# ESSEN®

### SWITCH MODE POWER SUPPLY

CEPS - SERIES



The CEPS series of AC-DC Switch Mode Power Supplies (SMPS) from Essen are compact power supplies that are upto 40% smaller than the earlier EPS series. These universal input (90-270ACV, 50-60 Hz) power supplies are. rugged SMPS having better efficiency and extremely low no-load power consumption (<0.5W) which is a very strict requirement for European, American and other developed markets. The CEPS series has complete protections such as short circuit, overload, and over voltage. Industry standard output voltages 5V or 12V or 24V DC are available for all power ratings thus offering a large selection range to the customer. CEPS series supplies are intended for professional needs of industry like packaging, material handling, conveyors, sensor automation among many others.

#### Features:

- Universal input voltage range (90-270 VAC, 50/60 Hz)/(110 360 VDC) for all models
- No audible noise.
- 40% size reduction over earlier EPS series.
- Inbuilt EMI filter complying with EN55022- class B emissions
- · Overload and short circuit protected,
- Overvoltage and over temperature protection in some models
- Very low no load power consumption (GREEN MODE POWER SUPPLY)
- High reliability using 105
   C rated electrolytic capacitors.
- Cooling by free air convection

#### Specifications:

Input voltage : 90-270VAC (50 – 60Hz) /(110 – 360VDC) in all models Output Voltage :5V or 12V or 24V DC, (Adjustable with inbuilt potentiometer)

Line regulation : Better than 1% from low line to high line

Load regulation: Within 1% of output from 0% to 100% rated load.

Protection : Over-Load protection 110-150%.

: Short circuit protected, automatic recovery when short circuit removed.

Leakage current : Less than 0.75 mA at 230V AC input for all models

Inrush Current: : 25A at 110V, 50A at 230V. (Max)

Isolation : 1500VAC for 1 minute between Input and output

1500VAC for 1 minute between Input and Safety Earth 500VAC for 1 minute between output and Safety Earth

Insulation Resistance: Tested for 100 Mohm at 500 VDC

Wire Connections : 14-22 AWG using modular terminal block (5.08 mm pitch),

EMI /EMC : Tested according to EN55022 Class B

Hold up Time : Minimum 20 msec at rated load

Mounting : depends on individual model (look at detailed specifications)

Temperature : -20 to 85 °C. Working temperature -10 to 50 °C

(20-95% humidity (non-condensing)

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Specifications CEPS-15-xx:

Centeations CEI 5-15-A	
Input Voltage Range	Universal input 90-270VAC (50 – 60Hz) /(120 – 360VDC)
Inrush Current	25A/ 115VAC, 50A at 230VAC input
Overload protection	110-150% (hiccup mode, automatic recovery when overload removed)
Dimensions	78(L) x 51(W) x 30(H) mm
Mounting	2 x M3 screws (bottom mounting or side mounting)
Cooling	Natural convection cooling
Connection	-Blank: Modular terminals (5.08mm Pitch) 14AWG (max) - QD option: Male/Female quick disconnect terminals (5.08mm pitch, 14AWG)
Weight	170 g

Part No.	Output voltage	Output current range	Ripple	Efficiency
CEPS-15-5	5VDC (+/- 0.1 V)	0-3A	100mV	76%
CEPS-15-12	12 VDC (+/-0.3 V)	0-1.25A	100 mV	77%
CEPS-15-24	24 VDC (+/- 0.6 VDC)	0 - 0.7A	150 mV	79%

Specifications CEPS-25-xx:

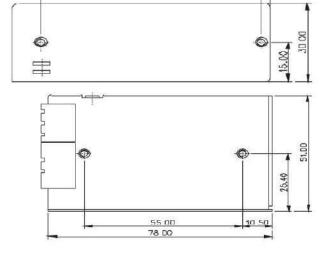
centeations CEI 5-23-x	Α.
Input Voltage Range	Universal input 90-270VAC (50 – 60Hz) /(120 – 360VDC)
Inrush Current	25A/115VAC, 50A at 230VAC input
Overload protection	110-150% (hiccup mode, automatic recovery when overload removed)
Dimensions	78(L) x 51(W) x 30(H) mm
Mounting	2 x M3 screws (bottom mounting or side mounting)
Cooling	Natural convection cooling
Connection	Blank: Modular terminals (5.08mm Pitch) 14AWG (max) - QD option: Male/Female quick disconnect terminals (5.08mm pitch, 14AWG)
Weight	170 g

Part No.	Output voltage	Output current range	Ripple	Efficiency
CEPS-25-5	5 VDC (+/- 0.1 V)	0 - 5 A	100 mV	74%
CEPS-25-12	12 VDC (+/- 0.3 V)	0-2.1 A	100 mV	77%
CEPS-25-24	24 VDC ((+/- 0.6 V))	0 – 1.1A	250 mV	79%

#### **Dimensions:**

(CEPS - 15 - xx)

(CEPS - 25 - xx)



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## SWITCH MODE POWER SUPPLY

**CEPS - SERIES** 



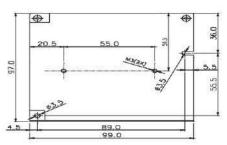
Specifications CEPS-50-xx:

Input Voltage Range	Universal input 90-270VAC (50 – 60Hz) /(120 – 360VDC)
Inrush Current	25A/115VAC, 50A at 230VAC input
Overload protection	110- 150% (hiccup mode, automatic recovery when overload removed)
Dimensions	99(L) x 98(W) x 36(H) mm
Mounting	2 x M3 screws (bottom mounting or side mounting)
Cooling	Natural convection cooling
Connection	Barrier terminal block (9.5mm Pitch) 14AWG (max)
Weight	320 g

Part No.	Output voltage (adjustable range)	Output current range	Ripple	Efficiency
CEPS-50-5 **	5VDC (4.2 – 6V)	0-10A	100mV	79%
CEPS-50-12	12 VDC (10 – 14V)	0-4.2A	100 mV	82%
CEPS-50-24	24 VDC (21.6 – 26.4 VDC)	0-2.1A	250 mV	86%

87.0 87.0 87.0 88.0 18.0 74.0±0.12

Dimensions: (CEPS -50-xx)

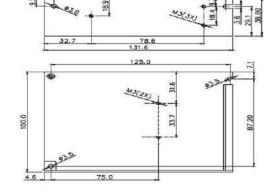


## Specifications CEPS-75-xx:

Input Voltage Range	Universal input 90-270VAC (50 – 60Hz) /(120 – 360VDC)
Inrush Current	25A/115VAC, 50A at 230VAC input
Overload protection	110- 150% (hiccup mode, automatic recovery when overload removed)
Dimensions	131(L) x 100(W) x 39(H) mm
Mounting	2 x M3 screws (bottom mounting), 3 x M3 (side mounting)
Cooling	Natural convection cooling
Connection	Barrier terminal block (9.5mm Pitch) 14AWG (max)
Weight	410 g

Part No.	Output voltage (adjustable range)	Output current range	Ripple	Efficiency
CEPS-75-5 **	5VDC (4.2 – 6V)	0 - 15A	80 mV	79%
CEPS-75-12	12 VDC (10 – 14V)	0 - 6.3A	100 mV	84.5%
CEPS-75-24	24 VDC (21.6 – 26.4 VDC)	0 - 3.2A	120 mV	86.5%

## Dimensions: (CEPS -75-xx)



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<sup>\*\*:</sup> Under Development



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**CEPS - SERIES** 

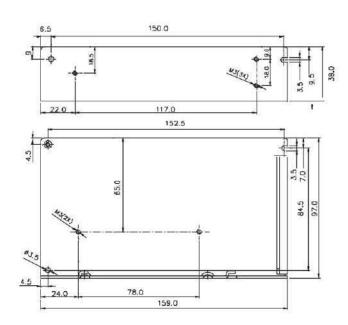
Specifications CEPS-100-xx:

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Input Voltage Range	Universal input 90-270VAC (50 – 60Hz) /(120 – 360VDC)
Inrush Current	25A/115VAC, 50A at 230VAC input
Overload protection	110-150% (hiccup mode, automatic recovery when overload removed)
Dimensions	159(L) x 97(W) x 38(H) mm
Mounting	2 x M3 screws (bottom mounting) 3 x M3 (Side mounting)
Cooling	Natural convection cooling
Connection	Barrier terminal block (9.5mm Pitch) 14AWG (max)
Weight	510 g

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Part No.	Output voltage (adjustable range)	Output current range	Ripple	Efficiency
CEPS-100-5 **	5VDC (4.2 – 6V)	0-18A	80 mV	77%
CEPS-100-12	12 VDC (10 – 14V)	0-8.5A	100 mV	81%
CEPS-100-24	24 VDC (21.6 – 26.4 VDC)	0-4.5A	120 mV	84%

## Dimensions: (CEPS -100-xx)



\*\*: Under Development