

# YS6E SERIES

## 6W



### Features

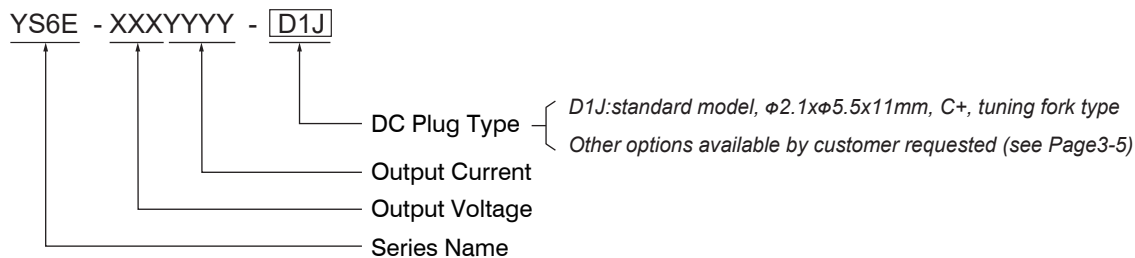
- Energy efficiency level VI
- Class II Power Supply
- 3 Years Warranty
- Universal AC input/Full range
- No load power consumption < 0.1W
- Protections: Short Circuit /Over Load / Over Voltage
- -20~+70℃ wide range working temperature

### Applications

- Digital Equipment
- Industrial Equipments
- Consumer Electronic Devices
- Telecommunication Devices

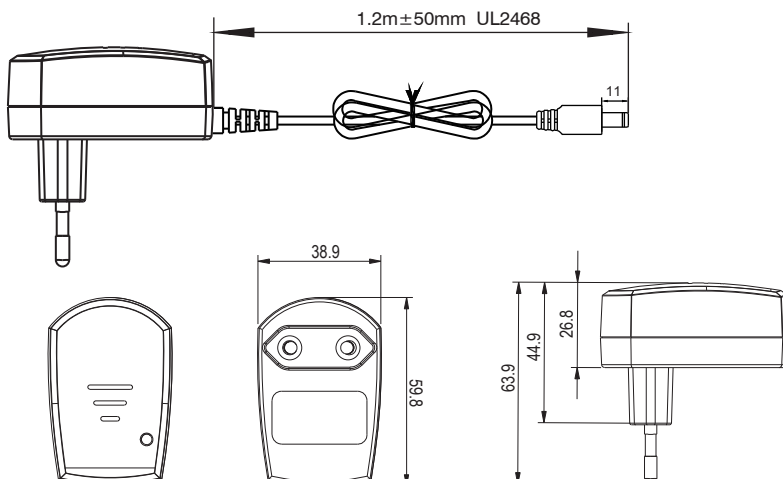


### Model Description



### Dimensions and installation

(Unit: mm , tolerance:  $\pm 1\text{mm}$ )



|                |                                      |
|----------------|--------------------------------------|
| Standard Cable | 1.2m UL2468 (Option: UL2464, UL1185) |
| 5 ~ 6V         | 22AWG                                |
| 7.5 ~ 36V      | 24AWG                                |

Outside  $\ominus$   $\oplus$  Inside

## Specification

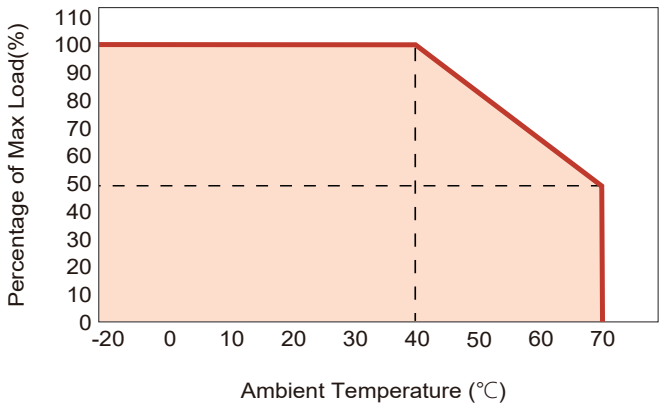
| Model      | Order P/N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | YS6E-0501200-D1J                                                                  | YS6E-0601000-D1J | YS6E-0750800-D1J | YS6E-0900600-D1J                                                             | YS6E-1200500-D1J                    | YS6E-2400250-D1J | YS6E-3600160-D1J |  |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------|------------------|------------------------------------------------------------------------------|-------------------------------------|------------------|------------------|--|
|            | Safety Model No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | YS6E-0501200                                                                      | YS6E-0601000     | YS6E-0750800     | YS6E-0900600                                                                 | YS6E-1200500                        | YS6E-2400250     | YS6E-3600160     |  |
| Output     | DC Voltage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 5V                                                                                | 6V               | 7.5V             | 9V                                                                           | 12V                                 | 24V              | 36V              |  |
|            | Rated Current                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1.2A                                                                              | 1A               | 0.8A             | 0.6A                                                                         | 0.5A                                | 0.25A            | 0.16A            |  |
|            | Rated Power                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 6W                                                                                | 6W               | 6W               | 5.4W                                                                         | 6W                                  | 6W               | 5.76W            |  |
|            | Ripple & Noise(max.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 75mVp-p                                                                           | 75mVp-p          | 90mVp-p          | 90mVp-p                                                                      | 120mVp-p                            | 240mVp-p         | 300mVp-p         |  |
|            | Voltage Tolerance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ±5%                                                                               | ±5%              | ±5%              | ±5%                                                                          | ±5%                                 | ±5%              | ±5%              |  |
|            | Line Regulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ±3%                                                                               | ±3%              | ±3%              | ±3%                                                                          | ±3%                                 | ±3%              | ±3%              |  |
|            | Load Regulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ±5%                                                                               | ±5%              | ±5%              | ±5%                                                                          | ±5%                                 | ±5%              | ±5%              |  |
|            | Setup,Rise,Hold up Time                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 1.0s,30ms,30ms/230VAC(at full load)                                               |                  |                  |                                                                              | 2.0s,30ms,12ms/115VAC(at full load) |                  |                  |  |
| Input      | Rated Voltage Range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 100-240VAC                                                                        |                  |                  |                                                                              |                                     |                  |                  |  |
|            | Voltage Range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 90-264VAC                                                                         |                  |                  |                                                                              |                                     |                  |                  |  |
|            | Frequency Range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 50/60Hz                                                                           |                  |                  |                                                                              |                                     |                  |                  |  |
|            | AC Current                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 0.2A/115VAC                                                                       |                  | 0.15A/230VAC     |                                                                              |                                     |                  |                  |  |
|            | Inrush Current                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Cold Start 65A/200us at 230VAC 50Hz                                               |                  |                  |                                                                              | Cold Start 30A/200us at 115VAC 50Hz |                  |                  |  |
|            | Leakage Current                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <0.25mA/230VAC                                                                    |                  |                  |                                                                              |                                     |                  |                  |  |
|            | Efficiency                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 75%                                                                               | 79%              | 79%              | 78.5%                                                                        | 80%                                 | 80%              | 80.5%            |  |
|            | No Load Power Consumption                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <0.1W                                                                             |                  |                  |                                                                              |                                     |                  |                  |  |
| Protection | Over Load                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 105~150%<br>Hiccup mode, recovers automatically after fault condition is removed. |                  |                  |                                                                              |                                     |                  |                  |  |
|            | Short Circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Shut down o/p voltage, re-power on to recover.                                    |                  |                  |                                                                              |                                     |                  |                  |  |
|            | Over Voltage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 120~180%<br>Shut down o/p voltage, re-power on to recover.                        |                  |                  |                                                                              |                                     |                  |                  |  |
|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                   |                  |                  |                                                                              |                                     |                  |                  |  |
| Ambient    | Working TEMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -20 ~ +70 ℃ (Please refer to “Derating Curve”section)                             |                  |                  |                                                                              |                                     |                  |                  |  |
|            | Working Humidity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 20 ~ 95%RH Non-condensing                                                         |                  |                  |                                                                              |                                     |                  |                  |  |
|            | Storage TEMP. Humidity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | -40 ~ +85 ℃ ,10 ~ 95%RH Non-condensing                                            |                  |                  |                                                                              |                                     |                  |                  |  |
|            | TEMP. Coefficient                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ±0.03%/(0 ~ 40 ℃ )                                                                |                  |                  |                                                                              |                                     |                  |                  |  |
|            | Vibration                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes           |                  |                  |                                                                              |                                     |                  |                  |  |
| Safety     | Safety Standards                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | IEC/EN62368-1                                                                     |                  |                  |                                                                              |                                     |                  |                  |  |
|            | Withstand Voltage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | I/P-O/P: 3KVAC/1min                                                               |                  |                  |                                                                              |                                     |                  |                  |  |
|            | Isolation Resistance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | I/P-O/P:100M Ohms / 500VDC / 25 ℃ / 70% RH                                        |                  |                  |                                                                              |                                     |                  |                  |  |
| EMC        | EMC Emission                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Parameter                                                                         | Standard         |                  | Test Level                                                                   |                                     |                  |                  |  |
|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Conducted                                                                         | EN55032(CISPR32) |                  | CLASS B                                                                      |                                     |                  |                  |  |
|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Radiated                                                                          | EN55032(CISPR32) |                  | CLASS B                                                                      |                                     |                  |                  |  |
|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Harmonic Current                                                                  | EN61000-3-2      |                  | CLASS B                                                                      |                                     |                  |                  |  |
|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Voltage flicker                                                                   | EN61000-3-3      |                  | CLASS B                                                                      |                                     |                  |                  |  |
|            | EMC Immunity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Parameter                                                                         | Standard         |                  | Test Level                                                                   |                                     |                  |                  |  |
|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ESD                                                                               | EN61000-4-2      |                  | Level 3, 8KV air, criteria A                                                 |                                     |                  |                  |  |
|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Radiated Susceptibility                                                           | EN61000-4-3      |                  | Level 3, criteria A                                                          |                                     |                  |                  |  |
|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | EFT/Burest                                                                        | EN61000-4-4      |                  | Level 3, criteria A                                                          |                                     |                  |                  |  |
|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Surge                                                                             | EN61000-4-5      |                  | Level 4, 2KV/L-N, criteria A                                                 |                                     |                  |                  |  |
|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Conducted                                                                         | EN61000-4-6      |                  | Level 3, criteria A                                                          |                                     |                  |                  |  |
|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Magnetic Field                                                                    | EN61000-4-8      |                  | Level 4, criteria A                                                          |                                     |                  |                  |  |
|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Voltage Dips and interruptions                                                    | EN61000-4-11     |                  | > 95% dip 0.5 periods, 30% dip 25 periods,<br>>95% interruptions 250 periods |                                     |                  |                  |  |
| Others     | Packing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 83g/pcs; 45 x 28.5 x 32 cm; 100pcs/carton                                         |                  |                  |                                                                              |                                     |                  |                  |  |
|            | Dimension (LxWxH)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 59.8 x 38.9 x 26.8 mm                                                             |                  |                  |                                                                              |                                     |                  |                  |  |
|            | Plug and Cable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | See page 3~5; Other type available by customer requested                          |                  |                  |                                                                              |                                     |                  |                  |  |
|            | MTBF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 315.8Khrs min. MIL-HDBK-217F(25 ℃ )                                               |                  |                  |                                                                              |                                     |                  |                  |  |
| Note       | 1. Tolerance: includes set up tolerance, line regulation and load regulation.<br>2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.<br>3.Line regulation is measured from low line to high line at rated load.<br>4.Load regulation is measured from 0% to 100% rated load.<br>5. All parameters NOT specially mentioned are measured at nominal voltage input, rated load and 25 ℃ of ambient temperature.<br>6. De-rating may be needed under low input voltages. Please refer to “Static Characteristic” sections for details.<br>7. The power supply 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. |                                                                                   |                  |                  |                                                                              |                                     |                  |                  |  |

File last modification time: 2025-2-25

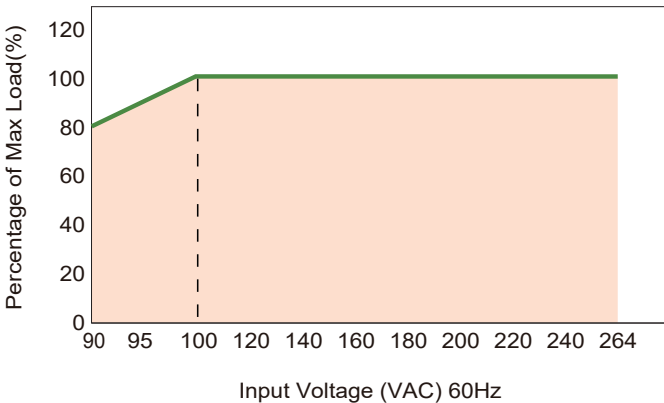
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Feature Curves

1. Derating Curve



2. Static Characteristics



DC Output Plug (Option)

Standard Model : D1J



Optional DC plug:  
(Unit: mm , tolerance: ±0.5mm)

| Tuning Fork Style |     |     | Straight |
|-------------------|-----|-----|----------|
| Type No.          | A   | B   | C        |
|                   | OD  | ID  | L        |
| D1I               | 5.5 | 2.1 | 9.5      |
| D1L               | 5.5 | 2.5 | 9.5      |
| D1M               | 5.5 | 2.5 | 11.0     |

| Tuning Fork Style |     |     | Right-angled |
|-------------------|-----|-----|--------------|
| Type No.          | A   | B   | C            |
|                   | OD  | ID  | L            |
| D1IR              | 5.5 | 2.1 | 9.5          |
| D1JR              | 5.5 | 2.1 | 11.0         |
| D1LR              | 5.5 | 2.5 | 9.5          |
| D1MR              | 5.5 | 2.5 | 11.0         |

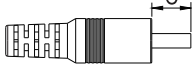
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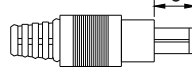
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### DC Output Plug (Option)

| Barrel Style |  |  |  | Straight |
|--------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----------|
| Type No.     | A                                                                                 | B                                                                                 | C                                                                                 |          |
|              | OD                                                                                | ID                                                                                | L                                                                                 |          |
| D2I          | 5.5                                                                               | 2.1                                                                               | 9.5                                                                               |          |
| D2J          | 5.5                                                                               | 2.1                                                                               | 11.0                                                                              |          |
| D2L          | 5.5                                                                               | 2.5                                                                               | 9.5                                                                               |          |
| D2M          | 5.5                                                                               | 2.5                                                                               | 11.0                                                                              |          |

| Barrel Style |  |  |  | Right-angled |
|--------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------|
| Type No.     | A                                                                                   | B                                                                                   | C                                                                                   |              |
|              | OD                                                                                  | ID                                                                                  | L                                                                                   |              |
| D2IR         | 5.5                                                                                 | 2.1                                                                                 | 9.5                                                                                 |              |
| D2JR         | 5.5                                                                                 | 2.1                                                                                 | 11.0                                                                                |              |
| D2LR         | 5.5                                                                                 | 2.5                                                                                 | 9.5                                                                                 |              |
| D2MR         | 5.5                                                                                 | 2.5                                                                                 | 11.0                                                                                |              |

| Tuning Fork Style |  |  |  | EIAJ equivalent |
|-------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------------|
| Type No.          | A                                                                                   | B                                                                                   | C                                                                                   |                 |
|                   | OD                                                                                  | ID                                                                                  | L                                                                                   |                 |
| D3A               | 2.35                                                                                | 0.7                                                                                 | 11.0                                                                                |                 |
| D3B               | 4.0                                                                                 | 1.7                                                                                 | 11.0                                                                                |                 |
| D3C               | 4.75                                                                                | 1.7                                                                                 | 11.0                                                                                |                 |

| Center Pin Style |  |  |  | EIAJ equivalent |
|------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------|
| Type No.         | A                                                                                     | B                                                                                     | C                                                                                     | D               |
|                  | OD                                                                                    | ID                                                                                    | L                                                                                     | Center Pin      |
| D4A              | 5.5                                                                                   | 3.4                                                                                   | 11.0                                                                                  | 1.0             |
| D4B              | 6.5                                                                                   | 4.4                                                                                   | 11.0                                                                                  | 1.4             |
| D4C              | 7.4                                                                                   | 5.1                                                                                   | 11.0                                                                                  | 0.6             |

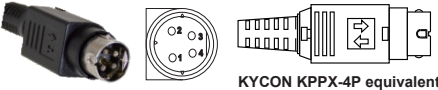
| Barrel Style |  |  |  |
|--------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Type No.     | Pin Assignment                                                                      |                                                                                     |                                                                                     |
|              | PIN No.                                                                             | Output                                                                              |                                                                                     |
| M1B          | 1                                                                                   | -Vo                                                                                 |                                                                                     |
|              | 2                                                                                   | -Vo                                                                                 |                                                                                     |
|              | 3                                                                                   | +Vo                                                                                 |                                                                                     |
|              | 4                                                                                   | -Vo                                                                                 |                                                                                     |
|              | 5                                                                                   | +Vo                                                                                 |                                                                                     |

| MIN.Din 3Pin with Lock(male) |  |  |  | KYCON KPPX-3P equivalent |
|------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|--------------------------|
| Type No.                     | Pin Assignment                                                                        |                                                                                       |                                                                                       |                          |
|                              | PIN No.                                                                               | Output                                                                                |                                                                                       |                          |
| M6B                          | 1                                                                                     | +Vo                                                                                   |                                                                                       |                          |
|                              | 2                                                                                     | -Vo                                                                                   |                                                                                       |                          |
|                              | 3                                                                                     | +Vo                                                                                   |                                                                                       |                          |

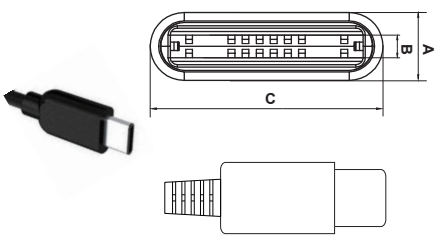
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DC Output Plug (Option)

| MIN.Din<br>4Pin with<br>Lock(male) |  |        |
|------------------------------------|-----------------------------------------------------------------------------------|--------|
|                                    | KYCON KPPX-4P equivalent                                                          |        |
| Type No.                           | Pin Assignment                                                                    |        |
|                                    | PIN No.                                                                           | Output |
| M7B                                | 1                                                                                 | +Vo    |
|                                    | 2                                                                                 | -Vo    |
|                                    | 3                                                                                 | -Vo    |
|                                    | 4                                                                                 | +Vo    |

| MIN.Din<br>4Pin with<br>Lock(female) |  |        |
|--------------------------------------|-------------------------------------------------------------------------------------|--------|
|                                      | KYCON KPJX-CM-4S equivalent                                                         |        |
| Type No.                             | Pin Assignment                                                                      |        |
|                                      | PIN No.                                                                             | Output |
| M7BF                                 | 1                                                                                   | +Vo    |
|                                      | 2                                                                                   | -Vo    |
|                                      | 3                                                                                   | -Vo    |
|                                      | 4                                                                                   | +Vo    |

| Type-C   |  |     |      |
|----------|-------------------------------------------------------------------------------------|-----|------|
| Type No. | A                                                                                   | B   | C    |
|          | OD                                                                                  | ID  | L    |
| C1       | 2.4                                                                                 | 1.3 | 8.25 |

| Stripped and tinned leads |  <p>Length of Land L1 by request<br/>YJ's standard length, L: 30 mm, L1: 5 mm<br/>NOTE: The wire color is for reference only, please refer to the actual product</p> |        |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Type No.                  | Pin Assignment                                                                                                                                                                                                                                            |        |
|                           | PIN No.                                                                                                                                                                                                                                                   | Output |
| by customer               | 1                                                                                                                                                                                                                                                         | +Vo    |
|                           | 2                                                                                                                                                                                                                                                         | -Vo    |