

CURRENT SENSOR APPLICATION



CURRENT SENSOR Application

**PV Micro-inverter
& Grid Application**
微型逆变器 & 电网应用



Founded in 2013, Sinomags is dedicated to the development and production of magnetic sensors. we have four subsidiary companies in Germany, Wuxi, Ningbo, and Bengbu.

The company's R&D team consists of more than 250 R&D personnel with a number of experts in the field of magnetism and power electronics as the core, covering the design development and production of the whole industrial chain from xMR wafers to sensor modules.

1200/250 employees

1200 employees, 250 R&D staff

500 Mpcs

Wafer capacity 500 million pcs/year

100 Mpcs

2022 **current sensor** production capacity exceeds 100 million

250 Mpcs

Cumulative **current sensor** shipments of approximately 250 million units



- **Wuxi**
R&D & Headquarter
- **Bengbu**
Production for Current Sensor
- **Ningbo**
R&D & Production for Current Sensor
- **Mainz**
Waferfab for magnetic sensor
- **Wetzlar**
R&D Center for magnetic sensor

PV Micro-inverter


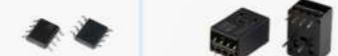


Low cost

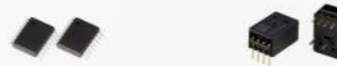
Small size

High frequency

Micro-inverter (Power: 0.5~2 kw)

AFCI Function		MPPT function			
Applied Current Sensor					
PN-01	SCT-CTS/P1	PN-01	STK-616YM		
		PN-02	STK-HD/SG		
DCR	0.4~1.0	Ω	Vcc	3.3, 5	V
Induc. L	0.4~0.5	mH	I _{pn}	3~65	A
I _{PM}	50	A	I _{pm}	7.5~65	A
			F _{band}	350~600	kHZ
			t _r	0.4~1.2	μ s
			Acc.	1.5~3.5	%FS

Micro-inverter (Power: 0.5~2 kw)

AC current					
Applied Current Sensor					
PN-01	STK-616TM				
PN-02	STK-616KM				
PN-03	STK-HD/SG				
Vcc	3.3, 5		V		
I _{pn}	3~65		A		
I _{pm}	7.5~65		A		
F _{band}	600~1500		kHZ		
t _r	0.3~0.9		μ s		
Acc.	1.5~3.5		%FS		

Grid Application




Low cost

Full range

High frequency

(Static Var Generator) SVG

Static Var Generator		
Applied Current Sensor		
PN-01	STB-LF	
PN-02	STB-LF/G	
Vcc	± 15	V
I _{pn}	100	A
I _{pm}	200	A
F _{band}	100~1000	kHZ
t _r	0.2~0.5	μ s
Acc.	3	%FS

(Active power filter) APF

Active power filter		
Applied Current Sensor		
PN-01	STK-BS1	
PN-02	STK-BS/S1	
PN-03	STK-BS/T	
PN-04	STB-LA	
Vcc	5~15	V
I _{pn}	50~1500	A
I _{pm}	150~2500	A
F _{band}	25~150	kHZ
t _r	0.5~5	μ s
Acc.	0.5~1	%FS