



Features

- Constant Voltage + Constant Current mode output
- Metal housing design with functional Ground
- Built-in active PFC function
- Class 2 power unit
- No load / Standby power consumption <0.5W
- IP67 / IP65 rating for indoor or outdoor installations
- Function options: output adjustable via potentiometer; 3 in 1 dimming (dim-to-off); Smart timer dimming; DALI
- Typical lifetime>50000 hours
- 5 years warranty

Applications

- LED street lighting
- LED architectural lighting
- LED bay lighting
- LED floodlighting
- Type “HL” for use in Class I, Division 2 hazardous (Classified) location.

Description

ELG-75 series is a 75W AC/DC LED driver featuring the dual mode constant voltage and constant current output. ELG-75 operates from 100~305VAC and offers models with different rated voltage ranging between 12V and 48V. Thanks to the high efficiency up to 90%, with the fanless design, the entire series is able to operate for -40°C ~ +85°C case temperature under free air convection. The design of metal housing and IP67/IP65 ingress protection level allows this series to fit both indoor and outdoor applications. ELG-75 is equipped with various function options, such as dimming methodologies, so as to provide the optimal design flexibility for LED lighting system

Model Encoding

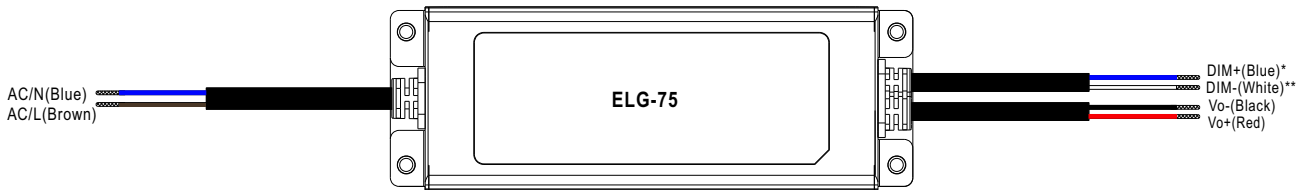


| Type | IP Level | Function | Note |
|-------|----------|--|------------|
| Blank | IP67 | Io and Vo fixed. | In Stock |
| A | IP65 | Io and Vo adjustable through built-in potentiometer. | In Stock |
| B | IP67 | 3 in 1 dimming function (0~10Vdc, 10V PWM signal and resistance) | In Stock |
| AB | IP65 | Io and Vo adjustable through built-in potentiometer & 3 in 1 dimming function (0~10Vdc, 10V PWM signal and resistance) | In Stock |
| DA | IP67 | DALI control technology. | In Stock |
| Dx | IP67 | Built-in Smart timer dimming function by user request. | By request |
| D2 | IP67 | Built-in Smart timer dimming and programmable function. | In Stock |

SPECIFICATION

| MODEL | ELG-75-12 □ | ELG-75-24 □ | ELG-75-36 □ | ELG-75-42 □ | ELG-75-48 □ | |
|-------------------------------------|---|--|--------------|--------------|--------------|--------------|
| OUTPUT | DC VOLTAGE | 12V | 24V | 36V | 42V | 48V |
| | CONSTANT CURRENT REGION Note.2 | 6 ~ 12V | 12 ~ 24V | 18 ~ 36V | 21 ~ 42V | 24 ~ 48V |
| | RATED CURRENT | 5A | 3.15A | 2.1A | 1.8A | 1.6A |
| | RATED POWER Note.5 | 200VAC ~ 305VAC | | | | |
| | | 60W | 75.6W | 75.6W | 75.6W | 76.8W |
| | | 100VAC ~ 180VAC | | | | |
| | RIPPLE & NOISE (max.) Note.3 | 150mVp-p | 200mVp-p | 250mVp-p | 250mVp-p | 250mVp-p |
| | | Adjustable for A/AB-Type only (via built-in potentiometer) | | | | |
| | VOLTAGE ADJ. RANGE | 10.8 ~ 13.2V | 21.6 ~ 26.4V | 32.4 ~ 39.6V | 37.8 ~ 46.2V | 43.2 ~ 52.8V |
| | | Adjustable for A/AB-Type only (via built-in potentiometer) | | | | |
| | CURRENT ADJ. RANGE | 2.5 ~ 5A | 1.57 ~ 3.15A | 1.05 ~ 2.1A | 0.9 ~ 1.8A | 0.8 ~ 1.6A |
| | | Adjustable for A/AB-Type only (via built-in potentiometer) | | | | |
| | VOLTAGE TOLERANCE Note.4 | ±3.0% | ±3.0% | ±2.5% | ±2.5% | ±2.0% |
| | LINE REGULATION | ±0.5% | ±0.5% | ±0.5% | ±0.5% | ±0.5% |
| LOAD REGULATION | ±2.0% | ±1.0% | ±1.0% | ±0.5% | ±0.5% | |
| SETUP, RISE TIME Note.6 | 500ms, 100ms/115VAC, 230VAC | | | | | |
| HOLD UP TIME (Typ.) | 10ms/ 230VAC 10ms/ 115VAC(at full load) | | | | | |
| INPUT | VOLTAGE RANGE Note.5 | 100 ~ 305VAC 142 ~ 431VDC | | | | |
| | | (Please refer to "STATIC CHARACTERISTIC" section) | | | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | | | |
| | POWER FACTOR | PF ≥ 0.97/115VAC, PF ≥ 0.95/230VAC, PF ≥ 0.92/277VAC@full load (Please refer to "POWER FACTOR (PF) CHARACTERISTIC" section) | | | | |
| | TOTAL HARMONIC DISTORTION | THD < 20% (@load ≥ 50%/115VAC, 230VAC; @load ≥ 75%/277VAC) (Please refer to "TOTAL HARMONIC DISTORTION (THD)" section) | | | | |
| | EFFICIENCY (Typ.) | 85% | 88% | 89% | 90% | 90% |
| | AC CURRENT | 0.7A / 115VAC 0.45A / 230VAC 0.38A/277VAC | | | | |
| | INRUSH CURRENT(Typ.) | COLD START 50A(twidth=350µs measured at 50% Ipeak) at 230VAC; Per NEMA 410 | | | | |
| | MAX. No. of PSUs on 16A CIRCUIT BREAKER | 5 units (circuit breaker of type B) / 8 units (circuit breaker of type C) at 230VAC | | | | |
| | LEAKAGE CURRENT | <0.75mA / 277VAC | | | | |
| NO LOAD / STANDBY POWER CONSUMPTION | No load power consumption <0.5W for Blank / A / Dx / D2-Type Standby power consumption <0.5W for B / AB / DA-Type | | | | | |
| PROTECTION | OVER CURRENT | 95 ~ 108% Constant current limiting, recovers automatically after fault condition is removed | | | | |
| | SHORT CIRCUIT | Hiccup mode, recovers automatically after fault condition is removed | | | | |
| | OVER VOLTAGE | 14 ~ 18V | 28 ~ 34V | 41 ~ 48V | 47 ~ 54V | 54 ~ 62V |
| | | Shut down output voltage, re-power on to recover | | | | |
| OVER TEMPERATURE | Shut down output voltage, re-power on to recover | | | | | |
| ENVIRONMENT | WORKING TEMP. | Tcase=-40 ~ +85°C (Please refer to " OUTPUT LOAD vs TEMPERATURE" section) | | | | |
| | MAX. CASE TEMP. | Tcase=+85°C | | | | |
| | WORKING HUMIDITY | 20 ~ 95% RH non-condensing | | | | |
| | STORAGE TEMP., HUMIDITY | -40 ~ +80°C, 10 ~ 95% RH | | | | |
| | TEMP. COEFFICIENT | ±0.03%/°C (0 ~ 60°C) | | | | |
| VIBRATION | 10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes | | | | | |
| SAFETY & EMC | SAFETY STANDARDS | UL8750(type"HL"), CSA C22.2 No. 250.13-12; IEC/EN/AS/NZS 61347-1, IEC/EN/AS/NZS 61347-2-13 independent, EN62384; EAC TP TC 004; BIS IS15885(for 12B/24B/36A/42A/48A only); IP65 or IP67; GB19510.1, GB19510.14; KC61347-1, KC61347-2-13 approved | | | | |
| | DALI STANDARDS | Compliance to IEC62386-101,102,(207 by request) for DA Type only | | | | |
| | WITHSTAND VOLTAGE | I/P-O/P:3.75KVAC I/P-FG:2.0KVAC 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 | Compliance to EN55015,EN61000-3-2 Class C (@load ≥ 50%); EN61000-3-3; GB17743, GB17625.1;EAC TP TC 020; KC KN15,KN61547 | | | | |
| EMC IMMUNITY | Compliance to EN61000-4-2,3,4,5,6,8,11; EN61547, light industry level (surge immunity Line-Earth 6KV, Line-Line 4KV);EAC TP TC 020; KC KN15, KN61547 | | | | | |
| OTHERS | MTBF | 1172K hrs min. Telcordia SR-332 (Bellcore) 331Khrs min. MIL-HDBK-217F (25°C) | | | | |
| | DIMENSION | 180*63*35.5mm (L*W*H) | | | | |
| | PACKING | 0.8Kg;16pcs/13.4Kg/0.67CUFT | | | | |
| NOTE | <p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated current and 25°C of ambient temperature.</p> <p>2. Please refer to "DRIVING METHODS OF LED MODULE".</p> <p>3. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.</p> <p>4. Tolerance : includes set up tolerance, line regulation and load regulation.</p> <p>5. De-rating may be needed under low input voltages. Please refer to "STATIC CHARACTERISTIC" sections for details.</p> <p>6. Length of set up time is measured at first cold start. Turning ON/OFF the driver may lead to increase of the set up time.</p> <p>7. The driver is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again.</p> <p>8. This series meets the typical life expectancy of >50,000 hours of operation when Tcase, particularly (Tc) point (or TMP, per DLC), is about 70°C or less.</p> <p>9. Please refer to the warranty statement on MEAN WELL's website at http://www.meanwell.com</p> <p>10.The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).</p> <p>11.For any application note and IP water proof function installation caution, please refer our user manual before using. https://www.meanwell.com/Upload/PDF/LED_EN.pdf</p> | | | | | |

DIMMING OPERATION

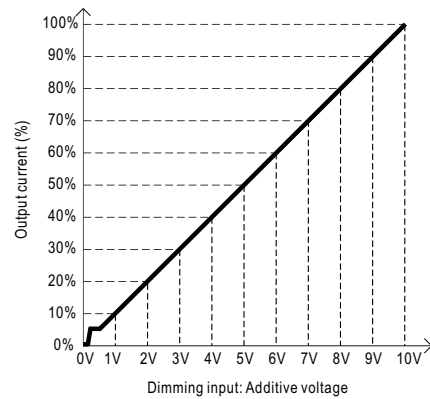
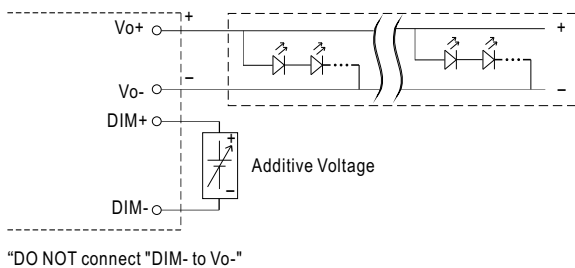


※ 3 in 1 dimming function (for B/AB-Type)

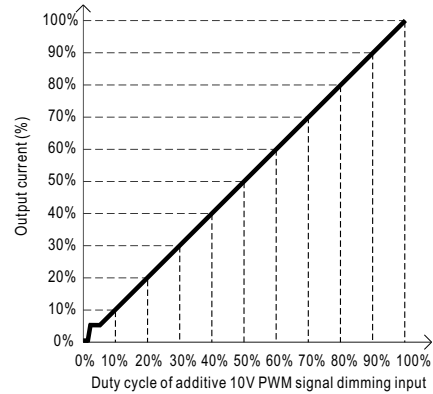
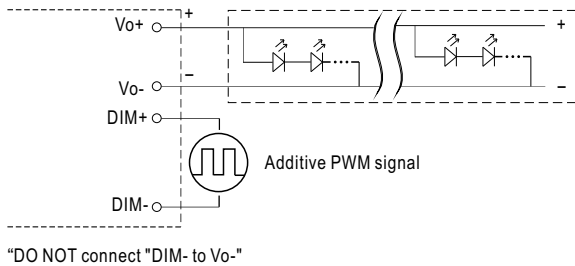
- Output constant current level can be adjusted by applying one of the three methodologies between DIM+ and DIM-: 0 ~ 10VDC, or 10V PWM signal or resistance.
- Direct connecting to LEDs is suggested. It is not suitable to be used with additional drivers.
- Dimming source current from power supply: 100 μ A (typ.)

* DIM+ for B/AB-Type
 DA+ for DA-Type
 PROG+ for D2-Type
 ** DIM- for B/AB-Type
 DA- for DA-Type
 PROG- for D2-Type

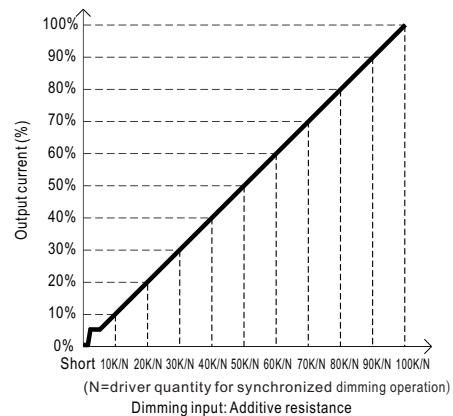
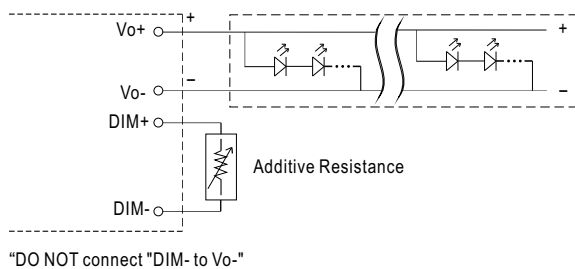
◎ Applying additive 0 ~ 10VDC



◎ Applying additive 10V PWM signal (frequency range 100Hz ~ 3KHz):



◎ Applying additive resistance:



Note : 1. Min. dimming level is about 8% and the output current is not defined when 0% < I_{out} < 8%.

2. The output current could drop down to 0% when dimming input is about 0k Ω or 0Vdc, or 10V PWM signal with 0% duty cycle.

※ **DALI Interface (primary side; for DA-Type)**

- Apply DALI signal between DA+ and DA-.
- DALI protocol comprises 16 groups and 64 addresses.
- First step is fixed at 8% of output.

※ **Smart timer dimming function (for Dxx-Type by User definition)**

MEAN WELL Smart timer dimming primarily provides the adaptive proportion dimming profile for the output constant current level to perform up to 14 consecutive hours. 3 dimming profiles hereunder are defined accounting for the most frequently seen applications. If other options may be needed, please contact MEAN WELL for details.

Ex : ☉ D01-Type: the profile recommended for residential lighting



Set up for D01-Type in Smart timer dimming software program:

| | T1 | T2 | T3 | T4 |
|---------|-------|-------|-------|-----|
| TIME** | 06:00 | 07:00 | 11:00 | --- |
| LEVEL** | 100% | 70% | 50% | 70% |

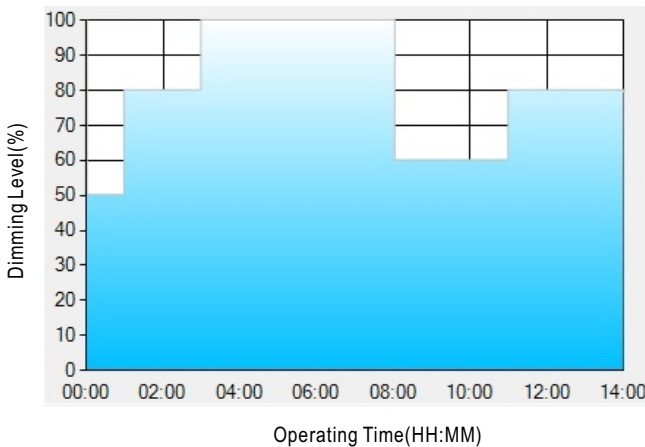
** : TIME matches Operating Time in the diagram whereas LEVEL matches Dimming Level.

Example: If a residential lighting application adopts D01-Type, when turning on the power supply at 6:00pm, for instance:

- [1] The power supply will switch to the constant current level at 100% starting from 6:00pm.
- [2] The power supply will switch to the constant current level at 70% in turn, starting from 0:00am, which is 06:00 after the power supply turns on.
- [3] The power supply will switch to the constant current level at 50% in turn, starting from 1:00am, which is 07:00 after the power supply turns on.
- [4] The power supply will switch to the constant current level at 70% in turn, starting from 5:00am, which is 11:00 after the power supply turns on.

The constant current level remains till 8:00am, which is 14:00 after the power supply turns on.

Ex : ☉ D02-Type: the profile recommended for street lighting



Set up for D02-Type in Smart timer dimming software program:

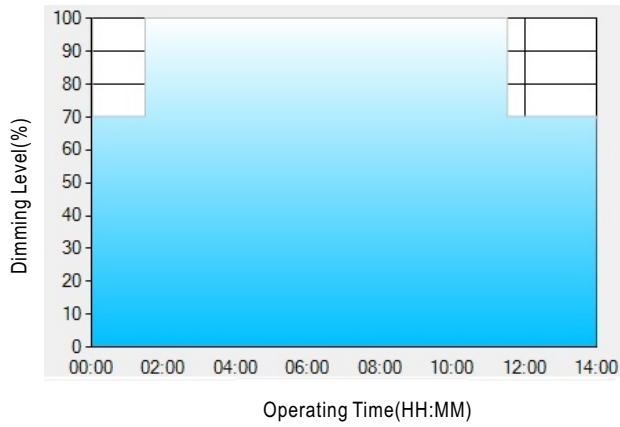
| | T1 | T2 | T3 | T4 | T5 |
|---------|-------|-------|------|-------|-----|
| TIME** | 01:00 | 03:00 | 8:00 | 11:00 | --- |
| LEVEL** | 50% | 80% | 100% | 60% | 80% |

** : TIME matches Operating Time in the diagram whereas LEVEL matches Dimming Level.

Example: If a street lighting application adopts D02-Type, when turning on the power supply at 5:00pm, for instance:

- [1] The power supply will switch to the constant current level at 50% starting from 5:00pm.
- [2] The power supply will switch to the constant current level at 80% in turn, starting from 6:00pm, which is 01:00 after the power supply turns on.
- [3] The power supply will switch to the constant current level at 100% in turn, starting from 8:00pm, which is 03:00 after the power supply turns on.
- [4] The power supply will switch to the constant current level at 60% in turn, starting from 1:00am, which is 08:00 after the power supply turns on.
- [5] The power supply will switch to the constant current level at 80% in turn, starting from 4:00am, which is 11:00 after the power supply turns on. The constant current level remains till 6:30am, which is 14:00 after the power supply turns on.

Ex: © D03-Type: the profile recommended for tunnel lighting



Set up for D03-Type in Smart timer dimming software program:

| | T1 | T2 | T3 |
|---------|-------|-------|-----|
| TIME** | 01:30 | 11:00 | --- |
| LEVEL** | 70% | 100% | 70% |

** : TIME matches Operating Time in the diagram whereas LEVEL matches Dimming Level.

Example: If a tunnel lighting application adopts D03-Type, when turning on the power supply at 4:30pm, for instance:

[1] The power supply will switch to the constant current level at 70% starting from 4:30pm.

[2] The power supply will switch to the constant current level at 100% in turn, starting from 6:00pm, which is 01:30 after the power supply turns on.

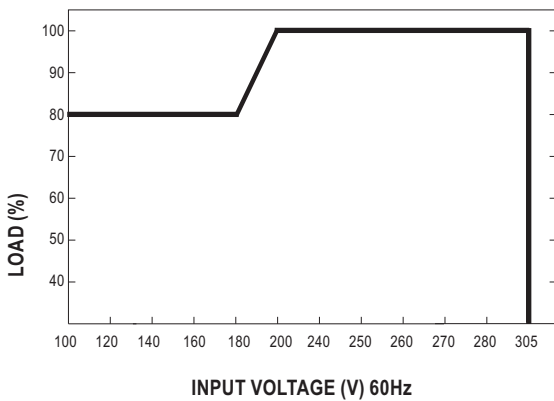
[3] The power supply will switch to the constant current level at 70% in turn, starting from 5:00am, which is 11:00 after the power supply turns on.

The constant current level remains till 6:30am, which is 14:00 after the power supply turns on.

OUTPUT LOAD vs TEMPERATURE(Nota.9)



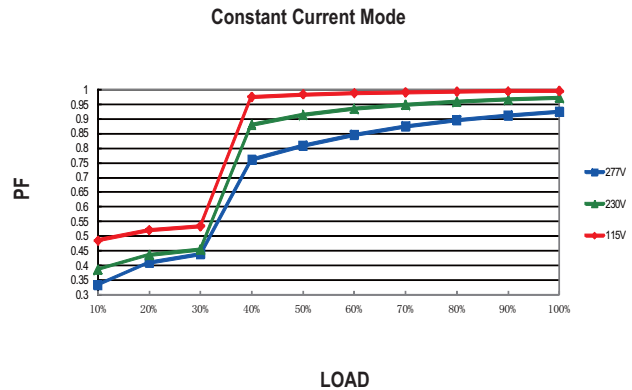
STATIC CHARACTERISTIC



※ De-rating is needed under low input voltage.

POWER FACTOR (PF) CHARACTERISTIC

※ Tcase at 75°C



TOTAL HARMONIC DISTORTION (THD)

※ 48V Model, Tcase at 75°C



EFFICIENCY vs LOAD

ELG-75 series possess superior working efficiency that up to 90% can be reached in field applications.

※ 48V Model, Tcase at 75°C





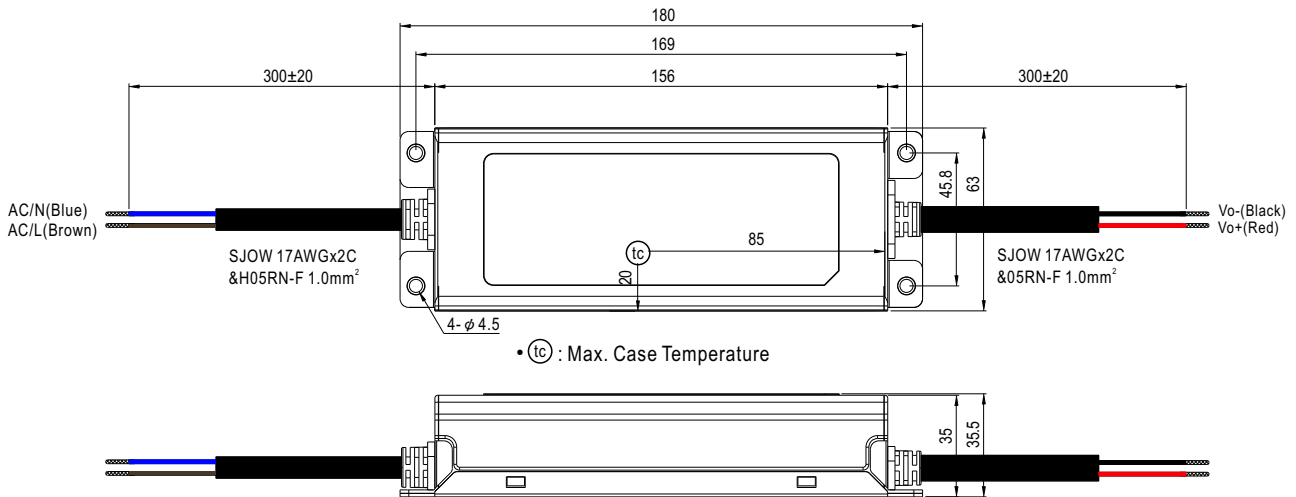
■ LIFE TIME



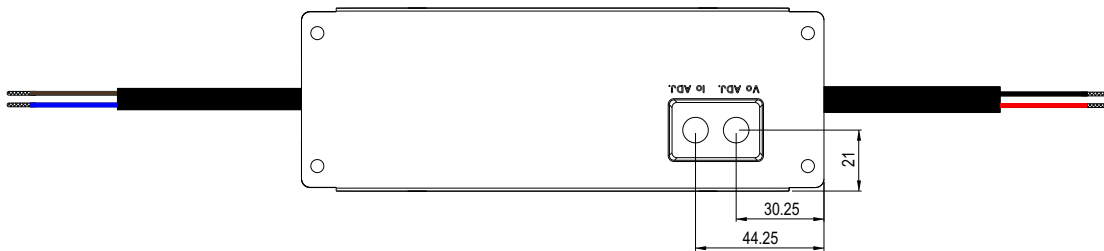
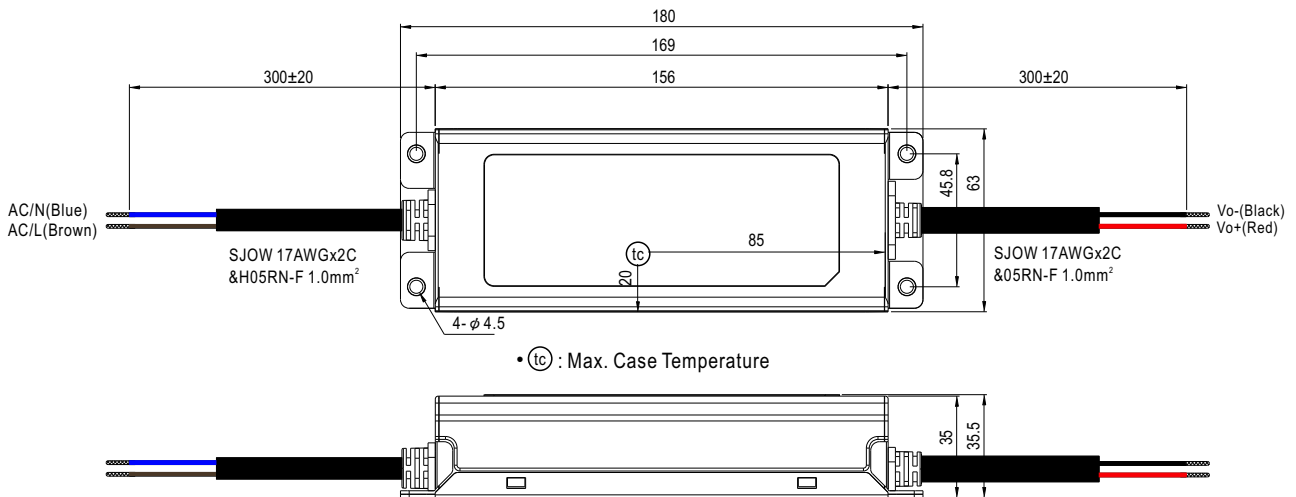
■ Mechanical Specification

※ Blank-Type

CASE NO.: 243A Unit:mm



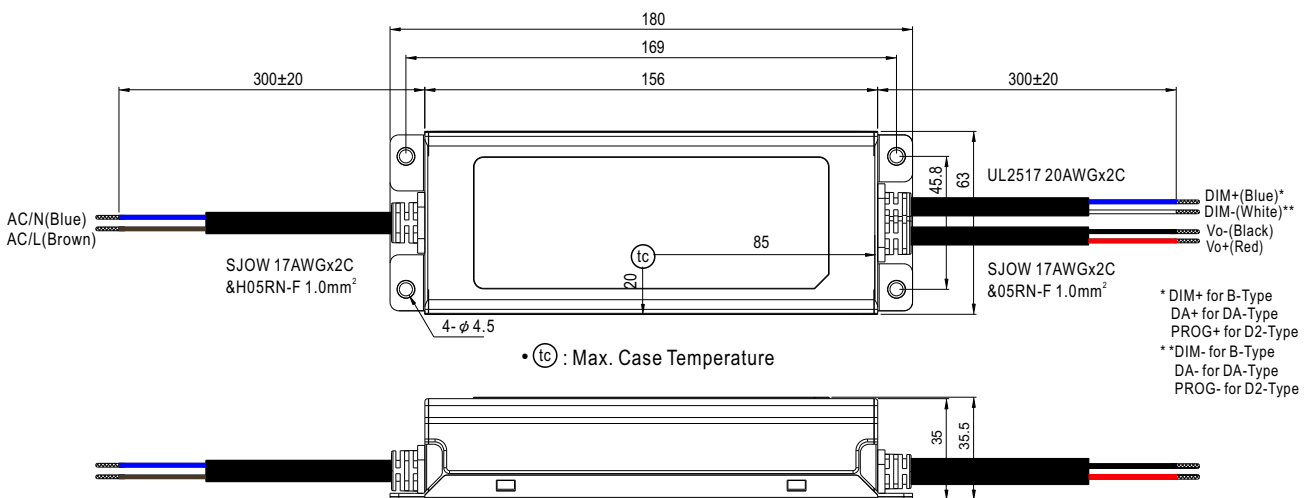
※ A-Type



※ AB-Type



※ B/DA/D2-Type



※ 3Y Model (3-wire input)



• (tc) : Max. Case Temperature

◎ Note1: Please connect the case to PE for the complete EMC deliverance and safety use.

◎ Note2: Please contact MEAN WELL for input wiring option with PE.

■ Installation Manual

Please refer to : <http://www.meanwell.com/manual.html>

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

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