



XLC-40-KN-S Series
(Independent type)



XLC-40-KN Series
(Built-in type)



Features

- Constant power mode output with multiple stage selectable by ETS database
- Plastic housing with class II and PFC design
- Flicker free, complying with CE ErP directive
- Standby power consumption <0.5W
- Meet emergency lighting (EL) function application
- KNX/EIB protocol, support KNX data secure
- Minimum dimming level 0.5%
- Function:operation hours,power consumption feedback, log/linear curve selection...etc
- 5 years warranty

Applications

- Recessed Light
- Down Light
- Panel Light
- Commercial Lighting
- Decorative Lighting
- KNX digital Lighting

GTIN CODE

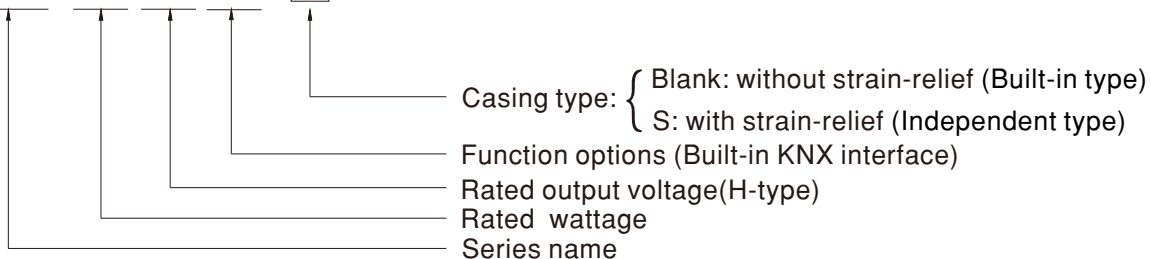
MW Search: <https://www.meanwell.com/serviceGTIN.aspx>

Description

XLC-40-KN Series is a 40W with constant power output LED driver . It can operate from 100~305VAC and output current ranging between 600 mA to 1400 mA selectable by ETS database. The integrate KNX interface avoids using the complicated KNX-DALI gateway. Thanks to high efficiency up to 88%, it is able to operate for -25°C ~90°C case temperature under free air convection. XLC-40-KN is designed based on latest safety regulations and provides more flexibility for LED Lighting application.

Model Encoding

XLC - 40 - H - KN



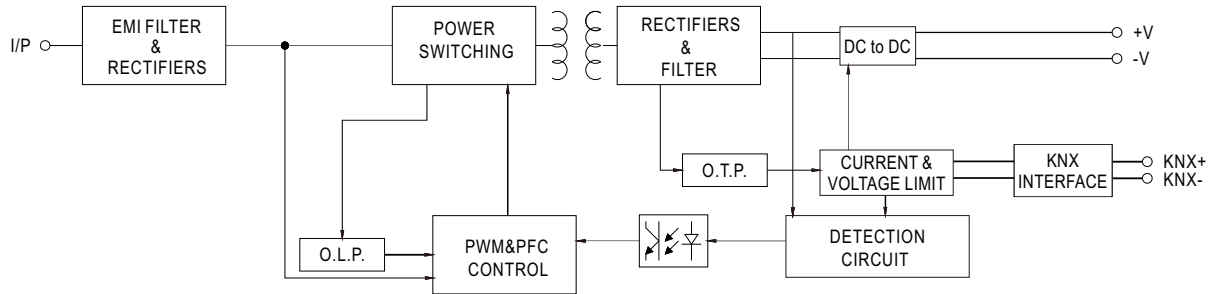
Type	Function	Note
KN	Built-in KNX interface, without strain-relief (Built-in type)	In stock
KNS	Built-in KNX interface, with strain-relief (Independent type)	In stock

SPECIFICATION

MODEL		XLC-40-H-KN□		
OUTPUT	OPEN CIRCUIT VOLTAGE Note.2	60V		
	DEFAULT CURRENT	600mA		
	CURRENT ADJ. RANGE (BY ETS Database)	0.6~1.4A		
	CONSTANT CURRENT REGION Note.3	9~54V		
	RATED POWER Note.4	40W		
	CURRENT RIPPLE	<4%(@full load)		
	CURRENT TOLERANCE	±5%		
	DIMMING RANGE	0~100%		
	SETUP, RISE TIME Note.5	500ms, 100ms/230VAC, 1000ms, 100ms/115VAC		
INPUT	VOLTAGE RANGE	100 ~ 305VAC 141 ~ 400VDC		
	FREQUENCY RANGE	47 ~ 63Hz		
	POWER FACTOR	PF ≥ 0.97/115VAC, PF ≥ 0.95/230VAC, PF ≥ 0.92/277VAC@full load (Please refer to "POWER FACTOR (PF) CHARACTERISTIC" section)		
	TOTAL HARMONIC DISTORTION	THD<10%(@load ≥ 50%/230VAC; @load ≥ 75%/277VAC), THD<15%(@load ≥ 50%/115VAC) (Please refer to "TOTAL HARMONIC DISTORTION(THD)" section)		
	EFFICIENCY (Typ.) Note.6	88%		
	AC CURRENT	0.5A / 115VAC 0.25A / 230VAC 0.2A/277VAC		
	INRUSH CURRENT(Typ.)	COLD START 10A(twidth=100μs measured at 50% Ipeak) at 230VAC; Per NEMA 410		
	MAX. No. of PSUs on 16A CIRCUIT BREAKER	51 units (circuit breaker of type B) / 51 units (circuit breaker of type C) at 230VAC		
	LEAKAGE CURRENT	<0.75mA / 277VAC		
PROTECTION	STANDBY POWER CONSUMPTION Note.7	Standby power consumption<0.5W(Dimming off)		
	SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed		
ENVIRONMENT	OVER TEMPERATURE	Stage 1: De-rating to 75% loading; Stage 2: De-rating to 50% loading. Recovers automatically after fault condition is removed.		
	WORKING TEMP.	Tcase=-25 ~ 90°C (Please refer to " OUTPUT LOAD vs TEMPERATURE" section)		
	MAX. CASE TEMP.	Tcase=90°C		
	WORKING HUMIDITY	20 ~ 90% RH non-condensing		
	STORAGE TEMP., HUMIDITY	-40 ~ +80°C, 10 ~ 95% RH		
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)		
SAFETY & EMC	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes		
	SAFETY STANDARDS	ENEC BS EN/EN61347-1, BS EN/EN61347-2-13(EL) appendix J suitable for emergency installations(DC input 176-280VDC), BS EN/EN62384; GB/T19510.1, GB/T19510.213; EAC TP TC 004 approved; Design refer to AS/NZS 61347-1, AS/NZS 61347-2-13		
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC		
	ISOLATION RESISTANCE	I/P-O/P:>100M Ohms / 500VDC / 25°C / 70% RH		
	EMC EMISSION	Parameter	Standard	Test Level/Note
		Conducted	BS EN/EN55015(CISPR15) ,GB/T 17743	-----
		Radiated	BS EN/EN55015(CISPR15) ,GB/T 17743	-----
		Harmonic Current	BS EN/EN61000-3-2 , GB17625.1	Class C @load≥50%
	EMC IMMUNITY	Voltage Flicker	BS EN/EN61000-3-3	-----
		Parameter	Standard	Test Level/Note
		ESD	BS EN/EN61000-4-2	Level 3, 8KV air ; Level 2, 4KV contact
Radiated		BS EN/EN61000-4-3	Level 2	
EFT/Burst		BS EN/EN61000-4-4	Level 2	
Surge		BS EN/EN61000-4-5	Level 3, 1KV/Line-Line	
Conducted		BS EN/EN61000-4-6	Level 2	
Magnetic Field		BS EN/EN61000-4-8	Level 2	
Voltage Dips and Interruptions	BS EN/EN61000-4-11	70% residual voltage for 10 period, 0% residual voltage for 0.5 periods		
OTHERS	KNX	Certified protocol		
	FLICKER Note.8	PstLM ≤ 1, SVM ≤ 0.4		
	MTBF	3935.2 K hrs min. Telcordia SR-332 (Bellcore) ; 342.9 Khrs min. MIL-HDBK-217F (25°C)		
	DIMENSION	147*40*32mm,107*40*32mm (L*W*H)		
	PACKING	193g; 60pcs/12.6Kg/0.58CUFT(for blank type); 205g; 50pcs/11Kg/0.57CUFT(for S-type)		
NOTE	<p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated current and 25°C of ambient temperature.</p> <p>2. Output hiccups under no-load condition.</p> <p>3. Please refer to "DRIVER METHODS OF LED MODULE".</p> <p>4. De-rating may be need under low input voltages. Please refer to "STATIC CHARACTERISTIC" sections for details.</p> <p>5. Length of set up time is measured at first cold start. Turning ON/OFF the driver may lead to increase of the set up time.</p> <p>6. Efficiency is measured at 800mA/50V output set by ETS database.</p> <p>7. Standby power consumption is measured at 230VAC.</p> <p>8. Flicker is measured at full load with the light source provided by MEAN WELL.</p> <p>9. The driver is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again. (as available on https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf)</p> <p>10. For XLC-S series: RCM is on a voluntary basis. Non IC classification independent LED control gear is not suitable for residential installations. For XLC(except -S) series: RCM is on a voluntary basis and meets relevant IEC or AS/NZS standards complying with AS/NZS 4417.1</p> <p>11. The ambient temperature de-rating of 3.5°C/1000m with fanless models and 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).</p> <p>12. This series meets the typical life expectancy of >50,000 hours of operation when Tcase, particularly (Ⓢ) point (or TMP, per DLC), is about 75°C or less.</p> <p>13. For more information, please contact with MEAN WELL sales.</p> <p>※Product Liability Disclaimer: For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx</p>			

■ BLOCK DIAGRAM

Fosc : 90KHz

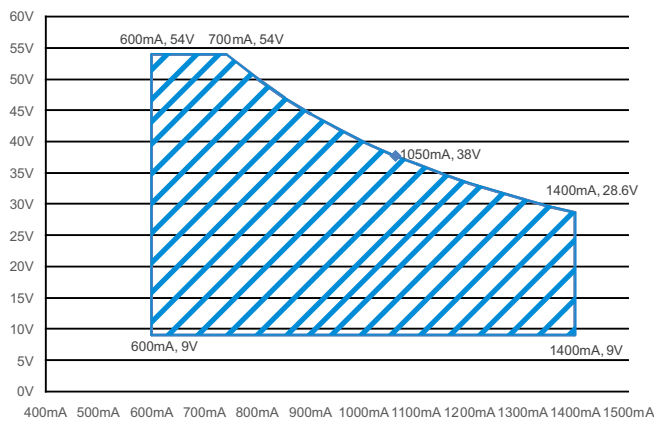


■ DRIVING METHODS OF LED MODULE

※ I-V Operating Area

◎ XLC-40-H-KN

For 40W application



■ CONSTANT POWER TABLE

XLC-40-KN is a multiple-stage constant power driver, selection of output current through Database.

Vo	Io	Vo	Io
9~54V	600mA(Default)	9~38V	1050mA
9~54V	650mA	9~36V	1100mA
9~54V	700mA	9~35V	1150mA
9~54V	750mA	9~33V	1200mA
9~50V	800mA	9~32V	1250mA
9~47V	850mA	9~31V	1300mA
9~45V	900mA	9~30V	1350mA
9~42V	950mA	9~29V	1400mA
9~40V	1000mA		

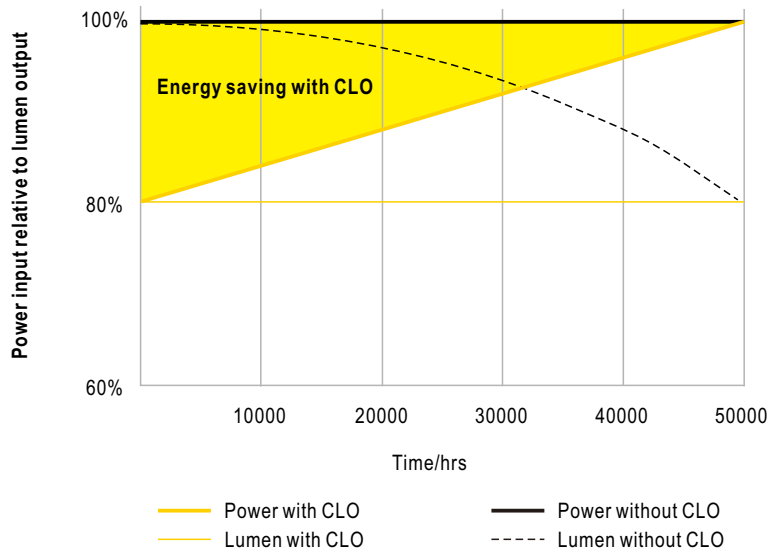
■ DIMMING OPERATION

※ **KNX interface**

- Apply KNX Bus cable between KNX+ and KNX-
- The application program(database) can be downloaded via Online Catalogs from ETS or via <http://www.meanwell.com/productCatalog.aspx>

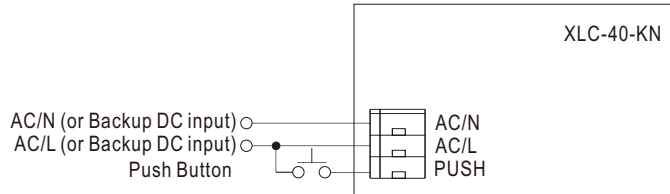
Parametrization options	Description
Device Setting	<ul style="list-style-type: none"> • Select current level • Select model • Behavior bus power up
Parameter Setting	<ul style="list-style-type: none"> • Basic Setting <ul style="list-style-type: none"> • normal Dimmer, staircase light • switch function • relative dimming function • absolute dimming function • Feedback Setting <ul style="list-style-type: none"> • dimming value report • on/off state report • lamp failure report • Lock function
Scenes	<ul style="list-style-type: none"> • Learn scene • scene1~scene32
Automatic function	<ul style="list-style-type: none"> • Automatic function1~4
operating hours	<ul style="list-style-type: none"> • Counting of operating hours • Constant light output(CLO) • Life time pre-warning
Power consumption	<ul style="list-style-type: none"> • Voltage, current, power feedback • Energy consumption feedback
Temperature Measurement	<ul style="list-style-type: none"> • customize the alarm temperature • Send temperature report cyclically
Auto-dimming over time	<ul style="list-style-type: none"> • Optional gradient dimming
Correction characteristic	<ul style="list-style-type: none"> • Correction by lux measured value(lux)
Push Dim Port	<ul style="list-style-type: none"> • Push dim • AC monitor

※ **CONSTANT LIGHT OUTPUT**



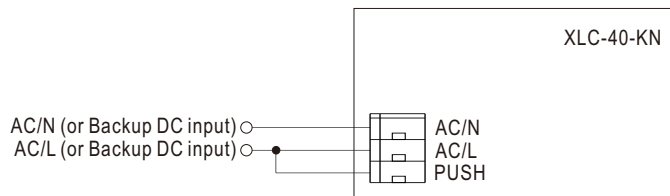
※ **PUSH dimming or AC/DC input monitor(Primary side)**

◎ **PUSH dimming**



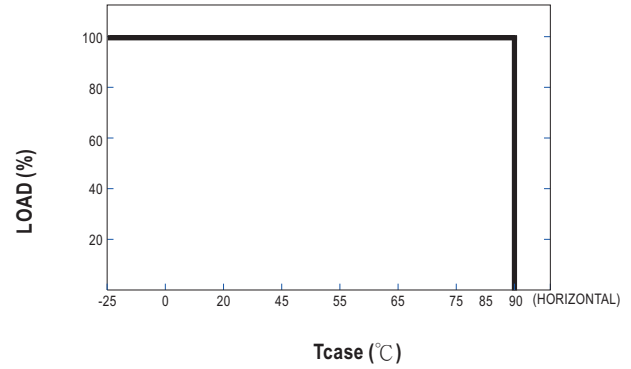
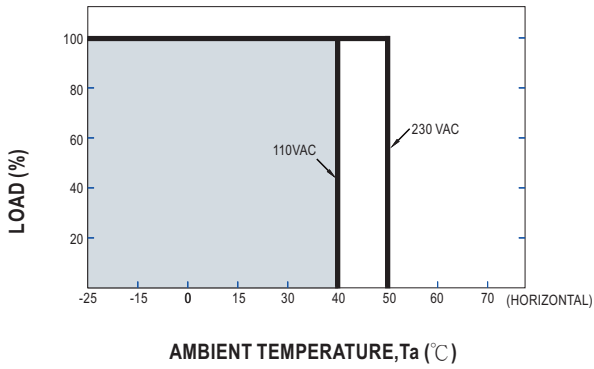
- KNX bus need to be connected when using PUSH Dimming
- The detailed function of PUSH dimming, please refer to the database.
- The maximum length of the cable between the push button and driver is 20 meters.
- The mechanical push button can be connected only between the PUSH terminal, as displayed in the diagram, and AC/L (in brown or black); It will not function properly if it is connected to AC/N.
- In case the PUSH dimming is set locally, up to 10 drivers can perform the PUSH dimming at the same time when utilizing one common push button.
- In case the PUSH dimming is set independently via ETS, the number of drivers is done through group address and determined by the ETS project designer.

◎ **AC/DC input monitor**

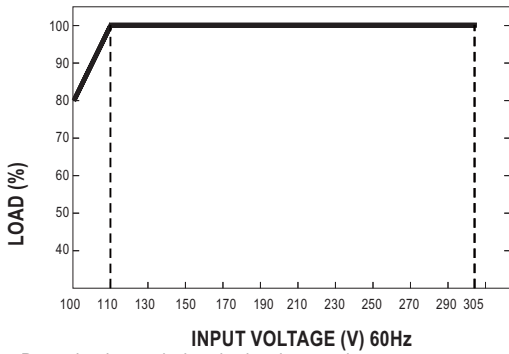


- KNX bus need to be connected when using AC/DC input monitor
- The detailed function of AC/DC input monitor(emergency lighting), please refer to the database and instruction manual.

OUTPUT LOAD vs TEMPERATURE

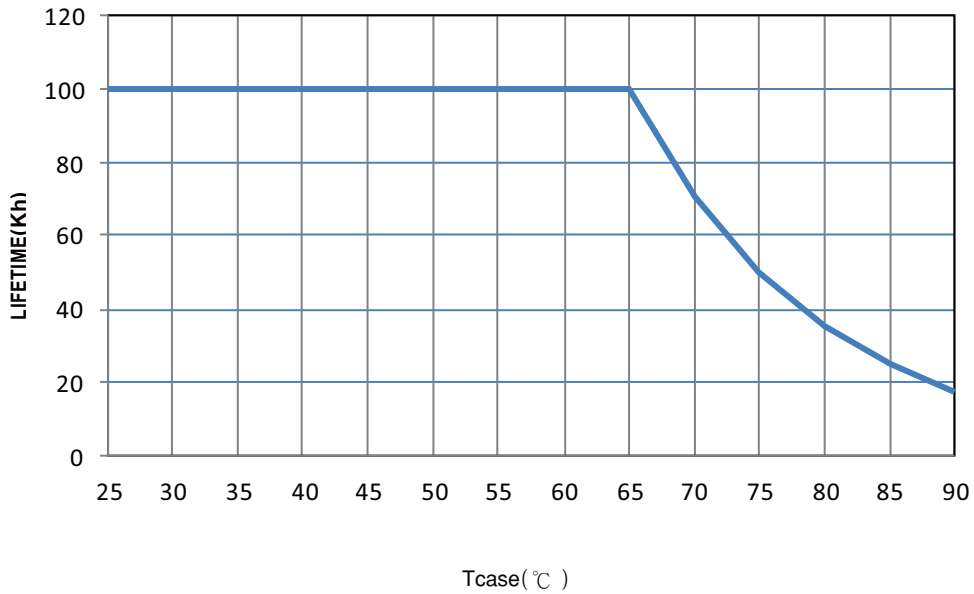


STATIC CHARACTERISTIC



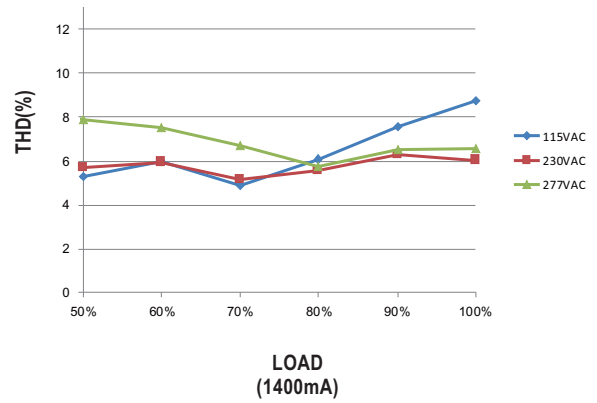
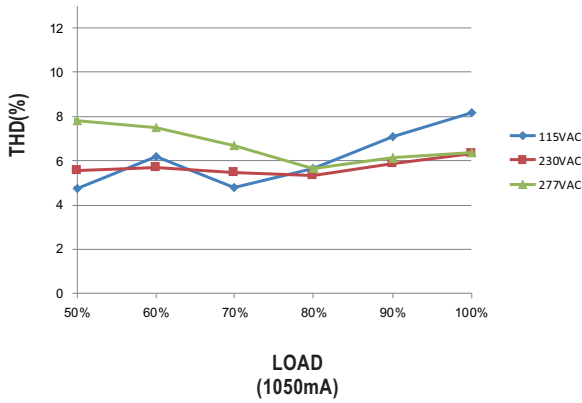
※ De-rating is needed under low input voltage.

LIFE TIME



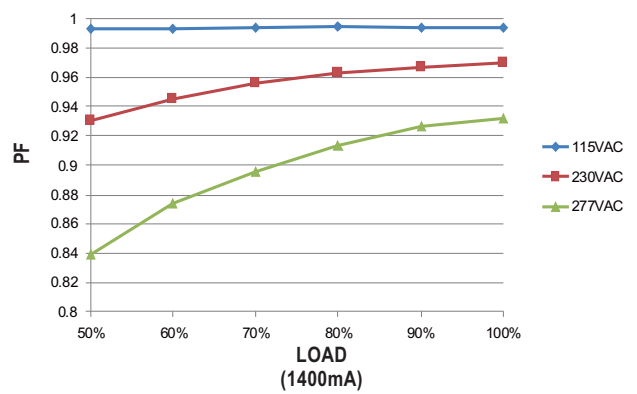
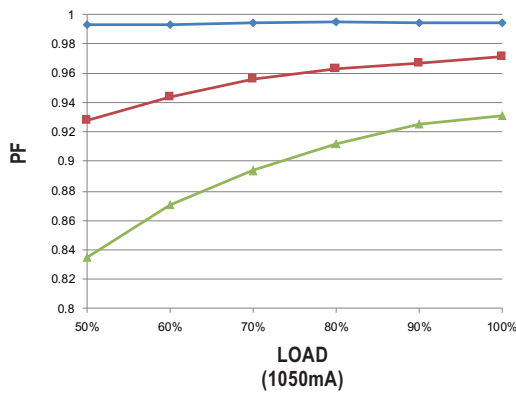
TOTAL HARMONIC DISTORTION (THD)

※ XLC-40-H-KN Model, Tcase at 75°C



POWER FACTOR (PF) CHARACTERISTIC

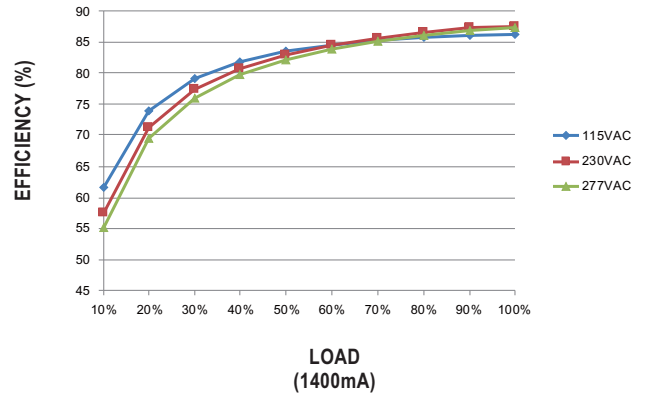
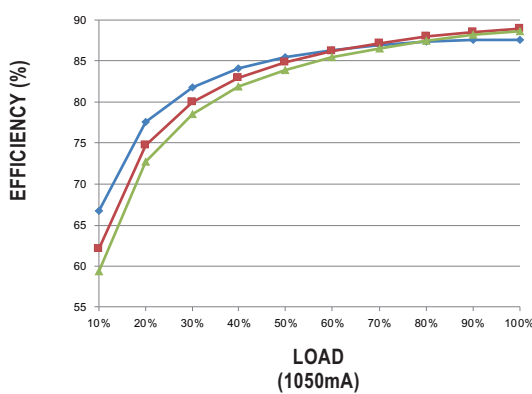
※ XLC-40-H-KN Model, Tcase at 75°C



EFFICIENCY vs LOAD

XLC-40-KN series possess superior working efficiency that up to 88% can be reached in field applications.

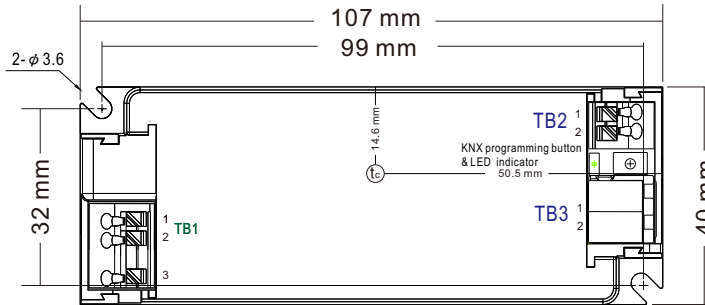
※ XLC-40-H-KN Model, Tcase at 75°C



MECHANICAL SPECIFICATION

Case No.XLC-25 Unit:mm Tolerance:±1

※ XLC-40-H-KN Built-in Type



※ Terminal Pin No. Assignment(TB1)

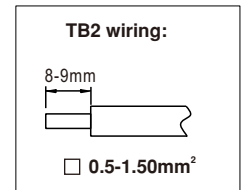
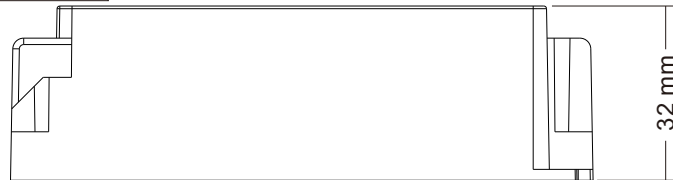
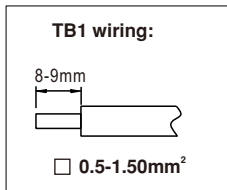
Pin No.	Assignment
1	AC/N
2	AC/L
3	PUSH

※ Terminal Pin No. Assignment(TB2)

Pin No.	Assignment
1	+V
2	-V

※ Terminal Pin No. Assignment(TB3)

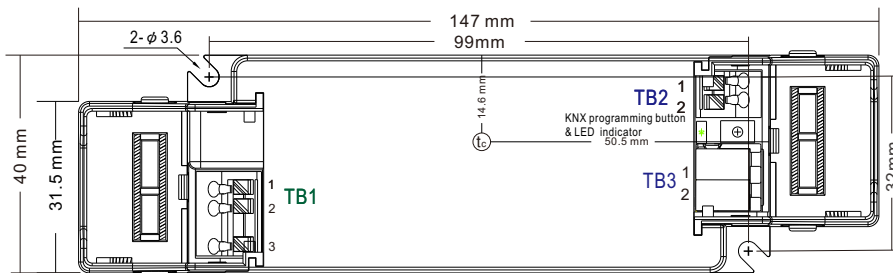
Pin No.	Assignment
1	KNX+
2	KNX-



Item	Order No.	Quantity(MOQ/1Bag)
Strain-relief cap	1**3XLC-SET	50pcs (2pcs 1 set)

※ XLC-40-H-KNS Independent Type

Case No.XLC-25-S Unit:mm Tolerance:±1



※ Terminal Pin No. Assignment(TB1)

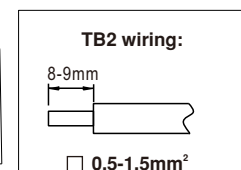
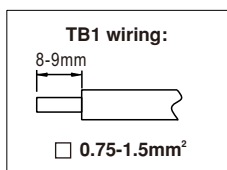
Pin No.	Assignment
1	AC/N
2	AC/L
3	PUSH

※ Terminal Pin No. Assignment(TB2)

Pin No.	Assignment
1	+V
2	-V

※ Terminal Pin No. Assignment(TB3)

Pin No.	Assignment
1	KNX+
2	KNX-



Installation Manual

Please refer to : <http://www.meanwell.com/manual.html>