



HFCH-C29 OPEN LOOP CURRENT TRANSDUCER



Features

- Low insertion losses
- Easy installation
- Low power consumption
- High immunity to external interference

Applications

Uninterruptible Power Supplies (UPS), Static converters for DC motor drives, AC variable speed drives and servo motor drives, Solar inverters

SCOPE OF APPLICATION

HFCH-C29 family is suited for the electronic measurement of currents: DC, AC, pulsed, with galvanic separation between the primary circuit and the secondary circuit.

ELECTRICAL DATA (Ta=25°C)

Parameter	Sym	HFCH-C29/100	HFCH-C29/150	HFCH-C29/200	HFCH-C29/300	HFCH-C29/400	HFCH-C29/500	HFCH-C29/600	HFCH-C29/800	HFCH-C29/900	HFCH-C29/1000
Primary nominal rms current	I_{PN}	100A	150A	200A	300A	400A	500A	600A	800A	900A	1000A
Primary current, measuring range	I_{PM}	110A	165A	220A	330A	440A	550A	660A	880A	990A	1000A
Rated output voltage	V_{OUT}	$\pm 2 \pm 0.02V @ \pm I_{PN}, R_L=10K\Omega, T=25^\circ C$									
Electrical offset voltage	V_{OE}	$V_c/2 \pm 0.02 V @ I_p=0, T=25^\circ C$									
Error	X	$\leq \pm 1\% @ I_{PN}$									
Linearity error	ϵ_L	$\leq \pm 0.8\% @ I_{PN}$									
Temperature coefficient of V_{OE}	TCV_{OE}	$\leq \pm 0.2 mV/^\circ C$									
Temperature coefficient of V_{OUT}	TCV_{out}	$< \pm 0.03 \%/^\circ C$									
Response time	T_r	$\leq 5 \mu s$									
Frequency bandwidth (-3 dB)	BW	DC---50kHz									
Load resistance	V_c	$\geq 4.7 k\Omega$									
Supply voltage ($\pm 5\%$)	I_c	5V									
Current consumption@ +5 V	T_A	$< 15mA$									
Operating temperature	T_A	$-40^\circ C \sim 105^\circ C$									
Storage temperature	T_S	$-40^\circ C \sim 105^\circ C$									

INSULATION COORDINATION

Insulation resistance	R_{INS}	DC500V, >1000MΩ
Insulation strength	U_d	4.5kVa.c., 50/60Hz, 1min
Impulse withstand voltage 1.2/50 μs	V_{NI}	8 KV
Clearance	d_{CI}	8.5 mm
Creepage distance	d_{CP}	8.5 mm

- Notes:**
- 1) If the V_c is less than the minimum value, the measurement will be inaccurate; if the V_c is more than the maximum value, the measurement device may fail permanently.
 - 2) The electrical offset voltage and the output voltage are linearly related to V_c , so the accuracy of V_c should be ensured as far as possible when applied.
 - 3) V_{OUT} is positive when I_p flows in the direction of the arrow.
 - 4) Wave soldering profile : maximum 260°C for 10 s
 - 5) The primary busbar fixed in the center of aperture is recommended. The position of busbar has impact on the accuracy of transducer.



HONGFA CURRENT TRANSFORMER
ISO9001 CERTIFIED

2024 Rev. 1.00

ORDERING INFORMATION

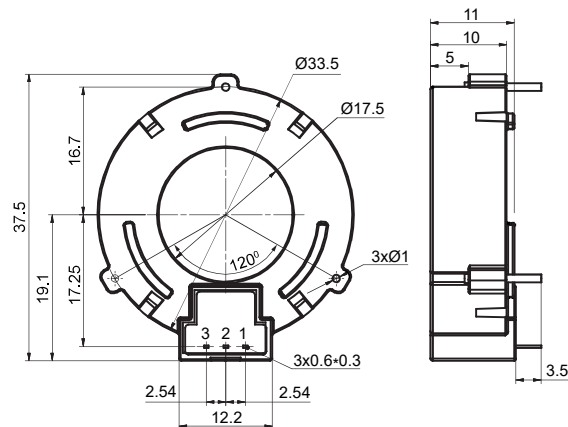
	HFCH	-C	29	□□□	-V	2	-S	5	(XXX)
Product Part NO.	CH:Hall effect sensor								
Working Principle	C: Programmable Sensor								
Sequence number	29: 29								
Nominal current	100:100A 150:150A 200:200A 300:300A 400:400A 500:500A 600:600A 800:800A 900:900A 1000:1000A								
Output method	V: Voltage output								
Typical output value	2: 2V								
Operating Voltage Mode	S:Single power supply								
Typical operating voltage	5: 5VDC								
Special code ¹⁾	XXX: Customer special requirement								

Notes: 1) The customer special requirement express as special code after evaluating by Hongfa.

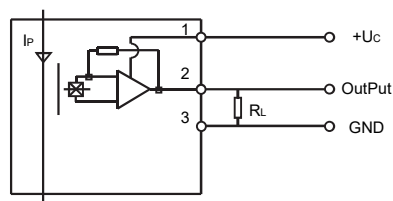
OUTLINE DIMENSIONS, WIRING DIAGRAM

Unit: mm

Outline Dimensions



Wiring Diagram



Notes:

Pin 1	5V
Pin 2	0V
Pin 3	V _{out}

NOTES:

- 1) To avoid using current transformer under strong magnetic field, the external magnetic field will cause the accuracy of current transformer to change.
- 2) We could not evaluate all the performance and all the parameters for every possible application field and environment. Thus the user should be in a right position to choose the suitable produce for their own application. If there is any query, please contact HKG for the technical service. However, it is the user's responsibility to determine which product should be used only.
- 3) Operating temperature range in this specification refers to the maximum tolerable temperature range under specific load conditions.
- 4) To maintain the performances of current transformers, please do not make the current transformer drop or be shocked strongly.
- 5) All the performance data listed in the datasheet are the initial values tested under standard testing condition.
- 6) HKG reserves the right to change the product, the customer should confirm this specification before placing the order for the first time, may request us to provide the new specification if necessary.