

Clamp Type AC Current Sensors

For energy management systems CCT series

Expansion of the line-up. There is a movement to introduce BEMS, FEMS and CEMS by consideration of the global environment and the point of view of energy conservation-oriented. Its new product 600A model, the optimization of the shape using a high-performance ferrite core of the new development has been carried out. As a result it is possible to correspond to the new demand. By the Nominal Current Transformation Ratio of the series unification, the further standardization of circuit parts is enabled.



Photo : Type -00

- 56(L)x67(W)x96mm(H) Small size package
- Internal clamp diameter of $\Phi 36\text{mm}$ (Nom)
- Nominal current transformation ratio of 3000:1 *
- Clamp type for easy installation on existing power equipment.
- Accommodates automatic processes from wire wrapping and winding to soldering, ensuring high-quality and stable supply.
- Equipped with a built-in open-circuit protective device.
- Product compatible with RoHS directive.
- Compatible with lead-free solders.

■ APPLICATION

For energy management systems such as BEMS/FEMS/CEMS

■ Electrical Characteristics

Part No.	CCT406393-600-36-00	CCT406393-600-36-02	
Applied current (50/60Hz) / Arms	1.0 to 600		
Maximum allowed current / Arms continuous	700		
Internal clamp section diameter. (Nom)	36mm		
Nominal current transformation ratio	3000 : 1		
Output current accuracy	200.0mA \pm 1% (600A, 50/60Hz)		
Phase difference	0.35 \pm 0.2 $^\circ$ (10 Ω ,600A, 50/60Hz)		
Secondary winding resistance	64 Ω		
Open-circuit protection	7.5V Clamp element		
Output connector	Pin contact	SYM-001T-P0.6 (JST)	SPAL-001T-P0.5 (JST)
	Receptacle housing	SMR-02V-B (JST)	PALR-02VF (JST)
Adaptation connector	Socket contact	SHF-001T-0.8BS (JST)	SPHD-001T-P0.5 (JST)
	Plug housing	SMP-02V (JST)	PAP-02V-S (JST)
Output lead wire	AWG22 155mm		
Allowable desorption number of times	About 100 times		
Withstanding Voltage	AC2200V, 1min. (Between outer case and output)		
Insulation Resistance	100M Ω Over (DC500V)		
Flame retardant grade	UL 94 V-0		
Temperature range	Operating temp.**	-20 to +60 $^\circ\text{C}$	
	Storage temp.***	-30 to +60 $^\circ\text{C}$	
External L x W x H (Max.) / mm	56 x 67 x 96		
Individual weight	535 g		
Packaging quantity (pieces/box)	8		

* 9000:1 is general for nominal current transformation ratio of the said class product. When a product of 3000:1 is used for this, it's possible to set load resistance (RL) to only one.

Operating temperature range includes self-temperature rise. *The Storage temperature range is for after the assembly.

"CCT272440-80-10" type

Added 80A type "CCT272440-80-10"(Internal clamp section diameter of 10mm) to the line-up. It's produced by the same magnetic material like 30A type and 100A type.



Photo : Type -00

Photo : Type -02

- 30.5(L)x27.5(W)x41.5mm(H) Small size package
- Internal clamp diameter of $\Phi 10\text{mm}$ (Nom)
- Nominal current transformation ratio of 3000:1 *
- Clamp type for easy installation on existing power equipment.
- Accommodates automatic processes from wire wrapping and winding to soldering , ensuring high-quality and stable supply.
- Equipped with a built-in open-circuit protective device.
- Product compatible with RoHS directive.
- Compatible with lead-free solders.

■ APPLICATION

For energy management systems such as HEMS/BEMS/FEMS/CEMS

■ Electrical Characteristics (LINE-UP)

Part No.	Type -00	CCT406393-600-36-00	CCT354571-300-24-00	CCT323047-100-16-00	CCT272440-80-10-00	CCT261631-30-06-00
	Type -02	CCT406393-600-36-02	CCT354571-300-24-02	CCT323047-100-16-02	CCT272440-80-10-02	CCT261631-30-06-02
Applied current (50/60Hz) / Arms		1.0 to 600	0.1 to 300	0.1 to 100	0.1 to 80	0.1 to 30
Maximum allowed current / Arms continuous		700	400	200	120	50
Internal clamp section diameter. (Nom)		36mm	24mm	16mm	10mm	6mm
Nominal current transformation ratio		3000:1				
Output current accuracy		200.0mA \pm 1% (600A, 50/60Hz)	100.0mA \pm 1% (300A, 50/60Hz)	33.3mA \pm 1% (100A, 50/60Hz)	26.6mA \pm 1% (80A, 50/60Hz)	10mA \pm 1% (30A, 50/60Hz)
Phase difference		0.35 \pm 0.2 $^\circ$ (10 Ω , 600A, 50/60Hz)	0.7 \pm 0.5 $^\circ$ (10 Ω , 300A, 50/60Hz)	1.2 \pm 0.8 $^\circ$ (10 Ω , 100A, 50/60Hz)	1.7 \pm 1.0 $^\circ$ (10 Ω , 80A, 50/60Hz)	3.0 \pm 1.5 $^\circ$ (10 Ω , 30A, 50/60Hz)
Secondary winding resistance		64 Ω	103 Ω	285 Ω	352 Ω	492 Ω
Open-circuit protection		7.5V Clamp element				
Output connector	Type -00	Pin Contact	SYM-001T-P0.6 (JST)			
		Receptacle Housing	SMR-02V-B (JST)			
	Type -02	Pin Contact	SPAL-001T-P0.5 (JST)			
		Receptacle Housing	PALR-02VF (JST)			
Adaptation connector	Type -00	Socket Contact	SHF-001T-0.8BS (JST)			
		Plug Housing	SMP-02V (JST)			
	Type -02	Socket Contact	SPHD-001T-P0.5 (JST)			
		Plug Housing	PAP-02V-S (JST)			
Output lead wire		AWG22 155mm	AWG22 140mm	AWG22 150mm	AWG22 155mm	AWG22 160mm
Allowable desorption number of times		About 100 times				
Withstanding Voltage		AC2200V , 1min. (Between outer case and output)				
Insulation Resistance		100M Ω Over (DC500V)				
Flame retardant grade		UL 94 V-0				
Temperature range	Operating temp.**	-20 to +60 $^\circ\text{C}$				
	Storage temp.***	-30 to +60 $^\circ\text{C}$				
External L x W x H (Max.) / mm		56 x 67 x 96	39.5 x 48.5 x 72	35 x 32.5 x 47.5	30.5 x 27.5 x 41.5	28.6 x 18.5 x 32
Individual weight		535 g	221 g	70 g	41 g	24 g
Packaging quantity (pieces/box)		8	24	36	36	60

Operating temperature range includes self-temperature rise. *The Storage temperature range is for after the assembly.

RoHS Directive Compliant Product: See the following for more details related to RoHS Directive compliant products. <http://product.tdk.com/en/environment/rohs/>

All specifications are subject to change without notice.

[Code : L2054 : 2702 : P2U]



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