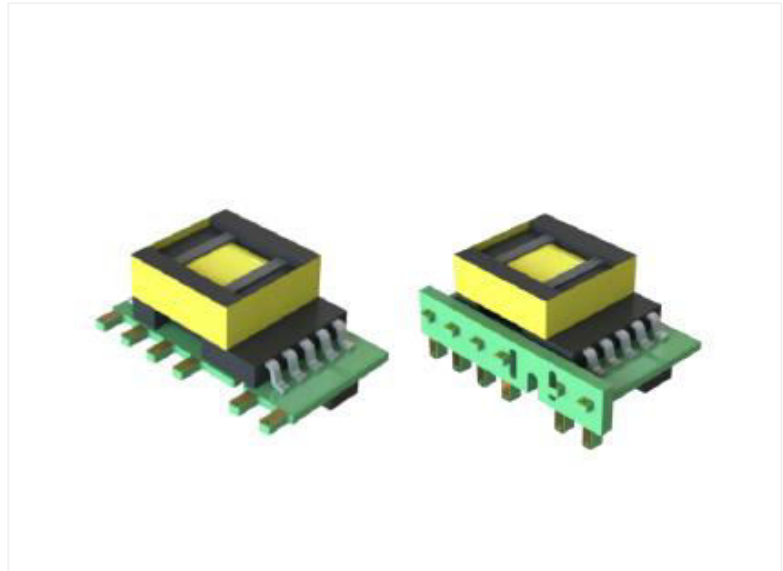


## Features

- Wide Input Voltage Range 85~305V AC and 70 - 430VDC input voltage
- Approved to UKCA, CE, cURus, RoHS, REACH
- UL 62368-1, IEC62368-1 Safety Approved
- 81% Efficiency
- Accepts AC or DC input (dual-use of same terminal)
- Single Output 3.3-24V DC
- 2 Years Warranty

## 14GS5H1-SXX(F) Series

5W Open Frame AC/DC Power Supply



The 14GS5H1-SXX Series is a consistent and high-performing Internal Power Supply (PSU). Designed for use in applications such as embedded electronics and control equipment. This series is supplied with a Pin Connection input connection and supports input voltages of 85~305V AC 47~63Hz.

### Model Number Information

14GS5H1      S      XX      (F)

Series Name      Single Output      Output Voltage      Package

### Models

| Model Number   | DC Voltage (V) | Rated Current (A) | Rated Power (W) | Efficiency (%) | Max. Capacitive Load (μF) |
|----------------|----------------|-------------------|-----------------|----------------|---------------------------|
| 14GS5H1-S03(F) | 3.3            | 1                 | 3.3             | 69             | 2200                      |
| 14GS5H1-S05(F) | 5              | 1                 | 5               | 76             | 1500                      |
| 14GS5H1-S09(F) | 9              | 0.56              | 5               | 77             | 680                       |
| 14GS5H1-S12(F) | 12             | 0.42              | 5               | 79             | 470                       |
| 14GS5H1-S15(F) | 15             | 0.34              | 5               | 79             | 330                       |
| 14GS5H1-S24(F) | 24             | 0.21              | 5               | 81             | 200                       |

| Input Specifications |            |            |
|----------------------|------------|------------|
| Rated Input          | 100-277VAC |            |
| Voltage Range        | 85-305V AC | 70-430V DC |
| Frequency Range      | 47/63Hz    |            |
| Input Current        | Vi:115VAC  | 0.20 A     |
|                      | Vi:230VAC  | 0.10 A     |
| Inrush Current       | Vi:115VAC  | 20 A       |
|                      | Vi:230VAC  | 40 A       |

| Output Specifications   |                                       |    |
|-------------------------|---------------------------------------|----|
| Output Voltage Accuracy | 3.3V, 10%~100% load                   | ±8 |
|                         | 5~24V, 10%~100% load                  | ±5 |
| Minimum Load            | 10%                                   |    |
| Line Regulation         | Io nom, Vi min...Vi max ±1.5%         |    |
| Load Regulation         | 10%~100% Load ±3.0%                   |    |
| No Load                 | 0.10-0.15 W                           |    |
| Ripple & Noise          | Vi nom, Io nom, BW=20MHz 80-150 mVp-p |    |

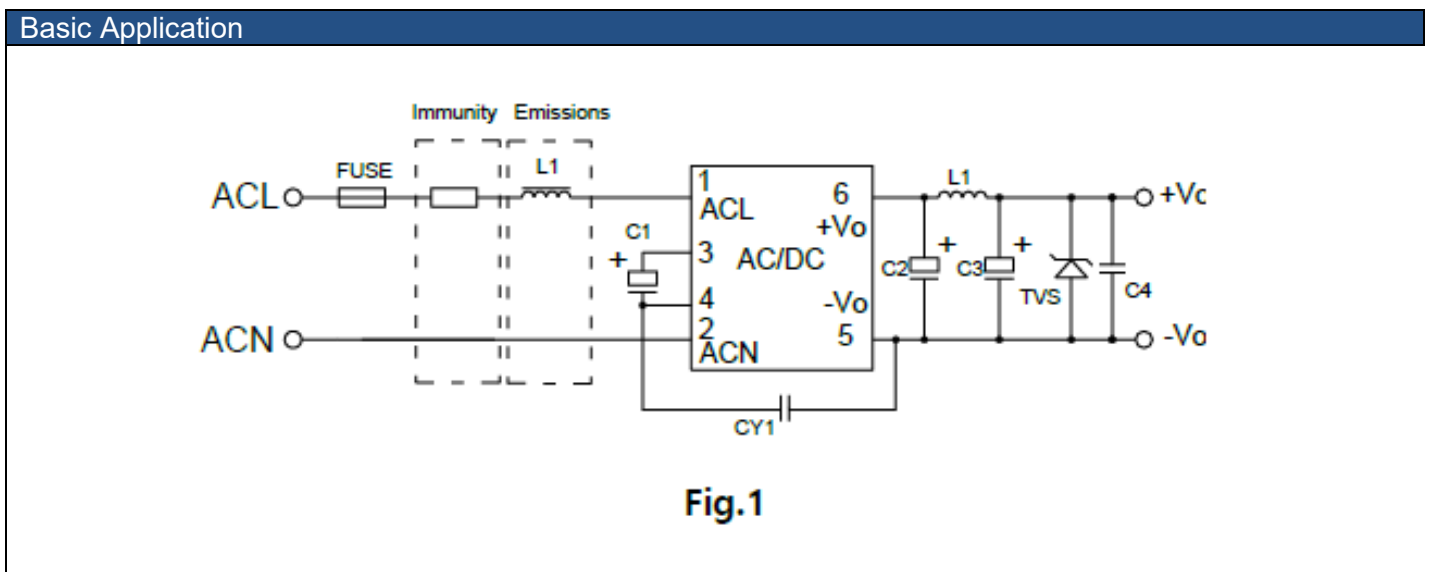
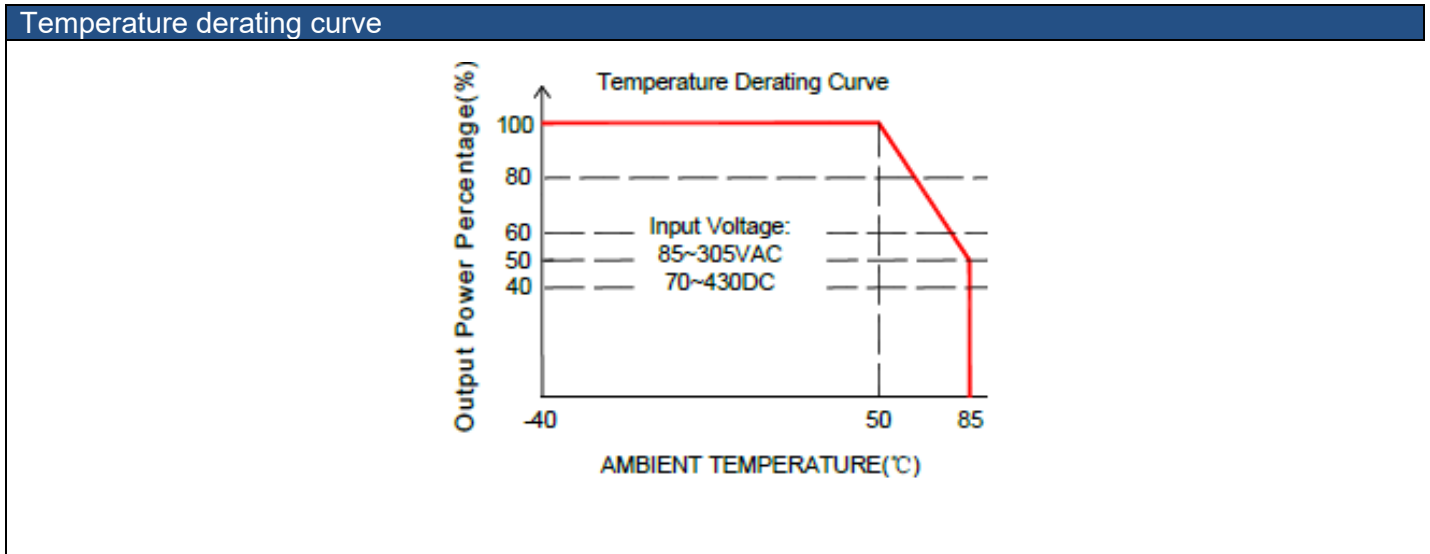
| Protection    |                                                                                                           |
|---------------|-----------------------------------------------------------------------------------------------------------|
| Over Load     | Above 110% rated output power<br>Protection type: Recovers automatically after fault condition is removed |
| Short Circuit | Recovers automatically after fault condition is removed                                                   |

| Environmental Characteristics |                                              |
|-------------------------------|----------------------------------------------|
| Working Temp                  | -40 ~ +85°C (Please refer to derating graph) |
| Switching Frequency           | Vi nom, Io nom 65 KHz                        |
| Isolation Voltage             | 3.6KVac/ 5mA/5Secs Vac                       |
|                               | 5KVdc/ 5mA/5Secs Vdc                         |
| Storage Temperature           | Non Operational -40 ~ +105 °C                |
| Relative Humidity             | Vi nom, Io nom 95 % RH                       |

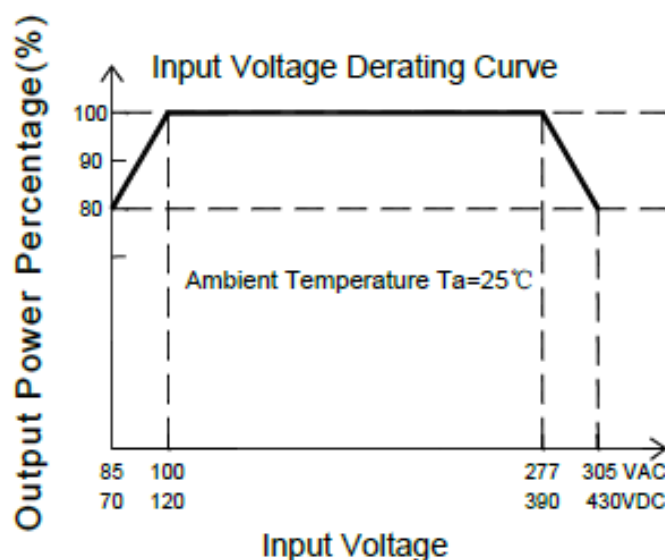
| Safety & EMC         |                                                       |
|----------------------|-------------------------------------------------------|
| Safety Standards     | UL 62368-1, IEC62368-1 approved                       |
| Withstand Voltage    | EN55032, CLASS B (See Fig. 2 for recommended circuit) |
| Isolation Resistance | EN55035 (See Fig. 2 for recommended circuit)          |

| Dimensions & Weight |                          |
|---------------------|--------------------------|
|                     | Measurements             |
| 14GS5H1-SXX         | 26.4 x 14.73 x 11.0 mm   |
| 14GS5H1-SXXF        | 27.84 x 11.60 x 17.60 mm |

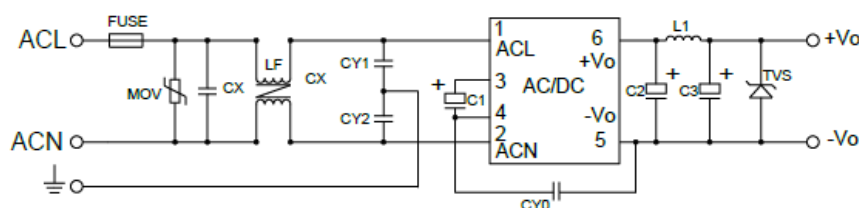
| Packaging    |               |            |              |
|--------------|---------------|------------|--------------|
|              | Outer carton  | box size   | weight       |
| 14GS5H1-SXX  | 375x320x160mm | 350x300x45 | 5.5grams/pcs |
| 14GS5H1-SXXF | 460x240x220mm | 210x210x30 | 6.3grams/pcs |



# Input Voltage Derating Graph



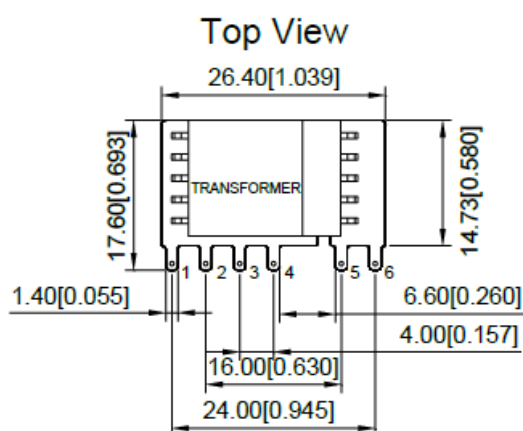
# EMC Solution-Recommended Circuit



|      | 3.3~24V      | 3.3~5V      | 9~15V      | 24V        |
|------|--------------|-------------|------------|------------|
| FUSE | 300V/2A      |             |            |            |
| MOV  | 14D561K      |             |            |            |
| LF   | UA68.30mH/Mn |             |            |            |
| CX   | 0.1uF/310V   | 470pF/250V  | 470pF/250V | 470pF/250V |
| CY1  | 470pF/250V   |             |            |            |
| CY2  |              |             |            |            |
| L1   |              |             |            |            |
| C1   |              | 15uF/450V   |            |            |
| C2   |              | 1000pF/400V |            |            |
| C3   |              | 470uF/10V   | 220uF/35V  |            |
| C4   |              |             |            | 2.2uH      |
| TVS  | SMBJ7.0A     | SMBJ12A     | SMBJ20A    | SMBJ30A    |

Fig.2

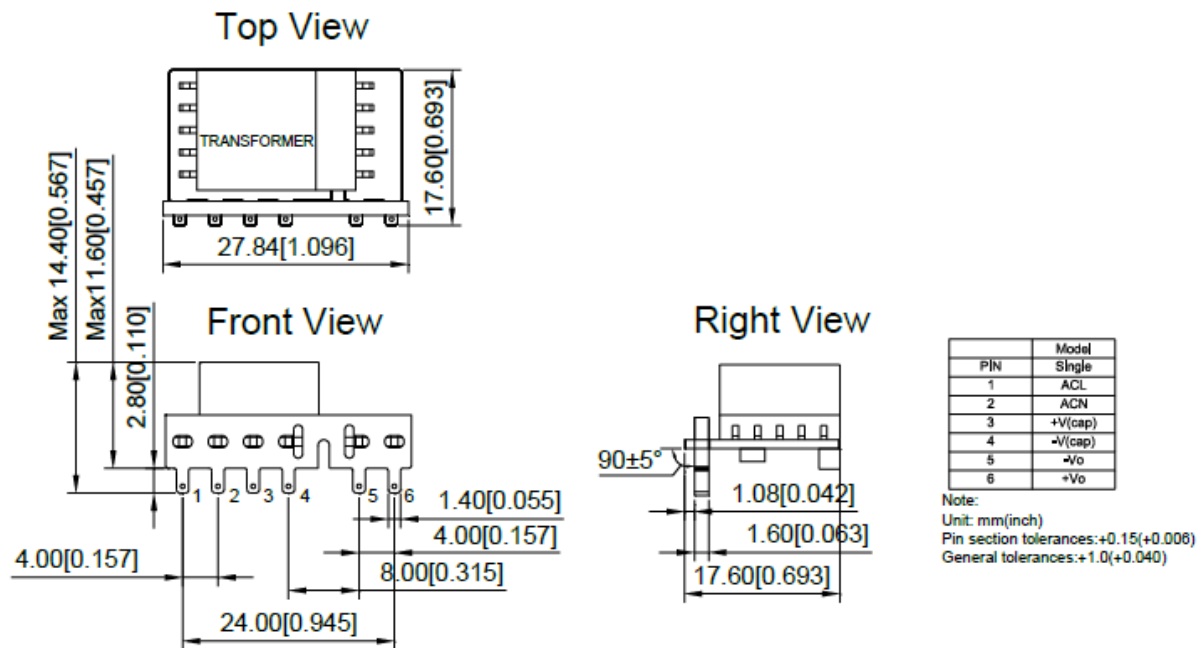
# 14GS5H1-SXX Dimensions



| PIN | Model   |
|-----|---------|
| 1   | ACL     |
| 2   | ACN     |
| 3   | +V(cap) |
| 4   | -V(cap) |
| 5   | -Vo     |
| 6   | +Vo     |

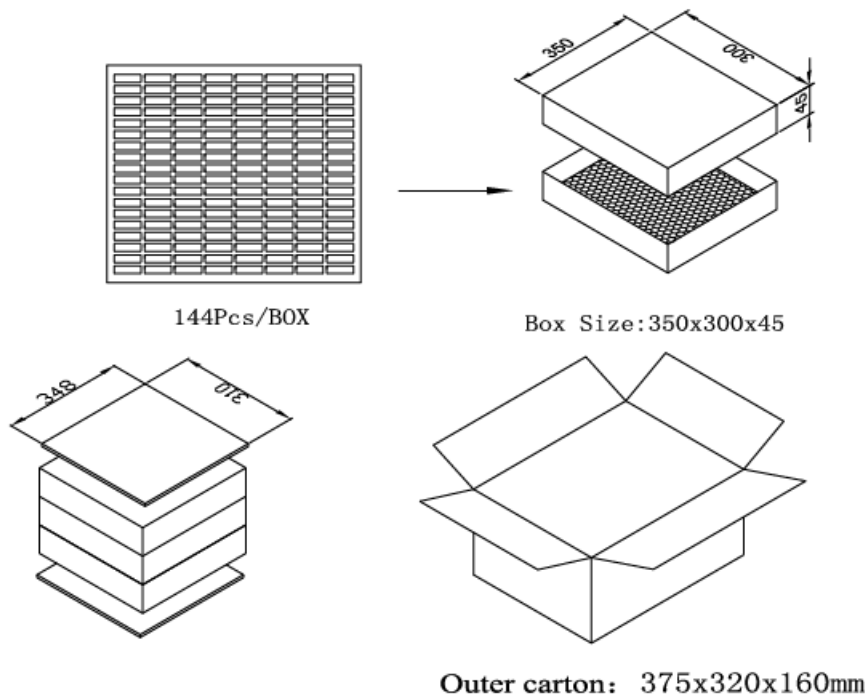
Note:  
Unit: mm(inch)  
Pin section tolerances:  $\pm 0.15(\pm 0.006)$   
General tolerances:  $\pm 1.0(\pm 0.040)$

## 14GS5H1-SXXF Dimensions



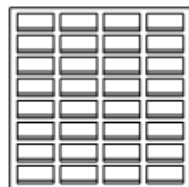
## 14GS5H1-SXX Package

1.Weight:5.5grams/pcs    2.outer carton unit: 432pcs/box    3.Weight: 4.1kg per carton

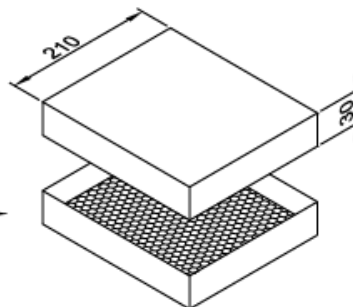


**14GS5H1-SXXF Package**

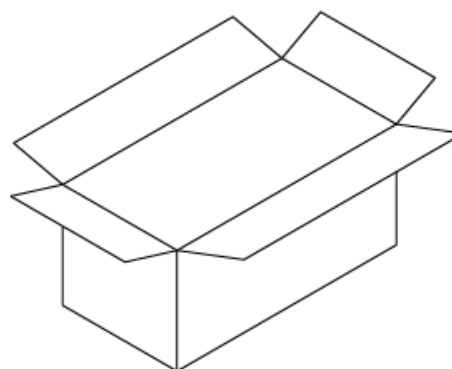
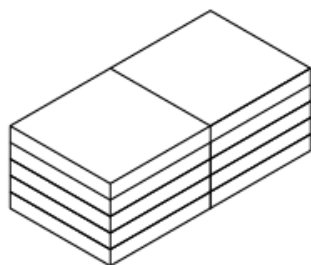
1.Weight:6.3grams/pcs    2.outer carton unit: 320pcs/box    3.Weight: 4.1kg per carton



32Pcs/BOX



Box Size:210x210x30



Outer carton: 460x240x220mm