BRIEF INTRODUCYION

The Transformer Division of Jiangsu ACREL CO.,LTD is mainly responsible for development and production of electric collection device, including AKH–0.66 series current transformer, BR Series Rogowski coil transducer, BA series AC current sensors, BD series power transmitter,Hall sensors.

In order to standardize management and further improve production quality and efficiency, the division use information management system based on ERP and MES to achieve paperless process in the production workshop. It have a fully functional product testing center to carry out environmental, electromagnetic compatibility, security, reliability and other tests. Our manufacturing process strictly enforce the ISO9001 management standards,which can provide protection for the product industrialization and large–scale implementation.

The division introduced domestic and foreign advanced winder, automatic transformer tester, ultrasonic automatic welding machines, automatic sealing machine, high–current DC source, automatic jet shrink packaging machines and other equipments. The RoHS workshop was established in 2014 and firstly introduced the lead–free technology, which made the product quality have a qualitative leap and greatly improve the competitiveness of the products.As well as it provide the basic condition for ACREL products smoothly entering the European and American developed countries market.

The products of division meet the international standards of IEC/EN61869–2：2012.has obtained quite a lot major international certificates as CE,TUV,as well as China domestic certificates like CMC.

The Products of the Power sensor division of Jiangsu ACREL are widely used in the semiconductor industry, metallurgical industry, petrochemical industry, construction industry, the state grid, power plant project, light industry, national defense and other industries, which have won the good market reputation.

CONTENTS

1 AKH–0.66 series current transformer

● General

Current Transformer (CT) is used to transform the high AC current to small easily manageable values.They are connected with the Panel Meter or Relay and they can help to measure the current or protect the equipments.Low voltage current transforms are manufactured as of two types for measuring CT and protection CT.This catalog is mainly for measuring CT.

● Measuring CT

Measuring current transforms are constructed to feed on low voltage apparatus such as measuring instruments, relays, watt–hour meters(kW meter) and these type of current transforms are mainly used 0.2,0.5 and 1 class to transfer the current from highest rated secondary current.

● Reference standares

IEC/EN61869–1,IEC/EN61869–2

● Ambientdit conditions:

Operating temperature:–25℃–+50℃

Storage temperature:–40℃–+80℃

Relative humidity, no condensation:90%

● Security factor

FS < 5

● Protection level

IP30

● Rated frequency

50/60Hz

● Accuracy

±3.0%，±1.0%，±0.5%，±0.2%

● Maximum system voltage

720V AC

● Burden

Ranging 0–30VA

● Tset voltage

3kV AC(1min)

● Rated secondary current

X/5A(X/1A upon request)

● Rated short–time thermal current

Ith=40~60In

● Rated primary current

Ranging up to 6000A

● Rated dynamic current

Idyn=2.5Ith

● Casing

Non–flammable,polycarbonate self extinguishing ABS

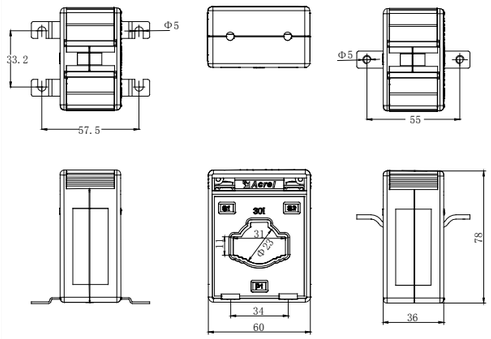
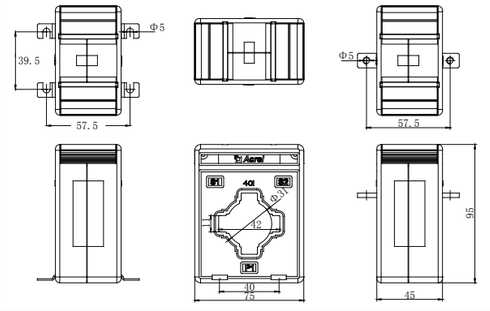
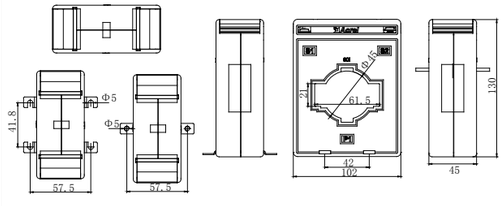
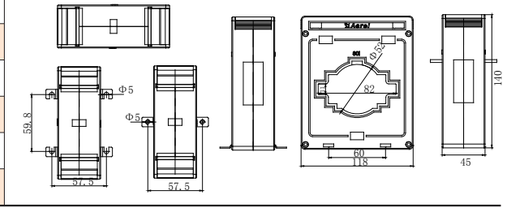
● Continuous overload

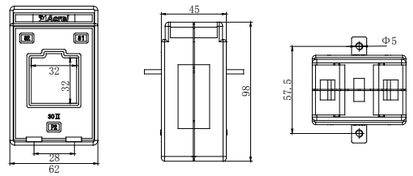
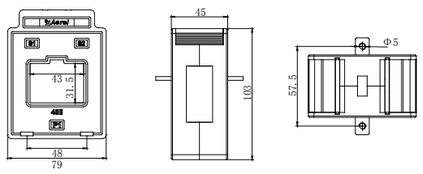
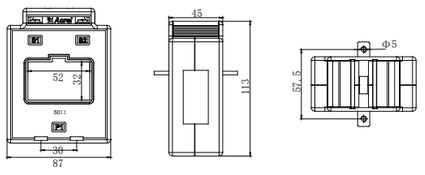
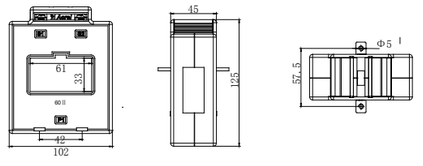
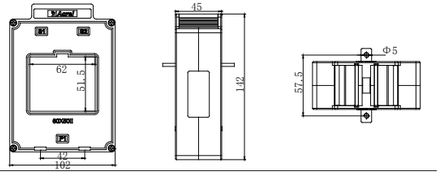
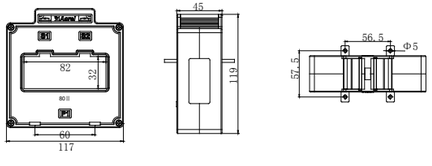
120%In

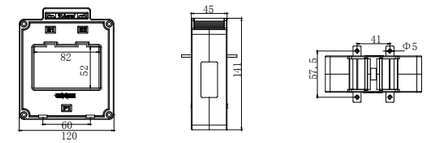
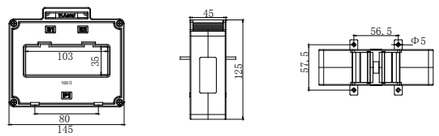
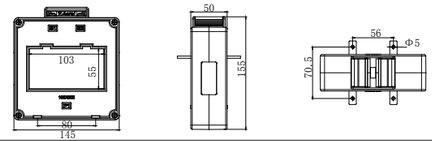
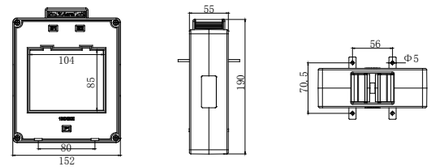
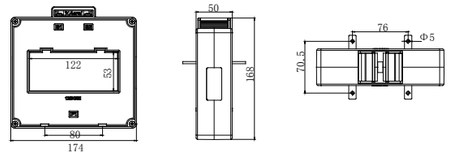
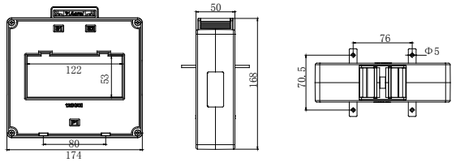
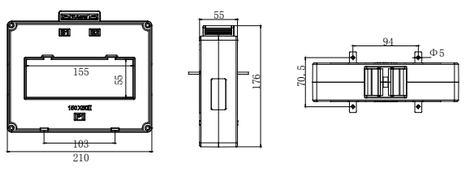
● Terminal marks

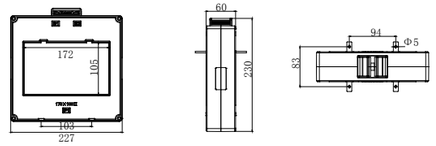
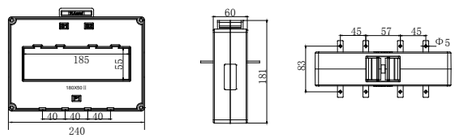
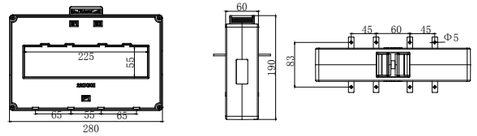
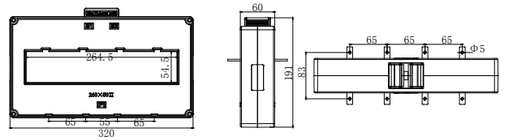
Primary P1andP2

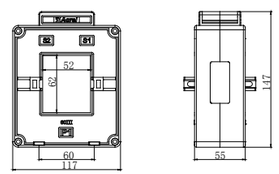
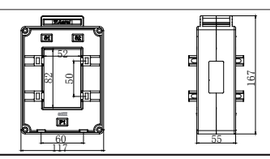
Secondary S1andS2

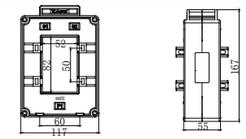
Model		Ratio (A)	Burden(VA)			Turns	Size(unit：mm)
			Class 0.2	Class 0.5	Class 1.0		
	30I	15/5			1.5	5	
		20/5			1.5	4	
		25/5			1.5	3	
		30/5			1.5	3	
		40/5			1.5	2	
		50/5			1.5	2	
		60/5			1.5	2	
		75/5			1.5	1	
		80/5			1.5	1	
		100/5			1.5	1	
		150/5		2.5		1	
		200/5		2.5		1	
		250/5		3.75		1	
		300/5		5		1	
		400/5		5		1	
		500/5		10		1	
	40I	150/5			2.5	1	
		200/5		2.5		1	
		250/5		3.75		1	
		300/5		5		1	
		400/5		5		1	
		500/5		10		1	
		600/5		10		1	
		800/5		10		1	
		1000/5	10			1	
	60I	500/5		10		1	
		600/5		10		1	
		800/5		10		1	
		1000/5	10			1	
		1200/5	10			1	
		1500/5	20			1	
		2000/5	20			1	
	80I	1000/5	10			1	
		1200/5	10			1	
		1500/5	20			1	
		2000/5	20			1	
		2500/5	30			1	
		3000/5	30			1	

Model		Ratio (A)	Burden(VA)			Size(unit：mm)
			Class 0.2	Class 0.5	Class 1.0	
	30II	100/5			1.5	
		150/5			1.5	
		200/5		1.5		
		250/5		3.75		
		300/5		5		
		400/5		5		
		500/5		10		
		600/5		10		
	40II	300/5		5		
		400/5		5		
		500/5		10		
		600/5		10		
		800/5		10		
		1000/5	10			
	50II	500/5		10		
		600/5		10		
		800/5		10		
		1000/5	10			
		1200/5	10			
		1500/5	20			
	60II	800/5		10		
		1000/5	10			
		1200/5	10			
		1500/5	20			
		2000/5	20			
	60*50II	800/5		10		
		1000/5	10			
		1200/5	10			
		1500/5	20			
		2000/5	20			
	80II	1000/5	10			
		1200/5	10			
		1500/5	20			
		2000/5	20			
		2500/5	30			
		3000/5	30			

Model		Ratio (A)	Burden(VA)			Size(unit：mm)
			Class 0.2	Class 0.5	Class 1.0	
	80*50II	1000/5	10			
		1200/5	10			
		1500/5	20			
		2000/5	20			
		2500/5	30			
		3000/5	30			
	100II	1500/5	20			
		2000/5	20			
		2500/5	30			
		3000/5	30			
	100*50II	1500/5	20			
		2000/5	20			
		2500/5	30			
		3000/5	30			
	100*80II	1500/5	20			
		2000/5	20			
		2500/5	30			
		3000/5	30			
		4000/5	30			
	120*50II	1500/5	20			
		2000/5	20			
		2500/5	30			
		3000/5	30			
		4000/5	30			
		5000/5	30			
	130*50II	1500/5	20			
		2000/5	20			
		2500/5	30			
		3000/5	30			
		4000/5	30			
		5000/5	30			
	150*50II	1500/5	20			
		2000/5	20			
		2500/5	30			
		3000/5	30			
		4000/5	30			
		5000/5	30			

Model		Ratio (A)	Burden(VA)			Size(unit：mm)
			Class 0.2	Class 0.5	Class 1.0	
	170*100II	1500/5	20			
		2000/5	20			
		2500/5	30			
		3000/5	30			
		4000/5	30			
		5000/5	30			
	180*50II	2000/5	20			
		2500/5	30			
		3000/5	30			
		4000/5	30			
		5000/5	30			
	220*50II	2000/5	20			
		2500/5	30			
		3000/5	30			
		4000/5	30			
		5000/5	30			
	260*50II	2000/5	20			
		2500/5	30			
		3000/5	30			
		4000/5	30			
		5000/5	30			

Model		Ratio (A)	Burden(VA)			Size(unit：mm)
			Class 0.2	Class 0.5	Class 1.0	
	60III	200/5		2.5		
		300/5		2.5		
		400/5		5		
		500/5		10		
		600/5		10		
		800/5		10		
		1000/5	10			
		1500/5	15			
		2000/5	20			
		2500/5	30			
	80III	500/5		10		
		600/5		10		
		800/5		10		
		1000/5		10		

Model		Ratio (A)	Burden(VA)			Size(unit：mm)
			Class 0.2	Class 0.5	Class 1.0	
	80III	1500/5	15			
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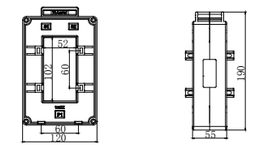
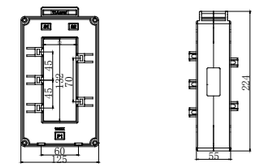
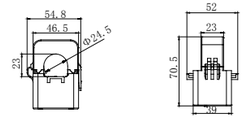
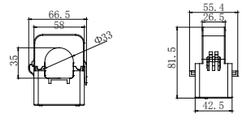
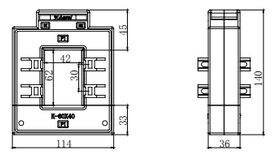
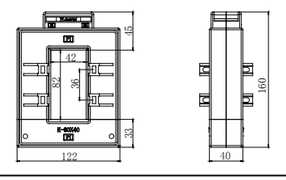
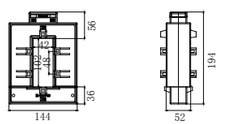
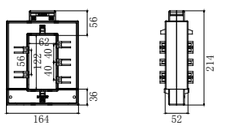
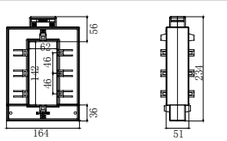
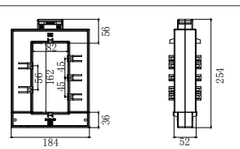
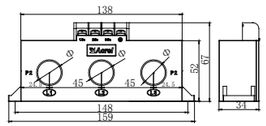
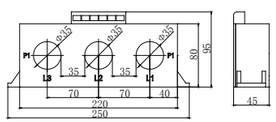
		2500/5	30			
		3000/5	30			
	100III	1000/5	10			
		1500/5	15			
		2000/5	20			
		2500/5	20			
		3000/5	30			
		4000/5	30			
		5000/5	30			
	130III	2000/5	20			
		2500/5	30			
		3000/5	30			
		4000/5	30			
		5000/5	30			

Model		Ratio (A)	Burden(VA)			Size(unit：mm)
			Class 0.2	Class 0.5	Class 1.0	
	K–Φ24	150/5			1	
		200/5			1	
		250/5		1.5		
		300/5		1.5		
	K–Φ36	300/5		1.5		
		400/5		1.5		
		500/5		2.5		
		600/5		2.5		
	K–60*40	400/5		1.5		
		500/5		2.5		
		600/5		2.5		
		800/5	2.5			
		1000/5	5			
		1500/5	10			
	K–80*40	800/5	2.5			
		1000/5	5			
		1500/5	10			
		2000/5	10			
		3000/5	10			

Model		Ratio (A)	Burden(VA) Class 0.2	Class 0.5	Class 1.0	Size(unit：mm)
	K–100*40	1500/5	10			
		2000/5	10			
		3000/5	10			
		4000/5	15			
	K–120*60	1500/5	10			
		2000/5	10			
		3000/5	10			
		4000/5	15			
		5000/5	15			
	K–140*60	2000/5	10			
		3000/5	10			
		4000/5	15			
		5000/5	15			
	K–160*80	3000/5	10			
		4000/5	15			
		5000/5	15			
		6000/5	15			

Model		Ratio (A)	Burden(VA) Class 0.2	Class 0.5	Class 1.0	Turns	Size(unit：mm)
	Z–3*Φ20	50/5			1.5	2	
		100/5			1.5	1	
		150/5			1.5	1	
		200/5			2.5	1	
	Z–3*Φ35	200/5		1.5		1	
		250/5		3.75		1	
		300/5		5		1	
		400/5		5		1	
		500/5		10		1	
		600/5		10		1	
		800/5		10		1	
		1000/5	10			1	

2 BA Current Transducer

● Measuring

–Direct AC Current measurement up to 600A

– Measurement of leakage currents

–Overload : 1.2 times of rated value

● Application

–Industrial automation

● Specifications




		BA05–AI/I(V)	BA10–AI/I(V)	BA20–AI/I(V)	BA50–AI/I(V)	BA50L–AI/I(V)
Auxiliary Power	DC 12V	□	□	□	□	□
	DC24V	□	□	□	□	□
Consumption		≤1W	≤1W	≤1W	≤1W	≤1W
Through–hole size		Φ5mm	Φ10mm	Φ20mm	Φ50mm	Φ50mm
Input	Current	AC 0 ~ (0.5 ~ 10)A	AC 0 ~ (8 ~ 50)A	AC 0 ~ (40 ~ 200)A	AC 0 ~ (60 ~ 600)A	AC 0 ~ (0.1 ~ 1)A (limitation of leakage currents)
Output	Nominal value	DC4–20mA ,or 0–20mA ,0–5V,0–10V etc				
	Load resistance	Current output≤500Ω,Voltage output≥1kΩ				
Accuracy Class		0.5%				
Response time		≤350ms				
Temperature		Operation:–10 to +55℃ Storage:–25 to +70℃				
Temperature coefficient		≤200ppm/℃				
Installation		(Rail)DIN35 , fix on cubicle with screws				
Standards		GB/T 13850				

3 BR Series Rogowski Coil Transducer

● Measuring

–Rogowski coil and RMS measurement

–Super–Current Measurement ,Direct measurement up to 30000A

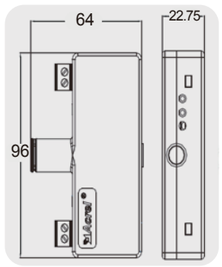
– Overload : 1.2 times of rated value

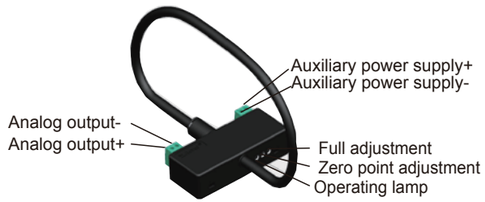
● Application

–Industrial automation

– Metallurgical and Electroplating

● Dimension





● Specifications

		BR–AI			
Auxiliary Power		DC24V			
Consumption		⩽1W			
Length of Rogowski coil		350mm	370mm	450mm	600mm
Input	Current	0 ~ (200 ~ 1000)A	0 ~ (1200 ~ 2000)A	0 ~ (2500 ~ 5000)A	0 ~ (6300 ~ 30000)A
Output	Nominal value	DC4–20mA			
	Load resistance	⩽500Ω			
Accuracy Class		0.5%			
Response time		⩽500ms			
Temperature		Operation:–10 to +55℃ Storage:–25 to +70℃			
Temperature coefficient		⩽200ppm/℃			
Installation		Bracket			
Standards		GB/T 13850			

4 BD Series Electricity Transducer

● Measuring

–Voltage\Current\Power\Power factor\Frequency

– Measurement of leakage currents

–Overload : 1.2 times of rated value

● Output

Analog Output: DC 0–5V/0–10V/0–20mA/4–20mA

● Communication

–Interface:RS485

–Protocol:Modbus–RTU

● Application

–Power Monitoring

● Specifications

			BD–AI BD–AV	BD–F	BD–PF	BD–3I3 BD–3(4)V3	BD–3(4)P BD–3(4)Q	BD–3(4)E
Phase & Wiring		1P2W	■	□	□	□	□	□
		3P3W	—	—	□	□	□	□
		3P4W	—	—	□	□	□	□
Input	Voltage	Direct L–L	Up to 480V AC					
		Direct L–N	Up to 276V AC					
		With external PT	■	■	■	■	■	■
	Current	Direct	Up to 5A AC					
		With external CT	■	■	■	■	■	■
Measuring		Voltage	□	—	—	□		
		Current	□	—	—	□	□	□
		Active/Reactive Power	—	—	—	—	□	□
		Apparent Power	—	—	—	—	□	□
		Power Factor	—	—	■	—	□	□
		Frequency	—	■	—	—	□	□
Energy Metering		± KWh	—	—	—	—	—	□
Accuracy Class			0.5%					
Communication		Interface:RS485 Protocol:Modbus–RTU	□	□	—	□	□	□
Analog Output			DC 0–5V,0–10V,0–20mA,4–20mA					
Pulse Output			—	—	—	—	—	■
Dimensions(mm)		Housing(W × H × D)	138 × 76 × 24	119 × 75 × 55	119 × 75 × 55	112 × 110 × 75	112 × 110 × 75	112 × 110 × 75
Auxiliary Power			85–265V AC/DC,DC24V,DC48V					
Temperature		Operation	–10 to 55℃					
		Storage	–25 to 70℃					
Humidity			Up to 95%,no condensing					
Installation			(Rail)DIN35 , fix on cubicle with screws					
Standards			GB/T 13850					

MOTE: “■” :Yes “—” :No “□” :Optional

5 Hall sensor

● Measuring

–AC, DC, pulse and other complex current signals

● Features

–Small package size
–Low power consumption
–Extended measuring range

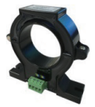
● Application

–AC variable speed drives
–Battery supplied applications
–Uninterruptible Power Supplies

● Technical data

Technical parameters		Open–loop	
		Real–time values	Hall (true RMS)
Output	Nominal value	Voltage: ± 5V/ ± 4V	Current: 4–20mA
	Zero offset voltage (current)	Voltage: ± 20mV	Current: ± 0.05mA
	Offset voltage (current) drift	Voltage: ⩽ ± 1.0mV/℃	Current: ± 0.04mA/℃
	Linearity	⩽0.2%FS	
Power voltage		DC ± 15V DC 12V/24V	DC 12V/24V
Bandwidth		0–20kHz	
Response time		⩽20us	⩽1ms
Dielectric strength		Permissible 3500VAC between input/output	
Accuracy class		1.0	
Ambient conditions	Temperature	–40℃–+85℃	
	Humidity	Up to 95%,no condensing	
	Altitude	⩽3500m	

● Specifications

Appearance	Type	Rated input	Auxiliary Power	Rated Output	Measuring Aperture (mm)	
	AHKC–EKA	± (50–500)A	± 12V ~ ± 15V	± 5V/4V	ϕ 20	Split
	AHKC–EKAA	DC 0~(50–500)A	12V，24V	4–20mA		
	AHKC–EKB	± (200–1000)A	± 12V ~ ± 15V	± 5V/4V	ϕ 40	Split
	AHKC–EKBA	DC 0~(200–1000)A	12V，24V	4–20mA		
	AHKC–EKC	± (500–1500)A	± 12V ~ ± 15V	± 5V/4V	ϕ 60	Split
	AHKC–EKCA	DC 0~ (500–1500)A	12V，24V	4–20mA		
	AHKC–K	± (400–2000)A	± 12V ~ ± 15V	± 5V/4V	64 × 16	Split
	AHKC–KAA	DC0~(400–2000)A	12V，24V	4–20mA		
	AHKC–H	± (500–3000)A	± 12V ~ ± 15V	± 5V/4V	82 × 32	Split
	AHKC–KA	± (500–5000)A	± 12V ~ ± 15V	± 5V/4V	104 × 36	Split
	AHKC–HB	± (2000–40000)A	± 12V ~ ± 15V	± 5V/4V	132 × 52	Split
	AHKC–HBAA	DC0~(2000–40000)A	12V，24V	4–20mA		
	AHKC–E	± (50–500)A	± 12V ~ ± 15V	± 5V/4V	± 5V/4V	ϕ 20
	AHKC–LT	± (100–800)A	± 12V ~ ± 15V	± 5V/4V	± 5V/4V	ϕ 32.5
	AHKC–C	± (100–800)A	± 12V ~ ± 15V	± 5V/4V	± 5V/4V	30*10.5
	AHKC–BS	± (50–500)A	± 12V ~ ± 15V	± 5V/4V	20.5*10.5	closed
	AHKC–BSA	DC0~(50–500)A	12V，24V	4–20mA		
	AHKC–F	± (200–1000)A	± 12V ~ ± 15V	± 5V/4V	43*13	closed
	AHKC–FA	± (200–1500)A	± 12V ~ ± 15V	± 5V/4V	52*15	closed
	AHKC–HAT	± (400–2000)A	± 12V ~ ± 15V	± 5V/4V	52*32	closed

● Spec. and size (unit：mm)

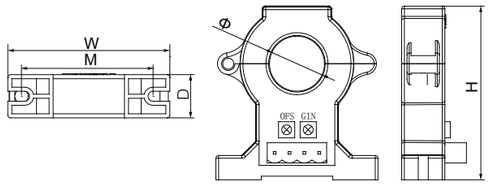


Fig.1

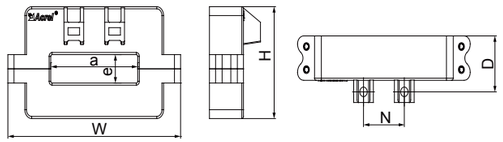
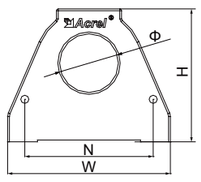


Fig.2

Specification / Size	Outline size			Through size			Mounting size		Figure
	W	H	D	a	e	Φ	M	N	
AHKC–EKA	60	64	16	/	/	20	47	/	Fig.1
AHKC–EKAA	60	64	16	/	/	20	47	/	Fig.1
AHKC–EKB	100	102	24	/	/	40	80	/	Fig.1
AHKC–EKBA	100	102	24	/	/	40	80	/	Fig.1
AHKC–K	127	63	25	64	16	/	/	30	Fig.2
AHKC–KAA	127	63	25	64	16	/	/	30	Fig.2
AHKC–H	149	79	25	82	32	/	/	46	Fig.2
AHKC–KA	176	95.5	29	104	36	/	/	60	Fig.2
AHKC–HB	204	111.5	29	132	52	/	/	48×2	Fig.2



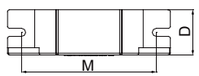
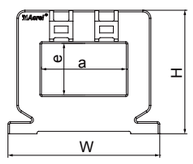


Fig.3



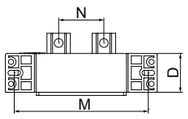


Fig.4

Specification / Size	Outline size			Through size			Mounting size		Figure
	W	H	D	a	e	Φ	M	N	
AHKC–E	53	72	16	/	/	21	47	/	Fig.3
AHKC–LT	90	73.5	25	/	/	32.5	74.5	71	Fig.3
AHKC–BS	43	32.5	19	20.5	10.5	/	/	/	Fig.3
AHKC–BSA	43	32.5	19	20.5	10.5	/	/	/	Fig.3
AHKC–F	74	57	22	43	13	/	/	22	Fig.4
AHKC–FA	94	60.5	26.5	52	15	/	83	28	Fig.4
AHKC–HAT	94	76.5	24	52.5	32	/	83	28	Fig.4

6 Closed–loop Transducer

● Measuring

–AC, DC, pulse and other complex current signals

● Features

–Excellent accuracy
–Low temperature drift
–Wide frequency bandwidth
–Optimized response time

● Application

–AC variable speed drives
–Battery supplied applications
–Uninterruptible Power Supplies
–Power supplies for welding application

● Technical data

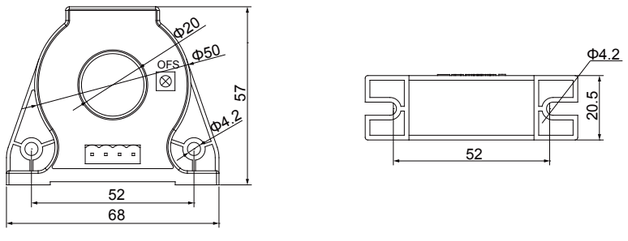
Technical parameters		Data	
		Closed–loop	
		Hall Current	Hall Voltage
Output	Nominal value	Current: 50mA, 100mA, 200mA，200mA	Current: 50mA
	Zero offset voltage (current)	Voltage: ±0.2mA	Current: ±0.1mA
	Linearity	⩽0.2%FS	
	Power voltage	±15V ~ ±24V	
	Bandwidth	0–100kHz	
	Response time	⩽1us	⩽200us
Dielectric strength		3.5kV AC	12kV AC
	Accuracy class	0.5	
Ambient conditions	Temperature	–40℃ ~ +85℃	
	Humidity	Up to 95%,no condensing	
	Altitude	⩽3500m	

● Specifications

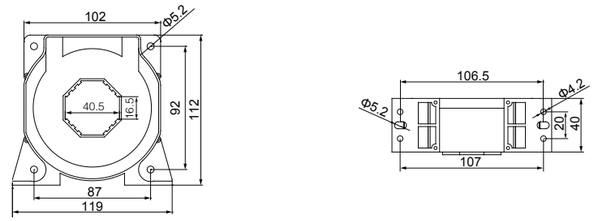
Appearance	Type	Rated Input	Auxiliary Power	Rated Output	Measuring Aperture (mm)
	AHBC–LTA	± (100 ~ 300) A	± 15V ~ ± 24V	50mA，100mA	ϕ 20
	AHBC–LT1005	± 1000A	± 15V ~ ± 24V	200mA	ϕ 40.5
	AHBC–LF	± 2000A	± 15V ~ ± 24V	400mA	ϕ 60.5
	AHVS–L100	± 2000V	± 15V ~ ± 24V	50mA	/
	AHVS–LV	± 4000V	± 15V ~ ± 24V	50mA	/

● Spec. and Size (unit：mm)

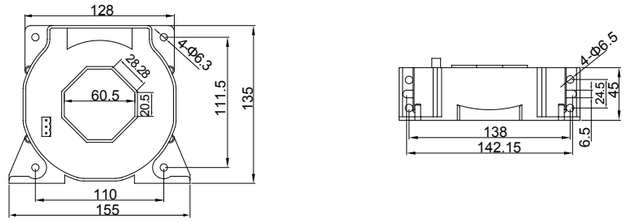
Outline size of AHBC–LTA



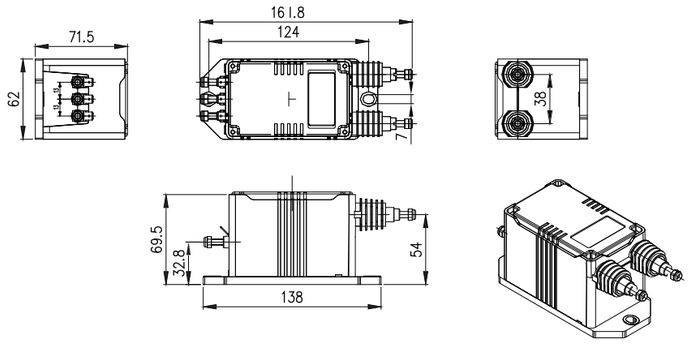
Outline size of AHBC–LT1005



Outline size of AHBC–LF



Outline size of AHVS–L100



Outline size of AHVS–LV