



Features

- Soft dimming and flicker-free at any brightness
- Screw-free design,easy wiring
- Pushable strain relief design,easy to crimp and install
- Compact housing design
- High PF, high efficiency, low THD
- SELV and Class II design, suitable for use outside of the light fixture
- Passed ENEC-TUV,CE,RCM,CCC and other certifications
- IP20 protection grade, indoor use
- Nominal life-time up to 100,000 h
- 5-year guarantee

Functions

- Protective features
(short-circuit, no-load protection)

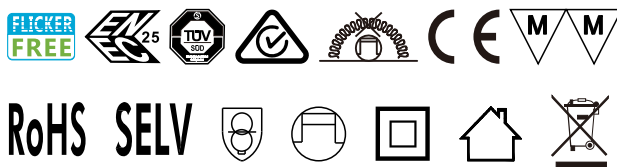
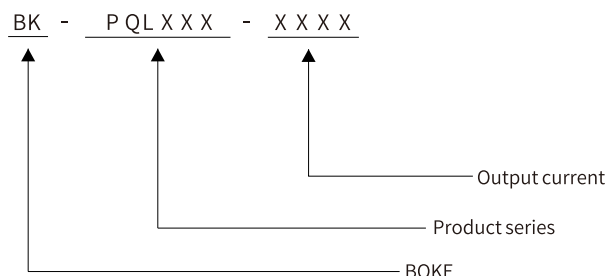
Suitable for lights

- Suitable for lights with independent drivers such as downlights, spotlights, panel lights, etc
- Not suitable for lights with built-in drivers

Typical applications

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

Model coding rules of BEL series



Technical data

Product model	BK-PQL009-0250	
Output parameters		
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	±1%	
Output current accuracy	±15mA@230VAC	
Linear regulation	±5%	
Load regulation	±5%	
No load output voltage	50V	
Flicker-free(typical)	Modulation depth =0.850% (100 Hz), Pst LM = 0.164, SVM = 0.022,(The above parameters are obtained from testing the panel lights)	
Input parameters		
Rated input voltage	200-240VAC 200-240VDC	
Rated input voltage	180-264VAC 180-264VDC	
Input votage shock	<380V AC, 1 h	
Input current	<0.1A (AC input)	
Input frequency	47-63Hz	
Input power factor	>0.95 (230V AC & Full load)	
Input THD	<10% (230V AC & Full load)	
Efficiency(typical)	83% (230V AC & Full load)	
In-rush current	6.84A peak ,212us 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): N/A, On stand-by(Psb) : <0.5W, Network stand-by(Pnet) : N/A	
Safety		
Withstand voltage	I/P-O/P:3750V AC	
Mains surge capability	L-N:2KV	
Leakage current	<0.7mA (230V AC & Full load)	
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH	
Control interface		
DALI dimming port	N/A	
PUSH dimming port	N/A	
1-10V 2in1 dimming port	N/A	
Auxiliary power supply	N/A	
Dimming range	N/A	
Dimming drive mode	N/A	
Emergency support		
Central emergency system	Supported(Support DC input)	
Self-contained emergency	Supported	
Environment & Life time		
Operating temperature	Ta=-20-60°C	
Case temperature	Tc=85°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	
Certifications and standards		
Certified	ENEC-TUV, RCM, EMC, CE, 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	N/A	
RF	N/A	

Remarks

- 1.By default, all parameter are measured at 230VAC input, full load and 25°C of ambient temperature.
- 2.The driver can not be installed inside the light. when the driver is used with the light, the EMC of the whole light needs to be tested.

Technical data

Product model	BK-PQL013-0300	BK-PQL013-0350	
Output parameters			
Regulation method	Constant Current	Constant Current	
Rated output current	0.25-0.3A	0.3-0.35A	
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	±1%	±1%	
Output current accuracy	±20mA@230VAC	±25mA@230VAC	
Linear regulation	±5%	±5%	
Load regulation	±5%	±5%	
No load output voltage	50V	50V	
Flicker-free(typical)	Modulation depth =0.980% (100 Hz), Pst LM = 0.117, SVM = 0.016,(The above parameters are obtained from testing the panel lights)		
Input parameters			
Rated input voltage	200-240VAC 200-240VDC		
Rated input voltage	180-264VAC 180-264VDC		
Input votage shock	<380V AC, 1 h		
Input current	<0.1A (AC input)		
Input frequency	47-63Hz		
Input power factor	>0.95 (230V AC & Full load)		
Input THD	<10% (230V AC & Full load)		
Efficiency(typical)	83% (230V AC & Full load)		
In-rush current	6.78A peak ,222us 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):14.7W, No load(Pno): N/A, On stand-by(Psb) : <0.5W, Network stand-by(Pnet) : N/A		
Safety			
Withstand voltage	I/P-O/P:3750V AC		
Mains surge capability	L-N:2KV		
Leakage current	<0.7mA (230V AC & Full load)		
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH		
Control interface			
DALI dimming port	N/A		
PUSH dimming port	N/A		
1-10V 2in1 dimming port	N/A		
Auxiliary power supply	N/A		
Dimming range	N/A		
Dimming drive mode	N/A		
Emergency support			
Central emergency system	Supported(Support DC input)		
Self-contained emergency	Supported		
Environment & Life time			
Operating temperature	Ta=-20-50°C		
Case temperature	Tc=85°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		
Certifications and standards			
Certified	ENEC-TUV, RCM, EMC, CE, 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	N/A		
RF	N/A		

Remarks

- 1.By default, all parameter are measured at 230VAC input, full load and 25°C of ambient temperature.
- 2.The driver can not be installed inside the light. when the driver is used with the light, the EMC of the whole light needs to be tested.

Technical data

Product model	BK-PQL018-0400	BK-PQL018-0450	
Output parameters			
Regulation method	Constant Current	Constant Current	
Rated output current	0.3-0.4A	0.4-0.45A	
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	±1%	±1%	
Output current accuracy	±20mA@230VAC	±25mA@230VAC	
Linear regulation	±5%	±5%	
Load regulation	±5%	±5%	
No load output voltage	50V	50V	
Flicker-free(typical)	Modulation depth =0.818% (100 Hz), Pst LM = 0.135, SVM = 0.023,(The above parameters are obtained from testing the panel lights)		
Input parameters			
Rated input voltage	200-240VAC 200-240VDC		
Rated input voltage	180-264VAC 180-264VDC		
Input vottage shock	<380V AC, 1 h		
Input current	<0.15A (AC input)		
Input frequency	47-63Hz		
Input power factor	>0.95 (230V AC & Full load)		
Input THD	<10% (230V AC & Full load)		
Efficiency(typical)	85% (230V AC & Full load)		
In-rush current	7.86A peak ,190us 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): N/A, On stand-by(Psb) : <0.5W, Network stand-by(Pnet) : N/A		
Safety			
Withstand voltage	I/P-O/P:3750V AC		
Mains surge capability	L-N:2KV		
Leakage current	<0.7mA (230V AC & Full load)		
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH		
Control interface			
DALI dimming port	N/A		
PUSH dimming port	N/A		
1-10V 2in1 dimming port	N/A		
Auxiliary power supply	N/A		
Dimming range	N/A		
Dimming drive mode	N/A		
Emergency support			
Central emergency system	Supported(Support DC input)		
Self-contained emergency	Supported		
Environment & Life time			
Operating temperature	Ta=-20-50°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		
Certifications and standards			
Certified	ENEC-TUV, RCM, EMC, CE, 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	N/A		
RF	N/A		

Remarks

- 1.By default, all parameter are measured at 230VAC input, full load and 25°C of ambient temperature.
- 2.The driver can not be installed inside the light. when the driver is used with the light, the EMC of the whole light needs to be tested.

Technical data

Product model	BK-PQL022-0500	BK-PQL022-0550	BK-PQL022-0600	
Output parameters				
Regulation method	Constant Current	Constant Current	Constant Current	
Rated output current	0.4-0.5A	0.5-0.55A	0.55-0.6A	
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	±1%	±1%	±1%	
Output current accuracy	±25mA@230VAC	±30mA@230VAC	±30mA@230VAC	
Linear regulation	±5%	±5%	±5%	
Load regulation	±5%	±5%	±5%	
No load output voltage	50V	50V	50V	
Flicker-free(typical)	Modulation depth =0.774% (100 Hz), Pst LM = 0.207, SVM = 0.019,(The above parameters are obtained from testing the panel lights)			
Input parameters				
Rated input voltage	200-240VAC 200-240VDC			
Rated input voltage	180-264VAC 180-264VDC			
Input vorage shock	<380V AC, 1 h			
Input current	<0.2A (AC input)			
Input frequency	47-63Hz			
Input power factor	>0.95 (230V AC & Full load)			
Input THD	<10% (230V AC & Full load)			
Efficiency(typical)	85% (230V AC & Full load)			
In-rush current	6.63A peak ,200us 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): N/A, On stand-by(Psb) : <0.5W, Network stand-by(Pnet) : N/A			
Safety				
Withstand voltage	I/P-O/P:3750V AC			
Mains surge capability	L-N:2KV			
Leakage current	<0.7mA (230V AC & Full load)			
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH			
Control interface				
DALI dimming port	N/A			
PUSH dimming port	N/A			
1-10V 2in1 dimming port	N/A			
Auxiliary power supply	N/A			
Dimming range	N/A			
Dimming drive mode	N/A			
Emergency support				
Central emergency system	Supported(Support DC input)			
Self-contained emergency	Supported			
Environment & Life time				
Operating temperature	Ta=-20-50°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			
Certifications and standards				
Certified	ENEC-TUV, RCM, EMC, CE, 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	N/A			
RF	N/A			

Remarks

- 1.By default, all parameter are measured at 230VAC input, full load and 25°C of ambient temperature.
- 2.The driver can not be installed inside the light. when the driver is used with the light, the EMC of the whole light needs to be tested.

Technical data

Product model	BK-PQL040-0950	BK-PQL040-1000	
Output parameters			
Regulation method	Constant Current	Constant Current	
Rated output current	0.55-0.95A	0.95-1A	
Rated output voltage	28-42V	28-40V	
Rated output power	39.9W Max	40W Max	
Output current adjustment	N/A	N/A	
Output current ripple LF	± 1%	± 1%	
Output current accuracy	± 5%	± 5%	
Linear regulation	± 5%	± 5%	
Load regulation	± 5%	± 5%	
No load output voltage	52V	52V	
Flicker-free(typical)	Modulation depth =0.228% (100 Hz), Pst LM = 0.015, SVM = 0.005,(The above parameters are obtained from testing the panel lights)		
Input parameters			
Rated input voltage	200-240VAC 200-240VDC		
Rated input voltage	180-264VAC 180-264VDC		
Input vorage shock	<380V AC, 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	14A peak ,280us 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): N/A, On stand-by(Psb) : <0.5W, Network stand-by(Pnet) : N/A		
Safety			
Withstand voltage	I/P-O/P:3750V AC		
Mains surge capability	L-N:2KV		
Leakage current	<0.7mA (230V AC & Full load)		
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH		
Control interface			
DALI dimming port	N/A		
PUSH dimming port	N/A		
1-10V 2in1 dimming port	N/A		
Auxiliary power supply	N/A		
Dimming range	N/A		
Dimming drive mode	N/A		
Emergency support			
Central emergency system	Supported(Support DC input)		
Self-contained emergency	Supported		
Environment & Life time			
Operating temperature	Ta=-20-45°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		
Certifications and standards			
Certified	ENEC-TUV, RCM, EMC, CE, 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	N/A		
RF	N/A		

Remarks

- 1.By default, all parameter are measured at 230VAC input, full load and 25°C of ambient temperature.
- 2.The driver can not be installed inside the light. when the driver is used with the light, the EMC of the whole light needs to be tested.

Technical data

Product model	BK-PQL042-1000	BK-PQL042-1050	BK-PQL042-1100	
Output parameters				
Regulation method	Constant Current	Constant Current	Constant Current	
Rated output current	0.6-1A	1-1.05A	1.05-1.1A	
Rated output voltage	28-42V	28-40V	28-38V	
Rated output power	42W Max	42W Max	41.8W Max	
Output current adjustment	N/A	N/A	N/A	
Output current ripple LF	±1%	±1%	±1%	
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 =0.423% (100 Hz), Pst LM = 0.019, SVM = 0.009,(The above parameters are obtained from testing the panel lights)			
Input parameters				
Rated input voltage	200-240VAC 200-240VDC			
Rated input voltage	180-264VAC 180-264VDC			
Input votage shock	<380V AC, 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	14.5A peak ,290us 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):42W, No load(Pno): N/A, On stand-by(Psb) : <0.5W, Network stand-by(Pnet) : N/A			
Safety				
Withstand voltage	I/P-O/P:3750V AC			
Mains surge capability	L-N:2KV			
Leakage current	<0.7mA (230V AC & Full load)			
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH			
Control interface				
DALI dimming port	N/A			
PUSH dimming port	N/A			
1-10V 2in1 dimming port	N/A			
Auxiliary power supply	N/A			
Dimming range	N/A			
Dimming drive mode	N/A			
Emergency support				
Central emergency system	Supported(Support DC input)			
Self-contained emergency	Supported			
Environment & Life time				
Operating temperature	Ta=-20-45°C			
Case temperature	Tc=85°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			
Certifications and standards				
Certified	ENEC-TUV, RCM, EMC, CE, 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	N/A			
RF	N/A			

Remarks

- 1.By default, all parameter are measured at 230VAC input, full load and 25°C of ambient temperature.
- 2.The driver can not be installed inside the light. when the driver is used with the light, the EMC of the whole light needs to be tested.

Technical data

Product model	BK-PQL050-1200	BK-PQL050-1250	
Output parameters			
Regulation method	Constant Current	Constant Current	
Rated output current	1-1.2A	1.2-1.25A	
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	±1%	±1%	
Output current accuracy	±5%	±5%	
Linear regulation	±5%	±5%	
Load regulation	±5%	±5%	
No load output voltage	50V	50V	
Flicker-free(typical)	Modulation depth =0.244% (100 Hz), Pst LM = 0.022, SVM = 0.007,(The above parameters are obtained from testing the panel lights)		
Input parameters			
Rated input voltage	200-240VAC 200-240VDC		
Rated input voltage	180-264VAC 180-264VDC		
Input votage shock	<380V AC, 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)	89% (230V AC & Full load)		
In-rush current	15.6A peak ,310us 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): N/A, On stand-by(Psb) : <0.5W, Network stand-by(Pnet) : N/A		
Safety			
Withstand voltage	I/P-O/P:3750V AC		
Mains surge capability	L-N:2KV		
Leakage current	<0.7mA (230V AC & Full load)		
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH		
Control interface			
DALI dimming port	N/A		
PUSH dimming port	N/A		
1-10V 2in1 dimming port	N/A		
Auxiliary power supply	N/A		
Dimming range	N/A		
Dimming drive mode	N/A		
Emergency support			
Central emergency system	Supported(Support DC input)		
Self-contained emergency	Supported		
Environment & Life time			
Operating temperature	Ta=-20-45°C		
Case temperature	Tc=85°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		
Certifications and standards			
Certified	ENEC-TUV, RCM, EMC, CE, 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	N/A		
RF	N/A		

Remarks

- 1.By default, all parameter are measured at 230VAC input, full load and 25°C of ambient temperature.
- 2.The driver can not be installed inside the light. when the driver is used with the light, the EMC of the whole light needs to be tested.

Technical data

Product model	BK-PQL060-1400	BK-PQL060-1500	BK-PQL060-1600	
Output parameters				
Regulation method	Constant Current	Constant Current	Constant Current	
Rated output current	1.25-1.4A	1.4-1.5A	1.5-1.6A	
Rated output voltage	28-42V	28-40V	28-36V	
Rated output power	58.8W Max	60W Max	57.6W Max	
Output current adjustment	N/A	N/A	N/A	
Output current ripple LF	±1%	±1%	±1%	
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 =0.510% (100 Hz), Pst LM = 0.004, SVM = 0.020,(The above parameters are obtained from testing the panel lights)			
Input parameters				
Rated input voltage	200-240VAC 200-240VDC			
Rated input voltage	180-264VAC 180-264VDC			
Input votage shock	<380V AC, 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)	89% (230V AC & Full load)			
In-rush current	8.7A peak ,202us 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): N/A, On stand-by(Psb) : <0.5W, Network stand-by(Pnet) : N/A			
Safety				
Withstand voltage	I/P-O/P:3750V AC			
Mains surge capability	L-N:2KV			
Leakage current	<0.7mA (230V AC & Full load)			
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH			
Control interface				
DALI dimming port	N/A			
PUSH dimming port	N/A			
1-10V 2in1 dimming port	N/A			
Auxiliary power supply	N/A			
Dimming range	N/A			
Dimming drive mode	N/A			
Emergency support				
Central emergency system	Supported(Support DC input)			
Self-contained emergency	Supported			
Environment & Life time				
Operating temperature	Ta=-20-45°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			
Certifications and standards				
Certified	ENEC-TUV, RCM, EMC, CE, 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	N/A			
RF	N/A			

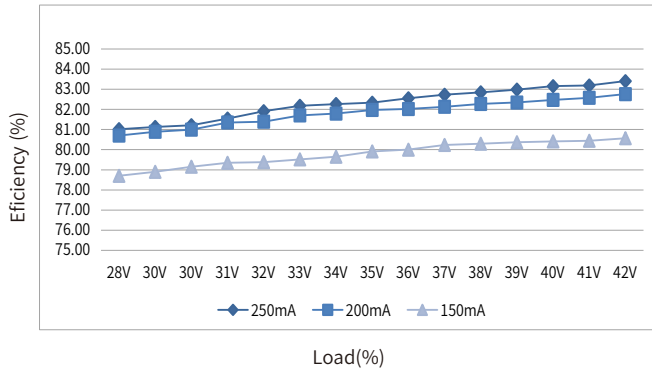
Remarks

- 1.By default, all parameter are measured at 230VAC input, full load and 25°C of ambient temperature.
- 2.The driver can not be installed inside the light. when the driver is used with the light, the EMC of the whole light needs to be tested.

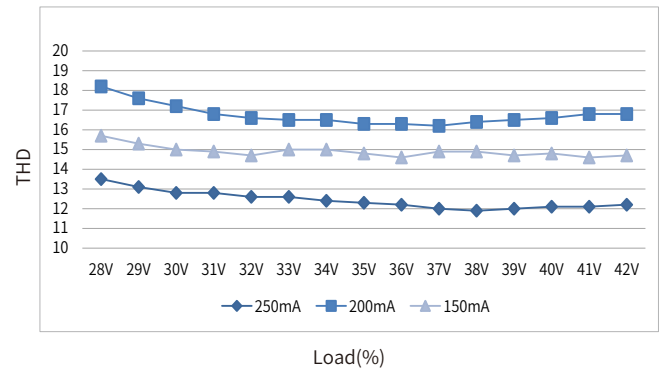
Electrical values

BK-PQL009-0250

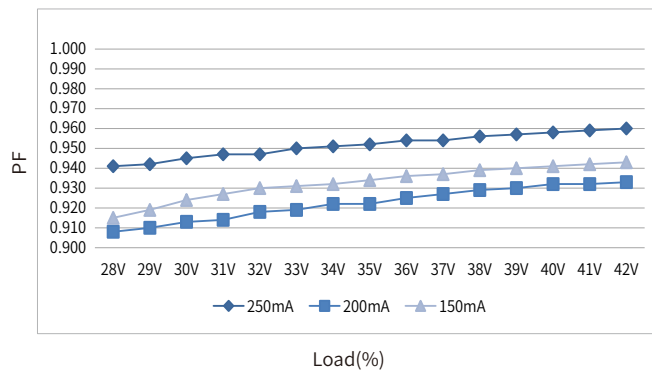
Efficiency vs load



THD vs. Load

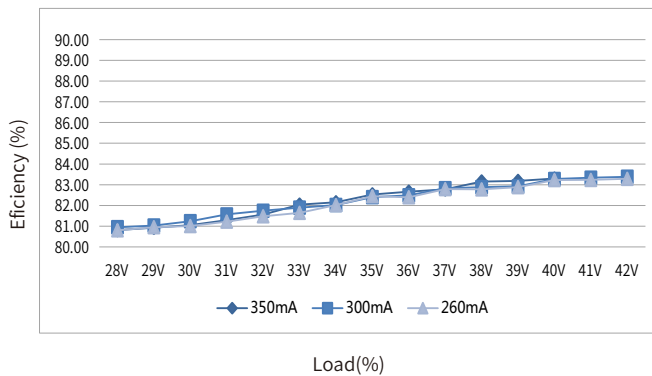


Power factor vs. Load

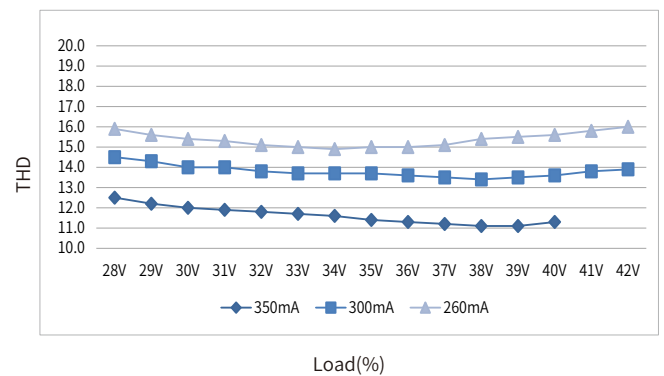


BK-PQL013-0350

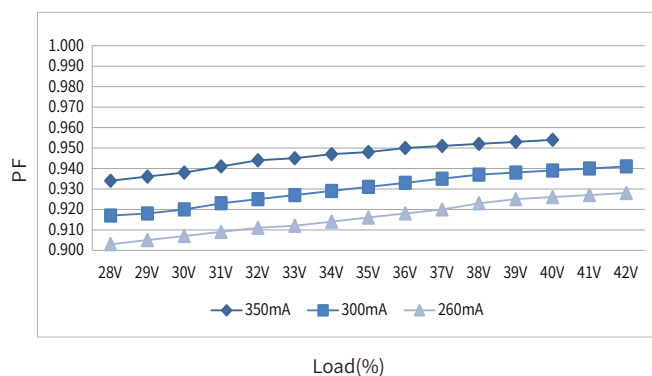
Efficiency vs load



THD vs. Load



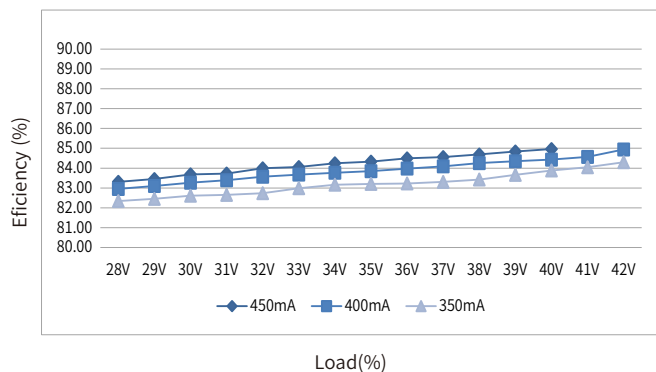
Power factor vs. Load



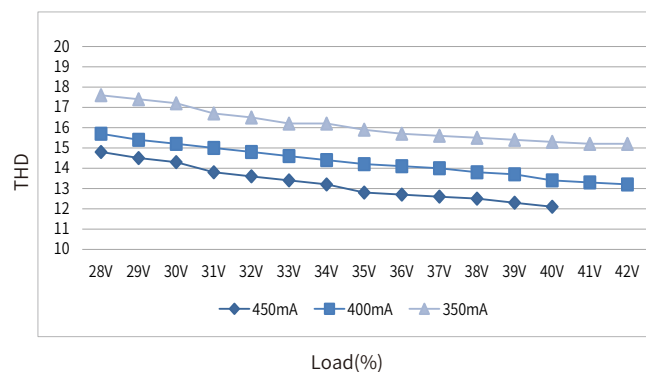
Electrical values

BK-PQL018-0450

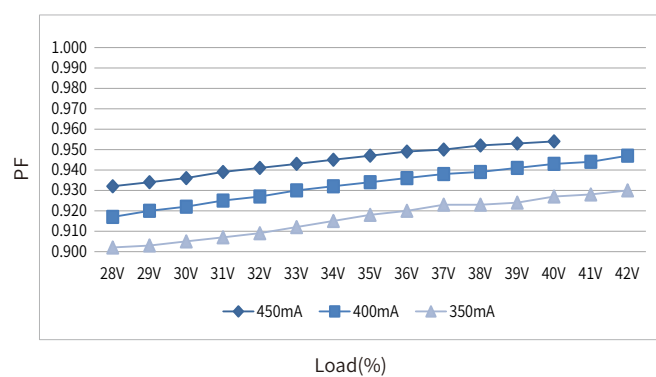
Efficiency vs load



THD vs. Load

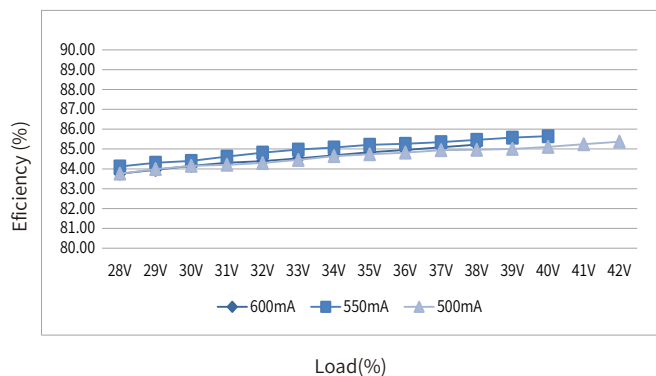


Power factor vs. Load

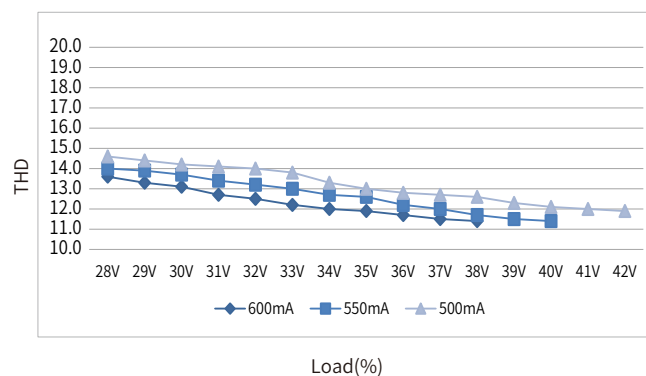


BK-PQL022-0600

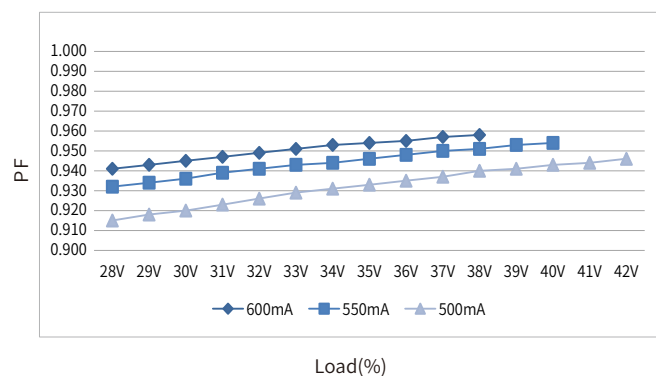
Efficiency vs load



THD vs. Load



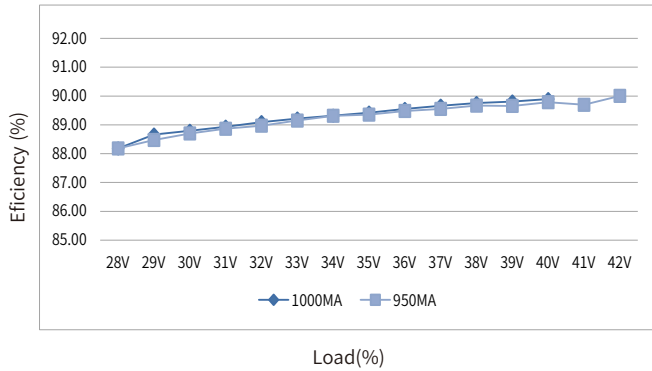
Power factor vs. Load



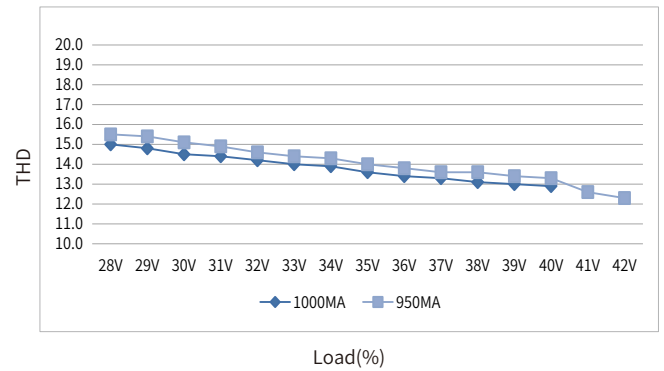
Electrical values

BK-PQL040-1000

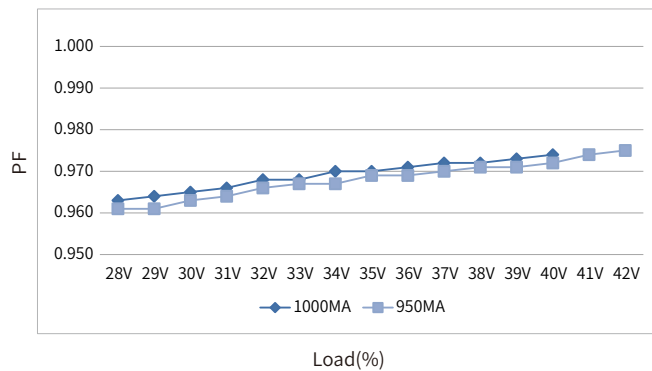
Efficiency vs load



THD vs. Load

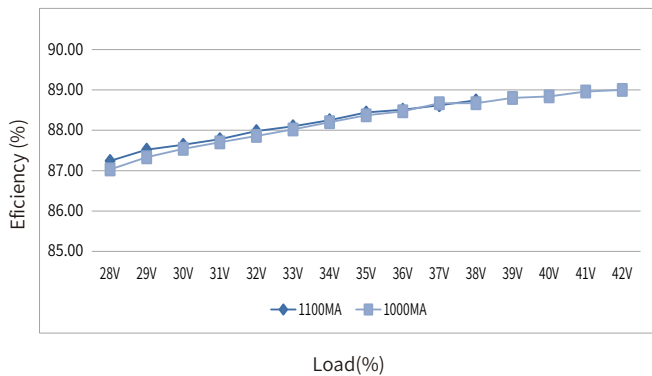


Power factor vs. Load

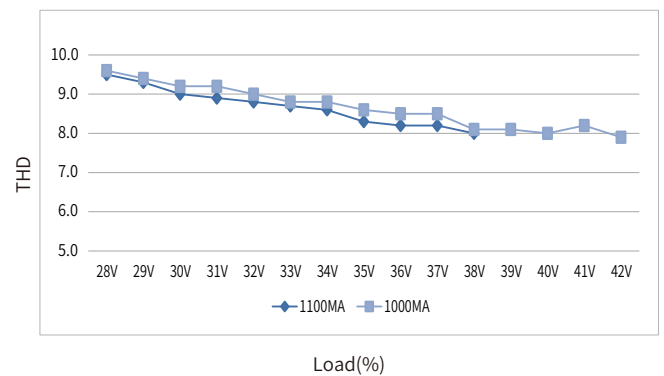


BK-PQL042-1100

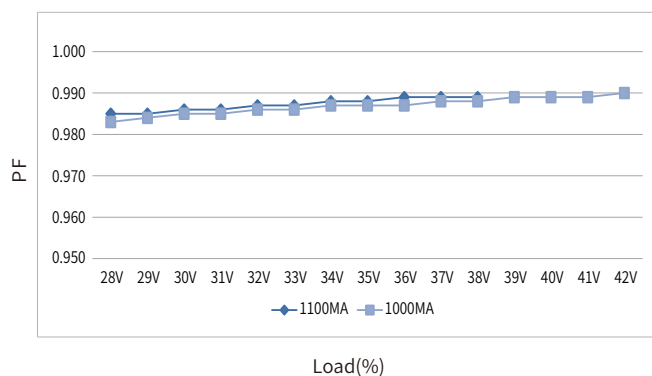
Efficiency vs load



THD vs. Load



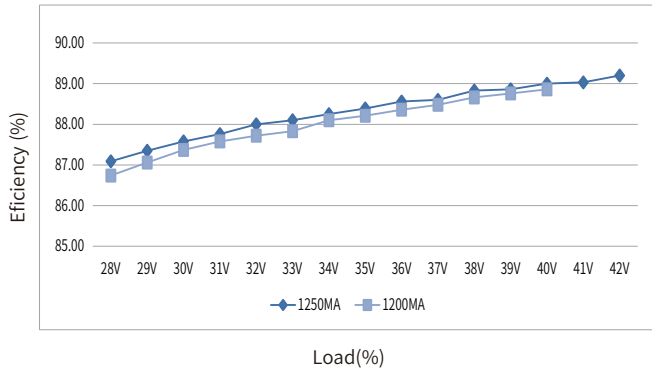
Power factor vs. Load



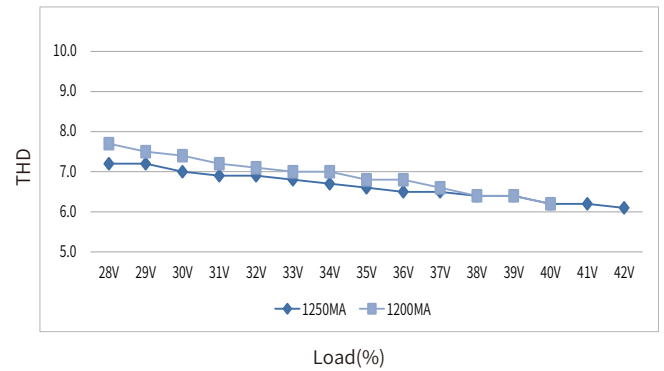
Electrical values

BK-PQL050-1250

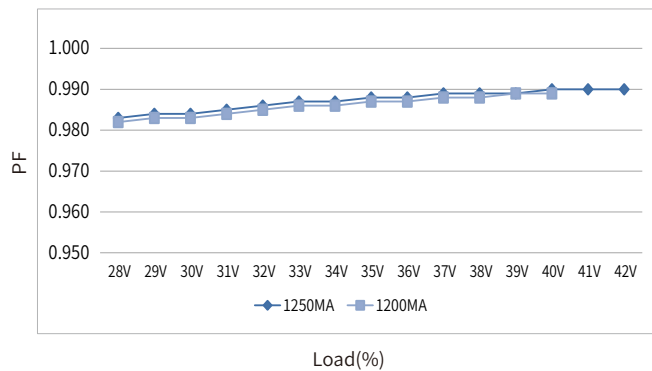
Efficiency vs load



THD vs. Load

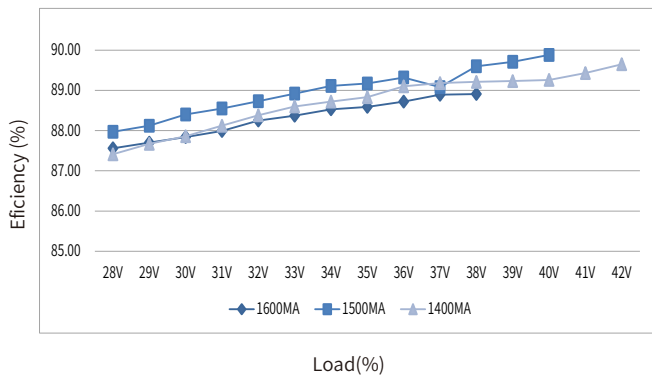


Power factor vs. Load

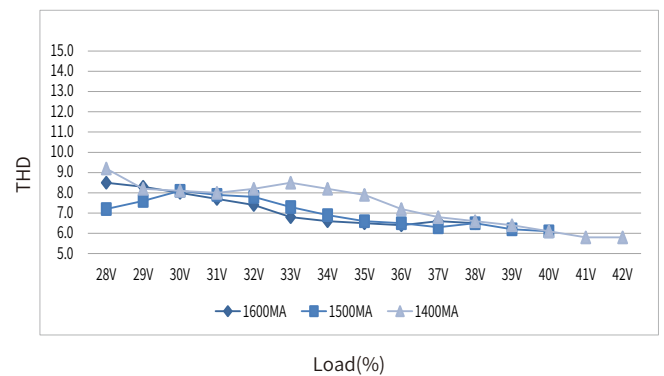


BK-PQL060-1500

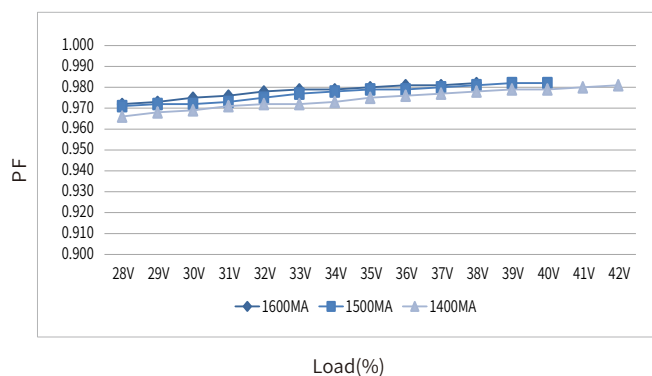
Efficiency vs load



THD vs. Load



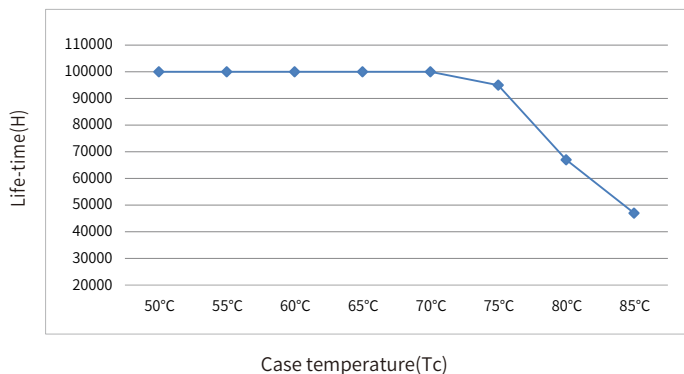
Power factor vs. Load



Expected life-time

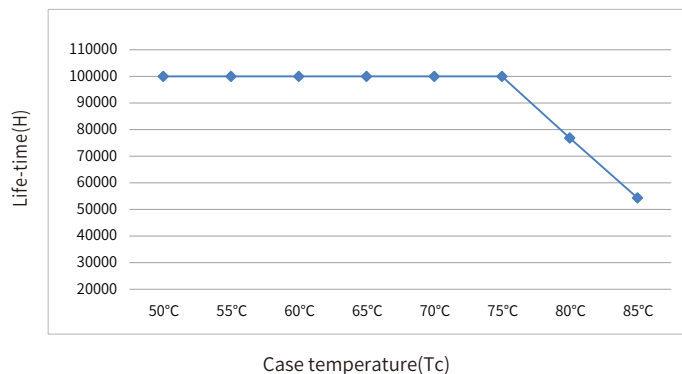
BK-PQL009-0250

Life-time vs. case temperature



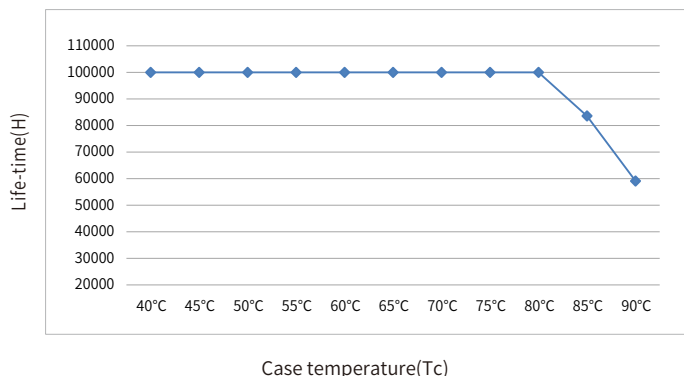
BK-PQL013-0350

Life-time vs. case temperature



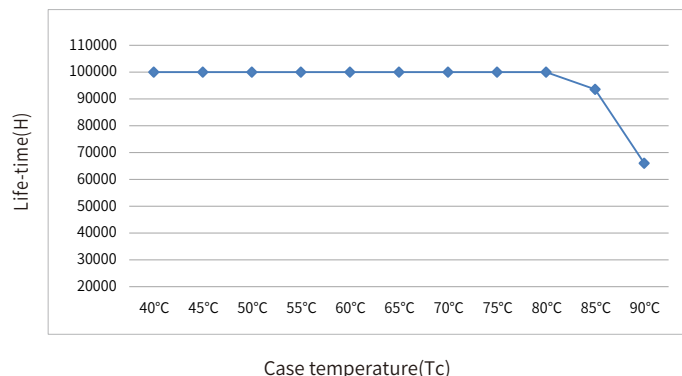
BK-PQL018-0450

Life-time vs. case temperature



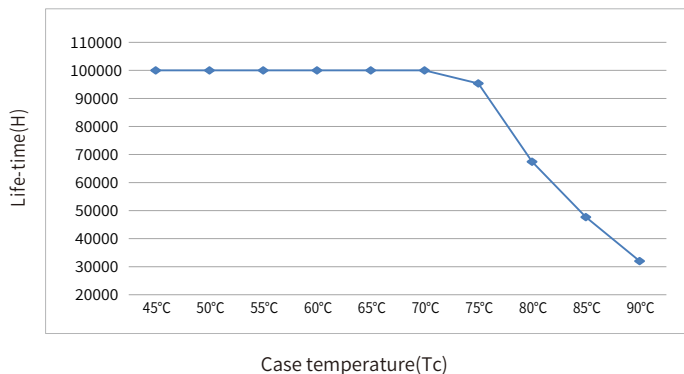
BK-PQL022-0600

Life-time vs. case temperature



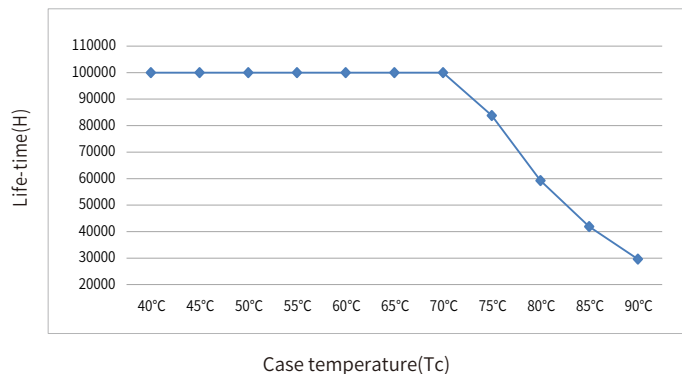
BK-PQL040-1000

Life-time vs. case temperature



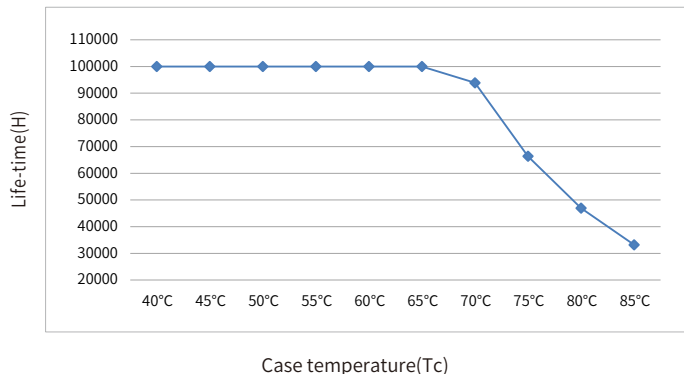
BK-PQL042-1100

Life-time vs. case temperature



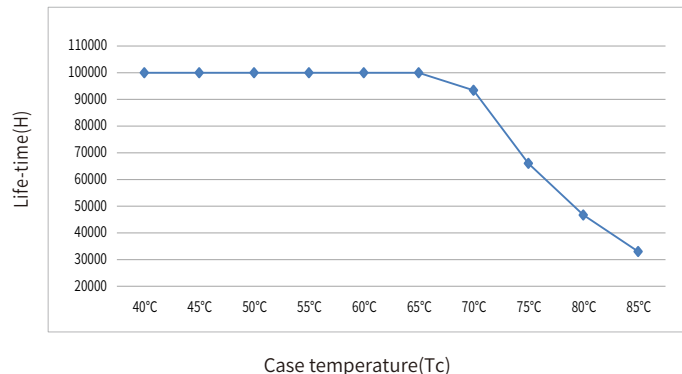
BK-PQL050-1250

Life-time vs. case temperature



BK-PQL060-1500

Life-time vs. case temperature

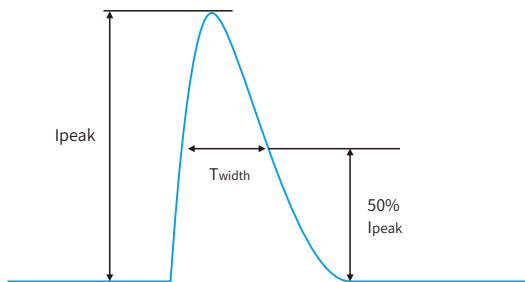


- The life-time of the LED driver is shown in the figure above (calculated based on the 90% survival rate).

- The relation of tc to ta temperature depends also on the luminaire design.

Surge

Model	Ipeak	Twidth	Condition	Relative number of MCB														
				B10	B13	B16	B20	B25	C10	C13	C16	C20	C25	D10	D13	D16	D20	D25
BK-PQL009-0250	6.84A	212us	AC 230V, Full load, Cold start, Ta≤30°C, MCB is not installed side by side	43	55	68	85	107	71	92	114	142	178	123	160	197	246	307
BK-PQL013-0350	6.78A	222us		42	54	67	84	105	70	91	112	139	174	92	120	148	185	231
BK-PQL018-0450	7.86A	190us		42	55	68	84	106	70	91	113	141	176	74	96	118	147	184
BK-PQL022-0600	6.63A	200us		47	61	76	94	118	58	76	93	117	146	58	76	93	117	146
BK-PQL040-1000	14A	280us		15	20	24	30	38	25	33	40	50	63	35	45	56	70	87
BK-PQL042-1100	14.5A	290us		14	18	22	28	34	23	30	37	46	57	33	43	53	66	83
BK-PQL050-1250	15.6A	310us		12	16	19	24	30	20	26	32	40	50	28	36	45	56	70
BK-PQL060-1600	8.7A	202us		23	30	37	46	58	23	30	37	46	58	23	30	37	46	58



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

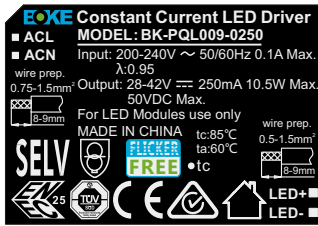
- Output short-circuit will not damage the driver.
- After removing the short-circuit fault point, the drive will automatically restore output.

Output no-load operation

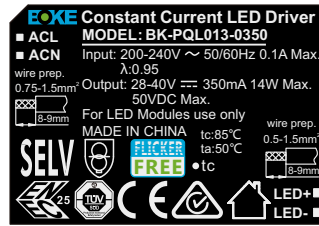
- Output no-load will not damage the driver.
- Please turn off the power supply of the driver first if you need to connect the LED load.

Label

BK-PQL009



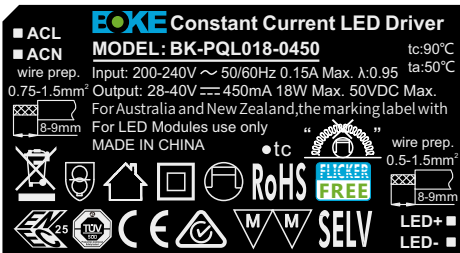
BK-PQL013



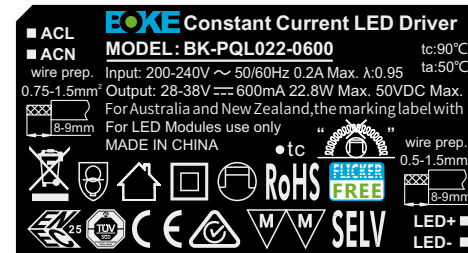
侧标



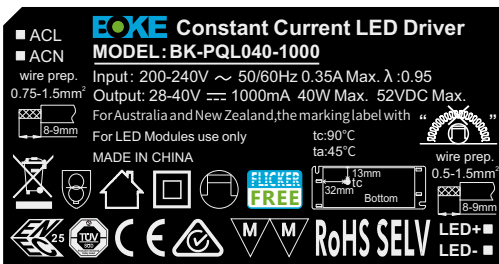
BK-PQL018



BK-PQL022



BK-PQL040



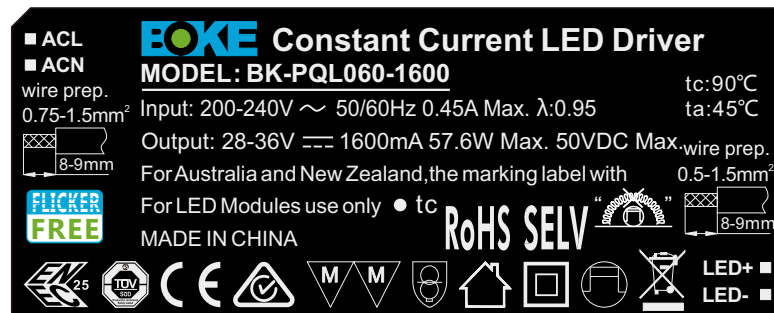
BK-PQL042



BK-PQL050

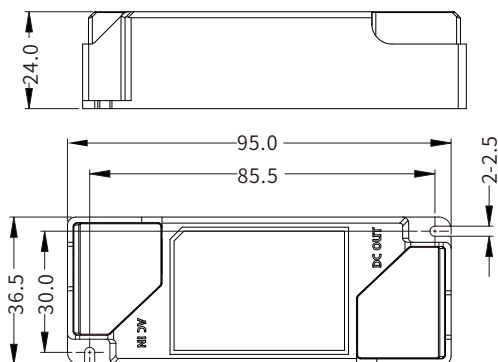


BK-PQL060

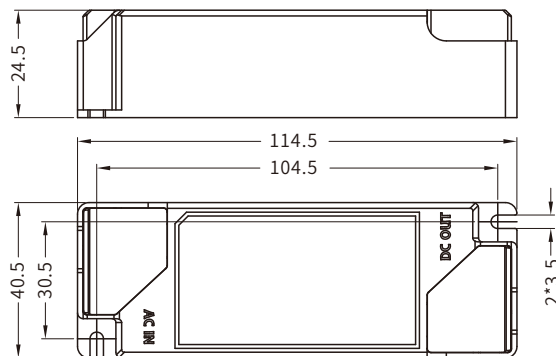


Installation

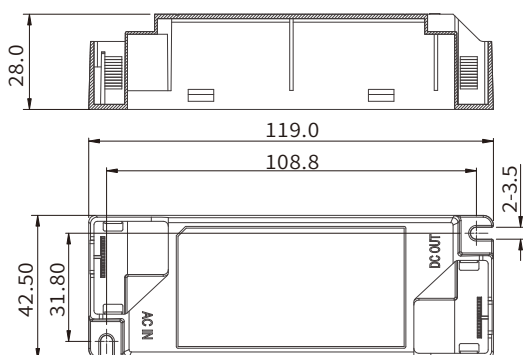
BK-PQL009/BK-PQL013



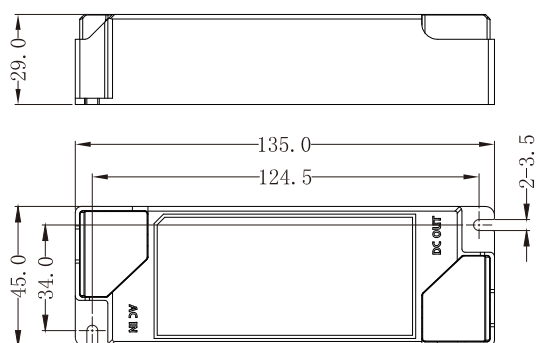
BK-PQL018/BK-PQL022



BK-PQL040

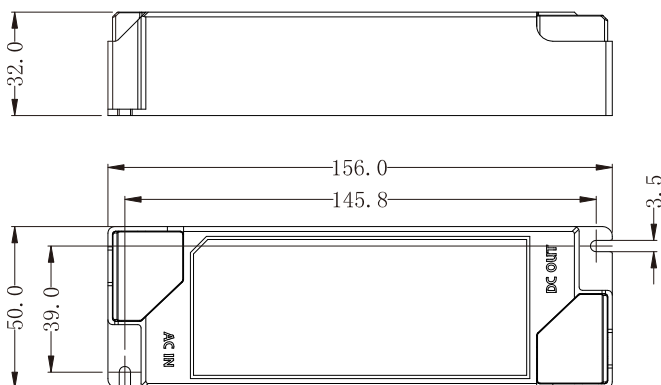


BK-PQL042/PQL050



Unit:mm

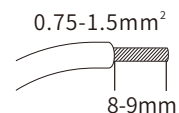
BK-PQL060



INPUT

Pin Numbering	function	colour
1	ACL	orange
2	ACN	orange

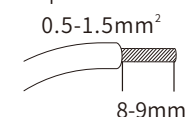
Input wire



OUTPUT

Pin Numbering	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.

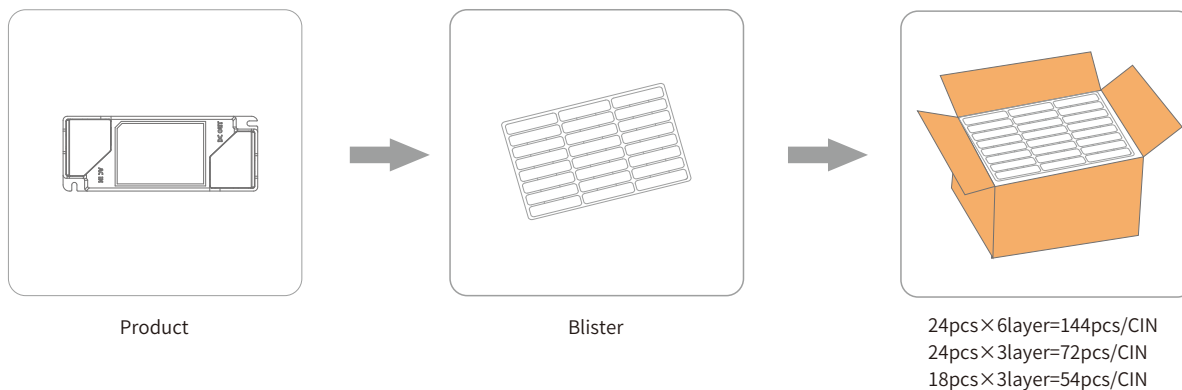
Mounting screw specifications and torque

- 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



Model	Product size	Weight	Blister size	Carton size	Qty/carton	N.W	G.W
PQL009	L95*W36.5*H24mm	55g	L430*W340*H25mm	L450*W350*H180mm	144pcs	7.92kg	9.04kg
PQL013	L95*W36.5*H24mm	55g	L430*W340*H25mm	L450*W350*H180mm	144pcs	7.92kg	9.04kg
PQL018	L114.5*W41*H24.5mm	75g	L430*W340*H47mm	L450*W350*H180mm	72pcs	5.40kg	6.42kg
PQL022	L114.5*W41*H24.5mm	75g	L430*W340*H47mm	L450*W350*H180mm	72pcs	5.40kg	6.42kg
PQL040	L119*W42.5*H28mm	95g	L430*W340*H47mm	L450*W350*H180mm	72pcs	6.90kg	9.00kg
PQL042	L135*W45*H29mm	118g	L430*W340*H47mm	L450*W350*H180mm	72pcs	8.50kg	10.5kg
PQL050	L135*W45*H29mm	151g	L430*W340*H47mm	L450*W350*H180mm	72pcs	10.9kg	12.0kg
PQL060	L156*W50*H38mm	195g	L430*W340*H48mm	L450*W350*H180mm	54pcs	10.5kg	12.0kg

Additional information

1. This product can only be used outside the light body, Can not be used inside of the light, and it must be used within the specified working environment.
2. 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.
3. For more information, please send an email to info@powerboke.com.