



320W, 100-277Vac Input, NFC Programmable Constant Voltage LED Driver



Constant Voltage Driver

**Model: XV320W16 XYZ
XV320W24 XYZ
XV320W48 XYZ**



| Model | Input Voltage Range | Output Power | Output Voltage | Full Power Settable Current Min | Full Power Settable Current Max | Certification |
|--------------|---------------------|--------------|----------------|---------------------------------|---------------------------------|---------------|
| XV320W16 XYZ | 90 ~ 305 Vac | 320 W | 16V | 0 | 20A | CE |
| XV320W24 XYZ | 90 ~ 305 Vac | 320 W | 24V | 0 | 13.3A | CE |
| XV320W48 XYZ | 90 ~ 305 Vac | 320 W | 48V | 0 | 6.7A | CE |

| XY= | Dimming Method | Programma ble | 12Vau x | Dim-off | Programming Range | Body Size |
|-----|----------------|---------------|---------|---------|-------------------|--------------------|
| NN | - | - | - | - | | 224.0x90.0x41.5 mm |
| TR | Timing | ✓ | - | - | 100%-115%Vo | 224.0x90.0x41.5 mm |
| EN | 0-10V | - | ✓ | ✓ | | 224.0x90.0x41.5 mm |
| ER | 0-10V | ✓ | ✓ | ✓ | 100%-115%Vo | 224.0x90.0x41.5 mm |
| AN | DALI | - | - | ✓ | | 224.0x90.0x41.5 mm |
| MN | DMX | - | - | ✓ | | 224.0x90.0x41.5 mm |

Z = U, UL cable with ground wire

S, VDE cable/Class I

D, VDE cable/Class II

1. Parameters

| category | Item | Technical Norm |
|----------|------------------|---|
| Features | Output Type | Constant Current |
| | IP Grade | IP67 |
| | Insulation Class | Class II |
| Input | Input Voltage | 90~305Vac or 127V-420Vdc |
| | Input Frequency | 47~63Hz |
| | Power Factor | >0.9@60-100%load, refer to PF vs. Load curve |
| | THD | <15%@60-100%load, refer to THD vs. Load curve |
| | Input Current | 2.9Amax@120Vac & Full-Load, 1.5Amax@220Vac & Full-Load |
| | Inrush Current | 65A peak, 1.2ms duration, <0.25A2s@230Vac, Cold Start |



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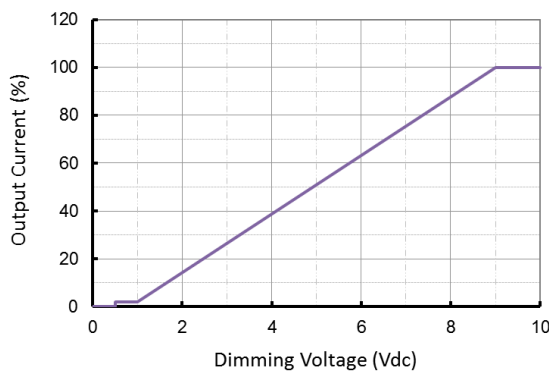
| | | |
|---|---|---|
| | | 70A peak, 1.3ms duration, <0. 5A2s@277Vac, Cold Start |
| | Leakage Current | 1mA max @277Vac 60Hz, UL8750,0.75mAmax @220Vac 50Hz, IEC61347-1 |
| | Input Under Voltage | Shut down and auto-restart |
| | Input Over Voltage | *Optional: Shutdown @320Vac |
| | Surge Protection | Line to line 6kV, line to ground 10kV, IEC 61000-4-5 |
| Output | Voltage Accuracy | ±3%Vo |
| | Setup Time | 1.2s max. |
| | Output Overshoot | 10% Vo, max. |
| | Output Over Current | 120% Io, typ. |
| Protection | Short Circuit | Auto recovery. The output recovers when short is removed. |
| | Over Temperature | Lower the output current when $T_c \geq 105 \pm 10^\circ\text{C}$; Auto Recovery When $T_c \leq 70 \pm 10^\circ\text{C}$ |
| Environment | Operating Temperature | -40°C~+70°C ; 10%RH~100%RH |
| | Storage Temperature | -40°C~+85°C; 5%RH~100%RH |
| Standards | Certification | CE |
| | Safety Standards | EN61347-1:2015,EN61347-2-13:2014/A1:2017,EN62493:2015 |
| | EMC Standards | EN55015:2013/A1:2015,EN61000-3-2:2014,EN61000-3-3:2013,EN61547:2009 |
| | Performance | EN62384 |
| Others | MTBF | ≥ 280,000 hours, 75 °C case temperature (MIL-HDBK-217F) |
| | Lifetime | ≥100,000 hours, 75°C case temperature, refer to life vs. Tc curve |
| | Case Temperature | 90°C max, marked in the Tc point of label |
| | Dimensions | 8.82x3.54x1.63 by inch (body), 9.88x3.54x1.63 by inch (endcaps included) |
| | | 224 x 90 x 41.5 by mm (body), 251 x 90 x 41.5 by mm (endcaps included) |
| | Net Weight | 1600g |
| Packing | 12pcs/Cartron/21.3kg, 490 x 370 x 345 by mm | |
| Notes: Unless specified, all the test results are measured in 25°C room temperature. * marked items are optional and contact with sales people to get the functions. | | |

2. Dimming

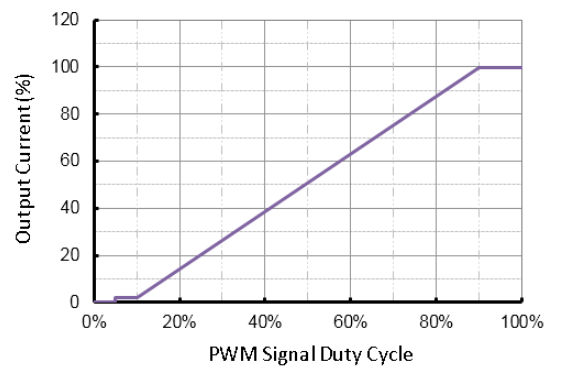
| Parameter | Min. | Typ. | Max. |
|--|---------------|------------|---------------------|
| Vdim Sourcing Current | 200uA | 300uA | 450uA |
| Vdim Allowed Input Voltage | -20 V | | 20 V |
| 0-10V Dimming Range | 2% (Vdim=1V) | Linear | 100% (Vdim=9~10V) |
| PWM Dimming Range | 2% (Duty=10%) | Linear | 100% (Duty=90-100%) |
| Dim off threshold | 0.4V or 4% | 0.5V or 5% | 0.6V or 6% |
| Dim on threshold | 0.6V or 6% | 0.7V or 7% | 0.8V or 8% |
| PWM High | 3V | | 10V |
| PWM Low | 0V | | 0.6V |
| PWM Frequency | 300Hz | | 2kHz |
| External PWM Controller Current Sinking Capability | 300uA | | |
| DALI Interface Standard | | IEC62386 | |
| DA1,DA2 High Level | 9.5 | 16 | 22.5 |
| DA1,DA2 Low Level | -6.5 | 0 | 6.5 |
| DA1,DA2 Current | 0 | | 2mA |

- Dimming Curve

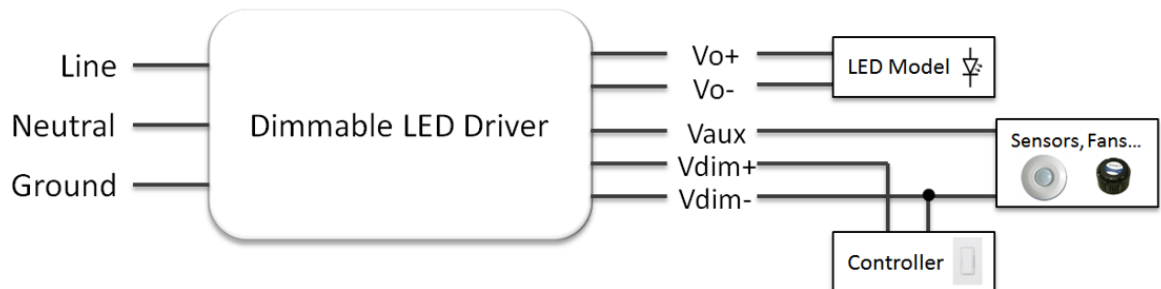
0-10V Dimming Curve



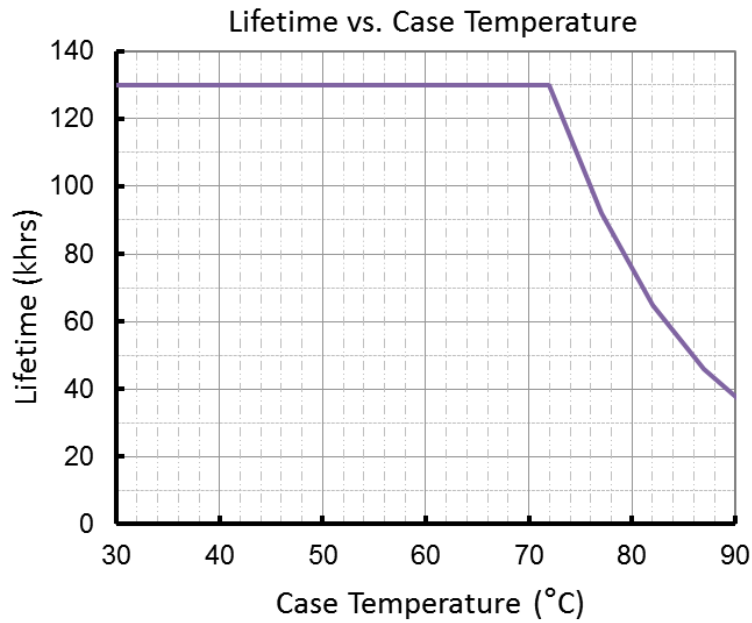
PWM Dimming Curve



- Dimming Wiring

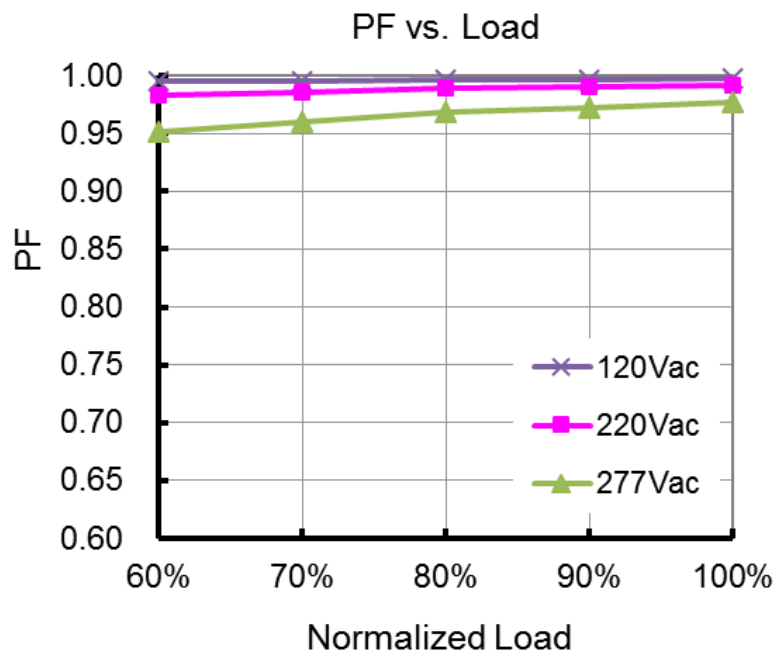


3. Lifetime vs. Case Temperature

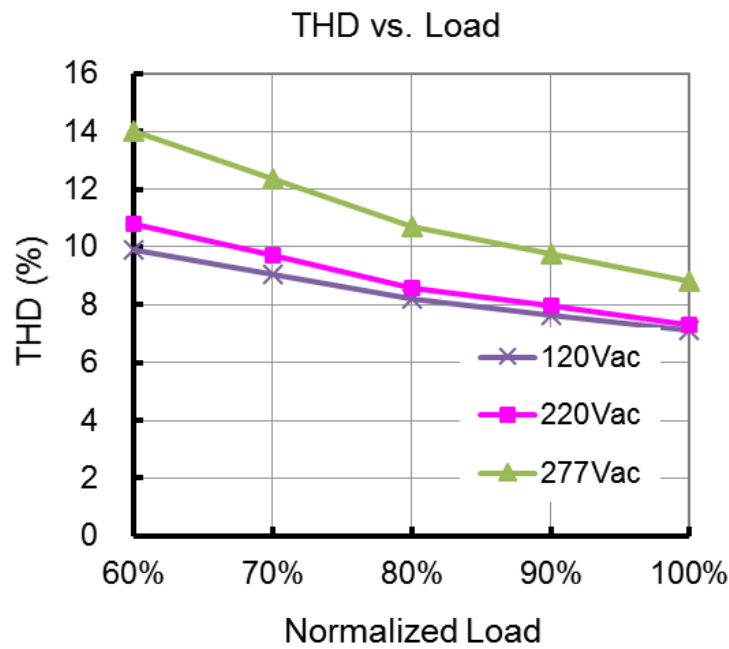


(End of Life: Maximum Failure Rate=10%)

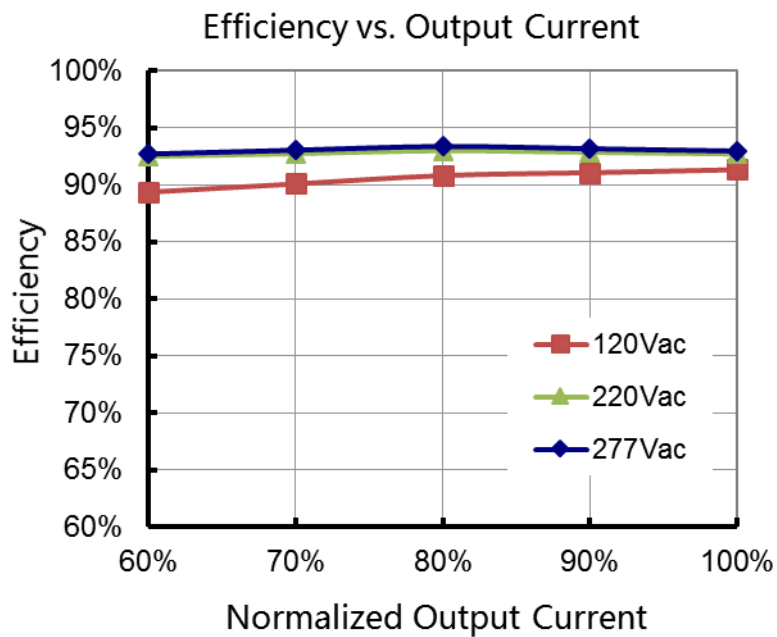
4. Power Factor vs. Load



5. THD vs. Load

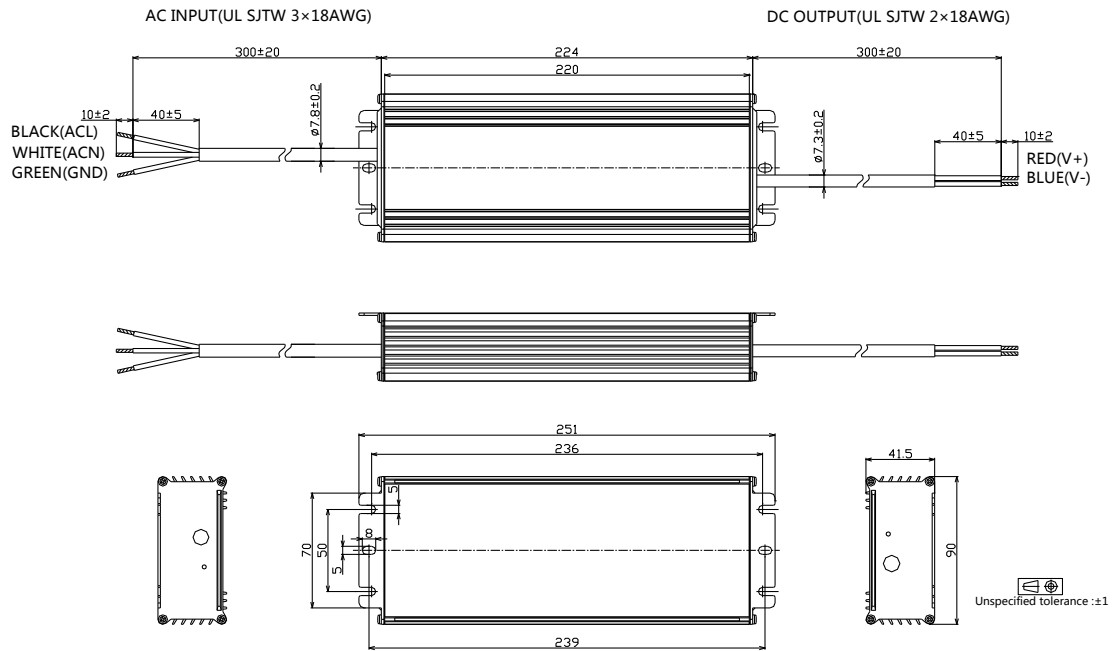


6. Efficiency vs. Load (1.05A Model)

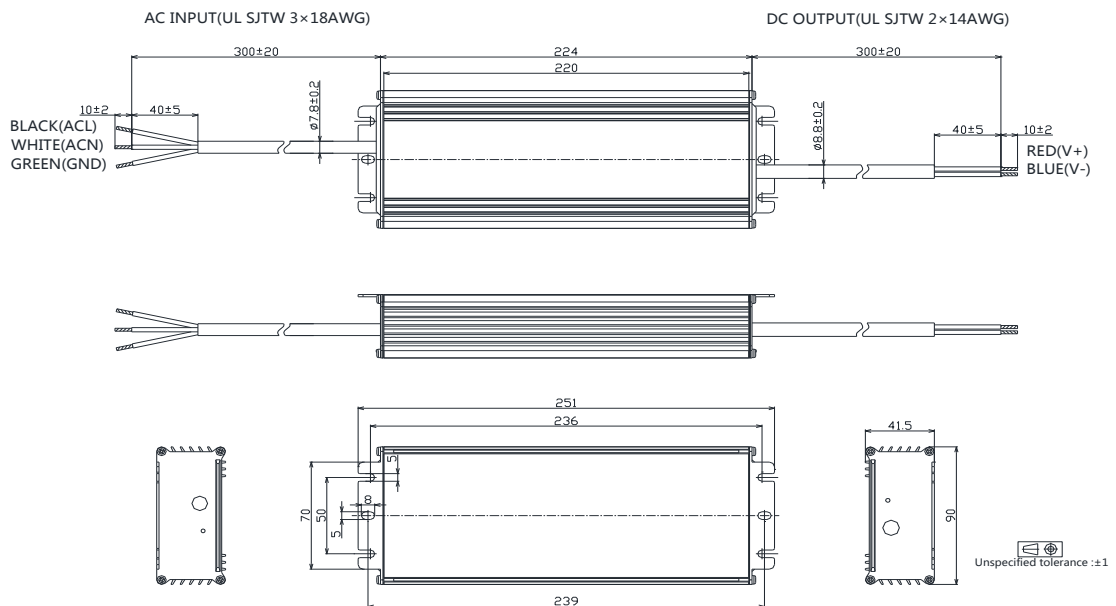


7. Mechanical Design

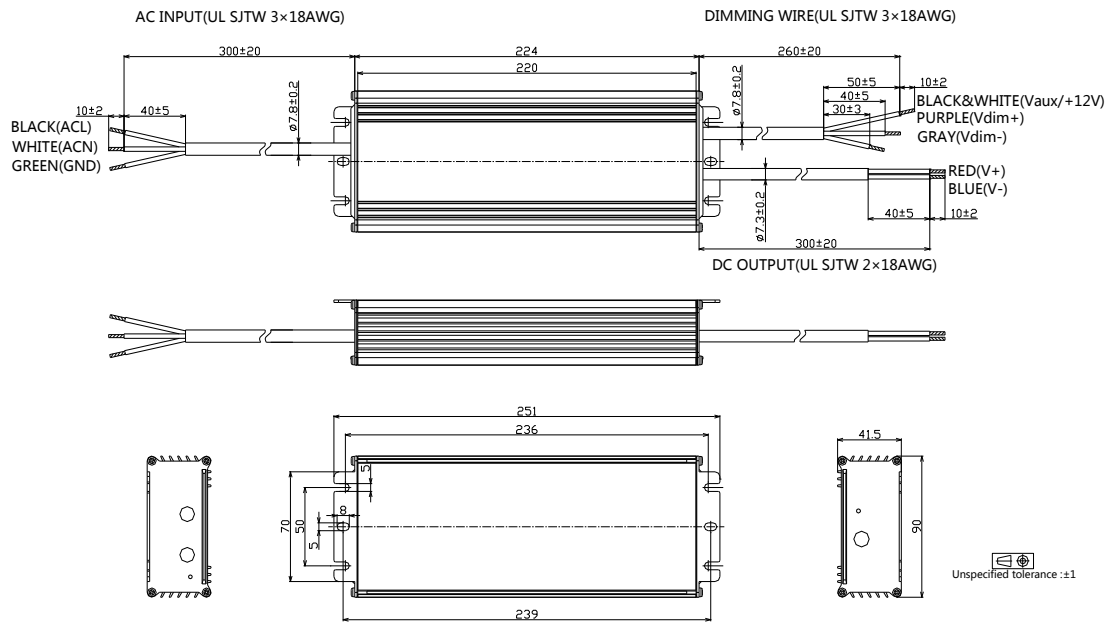
- XV320W48 NNU (UL Cable)



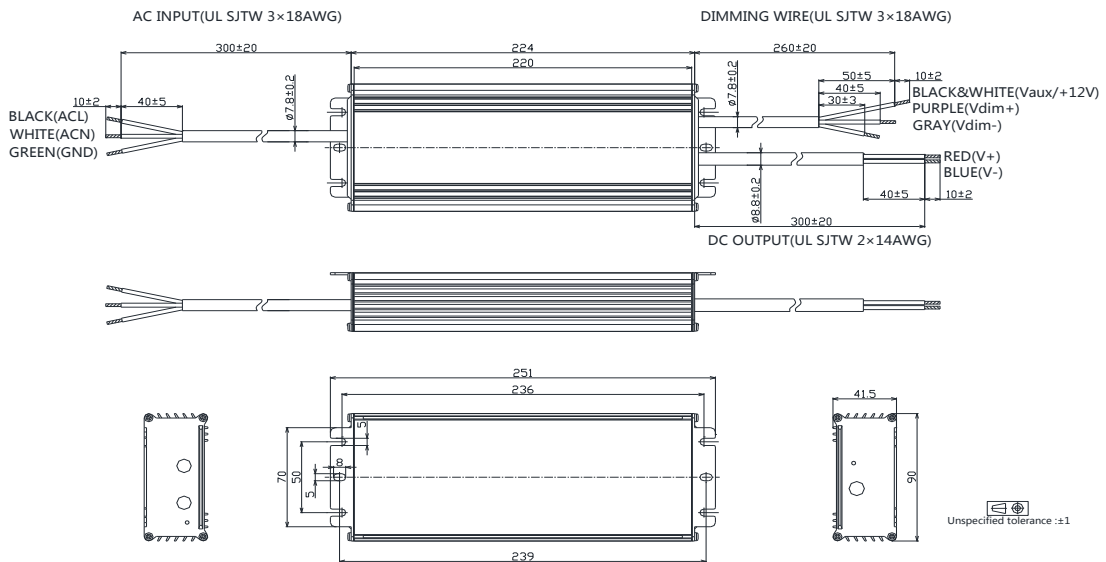
- XV320W24 NNU (UL Cable)



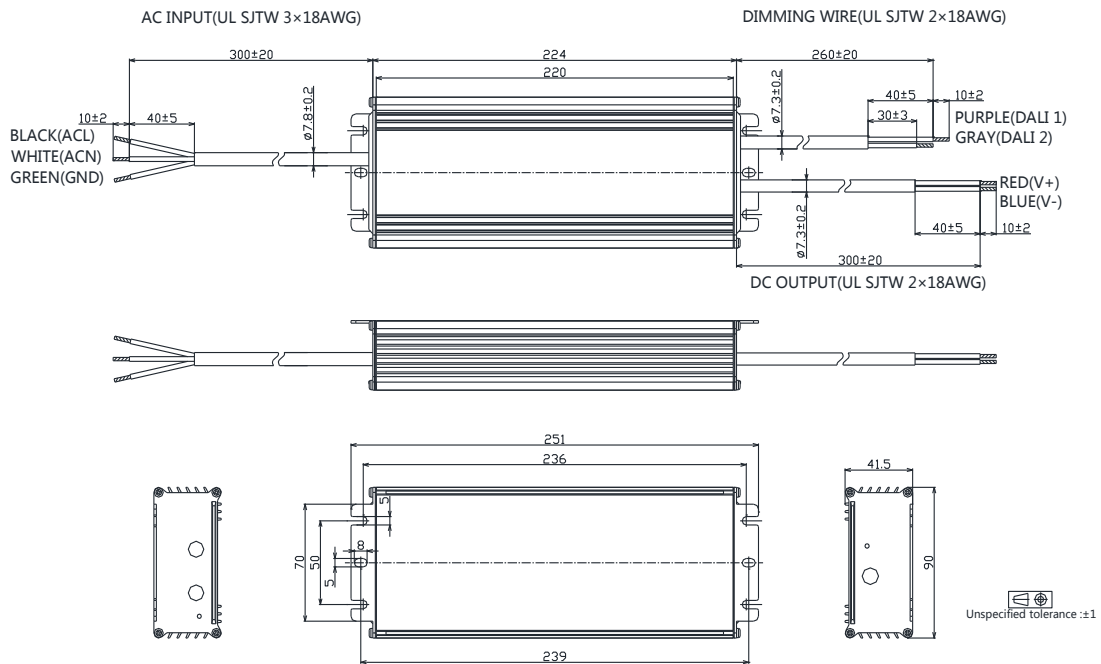
- XV320W48 ENU (UL Cable)



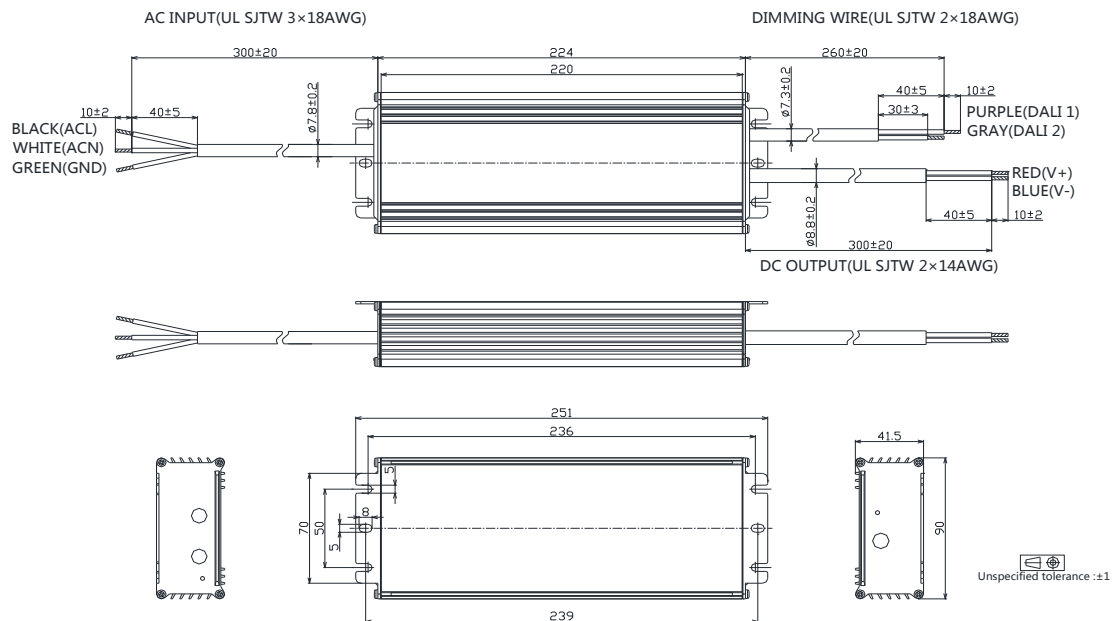
- XV320W (16/24) ENU (UL Cable)



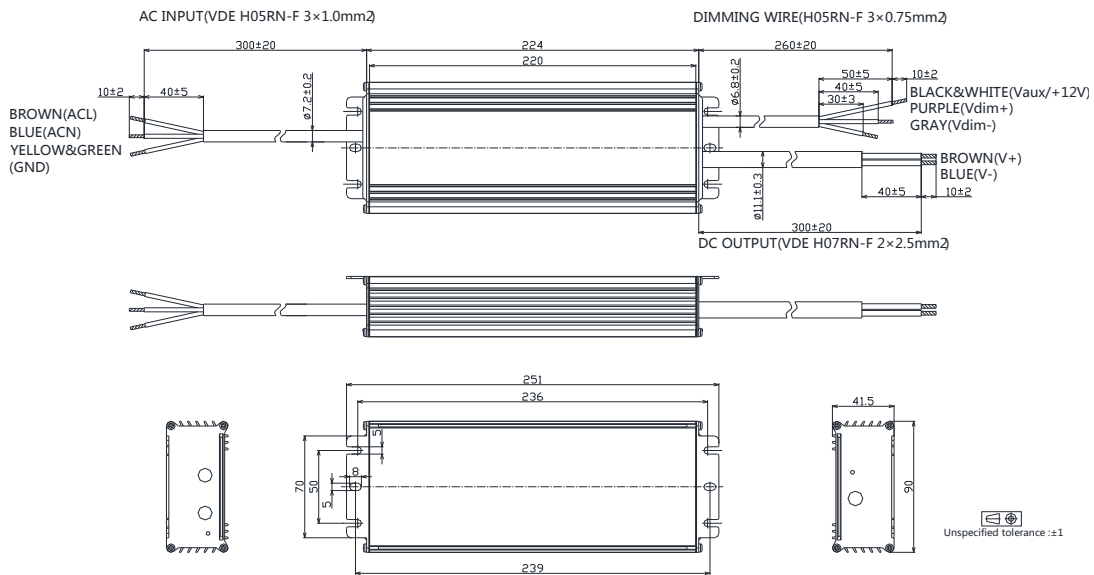
- XV320W48 ANU (UL Cable)



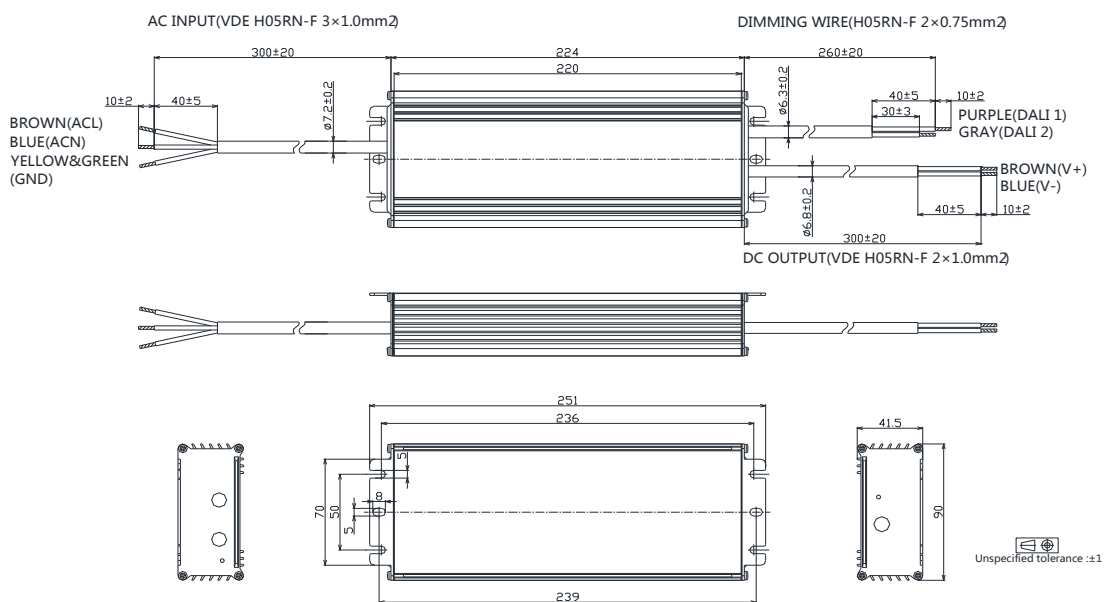
- XV320W (16/24) ANU (UL Cable)



- XV320W (16/24) ENS (VDE Cable)



- XV320W48 ANS (VDE Cable)





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