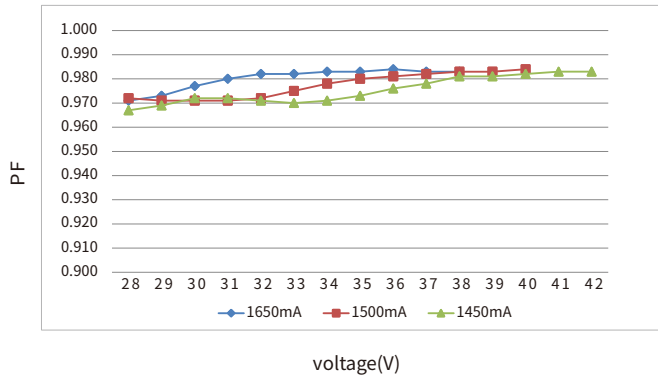
Efficiency vs voltage



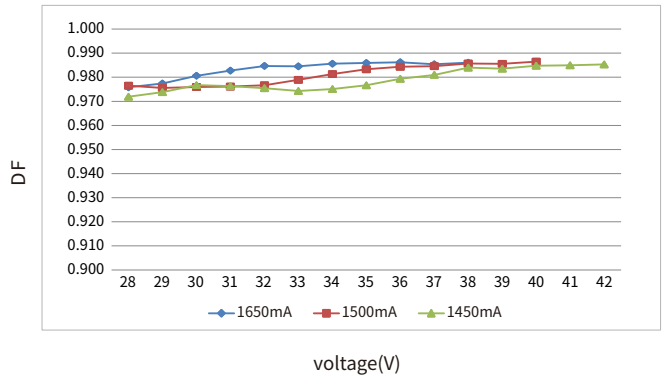
THD vs. voltage



Power factor vs. voltage



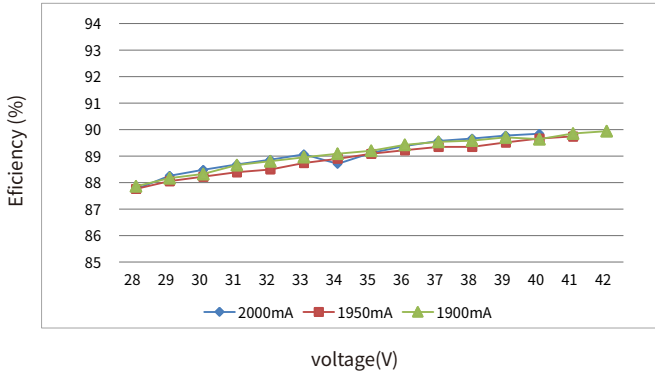
Displacement factor vs. voltage



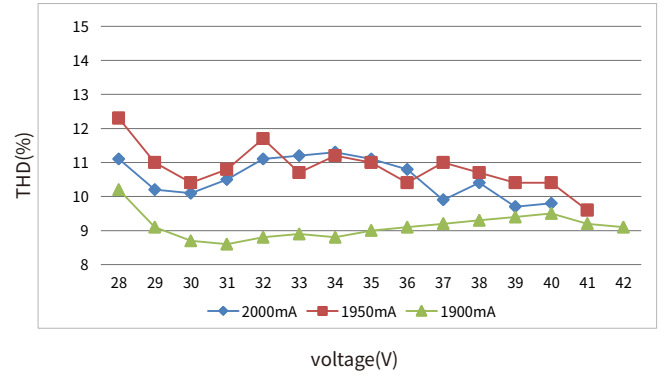
Electrical values

BK-CWL080-B

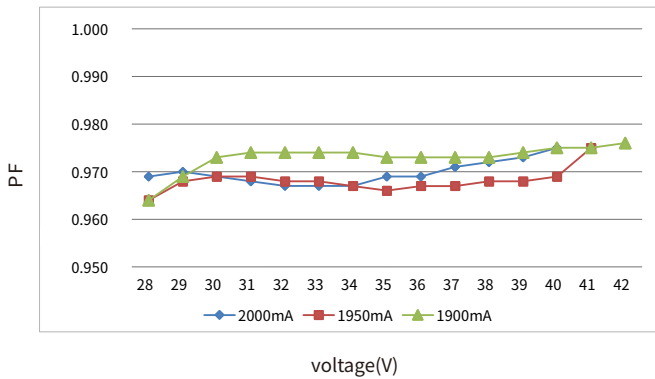
Efficiency vs voltage



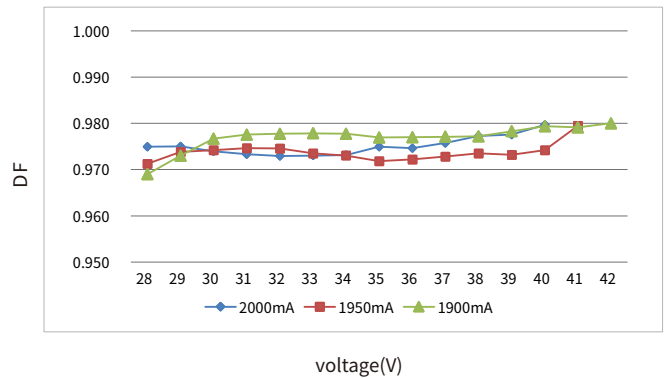
THD vs. voltage



Power factor vs. voltage



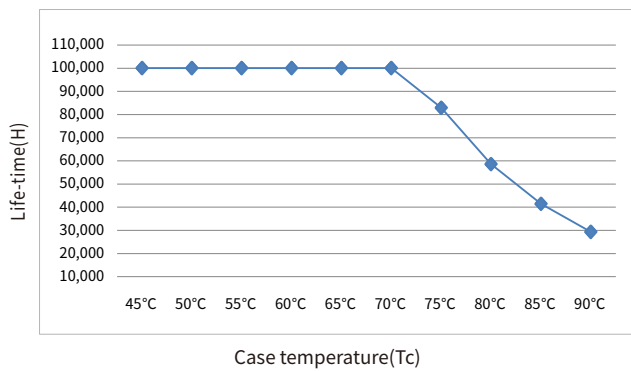
Displacement factor vs. voltage



Expected life-time

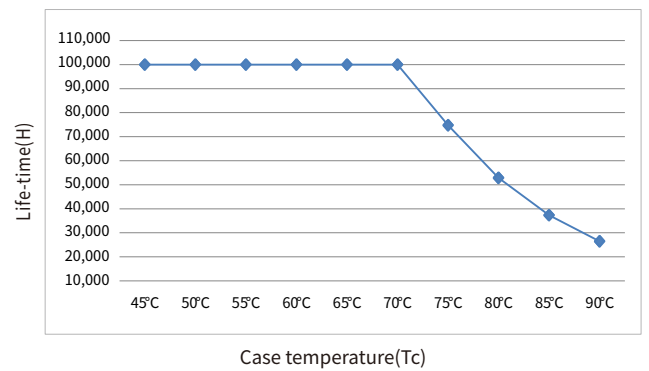
BK-CWL009-B

Life-time vs. case temperature



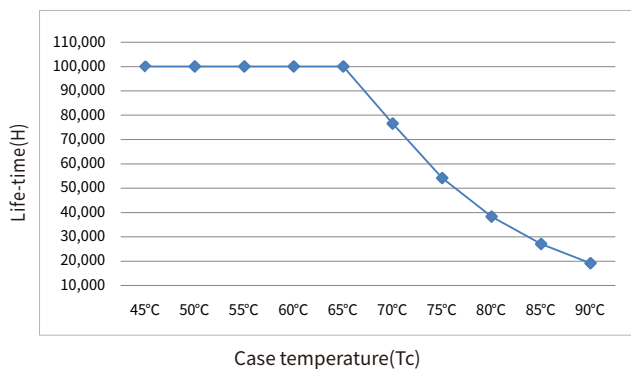
BK-CWL013-B

Life-time vs. case temperature



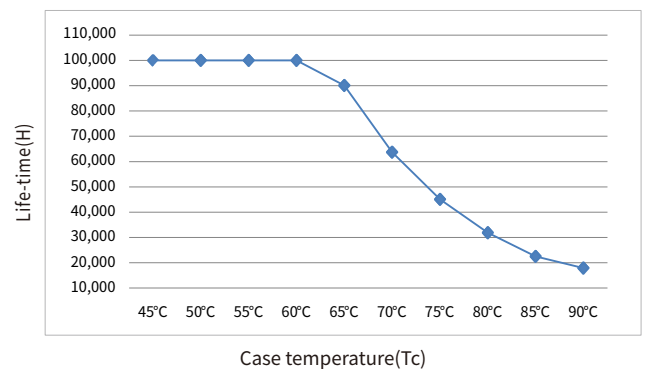
BK-CWL018-B

Life-time vs. case temperature



BK-CWL022-B

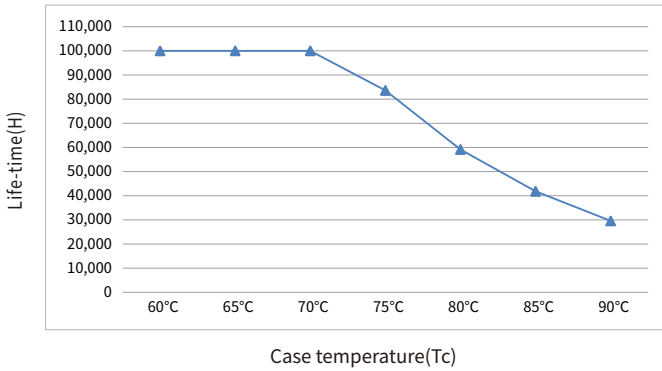
Life-time vs. case temperature



Expected life-time

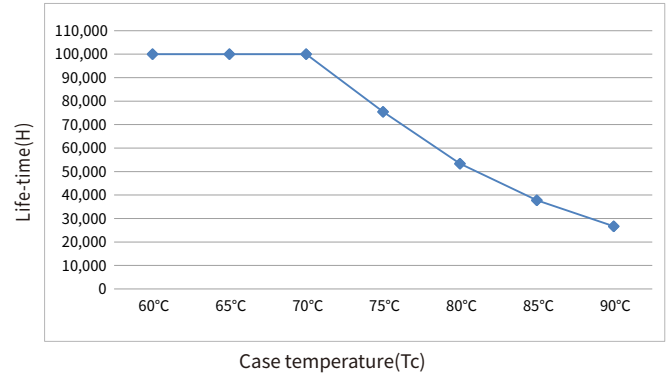
BK-CWL030B

Life-time vs. case temperature



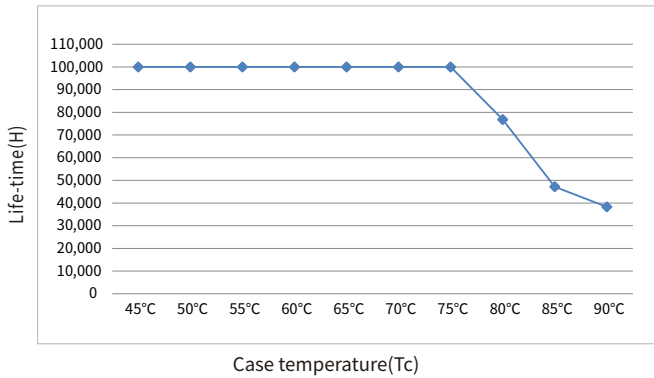
BK-CWL040-B

Life-time vs. case temperature



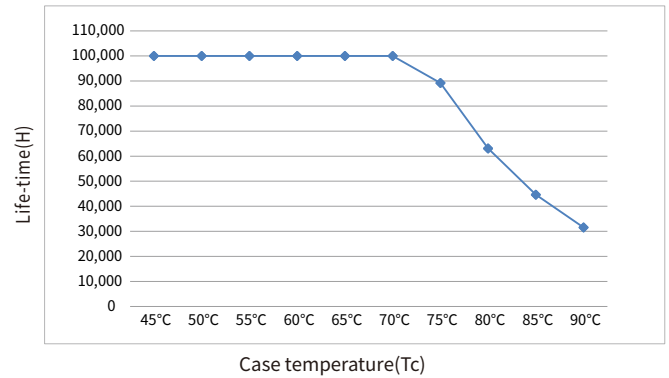
BK-CWL050-B

Life-time vs. case temperature



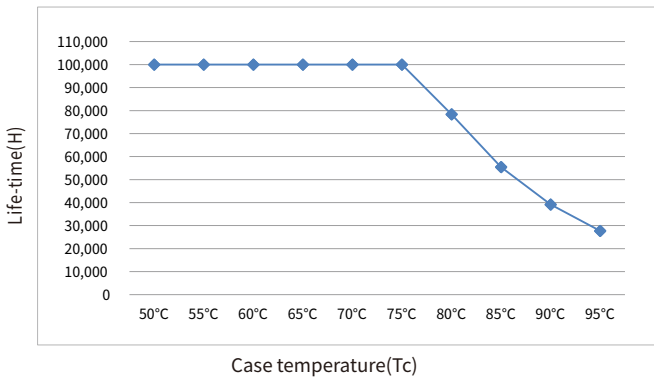
BK-CWL060-B

Life-time vs. case temperature



BK-CWL080-B

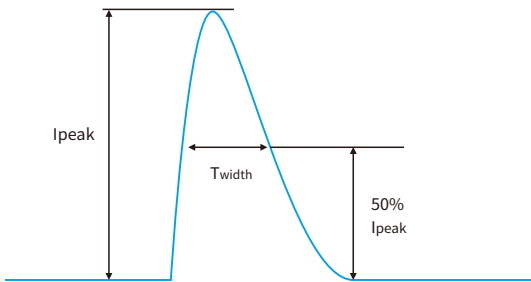
Life-time vs. case temperature



-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	Ipeak	Twidth	Condition	Relative number of MCB																Unit: pcs
				B10	B13	B16	B20	B25	C10	C13	C16	C20	C25	D10	D13	D16	D20	D25		
BK-CWL009-B	8A	220us	AC 230V, Full load, Cold start, Ta ≤ 30°C, MCB is not installed side by side	35	45	56	70	87	58	76	93	116	145	116	151	186	233	291		
BK-CWL013-B	8.36A	224us		33	43	53	66	83	55	72	88	111	138	93	121	149	186	232		
BK-CWL018-B	10.4A	242us		24	32	39	48	61	40	53	65	81	101	74	96	118	148	185		
BK-CWL022-B	10.5A	248us		24	31	38	47	59	39	51	63	79	98	58	76	94	117	146		
BK-CWL030-B	12.38A	264us		21	27	33	42	52	35	45	56	70	87	50	66	81	101	126		
BK-CWL040-B	14.125A	272us		18	23	28	35	44	29	38	47	58	73	40	52	64	80	99		
BK-CWL050-B	18.3A	300us		10	13	17	21	26	17	22	28	34	43	28	36	45	56	70		
BK-CWL060-B	27.6A	300us		8	10	12	15	19	13	16	20	25	32	22	29	36	45	56		
BK-CWL080-B	33A	330us		5	7	8	10	13	9	11	14	17	22	17	23	28	35	43		



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, the driver will automatically resume output.

Output no-load operation

- Output no-load will not damage the driver.

Please turn off the driver first if you need to connect the LED load.

Insulation between circuits

Isolation	Input	Output	Case
Input	-	Double	Basic
Output	Double	-	Basic
Case	Basic	Basic	-

Label

CWL009-B

INPUT	BOKE Constant Current LED Driver MODEL: BK-CWL009-B0250A	OUTPUT
ACL/DC+	INPUT: 200-240V \approx 0/50/60Hz 0.07A Max. λ : 0.9C	LED+
ACN/DC-	OUTPUT: 28-42V \approx 250mA 10.5W Max. 50VDC Max.	LED-
NC	For LED modules use only	
	MADE IN CHINA	
	www.bokedriver.com	
	tc:90°C • tc ta:60°C	
	UK CA EL SELV RoHS	

CWL013-B

INPUT	BOKE Constant Current LED Driver MODEL: BK-CWL013-B0350A	OUTPUT
ACL/DC+	INPUT: 200-240V \approx 0/50/60Hz 0.09A Max. λ : 0.9C	LED+
ACN/DC-	OUTPUT: 38-40V \approx 350mA 14W Max. 50VDC Max.	LED-
NC	For LED modules use only	
	MADE IN CHINA	
	www.bokedriver.com	
	tc:90°C • tc ta:60°C	
	UK CA EL SELV RoHS	

CWL018-B

INPUT	BOKE Constant Current LED Driver MODEL: BK-CWL018-B0450A	OUTPUT
ACL/DC+	INPUT: 200-240V \approx 0/50/60Hz 0.11A Max. λ : 0.95	LED+
ACN/DC-	OUTPUT: 28-42V \approx 450mA 18W Max. 50VDC Max.	LED-
NC	For LED modules use only	
	MADE IN CHINA	
	www.bokedriver.com	
	tc:90°C • tc ta:60°C	
	UK CA EL SELV RoHS	

CWL022-B

INPUT	BOKE Constant Current LED Driver MODEL: BK-CWL022-B0600A	OUTPUT
ACL/DC+	INPUT: 200-240V \approx 0/50/60Hz 0.15A Max. λ : 0.95	LED+
ACN/DC-	OUTPUT: 28-38V \approx 600mA 22.8W Max. 50VDC Max.	LED-
NC	For LED modules use only	
	MADE IN CHINA	
	www.bokedriver.com	
	tc:90°C • tc ta:60°C	
	UK CA EL SELV RoHS	

CWL030-B

INPUT	BOKE Constant Current LED Driver MODEL: BK-CWL030-B0750A	OUTPUT
ACL/DC+	BOKE Drivers Co.,Ltd. INPUT: 200-240V \approx 0/50/60Hz 0.21A Max. λ : 0.85C-0.95	LED-
ACN/DC-	Address: 2nd and 3rd Floor, No.51, Xihuan 5th Road, South District, 528455 Zhongshan City, Guangdong, CHINA	LED+
NC	For LED modules use only	
	MADE IN CHINA	
	www.bokedriver.com	
	tc:90°C • tc ta:60°C	
	UK CA EL SELV RoHS	

CWL040-B

INPUT	BOKE Constant Current LED Driver MODEL: BK-CWL040-B1050A	OUTPUT
ACL/DC+	BOKE Drivers Co.,Ltd. INPUT: 200-240V \approx 0/50/60Hz 0.24A Max. λ : 0.85C-0.95	LED-
ACN/DC-	Address: 2nd and 3rd Floor, No.51, Xihuan 5th Road, South District, 528455 Zhongshan City, Guangdong, CHINA	LED+
NC	For LED modules use only	
	MADE IN CHINA	
	www.bokedriver.com	
	tc:90°C • tc ta:60°C	
	UK CA EL SELV RoHS	

CWL050-B

INPUT	BOKE Constant Current LED Driver MODEL: BK-CWL050-B1250A	OUTPUT
ACL/DC+	www.bokedriver.com BOKE Drivers Co.,Ltd. INPUT: 200-240V \approx 0/50/60Hz 0.28A Max. λ : 0.95	LED+
ACN/DC-	Address: 2nd and 3rd Floor, No.51, Xihuan 5th Road, South District, 528455 Zhongshan City, Guangdong, CHINA	LED-
NC	For LED modules use only	
	MADE IN CHINA	
	www.bokedriver.com	
	tc:90°C ta:60°C	
	UK CA EL SELV RoHS	

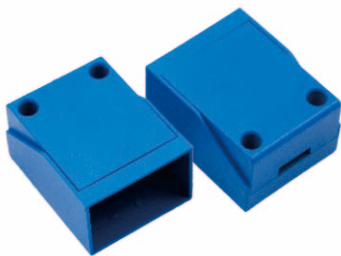
CWL060-B

INPUT	BOKE Constant Current LED Driver MODEL: BK-CWL060-B1650A	OUTPUT
ACL/DC+	www.bokedriver.com BOKE Drivers Co.,Ltd. INPUT: 200-240V \approx 0/50/60Hz 0.38A Max. λ : 0.95	LED+
ACN/DC-	Address: 2nd and 3rd Floor, No.51, Xihuan 5th Road, South District, 528455 Zhongshan City, Guangdong, CHINA	LED-
NC	For LED modules use only	
	MADE IN CHINA	
	www.bokedriver.com	
	tc:90°C ta:60°C	
	UK CA EL SELV RoHS	

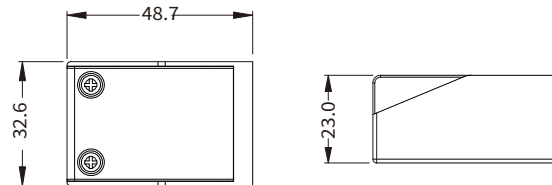
CWL080-B

INPUT	BOKE Constant Current LED Driver MODEL: BK-CWL080-B2000A	OUTPUT
ACL/DC+	www.bokedriver.com BOKE Drivers Co.,Ltd. INPUT: 200-240V \approx 0/50/60Hz 0.45A Max. λ : 0.95	LED+
ACN/DC-	Address: 2nd and 3rd Floor, No.51, Xihuan 5th Road, South District, 528455 Zhongshan City, Guangdong, CHINA	LED-
NC	For LED modules use only	
	MADE IN CHINA	
	www.bokedriver.com	
	tc:95°C ta:60°C	
	UK CA EL SELV RoHS	

Optional accessories



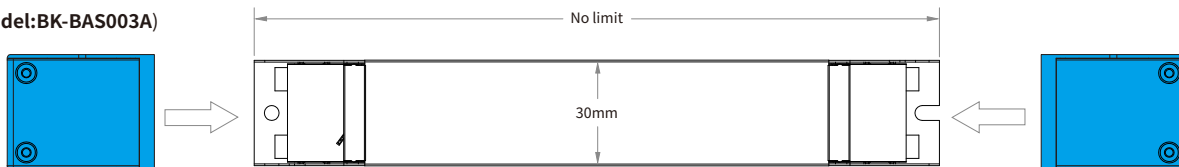
(Model: BK-BAS003A)



Unit:mm

Installation diagram of accessories

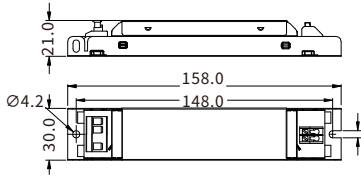
(Model: BK-BAS003A)



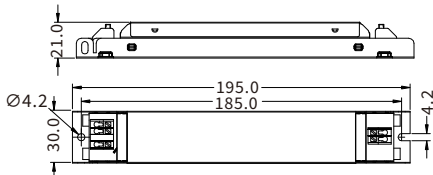
Mechanical Specification

Size(Excluding accessories)
Unit:mm

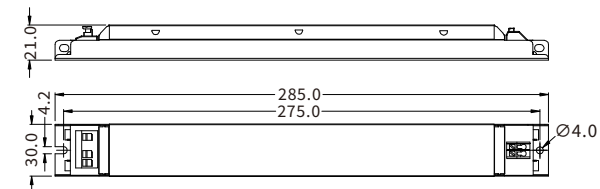
CWL009-B/CWL013-B/CWL018-B/CWL022-B



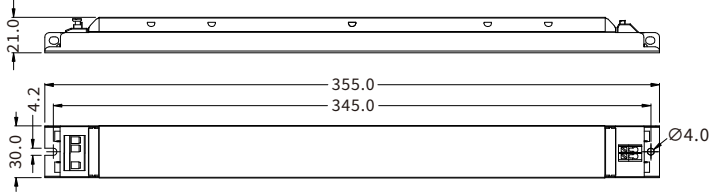
CWL030-B/CWL040-B



CWL050-B/CWL060-B



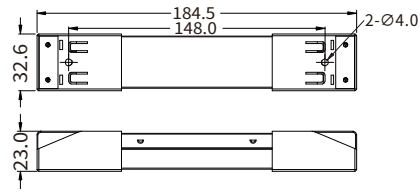
CWL080-B



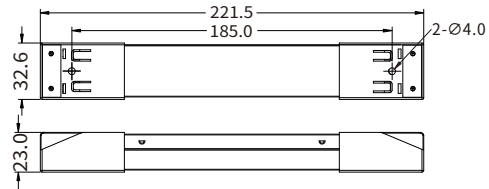
Mechanical Specification

Size(Include accessories)
Unit:mm

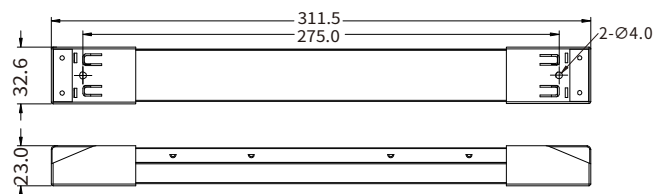
CWL009-B/CWL013-B/CWL018-B/CWL022-B



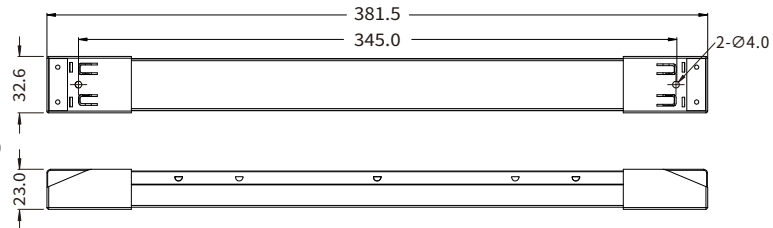
CWL030-B/CWL040-B



CWL050-B/CWL060-B



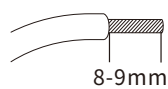
CWL080-B



INPUT

Number	function	colour
1	ACL/DC+	orange
2	ACN/DC-	orange
3	NC	grey
4	FG	grey

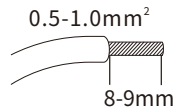
Input wire
0.75-1.5mm²



OUTPUT

Number	function	colour
1	LED+	red
2	LED-	black

Output wire
0.5-1.0mm²



Input terminal



Note: The input terminal of CWL030-B/CWL040-B is DA250,
the input terminal of CWL009-B/CWL013-B/CWL018-B/CWL022-B/CWL050-B/CWL060-B/CWL080-B is DA260.

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.

Installation requirements

- The driver should be installed in a dry, acid-free, oil-free, fat-free environment.
- The installation ambient temperature of the driver shall not exceed the value of Ta at any time.
- The temperature of the mounting surface of the driver should be lower than the temperature of Ta.
- The driver should keep a certain distance from the heating stuff (such as the luminaire radiator).
- If the driver is used externally (it needs to be used with the accessories), the installation of the driver should also meet the following conditions:
 - 1.The driver should be a certain distance between the drivers, as shown in Figure 1.
 - 2.The driver keeps a certain distance from surrounding objects, as shown in Figure 2.

Replace LED module

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

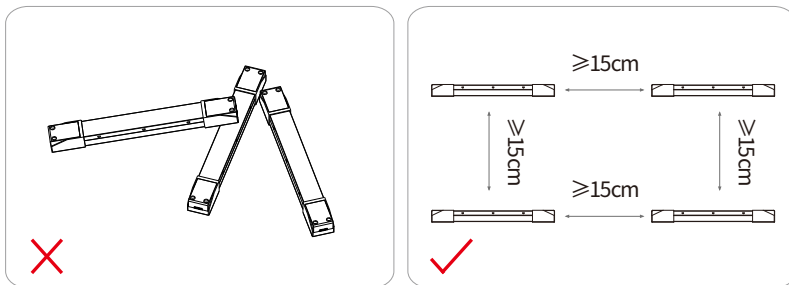


Figure 1

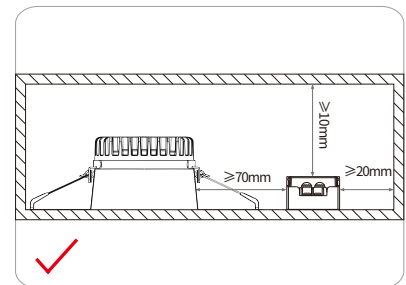
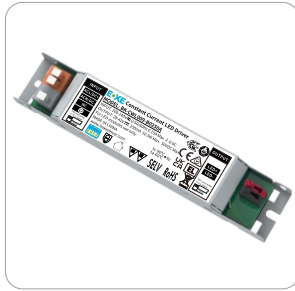


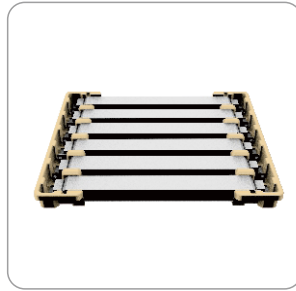
Figure 2

Packaging

(Excluding accessories)



Product



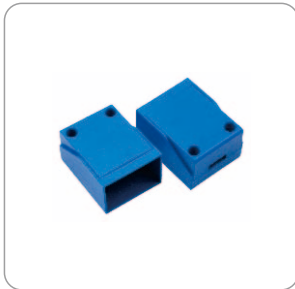
Paper tray



7pcs*8layer=56pcs/CTN
 7pcs*6layer=42pcs/CTN
 7pcs*5layer=35pcs/CTN
 7pcs*4layer=28pcs/CTN

Model	Product size	Weight	Paper tray	Carton size	Packing	N.W	G.W
CWL009-B	L158*W30*H21mm	91g	L345*W75*H29mm	L355*W200*H240mm	56pcs	5.10kg	6.60kg
CWL013-B	L158*W30*H21mm	92g	L345*W75*H29mm	L355*W200*H240mm	56pcs	5.15kg	6.65kg
CWL018-B	L158*W30*H21mm	95g	L345*W75*H29mm	L355*W200*H240mm	56pcs	5.32kg	6.82kg
CWL022-B	L158*W30*H21mm	105g	L345*W75*H29mm	L355*W200*H240mm	56pcs	5.88kg	7.38kg
CWL030-B	L195*W30*H21mm	129g	L345*W75*H29mm	L355*W235*H205mm	42pcs	5.42kg	6.65kg
CWL040-B	L195*W30*H21mm	129g	L345*W75*H29mm	L355*W235*H205mm	42pcs	5.42kg	6.65kg
CWL050-B	L285*W30*H21mm	204g	L345*W75*H29mm	L355*W325*H170mm	35pcs	7.14kg	8.44kg
CWL060-B	L285*W30*H21mm	225g	L345*W75*H29mm	L355*W325*H170mm	35pcs	7.88kg	9.08kg
CWL080-B	L355*W30*H21mm	289g	L345*W75*H29mm	L395*W355*H140mm	28pcs	8.10kg	9.30kg

Accessories



End cap + screws



100 sets/CTN

Model	Product size	Weight	Carton size	Qty/carton	N.W	G.W
BAS003A	L48.7*W32.6*H23mm	22g	L450*W350*H180mm	100 sets	2.2kg	2.7kg

Additional information

1. The life and MTBF of the product are for reference only, and do not represent a warranty statement.
2. For more information, please send an email to info@bokedriver.com.