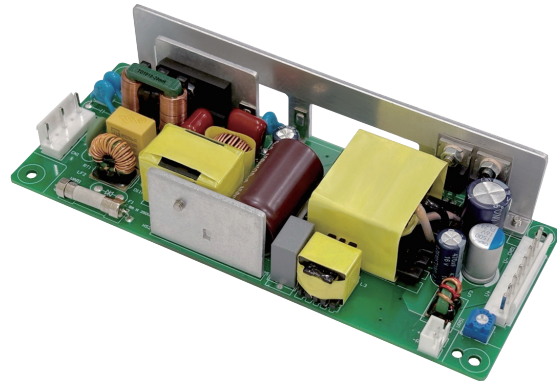


# UNOPT 100W Series

Industrial Power Supply

Standard Product

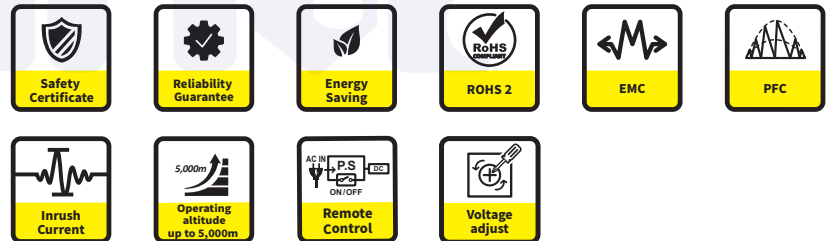
Compact 2.4" × 6.1"



▲ UNOPT3100 Series



■ Please contact our sales department for safety standard of each model.



## Model Name Definition

**UNOPT 3100 -** \_\_\_\_\_

①      ②      ③      ④      ⑤

- ① Developed by UNIFIVE
- ② Series Code
- ③ Input Voltage (V)
- ④ Output Power (W)
- ⑤ Function Description  
(multiple digits)

## Product Highlights

- Stability
- Energy and High Efficiency
- PCB Size 2.4"x 6.1"(inch)
- Appendix 8 of PSE :  
comply with dusty requirement
- SEMI F47  
Valid if VAC.input > 200V
- 5 years warranty
- Correspond to OVC III (2000m)
- Operating altitude Up to 5,000m
- Suitable for industrial equipment

## Protection

- Short Circuit Protection
- Over Voltage Protection
- Over Current Protection

## Safety Standard

- 62368-1
- PSE 別表第八  
100V-240V 基準に準拠

## Efficiency

- Energy Efficiency Level VI ( ErP / DoE )
- Meet Commission Regulation(EU)  
2019/1782
- Meet DOE 10 CFR part 429 and 430

## Emissions

- FCC
  - FCC Part15-B
- CE
  - EN(CISPR)55032-B
- BS EN 55032

## Immunity

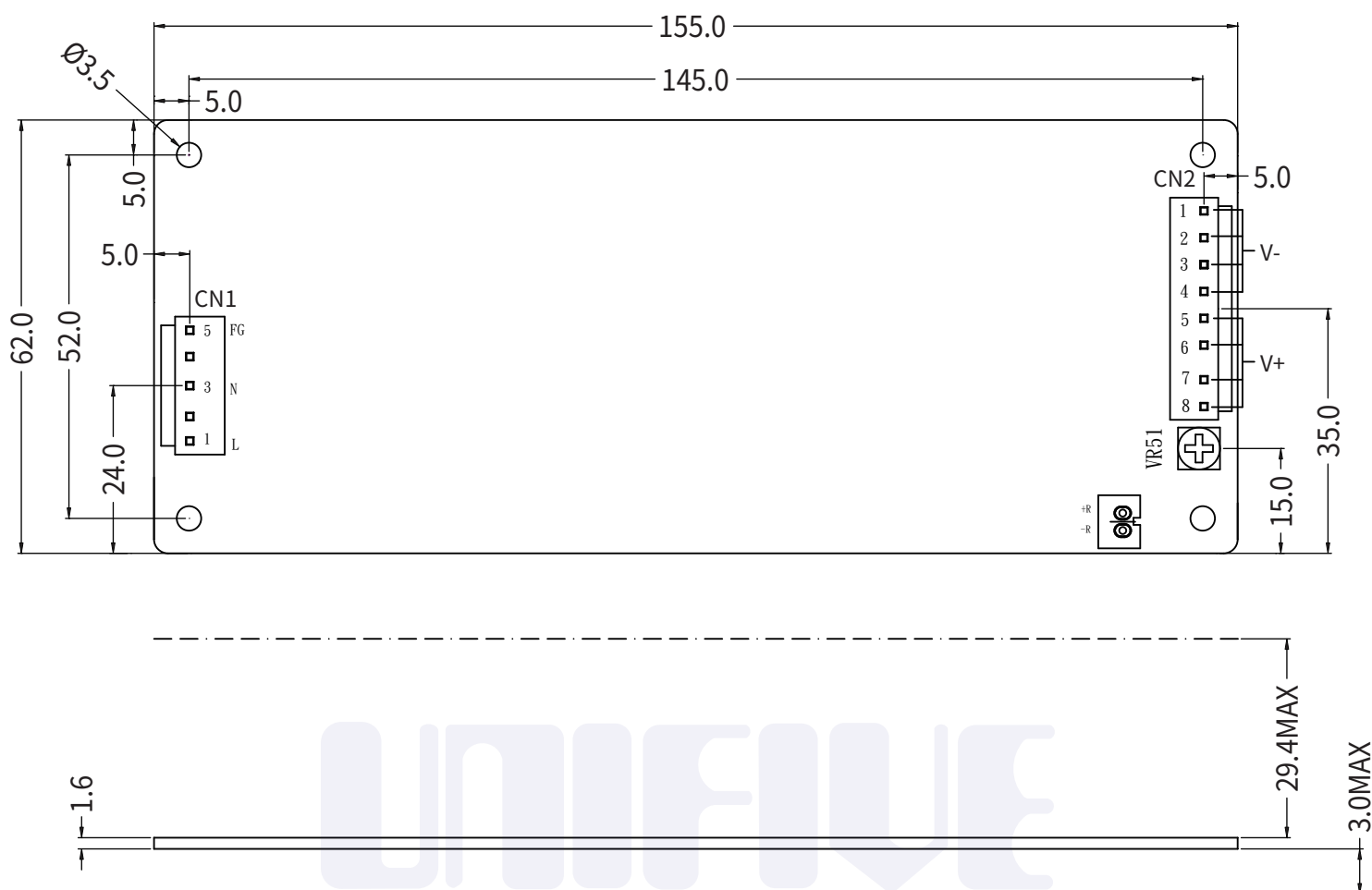
- EN55035
  - BS EN 55035
- The above specifications include the following test standards
- ✓ EN61000-4-2
  - ✓ EN61000-4-3
  - ✓ EN61000-4-4
  - ✓ EN61000-4-5
  - ✓ EN61000-4-6
  - ✓ EN61000-4-8
  - ✓ EN61000-4-11

more detail on next page

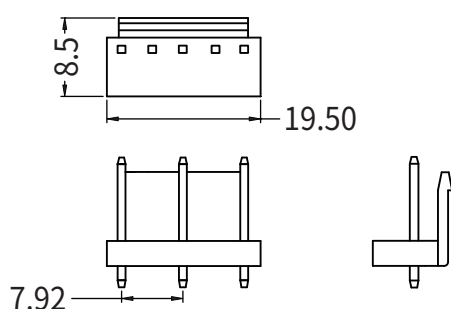
| UNOPT 100W Series   |   |  |  |                    |               |               |
|---|---|--|--|--------------------|---------------|---------------|
| Model   |   | UNOPT3100-120085SA   |  | UNOPT3100-150067SA |               |               |
| Output  |   | Output 1   |  |                    |               |               |
| Output Wattage Max (W)  |   | 100  |  |                    |               |               |
| DC Output   |   | 12.0V / 8.5A   |  | 24.0V / 4.3A       |               |               |
|   |   | 15.0V / 6.7A   |  | 48.0V / 2.1A       |               |               |
| Specification   |   |  |  |                    |               |               |
| Input   | Voltage (VAC)                               |  | 85~264 1φ  |                    |               |               |
|   | Current (A)                                 | ACIN 100V  | 1.2A Typical                                       |                    |               |               |
|   |   | ACIN 230V  | 0.6A Typical                                       |                    |               |               |
|   | Frequency (Hz)                              |  | 50/60 (47-63)                                      |                    |               |               |
|   | Efficiency (%)                              | ACIN 100V  | 86.0 Typical                                       |                    |               |               |
|   |   | ACIN 230V  | 88.0 Typical                                       |                    |               |               |
|   | Power Factor (%)                            | ACIN 100V  | 0.96 Typical                                       |                    |               |               |
|   |   | ACIN 230V  | 0.90 Typical                                       |                    |               |               |
| Inrush Current (A)  | ACIN 100V                                   | 15.0A Typical (Full Load, cold start, Ta=25°C)/Restart After More than 3sec.   |  |                    |               |               |
|   | ACIN 230V                                   | 30.0A Typical (Full Load, cold start, Ta=25°C)/Restart After More than 3sec.   |  |                    |               |               |
| Leakage Current (mA <sub>max</sub> )  |   | 0.5mA r.m.s or 0.707mA peak(ES1) (ACIN 100V/240V 60Hz, Io=100%, According to IEC62368 Class I )  |  |                    |               |               |
| Output  | Voltage (V)                                 |  | 12.0   | 15.0               | 24.0          | 48.0          |
|   | Current (A)                                 |  | 8.5  | 6.7                | 4.3           | 2.1           |
|   | Line Regulation (mV <sub>max</sub> )        |  | 48   | 60                 | 96            | 192           |
|   | Load Regulation (mV <sub>max</sub> )        |  | 96   | 120                | 150           | 240           |
|   | Ripple (mVp-p) (0°C to +50°C) ※1            |  | 150  | 150                | 150           | 200           |
|   | Ripple (mVp-p) (-10°C to 0°C) ※1            |  | 180  | 180                | 180           | 240           |
|   | Noise (mVp-p) (0°C to +50°C) ※1             |  | 150  | 150                | 150           | 200           |
|   | Noise (mVp-p) (-10°C to 0°C) ※1             |  | 180  | 180                | 180           | 240           |
|   | Temperature Regulation (mV <sub>max</sub> ) | 0 to +50°C   | 150  | 240                | 360           | 480           |
|   |   | -10 to +50°C   | 180  | 290                | 450           | 600           |
|   | Drift (mV <sub>max</sub> ) ※2               |  | 48   | 60                 | 96            | 192           |
|   | Start-Up Time (mS)                          |  | 3000 Typical (ACIN 100V, Full Load), at 25°C       |                    |               |               |
|   | Hold-Up Time (mS)                           |  | 20 Typical (ACIN 100V, Full Load), at 25°C         |                    |               |               |
|   | Output Voltage Setting (V)                  |  | 12.0 to 12.48                                      | 15.0 to 15.6       | 24.0 to 24.96 | 48.0 to 49.92 |
|   | Output Voltage Variable Range (V)           |  | 10.8 to 13.2                                       | 13.5 to 16.5       | 21.6 to 26.4  | 39.5 to 52.8  |
|   | Over Current Protection ( Auto-Recovery )   |  | Over 101% of Peak Current ; Auto-Recovery          |                    |               |               |
|   | Over Voltage Protection (V) ( Latch Off )   |  | 13.8 to 16.2                                       | 17.3 to 20.3       | 27.6 to 32.4  | 55.2 to 64.8  |
| Short Protection  |   | Auto-Recovery  |  |                    |               |               |
| Remote On /Off ※3   |   | Model -CR support remote function  |  |                    |               |               |
| Isolation   | Input-Output · other connect                |  | AC4,000V 1 minute, Cutoff Current = 10mA (at 25°C) |                    |               |               |
|   | Input-FG                                    |  | AC2,000V 1 minute, Cutoff Current = 10mA (at 25°C) |                    |               |               |
|   | Output-FG · other connect                   |  | DC500V 1 minute, Cutoff Current = 25mA (at 25°C)   |                    |               |               |
| Operating Temperature/Humidity/Altitude   |   | -10°C~70°C / 20%RH~90%RH / 5000m max / Non condensing  |  |                    |               |               |
| Storage Temperature/Humidity  |   | -20°C~75°C / 20%RH~90%RH / Non condensing  |  |                    |               |               |
| Vibration   |   | 10 - 55Hz, 19.6m/s <sup>2</sup> (2G), 3 minutes period, 60 minutes each along X, Y and Z axis  |  |                    |               |               |
| Impact  |   | JIS-C-0041 half sin wave, 300 m/s <sup>2</sup> , 6ms, 3 times each X, Y, and Z axis (196.1m/s <sup>2</sup> (20G), 11ms, Once Each X, Y and Z Axis) |  |                    |               |               |
| Safety  |   | IEC/EN62368-1, BS EN 62368-1   |  |                    |               |               |
| EMC   |   | FCC Part15-B, EN(CISPR)55032-B, BS EN 55032  |  |                    |               |               |
| Harmonic Attenuator   |   | Complies with IEC61000-3-2   |  |                    |               |               |
| Size  |   | 155(L)×62(W)×34(H)mm   |  |                    |               |               |
| Cooling Method  |   | Convection / Forced Air  |  |                    |               |               |
| ※1 Parallel a 22uF Low ESR Aluminum Electrolytic Capacitor and 0.1uF ceramics capacitor at the test point. The position of test point is 150mm from output terminal to system load. The bandwidth of oscilloscope is 20MHz. (Please refer to User Manual) |   |  |  |                    |               |               |
| ※2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25C, with the input voltage held constant at the rated input / output.  |   |  |  |                    |               |               |
| ※3 You can use the 5V output voltage (built-in) for control without adding additional power supply.   |   |  |  |                    |               |               |
| ※ When the specification is exceeded, it may cause a possibility that the components be damaged.  |   |  |  |                    |               |               |
| ※ Sound noise may be generated by power supply in case of pulse load.   |   |  |  |                    |               |               |
| ※ When the output load is less than 10% of the rated current, the corresponding actions reduce energy loss, output ripples may occur in the pulse waves.  |   |  |  |                    |               |               |
| ※ If you have question, please contact us.  |   |  |  |                    |               |               |

# Mechanical Spec

**TOLERANCE:  $\pm 0.5$**   
**Unit: mm**



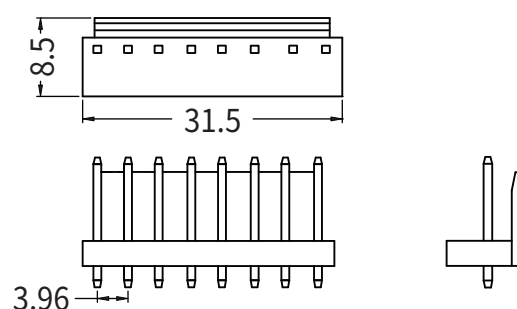
**CN1**



**CN1**

| PIN NUMBER   | INPUT |
|--|-------|
| 1  | AC(L) |
| 2  | AC(N) |
| 3  |       |
| 4  | FG    |
| 5  |       |
| CN1 : INPUT CONNECT<br>Specifications are equivalent to models of JST B5P-VH |       |

**CN2**



**CN2**

| PIN NUMBER  | OUTPUT |
|---|--------|
| 1,2,3,4   | V-     |
| 5,6,7,8   | V+     |
| CN2 : OUTPUT CONNECT<br>Specifications are equivalent to models of JST B8P-VH |        |

■ Please contact our sales department for details of each model ■