

Specification:

Parameters	Symbols	Test Conditions / Comment	Min	Typ	Max	Units
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INPUT

Input Voltage	V_{IN}		108		305	V_{AC}							
Rated Input Voltage	$V_{IN\ RATED}$		120		277	V_{AC}							
	$V_{IN\ RATED_TRIAC}$	Phase Cut Dimming		120		V_{AC}							
Input Frequency	f_{line}		47	50/60	63	Hz							
Input Current	I_{IN}	AFP-A1-015, Full Load, $V_{IN} = 120V_{AC}$			0.17	A							
		AFP-A1-030, Full Load, $V_{IN} = 120V_{AC}$			0.34	A							
Inrush Current	I_{INRUSH}	Cold Start, $V_{IN} = 277V_{AC}$			30	A							
Leakage Current	$I_{Leakage}$	$V_{IN} = 277V_{AC}$ 60Hz			0.75	mA							
Number of Drivers per MCB(Circuit Breaker)	MCB type	B10	C10	D10	B13	C13	D13	B16	C16	D16	B20	C20	D20
	120V _{AC}	16	18	21	21	24	28	26	30	34	32	37	43
	277V _{AC}	15	25	50	19	32	65	24	40	81	30	50	101



Input Voltage	Inrush Current	t(us)10%-10%
120VAC	8.0A	254
277VAC	15.8A	208
347VAC	NA	NA

General Characteristics

Power Factor	PF	20-100% load, $V_{IN} = 120V_{AC}$	0.9		PF
		45-100% load, $V_{IN} = 277V_{AC}$	0.9		
Total Harmonic Distortion	THD	20-100% load, $V_{IN} = 120V_{AC}$		20	%
		45-100% load, $V_{IN} = 277V_{AC}$		20	%
Turn On Delay Time	T_{on_delay}	Cold Start, Without Dimmer		0.5	S
		Cold Start, 1% Dimming, $V_{out}=36V$		1.0	S
Efficiency	η	AFP-A1-015, $I_{OUT}=300mA$, $V_{IN}=120V_{AC}$ Steady state	85	87	%
		AFP-A1-030, $I_{OUT}=650mA$, $V_{IN}=120V_{AC}$ Steady state	86	88	%
		AFP-A1-015, $I_{OUT}=300mA$, $V_{IN}=277V_{AC}$ Steady state	86	88	%
		AFP-A1-030, $I_{OUT}=650mA$, $V_{IN}=277V_{AC}$ Steady state	87	89	%

OUTPUT

Output Current Tolerance	t	$I_{OUT}=(40-100\%)I_{MAX}$			5	%
		$I_{OUT}=(10-39\%)I_{MAX}$			7	%
Output Current Range	I_{OUT}	AFP-A1-015	4.2		420	mA

		AFP-A1-030	8.5		850	mA
Output Voltage	V_{OUT}		20		42	V
Line Regulation	$V_{OUT-LINE}$				5	%
Load Regulation	$I_{OUT-LOAD}$	V_{OUT} from MIN. to MAX.			5	%
Ripple Current	$I_{OUT-RIPPLE}$	Full Load, $(I_{omax}-I_{omin})/(I_{omax}+I_{omin})$			30	%
Output Current Overshoot	$I_{OVERSHOOT}$	Turning Power ON			10	%

Phase Cut Dimming

The unit is compatible With Leading-edge and Trailing-edge Dimmer.



Input Voltage	$V_{IN-TRIAC DIM}$			120		V_{AC}
Suggest Load Range	$P_{Suggest}$	$V_{IN} = 120 V_{AC}$	40		100	%

Compatible Phase Cut Dimmer List

No.	Mfg.	Model	Remark	No.	Mfg.	Model	Remark
1	Lutron	MACL-153M		6	Lutron	DVELV-300P	
2	Lutron	DVRP-253P		7	Lutron	NTELV-300	
3	Lutron	PD-6WCL		8	Lutron	DVCL-153P	
4	Lutron	PD-5NE		9	Leviton	IPE04	
5	Lutron	MA-PRO		10	Leviton	DSE06	

Programming

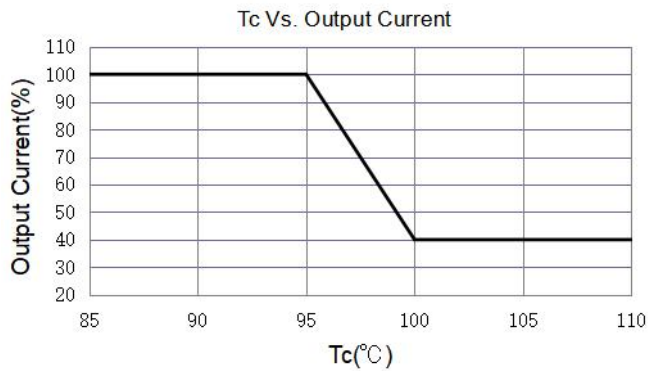
The driver is programmable , Please contact LUMIGEAR for details.

NO.	Item	Default Setting
1	Output current(1mA step)	See"Model list" for each model
2	Over Temperature Protection: Foldback mode, Linear decrease mode	See "Protection" section
3	Programmable RMS voltage with turn-on , turn-off and full brightness for phase cut dimming	Turn on at $18V_{AC}$, turn off at $15V_{AC}$, Clamp at $30V_{AC}$, full brightness at $108V_{AC}$
P2.0 Female Plug Caution: Programming port is NOT isolated from primary side	Programming software	"LUMIGEAR Programming Tool"
	Programming tool	"Lumigear tool box"
	Operating voltage	
Programming Interface	PGT-USB-TPAC-A	
Programming Cables	PGT-USB-M4P2	

Protection

Over Voltage Protection	V_{OVP}	The unit will recover automatically after fault conditions is removed.		60		V
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Over Temp. Protection	T_{OTP}	Current linear reduced when hotspot greater than T_{OTP}	95	°C
Short Circuit Protection	The unit will recover automatically after fault conditions is removed.			

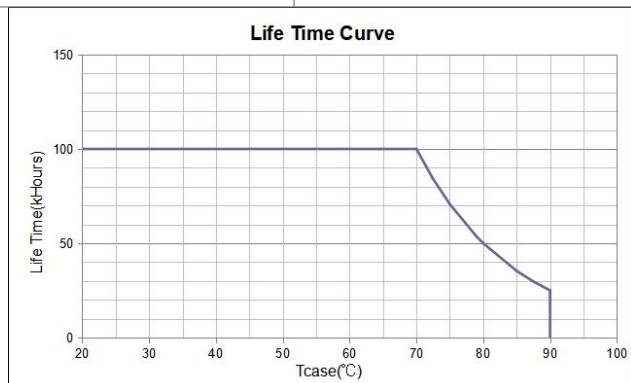


Environment

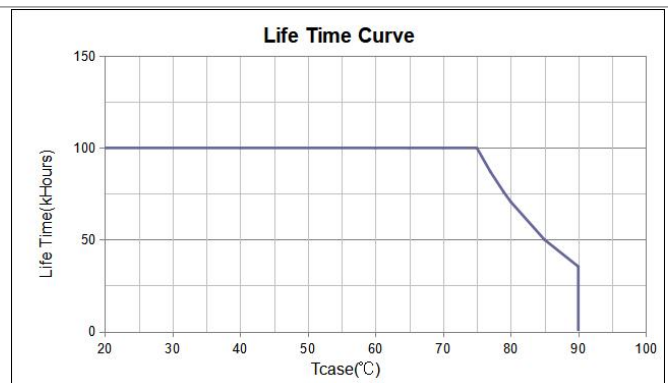
Storage Temperature	$T_{Storage}$	Humidity: 5% RH to 95% RH	-40	-	+85	°C
Ambient Operating Temperature	T_a		-25	-	+55	°C
Max. Case Temperature	T_c	Hot spot on case			90	°C
Operating Relative Humidity	H_a	Non-Condensing	10		90	%
Acoustic Noise		Measured from 1 meter			24	dBA
Cooling	Convection Cooling					
IP Rating	Dry and damp UL approved					

Others

Life Time	T_{Life}	AFP-A1-015, Full load, 80°C case temperature	50			kHrs
		AFP-A1-030, Full load, 85°C case temperature	50			kHrs
SVEF	T_{SVEF}	Full Load, 25°C ambient temperature	200			kHrs
Net Weight	W_{NET}			TBD		g
Warranty	AFP-A1-015, 5 Years Warranty at $T_c \leq 80^\circ\text{C}$					
	AFP-A1-030, 5 Years Warranty at $T_c \leq 85^\circ\text{C}$					
Flicker	Title 24					



AFP-A1-015 life time curve



AFP-A1-030 life time curve

Safety Compliance

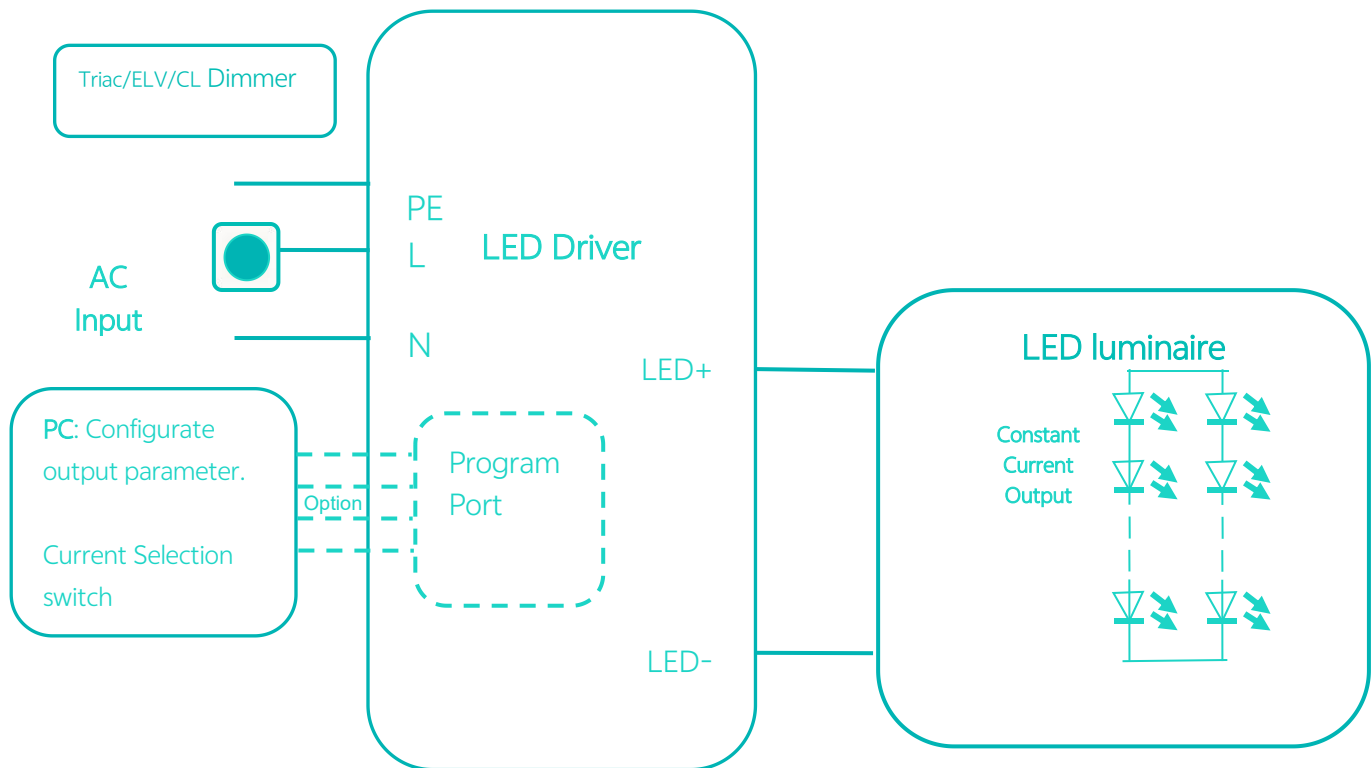
CUL/UL	UL8750, CAN/CSA-C22.2 No. 250.13
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Electromagnetic Compliance

EMC Requirements	Standard	Conditions
EMI Emissions	FCC Title 47 Part 15	Class B at 120V _{AC} , Class A at 277V _{AC}
Voltage Fluctuations and Flicker	IEC61000-3-3	
Immunity Compliance	IEC 61000-4-2	±8kV air Discharge, ±6kV Contact Discharge
	ANSI/IEEE C62.41-2002	± 2kV Common and Differential Mode, test at 2 Ω, 5 strikes/1minute interval (40 total strikes)
	ANSI/IEEE C62.41.1-2002	2.5kV Ring Wave, test at 30Ω 7 Strikes/1 minute interval, Common and Differential mode, 56 total strikes
	IEC 61000-4-11	>95% dip, 5 period; 30% dip, 25 periods; 95% reduction, 250 periods
	IEC 61000-4-4	± 2kV Direct couple to Line input, 5kHz repetition rate, 15mS duration, 300mS period. 7 coupling paths, 1 minute per path (14 total combinations)

Note: Unless otherwise specified, all the above parameters are measured at ambient temperature of 25°C and rated voltage.

Typical Application



Packaging

Driver quantity (pcs)	Layer	Weight (kg)	Outer dimensions of Carton L*W*H(mm)
TBD	TBD	TBD	TBD

Mechanical Drawing:

