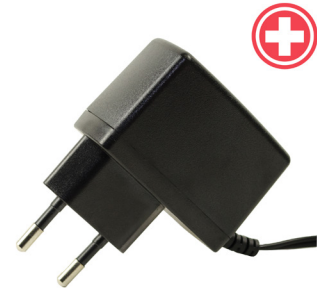


**SERIES:** SWM12-E | **DESCRIPTION:** AC-DC POWER SUPPLY

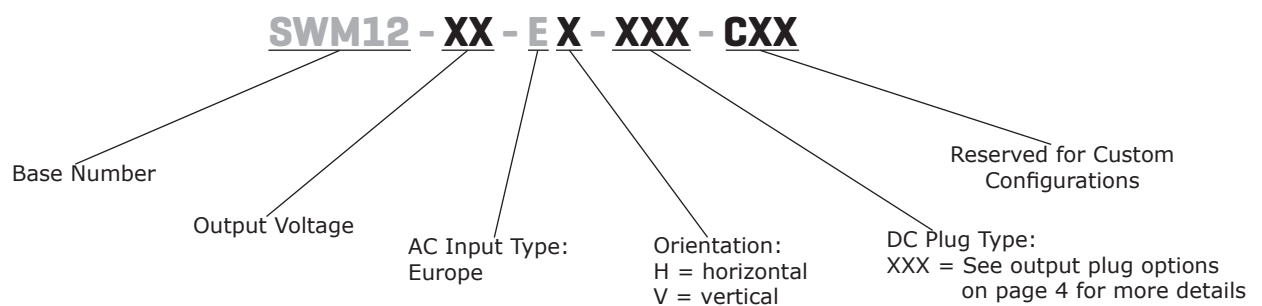
**FEATURES**

- up to 12 W power
- EN 60601-1 4th edition
- compact vertical or horizontal mount
- universal input (90~264 Vac)
- single regulated output from 5~24 Vdc
- over voltage and short circuit protections
- DOE Level VI / CoC Tier 2 efficiency
- 2 MOPP compliant



| MODEL      | output<br>voltage | output<br>current<br>max | output<br>power<br>max | ripple<br>and noise <sup>1</sup><br>max | efficiency<br>level <sup>2</sup> |
|------------|-------------------|--------------------------|------------------------|-----------------------------------------|----------------------------------|
|            | (Vdc)             | (A)                      | (W)                    | (mVp-p)                                 |                                  |
| SWM12-5-E  | 5                 | 2.4                      | 12                     | 100                                     | VI                               |
| SWM12-6-E  | 6                 | 2.0                      | 12                     | 120                                     | VI                               |
| SWM12-9-E  | 9                 | 1.33                     | 12                     | 180                                     | VI                               |
| SWM12-12-E | 12                | 1.0                      | 12                     | 250                                     | VI                               |
| SWM12-15-E | 15                | 0.8                      | 12                     | 250                                     | VI                               |
| SWM12-18-E | 18                | 0.66                     | 12                     | 350                                     | VI                               |
| SWM12-24-E | 24                | 0.50                     | 12                     | 350                                     | VI                               |

Notes: 1. At full load, 100 ~ 240 Vac input, 20 MHz bandwidth oscilloscope, output terminated with a low ESR 47  $\mu$ F electrolytic and 0.1  $\mu$ F multilayer capacitor.  
2. CoC Tier 2 compliant.

**PART NUMBER KEY**


## INPUT

| parameter                 | conditions/description            | min | typ | max   | units |
|---------------------------|-----------------------------------|-----|-----|-------|-------|
| voltage                   |                                   | 90  |     | 264   | Vac   |
| frequency                 |                                   | 47  |     | 63    | Hz    |
| current                   | at 115 Vac, full load             |     |     | 1.0   | A     |
|                           | at 230 Vac, full load             |     |     | 0.5   | A     |
| inrush current            | at 115 Vac, full load, cold start |     |     | 30    | A     |
|                           | at 230 Vac, full load, cold start |     |     | 60    | A     |
| leakage current           | at 240 Vac, 50 Hz                 |     |     | 0.1   | mA    |
| no load power consumption | at 115/230 Vac, 60/50 Hz          |     |     | 0.075 | W     |

## OUTPUT

| parameter       | conditions/description                                                 | min | typ | max | units |
|-----------------|------------------------------------------------------------------------|-----|-----|-----|-------|
| line regulation |                                                                        |     | ±1  |     | %     |
| load regulation |                                                                        |     | ±5  |     | %     |
| start-up time   | at 100 Vac, to 90% of rated output voltage                             |     |     | 3   | s     |
| rise time       | at nominal input voltage, full load, from 10% to 90% of output voltage |     |     | 50  | ms    |
| hold-up time    | at nominal input voltage, full load                                    | 8.3 |     |     | ms    |

## PROTECTIONS

| parameter                | conditions/description          | min | typ | max | units |
|--------------------------|---------------------------------|-----|-----|-----|-------|
| over voltage protection  | output shutdown, auto recovery  |     |     |     |       |
| over current protection  | output shutdown, auto recovery  |     |     | 200 | %     |
| short circuit protection | output shut down, auto recovery |     |     |     |       |

## SAFETY & COMPLIANCE

| parameter            | conditions/description                   | min     | typ   | max | units |
|----------------------|------------------------------------------|---------|-------|-----|-------|
| isolation voltage    | input to output                          |         | 4,000 |     | Vac   |
| isolation resistance | input to output at 500 Vdc for 3 seconds | 50      |       |     | MΩ    |
| safety approvals     | medical TUV EN 60601-1                   |         |       |     |       |
| EMI/EMC              | CE                                       |         |       |     |       |
| MTBF                 | as per MIL-HDBK-217F                     | 100,000 |       |     | hours |
| RoHS                 | 2011/65/EU                               |         |       |     |       |

## ENVIRONMENTAL

| parameter             | conditions/description | min | typ   | max | units |
|-----------------------|------------------------|-----|-------|-----|-------|
| operating temperature |                        | 0   |       | 40  | °C    |
| storage temperature   |                        | -20 |       | 85  | °C    |
| operating humidity    | non-condensing         | 10  |       | 90  | %     |
| storage humidity      | non-condensing         | 5   |       | 90  | %     |
| altitude              |                        |     | 5,000 |     | m     |

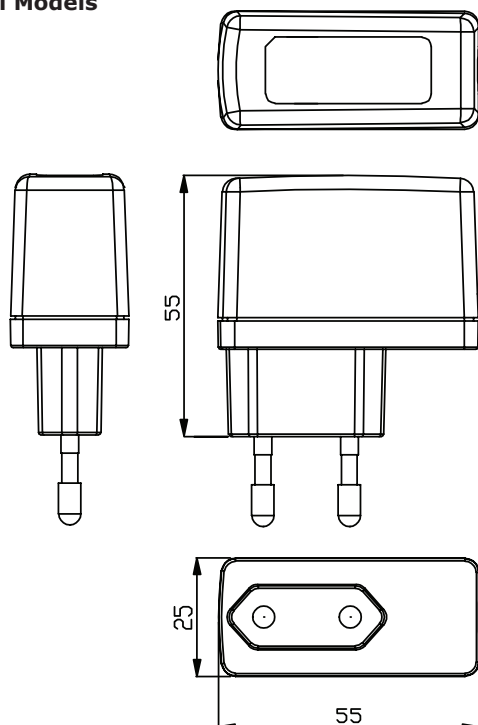
## MECHANICAL

| parameter  | conditions/description                                           | min | typ      | max | units    |
|------------|------------------------------------------------------------------|-----|----------|-----|----------|
| dimensions | horizontal models: 55 x 25 x 55<br>vertical models: 53 x 41 x 46 |     |          |     | mm<br>mm |
| inlet plug | Europe                                                           |     |          |     |          |
| weight     | horizontal models<br>vertical models                             |     | 70<br>75 |     | g<br>g   |
| color      | black                                                            |     |          |     |          |

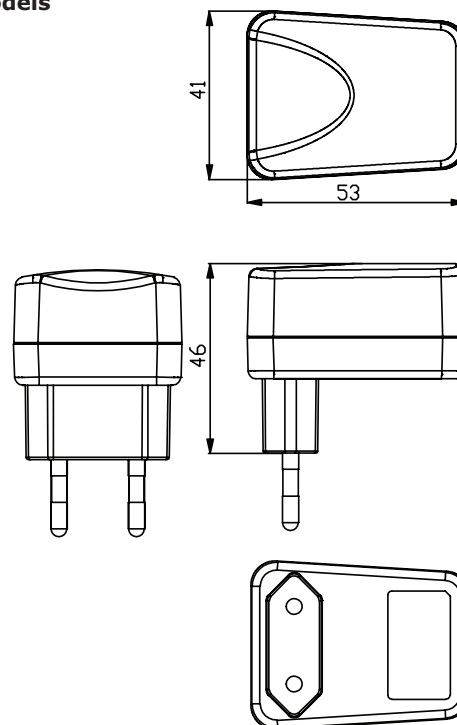
## MECHANICAL DRAWINGS

units: mm  
tolerance:  $\pm 1$  mm

### Horizontal Models



### Vertical Models



## DC CORD

units: mm

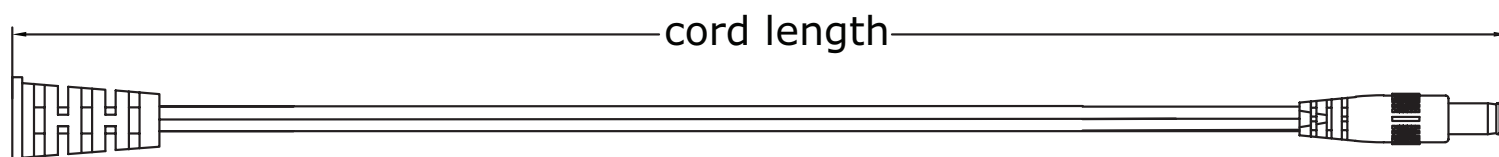


Table 1

| MODEL NO.  | CABLE          | CORD LENGTH       |
|------------|----------------|-------------------|
| SWM12-5-E  | UL2468, 20 AWG | 1,500 mm $\pm 50$ |
| SWM12-6-E  | UL2468, 20 AWG | 1,500 mm $\pm 50$ |
| SWM12-9-E  | UL2468, 20 AWG | 1,500 mm $\pm 50$ |
| SWM12-12-E | UL2468, 22 AWG | 1,500 mm $\pm 50$ |
| SWM12-15-E | UL2468, 22 AWG | 1,500 mm $\pm 50$ |
| SWM12-18-E | UL2468, 24 AWG | 1,500 mm $\pm 50$ |
| SWM12-24-E | UL2468, 24 AWG | 1,500 mm $\pm 50$ |

## DC PLUG TYPE PART NUMBER KEY

**XXX**

**Plug Polarity:**  
 P = Center Positive  
  
 N = Center Negative

**Plug Code:**  
 X = Choose a code from the options below

**Plug Angle:**  
 "blank" = Straight  
 R = Right Angle

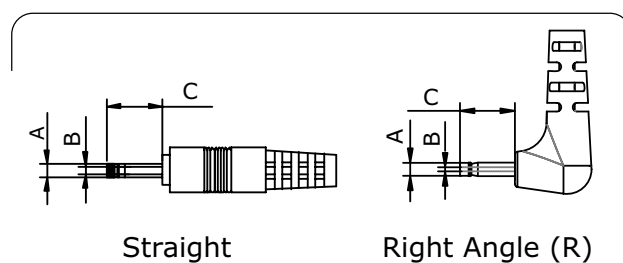
| Plug Polarity |             | Code   |                   | Dimensions (mm)  |      |     | Plug Angle |       |
|---------------|-------------|--------|-------------------|------------------|------|-----|------------|-------|
| Center Pos.   | Center Neg. | Option | Type              | A                | B    | C   | Straight   | Right |
| •             | •           | 5      | Standard          | 5.5              | 2.1  | 9.5 | •          | •     |
| •             | •           | 6      | Standard          | 5.5              | 2.5  | 9.5 | •          | •     |
| •             | •           | 7      | Standard          | 3.5              | 1.35 | 9.5 | •          | •     |
| •             | •           | 8      | Standard          | 3.8              | 1.35 | 9.5 | •          | •     |
| •             | •           | 9      | Standard          | 3.8              | 1.05 | 9.5 | •          | •     |
| •             | •           | 12     | EIAJ-1            | 2.35             | 0.7  | 9.5 | •          | •     |
| •             | •           | 13     | EIAJ-2            | 4.0              | 1.7  | 9.5 | •          | •     |
| •             | •           | 14     | EIAJ-3            | 4.75             | 1.7  | 9.5 | •          | •     |
| N/A           | N/A         | ST     | Stripped & Tinned |                  |      |     | N/A        | N/A   |
| N/A           | N/A         | MUB    | USB               | Micro USB Type B |      |     | •          | N/A   |

Note: 1. Contact CUI for additional plug options

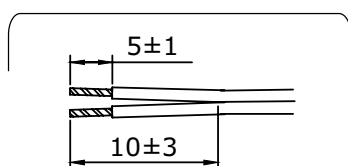
### Standard



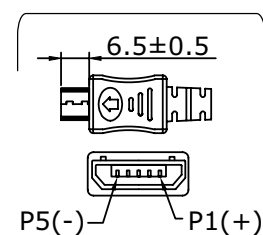
### EIAJ



### Stripped & Tinned



### USB



## REVISION HISTORY

| rev. | description     | date       |
|------|-----------------|------------|
| 1.0  | initial release | 06/27/2017 |

The revision history provided is for informational purposes only and is believed to be accurate.



**Headquarters**  
20050 SW 112th Ave.  
Tualatin, OR 97062  
**800.275.4899**

Fax 503.612.2383  
**cui.com**  
techsupport@cui.com

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

CUI offers a one (1) year limited warranty. Complete warranty information is listed on our website.

CUI reserves the right to make changes to the product at any time without notice. Information provided by CUI is believed to be accurate and reliable. However, no responsibility is assumed by CUI for its use, nor for any infringements of patents or other rights of third parties which may result from its use.

CUI products are not authorized or warranted for use as critical components in equipment that requires an extremely high level of reliability. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

## Данный компонент на территории Российской Федерации

**Вы можете приобрести в компании MosChip.**

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

### Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: [info@moschip.ru](mailto:info@moschip.ru)

Skype отдела продаж:

moschip.ru

moschip.ru\_4

moschip.ru\_6

moschip.ru\_9