



Driver LED a tensione costante/potenza multipla da 60W

Serie **XLC-60**



Serie XLC-60-S (tipo indipendente)



Serie XLC-60 (tipo Built-in)

Manuale d'uso



IS 15885



NOTA.13



Nota.10



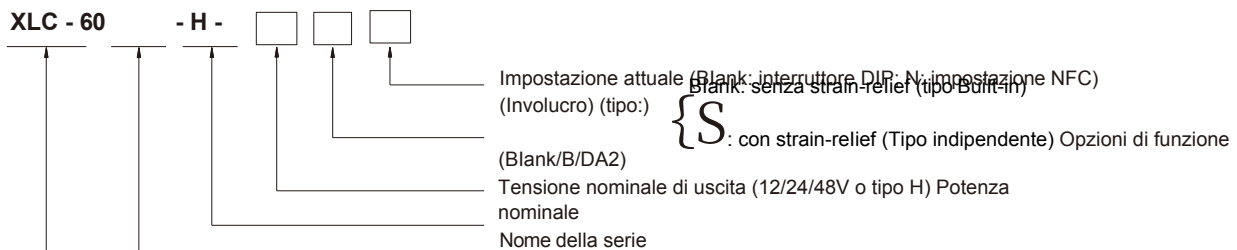
Caratteristiche

- Modalità di uscita a potenza costante con stadio multiplo impostabile tramite interruttore DIP o impostazione NFC (tipo H)
- Uscita in modalità tensione costante (12/24/48V)
- Alloggiamento elastico con design class II e PFC
- Conforme alla norma UL8750 Class 2 / Class P
- Privo di microbolle, conforme alla direttiva ErP CE
- Consumo di energia in standby <0,5W
- Soddisfare l'applicazione per il trasporto di emergenza (EL)
- Level dimming minimo 0,1% (DALI-2 DT6)
- Funzioni di dimmerazione: Dimmerazione 3 in 1 (Dim-to-off) DALI-2 + Dimmerazione push
- 5 anni di garanzia

Descrizione

La serie XLC-60 è un driver per LED da 60W a potenza e tensione costanti, in grado di funzionare da 100 a 305VAC e con una corrente di uscita compresa tra 900 mA e 1700 mA, impostabile tramite interruttore DIP o NFC. Grazie all'elevata efficienza, che può raggiungere il 90%, è in grado di funzionare a una temperatura di -25 ~90°C in convezione con l'aria. XLC-60 è progettato in base alle più recenti norme di sicurezza, con dimmerazione 3 in 1 e DALI-2. XLC-60 può anche essere regolato per la luminosità con un pulsante come un modo semplice di dimmerazione, in modo da fornire maggiori possibilità di applicazione per l'illuminazione a LED.

Codifica del modello



Tipo	Funzione	Nota
Blank	Corrente di uscita di tipo H regolabile tramite interruttore DIP o impostazione NFC. 12, 24, 48V Uscita a tensione costante	In magazzino
B	Corrente di uscita di tipo H regolabile tramite DIP-switch o NFC con dimmerazione 3 in 1 Uscita a tensione costante 12, 24, 48 V e dimmerazione 3 in 1 integrata (uscita PWM Style)	
DA2	Corrente di uscita di tipo H regolabile tramite DIP-switch o NFC con dimmerazione DALI-2	
	12, 24, 48 V Uscita a tensione costante e DALI-2 integrato (uscita PWM Style)	

Nota: l'impostazione della corrente NFC è disponibile solo per il tipo XLC-60-H.

SPECIFICA

MODELLO		XLC-60-12-	XLC-60-24-	XLC-60-48-
USCITA	TENSIONE DC	12V	24V	48V
	CORRENTE PREDEFINITA	5A	2.5A	1.25A
	POTENZA NOMINALE	60W	60W	60W
	IMPOSTAZIONE, TEMPO DI SALITA	800ms,180ms/230VAC ,1000ms,180ms/115VAC		
INGRESSO	GAMMA DI TENSIONE	100~305VAC 155 ~400VDC		
	GAMMA DI FREQUENZA	47~ 63Hz		
	FATTORE DI POTENZA	PF≥ 0,95/115VAC, PF≥0,95/230VAC, PF≥0,9/277VAC @pieno carico (Consultare la sezione "CARATTERISTICHE DEL FATTORE DI POTENZA (PF)")		
	DISTORSIONE ARMONICA TOTALE	THD< 20% (@carico≥ 60%/230VAC; @carico≥ 75%/277VAC); THD<10% @carico 100%/230VAC (Consultare la sezione "DISTORSIONE ARMONICA TOTALE (THD)")		
	EFFICIENZA (tipica)	86%	87%	88%
	CORRENTE ALTERNATA	0,75A/115VAC, 0,35A/230VAC, 0,3A/277VAC		
	CORRENTE INRUSSA	AVVIAMENTO A FREDDO 15A (larghezza=310µs misurata al 50% di picco) a 230VAC; secondo NEMA 410		
	MAX. N. di alimentatori su interruttore automatico da 16A	25 unità (interruttore di tipo B) / 36 unità (interruttore di tipo C) a 230VAC		
	CORRENTE DI DISPERSIONE	<0,75mA / 277VAC		
	POTENZA STANDBY Nota5 CONSUMO	Consumo di energia in standby<0,5W (Dimming OFF, solo per la versione standard di tipo B/DA2)		
PROTEZIONE	SOVRACCARICO	105~200% di potenza di uscita nominale Tipo di protezione: Modalità a singhiozzo, si ripristina automaticamente dopo la rimozione della condizione di guasto.		
	CORTOCIRCUITO	Modalità a singhiozzo, recupero automatico dopo la rimozione della condizione di guasto		
	SOVRATENSIONE	14~17V	26~35V	52~63V
		Spegnere la tensione di uscita, riaccendere per ripristinare la tensione di uscita.		
	TEMPERATURA ECCESSIVA	Spegnimento della tensione di uscita, ripristino automatico dopo la rimozione della condizione di guasto		
AMBIENTE	TEMPO DI LAVORO.	Tcase=-25~90°C. (consultare la sezione "CARICO DI USCITA vs TEMPERATURA")		
	MAX. TEMP.	Tcase=90°C		
	UMIDITÀ DI LAVORO	20~ 90% RH senza condensa		
	TEMPERATURA DI CONSERVAZIONE, UMIDITÀ	-40~ +80°C , 10~ 95% RH		
	TEMP. COEFFICIENTE	±0,03%/°C (0~ 50)°C		
	VIBRAZIONE	10~ 500Hz, 2G 10min./1ciclo, periodo per 60min. ciascuno lungo gli assi X, Y, Z		
SICUREZZA&EMC	STANDARD DI SICUREZZA	UL8750 (Classe P), CSA C22.2 No. 250.13-12; ENEC BS EN/EN61347-1, BS EN/EN61347-2-13(EL) appendice J adatto per installazioni di emergenza (ingresso DC 176-280VDC); BS EN/EN62384, BIS IS15885 (Part2/Sec13) (NOTA 13), GB/T19510.1, GB/T19510.213, EAC TP TC 004 approvato; la progettazione fa riferimento a AS/NZS 61347-1, AS/NZS 61347-2-13		
	STANDARD DALI	Conformi a IEC62386-101, 102, 207		
	TENSIONE DI RESISTENZA	IIP-OIP: 3,75KVAC		
	RESISTENZA ALL'ISOLAMENTO	IIP-OIP: >100M Ohm / 500VDC / 25°C / 70% RH		
	EMISSIONE EMC	Parametro	Standard	Livello di prova/Nota
		Condotto	BS EN/EN55015 (CISPR15), GB/T 17743	—
		Irradiato	BS EN/EN55015 (CISPR15), GB/T 17743	—
		Corrente armonica	BS EN/EN61000-3-2 , GB17625.1	Classe C @carico≥60%
		Sfarfallamento di tensione	BS EN/EN61000-33	—
	IMMUNITÀ EMC	BS EN/EN61547		
		Parametro	Standard	Livello di prova/Nota
		ESD	BS EN/EN61000-42	Livello 3, 8KV aria; Livello 2, 4KV contatto
		Irradiato	BS EN/EN61000-43	Livello 2
		EFT/Burst	BS EN/EN61000-44	Livello 2
Impennata		BS EN/EN61000-45	Livello 3, 1KV/Linea	
Condotto		BS EN/EN61000-46	Livello 2	
Campo magnetico		BS EN/EN61000-48	Livello 2	
Cali di tensione e interruzioni		BS EN/EN61000-4-11	70% di tensione residua per 10 periodo, 0% di tensione residua per 0,5 periodi	
ALTRI	FLICKER Nota.9	PstLM≤ 1, SVM≤ 0,4		
	MTBF	4130,5K ore min. Telcordia SR-332 (Bellcore)	317,7K ore min.	MIL-HDBK-217F (25 °C)
	DIMENSIONE	176*45*32mm, 136*45*32mm (L*L*H)		
	IMBALLAGGIO	0,32Kg; 40pz/13,8Kg/0,48CUFT (per la serie XLC-60); 0,39Kg; 40pz/16,6Kg/0,61CUFT(per la serie XLC-60-S);		
NOTA	1. Tutti i parametri NON specificati sono misurati con ingresso a 230VAC, corrente nominale e 25°C di temperatura ambiente.			
	2. In presenza di basse tensioni di ingresso può essere necessario un declassamento. Per maggiori dettagli, consultare la sezione "CARATTERISTICHE STATICHE".			
	3. La durata del tempo di messa a punto viene misurata al primo avvio a freddo. L'accensione/spegnimento del driver può comportare un aumento del tempo di messa a punto.			
	4. L'ondulazione di corrente è misurata al 50%~100% della tensione massima in condizioni di erogazione di potenza nominale.			
	5. Il consumo di energia in standby è misurato a 230VAC.			
	6. Il driver è considerato un componente che verrà utilizzato in combinazione con l'apparecchiatura finale. Poiché le prestazioni EMC saranno influenzate dall'installazione completa, i produttori di apparecchiature finali devono riquilibrare la direttiva EMC sull'installazione completa. (disponibile su https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf)			
	7. Il declassamento della temperatura ambiente è di 3,5°C /1000m con i modelli senza ventola e di 5°C /1000m con i modelli con ventola per un'altitudine operativa superiore a 2000m (6500ft).			
	8. Per soddisfare i requisiti della più recente normativa ErP per gli apparecchi di illuminazione, questo driver LED può essere utilizzato solo dietro un interruttore, senza essere collegato in modo permanente alla rete elettrica.			
	9. Il flicker è misurato a pieno carico con la sorgente luminosa fornita da MEAN WELL.			
	10. Per la serie XLC-S: RCM è su base volontaria. Classificazione non IC I dispositivi di controllo indipendenti a LED non sono adatti alle installazioni residenziali. Per le serie XLC (eccetto -S): RCM è su base volontaria e soddisfa gli standard IEC o AS/NZS pertinenti, conformemente a AS/NZS 4417.1.			
	11. Questa serie soddisfa la tipica aspettativa di vita di 50000 ore di funzionamento quando Tcase, in particolare il punto tc (o TMP, per DLC), è di circa 75°C o inferiore.			
	12. Per ulteriori informazioni, contattate le vendite di MEAN WELL.			
	13. I prodotti provenienti dalle regioni della Cina e alcuni modelli provenienti dall'India potrebbero non avere il logo BIS; per maggiori dettagli, consultare il certificato BIS e contattare il proprio rivenditore MEAN WELL per ulteriori informazioni.			
※ Esonero di responsabilità del prodotto: per informazioni dettagliate, consultare il sito https://www.meanwell.com/serviceDisclaimer.aspx				

SPECIFICA

MODELLO		XLC-60-H- ☐☐☐		
USCITA	TENSIONE A CIRCUITO APERTO Nota14	60V		
	CORRENTE PREDEFINITA	1400mA		
	CORRENTE ADJ. GAMMA (TRAMITE DIP SWITCH O NFC)	0.9~1.7A		
	REGIONE A CORRENTE COSTANTE	9~54V		
	POTENZA NOMINALE	60W		
	CORRENTE DI STRAPPO Nota4	<4%		
	TOLLERANZA DI CORRENTE	±5%		
	GAMMA DIMMING	0~100%		
	IMPOSTAZIONE, TEMPO DI SALITA Nota12	800ms,100ms/230VAC ,1000ms,100ms/115VAC		
INGRESSO	GAMMA DI TENSIONE	100~ 305VAC	155 ~400VDC	
	GAMMA DI FREQUENZA	47~ 63Hz		
	FATTORE DI POTENZA	PF≥ 0,95/115VAC, PF≥ 0,95/230VAC, PF≥ 0,9/277VAC@pieno carico (Consultare la sezione "CARATTERISTICHE DEL FATTORE DI POTENZA (PF)")		
	DISTORSIONE ARMONICA TOTALE	THD< 20% (@carico≥ 60%/230VAC; @carico≥ 75%/277VAC); THD<10%@carico 100%/230VAC (Consultare la sezione "DISTORSIONE ARMONICA TOTALE (THD)")		
	EFFICIENZA (tipica) Nota11	90%		
	CORRENTE ALTERNATA	0,75A/115VAC, 0,35A/230VAC, 0,3A/277VAC		
	CORRENTE INRUSSA	AVVIAMENTO A FREDDO 15A (larghezza=310µs misurata al 50% di picco) a 230VAC; secondo NEMA 410		
	MAX. N. di alimentatori su interruttore automatico da 16A	25 unità (interruttore di tipo B) / 36 unità (interruttore di tipo C) a 230VAC		
	CORRENTE DI DISPERSIONE	<0,75mA / 277VAC		
	POTENZA STANDBY Nota5 CONSUMO	Consumo di energia in standby<0,5W (dimmerazione disattivata, solo per la versione standard di tipo B/D/A2)		
PROTEZIONE	CORTOCIRCUITO	Modalità a singhiozzo, recupero automatico dopo la rimozione della condizione di guasto		
	TEMPERATURA ECCESSIVA	Tipo DA2: Fase 1: Derating al 75% del carico; stadio 2: Derating al 50% del carico; si ripristina automaticamente dopo la rimozione della condizione di guasto.		
		Tipo vuoto e B: Derating al livello di uscita più basso, recupero automatico dopo l'eliminazione della condizione di guasto		
AMBIENTE	TEMPO DI LAVORO.	Tcase=-25~90°C (consultare la sezione "Carico in uscita vs. temperatura")		
	MAX. TEMP.	Tcase=90°C		
	UMIDITÀ DI LAVORO	20~ 90% RH senza condensa		
	TEMPERATURA DI STOCCAGGIO, UMIDITÀ	-40~ +80°C, 10~ 95% RH		
	TEMP. COEFFICIENTE	±0,03%/°C (0~ 50)°C		
	VIBRAZIONE	10~ 500Hz; 2G 10min./1ciclo, periodo per 60min. ciascuno lungo gli assi X, Y, Z		
SICUREZZA&EMC	STANDARD DI SICUREZZA	UL8750 (Classe P), CSA C22.2 No. 250.13-12; ENEC BS EN/EN61347-1, BS EN/EN61347-2-13(EL) appendice J idoneo per installazioni di emergenza (ingresso DC 176-280VDC); BS EN/EN62384 , BIS IS15885 (Part2/Sec13) (NOTA 13), GB/T19510.1, GB/T19510.213, EAC TP TC 004 approvato; la progettazione fa riferimento a AS/NZS 61347-1, AS/NZS 61347-2-13		
	STANDARD DALI	Conformi a IEC62386-101, 102, 207		
	TENSIONE DI RESISTENZA	I/P-O/P: 3,75KVAC		
	RESISTENZA ALL'ISOLAMENTO	I/P-O/P: >100M Ohm / 500VDC / 25°C / 70% RH		
	EMISSIONE EMC	Parametro	Standard	Livello di prova/Nota
		Condotto	BS EN/EN55015 (CISPR15), GB/T 17743	—
		Irradiato	BS EN/EN55015 (CISPR15), GB/T 17743	—
		Corrente armonica	BS EN/EN61000-3-2 , GB17625.1	Classe C @carico80%
		Sfarfallamento di tensione	BS EN/EN61000-33	—
	IMMUNITÀ EMC	BS EN/EN61547		
		Parametro	Standard	Livello di prova/Nota
		ESD	BS EN/EN61000-4-2	Livello 3, 8KV aria; Livello 2, 4KV contatto
		Irradiato	BS EN/EN61000-4-3	Livello 2
		EFT/Burst	BS EN/EN61000-4-4	Livello 2
Impennata		BS EN/EN61000-4-5	Livello 3, 1KV/Linea	
Condotto		BS EN/EN61000-4-6	Livello 2	
Campo magnetico		BS EN/EN61000-4-8	Livello 2	
Cali di tensione e interruzioni		BS EN/EN61000-4-11	70% di tensione residua per 10 periodo, 0% di tensione residua per 0,5 periodi	
ALTRI	FLICKER Nota9	PstLM≤ 1, SVM≤ 0,4		
	MTBF	4130,5K ore min. Telcordia SR-332 (Bellcore)	317,7Khrs min. MIL-HDBK-217F (25°C	
	DIMENSIONE	176*45*32mm, 136*45*32mm (L*L*H)		
	IMBALLAGGIO	0,32Kg; 40pz/13,8Kg/0,48CUFT (per la serie XLC-60); 0,39Kg; 40pz/16,6Kg/0,61CUFT(per la serie XLC-60-S);		
NOTA	1. Tutti i parametri NON specificati sono misurati con ingresso a 230VAC, corrente nominale e 25°C di temperatura ambiente.			
	2. In presenza di basse tensioni di ingresso può essere necessario un declassamento. Per maggiori dettagli, consultare la sezione "CARATTERISTICHE STATICHE".			
	3. La durata del tempo di messa a punto viene misurata al primo avvio a freddo. L'accensione/spegnimento del driver può comportare un aumento del tempo di messa a punto.			
	4. L'ondulazione di corrente è misurata al 50%~100% della tensione massima in condizioni di erogazione di potenza nominale.			
	5. Il consumo di energia in standby è misurato a 230VAC.			
	6. Il driver è considerato un componente che verrà utilizzato in combinazione con l'apparecchiatura finale. Poiché le prestazioni EMC saranno influenzate dall'installazione completa, i produttori di apparecchiature finali devono qualificare la direttiva EMC sull'installazione completa. (disponibile su https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf)			
	7. Il declassamento della temperatura ambiente è di 3,5°C /1000m con i modelli senza ventola e di 5°C /1000m con i modelli con ventola per un'altitudine operativa superiore a 2000m (6500ft).			
	8. Per soddisfare i requisiti della più recente normativa ErP per gli apparecchi di illuminazione, questo driver LED può essere utilizzato solo dietro un interruttore, senza essere collegato in modo permanente alla rete elettrica.			
	9. Il flicker è misurato a pieno carico con la sorgente luminosa fornita da MEAN WELL.			
	10. Per la serie XLC-S: RCM è su base volontaria. Classificazione non IC I dispositivi di controllo indipendenti a LED non sono adatti alle installazioni residenziali. Per le serie XLC (eccetto -S): RCM è su base volontaria e soddisfa gli standard IEC o AS/NZS pertinenti, conformemente a AS/NZS 4417.1.			
	11. L'efficienza è misurata all'uscita 1050mA/54V impostata dall'interruttore DIP.			
	12. In base alle norme IEC 62386-101/102 sui tempi di accensione e interruzione DALI, il tempo di avvio deve essere verificato con un controllore DALI in grado di supportare la funzione di accensione DALI, altrimenti il tempo di avvio sarà superiore a 0,5 secondi.			
	13. I prodotti provenienti dalle regioni della Cina e alcuni modelli provenienti dall'India potrebbero non avere il logo BIS; per maggiori dettagli, consultare il certificato BIS e contattare il proprio rivenditore MEAN WELL per ulteriori informazioni.			
	14. L'uscita singhiozza in condizioni di assenza di carico (solo per il tipo H).			
	15. Questa serie soddisfa la tipica aspettativa di vita di 50000 ore di funzionamento quando Tcase, in particolare il punto tc (o TMP, secondo DLC), è di circa 75°C o inferiore.			
	16. Per ulteriori informazioni, contattate le vendite di MEAN WELL.			
	※ Esonero di responsabilità del prodotto: per informazioni dettagliate, consultare il sito https://www.meanwell.com/serviceDisclaimer.asp			



60W Multiple-Stage Constant Power/Constant Voltage LED Driver

XLC-60 series



XLC-60-S Series
(Independent type)

XLC-60 Series
(Built-in type)

IS 15885



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For XLC-60-S Series

DC Input: 175-280VDC

Features

- Constant power mode output with multiple stage selectable by DIP switch or NFC setting (H-type)
- Constant voltage mode output(12/24/48V)
- Plastic housing with class II and PFC design
- Meet UL8750 Class 2 / Class P power unit
- Flicker free, complying with CE ErP directive
- Standby power consumption <0.5W
- Meet emergency lighting (EL) application
- Minimum dimming level 0.1% (DALI-2 DT6)
- Dimming functions: 3 in 1 dimming (Dim-to-off)
DALI-2 + Push dimming
- 5 years warranty

Description

XLC-60 Series is a 60W with constant power and constant voltage output LED driver . It can operate from 100 ~ 305VAC and output current ranging between 900 mA to 1700 mA selectable by DIP switch or NFC setting. Thanks to high efficiency up to 90%, it is able to operate for -25℃ ~90℃ case temperature under free air convection. XLC-60 is designed based on latest safety regulations with 3 in 1 and DALI-2 dimming. XLC-60 can also be adjusted for brightness with a push button as a simple way dimming, so it provides more flexibility for LED Lighting application.

Model Encoding

XLC - 60 - H -

Current setting (Blank: DIP Switch; N: NFC setting)

Casing type: { Blank: without strain-relief (Built-in type)
S: with strain-relief (Independent type)

Function options (Blank/B/DA2)

Rated output voltage (12/24/48V or H-type)

Rated wattage

Series name

Type	Function	Note
Blank	H type output current selectable by DIP-switch or NFC setting. 12, 24, 48V Constant voltage output	In stock
B	H type output current selectable by DIP-switch or NFC with 3 in 1 dimming 12, 24, 48V Constant voltage output and built-in 3 in 1 Dimming(PWM Style output)	
DA2	H type output current selectable by DIP-switch or NFC with DALI-2 dimming 12, 24, 48V Constant voltage output and built-in DALI-2(PWM Style output)	

Note: NFC current setting is available for XLC-60-H type only.

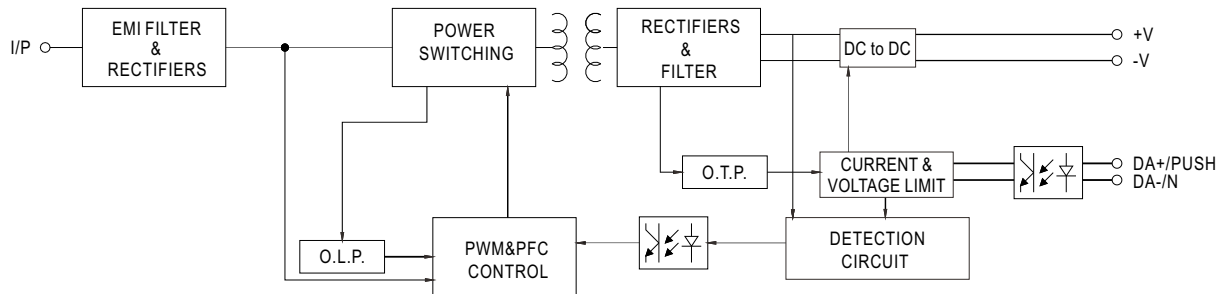
SPECIFICATION

MODEL		XLC-60-12- □□		XLC-60-24- □□		XLC-60-48- □□	
OUTPUT	DC VOLTAGE	12V		24V		48V	
	DEFAULT CURRENT	5A		2.5A		1.25A	
	RATED POWER	60W		60W		60W	
	SETUP, RISE TIME	800ms,180ms/230VAC ,1000ms,180ms/115VAC					
INPUT	VOLTAGE RANGE	100 ~ 305VAC 155 ~400VDC					
	FREQUENCY RANGE	47 ~ 63Hz					
	POWER FACTOR	PF≥0.95/115VAC, PF≥0.95/230VAC, PF≥0.9/277VAC@full load (Please refer to "POWER FACTOR (PF) CHARACTERISTIC" section)					
	TOTAL HARMONIC DISTORTION	THD< 20%(@load ≥60%/230VAC; @load ≥75%/277VAC); THD<10%@load 100%/230VAC (Please refer to "TOTAL HARMONIC DISTORTION(THD)" section)					
	EFFICIENCY(Typ.)	86%		87%		88%	
	AC CURRENT	0.75A/115VAC, 0.35A/230VAC, 0.3A/277VAC					
	INRUSH CURRENT	COLD START 15A(twidth=310μs measured at 50% Ipeak) at 230VAC; Per NEMA 410					
	MAX. NO. of PSUs on 16A CIRCUIT BREAKER	25 units (circuit breaker of type B) / 36 units (circuit breaker of type C) at 230VAC					
	LEAKAGE CURRENT	<0.75mA / 277VAC					
	STANDBY POWER CONSUMPTION ^{Note5}	Standby power consumption<0.5W (Dimming OFF, only for standard version B/DA2-type)					
PROTECTION	OVERLOAD	105~200% rated output power Protection type: Hiccup mode, recovers automatically after fault condition is removed.					
	SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed					
	OVER VOLTAGE	14~17V		26~35V		52~63V	
		Shut down output voltage, re-power on to recover					
	OVER TEMPERATURE	Shut down output voltage, recovers automatically after fault condition is removed					
ENVIRONMENT	WORKING TEMP.	Tcase=-25~90℃ (Please refer to " OUTPUT LOAD vs TEMPERATURE" section)					
	MAX. CASE TEMP.	Tcase=90℃					
	WORKING HUMIDITY	20 ~ 90% RH non-condensing					
	STORAGE TEMP. , HUMIDITY	-40 ~ +80℃, 10 ~ 95% RH					
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 50℃)					
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes					
SAFETY&EMC	SAFETY STANDARDS	UL8750(Class P), CSA C22.2 No. 250.13-12; ENEC BS EN/EN61347-1, BS EN/EN61347-2-13(EL) appendix J suitable for emergency installations(DC input 176-280VDC); BS EN/EN62384 , BIS IS15885(Part2/Sec13)(NOTE 13), GB/T19510.1, GB/T19510.213, EAC TP TC 004 approved; Design refer to AS/NZS 61347-1, AS/NZS 61347-2-13					
	DALI STANDARDS	Comply with IEC62386-101, 102, 207					
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC					
	ISOLATION RESISTANCE	I/P-O/P:>100M Ohms / 500VDC / 25℃/ 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≥60%		
		Voltage Flicker	BS EN/EN61000-3-3		-----		
	EMC IMMUNITY	BS EN/EN61547					
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	FLICKER ^{Note.9}	PstLM ≤ 1, SVM ≤ 0.4					
	MTBF	4130.5K hrs min. Telcordia SR-332 (Belcore) 317.7Khrs min. MIL-HDBK-217F (25℃)					
	DIMENSION	176*45*32mm , 136*45*32mm (L*W*H)					
	PACKING	0.32Kg; 40pcs/13.8Kg/0.48CUFT(for XLC-60 Series); 0.39Kg; 40pcs/16.6Kg/0.61CUFT(for XLC-60-S Series);					
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated current and 25℃ of ambient temperature. 2. De-rating may be needed under low input voltages. Please refer to "STATIC CHARACTERISTIC" sections for details. 3. 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. 4. Current ripple is measured 50%~100% of maximum voltage under rated power delivery. 5. Standby power consumption is measured at 230VAC. 6. 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) 7. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft). 8. To fulfill requirements of the latest ErP regulation for lighting fixture, this LED driver can only be used behind a switch without permanently connected to the mains. 9. Flicker is measured at full load with the light source provided by MEAN WELL. 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. 11. This series meets the typical life expectancy of 50000 hours of operation when Tcase,particularly tc point(or TMP,per DLC), is about 75℃ or less. 12. For more information, please contact with MEAN WELL sales. 13. Products sourced from the China regions and some models sourced from India may not have the BIS logo,please refer to BIS certificate for details and contact your MEAN WELL sales for more information. ※ Product Liability Disclaimer: For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx						

SPECIFICATION

MODEL	XLC-60-H- ☐ ☐ ☐			
OUTPUT	OPEN CIRCUIT VOLTAGE Note14	60V		
	DEFAULT CURRENT	1400mA		
	CURRENT ADJ. RANGE (BY DIP SWITCH OR NFC)	0.9~1.7A		
	CONSTANT CURRENT REGION	9~54V		
	RATED POWER	60W		
	CURRENT RIPPLE Note4	<4%		
	CURRENT TOLERANCE	±5%		
	DIMMING RANGE	0~100%		
	SETUP,RISE TIME Note12	800ms,100ms/230VAC ,1000ms,100ms/115VAC		
INPUT	VOLTAGE RANGE	100 ~ 305VAC 155 ~400VDC		
	FREQUENCY RANGE	47 ~ 63Hz		
	POWER FACTOR	PF ≥ 0.95/115VAC, PF ≥ 0.95/230VAC, PF ≥ 0.9/277VAC@full load (Please refer to "POWER FACTOR (PF) CHARACTERISTIC" section)		
	TOTAL HARMONIC DISTORTION	THD< 20%(@load ≥ 60%/230VAC; @load ≥ 75%/277VAC); THD<10%@load 100%/230VAC (Please refer to "TOTAL HARMONIC DISTORTION(THD)" section)		
	EFFICIENCY(Typ.) Note11	90%		
	AC CURRENT	0.75A/115VAC, 0.35A/230VAC, 0.3A/277VAC		
	INRUSH CURRENT	COLD START 15A(twidth=310μs measured at 50% Ipeak) at 230VAC; Per NEMA 410		
	MAX. NO. of PSUs on 16A CIRCUIT BREAKER	25 units (circuit breaker of type B) / 36 units (circuit breaker of type C) at 230VAC		
	LEAKAGE CURRENT	<0.75mA / 277VAC		
STANDBY POWER CONSUMPTION Note5	Standby power consumption<0.5W (Dimming off, only for standard version B/DA2-type)			
PROTECTION	SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed		
	OVER TEMPERATURE	DA2 type: Stage 1: Derating to 75% loading; stage2: Derating to 50% loading; Recovers automatically after fault condition is removed Blank & B type: Derating to lowest output level, Recovers automatically after fault condition is removed		
ENVIRONMENT	WORKING TEMP.	Tcase=-25~90℃ (Please refer to "OUTPUT LOAD vs TEMPERATURE" section)		
	MAX. CASE TEMP.	Tcase=90℃		
	WORKING HUMIDITY	20 ~ 90% RH non-condensing		
	STORAGE TEMP., HUMIDITY	-40 ~ +80℃, 10 ~ 95% RH		
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 50℃)		
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes		
SAFETY&EMC	SAFETY STANDARDS	UL8750(Class P), CSA C22.2 No. 250.13-12; ENEC BS EN/EN61347-1, BS EN/EN61347-2-13(EL) appendix J suitable for emergency installations(DC input 176-280VDC); BS EN/EN62384 , BIS IS15885(Part2/Sec13)(NOTE 13), GB/T19510.1, GB/T19510.213, EAC TP TC 004 approved; Design refer to AS/NZS 61347-1, AS/NZS 61347-2-13		
	DALI STANDARDS	Comply with IEC62386-101, 102, 207		
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC		
	ISOLATION RESISTANCE	I/P-O/P:>100M Ohms / 500VDC / 25℃ / 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≥60%
	EMC IMMUNITY	Voltage Flicker	BS EN/EN61000-3-3	-----
		BS EN/EN61547		
		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	FLICKER Note.9	PstLM ≤ 1, SVM ≤ 0.4		
	MTBF	4130.5K hrs min. Telcordia SR-332 (Bellcore) 317.7Khrs min. MIL-HDBK-217F (25℃)		
	DIMENSION	176*45*32mm , 136*45*32mm (L*W*H)		
	PACKING	0.32Kg; 40pcs/13.8Kg/0.48CUFT(for XLC-60 Series); 0.39Kg; 40pcs/16.6Kg/0.61CUFT(for XLC-60-S Series);		
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated current and 25℃ of ambient temperature. 2. De-rating may be needed under low input voltages. Please refer to "STATIC CHARACTERISTIC" sections for details. 3. 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. 4. Current ripple is measured 50%~100% of maximum voltage under rated power delivery. 5. Standby power consumption is measured at 230VAC. 6. 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) 7. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft). 8. To fulfill requirements of the latest ErP regulation for lighting fixture, this LED driver can only be used behind a switch without permanently connected to the mains. 9. Flicker is measured at full load with the light source provided by MEAN WELL. 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. 11. Efficiency is measured at 1050mA/54V output set by DIP switch. 12. Based on IEC 62386-101/102 DALI power on timing and interruption regulations, the set up time needs to test with a DALI controller which can support for DALI power on function, otherwise the start up time will be higher than 0.5 second. 13. Products sourced from the China regions and some models sourced from India may not have the BIS logo,please refer to BIS certificate for details and contact your MEAN WELL sales for more information. 14. Output hiccups under no-load condition.(only for H-type). 15. This series meets the typical life expectancy of 50000 hours of operation when Tcase, particularly tc point (or TMP, per DLC), is about 75℃ or less. 16. For more information, please contact with MEAN WELL sales. ※ Product Liability Disclaimer: For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.asp			

■ BLOCK DIAGRAM

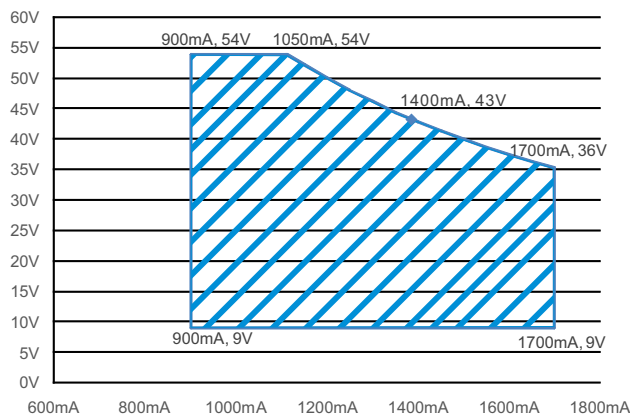


■ DRIVING METHODS OF LED MODULE

※ I-V Operating Area

◎ XLC-60-H

For 60W application



■ CONSTANT POWER TABLE

XLC-60-H is a multiple-stage constant power driver, selection of output current through DIP switch or NFC setting is exhibited below.

Vo	Io	DIP S.W		
		1	2	3
9~54V	900mA	---	---	---
9~54V	1050mA	---	---	ON
9~50V	1200mA	---	ON	---
9~46V	1300mA	---	ON	ON
9~43V	1400mA(default)	ON	---	---
9~40V	1500mA	ON	---	ON
9~38V	1600mA	ON	ON	---
9~36V	1700mA	ON	ON	ON

Note: 1.The operating voltage range which show on this table is recommend to use.

■ NFC Function Description

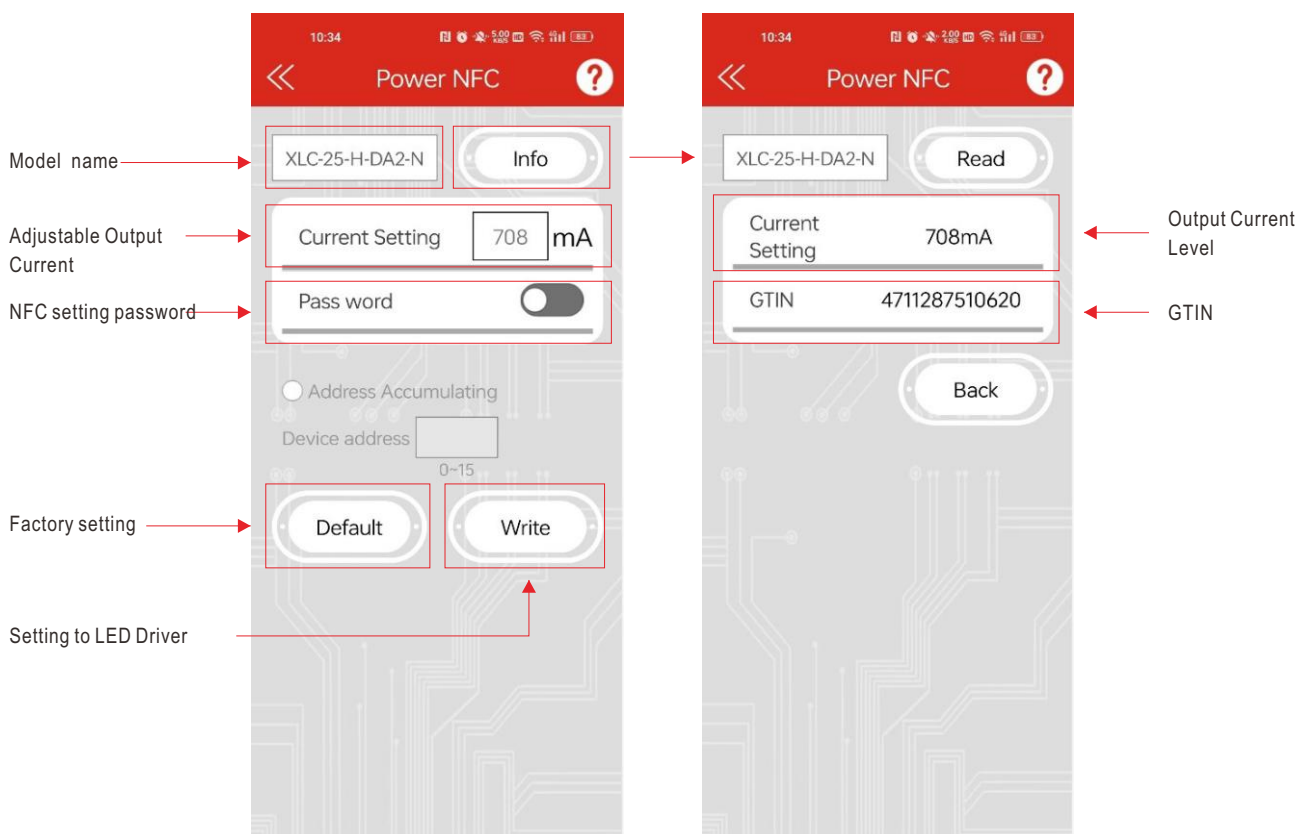
The output current of the NFC Mode LED driver can be adjusted using NFC via the mobile APP

Operation Instruction:

- Compatible phone
Install an NFC-compatible smart mobile device or phone with Android™ 4.1 or IOS12 updates.
- Steps for setting output current via NFC
 1. Download Meanwell APP on mobile device or mobile phone, and enable NFC function.
 2. Check the NFC antenna position of the mobile phone please.
 3. Enter Meanwell APP ->Top left menu –Installation Manual/APP->PowerNFC, approach the LED driver NFC sensing position and perform sensing.
 4. APP displays the functional parameters, and the relevant parameters are modified as required.
 5. Tap the APP write button and quickly move the phone antenna close to the NFC sensing position of the LED driver.
 6. The write completes when the mobile phone displays "Success".

APP Function Description:

※ APP Interface:



- To be used through APP available on Apple Store and Google Play Store for iOS and Android, Search 'MEAN WELL' on



Note: 1. Current accuracy : the numerical error between the set current and the actual current is within 2%.
2. Please turn off the input power supply to the LED driver when using NFC function.

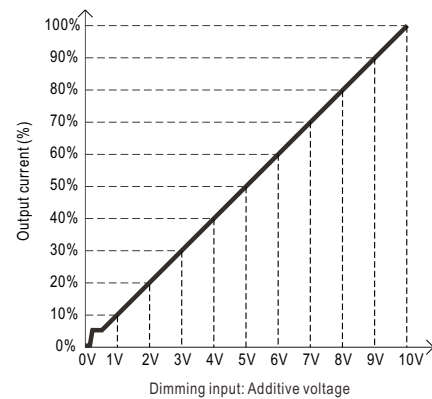
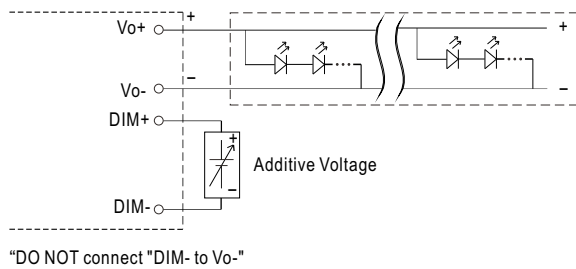
DIMMING OPERATION

◎ B type

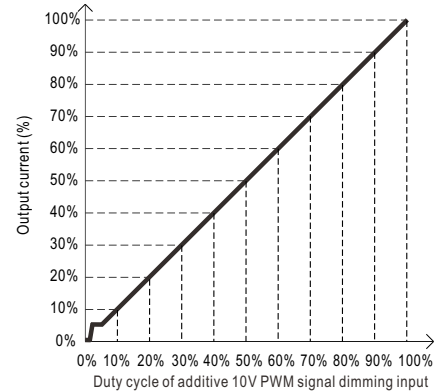
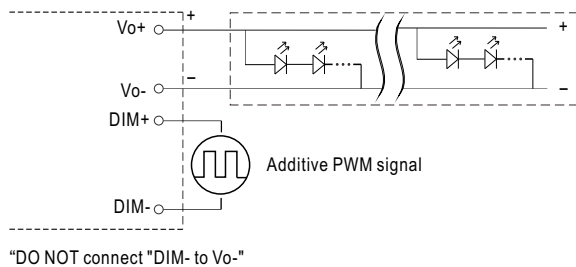
※ 3 in 1 dimming function

- Output constant current level can be adjusted by applying one of the three methodologies between DIM+ and DIM-: 0 ~ 10VDC, or 10V PWM signal or resistance.
- Direct connecting to LEDs is suggested. It is not suitable to be used with additional drivers.
- Dimming source current from power supply: 100 μ A (typ.)

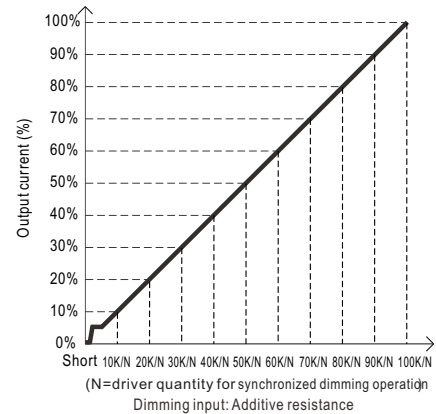
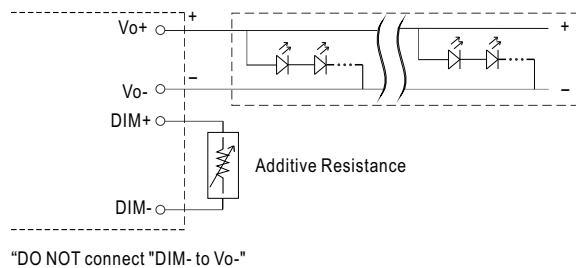
◎ Applying additive 0 ~ 10VDC



◎ Applying additive 10V PWM signal (frequency range 300Hz~3KHz):



◎ Applying additive resistance: 0~100k Ω



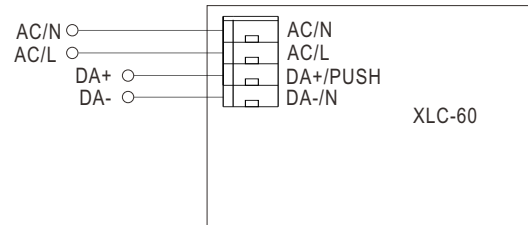
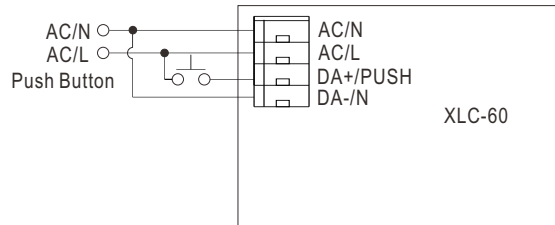
Note : 1. Min. dimming level is about 8% and the output current is not defined when $0\% < I_{out} < 8\%$.

2. The output current could drop down to 0% when dimming input is about 0k Ω or 0Vdc, or 10V PWM signal with 0% duty cycle.

DIMMING OPERATION

DA2 type (DALI-2 digital dimming function)

※ Input wiring diagram



※ PUSH dimming (primary side)

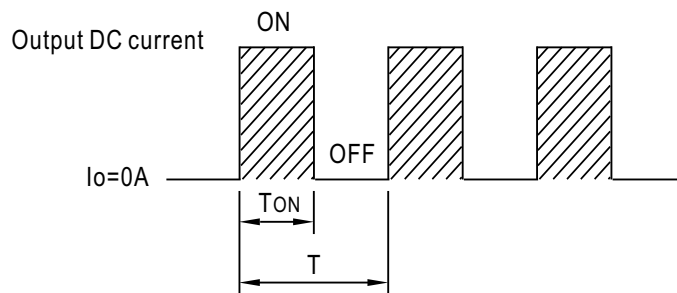
- The factory default dimming level is at 100%.
- If the push action lasts less than 0.05 sec., it will not lead to a change for the status of the driver.
- Up to 10 drivers can perform the PUSH dimming at the same time when utilizing one common push button.
- The maximum length of the cable from the push button to the last driver is 20 meters.

Action	Action duration	Function
Short Push	0.1~1s	Turn ON-OFF the driver
Double Click	Click twice in 1.5s	Set up the dimming level to 100%
Long Push	1.5~10s	Every Long Push changes the dimming direction, dimming up or down

PWM OUTPUT DIMMING PRINCIPLE

※ For 12V/24V/48V PWM style output dimming

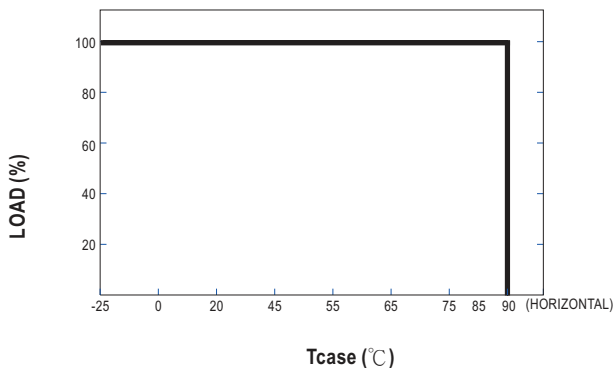
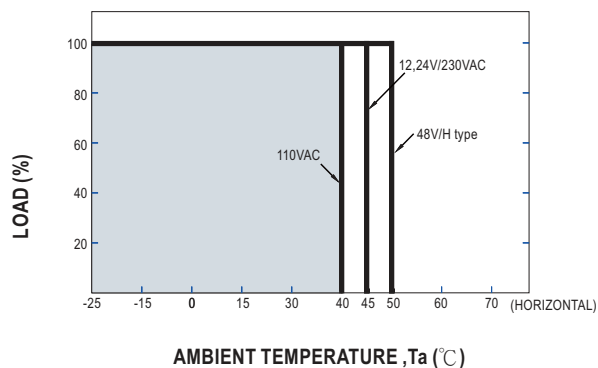
- Dimming is achieved by varying the duty cycle of the output current.



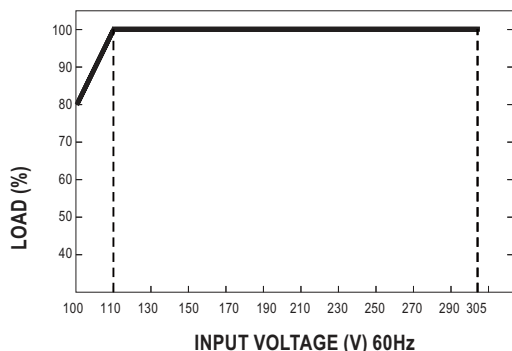
$$\text{Duty cycle(\%)} = \frac{T_{ON}}{T} \times 100\%$$

Output PWM frequency :
4kHz for B-Type fixed (Typ.)
3.2kHz for DA2-Type fixed (Typ.)

■ OUTPUT LOAD vs TEMPERATURE

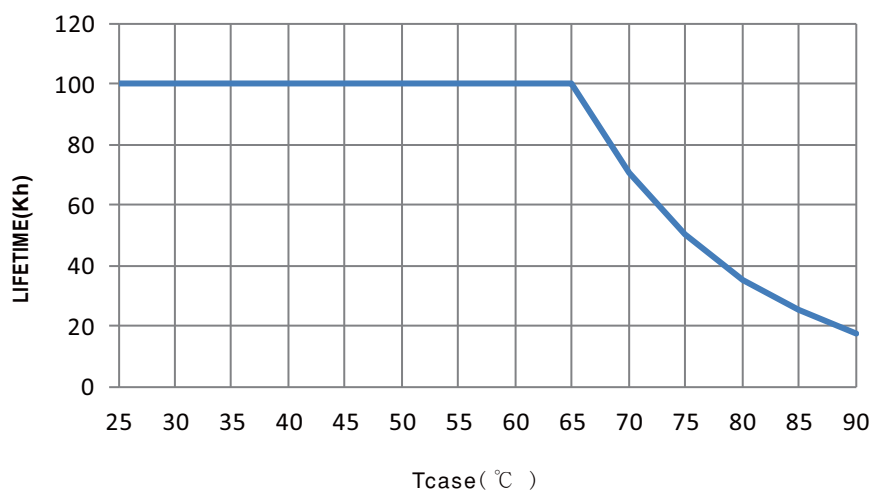


■ STATIC CHARACTERISTIC



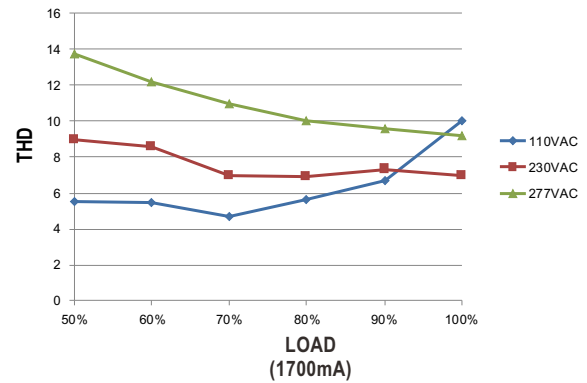
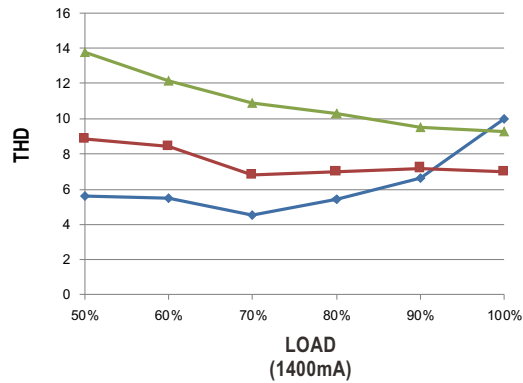
※ De-rating is needed under low input voltage.

■ LIFE TIME



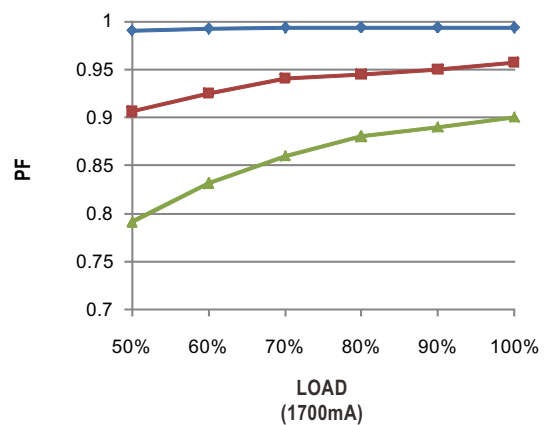
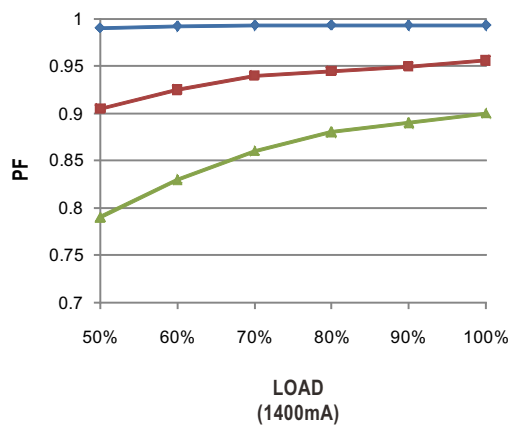
TOTAL HARMONIC DISTORTION (THD)

※ Tcase at 75℃



POWER FACTOR (PF) CHARACTERISTIC

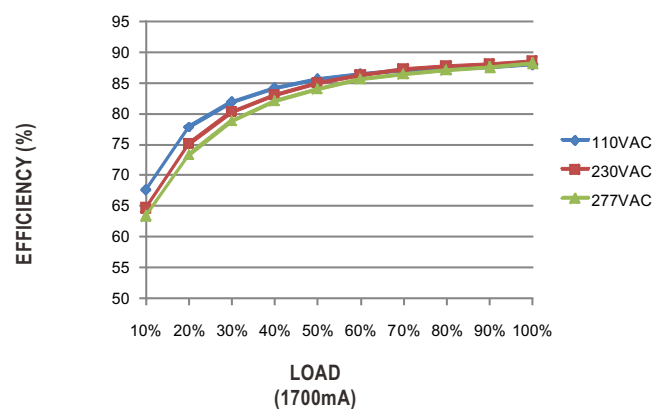
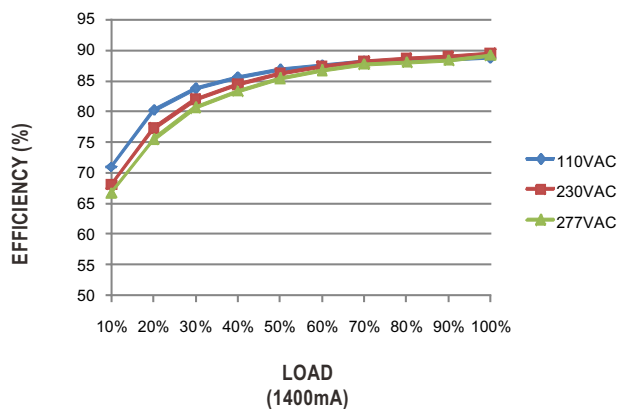
※ Tcase at 75℃



EFFICIENCY vs LOAD

XLC-60 series possess superior working efficiency that up to 89% can be reached in field applications.

※ Tcase at 75℃



MECHANICAL SPECIFICATION
(XLC-60 Built-in Type)

Case No.XLC-60

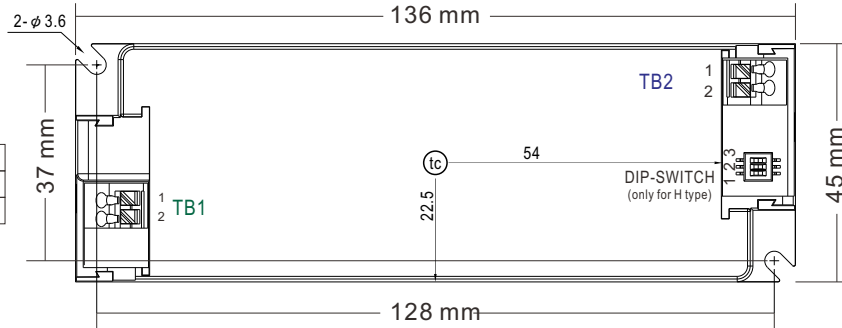
Unit:mm

Tolerance:±1

※ Blank type

※ Terminal Pin
No. Assignment(**TB1**)

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

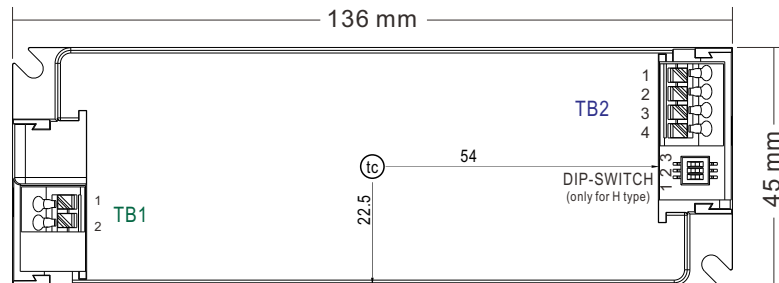

※ Terminal Pin
No. Assignment(**TB2**)

Pin No.	Assignment
1	+V
2	-V

※ B type

※ Terminal Pin
No. Assignment(**TB1**)

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

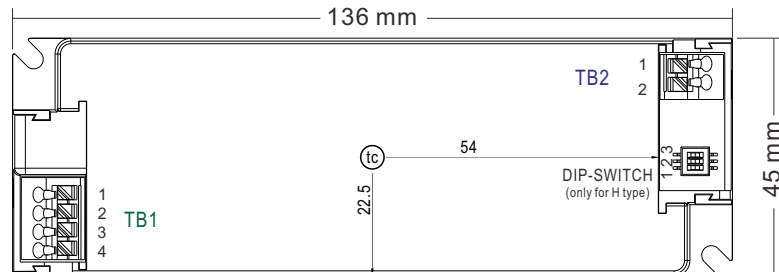

※ Terminal Pin
No. Assignment(**TB2**)

Pin No.	Assignment
1	+V
2	-V
3	DIM+
4	DIM-

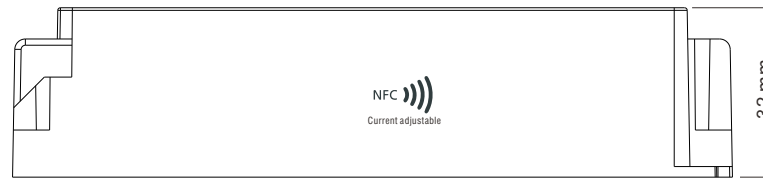
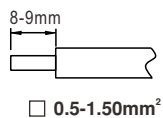
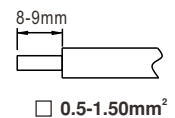
※ DA2 type

※ Terminal Pin
No. Assignment(**TB1**)

Pin No.	Assignment
1	AC/N
2	AC/L
3	DA+/PUSH
4	DA-/N


※ Terminal Pin
No. Assignment(**TB2**)

Pin No.	Assignment
1	+V
2	-V

TB1 wiring:

TB2 wiring:


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

MECHANICAL SPECIFICATION

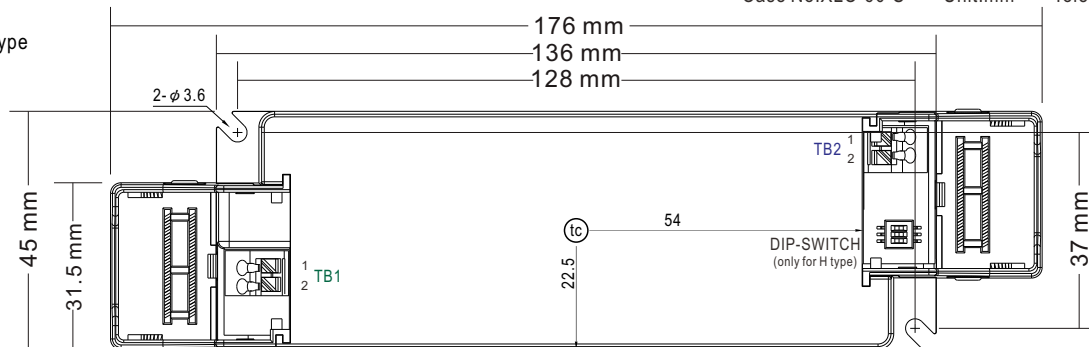
(XLC-60-S Independent Type)

Case No. XLC-60-S

Unit: mm

Tolerance: ±1

※ Blank type



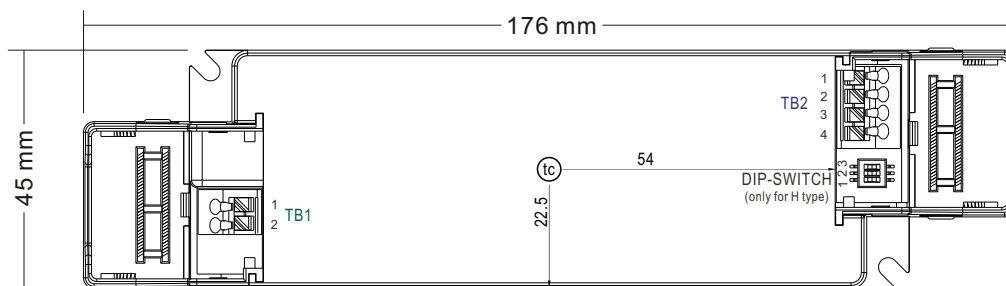
※ Terminal Pin No. Assignment(TB1)

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

※ Terminal Pin No. Assignment(TB2)

Pin No.	Assignment
1	+V
2	-V

※ B type



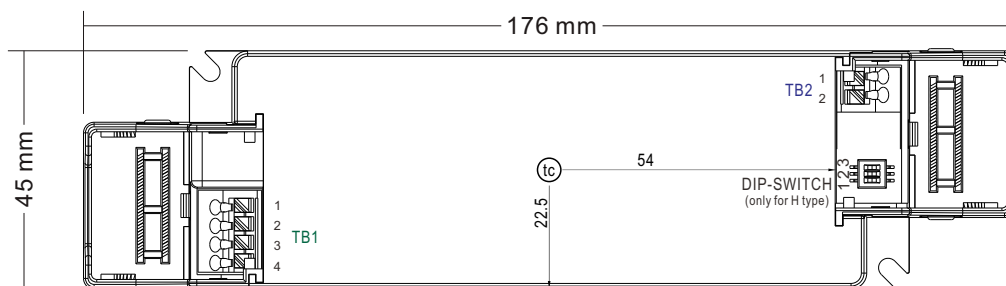
※ Terminal Pin No. Assignment(TB1)

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

※ Terminal Pin No. Assignment(TB2)

Pin No.	Assignment
1	+V
2	-V
3	DIM+
4	DIM-

※ DA2 type



TB1 wiring:

8-9mm


□ 0.75-1.5mm²

※ Terminal Pin No. Assignment(TB1)

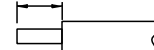
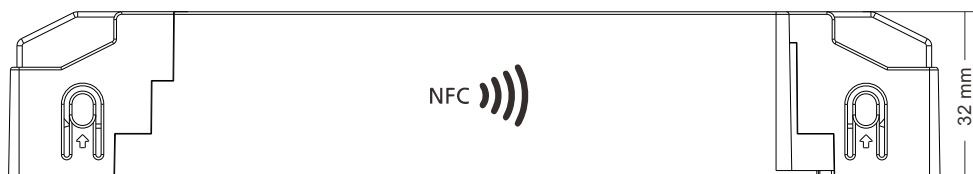
Pin No.	Assignment
1	AC/N
2	AC/L
3	DA+/PUSH
4	DA-/N

※ Terminal Pin No. Assignment(TB2)

Pin No.	Assignment
1	+V
2	-V

TB2 wiring:

8-9mm


□ 0.5-1.5mm²


Installation Manual

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