INCORE by LinkCom

50W Programmable Tunable White LED Driver

INT Series



PRODUCT HIGHTLIGHT:

- Universal AC input from 120 - 277 VAC +/-10%
- Built-in active PFC function
- Output current programmable (50mA per step)
- 2-channel output for Tunable White color temperature control
- 1-channel output for Dim to wram or Brightness control
- Optional Auxiliary Output: 12V/30mA (See note 1)
- Flicker free comply with California Title 24
- Surge protection: L-N 2.5KV / L- PE 4KV
- Built-in adaptive Temperature Protection
- Protection: SCP / OVP / OPP
- Programmable protection reaction: Auto-restart or Latch mode
- Safety: UL8750, Class 2, Class P
- RoHS Compliant
- Warranty: 5 years (refer to warranty policy)

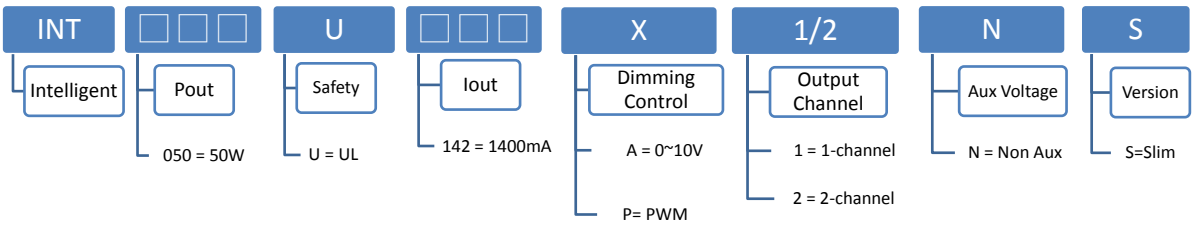
DIMMING FEATURES:

- Isolation for 3 in 1 dimming control: PWM, 0-10V, Rset
- Programmable Dimming Curves: Linear or Eye-Adapted
- Programmable Dimming Curve directions: Normal or Inverted
- Programmable dim-to-off function: enabled or disabled
- 1% Deep Dimming for Tunable White color temperature control
- Standby power <0.2W when enable Dim-to-off function

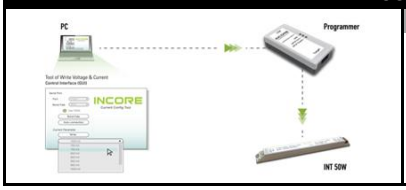
PRODUCT SPECIFICATION

MODEL	OUTPUT CHANNEL	OUTPUT POWER (W)	OUTPUT VOLTAGE (V)	PROGRAMMABLE OUTPUT CURRENT (mA)	EFFICIENCY @Full load		OUTPUT CURRENT TOLERANCE (%)	Power Factor @Full load	T.H.D @Full load		WATERPROOF
					120VAC	277VAC		120VAC	120VAC	277VAC	
INT050U142X1NS	1	50	20-55	700-1400	87.0%	88.0%	±5%	0.99	<10%		IP20
INT050U142X2NS	2	50	20-55	700-1400	86.0%	87.0%	±5%	0.99			IP20

Model Number Code



CONFIGURATION OVERVIEW



GENERAL INFORMATION	
Programmer model	INTPRGN001USB0
Ouppput power	50W (MAX)
Programming Feature	Output current 50mA step Dim-to-off or minimum 50mA Dimming curve

Input Specifications

	Min.	Typ.	Max.	Units	Conditions/Description
Input Voltage Range	108	120/277	305	Vac	
Input Frequency Range	47		63	Hz	
Input Current		0.5/0.22	0.6	A	
Inrush Current			65	A	Per NEMA410
Leakage Current			0.75	mA	277VAC in
Power Factor (PF)	0.92				120/277VAC,Full load
Total Harmonics Distortion (THD)			10	%	120/277VAC,Full load
Standby power			0.2	W	When enable dim-to-off function

Output Specifications

	Min.	Typ.	Max.	Units	Conditions/Description
Output current (Normal)	700		1400	mA	Default 1400mA
Line Regulation			±5	%	
Load Regulation			±5	%	Full load
Output Current Regulation		±5		%	
Output Ripple Current (Flicker Factor)	Output Current Frequencies > 1KHz			%	California Title 24
LED Power up time			0.5	s	Measured at 120~277VAC and at full load.

INT Series

Dimming Specifications					
	Min.	Typ.	Max.	Units	Conditions/Description
Dimming Control (Analog)	0		15	Vdc	
Dimming Control (PWM)		1000		Hz	
Dimming Control (RSET)	0		130K	Ω	
Minimum dimming current		50		mA	
Dim-to-Off Threshold		50		mA	
Output Current for Dimmer		120		uA	

CCT Tuning Specifications					
	Min.	Typ.	Max.	Units	Conditions/Description
Dimming Control (Analog)	0		15	Vdc	For 2 channel model INT050U142F2NS
Dimming Control (PWM)		1000		Hz	
Output Current for Dimmer		120		uA	

Programmable Functions					
	Min.	Typ.	Max.	Units	Conditions/Description
Programmable Current Range	700		1400	mA	50mA per Step
Constant Power Set Range			50	W	Default
Off-Line Programmable					Programming without Line Voltage

Protection Functions					
	Min.	Typ.	Max.	Units	Conditions/Description
Short Circuit Protection					will restart automatically after the fault condition is removed
Over Voltage Protection					will restart automatically after the fault condition is removed
Over Temp Protection (Tc)			90	℃	Lowest reduced output current 200mA

Environmental Conditions					
	Min.	Typ.	Max.	Units	Conditions/Description
Operating Temperature (Ta)	-30		50	℃	Non-condensing
Operating Humidity	10		90	%RH	Non-condensing
Operating Case Temperature (Tc)		75		℃	Case temperature measured at the case hot spot Measured at 120Vac,Ta 50℃
Sound Rating			24	dB	A
Storage Temperature	-40		85	℃	Non-condensing
Storage Humidity	10		95	%RH	Non-condensing
Life Time	Measured at 120Vac, 45,000 hours at Tc 75°C for INT050U142F2NS				
Dimensions(L*W*H)	287* 26.2 * 25.1 mm [11.3 * 1.03 * 0.99 inch]				
Weight		260		g	

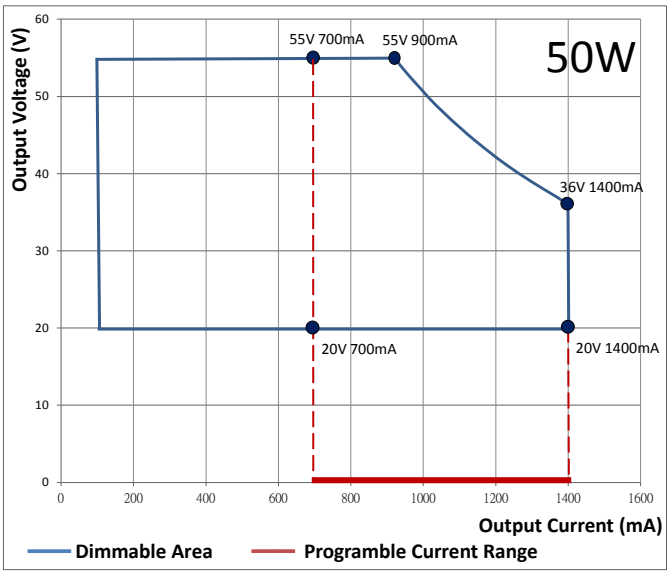
EMC Compliance and Safety			
EMC Compliance			
Conducted and Radiated Emmission		Comply with EN 55015 (CISPR15)	
Harmonic Current Emissions		Comply with EN 61000-3-2	
Voltage Fluctuations & Flicker		Comply with EN 61000-3-3	
EMS Standards	Electrostatic Discharge (ESD)	Comply with IEC 61000-4-2	8 KV air discharge, 4 KV contact discharge
	RF Electromagnetic Field Susceptibility	Comply with IEC 61000-4-3	
	Electrical Fast Transient	Comply with IEC 61000-4-4	
	Surge Immunity	Comply with IEC 61000-4-5	L-N 2.5KV, L-PE/N-PE 4KV
	Conducted RF Disturbances	Comply with IEC 61000-4-6	
	Power Frequency Magnetic Field	Comply with IEC 61000-4-8	
	Voltage Dips	Comply with IEC 61000-4-11	
Safety			
UL	UL 8750, Class2, Class P		

Notes:

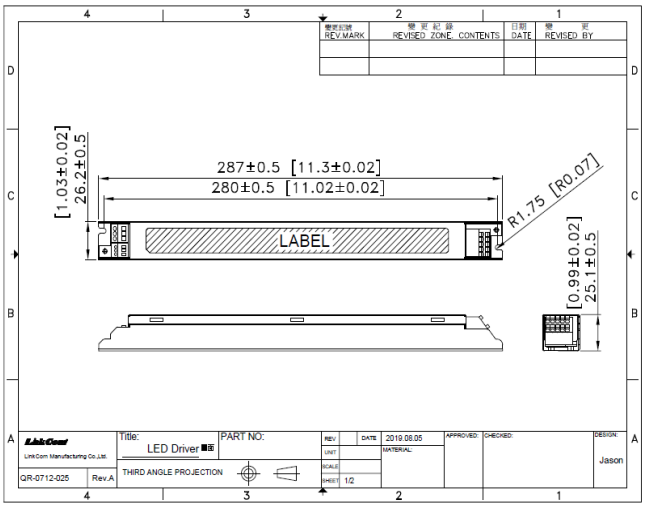
(1) Auxiliary output function is customized upon request. Please contact LinkCom sales team if need AUX function.

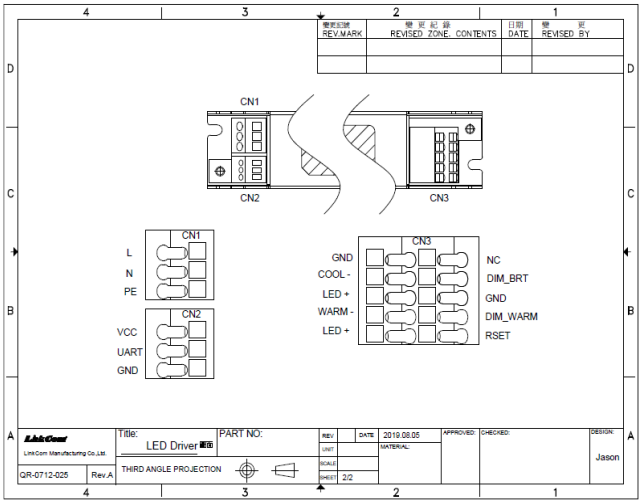
INT Series

PROGRAMMABLE CURVE

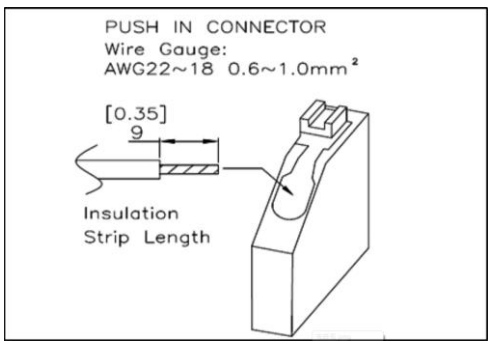


DIMENSIONS (INT050U142F2NS)





Input & Output wiring diagram form CONNECTER

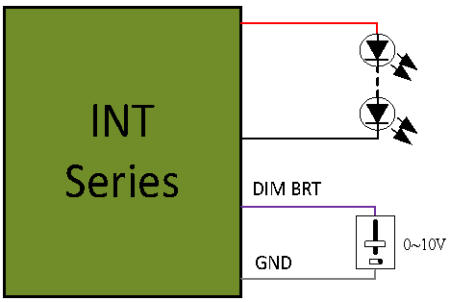


Recommended Maximum Output Wiring Distance Without Voltage Drop

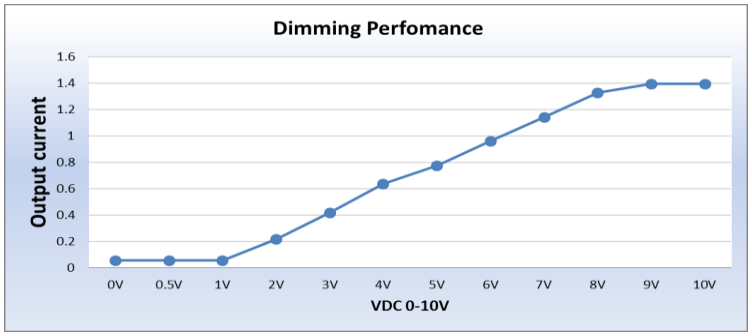
AWG	#22	#21	#20	#19	#18
Distance [m]	3.25	3.75	5.00	6.25	7.50
Distance [ft]	10.65	12.30	16.40	20.50	24.60

INT Series

DC 0-10V Dimming Performance



DC 0-10V Dimming Performance On Fixtures (35V 1.4A)



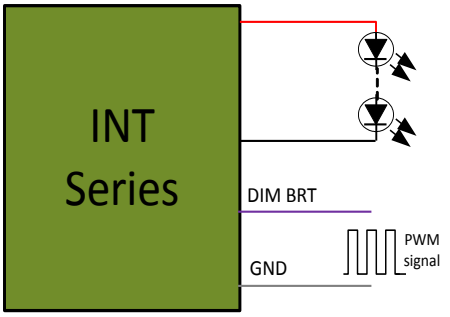
DIMMER COMPATIBILITY

Dimmer Type	Brand	Part Number
0~10V Dimming	Leviton	IP-710
	Lutron	NTSTV-DV
	Wattstopper	ADF-120277-W

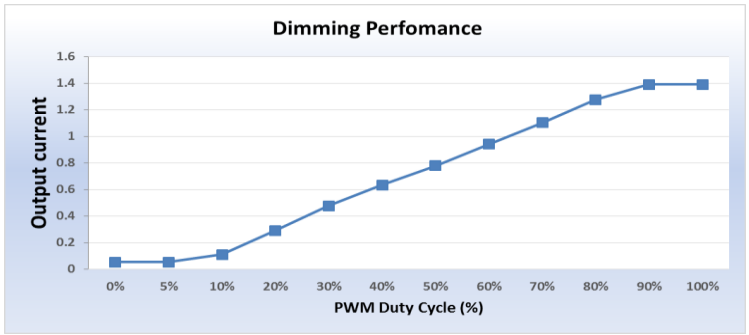
Notes:

1. Purple and Gray wires on the output side are used for 0-10V dimming.
2. Recommended dimmers are Leviton IP710,Lutron NTSTV-DV or equivalent.
3. When dimming wires +Purple/-Gray are left open, the output current will be at 100%.
4. Dimmer must be current-sink type control

PWM DIMMING PERFORMANCE



PWM Duty Cycle 0%~100% , 10V/1KHz; Dimming Performance On Fixtures(35V 1.4A)

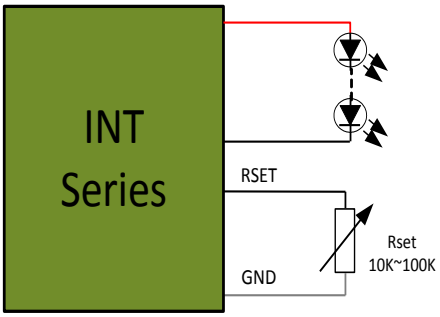


Parameters	Min.	Typ.	Max.	Units
PWM Singnal on 0-10V Purple(+)		1000		Hz
Source current out of dimmer		120		uA

Notes:

1. When dimming wires +Purple/-Gray are left open, the output current will be at 100%.
2. Dimmer must be current-sink type control

RSET DIMMING PERFORMANCE



External Resistor Dimming Performance On Fixtures (35V 1.4A)

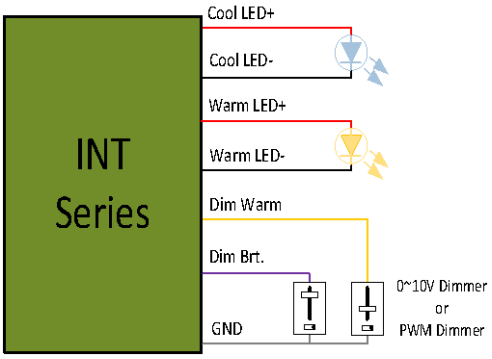


Parameters	Min.	Typ.	Max.	Units
Resistance range on RSET dimming wire	0		130K	Ω
Source current out of dimmer		120		uA

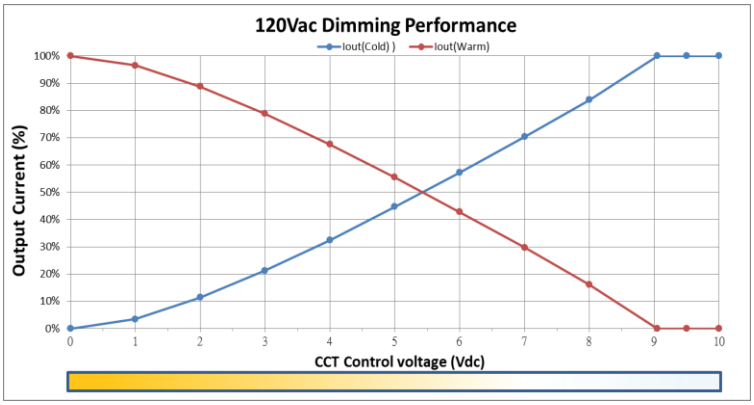
Notes:

1. RSET dimming wire are used for external resistor

TUNABLE WHITE DIMMING PERFORMANCE

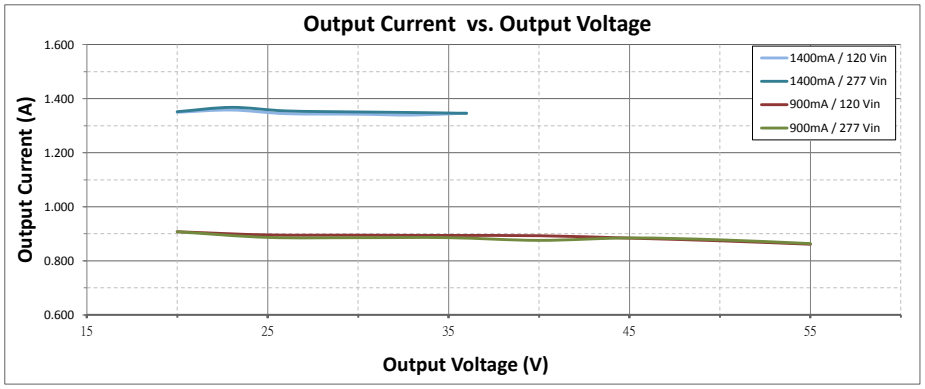


CCT Tuning：Warm DC 0~10V ,Dimmable DC 10V (35V 1.4A)

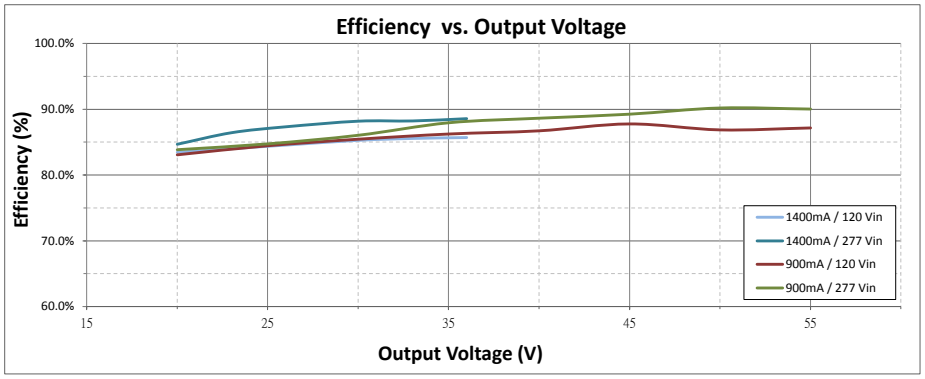


INT Series

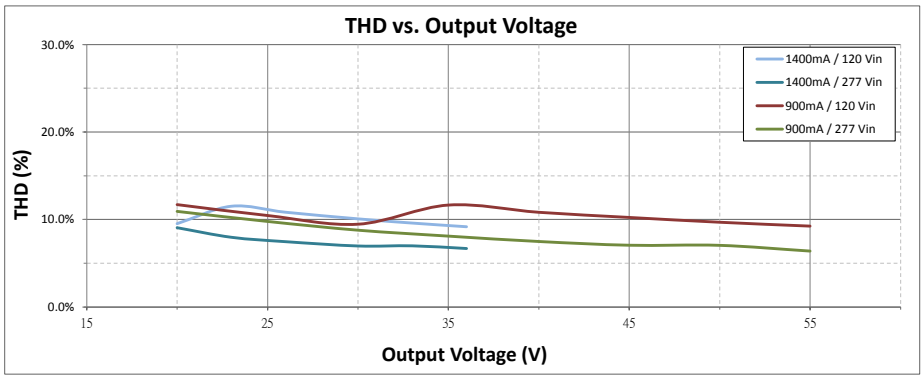
Output Current vs. Output Voltage



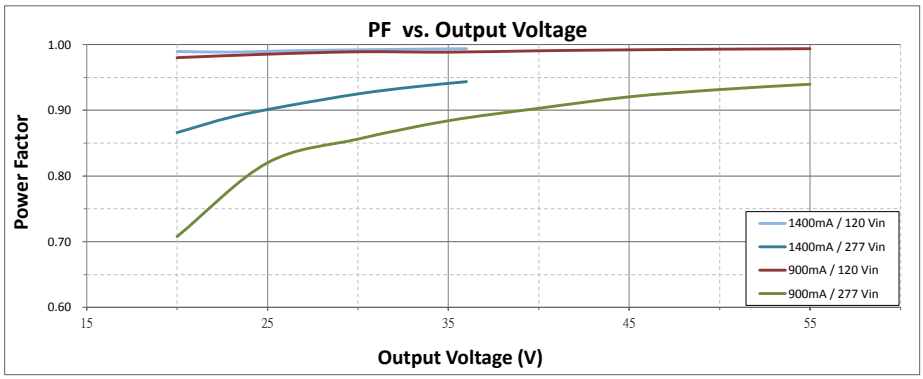
Efficiency vs. Output Voltage



THD vs. Output Voltage



PF vs. Output Voltage



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