



wattwatchers  
DIGITAL ENERGY

# CT Specifications

March 2017 - Version 1.1

# Version control

This document contains technical and configuration specifications for all Auditor CT options.

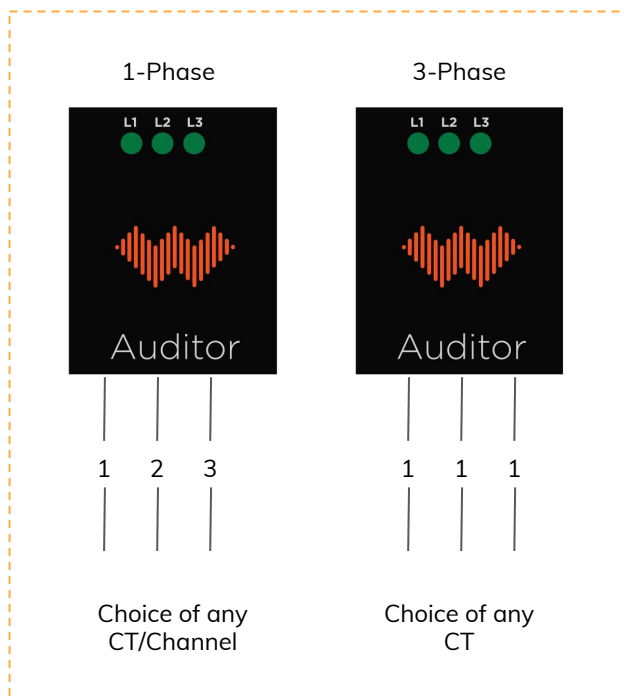
Version 1.0	Initial release - November 2016
Version 1.1	Updated images



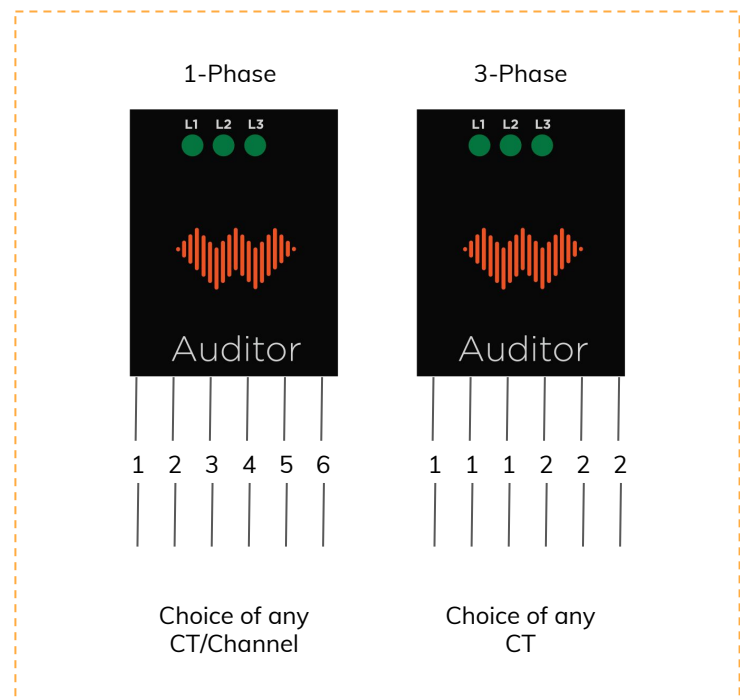
Choice of any CT/Channel

Choice of any CT/Channel

## Auditor 3



## Auditor 6



## CT Clamps



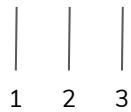
600 Amps

400 Amps

60 Amps

## Auditor 3

Choice of any CT/Channel



1-Phase

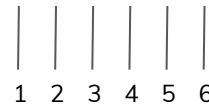
Choice of any CT



3-Phase

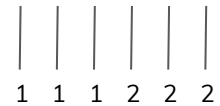
## Auditor 6

Choice of any CT/Channel



1-Phase

Choice of any CT/Channel



3-Phase



# 60 Amp Split-core Current Transformer - ECS1060-L72G

## Electrical Specifications

Rated primary current (Amp.) 50/60 Hz	60nom (1~75A max)
Turn ration	Np:Ns = 1:750
Current ratio	60A/80mA
Accuracy @RL ≤ 1Ω	1%
Phase error at rated current range	≤ 2°
Operating temperature range	-40 ~ 65°C
Storage temperature range	-40 ~ 65°C
Dielectric Withstanding Voltage (Hi-pot)	2.5KV/1mA/1min
Insulation resistance	DC500V/100MΩ min

## Mechanical Specifications

CUP	PBT
Opening Dimensions	> 10mm
Output Type	UL2464 24AWG white jacket PVC wire
Approximate Weight	60g



The ECS1060-L72G split-core current transformer is engineered specifically for the Auditor series of real-time energy metering internet appliances.

## Material List

No	Item	Description	UL Card	Material	Note
1	Core	UU20.6	/	Ferrite Core	
2	Case	PP6331	E85783	PP	
3	Bobbin	D202G15	E107536	PBT	
4	Wire	2UEW	E164502	UEW/U	
5	Lead Wire	UL2464/24AWG	E301305	PVC	1.8m white jacket double insulation
6	Solder	99.3%	/	Sn	



# 120 Amp Split-core Current Transformer - ECS16120-L72

## Electrical Specifications

Rated primary current (Amp.) 50/60 Hz	120A
Turn ration	Np:Ns = 1:1200
Current ratio	120A/100mA
Accuracy @RL $\leq 1\Omega$	0.5%
Phase error at rated current range	$\leq 1^\circ$
Operating temperature range	-40 ~ 70°C
Storage temperature range	-45 ~ 85°C
Dielectric Withstanding Voltage (Hi-pot)	2.5KV/1mA/1min 5kVp
Insulation resistance	DC500V/100M $\Omega$ min

## Mechanical Specifications

CUP	PA66 (UL64-V0)
Opening Dimensions	> 16mm
Output Type	UL2464 24AWG white jacket PVC wire
Approximate Weight	100g



The ECS16120-L72 split-core current transformer is engineered specifically for the Auditor series of real-time energy metering internet appliances.

## Material List

No	Item	Description	UL Card	Material	Note
1	Core		/	Ferrite Core	
2	Housing	PA66	E135714	PA66	
3	Bobbin	PBT3883	E107536	PBT	
4	Wire	2UEW	E164502	UEW/U	
5	Lead Wire	UL1015/24AWG	E301305	PVC	1.8m white jacket double insulation
6	Solder	99.3%	/	Sn	
7	Tape	Mylar	E178169	PET	



# 400 Amp Split-core Current Transformer - ECS25400-L120A

## Electrical Specifications

Rated primary current (Amp.) 50/60 Hz	400A (1 - 480A)
Turn ration	Np:Ns = 1:4000
Current ratio	400A/100mA
Accuracy @RL $\leq 1\Omega$	0.5%
Phase error at rated current range	$\leq 1^\circ$
Operating temperature range	-40 ~ 70°C
Storage temperature range	-45 ~ 85°C
Dielectric Withstanding Voltage (Hi-pot)	4KV/1mA/1min 5kVp
Insulation resistance	DC500V/100M $\Omega$ min

## Mechanical Specifications

CUP	PC/ABS (UL94V0)
Opening Dimensions	> 25mm
Output Type	UL2464 24AWG white jacket PVC wire
Approximate Weight	185g



The ECS25400-L120A split-core current transformer is engineered specifically for the Auditor series of real-time energy metering internet appliances.

## Material List

No	Item	Description	UL Card	Material	Note
1	Core	UU41	/	Silicon Steel	
2	Case	PP6331	E85783	PC/ABS	
3	Bobbin	D202G15	E107536	PBT	
4	Wire	2UEW	E164502	UEW/U	
5	Lead Wire	UL2464/24AWG	E301305	PVC	1.8m white jacket double insulation
6	Diode	6.8V	/	P6KE6.8CA	
7	Solder	99.3%	/	Sn	

# 600 Amp Split-core Current Transformer - ECS36600-L120C

## Electrical Specifications

Rated primary current (Amp.) 50/60 Hz	600A (1 - 720A)
Turn ration	Np:Ns = 1:6000
Current ratio	600A/100mA
Accuracy @RL ≤ 1Ω	0.5%
Phase error at rated current range	≤ 1°
Operating temperature range	-40 ~ 70°C
Storage temperature range	-45 ~ 85°C
Dielectric Withstanding Voltage (Hi-pot)	2.5KV/1mA/1min 5kVp
Insulation resistance	DC500V/100MΩ min

## Mechanical Specifications

CUP	PA66
Opening Dimensions	> 36mm
Output Type	UL2464 24AWG white jacket PVC wire
Approximate Weight	300g



The ECS36600-L120C split-core current transformer is engineered specifically for the Auditor series of real-time energy metering internet appliances.

## Material List

No	Item	Description	UL Card	Material	Note
1	Core	UU64	/	Silicon Steel	
2	Case	PP66	E235269	PA66	
3	Bobbin	D202G15	E107536	PBT	
4	Wire	2UEW	E164502	UEW/U	
5	Lead Wire	UL2464/24AWG	E301305	PVC	1.8m white jacket double insulation
6	Diode	7.5V	/	P6KE7.5CA	
7	Solder	99.3%Sn0.7%Cu	/	Sn	



## Electrical Specifications

Rated primary current (Amp.) 50Hz	3kA (larger to order)
Rated primary current (Amp.) 60Hz	2.5kA (larger to order)
Accuracy @RL $\leq 1\Omega$	1%
Operating temperature range	-40 ~ 70°C
Storage temperature range	-45 ~ 85°C
Dielectric Withstanding Voltage (Hi-pot)	2.5KV/1mA/1min 5kVp
Insulation resistance	600Vrms (Category IV), 1000Vrms (Category III)



The MFC150-350 Rogowski Coil is engineered specifically for the Auditor series of real-time energy metering internet appliances.

## Mechanical Specifications

Color	Yellow
Construction	Fully shielded, excellent adjacent field rejection
Coil Diameter	8mm
Coil Length	350mm
Cable	2 x 0.15mm + shield, 2m long
Approx. Weight	150g includes 2m cable

## Environmental Specifications

Operating Temperature	-30 to +80°C
Protection	IP67

## Standards Compliance

Operating Temperature	EN61010-1, EN61010-031, EN61010-2-031, EN61010-2-032
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