Compact & Reliable Power Supplies
Flexible installation allows mounting in four directions
Suitable for downsizing of equipment
Compact & efficient switching power supplies

Suitable for downsizing of equipment (Image: 15W type)

Compact size

Operates in a wide temperature range from –25 to +70°C. Suitable for use in a wide temperature range from cold to hot environment.

Wide temperature range

One step wiring.
Safe and efficient push-in connection.

*Push-in models available in summer 2021.

Applications

Warehouse storage

Control panels in facilities such as buildings

As a manufacturer of factory automation products,
we provide total solutions and related PLCs & HMI products

Operates in temperatures ranging from –25 to +70°C. Ideal for use in various storage facilities such as freezers and refrigerators.

Complies with safety standards for various facilities other than factories.

S3 CONNECT

Temperature Derating

0
20
40
60
80
100

-30 -20 -10 0 10 20 30 40 50 60 70 80

Ambient temperature (°C)

Output Current (%)

Standard mount

Actual size

Compact

Operating Temperature

Push-in connection

Flexible mounting

Mounts in 4-directions

Pending

*Push-in terminal types also available. (except 15W)
Suitable for downsizing equipment

Compact & efficient switching power supplies

Applications

Wide temperature range

Compact size

IDEC’s reliable technology enable stable power supply and its compact size allows installation in small equipment.

Warranty period 5 years

Conditions apply to:
Operating temperature 40°C, load rate 60%, standard mount
For details on warranty, see page 11.

Easy access

QR codes are printed on the product enabling easy access to the latest instruction manuals.

Mounting examples

Direct mount

DIN rail mount

When PS3V-050AF is mounted (standard mount) with PS9Z-3E3B mounting bracket

When PS3V-030AF is mounted (standard mount) with PS9Z-3E3C mounting bracket

Flexible mounting

MOUNTING EXAMPLES

Mounts in 4-directions

Upward

A mount

Standard mount

B mount

C mount

D mount

*Push-in terminal types also available.

(except 15W)

Safety Standards

Suitable for global use and various industries.

Safety equipment at station platforms

Control panels at plant factories

Other examples

- Machine tools
- Semiconductor manufacturing equipment
- Mold injection machines
- Food and packaging machines
- Multilevel parking garage
- Car facilities
- Logistics and transport facilities
- Agricultural facilities
- Energy-related facilities, others

Vibration-resistant and maintenance-free (no retightening of screws). Push-in improves efficiency in limited spaces.

IDEC’s reliable technology enable stable power supply and its compact size allows installation in small equipment.
## PS3V Switching Power Supplies

### Output capacity

<table>
<thead>
<tr>
<th>Part no.</th>
<th>Horizontal terminal type</th>
<th>Push-in terminal type</th>
<th>Input voltage</th>
<th>Output voltage</th>
<th>Output current</th>
</tr>
</thead>
<tbody>
<tr>
<td>015AF05C</td>
<td>—</td>
<td>—</td>
<td>5V</td>
<td>12V</td>
<td>1.3A</td>
</tr>
<tr>
<td>015AF12C</td>
<td>—</td>
<td>—</td>
<td>12V</td>
<td>24V</td>
<td>0.63A</td>
</tr>
<tr>
<td>015AF24C</td>
<td>—</td>
<td>—</td>
<td>24V</td>
<td>24V</td>
<td>1.3A</td>
</tr>
<tr>
<td>030AF05C</td>
<td>PS3V-030AF05C</td>
<td>—</td>
<td>5V</td>
<td>100 to 240V AC</td>
<td>6.0A</td>
</tr>
<tr>
<td>030AF12C</td>
<td>PS3V-030AF12C</td>
<td>PS3V-030AF12CP</td>
<td>12V</td>
<td>100 to 240V AC</td>
<td>2.5A</td>
</tr>
<tr>
<td>030AF24C</td>
<td>PS3V-030AF24C</td>
<td>PS3V-030AF24CP</td>
<td>24V</td>
<td>100 to 240V AC</td>
<td>2.3A</td>
</tr>
<tr>
<td>050AF12C</td>
<td>PS3V-050AF12C</td>
<td>PS3V-050AF12CP</td>
<td>12V</td>
<td>100 to 240V AC</td>
<td>4.5A</td>
</tr>
<tr>
<td>050AF24C</td>
<td>PS3V-050AF24C</td>
<td>PS3V-050AF24CP</td>
<td>24V</td>
<td>100 to 240V AC</td>
<td>4.5A</td>
</tr>
<tr>
<td>100AF24C</td>
<td>PS3V-100AF24C</td>
<td>PS3V-100AF24CP</td>
<td>24V</td>
<td>100 to 240V AC</td>
<td>6.5A</td>
</tr>
<tr>
<td>150AF24C</td>
<td>PS3V-150AF24C</td>
<td>PS3V-150AF24CP</td>
<td>24V</td>
<td>100 to 240V AC</td>
<td>6.5A</td>
</tr>
</tbody>
</table>

### Part no. configuration

**PS3V - 015 AF 05 C**

- **Output capacity**
  - 015: 15W
  - 030: 30W
  - 050: 50W
  - 100: 100W
  - 150: 150W
- **Input voltage**
  - 100 to 240V AC

**Accessories**

<table>
<thead>
<tr>
<th>Name</th>
<th>Applicable model</th>
<th>Part no. (Ordering no.)</th>
<th>Package quantity</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>L-shaped mounting bracket (*1)</td>
<td>PS3V-015AF</td>
<td>PS9Z-3N3A</td>
<td>1</td>
<td>L-shaped mounting brackets for PS3X switching power supplies can be used.</td>
</tr>
<tr>
<td></td>
<td>PS3V-030AF</td>
<td>PS9Z-3E3B</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PS3V-050AF</td>
<td>PS9Z-3E4B</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PS3V-100AF</td>
<td>PS9Z-3E4D</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Din rail mounting bracket</td>
<td>PS3V-015AF</td>
<td>PS9Z-3N4B</td>
<td>1</td>
<td>DIN rail mounting brackets for PS3X power supplies can be used.</td>
</tr>
<tr>
<td></td>
<td>PS3V-030AF</td>
<td>PS9Z-3E4C</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PS3V-050AF</td>
<td>PS9Z-3E4D</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PS3V-100AF</td>
<td>PS9Z-3E4D</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PS3V-150AF</td>
<td>PS9Z-3E4D</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*1) PS3X L-shaped mounting brackets (PS9Z-3N3B) cannot be used.
L-shaped mounting bracket is not available for PS3V-150AF. PS9Z-3N3B L-shaped mounting brackets cannot be used for PS3V-150AF.

### DIN rail/End clip/Tools

**Specify the Ordering no. when ordering.**

<table>
<thead>
<tr>
<th>Name</th>
<th>Part No.</th>
<th>Ordering No.</th>
<th>Package quantity</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>35mm DIN rail</td>
<td>BAA1000</td>
<td>BAA1000PN10</td>
<td>10</td>
<td>Material: Aluminum Weight: 200g Length: 1,000mm</td>
</tr>
<tr>
<td>End clip</td>
<td>BNL5</td>
<td>BNL5PN10</td>
<td>10</td>
<td>Weight: 15g Material: Steel Plating: Trivalent zinc chromate M4 screw used</td>
</tr>
<tr>
<td></td>
<td>BN6</td>
<td>BN6PN10</td>
<td></td>
<td>Weight: 15.2g Material: Steel Plating: Trivalent zinc chromate M4 screw used</td>
</tr>
<tr>
<td>Crimping tool (for ferrules)</td>
<td>S3TL-CR06D</td>
<td>S3TL-CR06D</td>
<td>1</td>
<td>Applicable ferrule: With/without insulated cover Crimping shape</td>
</tr>
<tr>
<td>Auto-adjust stripping tool</td>
<td>S3TL-ST06</td>
<td>S3TL-ST06</td>
<td>1</td>
<td>PVC-insulated thin stranded and solid wires 0.08 to 6mm² (28AWG to 10AWG)</td>
</tr>
<tr>
<td>Insulated driver</td>
<td>S3TL-D04-2S-7S</td>
<td>S3TL-D04-2S-7S</td>
<td>1</td>
<td>Blade size (dimensions: mm)</td>
</tr>
</tbody>
</table>

---

**IDECEC**
## Specifications

<table>
<thead>
<tr>
<th>Item</th>
<th>Part no.</th>
<th>[15W]</th>
<th>[30W]</th>
<th>[50W]</th>
<th>[100W]</th>
<th>[150W]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PS3V-015AF</td>
<td>PS3V-030AF</td>
<td>PS3V-050AF</td>
<td>PS3V-100AF2</td>
<td>PS3V-150AF</td>
<td></td>
</tr>
<tr>
<td></td>
<td>05C / 12C / 24C</td>
<td>05C / 12C / 24C</td>
<td>12C / 24C</td>
<td>12C / 24C</td>
<td>12C / 24C</td>
<td></td>
</tr>
<tr>
<td><strong>Rated input voltage</strong></td>
<td>100 to 240V AC</td>
<td>100 to 240V AC</td>
<td>100 to 240V AC</td>
<td>100 to 240V AC</td>
<td>100 to 240V AC</td>
<td></td>
</tr>
<tr>
<td>(Voltage range) (*1)</td>
<td>85 to 264V AC (Single phase 2 wire)</td>
<td>85 to 264V AC (Single phase 2 wire)</td>
<td>85 to 264V AC (Single phase 2 wire)</td>
<td>85 to 264V AC (Single phase 2 wire)</td>
<td>85 to 264V AC (Single phase 2 wire)</td>
<td></td>
</tr>
<tr>
<td><strong>Frequency</strong></td>
<td>47 to 63Hz</td>
<td>47 to 63Hz</td>
<td>47 to 63Hz</td>
<td>47 to 63Hz</td>
<td>47 to 63Hz</td>
<td></td>
</tr>
<tr>
<td><strong>Input current</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(at rated output)</td>
<td>100V: 0.32A (typ)</td>
<td>100V: 0.66A (typ)</td>
<td>200V: 1.1A (typ)</td>
<td>200V: 1.3A (typ)</td>
<td>200V: 1.9A (typ)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>230V: 0.2A (typ)</td>
<td>230V: 0.35A (typ)</td>
<td>230V: 0.6A (typ)</td>
<td>230V: 0.6A (typ)</td>
<td>230V: 0.9A (typ)</td>
<td></td>
</tr>
<tr>
<td><strong>Input conditions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>40A typ.</td>
<td>18A typ.</td>
<td>18A typ.</td>
<td>18A typ.</td>
<td>18A typ.</td>
<td></td>
</tr>
<tr>
<td><strong>Leakage current</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>at 100V AC</td>
<td>0.5mA max., 240V: 1mA max.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>at 230V</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Efficiency</strong></td>
<td>5V</td>
<td>77% (100VAC)</td>
<td>77% (100VAC)</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>(TYP)</td>
<td>76% (230VAC)</td>
<td>77% (230VAC)</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td><strong>Output conditions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Output voltage/Current</strong></td>
<td>5V / 3A</td>
<td>5V / 6A</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12V / 1.3A</td>
<td>12V / 2.5A</td>
<td>12V / 4.5A</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td></td>
<td>24V / 0.63A</td>
<td>24V / 1.3A</td>
<td>24V / 2.3A</td>
<td>24V / 4.5A</td>
<td>24V / 6.5A</td>
<td></td>
</tr>
<tr>
<td><strong>Overcurrent protection</strong></td>
<td></td>
<td>105% min.</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>(auto reset) (*2)</td>
<td></td>
<td>(auto reset)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Overvoltage protection</strong></td>
<td></td>
<td>120% min.</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>(intermittent, auto reset)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output off at 120% min, reset when re-input</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Vibration resistance</strong></td>
<td></td>
<td>10 to 55 Hz</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2G constant, 2 hours each in 3 axes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Shock resistance</strong></td>
<td></td>
<td>200M/s², 11ms, 1 shock each in 6 axes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*<em>Expected life (reference value) (<em>3)</em></em></td>
<td>8 years min. (rated input, load factor 50%, operating temperature +40°C, standard mounting)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>EMC</strong></td>
<td>EMI EN61204-3 Class B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EMS EN61204-3 (Industrial)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dimensions (mm) (terminal part except protrusion)</strong></td>
<td>50.8H×34W×65D</td>
<td>68.5H×34.5W×95.5D</td>
<td>80H×36W×99D</td>
<td>93H×39W×108D</td>
<td>95H×39W×159D</td>
<td></td>
</tr>
<tr>
<td><strong>Weight (approx.)</strong></td>
<td>135g</td>
<td>190g</td>
<td>230g</td>
<td>380g</td>
<td>510g</td>
<td></td>
</tr>
<tr>
<td><strong>Terminal screw (horizontal type)</strong></td>
<td>M3</td>
<td>M3.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

*1) Not subjected to safety standards. Output delay also available.
*2) If overload continues for over 30 seconds, the internal elements may be damaged.
*3) Calculation of the expected life is based on the actual life of the aluminum electrolytic capacitor.

The expected life depends on operating conditions.
Block diagram

PS3V-015AF

PS3V-050AF

PS3V-100AF, PS3V-150AF

Characteristics

Output current - Operating temperature characteristics (Output derating)

*Conditions: Natural air cooling (operating temperature is the temperature around the power supply)

Overcurrent protection characteristics

Output current - Input voltage characteristics (Output derating) (Ta=25°C)

Operating temperature by safety standards

<table>
<thead>
<tr>
<th>UL / c-UL / TÜV</th>
<th>A mount</th>
<th>50°C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B mount</td>
<td>40°C</td>
</tr>
</tbody>
</table>

Areas indicated with [ ] may take time for the output voltage to stabilize.
Mounting direction

A mount (standard mount)
B mount
C mount
D mount

upward

Parts Description

Note) Note the terminal arrangement when wiring.

Horizontal terminal type

<table>
<thead>
<tr>
<th>Model</th>
<th>Marking</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PS3V-015AF</td>
<td>AC(L),</td>
<td>AC input terminal</td>
<td>Accepts a wide range of voltage and frequency.</td>
</tr>
<tr>
<td></td>
<td>AC(N)</td>
<td></td>
<td>V.ADJ Output voltage adjustment volume Allows adjustment within ±10%. Turning</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>clockwise increases the output voltage.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LED</td>
<td>Operation indicator Lights on when the output voltage is on.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>+V, −V DC output terminals Output terminal</td>
</tr>
</tbody>
</table>

Push-in terminal type

<table>
<thead>
<tr>
<th>Model</th>
<th>Marking</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PS3V-015AF</td>
<td>AC(L),</td>
<td>AC input terminal</td>
<td>Accepts a wide range of voltage and frequency.</td>
</tr>
<tr>
<td></td>
<td>AC(N)</td>
<td></td>
<td>V.ADJ Output voltage adjustment volume Allows adjustment within ±10%. Turning</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LED</td>
<td>Operation indicator Lights on when the output voltage is on.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>+V, −V DC output terminals Output terminal</td>
</tr>
</tbody>
</table>

Note) 15W is not available for Push-in type.

Dimensions

Horizontal terminal type

PS3V-015AF

Dimensions

All dimensions in mm.
General tolerance: ±1 mm
PS3V Switching Power Supplies

Dimensions

PS3V-050AF□C

PS3V-100AF24C

PS3V-150AF24C

Push-in terminal type

PS3V-030AF□P

PS3V-050AF□P

PS3V-100AF24P

PS3V-150AF24P

All dimensions in mm.
General tolerance: ±1 mm

Dimensions

PS3V-050AF□C

PS3V-100AF24C

PS3V-150AF24C

Push-in terminal type

PS3V-030AF□P

PS3V-050AF□P

PS3V-100AF24P

PS3V-150AF24P

All dimensions in mm.
General tolerance: ±1 mm
PS3V Switching Power Supplies

Mounting bracket (L-shaped bracket) Dimensions

PS9Z-3N3A (applicable model: 15W)

Dimensions when mounting bracket is used

L-mount bracket

DIN-rail mount bracket

Part no. Applicable model L1 L2 L3 H1 H2 H3

<table>
<thead>
<tr>
<th>Part no.</th>
<th>Applicable model</th>
<th>L1</th>
<th>L2</th>
<th>L3</th>
<th>H1</th>
<th>H2</th>
<th>H3</th>
</tr>
</thead>
<tbody>
<tr>
<td>PS9Z-3N4B</td>
<td>PS3V-015A□C</td>
<td>93</td>
<td>107</td>
<td>35</td>
<td>5.2</td>
<td>21</td>
<td>50.8</td>
</tr>
<tr>
<td>PS9Z-3E4C</td>
<td>PS3V-030A□C</td>
<td>134</td>
<td>136</td>
<td>35</td>
<td>5.2</td>
<td>21</td>
<td>68.5</td>
</tr>
<tr>
<td>PS9Z-3E4D</td>
<td>PS3V-100A□C</td>
<td>186</td>
<td>182*</td>
<td>39.5</td>
<td>5.2</td>
<td>20</td>
<td>95</td>
</tr>
</tbody>
</table>

*) L2 is shorter than L1.

Safety Precautions

This product is for use in control panels and inside products and cannot be externally connected. Do not use the product alone as an Electric Facilities for General Use.

- When using the product, follow the following precautions.
- 
  [Precautions on switching power supplies]
  - This product is for industrial or general electronic equipment (such as communication, measurement, and industrial electronic equipment). Do not use for devices that may cause malfunction or may harm the body or threaten human life.
  - Make sure that the input voltage and output current do not exceed the ratings. Otherwise, electric shock, fire, or malfunction may occur.
  - Do not touch the terminals of the switching power supply while input voltage is applied, otherwise electric shock may occur.
  - Take protective measures with the final product to prevent malfunctions caused by the switching power supply.
- Operating temperatures should not exceed the ratings. Be sure to note the derating characteristics. Otherwise, electric shock, fire, or malfunction may occur.
- Blown fuses indicate that the internal circuits are damaged. Contact IDEC for repair. If only the fuse is replaced, electric shock, fire, or malfunction may occur.
- Do not use the switching power supplies to charge rechargeable batteries.
- Do not overload or short-circuit the switching power supply for a long period of time, otherwise the internal elements may be damaged.
- Do not disassemble, repair, or modify the power supplies, otherwise the high voltage internal part may cause electric shock, fire, or malfunction.
Notes for installation
1. When mounting the PS3V, see page 7.
2. See page 7 and 8 for mounting hole layout.
3. Use M3 or M4 screw as mounting screws. The tightening torque of the mounting screw is 0.49N·m.
4. Do not close the openings of the switching power supply. Ensure proper heat dissipation by convection.
5. Maintain a minimum of 20 mm clearance around the switching power supply.
6. When derating of the output does not work, provide forced air-cooling.
7. Make sure to wire the ground terminal correctly.
8. Use copper wire only. In addition, refer to the below table to select wire types and number of wires.

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Wire size (Allowable current)</th>
<th>Wire type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input</td>
<td>AWG18 to 14</td>
<td>Copper, solid/stranded</td>
</tr>
<tr>
<td>Output</td>
<td>AWG18 to 14, AWG18-7A, AWG16-10A, AWG14-15A</td>
<td>Copper, solid/stranded</td>
</tr>
</tbody>
</table>

- Cross section - AWG18: 0.82mm², AWG16: 1.31mm², AWG14: 2.08mm²
- See page 11 for Push-in type
9. Recommended tightening torque of terminal screws: 0.8 N·m (PS3V-015□: 0.5N·m)

Adjustment of output voltage
The output voltage can be adjusted within ±10% of the rated output voltage by using the V.ADJ control. Turning the V.ADJ clockwise increases the output voltage. Turning counterclockwise decreases the output voltage. Note that overvoltage protection may function when output voltage is increased.

Overcurrent protection
The output voltage drops automatically when an overcurrent flows, resulting in intermittent operation. Normal voltage is automatically restored when the load returns to normal condition. However, overcurrent for a prolonged period of time or short-circuit causes the internal elements to deteriorate or break down.

Overvoltage protection
• PS3V-015□:
  Voltage limit and auto-recovery method. The switching power supplies operate normally when voltage returns to normal.
• PS3X-030□, -050□, -100□, -150□:
The output is turned off or intermittent operation when an overvoltage is applied. When the output voltage has dropped due to an overvoltage, turn the input off, and after one minute, turn the input on again.

Insulation/Dielectric test
When performing an insulation/dielectric test, short the input (between AC) and output (between + and –). Do not apply or interrupt the voltage suddenly, otherwise surge voltage may be generated and the power supply may be damaged.

Noise
Small acoustic noise inside the PS3V may be heard depending on the input voltage and load, but the performance of the PS3V is not affected.

Series operation
The following series operation is allowed. In (b) series operation, connect Schottky barrier diodes. Choose (a) series operation when using the PS3V as positive and negative output power supply. Insert a Schottky barrier diode for loads such as operational amplifier where outputs of two power supplies may be connected in series (Load 3). Select a Schottky diode in consideration of the rated current.

Parallel operation
Parallel operation is not possible to increase the output capacity, because the internal elements and load may be damaged. Backup operation is a connection method of two switching power supplies in parallel for emergency. Normally one switching power supply has a sufficient output. If one switching power supply fails, another one operates to continue the output. Make sure that the sum of power consumption by load and diode is not greater than the rated wattage (rated voltage × rated current) of one switching power supply. The current of the diode that is used must be more than double the output current of PS3V. Take heat dissipation into consideration.

Rust and scratches on metal parts
Hot-dip galvanized steel and bonderized steel are used for the PS3V. Rust on the edge and scratches on the surfaces may be developed depending on the storage condition, but the performance of the PS3V is not affected.
Warranty

IDEC warranties the PS3V switching power supplies for a period of five years from the date of shipment.

Scope

In the event of a failure caused by our responsibility within the above period, we will replace the product. However, if the product is used under the following conditions, the warranty may not apply even within the warranty period.

1. Average operating temperature (ambient temperature of switching power supply) is 40°C maximum.
2. The load is 60% maximum.
3. Input voltage is the rated input voltage.
4. Standard mounting style

If we are responsible for a failure that occurs during the warranty period described at left, we will repair the product or replace it with an alternative product.

Please note that we will not be liable for any damage caused by the failure of the delivered product. In addition, please note that the warranty does not apply to the following cases.

1. Inappropriate handling, or operation beyond the specifications.
2. Modification or repair by other than IDEC.
3. Failure caused by reasons other than the switching power supply.
4. Failure caused by natural disasters.

Wiring procedure

Wiring

(1) Insert the solid wire or stranded wire with ferrule into the terminal entrance.
   * If the shape of the ferrule becomes trapezoidal after the clamping, insert the ferrule with the long side of the clamped part parallel to the pusher.
   * When inserting stranded wires directly, make sure that the pusher in pressed down and there are no loose wires.
   Note) When inserting a ferrule terminal with two wires, insert the insulated cover part vertically to the pusher.

(2) After wiring, tug lightly to make sure that the wire is properly connected.

Removing the wire

(1) Press the pusher using an insulated screwdriver.

(2) Remove the wire by pressing the pusher.

Accessories and wiring for Push-in terminals

Wire size and recommended ferrules (Push-in terminal type only)

Ferrules with insulated covers

<table>
<thead>
<tr>
<th>For 1 wire</th>
<th>Applicable Wire (Stranded Wire)</th>
<th>Wire Strip Length (mm)</th>
<th>Part No. (Ordering No.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>0.75</td>
<td>12</td>
<td>S3TL-H075-16WW</td>
</tr>
<tr>
<td>17</td>
<td>1.0</td>
<td>12</td>
<td>S3TL-H10-16WY</td>
</tr>
<tr>
<td>16</td>
<td>1.5</td>
<td>12</td>
<td>S3TL-H15-16WR</td>
</tr>
</tbody>
</table>

For 2 wires

18        | 0.75                            | 21                     | S3TL-J075-19WWS         |

Recommended tools (Optional. See page 4 for details)

<table>
<thead>
<tr>
<th>Name</th>
<th>Part No. (Ordering No.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crimping tool</td>
<td>S3TL-CR06D</td>
</tr>
<tr>
<td>Auto-adjust stripping tool</td>
<td>S3TL-ST06</td>
</tr>
<tr>
<td>Insulated screwdriver</td>
<td>S3TL-DD04-25-75</td>
</tr>
</tbody>
</table>

Note) Use a flat blade screwdriver with a blade size of 0.4×2 to 2.5 mm.
Ordering Terms and Conditions

Thank you for using IDEC Products.

By purchasing products listed in our catalogs, datasheets, and the like (hereinafter referred to as “Catalogs”) you agree to be bound by these terms and conditions. Please read and agree to the terms and conditions before placing your order.

1. Notes on contents of Catalogs
(1) Rated values, performance values, and specification values of IDEC products listed in this Catalog are values acquired under respective conditions in independent testing, and do not guarantee values gained in combined conditions.
Also, durability varies depending on the usage environment and usage conditions.
(2) Reference data and reference values listed in Catalogs are for reference purposes only, and do not guarantee that the product will always operate appropriately in that range.
(3) The specifications / appearance and accessories of IDEC products listed in Catalogs are subject to change or termination of sales without notice, for improvement or other reasons.
(4) The content of Catalogs is subject to change without notice.

2. Note on applications
(1) If using IDEC products in combination with other products, confirm the applicable laws / regulations and standards.
Also, confirm that IDEC products are compatible with your systems, machines, devices, and the like by using under the actual conditions. IDEC shall bear no liability whatsoever regarding the compatibility with IDEC products.
(2) The usage examples and application examples listed in Catalogs are for reference purposes only. Therefore, when introducing a product, confirm the performance and safety of the instruments, devices, and the like before use. Furthermore, regarding these examples, IDEC does not grant license to use IDEC products to you, and IDEC offers no warranties regarding the ownership of intellectual property rights or non-infringement upon the intellectual property rights of third parties.
(3) When using IDEC products, be cautious when implementing the following. i. Use of IDEC products with sufficient allowance for rating and performance
   ii. Safety design, including redundant design and malfunction prevention design that prevents other danger and damage even in the event that an IDEC product fails
   iii. Wiring and installation that ensures the IDEC product used in your system, machine, device, or the like can perform and function according to its specifications
(4) Continuing to use an IDEC product even after the performance has deteriorated can result in abnormal heat, smoke, fires, and the like due to insulation deterioration or the like. Perform periodic maintenance for IDEC products and the systems, machines, devices, and the like in which they are used.
(5) IDEC products are developed and manufactured as general-purpose products for general industrial products. They are not intended for use in the following applications, and in the event that you use an IDEC product for these applications, unless otherwise agreed upon between you and IDEC, IDEC shall provide no guarantees whatsoever regarding IDEC products.
   i. Use in applications that require a high degree of safety, including nuclear power control equipment, transportation equipment (railroads / airplanes / ships / vehicles / vehicle instruments, etc.), equipment for use in outer space, elevating equipment, medical instruments, safety devices, or any other equipment, instruments, or the like that could endanger life or human health
   ii. Use in applications that require a high degree of reliability, such as provision systems for gas / waterworks / electricity, etc., systems that operate continuously for 24 hours, and settlement systems
   iii. Use in applications where the product may be handled or used deviating from the specifications or conditions / environment listed in the Catalogs, such as equipment used outdoors or applications in environments subject to chemical pollution or electromagnetic interference
If you would like to use IDEC products in the above applications, be sure to consult with an IDEC sales representative.

3. Inspections
We ask that you implement inspections for IDEC products you purchase without delay, as well as thoroughly keep in mind management/maintenance regarding handling of the product before and during the inspection.

4. Warranty
(1) Warranty period
The warranty period for IDEC products shall be five (5) years after purchase or delivery to the specified location. However, this shall not apply in cases where there is a different specification in the Catalogs or there is another agreement in place between you and IDEC.
(2) Warranty scope
Should a failure occur in an IDEC product during the above warranty period for reasons attributable to IDEC, then IDEC shall replace or repair that product, free of charge, at the purchase location / delivery location of the product, or an IDEC service base. However, failures caused by the following reasons shall be deemed outside the scope of this warranty.
   i. The product was handled or used deviating from the conditions / environment listed in the Catalogs
   ii. The failure was caused by reasons other than an IDEC product
   iii. Modification or repair was performed by a party other than IDEC
   iv. The failure was caused by a software program of a party other than IDEC
   v. The product was used outside of its original purpose
   vi. Replacement of maintenance parts, installation of accessories, or the like was not performed properly in accordance with the user’s manual and Catalogs
   vii. The failure could not have been predicted with the scientific and technical standards at the time the product was shipped from IDEC
   viii. The failure was due to other causes not attributable to IDEC (including cases of force majeure such as natural disasters and other disasters)
Furthermore, the warranty described here refers to a warranty on the IDEC product as a unit, and damages induced by the failure of an IDEC product are excluded from this warranty.

5. Limitation of liability
The warranty listed in this Agreement is the full and complete warranty for IDEC products, and IDEC shall bear no liability whatsoever regarding special damages, indirect damages, incidental damages, or passive damages that occurred due to an IDEC product.

6. Service scope
The prices of IDEC products do not include the cost of services, such as dispatching technicians. Therefore, separate fees are required in the following cases.
   (1) Instructions for installation / adjustment and accomplishment at test operation (including creating application software and testing operation, etc.)
   (2) Maintenance inspections, adjustments, and repairs
   (3) Technical instructions and technical training
   (4) Product tests or inspections specified by you
The above content assumes transactions and usage within your region. Please consult with an IDEC sales representative regarding transactions and usage outside of your region. Also, IDEC provides no guarantees whatsoever regarding IDEC products sold outside your region.

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