

## Description

The U7 series is constant-current, NFC programmable and IP20 rated LED driver that operates from 176~305Vac input with excellent power factor. The NFC interface implemented enables an easy and safe way for programming LED drivers during the production process and in the field. The parameters can be transferred without powering on the LED driver. U7 series integrate AC power monitoring with an auxiliary voltage and dim-to-off functionality for powering low voltage. The dimming control supports two-way communication via DALI-2 and complies with D4i. The better thermal design and high efficiency enables the driver to operate with high reliability and extend product lifetime. Overall protection is provided against lightening surge, output over voltage, short circuit, and over temperature to ensure low failure rate.





# **Product Features**

- Universal input voltage / Full range: 176~305Vac;
- Constant power design, output current programming adjustable;
- DALI-2 &D4i Certified;
- Adjustable Output Current (AOC) with NFC programmable;
- Over temperature protection via external NTC;
- Constant lumen output(CLO);
- Suitable for luminaires with protection Class I and II;
- Integrated 16Vdc Bus Power Supply Based on DALI-2;
- Auxiliary power supply: 24V/125mA;
- Output and Dimming Signal Isolating;
- Surge protection: 6KV line-line, 10KV line-earth(Class I);
- Complies with Zhaga Interface Specification Book 13;
- Protections: SCP/UVP/OVP/OTP;
- IP20 design for indoor and outdoor applications
- Suitable for dry / damp / wet locations;
- 7 years warranty.

## Application

Roadway lighting, Industrial lighting,

## Models

Model Number	Input Voltage Range(Vac)	Max Output Power(W)	Output Voltage Range(Vdc)	Full Power Output Current Range(A)	Default Current(A)	Eff.(Typ.)	PF(Typ.)	THD
U7-080D272+	176-305	80	115-272	0.294-0.500	0.500	91%	0.97	5%

#### NOTES:

[1]. All specifications are measured at 25°C ambient temperature, input voltage 230Vac, and the typical value tested by full load, if no specific note.



# Input Specifications

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Parameter	Min	Тур.	Max	Notes
Input Voltage	176Vac	220~240Vac	305Vac	
Input Frequency AC	47Hz	50/60Hz	63Hz	
Max Input Current	-	-	0.65A	176Vac&Full Load
Max Input Power	-	-	100W	176Vac&Full Load
Leakage Current	-	-	0.70mA	IEC 60598-1;240Vac/60Hz
Inrush Current	-	-	60A	230Vac&Full Load, Cold Start
Standby Power Consumption	-	-	0.5W	230Vac&50Hz, Auxiliary Power Without Load and 16Vdc Bus Power Supply Shut Off
Power Factor(PF)	0.96	0.98	-	220-240Vac, 50-60Hz, 100% Load
Power Factor(PF)	0.90	0.92	-	220-240Vac, 50-60Hz, 60%-100% Load
Total Harmonic Distortion(THD)	-	5%	10%	220-240Vac, 50-60Hz, 100% Load
Total Harmonic Distortion(THD)	-	-	10%	220-240Vac, 50-60Hz, 60%-100% Load
MCB(B16)	-	6	-	230Vac

# **Output Specifications**

Parameter	Min	Тур.	Мах	Notes
Output Voltage Range	115Vdc	-	272Vdc	The full power cannot be lower than 160Vdc
Open Circuit Voltage	-	-	320Vdc	The open circuit protection is locked, and the AC needs to be powered on again
Output Current Range	70%I <sub>set</sub>	-	100%I <sub>set</sub>	The NFC or Dali programmer regulates the I <sub>set</sub> current
Full Power Current Range	0.294A	-	0.500A	
Current Accuracy	-5% I <sub>set</sub>	-	+5% I <sub>set</sub>	I <sub>set</sub> >0.70A
Total Output Current Ripple (pk-pk)	-	5%	10%	20MHz BW, full load& LED load, the ripple would be tiny different under different LED load.
Startup Overshoot Current	-	5%	10%	220~240Vac &100% Load, load is LED
Line Regulation	-1%	-	+1%	25℃±10℃ ambient temperature, input voltage changes from 200Vac to240Vac.
Load Regulation	-3%	-	+3%	25℃±10℃ambient temperature, Input Voltage 230Vac, load changes from 60% to 100%.
Turn-on Delay Time	-	1.0s	1.5s	230Vac
Isolation input to output	-	Double	-	
Output Pst <sup>LM</sup>	-	-	0.01	In entire operating window
Output SVM	-	-	0.01	In entire operating window
Power Monitoring Accuracy	-5%	-	5%	Measured at 230Vac input and 100% load



# **General Specifications**

Parameter	Min	Тур.	Мах	Notes
Efficiency@230Vac lo=0.294A lo=0.500A	89% 88%	91% 90%	-	Measured at full load and 25 °C ambient temperature 24V No Load
Mean Time Between Failure	-	200Khours	-	25°C±10°Cambient temperature, 230Vac,80% load (MIL-HDBK-217F)
Life Time	-	100Khours	-	Tc=75°C, 230Vac&100% load,
Operating Temperature	<b>-40</b> ℃	-	+55℃	230Vac&100% load
Operating Tc for Safety Tc_s	<b>-40</b> ℃	-	+90°C	
Operating Tc for Warranty Tc_s	<b>-40</b> ℃	-	<b>+75</b> ℃	5 years warranty case temperature Humidity: 10% to 80% RHNo condensation
Storage Temperature	<b>-40</b> ℃	-	+85℃	Humidity: 5% to 50% RHNo condensation
Altitude	-60m	-	4000m	
Input Under voltage Protection	130Vac	150Vac	170Vac	When the input voltage is lower than the protection voltage, the driver will turn off automatically. When the input voltage exceeds the recovery voltage, the driver will restart automatically.
Input Over voltage Protection	305Vac	325Vac	345Vac	The input voltage exceeds the protection voltage, the output is turned off. Automatic recovery. When the input voltage falls below the recovery voltage, the drive will restart.
External NTC (R1)	-	20.05K ohm (Set by software)	-	When the R-NTC is reduced to R1, the external thermal protection is triggered and the output current gradually decreases.
External NTC (R2)	-	10.27K ohm (Set by software)	-	When the R-NTC is reduced to R2, the output current is reduced to the programmed protection current value.
External NTC (Protection Circuit)	10%I <sub>oset</sub>	60%I <sub>oset</sub>	100%I <sub>oset</sub>	10%I <sub>oset</sub> >I <sub>omin</sub> (Default setting 60%).
External NTC (Protection Circuit)	I <sub>omin</sub>	60%l <sub>oset</sub>	100%I <sub>oset</sub>	10%I <sub>oset</sub> ≪I <sub>omin</sub> (Default setting 60%).
Output over voltage Protection	-	-	-	AC needs to be powered on again
Over Temp Protection Tc	-	95℃	-	Tc; 230Vac&100% load
Short Circuit Protection	-	-	-	self-recovery after 30 seconds
Dimensions (L*W*H)mm	132.5*77*40mm			
Net Weight		500±50g/PCS		
Package (L*W*H)mm	494x335x1	77mm; 30PCS/ctn, Gross	Weight: 18ka	

Notes:

NTC:100K NTC B value: 4050,10 K NTC B value: 3380, the tolerance is within 2°C, Other NTC tolerance are within 5°C Celsius.

# **DALI Specifications**

Parameter	Min	Тур.	Мах	Notes
24V Auxiliary Output Voltage	21.6V	24V	26.4V	220-240Vac, P load>0.1W
24V Auxiliary Output Source Current	0mA	-	125mA	Return terminal is "24V–"
24V Auxiliary Output Transient Peak Current @6W	-	-	250mA	250mA peak for a maximum duration of 2.2ms in a 6.0ms period during which time the average should not exceed 125mA.
24V Auxiliary Output Transient Peak Current @10W	-	-	425mA	425mA peak for a maximum duration of 1.3ms in a 5.2ms period during which time the average should not exceed 125mA.
Integrated DALI-2 Bus Power Supply Voltage	12V	16V	20V	Voltage is depending on loading.
Integrated DALI-2 Bus Power Supply Current	50mA	-	60mA	Return terminal is "DA-"
DALI-2 (High Voltage Level)	9.5V	16V	22.5V	
DALI-2 (Lower Voltage Level)	-6.5V	0V	6.5V	Return terminal is "DA-"
DALI-2 (Dimming Output Range)	10% I <sub>set</sub>	-	100% I <sub>set</sub>	I <sub>set</sub> =0.294~0.500A
DALI-2 (Sink Current)	-	-	2.0mA	



# Insulation

	1			
Insulation	Mains	EQUI	LED +/ NTC	DA+ / Vaux
Mains	-	Double	Double	Double
EQUI	Double	-	Supplementary	Supplementary
LED + / NTC	Double	Supplementary	-	Supplementary
DA+ / Vaux	Double	Supplementary	Supplementary	-

Notes:

[1] DALI-2 bus power supply is enabled by default and can be disabled via programming interface.

[2] DALI-2 bus power supply supports automatic shut-down and restart after short-circuit.

[3] DALI signal line shall not be connected to the five core terminal shared by input and dimming

[4]The DALI signal line shares the negative with the 24V auxiliary source. The 24V auxiliary source can be used alone or share the negative pole with the DALI line

## **Safety Specification**

Parameter	Min	Тур.	Мах	Notes
Dielectric Strength(Input-Output)	-	3750Vac	-	60s, Current not exceeding 5mA
Dielectric Strength(Input-Ground)	-	3750Vac	-	60s, Current not exceeding 5mA
Dielectric Strength(Output-Ground)	-	1650Vac	-	60s, Current not exceeding 5mA
Insulation Resistance	10ΜΩ	-	-	Input-Output, Input-PE, Output-PE, 500Vdc/60s/25°C/70%RH

## Safety Compliance

Safety Category	Standards	Approved	Notes
CCC	GB19510.1,GB19510.14		
CE	EN61347-1, EN61347-2-13, EN62493	√	
ENEC	EN61347-1, EN61347-2-13, EN62384	√	
СВ	IEC61347-1, IEC61347-2-13	√	
BIS	IS 15885(PART 2/SEC 13)		
UL	UL 8750		
CUL	CSA C22.2 No.250.13		
КС	K61347-1, K61347-2-13		
PSE	J61347-1, J61347-2-13		
SAA	AS/NZS IEC 61347.2.13		
SAA	AS/NZS 61347.1		



# **EMC** Compliance

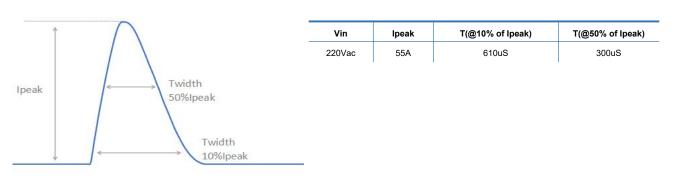
EMC Category	Standards	Approved	Notes
CCC	GB/T 17743, GB 17625.1		
CE	EN 55015	√	
CE	EN 61000-3-2, EN 61000-3-3	√	
CE	EN61000-4-2,3,4,5,6,11	√	
CE	EN 61547	√	
КС	K61547		
KC	K00015		
PSE	J55015		
FCC	FCC part 15		
Surge Shock Immunity	ANSI/C82.77-5-2017		
Ringing Wave			

# RoHS

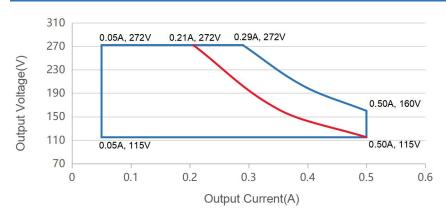
Our products comply with RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.



# Inrush Current

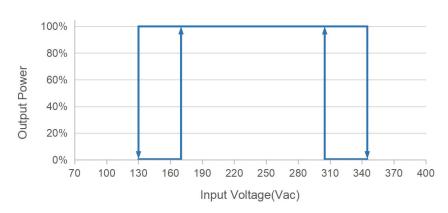


# **Output Voltage vs. Output Current**

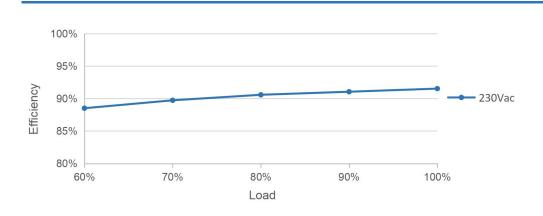


Red curve: good performance area

# Output Power vs. Input Voltage

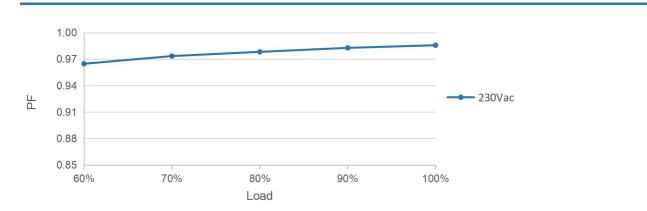


Efficiency vs. load

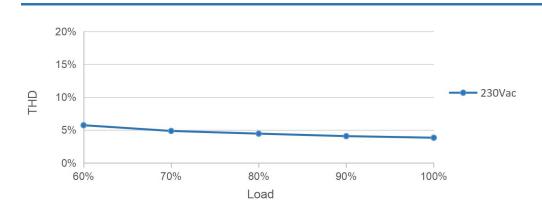




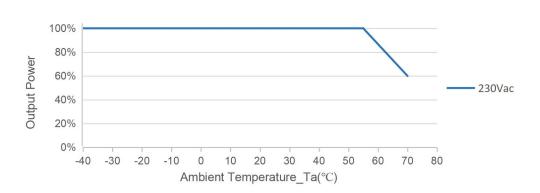
# PF vs. Load



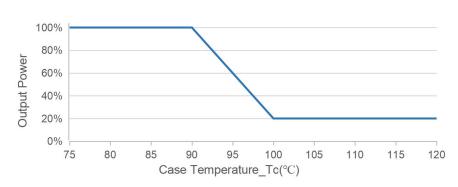
## THD vs. Load



# **Output Power vs. Ambient Temperature**







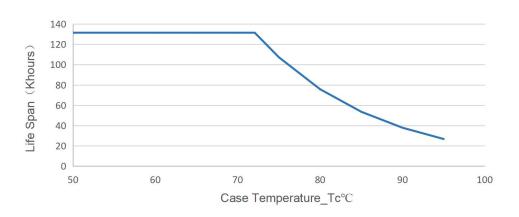
#### Notes:

Customers can set the start derating temperature and end derating temperature. This curve is the default factory protection curve, When the temperature rises to the

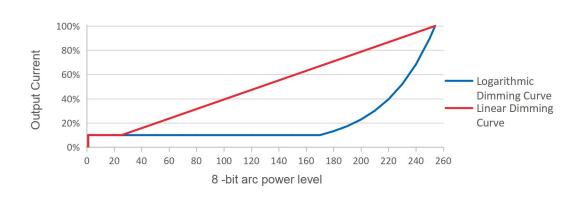


normal operating temperature, the drive will resume output.

# Lifetime vs. Case Temperature



# **DALI-2** Dimming

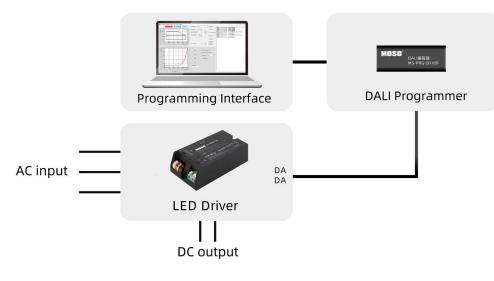


Note: Factory Default Output Logarithmic Curve.



# Programming Link (DALI-2)

# Programming mode I



# Programming mode 2



#### Notes:

- 1. The driver does not need to be powered on during the programming process.
- 2. Please refer to MS-PRG-D1 or MS-PRG-N1 (Programmer) datasheet for details.
- 3. Applicable to FEIG programmer: ISC PRH101 and CPR30-USB

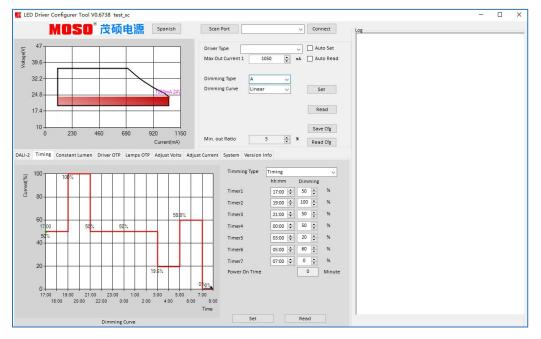


## Time Dimming

Time-controlled dimming is divided into three modes: Timing dimming, Virtual Midnight dimming, Self-Adaptive dimming.

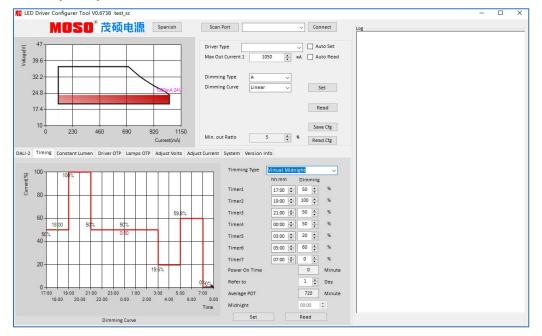
#### Timing Dimming

After the driver is powered on, the driver will change in sequence according to the programmed seven periods, and maintain the brightness of timer 7 after running to the last timer.



## Virtual Midnight Dimming

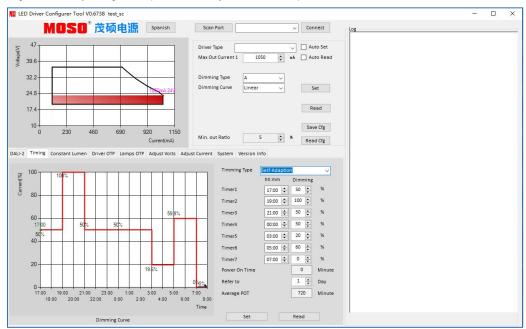
The power-on point and power-off point usually correspond to sunset time and sunrise time respectively, so their midpoint is the virtual midnight point. The driver will automatically sample the corresponding effective working days according to the reference days set by the customer, and automatically adjust the dimming curve according to the average working hours.





#### Self - Adaption Dimming

Depending on the customer setup, the drive automatically calculates the effective mean operating time and calculates the ratio to the customer's set parameter time length, automatically making this computational ratio adjustment at each step.

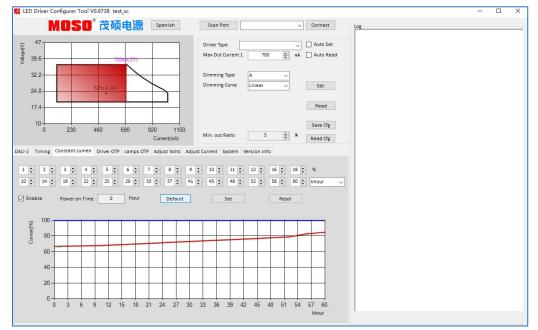


Note: Drives were judged only as valid working days if they were greater than 4 hours and less than 24 hours, and an effective on-off cycle was considered a day

## CLO

CLO: With the increase of cumulative illumination time of LED light source, the LED driving can automatically increase its output current, and then realize the increasing of light flux output of LED light source with the increase of cumulative illumination time to achieve the purpose of light decay compensation. Thus the road surface illumination level is basically constant.

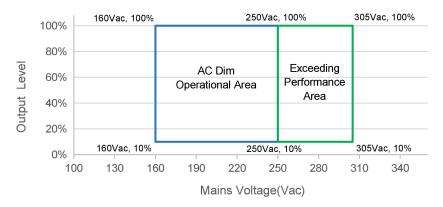
Note: Compensated current values are calculated as a percentage based on IMAX. The minute setting column is only used by the customer to test the CLO function. The driver will reset the hour setting column after power failure and power on again. The "ENABLE check box" must be checked to enable the CLO function





# **AC Dimming**

AC Dimming: The maximum adjustable range of AC DIMMING is 160Vac-250Vac. The specific dimming range can be set by software, and the voltage difference between the starting input voltage and the cut-off input voltage should be guaranteed to be 20Vac. The customer can manually adjust the under voltage protection range and over voltage protection range. There must be a minimum voltage difference of 5V from the initial input voltage before the drive begins to enter AC dimming.



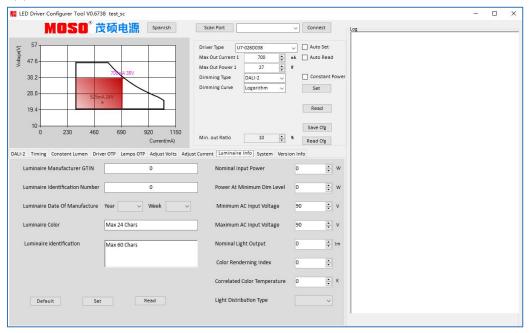
## **AC Dimming**

Arameter	Min	Тур.	Max
AC DIMMING (Start input Voltage)	180Vac	-	250Vac
AC DIMMING (Start output Current)	10%	-	100%
AC DIMMING (Cut off input Voltage)	160Vac	-	230Vac
AC DIMMING (Cutoff output Current)	10%	-	100%
AC DIMMING (gap between the starting and cut-off voltages)	20V	-	-
AC DIMMING (Starting and cut-off voltage increments)	-	1V	-
AC DIMMING (Starting and cut-off current increments)	-	1%	-

## Luminaire Information

Customer can program the drive through Dali line control programmer (MS-PRG-D1 V01) and NFC programmer (MS-PRG-N1;ISC-PRH101;CPR30-USB) use "set button" in Luminaire information function bar for writing information as follows graphic.

According to the provisions of DALI part 253, the driver needs to realize the operation information of lamps Data storage. This information is filled in by the lighting equipment manufacturer.





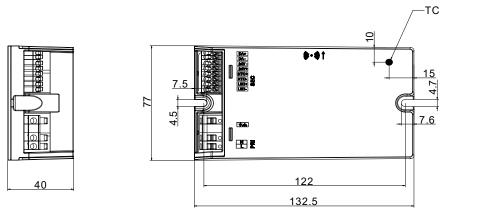
## **Drive Protection and Luminaire Protection**

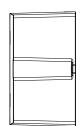
The one with the faster rate of decrease in preferential current during over- temperature protection. At the end of over-temperature protection, the lower the "OTP out Ratio" current value is set, the higher the priority is.

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History Max Temp.				
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39.6       700 and 100 current 1       700 curre	LED Driver Configurer Tool V0.6738 test_sc			×
322       24.8       30.0.4.240         17.4       10       230       460       690       920       1150         10       230       460       690       920       1150       Swee Cig         Save Cig       Save Cig       Save Cig       Save Cig       Save Cig         DAL-2       Timing Constant Lumen Driver OTP       Sampa OTP       Adjust Voits       Adjust Voits         Set Lamgs OTP       Resistance at 25°C       100       Kill       Lamps OTP         Sensor constant (BETA)       4030       Save       Save         Current Max Temp.       "C"       Read         Current Time       Hour       Mour       Mour         OTP Count       Mour       Mour       Mour	■ LED Driver Configurer Tool V0.6738 test_sc MOSO <sup>®</sup> 茂硕电源 Spanish	Scan Port  Connect		×
24.8       Imming Curve       Imming Curve       Read         17.4       Imming Curve       Imming Curve       Read         10.1       230       460       690       920       1150         Current(mA)       Current(mA)       Sive Cig       Sive Cig         Min. out Ratio       5       *       Read         Set Lamps OTP       Samp OTP       Adjust Voits       Adjust Current       System         Set Lamps OTP       Samp OTP       Samp OTP       Samp OTP       Samp OTP         Set Lamps OTP       Samp OTP       Samp OTP       Samp OTP       Samp OTP         Set Lamps OTP       Sensor constant (BETA)       4050       Samp OTP       Samp OTP         Sensor constant (BETA)       4050       Samp OTP       Samp OTP       Samp OTP         Sensor constant (BETA)       4050       Samp OTP       Samp OTP       Samp OTP         Current Timp       Current Timp       K       Read       Samp OTP       Samp OTP         Lamp Info       Current Max Temp.       K       Read       Samp OTP       Samp OTP         Last Max Temp.       K       Current Time       Hour       Samp OTP       Samp OTP       Samp OTP         OTP Count       S	■ LED Driver Configurer Tool V0.6738 test_sc MOSO <sup>®</sup> 茂硕电源 Spanish	Scan Port  Connect Driver Type  Auto Set		×
24.8       Read         17.4       Read         10       230       460       690       920       1150         DaLl-2       Timing       Constant Lumen       Diver OTP       Lamps OTP         Resistance at 25°C       100       K0       Lamps OTP       Read         Sensor constant (BETA)       4050       Set       Set       End Derating       5       *       *       Read         OTP Out Ratio       60       %       Read       Set	₩ LED Driver Configurer Tool V0.6738 test.sc MOSO <sup>®</sup> 茂硕电源 Spanish 47 39.6 700m 37V	Scan Port     v     Connect       Driver Type     v     Auto Set       Max Out Current 1     700     mk     Auto Read		×
10         230         460         690         920         1150         Save Cfg           Min. out Ratio         5         *         Read Cfg           DALI-2         Timing         Constant Lumen         Drver OTP         Lamps OTP           Set Lamps OTP         Resistance at 25°C         100         K0         Lamps OTP           Sensor constant (BETA)         4039         *         Set           Start Derating         65         *         Read           OTP Out Ratio         60         %         Read           Current Max Temp.         *         *         Read           Current Max Temp.         *         *         *           OTP Court         History Max Temp.         *         *	₩ LED Driver Configurer Tool V0.6738 test.sc MOSO <sup>®</sup> 茂硕电源 Spanish 47 39.6 700m 37V	Scan Port     V     Connect       Driver Type     V     Auto Set       Max Out Current 1     700     mA     Auto Read       Dimming Type     A     V		×
0         230         460         690         920         1150           Current/mA)         Current/mA)         Min.out Rato         5         *         Read Cfg           DAL-2         Timing         Constant Lumen         Driver OTP         Lamps OTP         Adjust Voits         Adjust Current         System         Version Info           SetLemps OTP         Resistance at 25%         100         KQ         Lamps OTP         SetSetSetSetSetSetSetSetSetSetSetSetSetS	₩ LED Driver Configurer Tool V0.6738 test_sc ₩ OSO <sup>®</sup> 茂硕电源 Spanish 47 47 39.6 32.2	Scan Port     V     Connect       Driver Type     V     Auto Set       Max Out Current 1     700     mA     Auto Read       Dimming Type     A     V		×
0         230         460         690         920         1150           Current/mA)         Current/mA)         Min.out Rato         5         *         Read Cfg           DAL-2         Timing         Constant Lumen         Driver OTP         Lamps OTP         Adjust Voits         Adjust Current         System         Version Info           SetLemps OTP         Resistance at 25%         100         KQ         Lamps OTP         SetSetSetSetSetSetSetSetSetSetSetSetSetS	■ LED Driver Configurer Tool V0.6738 test_sc ■ ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●	Scan Port     ✓     Connect       Driver Type     ✓     Auto Set       Max Out Current 1     700     Image: Ima		×
DALI-2 Timing Constant Lumen Driver OTP Lamps OTP Adjust Volts Adjust Current System Version Info Set Lamps OTP Resistance at 25% 100 K0 Lamps OTP Sensor constant (BETA) 4050 Start Derating 65 % Set End Derating 65 % Read OTP Out Ratio 60 % Read Current Max Temp. % Read History Max Temp. % Occurred Time Hour OTP Count	■ LED Driver Configurer Tool V0.6738 test_sc ■ ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●	Scan Port     ✓     Connect       Driver Type     ✓     Auto Set       Max Our Current 1     700     mk     Auto Read       Dimming Type     A     ✓       Dimming Type     A     ✓       Dimming Type     A     ✓       Dimming Curve     Linear     Set       Read     Read		 ×
Set Lamps OTP         Resistance at 25°C         Sensor constant (BETA)         4050         Start Derating         65         rc         End Derating         65         7c         Corrent Temp.         °C         Last Max Temp.         °C         History Max Temp.         °C         Occurred Time         Hour         OTP Count	■ LED Driver Configurer Tool V0.6738 test_sc ■ ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●	Scan Port     ✓     Connect       Driver Type     ✓     Auto Set       Max Out Current 1     700     mA     Auto Read       Dimming Type     A     ✓       Dimming Curve     Linear     Set       Read     Save Cfg		×
Resistance at 25°C       300       KD       Lamps OTP         Sensor constant (BETA)       4059         Start Derasting       65       °C         End Derasting       85       °C         OTP Out Ratio       60       %       Read         Lamps Info       Current Temp.       °C       Read         Current Max Temp.       °C       Read         History Max Temp.       °C       Current Time         OTP Count       O       Fourthead       Fourthead	ILED Driver Configurer Tool V0.6738 test_sc  MOSO <sup>®</sup> 茂硕电源 Spanish  47  47  47  47  52  52  52  52  5  5  5  5  5  5  5  5	Scan Port       ✓       Connect         Driver Type       ✓       Auto Set         Max Out Current 1       700       mA       Auto Read         Dimming Type       A       ✓       Set         Dimming Curve       Linear       Set       Read         Save Cfg       Min. out Ratio       5       %       Read Cfg		×
Start Derating 65 °C   End Derating 85 °C   OTP Out Ratio 60 %   Read Current Temp. °C   Current Temp. °C   Last Max Temp. °C   History Max Temp. °C   Occurred Time Hour   OTP Count °C	M LED Driver Configurer Tool V0.6738 test_sc MOSO <sup>®</sup> 茂硕电源 Spanish 39.6 32.2 24.8 17.4 10 230 460 690 920 1150 Current(mA) Adjust Vots Adj	Scan Port       ✓       Connect         Driver Type       ✓       Auto Set         Max Out Current 1       700       mA       Auto Read         Dimming Type       A       ✓       Set         Dimming Curve       Linear       Set       Read         Save Cfg       Min. out Ratio       5       %       Read Cfg		×
End Dersting 85 °C OTP Out Ratio 60 % Read Lamps Info Current Temp. °C Read Current Max Temp. °C Last Max Temp. °C History Max Temp. °C Occurred Time Hour	LED Driver Configurer Tool V0.6738 test_sc MOSO <sup>®</sup> 茂硕电源 Spanish 39.6 32.2 24.8 17.4 10 230 460 690 920 1150 Current(mA) DALI-2 Timing Constant Lumen Driver OTP Lamps OTP Adjust Vots Adj SetLemps OTP	Scan Port       ✓       Connect         Driver Type       ✓       Auto Set         Max Out Current 1       700       mA       Auto Read         Dimming Type       A       ✓       Set         Dimming Curve       Linear       Set       Read         Save Cfg       Min. out Ratio       5       %       Read Cfg		×
OTP Out Ratio     60     %     Read       Lamps Info     Current Flap.     *     Read       Current Max Temp.     *     Read       Last Max Temp.     *     *       History Max Temp.     *     *       Occurred Time     Hour     *       OTP Count     •     •	ILED Driver Configurer Tool V0.6738 test_sc  MOSO	Scan Port       ✓       Connect         Driver Type       ✓       Auto Set         Max Out Current 1       700       mA       Auto Read         Dimming Type       A       ✓       Set         Dimming Curve       Linear       Set       Read         Save Cfg       Min. out Ratio       5       %       Read Cfg		×
Lamps Info Current Temp. C Read Current Max Temp. C C Last Max Temp. C C History Max Temp. C C Occurred Time Hour OTP Count	LED Driver Configurer Tool V0.6738 text_sc MOSO <sup>®</sup> 茂硕电源 Spanish 39.6 32.2 24.8 17.4 10 230 460 690 920 1150 Current(mA) DALI-2 Timing Constant Lumen Driver OTP Liamps OTP Resistance at 25℃ Sensor constant (BETA) 4050 Start Derating 65 ℃ Set	Scan Port       ✓       Connect         Driver Type       ✓       Auto Set         Max Out Current 1       700       mA       Auto Read         Dimming Type       A       ✓       Set         Dimming Curve       Linear       Set       Read         Save Cfg       Min. out Ratio       5       %       Read Cfg		×
Current Temp.     "C"     Read       Current Max Temp.     "C"       Last Max Temp.     "C"       History Max Temp.     "C"       Occurred Time     Hour       OTP Count     "	LED Driver Configurer Tool V0.6738 test sc MOSO <sup>®</sup> 茂硕电源 Spanish 39.6 32.2 24.8 17.4 10 230 460 690 920 1150 Current(mA) DALI-2 Timing Constant Lumen Driver OTP Lamps OTP Resistance at 25°C Sensor constant (BETA) 4050 Start Derating 65 *C Set End Derating 85 *C	Scan Port       ✓       Connect         Driver Type       ✓       Auto Set         Max Out Current 1       700       mA       Auto Read         Dimming Type       A       ✓       Set         Dimming Curve       Linear       Set       Read         Save Cfg       Min. out Ratio       5       %       Read Cfg		×
Current Max Temp. C Last Max Temp. C History Max Temp. C Occurred Time Hour OTP Count	LED Driver Configurer Tool V0.6738 test sc MOSO <sup>®</sup> 茂硕电源 Spanish 39.6 32.2 24.8 17.4 10 230 460 690 920 1150 Current(mA) DALI-2 Timing Constant Lumen Driver OTP Lamps OTP Resistance at 25°C Sensor constant (BETA) 4050 Start Derating 65 *C Set End Derating 85 *C	Scan Port       ✓       Connect         Driver Type       ✓       Auto Set         Max Out Current 1       700       mA       Auto Read         Dimming Type       A       ✓       Set         Dimming Curve       Linear       Set       Read         Save Cfg       Min. out Ratio       5       %       Read Cfg		×
Last Max Temp. °C History Max Temp. °C Occurred Time Hour OTP Count	■ LED Driver Configurer Tool V0.6738 test sc ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●	Scan Port       ✓       Connect         Driver Type       ✓       Auto Set         Max Out Current 1       700       mA       Auto Read         Dimming Type       A       ✓       Set         Dimming Curve       Linear       Set       Read         Save Cfg       Min. out Ratio       5       %       Read Cfg		×
History Max Temp. °C Occurred Time Hour OTP Count	ILED Driver Configurer Tool V0.6738 test_sc  MOSO® 茂硕电源 Spanish  age of the sector of	Scan Port       ✓       Connect         Driver Type       ✓       Auto Set         Max Out Current 1       700       mA       Auto Read         Dimming Type       A       ✓       Set         Dimming Curve       Linear       Set       Read         Save Cfg       Min. out Ratio       5       %       Read Cfg		×
Occurred Time Hour OTP Count	IED Driver Configurer Tool V0.6738 text_sc         MOSO® 茂硕电源       Spanish         39.6       7000000000000000000000000000000000000	Scan Port       ✓       Connect         Driver Type       ✓       Auto Set         Max Out Current 1       700       mA       Auto Read         Dimming Type       A       ✓       Set         Dimming Curve       Linear       Set       Read         Save Cfg       Min. out Ratio       5       %       Read Cfg		×
OTP Count	IED Driver Configurer Tool V0.6738 text_sc         MOSO® 茂硕电源       Spanish         33.6       7000+37V         32.2       24.8         10       23.0         17.4       10         10.0       23.0         23.0       660         99.0       1150         Current(mA)         DALI-2       Timing Constant Lumen Driver OTP Lamps OTP         Resistance at 25°C       100         Set Lamps OTP         Resistance at 25°C       100         Start Derating       65         °C       Set         OTP Out Ratio       60         %       Read         Lamps Info       Current Max Temp.         °C       Read	Scan Port       ✓       Connect         Driver Type       ✓       Auto Set         Max Out Current 1       700       mA       Auto Read         Dimming Type       A       ✓       Set         Dimming Curve       Linear       Set       Read         Save Cfg       Min. out Ratio       5       %       Read Cfg		×
	IED Driver Configurer Tool V0.6738 text_sc         MOSO* 交換电源       Spanish         33.6       700+374         32.2       24.8         24.8       250xh247         10       230         23.0       600         690       920         1150       Current(mA)         DAL-2       Timing         Constant Lumen       Driver OTP         Resistance at 25°C       100         Set Lamps OTP         Resistance at 25°C       100         Start Derating       65         Corrent Texp.       C         Current Max Texp.       "C         History Max Texp.       "C	Scan Port       ✓       Connect         Driver Type       ✓       Auto Set         Max Out Current 1       700       mA       Auto Read         Dimming Type       A       ✓       Set         Dimming Curve       Linear       Set       Read         Save Cfg       Min. out Ratio       5       %       Read Cfg		×
	IED Driver Configurer Tool V0.6738 text_sc         MOSO* 花硕电源       Spanish         33.6       7000 #377         33.2       24.8         24.8       2500 #377         10.0       230.460         23.4       8         17.4       9         10.0       230.460         58.1       80.90         17.4       9         10.0       230.460         59.0       1150         Current(mA)       DALI-2         Timing Constant Lumen Driver OTP Lamps OTP         Adjust Voits	Scan Port       ✓       Connect         Driver Type       ✓       Auto Set         Max Out Current 1       700       mA       Auto Read         Dimming Type       A       ✓       Set         Dimming Curve       Linear       Set       Read         Save Cfg       Min. out Ratio       5       %       Read Cfg		×



# **Mechanical Outline**





Note: The TC point is at the bottom of the driver

## Connections

Input (L,N,G)	Wire Cross-section0.5 mm <sup>2</sup> - 1.5	mm²/20 AWG - 16 AWG	Push-in at 45ºangle, solid and stranded wire
Output	Wire Cross-section0.2 mm <sup>2</sup> - 1.5	mm²/22 AWG - 16 AWG	Push-in at 45ºangle, solid and stranded wire
Dimming	Wire Cross-section0.2 mm <sup>2</sup> -0.5 r	nm²/22 AWG - 20 AWG	Push-in at 45ºangle, solid and stranded wire
Specification item	Value	Unit	type
Maximum cable length	1.5	М	
Maximum NTC Output cable length	0.6	М	

## Label





# Version

A.1	First release	2024.04.07
B.2	ECL202406017	2024-06-17
C.2	ECL202409022	2024-09-10
D.2	DCGL202410004	2024-10-21



# **Specification for Approval**

Product Name: 80W Class I/II Programmable D4i Driver

Product Model: U7-080D272+

<u>Rev</u>: <u>D.2</u>

Address: XiLi Songbai Road 1061, Nanshan District, Shenzhen City, Guangdong, China Tel: 0755-27657000 FAX: 755-27657908 E-mail:info@mosopower.com Web Site: http://www.mosopower.com

Prepared By	Checked By	Approved By



# Specification for Approval

Product Name: 80W Class I/II Programmable D4i Driver

Product Model: U7-080D272+

<u>Rev: D.2</u>

CUSTOMER AUTHORIZED SIGNATURE				
Tested By	Checked By	Approved By		
(Company seal)Return one copy to MOSO with approved signature and company seal.				

Address: XiLi Songbai Road 1061, Nanshan District, Shenzhen City, Guangdong, China Tel: 0755-27657000 FAX: 755-27657908 E-mail:info@mosopower.com Web Site: http://www.mosopower.com

Prepared By	Checked By	Approved By