INCORE by LinkCom

DBFN Series



FEATURES:

- **AC Input 100~277VAC**
- **Built-in Active PFC Function**
- **Protection: SCP / OVP / OTP**
- **24V Auxiliary Output**
- **0-10V Dimming Control**
- **Dimming 1% ~ 100%**
- **Flicker Free**
- **High Operating Ambient Temp.: -20℃~+50℃**
- **Surge protection: L-N 2KV , L-FG/N-FG 4KV**
- **Safety: UL 8750 / PSE**
- **EMI: FCC Part 15 Class B / CE**
- **Comply with Indoor**
- **Warranty: 7 years (refer to warranty policy)**
- **RoHS Compliant**

PRODUCT SPECIFICATION

MODEL	DC OUTPUT POWER (W)	DC OUTPUT VOLTAGE (V)	OUTPUT CURRENT (A)	OUTPUT CURRENT TOLERANCE	EFFICIENCY (Typ.)				Power Factor (Typ.)			
					100VAC	120VAC	200VAC	277VAC	100VAC	120VAC	200VAC	277VAC
DBFN-040U152	36	12-24	1.5	±7%	84.0%	84.0%	85.0%	85.0%	0.98	0.98	0.94	0.92
DBFN-040U182	43.2	12-24	1.8	±7%	84.0%	84.0%	85.0%	85.0%	0.98	0.98	0.94	0.92
DBFN-040U142	42	15-30	1.4	±7%	85.0%	85.0%	87.0%	87.0%	0.98	0.98	0.94	0.92
DBFN-040U102	36	18-36	1	±10%	85.0%	85.0%	87.0%	87.0%	0.98	0.98	0.94	0.92
DBFN-040U901	43.2	24-48	0.9	±10%	85.0%	85.0%	87.0%	87.0%	0.98	0.98	0.94	0.92
DBFN-040U701	39.2	28-56	0.7	±7%	85.0%	85.0%	87.0%	87.0%	0.98	0.98	0.94	0.92
DBFN-050U222	52.8	12-24	2.2	±5%	84.0%	84.0%	85.0%	85.0%	0.99	0.98	0.94	0.92
DBFN-050U182	54	15-30	1.8	±7%	85.0%	85.0%	87.0%	87.0%	0.99	0.98	0.94	0.92
DBFN-050U901	50.4	24-56	0.9	±10%	85.0%	85.0%	87.0%	87.0%	0.99	0.98	0.94	0.92

Input Specifications					
	Min.	**Typ.**	**Max.**	**Units**	**Conditions/Description**
Input Voltage Range	90		305	Vac	
Input Frequency Range	47		63	Hz	
Input Current			0.8	A	100VAC in
Inrush Current			65	A	230VAC in,25℃ Cold start
Leakage Current			0.75	mA	277VAC in
Power Factor (PF)	0.9				100-277VAC,100% load
Total Harmonics Distortion (THD)			15	%	
Output Specifications					
	Min.	**Typ.**	**Max.**	**Units**	**Conditions/Description**
Line Regulation		±3		%	
Load Regulation		±3		%	
Output Current Regulation	10		10	%	
Ripple and Noise (pk-pk)			0.5	V	20MHz Bandwidth. See note (3)
Ripple Current	<30% of rated output current				*Measured at electronic load LED mode and nominal input voltage with DC10V dimming.
Turn-on Delay Time			1	s	*Measured at 100-277VAC and at full load
Auxiliary Output Voltage		24		V	± 5% Tolerance (Available for customization)
Auxiliary Output Source Current	0		0.1	A	
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)				℃	will restart automatically after the fault condition is removed
Environmental Conditions					
	Min.	**Typ.**	**Max.**	**Units**	**Conditions/Description**
Operating Temperature (Ta)	-20		50	℃	Non-condensing
Operating Humidity	10		90	%RH	Non-condensing
Operating Case Temperature (Tc)			75	℃	Case temperature measured at the case hot spot
Storage Temperature	-20		80	℃	Non-condensing
Storage Humidity	10		95	%RH	Non-condensing
Life Time	Measured at 277Vac, 60,000 hours at Ta 50°C for DBFN-050U222.				
Dimensions(L*W*H)	370 * 31.2 * 27.2 mm 14.5 * 1.23 * 1.07 inch				
Weight		380		g	

0~10V Dimmable

DBFN Series

EMC Compliance and Safety			
EMC Compliance			
Conducted and Radiated Emmission		FCC Part 15 Class B	
Harmonic Current Emissions			
Voltage Fluctuations & Flicker			
EMS Standards	**Electrostatic Discharge (ESD)**		8 KV air discharge, 4 KV contact discharge
	RF Electromagnetic Field Susceptibility		
	Electrical Fast Transient		
	Surge Immunity		L-N 2KV , L-FG/N-FG 4KV
	Conducted RF Disturbances		
	Power Frequency Magnetic Field		
	Voltage Dips		
Safety			
UL	**UL 8750**		
PSE	**Comply with PSE**		

Notes

(1) All parameters not specially mentioned are measured 230VAC input.

(2) All specifications Typical @25℃, unless otherwise noted, at normal line and load.

(3) Ripple and Noise measured directly at pins/terminals at nom. load, 0.1uF bypass and 47uF electrolytic, pk-pk @20MHz bandwidth.

(4) Specified for free-air convection cooling.

(5) Minimum load is NOT required for proper operation .

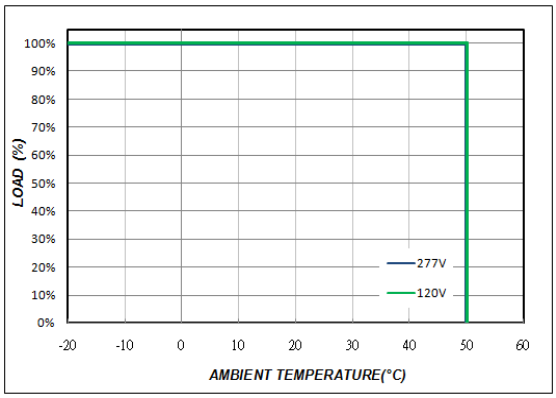
＊REFERENCE: www.linkcom.com.tw

＊Please contact sales@linkcom.com.tw, sales@linkcomusa.com for more information

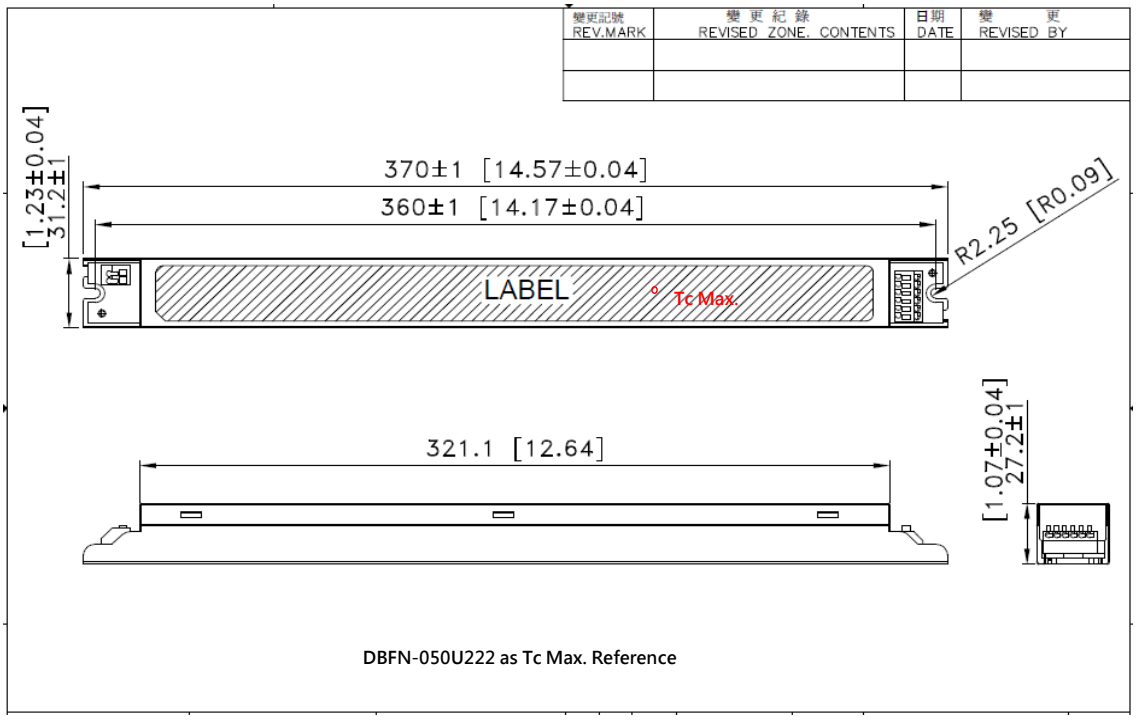
0~10V Dimmable

DBFN Series

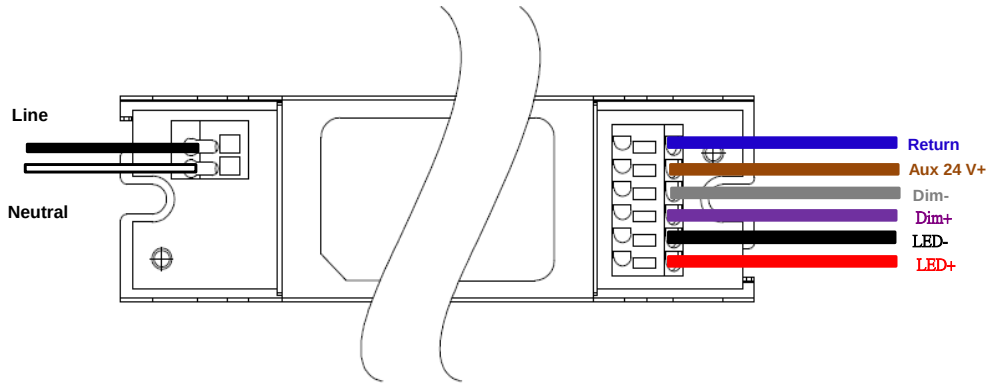
DERATING CURVE



DIMENSIONS



WIRING DIAGRAM



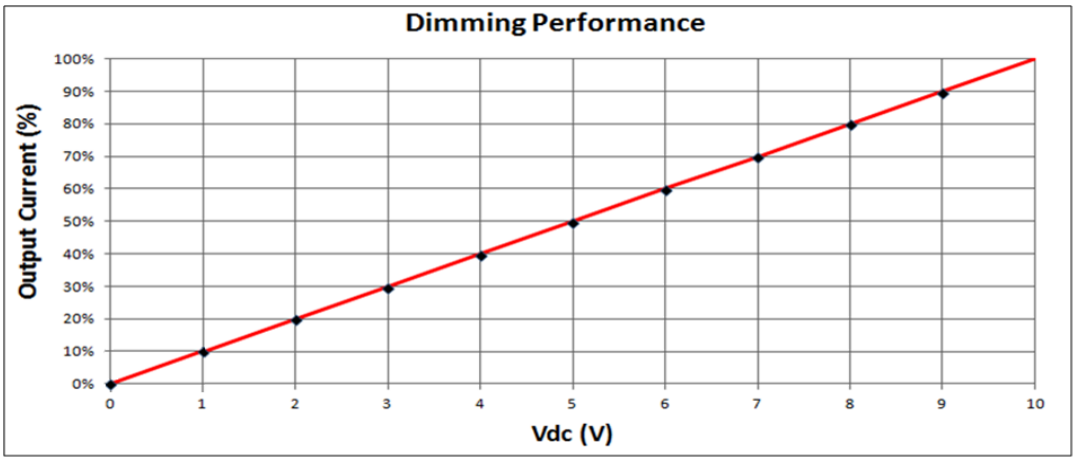
＊REFERENCE: www.linkcom.com.tw

0~10V Dimmable

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DIMMING OPERATION

Parameters	Minimum	Typical	Maximum
Absolute maximum voltageon on the Dim+	0V	—	10V
Source current on the Dim+	0mA	—	1mA



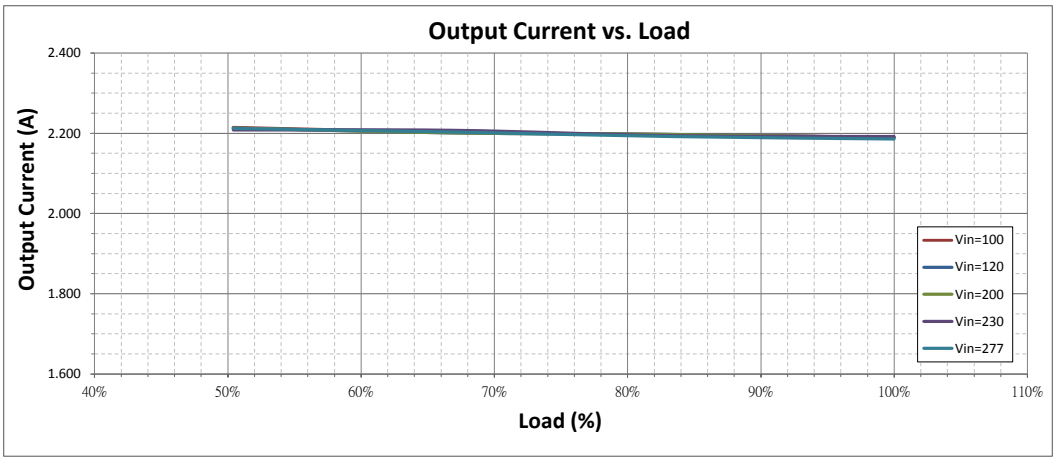
Notes:

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%.

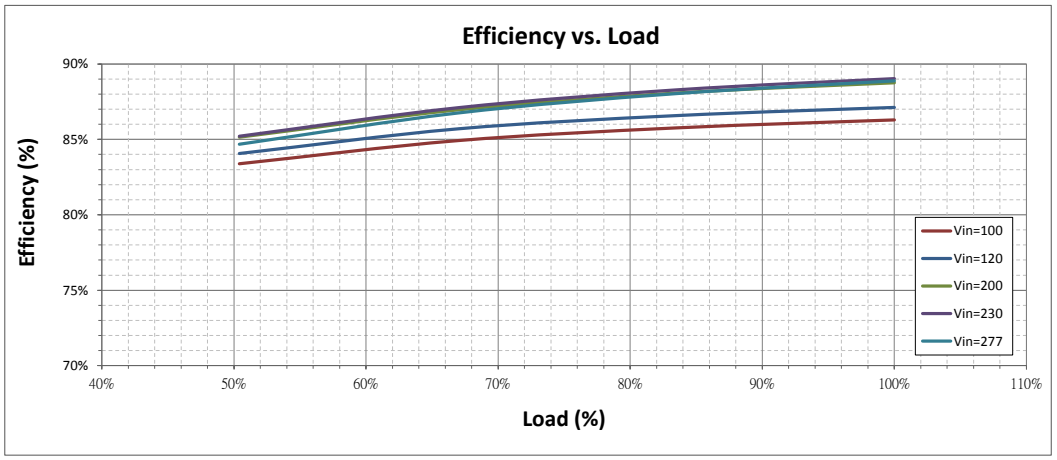
0~10V Dimmable

DBFN Series

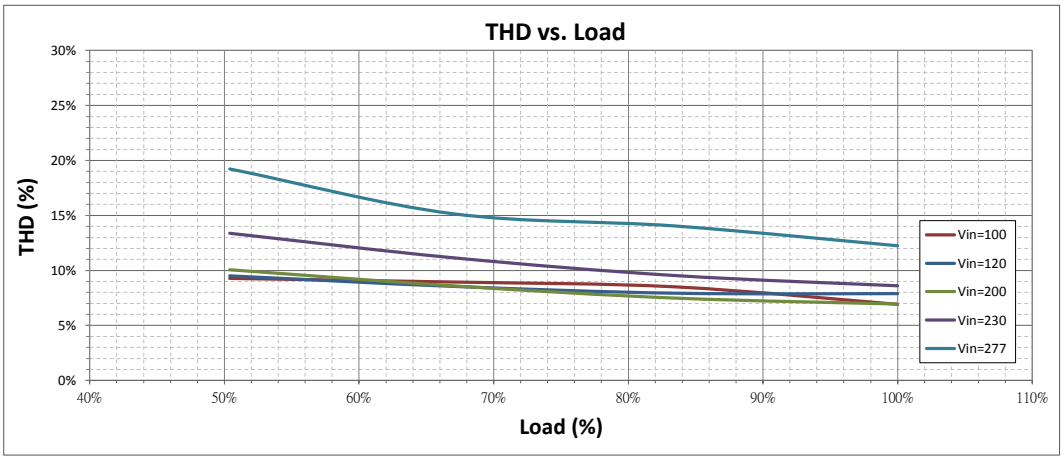
Output Current vs. Load (DBFN-050U222)



Efficiency vs. Load (DBFN-050U222)



THD vs. Load (DBFN-050U222)



PF vs. Load (DBFN-050U222)

