

# YS18B SERIES

## 30W



### Features

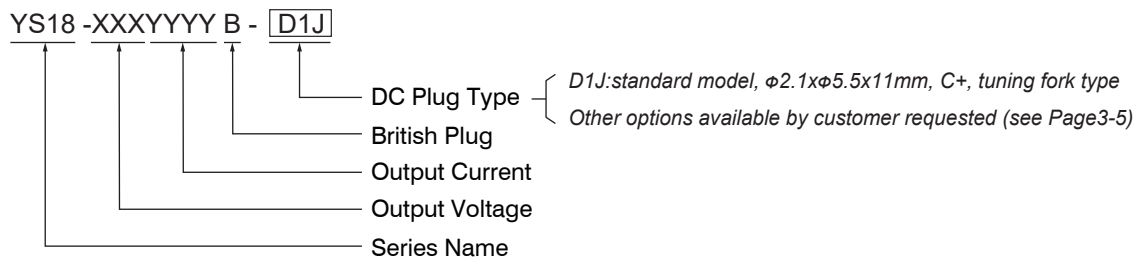
- Energy efficiency level VI
- Class II Power Supply
- 3 Years Warranty
- Universal AC input/Full range
- No load power consumption < 0.1W
- Protections: Short Circuit /Over Load / Over Voltage
- -20~+60℃ wide range working temperature

### Applications

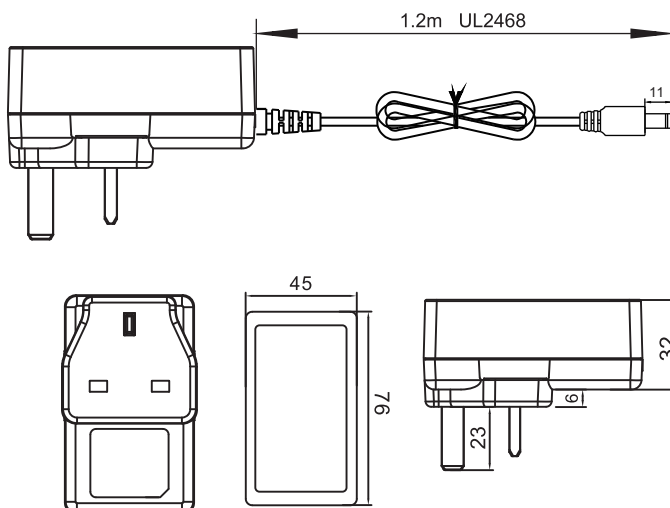
- Digital Equipment
- Industrial Equipments
- Consumer Electronic Devices
- Telecommunication Devices



### Model Description



### Dimensions and installation



| Standard Cable | 1.2m UL2468 (Option: UL2464, UL1185) |
|----------------|--------------------------------------|
| 5 ~ 9V         | 18AWG                                |
| 12 ~ 15V       | 20AWG                                |
| 24V            | 22AWG                                |
| 36V            | 24AWG                                |



## Specification

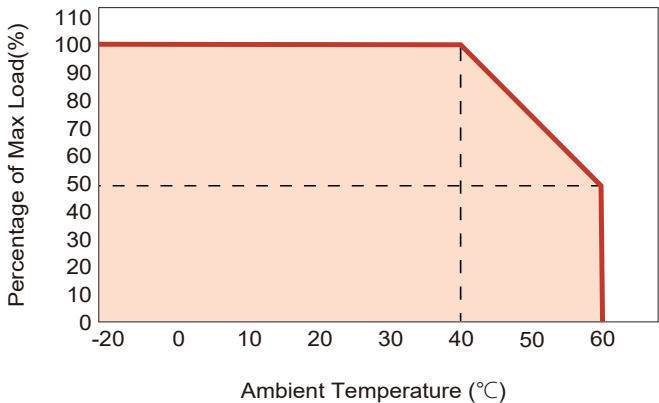
| Model                                          | Order P/N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | YS18-0504000B-D1J                                                       | YS18-0903330B-D1J | YS18-1202500B-D1J | YS18-1502000B-D1J                                                         | YS18-2401250B-D1J | YS18-3600830B-D1J |
|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|-------------------|-------------------|---------------------------------------------------------------------------|-------------------|-------------------|
|                                                | Safety Model No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | YS18-0504000                                                            | YS18-0903330      | YS18-1202500      | YS18-1502000                                                              | YS18-2401250      | YS18-3600830      |
| Output                                         | DC Voltage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 5V                                                                      | 9V                | 12V               | 15V                                                                       | 24V               | 36V               |
|                                                | Rated Current                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 4A                                                                      | 3.33A             | 2.5A              | 2A                                                                        | 1.25A             | 0.83A             |
|                                                | Rated Power                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 20W                                                                     | 30W               | 30W               | 30W                                                                       | 30W               | 30W               |
|                                                | Ripple & Noise(max.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 75mVp-p                                                                 | 120mVp-p          | 150mVp-p          | 200mVp-p                                                                  | 240mVp-p          | 360mVp-p          |
|                                                | Voltage Tolerance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ±5%                                                                     | ±5%               | ±5%               | ±5%                                                                       | ±5%               | ±5%               |
|                                                | Line Regulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ±3%                                                                     | ±3%               | ±3%               | ±3%                                                                       | ±3%               | ±3%               |
|                                                | Load Regulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ±5%                                                                     | ±5%               | ±5%               | ±5%                                                                       | ±5%               | ±5%               |
|                                                | Setup,Rise,Hold up Time                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 1.0s,50ms,30ms/230VAC(at full load)                                     |                   |                   | 3.0s,50ms,12ms/115VAC(at full load)                                       |                   |                   |
| Input                                          | Rated Voltage Range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 100-240VAC                                                              |                   |                   |                                                                           |                   |                   |
|                                                | Voltage Range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 90-264VAC                                                               |                   |                   |                                                                           |                   |                   |
|                                                | Frequency Range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 50/60Hz                                                                 |                   |                   |                                                                           |                   |                   |
|                                                | AC Current                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 0.7A/115VAC                                                             |                   | 0.4A/230VAC       |                                                                           |                   |                   |
|                                                | Inrush Current                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Cold Start 50A/200us at 230VAC 50Hz                                     |                   |                   | Cold Start 30A/200us at 115VAC 50Hz                                       |                   |                   |
|                                                | Leakage Current                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <0.25mA/230VAC                                                          |                   |                   |                                                                           |                   |                   |
|                                                | Efficiency                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 83.5%                                                                   | 87%               | 87.5%             | 87.5%                                                                     | 88%               | 88%               |
|                                                | No Load Power Consumption                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <0.1W                                                                   |                   |                   |                                                                           |                   |                   |
| Protection                                     | Over Load                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 105~150%                                                                |                   |                   |                                                                           |                   |                   |
|                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 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%                                                                |                   |                   |                                                                           |                   |                   |
| Shut down o/p voltage, re-power on to recover. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                         |                   |                   |                                                                           |                   |                   |
| Ambient                                        | Working TEMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -20 ~ +60 ℃ (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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | EN IEC 62368-1                                                          |                   |                   |                                                                           |                   |                   |
|                                                | 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, >95% interruptions 250 periods |                   |                   |
| Others                                         | Packing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 180g/pcs; 52.5 x 31 x 31 cm; 100pcs/carton                              |                   |                   |                                                                           |                   |                   |
|                                                | Dimension (LxWxH)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 76 x 45 x 38 mm                                                         |                   |                   |                                                                           |                   |                   |
|                                                | Plug and Cable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | See page 3~5; Other type available by customer requested                |                   |                   |                                                                           |                   |                   |
|                                                | MTBF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 206.1Khrs 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

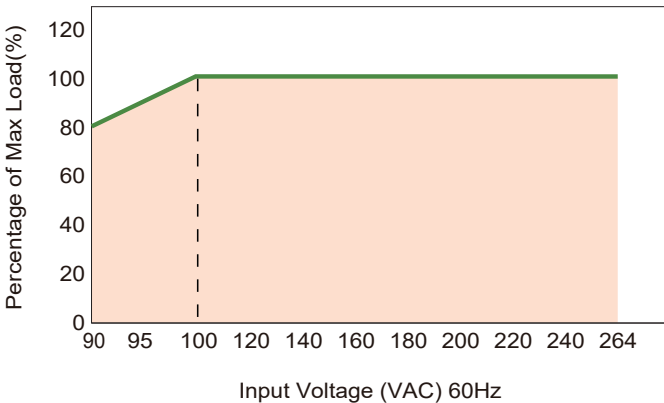
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Feature Curves

1. Derating Curve



2. Static Characteristics

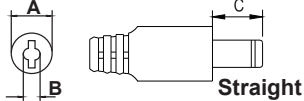


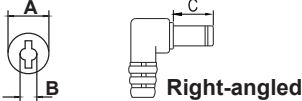
DC Output Plug (Option)

Standard Model : D1J



Optional DC plug:

| 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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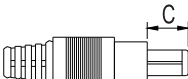
## 30W

### 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                                                                                 |                                                                                     |

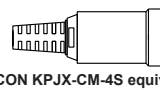
| MIN.Din 3Pin with Lock(male) |  |  |  |
|------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|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

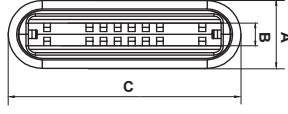
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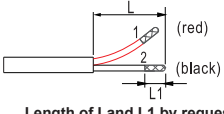
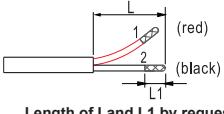
## 30W

### DC Output Plug (Option)

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

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

| Stripped<br>and<br>tinned<br>leads | <br><br>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,<br>please refer to the actual product |        |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
|                                    | <br><br>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,<br>please refer to the actual product |        |
| Type No.                           | Pin Assignment                                                                                                                                                                                                                                                                                                                                  |        |
|                                    | PIN No.                                                                                                                                                                                                                                                                                                                                         | Output |
| by<br>customer                     | 1                                                                                                                                                                                                                                                                                                                                               | +Vo    |
|                                    | 2                                                                                                                                                                                                                                                                                                                                               | -Vo    |