Thomas Research Products

Rev 3-3-2017

# S050W-054C1400-L03-UN-D2

50W Programmable Driver

select SYNC intelligent

## Electrical Specifications

| | |
|---|---|
| Maximum Power: | 50W |
| Typical Efficiency: | 87% |
| Input Voltage Range: | 120-277 Vac ± 10% |
| Frequency: | 50/60 Hz |
| Power Factor: | > 0.90 @ 80-100% load, 120-277Vac |
| Inrush Current: | TBD |
| Input Current (Max): | 0.6A @ 120Vac, TBD @ 277Vac |
| Output Dimming Range: | 1-100% |
| Load Regulation: | TBD |
| Line Regulation: | TBD |
| THD: | <20% @ 80-100% load, 120-277Vac |
| Start Up Time | <1,000ms @ 100% load |
| Output Ripple Current: | 5% Io |

## Protections

| | |
|---|---|
| Over-voltage: | Latch-off |
| Over-current: | Auto recovery |
| Short Circuit: | Auto recovery |
| Over-temperature: | TBD |

## Environmental Specifications

| | |
|---|---|
| Maximum Case Temp: | 80ºC |
| Minimum Starting Temp: | -30ºC |
| Storage Temperature: | -30ºC to +85 ºC |
| Humidity: | 10% to 90% |
| Cooling: | TBD |
| Vibration Frequency: | TBD |
| Sound Rating: | TBD |
| Lifetime: | 50,000 Hours @ 75ºC case temp *(see graph for details)* |
| Weight: | TBD |

NFC · c UL us CLASS P · CE · FC · RoHS COMPLIANT · IP20



- Constant Current, Dimmable
- Programmable Output Current (POC): 400mA to 1400mA
- Dim-to-off mode
- Flicker-free output
- Auxiliary output: 12Vdc, 100mA max
- 0-10V dimming, down to 1% at max output current
- UL Dry & Damp Location Rated, Class 2 output
- Class P
- NFC Programming with app for flexible and precise tuning
- Narrow cross-section fits T5-style ballast channels
- Metal housing
- 5 year warranty*

| Part | Model | Adj. Current Out *(mA ±5%)* | Voltage Out *(Vdc)* | Max Power *(W)* | Wire Entry |
|---|---|---|---|---|---|
| 93057525 | S050W-054C1400-L03-UN-D2 | 400-1400 | 10-54 | 50 | Ends |

**Factory Default =** **mA** **Class 2: US/Canada**

| Safety Cert. | Standard |
|---|---|
| UL/CUL | UL8750, UL1310 for UL Class 2 & CAN/CSA C22.2 No. 250.13, UL Class P |
| CE | EN61347-1, EN61347-2-13 |
| **EMC Standard** | **Notes** |
| FCC, 47CFR Part 15 | ANSI C63.4:2009 Class B (Consumer Limit) |
| EN 61000-3-2 | Harmonic Current Emissions Class C |
| EN 61000-4-5 | Part 4-5: Surge Immunity test, 2 kV L-N, 4 kV L-FG & N-FG |

* For extended warranty options beyond 5 yrs., contact factory.





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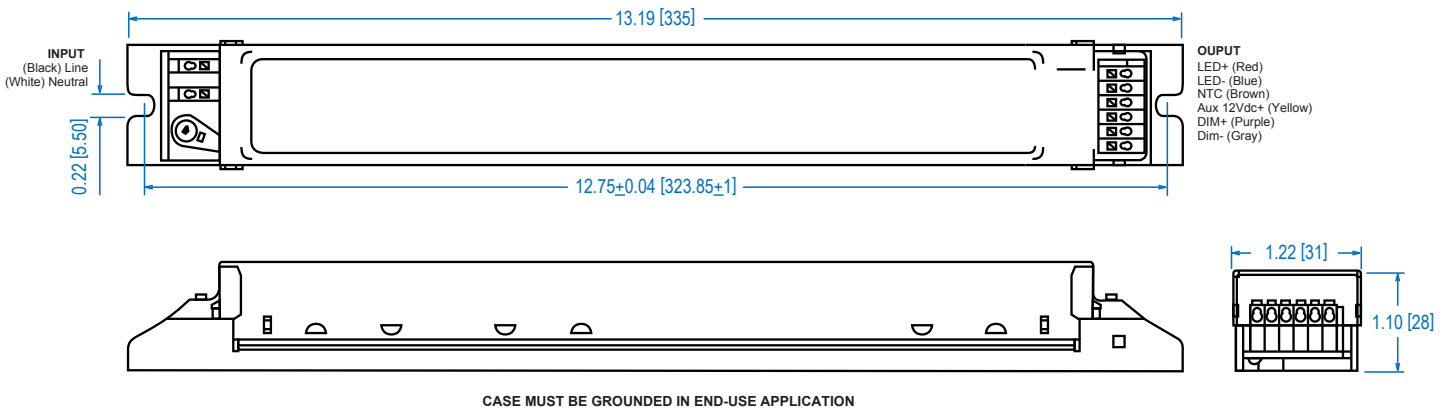
HUBBELL

## Dimensions

IN [mm]

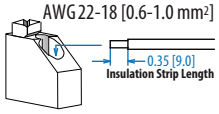



CASE MUST BE GROUNDED IN END-USE APPLICATION

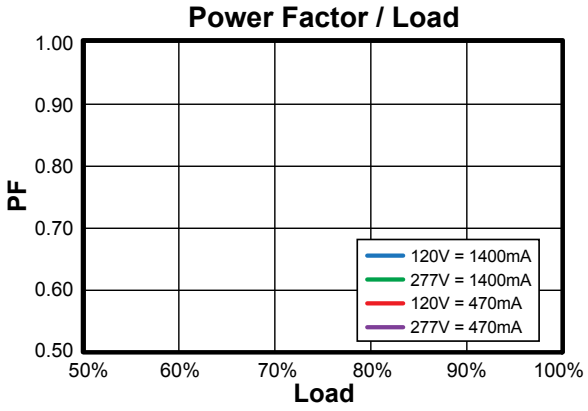
**Remote Mounting:**
Max Distance 26ft. using #18 AWG

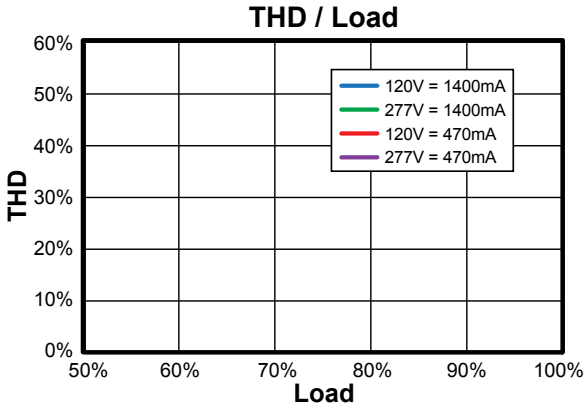
**PUSH IN CONNECTORS**

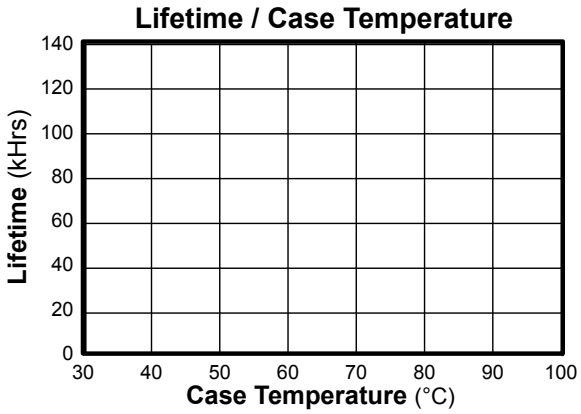
**Wire Gauge:** Solid Copper
AWG 22-18 [0.6-1.0 mm²]

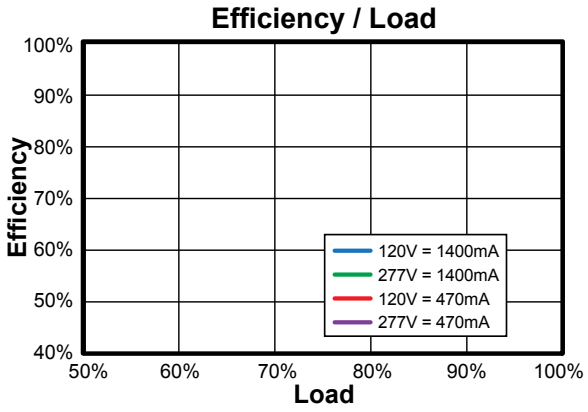


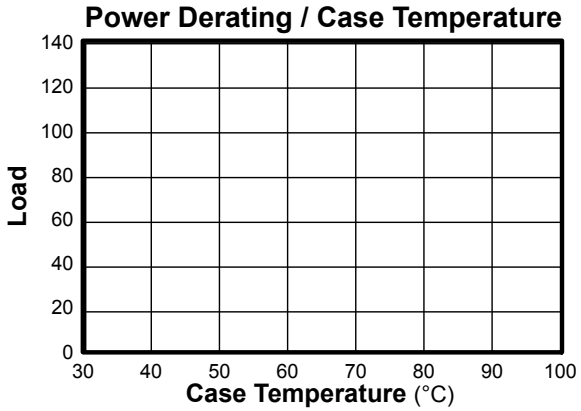
## Power Characteristics



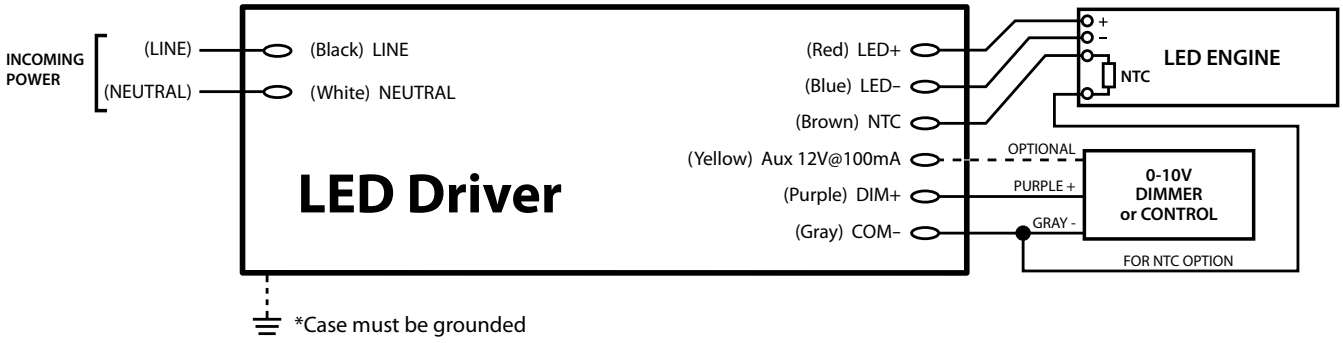



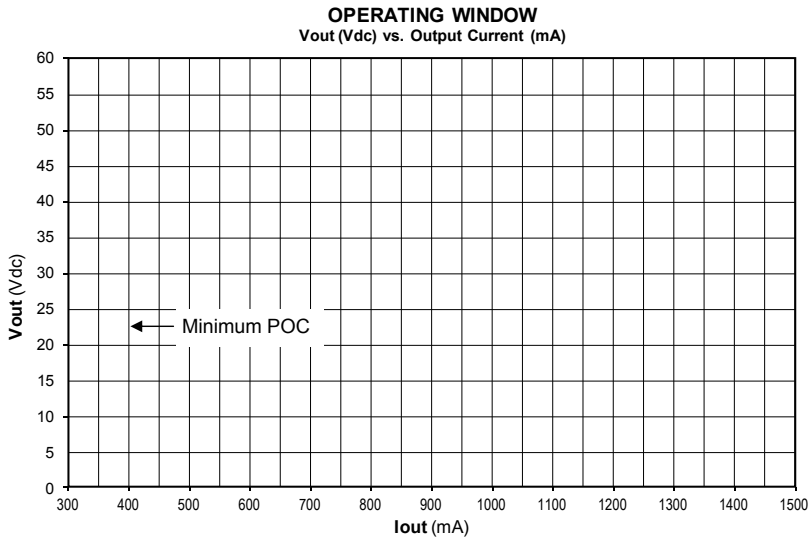




***Note:*** *The area under the life-temperature curve represents where the driver has highly reliable operation within specification. Driver performance may drift out of published specifications as the hours of operation exceed the curve at a given temperature. Higher operating temperatures increase the chances of a failure to function. Other electrical, mechanical and environmental factors affect driver lifetime but are not represented in this calculation.*

## Wiring




## Power Operating Window




## Programming Guide

Lumen Output Compensation (LOC)

| Parameters | Min | Max | Notes |
|---|---|---|---|
| Working Hours (Max 16 steps) | 0 Hr | 127.5 kHrs | ± 4%, Min step: 500 hrs. |
| Dim Level (Max 16 steps) | 10% | 130% | Min step: 1% |

Dimming Interface

| Parameters | Min | Max | Notes |
|---|---|---|---|
| 1-10V | 1% | 100% | Min step: 1% |
| Schedule Dimming | Off/5% If Set On | 100% | Min step: 1% |

Temperature Protection Control (TPC) - *Use with external NTC Resistor*

| Parameters | Min | Max | Notes |
|---|---|---|---|
| T start | 50ºC | 85ºC | Min step: 1ºC , Temp. @ Dim start |
| T stop | 55ºC | 95ºC | Min step: 1ºC , Temp. @ Dim stop |
| T max | 60ºC | 105ºC | Min step: 1ºC , Temp. @ Dim off |
| TPC tolerance | -3ºC | 3ºC | Tolerance @ Tstart, Tstop, Tmax |
| Protection Dim Level | 10% | 90% | Min step: 1% , Dim Level @ T stop |

***Note:** External TPC is settable based on NCP18XH103 or equivalent thermistor (10kΩ at 25ºC).*

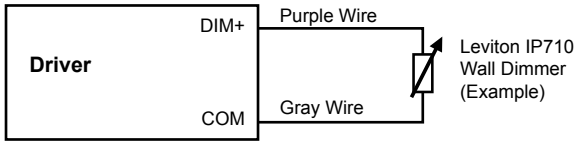
## Labeling Programmable Drivers

It is highly recommended that the drivers be labeled with information traceable to the programmed current and feature configuration.
***This information is critical to answering any field questions from the contractor or end user.***

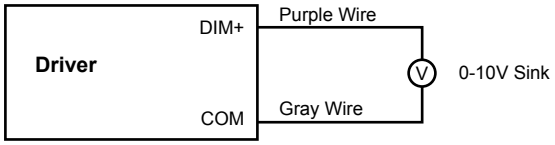
## Dimming: 0-10Vdc

| Parameters | Minimum | Typical | Maximum |
|---|---|---|---|
| Source Current out of 0-10V Purple Wire | | —- | |
| Absolute Voltage Range on 0-10V (+) Purple Wire | | —- | |

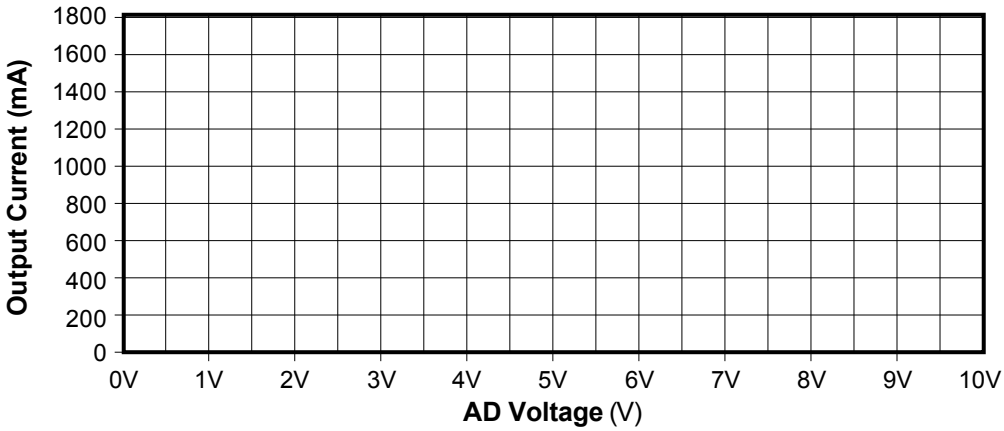
### Typical Dimming Circuit: 2-Wire Resistance




### Typical Dimming Circuit: 2-Wire 0-10V Analog




### Operating Current Behavior by AD Voltage




### 0-10V Dimming Notes:

1. Part comes with two dimming input connectors +Purple/-Gray on the output side.
2. Part is compatible with most 0-10V Wall Slide dimmers and 0-10V dimming.
3. Output current will be 10% when Vdim ≤0.60V.
4. Output will be 100% with Purple/Gray open and 10% with Purple/Gray Shorted.