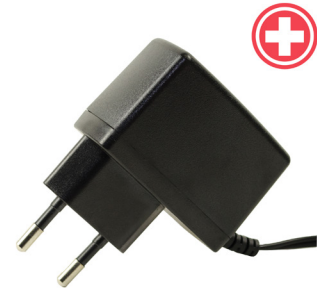


**SERIES:** SWM12-E | **DESCRIPTION:** AC-DC POWER SUPPLY

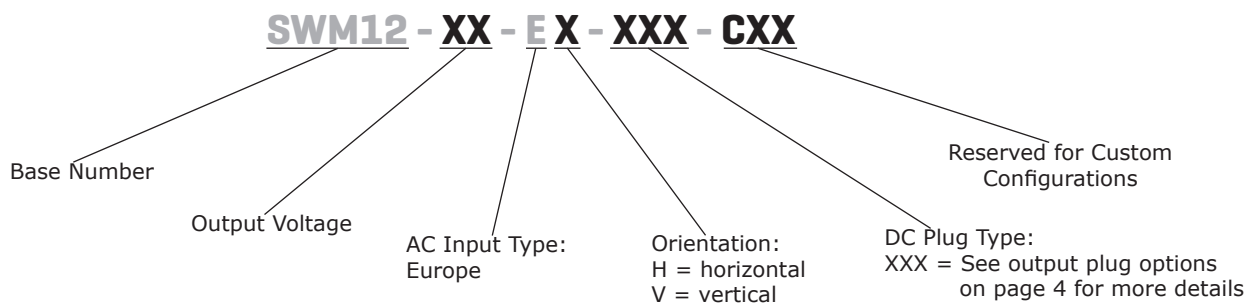
**FEATURES**

- 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 voltage | output current max | output power max | ripple and noise <sup>1</sup> max | efficiency 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<br>at 230 Vac, full load                         |     |     | 1.0<br>0.5 | A<br>A |
| inrush current            | at 115 Vac, full load, cold start<br>at 230 Vac, full load, cold start |     |     | 30<br>60   | A<br>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     |

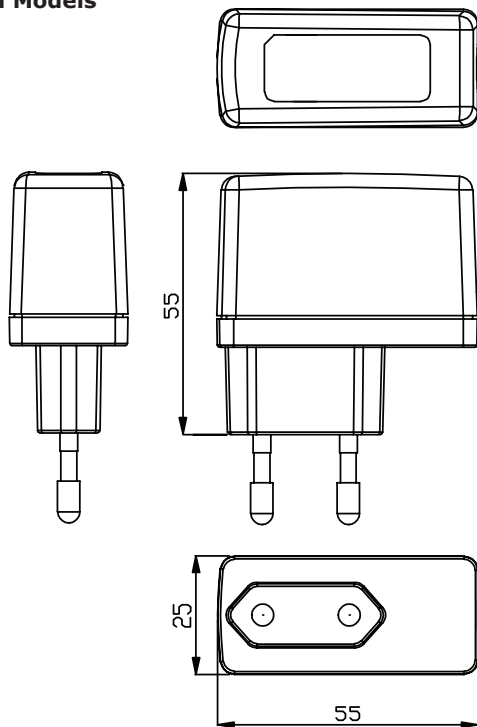
## MECHANICAL

| 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  |     |          |     |          |

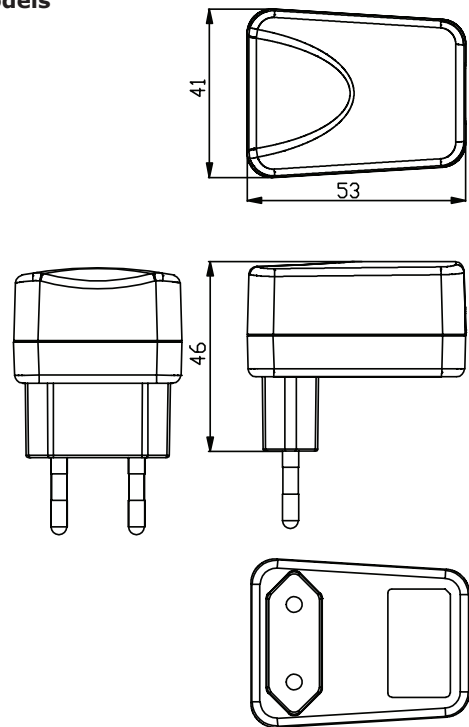
## MECHANICAL DRAWINGS

units: mm  
tolerance: ±1 mm

### Horizontal Models



### Vertical Models



## DC CORD

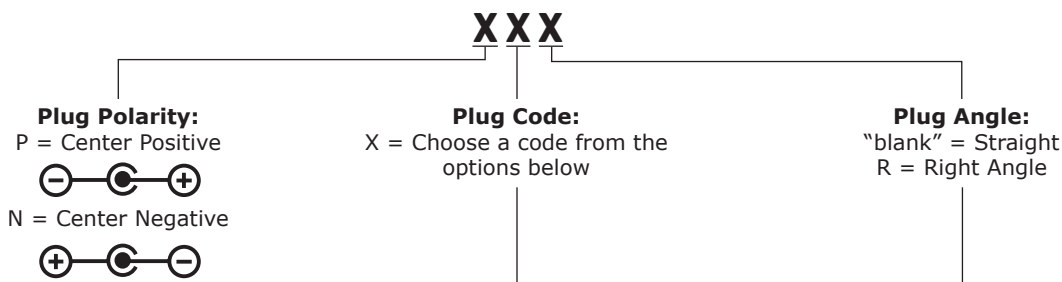
units: mm



Table 1

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

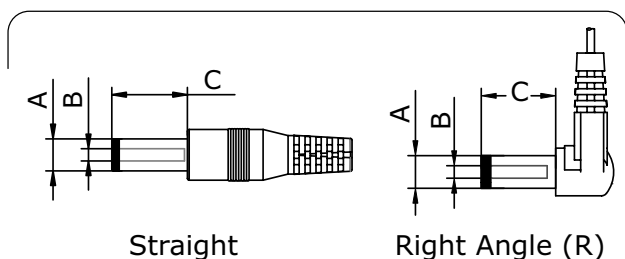
## DC PLUG TYPE PART NUMBER KEY



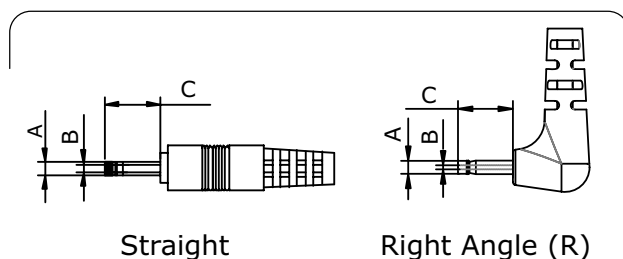
| Plug Polarity |             | Code   |                   | Dimensions (mm)  |      |     | Plug Angle |       |
|---------------|-------------|--------|-------------------|------------------|------|-----|------------|-------|
| Center Pos.   | Center Neg. | Option | Type              | A                | 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

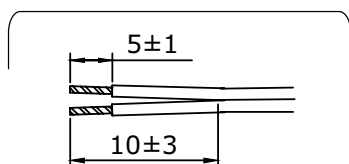
### Standard



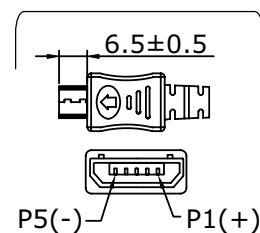
### EIAJ



### Stripped & Tinned



### USB



## REVISION HISTORY

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| 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.



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.