



RoHS SELV



FEATURES

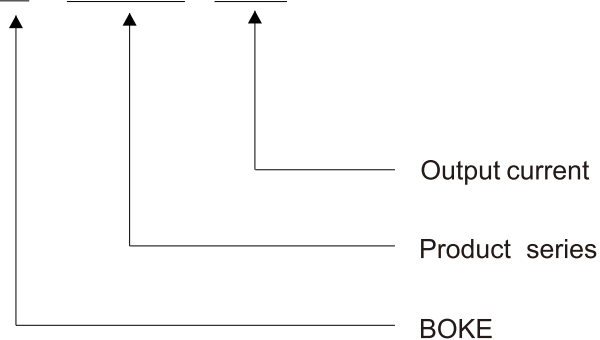
1. 180-264VAC input
2. Class II driver, no FG, flicker free
3. Built in active PFC function, high PF, low THD
4. Turn on delay time < 0.5s
5. Output current ripple is low (less than 5%)
6. Input and output screw free fastening design
7. Compact design
8. Natural cooling
9. For indoor lighting only
10. 5 years warranty

APPLICATION

1. LED indoor lighting
2. LED office lighting
3. LED architectural lighting

MODEL CODE

BK - PQLXXX - XXXX



ELECTRICAL SPECIFICATION

MODEL	BK-PQL009-0150	BK-PQL009-0200	BK-PQL009-0250	
OUTPUT				
DC current	0.15A	0.2A	0.25A	
DC voltage range	30-42V	30-42V	30-42V	
Rated power	6. 3W Max.	8. 4W Max.	10. 5W Max.	
Voltage ripple & noice note.2	≤200mV(Vpp)	≤200mV(Vpp)	≤200mV(Vpp)	
Current ripple & noice	≤10mA(RMS)	≤10mA(RMS)	≤10mA(RMS)	
Constsnt current ADJ. range	0.15A	0.16-0.2A	0.21-0.25A	
Constant current accuracy	±15mA@230VAC	±20mA	±20mA	
Line regulation	±5%	±5%	±5%	
Load regulation	±5%	±5%	±5%	
Dimming port output current	N/A			
External PWM interface	N/A			
INPUT				
Rated voltage	200-240VAC 200-240VDC			
Input AC voltage range	180-264VAC			
Input DC voltage range	200-264VDC			
Frequency range	47-63Hz			
Power factor	PF>0.95 @ 230VAC/full load			
Total harmonic distortion	THD<10% @ 230VAC/full load			
Efficiency (Typ.)	82.5%			
Standby power note.3	N/A			
Input current	<0.1A @ 230Vac			
Inrush current(Typ.)	Cold start <30A(measured at 50% Ipeak) @ 230Vac.			
Max. No. of PSUs on 16A circuit breaker	24 units(circuit breaker of type B)/27 units(circuit breaker of type C);at 230VAC.			
Turn on delay	<0.5s @ 230Vac			
PROTECTION				
Short circuit	Hiccup,recovers automatically after environment temperature declines			
Max output voltage	50V			
Over temperature	Hiccup,recovers automatically after fult condition is removed			
ENVIRO-HMENT				
Operation temperature	-20-55℃			
Operation humidity	10-90% RH non-condensing			
Storagr tempera-ture/humidity	-40-80℃ 5-95% RH			
IP class	IP20			
Vibration	10~500Hz,5G 12min./1cycle,period for 72min. each along X,Y,Z axes			
Tc	Tc=80℃(Ta=55℃)			
MTBF	500000H,MIL-HDBK-217F(25℃)			
LIFETIME	See life curve for details			
EMC				
EMC emisson Note.4	Compliance to EN55015,GB17743,EN61000-3-2 Class C(≥30% load),EN61000-3-3			
EMC immunity	Compliance to EN61000-4-2,3,4,5,6,8,1,EN61547			
SAFETY				
Safety standards	EN61347-1/2-13,GB19510.1/14,EN62384,IEEE1789			
Certificate	CE-SUD ENEC RCM CCC			
Withstand voltage	I/P-O/P:3750VAC			
Surge	DM 1KV			
Leakage current	<0.7mA @ 240Vac			
Isolation resis-tance	I/P-O/P:100MΩ/500Vdc/25℃/70% RH			
INTERFACE				
Environmental protection	RoHS			
Input connection	PCB connector/2PIN/orange+orange/0.75mm^2			
Output connection	PCB connector/2PIN/black+red/0.5-1.5mm^2			
NOTE: 1.All parameter are measured at 230VAC input,rated load and 25℃ of ambient temperature. 2.Ripple & Noise are measured at 20MHz of bandwith by using a 12" twised pair-wire terminated with a 0.1uF & 47uF paralld capacitor. 3.The power supply is considers as a compent that wil be operated in combination with final equipment.Since EMC performance will be affected by the complete installation the final equipment manufactures must re-quality EMC directive on the complete installation again. 4.When using the power supply, first make sure that the power output and the load are properly connected, and then turn on the AC.Do not connect the AC power before connecting the LED light load.				

ELECTRICAL SPECIFICATION			
MODEL	BK-PQL013-0300	BK-PQL013-0350	
OUTPUT			
DC current	0.3A	0.35A	
DC voltage range	30-42V	30-38V	
Rated power	12. 6W Max.	13. 3W Max.	
Voltage ripple & noise note.2	≤200mV(Vpp)	≤200mV(Vpp)	
Current ripple & noise	≤10mA(RMS)	≤10mA(RMS)	
Constsnt current ADJ. range	0.26-0.3A	0.31-0.35A	
Constant current accuracy	±20mA	±20mA	
Line regulation	±5%	±5%	
Load regulation	±5%	±5%	
Dimming port output current	N/A		
External PWM interface	N/A		
INPUT			
Rated voltage	200-240VAC 200-240VDC		
Input AC voltage range	180-264VAC		
Input DC voltage range	200-264VDC		
Frequency range	47-63Hz		
Power factor	PF>0.95 @ 230VAC/full load		
Total harmonic distortion	THD<10% @ 230VAC/full load		
Efficiency (Typ.)	82.5%		
Standby power note.3	N/A		
Input current	<0.1A @ 230Vac		
Inrush current(Typ.)	Cold start <30A(measured at 50% Ipeak) @ 230Vac.		
Max. No. of PSUs on 16A circuit breaker	24 units(circuit breaker of type B)/27 units(circuit breaker of type C);at 230VAC.		
Turn on delay	<0.5s @ 230Vac		
PROTECTION			
Short circuit	Hiccup,recovers automatically after environment temperature declines		
Max output voltage	50V		
Over temperature	Hiccup,recovers automatically after fult condition is removed		
ENVIRO-HMENT			
Operation temperature	-20-45°C		
Operation humidity	10-90% RH non-condensing		
Storagr tempera-ure/humidity	-40-80°C 5-95% RH		
IP class	IP20		
Vibration	10~500Hz,5G 12min./1cycle,period for 72min. each along X,Y,Z axes		
Tc	Tc=80°C(Ta=45°C)		
MTBF	500000H,MIL-HDBK-217F(25°C)		
LIFETIME	See life curve for details		
EMC			
EMC emisson Note.4	Compliance to EN55015,GB17743,EN61000-3-2 Class C(≥30% load),EN61000-3-3		
EMC immunity	Compliance to EN61000-4-2,3,4,5,6,8,1,EN61547		
SAFETY			
Safety standards	EN61347-1/2-13,GB19510.1/14,EN62384,IEEE1789		
Certificate	CE-SUD ENEC RCM CCC		
Withstand voltage	I/P-O/P:3750VAC		
Surge	DM 1KV		
Leakage current	<0.7mA @ 240Vac		
Isolation resis-tance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH		
INTERFACE			
Environmental protection	RoHS		
Input connection	PCB connector/2PIN/orange+orange/0.75mm^2		
Output connection	PCB connector/2PIN/black+red/0.5-1.5mm^2		
NOTE: 1.All parameter are measured at 230VAC input, rated load and 25°C of ambient temperature. 2.Ripple & Noise are measured at 20MHz of bandwith by using a 12" twised pair-wire terminated with a 0.1uF & 47uF paralld capacitor. 3.The power supply is considers as a compent that wil be operated in combination with final equipment.Since EMC performance will be affected by the complete installation the final equipment manufactures must re-quality EMC directive on the complete installation again. 4.When using the power supply, first make sure that the power output and the load are properly connected, and then turn on the AC.Do not connect the AC power before connecting the LED light load.			

ELECTRICAL SPECIFICATION				
MODEL	BK-PQL018-0350	BK-PQL018-0400	BK-PQL018-0450	
OUTPUT				
DC current	0.35A	0.4A	0.45A	
DC voltage range	30-42V	30-42V	30-40V	
Rated power	14. 7W Max.	16. 8W Max.	18W Max.	
Voltage ripple & noise note.2	≤200mV(Vpp)	≤200mV(Vpp)	≤200mV(Vpp)	
Current ripple & noise	≤20mA(RMS)	≤20mA(RMS)	≤20mA(RMS)	
Constsnt current ADJ. range	0.35A	0.36-0.4A	0.41-0.45A	
Constant current accuracy	±20mA	±20mA	±20mA	
Line regulation	±5%	±5%	±5%	
Load regulation	±5%	±5%	±5%	
Dimming port output current	N/A			
External PWM interface	N/A			
INPUT				
Rated voltage	200-240VAC 200-240VDC			
Input AC voltage range	180-264VAC			
Input DC voltage range	200-264VDC			
Frequency range	47-63Hz			
Power factor	PF>0.95 @ 230VAC/full load			
Total harmonic distortion	THD<10% @ 230VAC/full load			
Efficiency (Typ.)	86%			
Standby power note.3	N/A			
Input current	<0.15A @ 230Vac			
Inrush current(Typ.)	Cold start <30A(measured at 50% Ipeak) @ 230Vac.			
Max. No. of PSUs on 16A circuit breaker	24 units(circuit breaker of type B)/27 units(circuit breaker of type C);at 230VAC.			
Turn on delay	<0.5s @ 230Vac			
PROTECTION				
Short circuit	Hiccup,recovers automatically after environment temperature declines			
Max output voltage	50V			
Over temperature	Hiccup,recovers automatically after fult condition is removed			
ENVIRO-HMENT				
Operation temperature	-20-45°C			
Operation humidity	10-90% RH non-condensing			
Storagr tempera-ture/humidity	-40-80°C 5-95% RH			
IP class	IP20			
Vibration	10~500Hz,5G 12min./1cycle,period for 72min. each along X,Y,Z axes			
Tc	Tc=90°C(Ta=45°C)			
MTBF	500000H,MIL-HDBK-217F(25°C)			
LIFETIME	See life curve for details			
EMC				
EMC emisson Note.4	Compliance to EN55015,GB17743,EN61000-3-2 Class C(≥30% load),EN61000-3-3			
EMC immunity	Compliance to EN61000-4-2,3,4,5,6,8,1,EN61547			
SAFETY				
Safety standards	EN61347-1/2-13,GB19510.1/14,EN62384,IEEE1789			
Certificate	CE-SUD ENEC RCM CCC			
Withstand voltage	I/P-O/P:3750VAC			
Surge	DM 1KV			
Leakage current	<0.7mA @ 240Vac			
Isolation resis-tance	I/P-O/P:100MQ/500Vdc/25°C/70% RH			
INTERFACE				
Environmental protection	RoHS			
Input connection	PCB connector/2PIN/orange+orange/0.75mm^2			
Output connection	PCB connector/2PIN/black+red/0.5-1.5mm^2			
NOTE: 1.All parameter are measured at 230VAC input,rated load and 25°C of ambient temperature. 2.Ripple & Noise are measured at 20MHz of bandwith by using a 12" twised pair-wire terminated with a 0.1uF & 47uF paralld capacitor. 3.The power supply is considers as a compent that wil be operated in combination with final equipment.Since EMC performance will be affected by the complete installation the final equipment manufactures must re-quality EMC directive on the complete installation again. 4.When using the power supply, first make sure that the power output and the load are properly connected, and then turn on the AC.Do not connect the AC power before connecting the LED light load.				

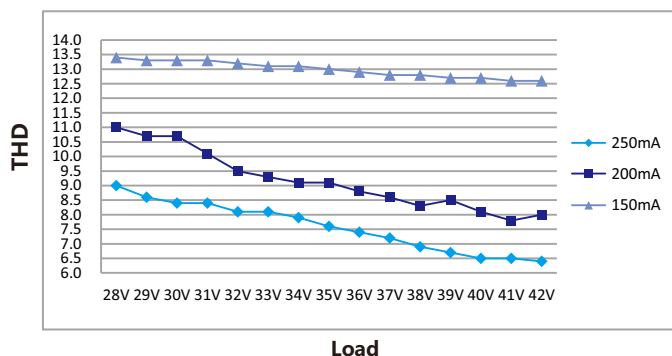
ELECTRICAL SPECIFICATION

MODEL	BK-PQL022-0450	BK-PQL022-0500	BK-PQL022-0550	BK-PQL022-0600
OUTPUT				
DC current	0.45A	0.5A	0.55A	0.6A
DC voltage range	30-42V	30-42V	30-40V	30-36V
Rated power	18.9W Max	21W Max	22W Max	21.6W Max
Voltage ripple & noice note.2	≤280mV(Vpp)	≤280mV(Vpp)	≤280mV(Vpp)	≤280mV(Vpp)
Current ripple & noice	≤20mA(RMS)	≤20mA(RMS)	≤20mA(RMS)	≤20mA(RMS)
Constsnt current ADJ. range	0.45A	0.46-0.5A	0.51-0.55A	0.56-0.6A
Constant current accuracy	±25mA	±25mA	±25mA	±25mA
Line regulation	±5%	±5%	±5%	±5%
Load regulation	±5%	±5%	±5%	±5%
Dimming port output current	N/A			
External PWM interface	N/A			
INPUT				
Rated voltage	200-240VAC 200-240VDC			
Input AC voltage range	180-264VAC			
Input DC voltage range	200-264VDC			
Frequency range	47-63Hz			
Power factor	PF>0.95 @ 230VAC/full load			
Total harmonic distortion	THD<10% @ 230VAC/full load			
Efficiency (Typ.)	86%			
Standby power note.3	N/A			
Input current	<0.2A @ 230Vac			
Inrush current(Typ.)	Cold start <30A(measured at 50% Ipeak) @ 230Vac.			
Max. No. of PSUs on 16A circuit breaker	24 units(circuit breaker of type B)/27 units(circuit breaker of type C);at 230VAC.			
Turn on delay	<0.5s @ 230Vac			
PROTECTION				
Short circuit	Hiccup,recovers automatically after environment temperature declines			
Max output voltage	50V			
Over temperature	Hiccup,recovers automatically after fult condition is removed			
ENVIRO-HMENT				
Operation temperature	-20-45°C			
Operation humidity	10-90% RH non-condensing			
Storagr tempera-ture/humidity	-40-80°C 5-95% RH			
IP class	IP20			
Vibration	10~500Hz,5G 12min./1cycle,period for 72min. each along X,Y,Z axes			
Tc	Tc=90°C(Ta=45°C)			
MTBF	500000H,MIL-HDBK-217F(25°C)			
LIFETIME	See life curve for details			
EMC				
EMC emisson Note.4	Compliance to EN55015,GB17743,EN61000-3-2 Class C(≥30% load),EN61000-3-3			
EMC immunity	Compliance to EN61000-4-2,3,4,5,6,8,1,EN61547			
SAFETY				
Safety standards	EN61347-1/2-13,GB19510.1/14,EN62384,IEEE1789			
Certificate	CE-SUD ENEC RCM CCC			
Withstand voltage	I/P-O/P:3750VAC			
Surge	DM 1KV			
Leakage current	<0.7mA @ 240Vac			
Isolation resis-tance	I/P-O/P:100MQ/500Vdc/25°C/70% RH			
INTERFACE				
Environmental protection	RoHS			
Input connection	PCB connector/2PIN/orange+orange/0.75mm^2			
Output connection	PCB connector/2PIN/black+red/0.5-1.5mm^2			
NOTE: 1.All parameter are measured at 230VAC input,rated load and 25°C of ambient temperature. 2.Ripple & Noise are measured at 20MHz of bandwith by using a 12" twised pair-wire terminated with a 0.1uF & 47uF paralld capacitor. 3.The power supply is considers as a compent that wil be operated in combination with final equipment.Since EMC performance will be affected by the complete installation the final equipment manufactures must re-quality EMC directive on the complete installation again. 4.When using the power supply, first make sure that the power output and the load are properly connected, and then turn on the AC.Do not connect the AC power before connecting the LED light load.				

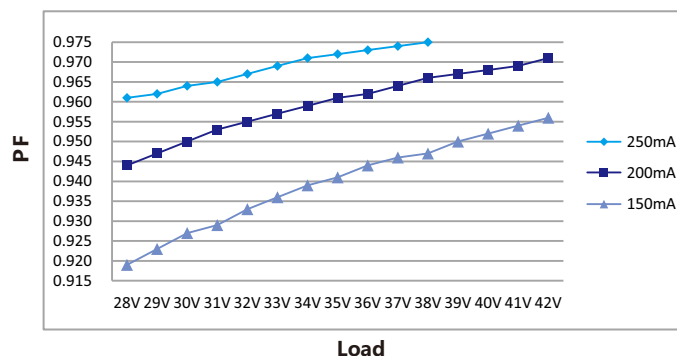
Electrical characteristics

BK-PQL009-0250A Electrical characteristics(@ 230VAC)

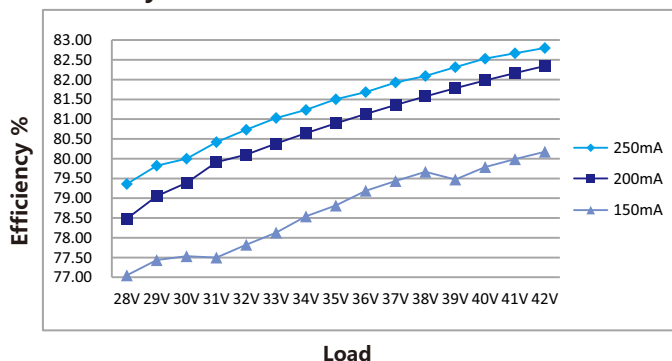
THD vs. Load



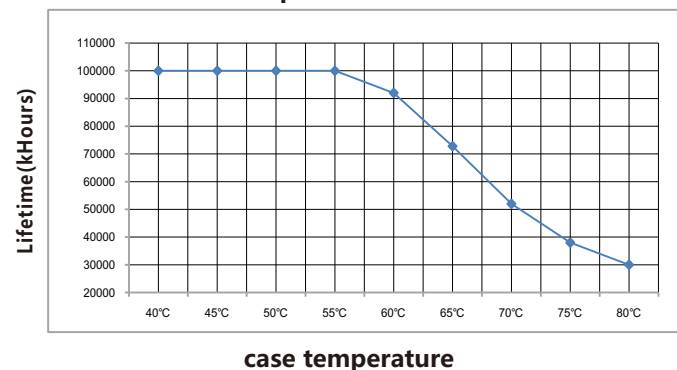
Power factor vs. Load



Efficiency vs. Load

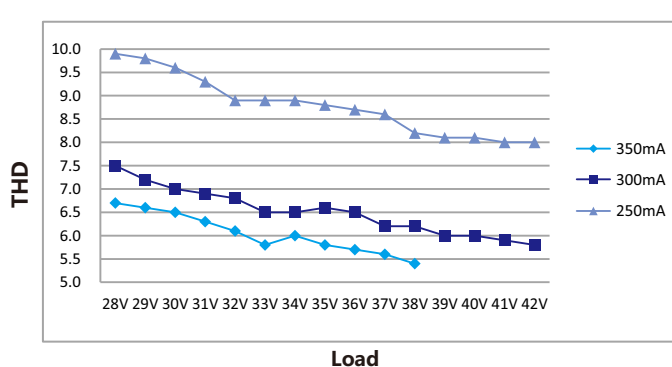


Lifetime vs. case temperature

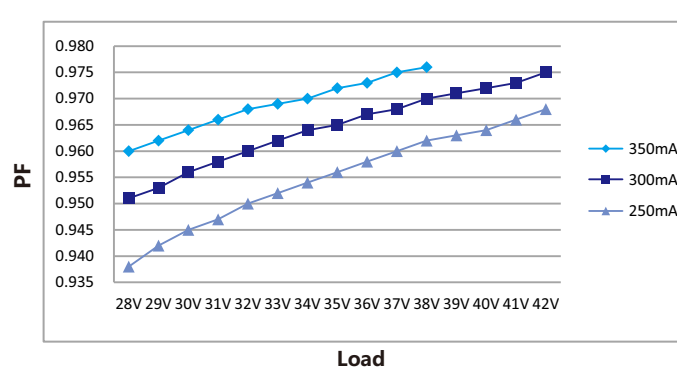


BK-PQL013-0350 Electrical characteristics(@ 230VAC)

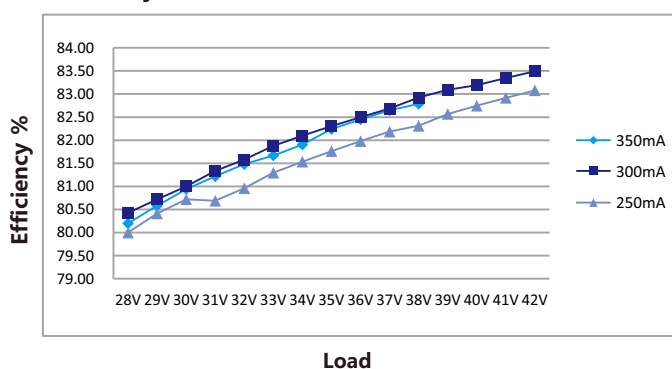
THD vs. Load



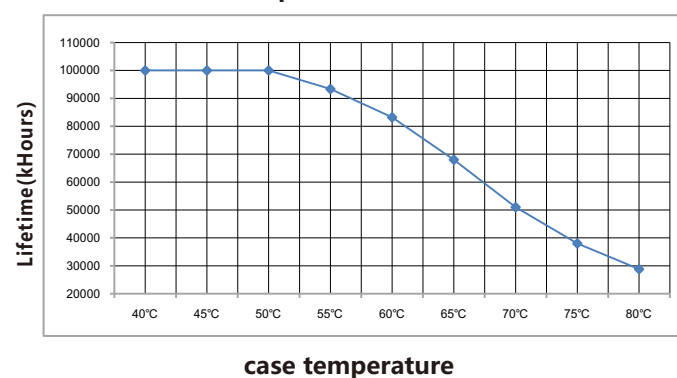
Power factor vs. Load



Efficiency vs. Load



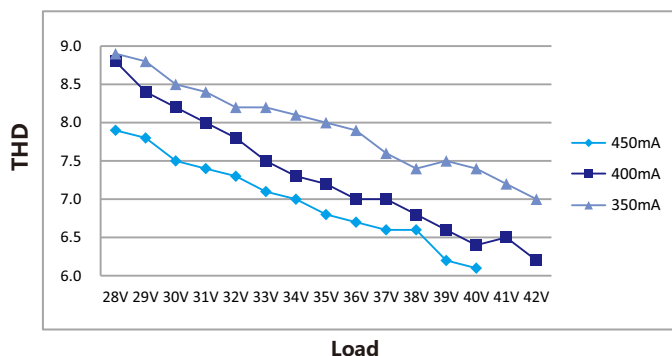
Lifetime vs. case temperature



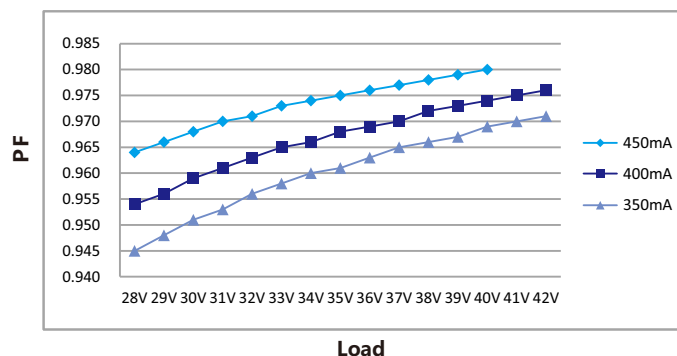
Electrical characteristics

BK-PQL018-0450A Electrical characteristics(@ 230VAC)

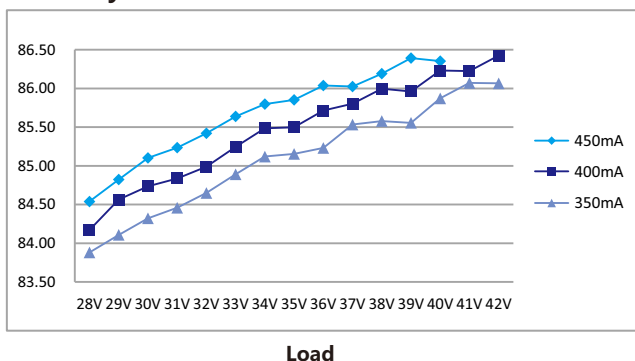
THD vs. Load



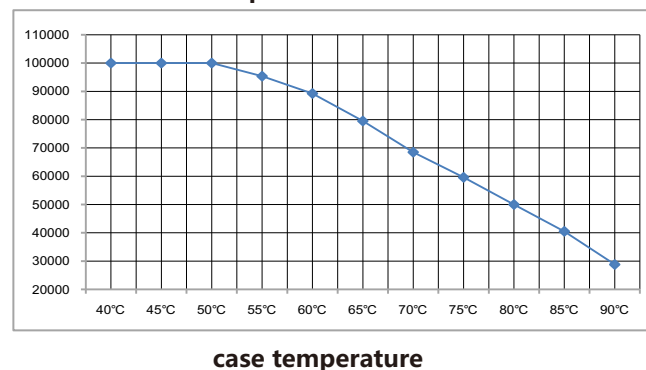
Power factor vs. Load



Efficiency vs. Load

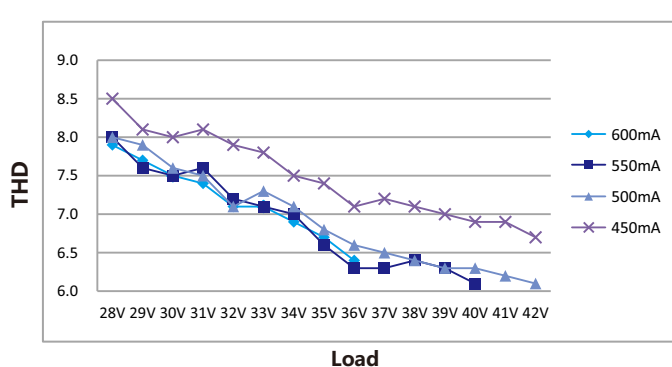


Lifetime vs. case temperature

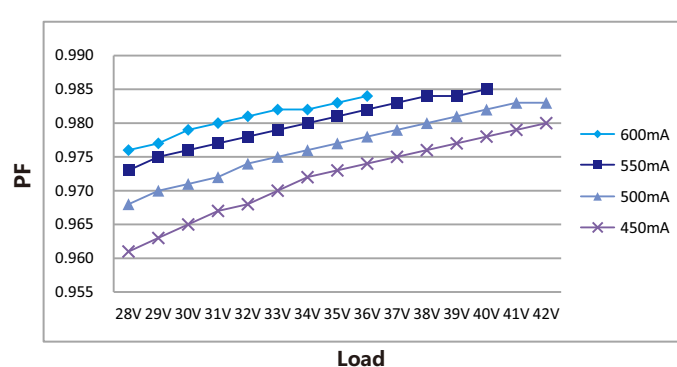


BK-PQL022-0600 Electrical characteristics(@ 230VAC)

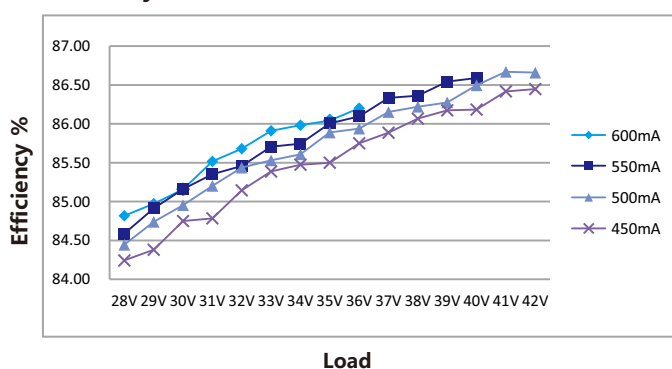
THD vs. Load



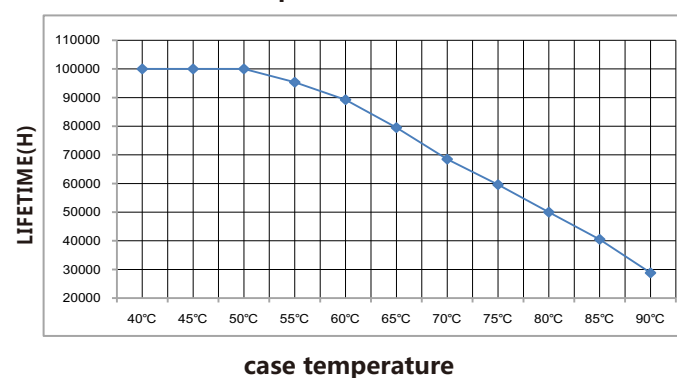
Power factor vs. Load



Efficiency vs. Load

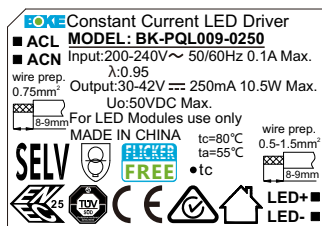


Lifetime vs. case temperature

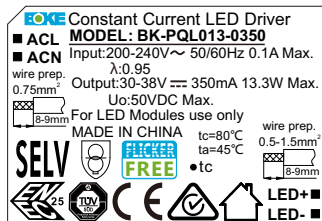


Label

BK-PQL009



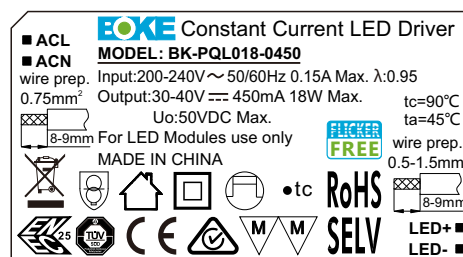
BK-PQL013



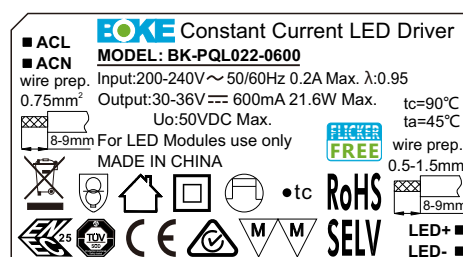
Side label



BK-PQL0018

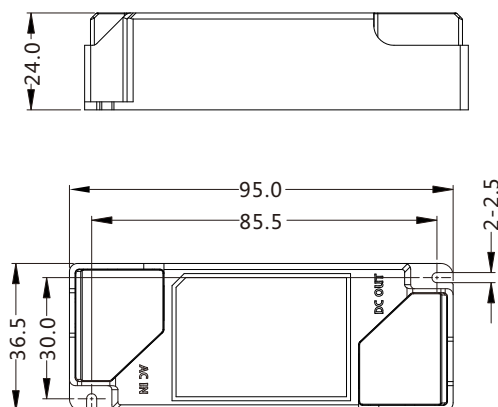


BK-PQL022

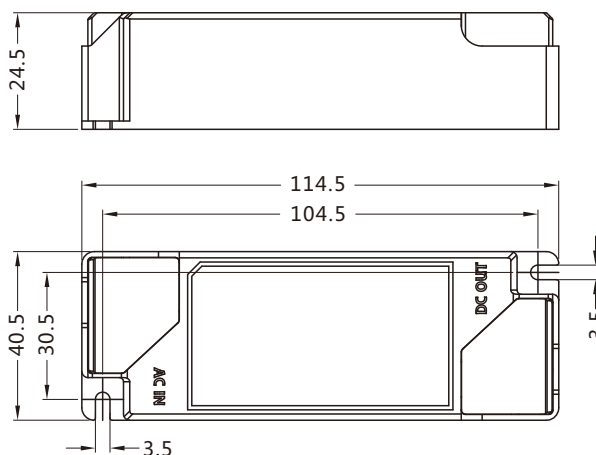


Mechanical Specification

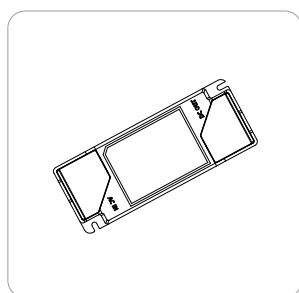
BK-PQL009/BK-PQL013



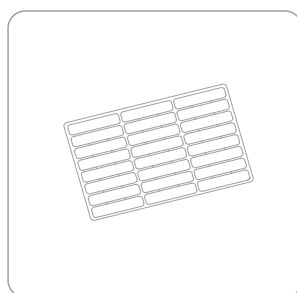
BK-PQL018/BK-PQL022



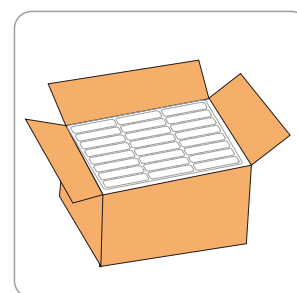
Product package



Product



Blister


24pcs*6layer=144pcs/CTN)
24pcs*3layer=72pcs/CTN)

Product	Product size	Weight	Carton size	N.W	G.W	Blister	Flat card	Packing
PQL009 PQL013	L95*W36.5*H24mm	55g	L450*W350*H180mm	7.92kg	9.04kg	L430*W340*H25mm	L435*W335mm	144pcs
PQL018 PQL022	L114.5*W41*H24.5mm	75g	L450*W350*H180mm	5.4kg	6.42kg	L430*W340*H47mm	L435*W335mm	72pcs