Acrel

Hall Current Transformer

Features

Split Type Open Loop

- Accuracy 1 class
- Low cost, Split Type, Easy Install
- Input Range： 50A-20000A
- Multi-output: 4V/5V/20MA/4-20MA

Close Type Open Loop

- Accuracy 1 class
- Low cost, Split Type, Easy Install
- Input Range： 50A-20000A
- Multi-output: 4V/5V/20MA/4-20MA

Close Type Close Loop

- Accuracy 0.5 class
- Large Size, Large power consumption

  High cost
- Input Range： 10A-2000A
- Response Fast： ≤1US

Application

Industrial control:

UPS, SMPS, Power supply for welding machines, medical devices, mobile communication equipment, elevators, forklifts, air conditioning , ventilation equipment, solar and wind power generation

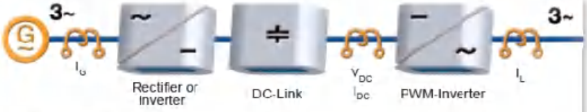
Process control, battery monitoring, energy measurement

Battery management, battery monitoring, energy measurement

Locomotive application, Converter, Wayside application

Typical Scheme

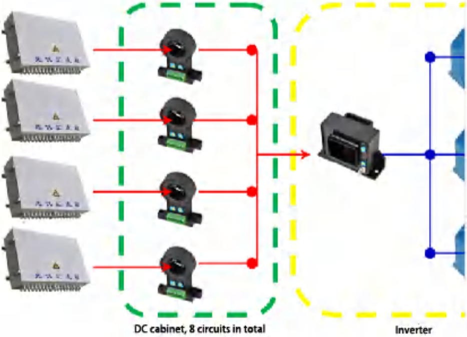
Solar & Wind Energy



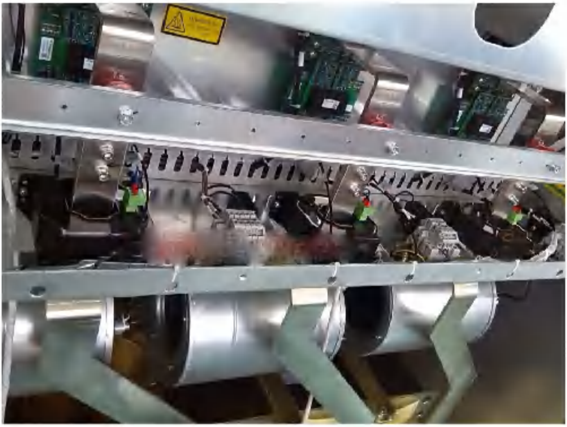
Typical Scheme

- Wind Energy

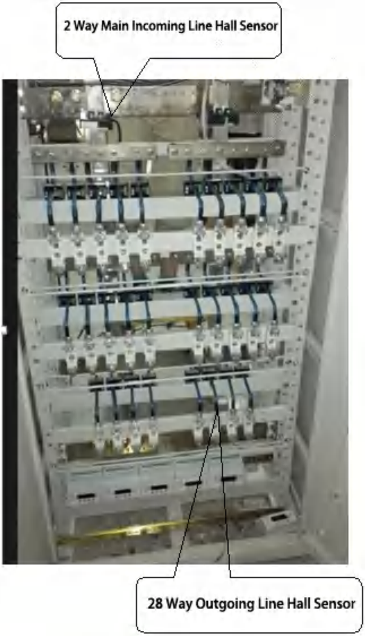
Photovoltaic DC Cabinet



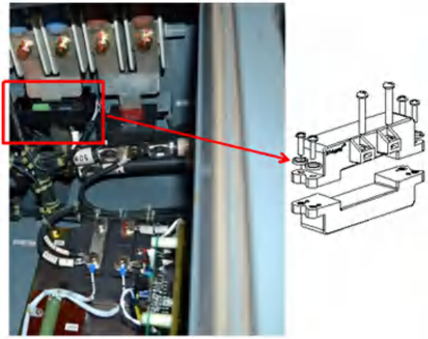
Inverter



Mobile DC Head Cabinet

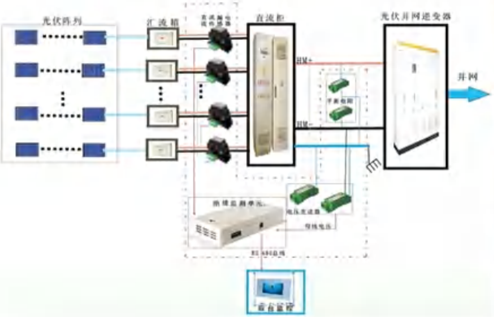

2 Way Main Incoming Line Hall Sensor
28 Way Outgoing Line Hall Sensor

DC Distribution Remould



DC Distribution Cabinet

DC leakage current sensor in photovoltaic



Parameter

Parameter		Value	
		Hall Split Type/Close Type	Hall Transmitter
Output	Standard 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/±12V	DC 24V/12V
Bandwidth		0～20KHZ	
Response Time		≤5US	≤1MS
Compressive strength		Ac2500v power frequency withstand voltage is allowed between input, output and power supply	
Accuracy Level		1.0	
Environment	Temperature	Working：-40℃～+85℃；Storage：-40℃～+85℃	
	Humidity	≤95%RH，Places without condensation and corrosive gas	
	Altitude	≤3500M	

Dimension

Split Type

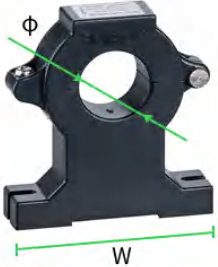


Fig.1

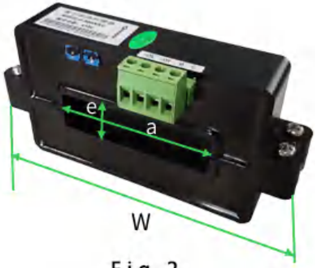


Fig.2

Size Specification	Dimensions			Aperture			Installing Dimensions		Pic
	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-EKDA	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-EKBDA	100	102	24	/	/	40	80	/	Fig.1
AHKC-EKC	115	110	27	/	/	55	95.5	/	Fig.1
AHKC-EKCA	115	110	27	/	/	55	95.5	/	Fig.1
AHKC-EKCDA	115	110	27	/	/	55	95.5	30	Fig.1
AHKC-K	127	63	25	64	16	/	/	30	Fig.2
AHKC-KAA	127	63	25	64	16	/	/	30	Fig.2
AHKC-KDA	127	63	25	64	16	/	/	46	Fig.2
AHKC-H	149	79	25	82	32	/	/	60	Fig.2
AHKC-KA	176	95.5	29	104	36	/	/	80	Fig.2
AHKC-HB	204	111.5	29	132	52	/	/	48x2	Fig.2
AHKC-HBAA	204	111.5	29	132	52	/	/	48x2	Fig.2
AHKC-HBDA	204	111.5	29	132	52	/	/	48x2	Fig.2

Closed Type

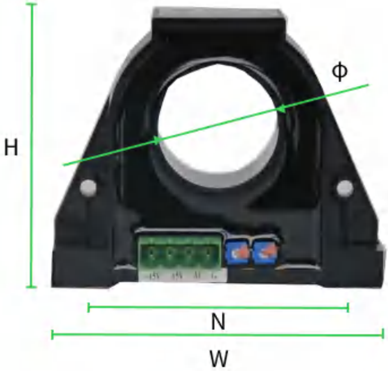


Fig1

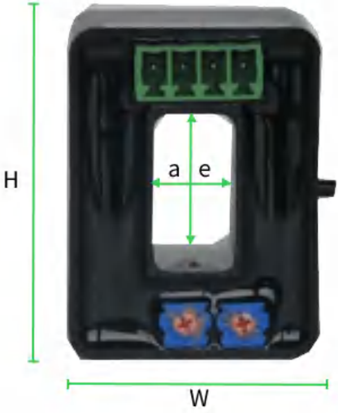


Fig2

Size	Dimensions			Aperture			Installing Dimensions		Pic
Specification	W	H	D	a	e	Φ	M	N	
AHKC-E	53	72	16	/	/	21	47	/	Fig.1
AHKC-LT	90	73.5	25	/	/	32.5	74.5	71	Fig.1
AHKC-EA	100	108	30	/	/	40	78	/	Fig.1
AHKC-EB	120	112	30	/	/	60	98	/	Fig.1
AHKC-BS	43	32.5	19	20.5	10.5	/	/	/	Fig.2
AHKC-BSA	43	32.5	19	20.5	10.5	/	/	/	Fig.2
AHKC-F	74	57	22	43	13	/	/	22	Fig.2
AHKC-FA	94	60.5	26.5	52	15	/	83	28	Fig.2
AHKC-HAT	94	76.5	24	52.5	32	/	83	28	Fig.2

Parameter

Split Type

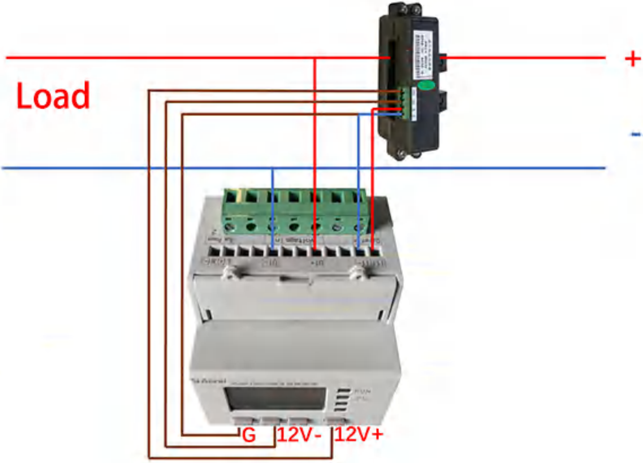
Specification	Ratio Current	Power Supply	Output	Aperture (mm)	Accuracy
AHKC-EKA	0～(20-500)A	±15V/12V	5V/4V	φ20	1 Class
AHKC-EKAA	DC 0～(50-500)A	12V/24V	4～20mA	φ20	1 Class
AHKC-EKDA	AC 0～(50-500)A	12V/24V	4～20mA	φ20	1 Class
AHKC-EKB	0～(200-1000)A	±15V/12V	5V/4V	φ40	1 Class
AHKC-EKBA	DC 0～(200-1000)A	12V/24V	4～20mA	φ40	1 Class
AHKC-EKBDA	AC 0～(200～1000)A	12V/24V	4～20mA	φ40	1 Class
AHKC-EKC	0～(500-1500)A	±15V/12V	5V/4V	φ55	1 Class
AHKC-EKCA	DC 0～(500-1500)A	12V/24V	4～20mA	φ55	1 Class
AHKC-EKCDA	AC 0～(500-1500)A	12V/24V	4～20mA	φ55	1 Class

AHKC-K	0～(400-2000)A	±15V/12V	5V/4V	64×16	1 Class
AHKC-KAA	DC 0～(400-2000)A	12V/24V	4～20mA	64×16	1 Class
AHKC-KDA	AC 0～(400-2000)A	12V/24V	4～20mA	64×16	1 Class
AHKC-H	0～(500-3000)A	±15V/12V	5V/4V	82×32	1 Class
AHKC-KA	0～(500-5000)A	±15V/12V	5V/4V	104×36	1 Class
AHKC-HB	0～(2000-20000)A	±15V/12V	5V/4V	132×52	1 Class
AHKC-HBAA	DC 0～(2000-20000)A	12V/24V	4～20mA	132×52	1 Class
AHKC-HBDA	AC 0～(2000-20000)A	12V/24V	4～20mA	132×52	1 Class

Closed Type

Specification	Ratio Current	Power Supply	Output	Aperture (mm)	Accuracy
AHKC-E	0～(20-500)A	±15V/12V	4V/5V	φ20	1 Class
AHKC-LT	0～(100-800)A	±15V/12V	4V/5V	φ32.5	1 Class
AHKC-EA	0～(200-2000)A	±15V/12V	4V/5V	φ40	1 Class
AHKC-EB	0～(200-2000)A	±15V/12V	4V/5V	φ60	1 Class
AHKC-BS	0～(20-500)A	±15V/12V	4V/5V	20.5*10.5	1 Class
AHKC-BSA	DC 0～(50～500)A	12V/24V	4～20mA	20.5*10.5	1 Class
AHKC-F	0～(200-1000)A	±15V/12V	4V/5V	43*13	1 Class
AHKC-FA	0～(200-1500)A	±15V/12V	4V/5V	52*15	1 Class
AHKC-HAT	0～(400-2000)A	±15V/12V	4V/5V	52*32	1 Class

Wiring



Wiring with CT

Attention

1、When the hall sensor is used, in order to obtain better dynamic characteristics and sensitivity, attention must be paid to the coupling between the primary coil and the secondary coil. It is recommended to use a single wire and the wire should completely fill the through hole of the hall sensor module;

2、When the hall sensor is in use, the best measurement accuracy can be obtained under the rated input current value. When the measured current is far lower than the rated value, in order to obtain the best accuracy, multiple turns can be used on the primary side, that is, IPNP = rated ampere turns. In addition, the temperature of primary feeder shall not exceed 80 ℃;

3、When the Hall current sensor works normally, the auxiliary power supply shall not exceed ± 20% of the calibrated value, and the ripple shall not exceed ± 1%;

4、It is forbidden to fall from a height (⩾ 1m) during the installation and use of Hall current sensor;

5、The zero and full adjustment potentiometers cannot be adjusted;

6、The auxiliary power supply shall be configured by itself, and the positive and negative poles of the power supply shall not be reversed;

7、Shielded wire is recommended for output signal line.

FOCUSES ON THE RESEARCH AND
DEVELOPMENT OF EACH PRODUCT

About Acrel

Ankerui Electric Co., Ltd. [Stock Code: 300286. SZ] is a high-tech enterprise integrating R &amp; D, production, sales and service. It is committed to providing users with system solutions for energy efficiency management and power safety. Ankerui Electric Co., Ltd. has a product system from cloud platform software to terminal components. At present, 10000 sets of various system solutions have been running all over the country to help users realize the visual management of energy, provide energy data services, and escort users with efficient and safe energy use.

Workshop