

Project Name:	
Type:	

MCF(G)-042 Series

42W Outdoor Driver

PRODUCT FEATURE

- Input voltage range: 90 - 305 Vac;
- Constant power design, outputs programmable;
- Adjustable output current by software
- Dim to Off
- Support DALI Dimming (L types): DALI-2 DT6
- Surge protection: 5KV line-line, 10KV line-earth;
- Protections: SCP / OVP / OTP;
- IP67 design for indoor and outdoor applications;
- Suitable for dry / damp / wet locations;
- 5 years warranty



Notes : MCF-042 0 is Class I type, MCG-042 is Class II type

APPLICATION

Street Lighting, architecture lighting, industrial lighting, flood lighting, etc.

MODEL ENCODING

M C F - 042 - 062 XY

① ② ③ ④ ⑤ ⑥

WARRANTY

- See [Limited Warranty Policy](#) for more additional information

SERIAL NUMBER	ITEM	DEFINITION
①	Structure	M: Metal case P: Plastic case O: Open frame (It can add module power supply, iron shell power supply, and etc.)
②	Type	C: Constant current V: Constant voltage P: Constant current & constant voltage (Other specifications can be defined later, such as I: Industrial power supply, R: Rainproof power supply, S: Customized power supply, etc.)
③	Series Name	F: Class I G: Class II
④	Rated Wattage	3 to 4 digits (such as 105 means 105)
⑤	Output Voltage	Maximum voltage
⑥	Dimming	X (N): No dimming, P : Programmable with wire dimming and time step dimming, L : DALI dimming Y (Y=0-24v auxiliary power supply)

DIMMING	FUNCTION	NOTES
L	Dimming capability EN62386-101(DALI-2),EN62386-102(DALI-2), EN62386-207(DALI-2)	

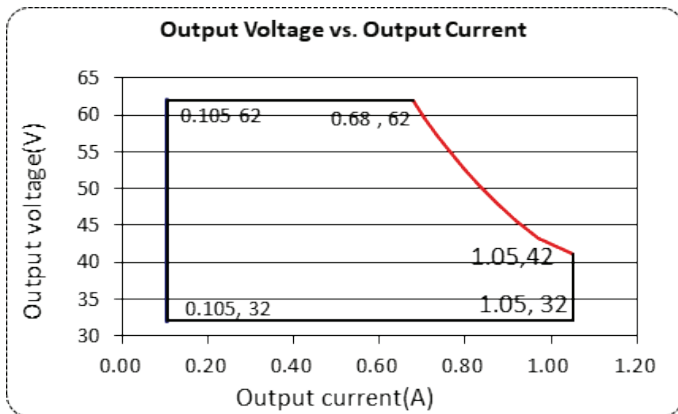
MCF(G)-042 Series

42W Outdoor Driver

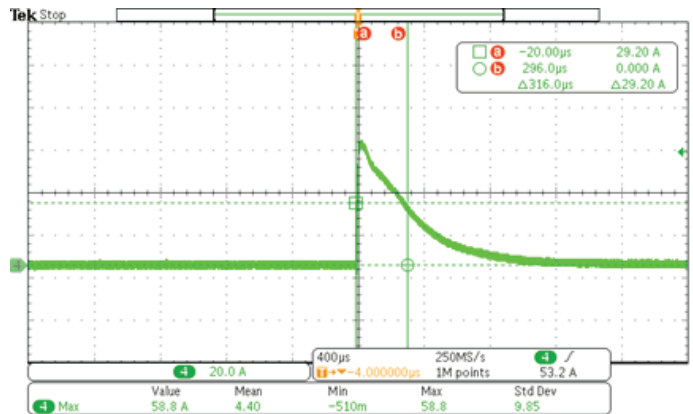
SPECIFICATION		
MODEL	62	
MCF(G)-042-062L		
INPUT	Efficiency (230Vac)(Typ.)	89%
	Voltage Range (V)	90~305VAC, or 127 ~ 430VDC
	Rated Voltage (V)	100~277VAC
	Frequency Range (Hz)	47~63
	Power Factor	PF>0.97/ 120VAC, PF>0.95/230VAC, PF>0.92/ 277VAC at full load
	THD	THD<10% when output loading \geq 50% at 120VAC/230VAC THD<15% when output loading \geq 50% at 50VAC/277VAC (Take refer to THD vs. Load Curve for details)
	AC Current (Max.)	0.6A MAX at 120Vac, 0.3A MAX at 230Vac
	Inrush Current (Max.)	COLD START 75A (twidth=316 μ s measured at 50% Ipeak) at 230VAC, Per NEMA410
	Leakage Current (Max.)	0.75mA at 277VAC/ 60Hz
	MAX. No. of PSUs on 16A Circuit Breaker	3 units (circuit breaker of type B) / 6 units breaker of type C) at 230VAC
	Standby Power Consumption	Standby Power Consumption <0.5W
OUTPUT	Rated Output Voltage (V)	32 – 62
	Output Voltage Range (V)	40 – 62
	Rated Current (A)	0.68 – 1.05
	Rated Power (W)	42
	Initial Current Setting Range (Iset) (A)	0.42 – 1.05
	Dimming	0.10 – 1.05
	Initial Current (A)	0.7
	Ripple Current	5% of Io_max. ((PK-AV) /AV) with LED loading mode and full load.)
	Current Tolerance	<5%
	Line Regulation	<1%
	Load Regulation	<3%
	Setup Time	<2s, at 120Vac; <0.5s, at 230Vac
	DIM + Short/ Source Current	<2mA (L type)
PROTECTION	Short Circuit Protect (SCP)	Latched mode, recover by DALI command or cycling AC input power.
	Over Voltage Protect (OVP)	Voltage limiting. Output current is decreased if the required loading voltage is higher than MAX. output voltage.
	Over Temperature Protect (OTP)	Decrease the output current, but not less than 20% of rated output current, recover automatically once the fault condition is removed.
ENVIRONMENTAL	Working Temperature	-40 – +60°C(Refer to 'Derating Curve')
	Max. Case Temperature (Tc)	90°C max
	Working Humidity	20 – 95%RH
	Storage Temp., Humidity	-40 – +85°C, 10-95%RH
	Vibration	10-500Hz, 5G 12min/cycle, period for 72min each along X、 Y、 Z axes

SPECIFICATION		
MODEL		62
MCF(G)-042-062L		
Safety & EMC	Safety Standard	UL8750, CSA C22.2 No. 250.13-12; ENEC EN61347-1, EN61347-2-13 independent, EN62384; GB19510.1,GB19510.14
	Withstand Voltage	MCF:I/P-O/P: 3.75kVac, I/P-FG:1.65kVac, O/P-FG:1.5kVac MCG:I/P-O/P: 3.75kVac, I/P-FG:3.75kVac, O/P-FG:1.5kVac
	Isolation Resistance	I/P-O/P, I/P-FG, O/P-FG: 100M Ohms (500VDC / 25°C/ 70% RH)
	EMC Emission	FCC Part 15 Class B/ EN55015, EN61000-3-2 Class C, EN61000-3-3
	EMC Immunity	EN61000-4-2,3,4,5,6,8,11, EN61547 (Surge: L-N: ±4kV, L,N-FG: ±4kV)
DALI interface	DALI Standards	EN62386-101(DALI-2),EN62386-102(DALI-2), EN62386-207(DALI-2)
Others	MTBF	200000Hrs @25°C±10°C ambient temperature, 230Vac,80% load (MIL-HDBK-217F)
	Lifetime	50000Hrs@80°C case temperature (Refer to 'Lifetime Curve')
	Dimension	L*W*H: 130mm*55mm*35mm
	Weight (Typ.)	440±50g /pcs
Reliability	Screen test ⁽¹⁾	336Hrs aging test @95°C & full load without temperature protection
Notes:		
1. The test results are based on 14 samples with OTP moved		
2. All the data are measured under room temperature if not specified.		

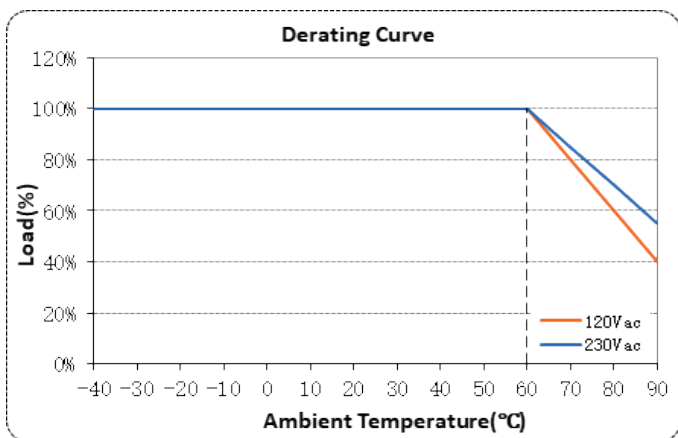
OPERATING AREA I-V



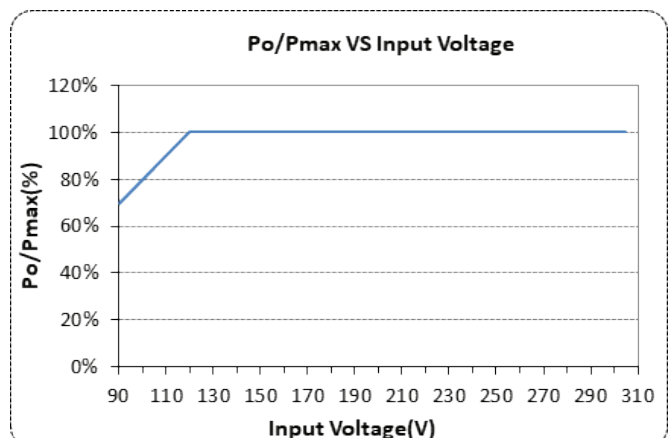
INRUSH CURRENT WAVEFORM



DERATING CURVE



OUTPUT POWER VS INPUT VOLTAGE

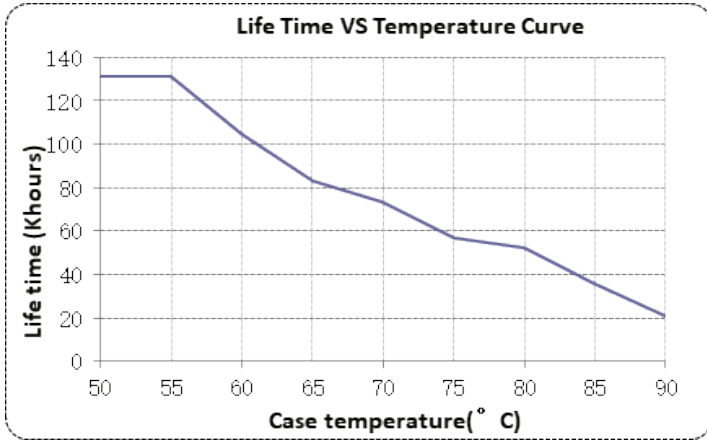


Project Name:	
Type:	

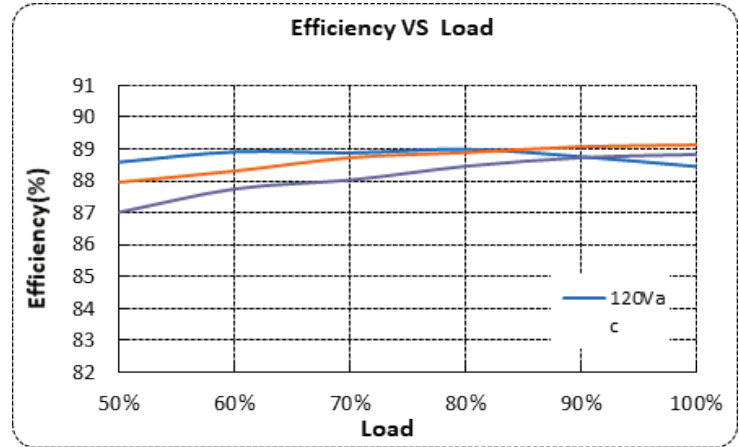
MCF(G)-042 Series

42W Outdoor Driver

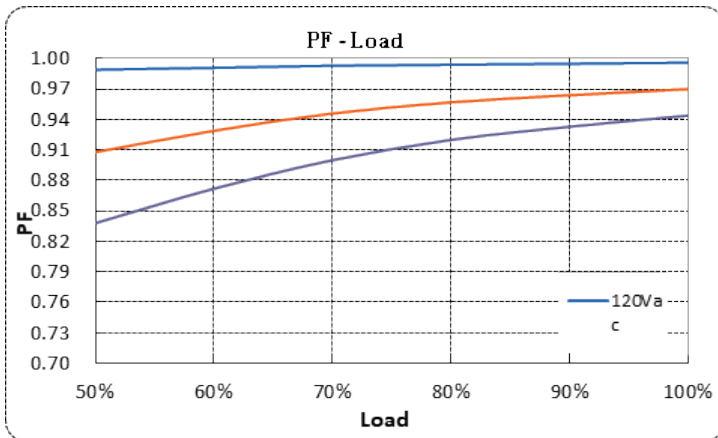
LIFETIME VS CASE TEMPERATURE



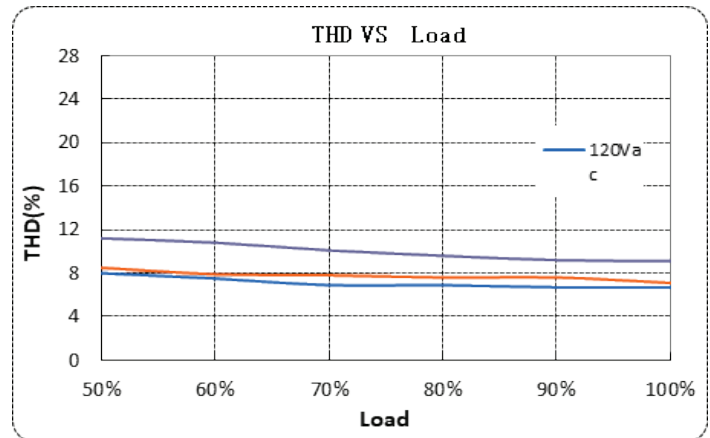
EFFICIENCY VS LOAD



POWER FACTOR VS LOAD



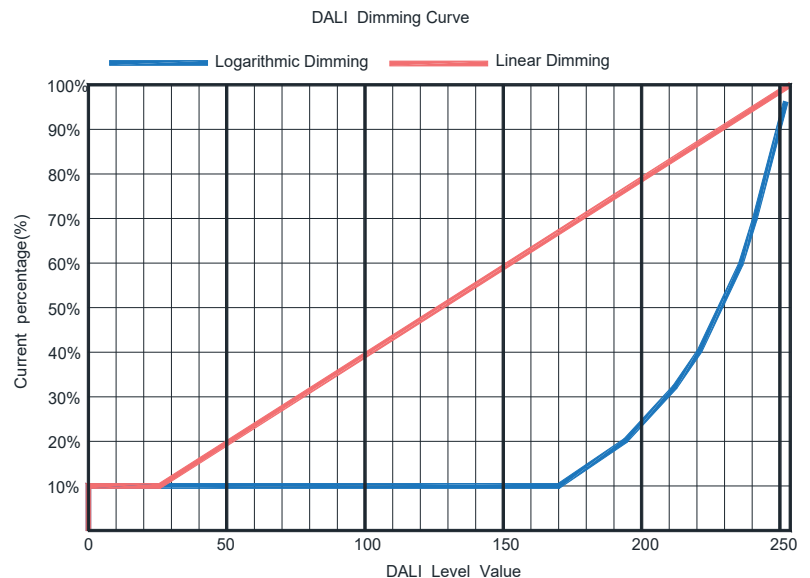
TOTAL HARMONIC DISTORTION



Dimming Interface Description

Pin description

PIN	NAME	VALUE	DESCRIPTION	COLORS
1	DA		Dimming input	PURPLE
2	DA		Dimming input	GRAY

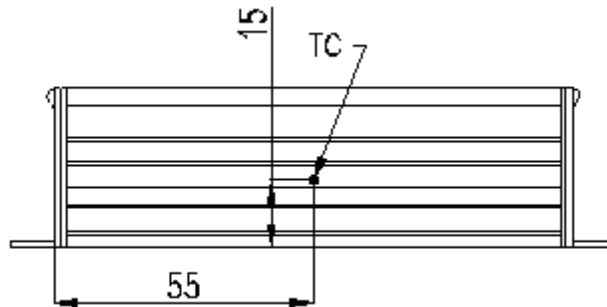
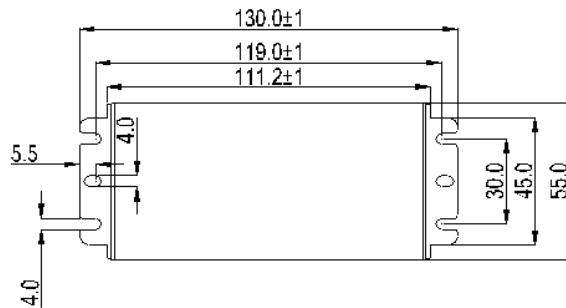
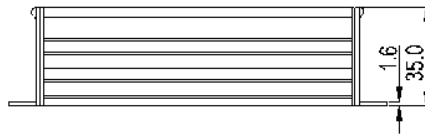
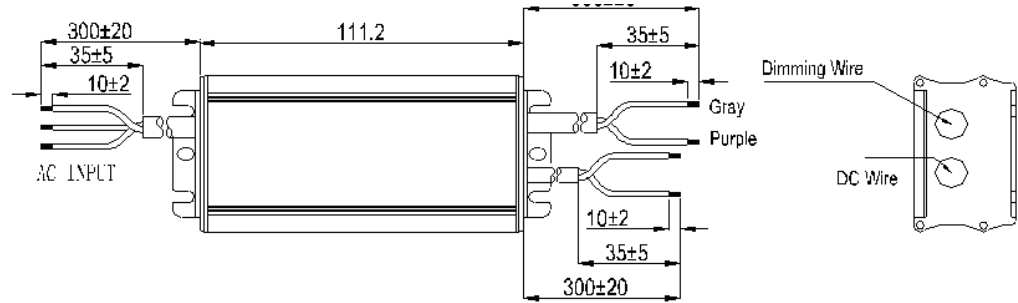


MCF(G)-042 Series

42W Outdoor Driver

MECHANICAL OUTLINE

MCF-042W



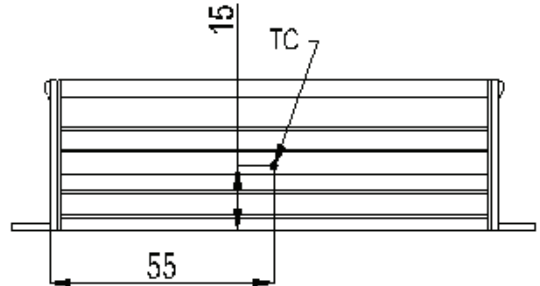
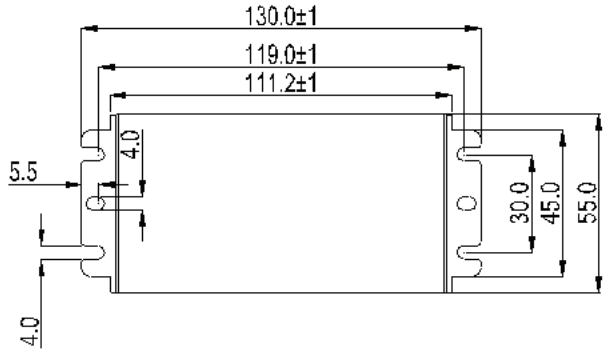
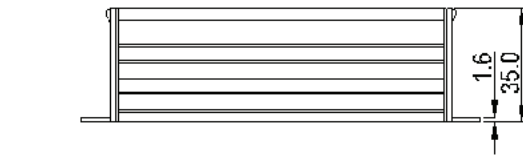
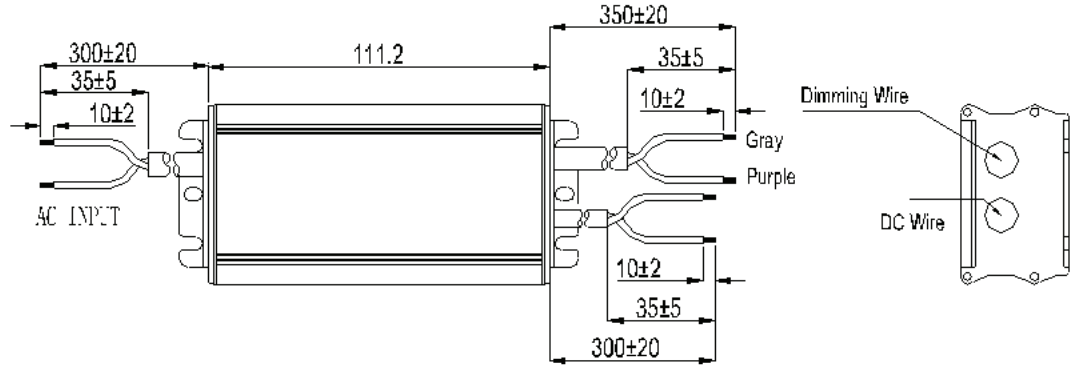
WIRE	SPECIFICATION	NOTE
Input	CCC+VDE H05RN-F 3*1.0mm ² L=300mm	for CE
	L (BROWN) N (BLUE) G (Y/G)	
Output	CCC+VDE H05RN-F 2*1.0mm ² L=300mm	for CE
	+ (BROWN) - (BLUE)	
Dimming	22AWG*2C UL2733 L=350mm	for L
	DA (PURPLE) DA (GRAY)	

MCF(G)-042 Series

42W Outdoor Driver

MECHANICAL OUTLINE

MCG-042W



WIRE	SPECIFICATION	NOTE
Input	CCC+VDE H05RN-F 2*1.0mm ² L=300mm	for CE
	L (BROWN) N (BLUE)	
Output	CCC+VDE H05RN-F 2*1.0mm ² L=300mm	for CE
	+ (BROWN) - (BLUE)	
Dimming	22AWG*2C UL2733 L=350mm	for L
	DA (PURPLE) DA (GRAY)	