

ring - type current transformers





Operation Conditions for Current Transformers

- 1- When the secondary terminals are connected to the measuring or protection equipments, one of the terminals should be earthed for safety, (see FIGURE CT-1)
- 2-The secondary circuit of a current transformer must not be operated with an open-circuit,
- 3-The secondary winding of a current transformer which will not be connected must be short- circuited and earthed. (see FIGURE CT-3)
- 4-For the transformer with reconnectable and/or tapped secondaries, un-used terminals must be left open(see FIGURE CT-4)
- 5-The current transformers which have capacitive divider tap (Ck) must be connected to indicator, if not used then must be earthed

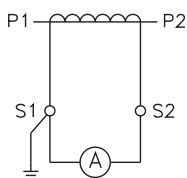


FIGURE CT-1

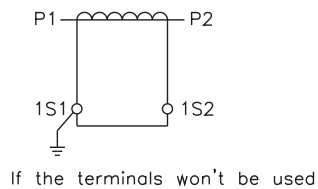


FIGURE CT-3

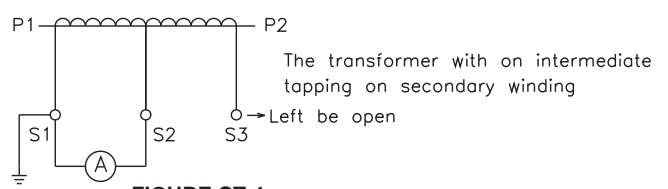


FIGURE CT-4



1. Mounting site

Instrument transformers of ALCE shall be mounted in accordance with following conditions;

- a) Ambient temperature: -20°C~40°C (Average temp.: lower than 35°C)
- b) Altitude: lower than 1000 meters.
- c) At the places not exposed to sea - breeze, rain, snow and sunlight and kept under 90% humidity.
- d) At places where the exceeded vapor, oil-vapor, explosive flammable gas shall not occur.
- e) At places not subject to exceeded dust & foreign particles.
- f) At places where exceeded oscillation and impact shall not occur.

2. How to mount

- a) Cable and busbar shall not be directly loaded onto CT&PT.
- b) Enough distance shall be taken that primary lead wires and busbars do not approach the surface of transformers except the connection terminals. Besides, please draw your attention for corona and partial discharge not to occur.
- c) Secondary lead wires shall be correctly connected to the terminals and shall not be approached to the surface of transformers.

d) The connection shall be correctly done as per the terminals marks and connection diagram on the name plate.

e) The earthing terminal on primary side of grounding type of instrument transformers shall be absolutely grounded.

f) The earthing terminal on secondary side and the mounted base (flame) on the body shall be absolutely grounded.

g) Bolts & Nuts for the connection of cables, busbars and lead wires shall be firmly fastened.

3. Maintenance and inspection

a) Please check instrument transformers once a month and pay your attention for noise, over - heat, corrosion and exceeded polluting. It is recommended to put the thermo-labels on surface of transformers and terminals portion.

b) The operation shall be stopped at least once a year and the dust & foreign particles shall be wiped off with dry cloth. At that time, please check the appearance, the iron-core and looseness of bolts & nuts.



Technical Descriptions



Indoor ring-type current transformer

Type KA

cast resin, for cable entrance window type

single core

no rated insulation limit for complete insulated cable

Technical Data

Operating voltage (maximum)	0,72 kV
Rated power-frequency withstand voltage (1 minute)	3 kV
Rated impulse test voltage (1,2/50 μ s) full wave	-
Rated frequency	50 Hz, 60 Hz
Primary rated current	50 - 5000 A
Secondary reconnection	on request
Secondary rated current	1A, 5A
Rated short-time thermal current I_{th} (1s)	min. 100 x I_n
Rated dynamic current I_{dyn}	unlimited
Short-time load (mechanical)	3000 N
Insulation class	E
Ambient temperature	-5 +40 °C
Altitude	1000 m
Standard	IEC, VDE 0414 Teil 44-1 2003-12, ANSI



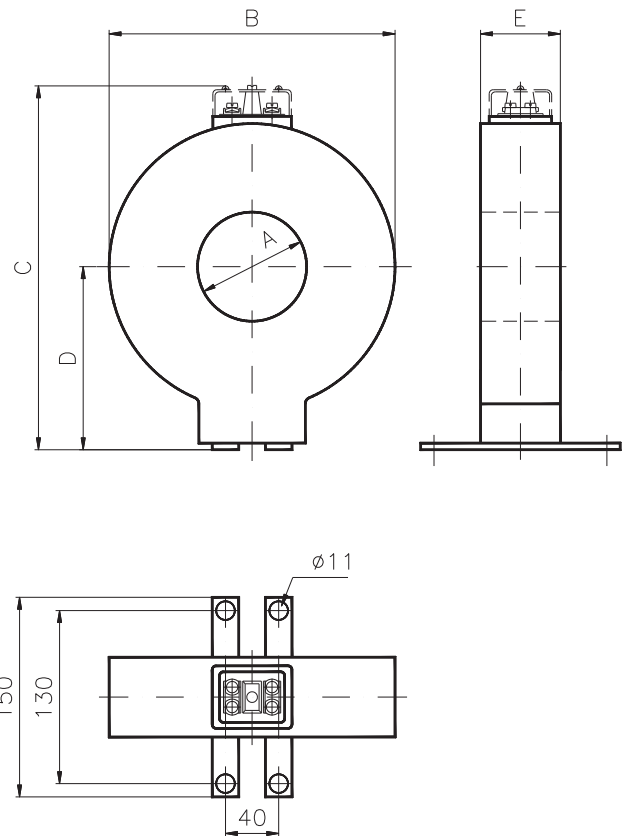
Ring-type current transformers

KA-60, KA-80, KA-100

ALCE

Dimensions

Operating voltage (max.) 0,72 kV
 Security factor for measuring core : FS10, FS20
 Over current factor for protection core : $n > 10$



Type	A mm	B mm	C mm	D mm	E mm	Weight kg
KA - 60/06					60	
KA - 60/08	62	195	254	127,5	80	5 - 12
KA - 60/10					100	
KA - 80/06					60	
KA - 80/08	82	215	274	137,5	80	6 - 9
KA - 80/10					100	
KA - 100/06					60	
KA - 100/08	102	235	294	147,5	80	7,5 - 10
KA - 100/10					100	

Ratio A / A	Rated power VA											
	KA-60/06				KA-60/08				KA-60/10			
	Measuring		Protection		Measuring		Protection		Measuring		Protection	
	Cl. 1	Cl. 3	5P10	10P10	Cl. 1	Cl. 3	5P10	10P10	Cl. 1	Cl. 3	5P10	10P10
50 / 1	-	2,5	-	2,5	-	2,5	-	3,75	-	2,5	-	5
60 / 1	-	5	1,25	5	-	5	1,25	5	-	5	1,25	5
75 / 1	1,25	7,5	2,5	5	1,25	7,5	2,5	5	1,25	7,5	2,5	5
100 / 1	2,5	10	5	5	2,5	15	7,5	7,5	3,75	15	10	10
150 / 1	3,75	15	7,5	7,5	5	20	10	10	5	20	15	15
200 / 5	10	30	10	10	15	30	15	15	15	30	20	20
250 / 5	15	30	10	10	15	45	15	15	20	45	30	30
300 / 5	15	30	15	15	20	45	20	20	30	45	30	30
400 / 5	30	30	15	15	30	45	20	20	30	45	45	45
500 / 5	30	45	20	20	30	45	30	30	30	45	45	45
600 / 5	30	45	30	30	30	45	45	45	30	60	60	60
750 / 5	30	60	30	30	30	60	45	45	30	60	60	60
1000 / 5	-	-	-	-	-	-	-	-	-	-	-	-
1500 / 5	-	-	-	-	-	-	-	-	-	-	-	-
2000 / 5	-	-	-	-	-	-	-	-	-	-	-	-



Ring-type current transformers KA-60, KA-80, KA-100

ALCE

Dimensions

Ratio A / A	Rated power VA											
	KA-80/06				KA-80/08				KA-80/10			
	Measuring		Protection		Measuring		Protection		Measuring		Protection	
	Cl. 1	Cl. 3	5P10	10P10	Cl. 1	Cl. 3	5P10	10P10	Cl. 1	Cl. 3	5P10	10P10
50 / 1	-	2,5	-	2,5	-	2,5	-	3,75	-	2,5	-	5
60 / 1	-	5	1,25	5	-	5	1,25	5	-	5	1,25	5
75 / 1	1,25	7,5	2,5	5	1,25	7,5	2,5	5	1,25	7,5	2,5	5
100 / 1	2,5	10	5	5	2,5	15	7,5	7,5	3,75	15	10	10
150 / 1	3,75	15	7,5	7,5	5	20	10	10	5	20	15	15
200 / 5	10	30	10	10	15	30	15	15	15	30	20	20
250 / 5	15	30	10	10	15	45	15	15	20	45	30	30
300 / 5	15	30	15	15	20	45	20	20	30	45	30	30
400 / 5	30	30	15	15	30	45	20	20	30	45	45	45
500 / 5	30	45	20	20	30	45	30	30	30	45	45	45
600 / 5	30	45	30	30	30	45	45	45	30	60	60	60
750 / 5	30	60	30	30	30	60	45	45	30	60	60	60
1000 / 5	30	60	-	-	30	60	-	-	45	60	-	-
1500 / 5	-	-	-	-	-	-	-	-	-	-	-	-
2000 / 5	-	-	-	-	-	-	-	-	-	-	-	-

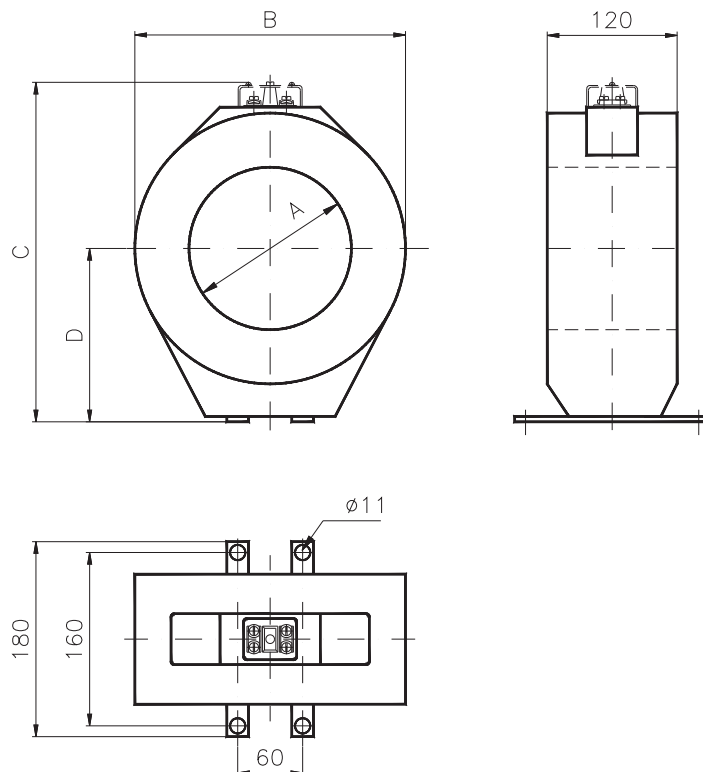
Ratio A / A	Rated power VA											
	KA-100/06				KA-100/08				KA-100/10			
	Measuring		Protection		Measuring		Protection		Measuring		Protection	
	Cl. 1	Cl. 3	5P10	10P10	Cl. 1	Cl. 3	5P10	10P10	Cl. 1	Cl. 3	5P10	10P10
50 / 1	-	2,5	-	2,5	-	2,5	-	3,75	-	2,5	-	5
60 / 1	-	3,75	-	3,75	-	3,75	-	3,75	-	3,75	-	3,75
75 / 1	-	5	1,25	5	-	5	1,25	5	-	5	1,25	5
100 / 1	1,25	7,5	5	5	1,25	7,5	5	5	1,25	7,5	5	7,5
150 / 1	3,75	15	5	7,5	5	20	7,5	10	5	20	7,5	10
200 / 5	10	30	10	10	15	30	10	15	15	30	15	20
250 / 5	15	30	10	10	15	30	15	15	20	30	20	20
300 / 5	15	30	15	15	20	45	20	20	30	45	30	30
400 / 5	30	30	15	15	20	45	20	20	30	45	45	45
500 / 5	30	45	20	20	30	45	30	30	30	45	45	45
600 / 5	30	45	30	30	30	45	45	45	30	45	60	60
750 / 5	30	30	30	30	30	45	45	45	30	60	60	60
1000 / 5	30	30	30	30	30	45	45	45	30	60	60	60
1500 / 5	30	45	30	45	30	60	60	60	30	60	60	60
2000 / 5	30	45	30	45	30	60	60	60	30	60	60	60



Dimensions

Operating voltage (max.) 0,72 kV
 Security factor for measuring core : FS20, FS30
 Over current factor for protection core : $n > 10$

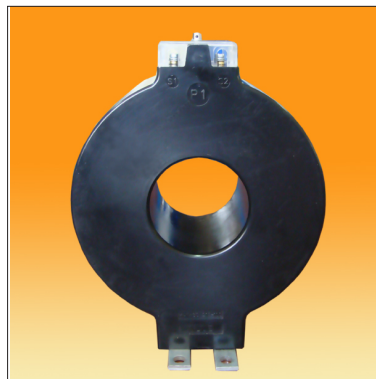
Type	A mm	B mm	C mm	D mm	Weight kg
KA - 130	130	250	314	160	10 - 20
KA - 150	150				
KA - 160	160				
KA - 180	180				



Ratio A / A	Rated power VA																
	max. ø 130 mm. for cable				max. ø 150 mm. for cable				max. ø 160 mm. for cable				max. ø 180 mm. for cable				
	Measuring		Protection		Measuring		Protection		Measuring		Protection		Measuring		Protection		
	Cl. 0,5	Cl. 1	5P10	10P10	Cl. 0,5	Cl. 1	5P10	10P10	Cl. 0,5	Cl. 1	5P10	10P10	Cl. 0,5	Cl. 1	5P10	10P10	
600 / 5	30	30	30	30	-	-	-	-	-	-	-	-	-	-	-	-	-
750 / 5	30	30	30	30	30	30	30	30	-	-	-	-	-	-	-	-	-
1000 / 5	30	30	30	30	30	30	30	30	30	30	30	30	-	-	-	-	-
1500 / 5	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
2000 / 5	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
2500 / 5	45	45	45	45	30	30	45	45	30	30	45	45	30	30	30	30	30
3000 / 5	45	45	45	45	45	45	45	45	30	30	45	45	-	-	-	-	-
3500 / 5	45	45	60	60	45	45	60	60	-	-	-	-	-	-	-	-	-
4000 / 5	45	45	60	60	-	-	-	-	-	-	-	-	-	-	-	-	-
5000 / 5	45	45	60	60	-	-	-	-	-	-	-	-	-	-	-	-	-



Technical Descriptions



Indoor ring-type current transformer

Type KAT-80

thermoplastic housing resin insulated

for cable entrance window type

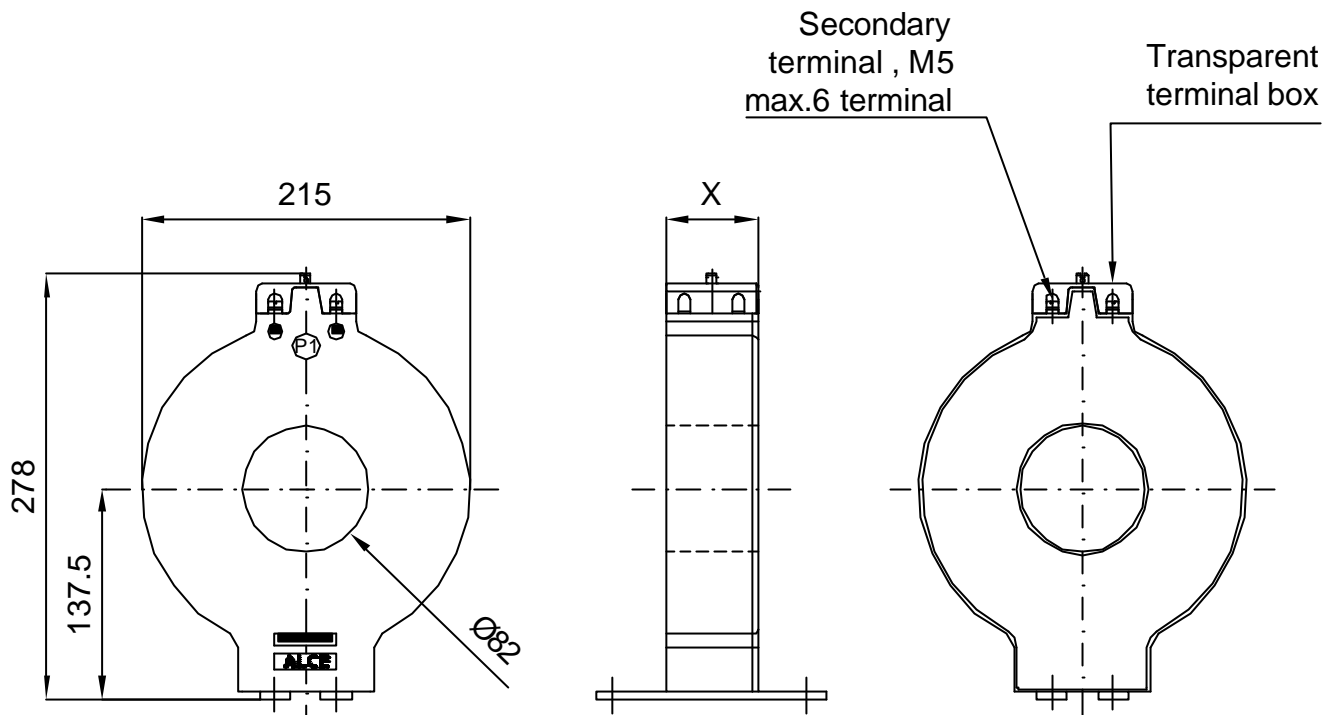
single core

no rated insulation limit for complete insulated cable.

Ratio A / A	Rated power VA											
	KAT-80/215-60				KA-80/215-80				KA-80/215-100			
	Measuring		Protection		Measuring		Protection		Measuring		Protection	
	Cl. 1	Cl. 3	5P10	10P10	Cl. 1	Cl. 3	5P10	10P10	Cl. 1	Cl. 3	5P10	10P10
50 / 1	-	2,5	-	2,5	-	2,5	-	3,75	-	2,5	-	5
60 / 1	-	5	1,25	5	-	5	1,25	5	-	5	1,25	5
75 / 1	1,25	7,5	2,5	5	1,25	7,5	2,5	5	1,25	7,5	2,5	5
100 / 1	2,5	10	5	5	2,5	15	7,5	7,5	3,75	15	10	10
150 / 1	3,75	15	7,5	7,5	5	20	10	10	5	20	15	15
200 / 5	10	30	10	10	15	30	15	15	15	30	20	20
250 / 5	15	30	10	10	15	45	15	15	20	45	30	30
300 / 5	15	30	15	15	20	45	20	20	30	45	30	30
400 / 5	30	30	15	15	30	45	20	20	30	45	45	45
500 / 5	30	45	20	20	30	45	30	30	30	45	45	45
600 / 5	30	45	30	30	30	45	45	45	30	60	60	60
750 / 5	30	60	30	30	30	60	45	45	30	60	60	60
1000 / 5	30	60	-	-	30	60	-	-	45	60	-	-
1500 / 5	-	-	-	-	-	-	-	-	-	-	-	-
2000 / 5	-	-	-	-	-	-	-	-	-	-	-	-

Technical Data

Operating voltage (maximum)	0,72 kV
Rated power-frequency withstand voltage (1 minute)	3 kV
Rated Impulse test voltage (1,2/50 μ s) full wave	-
Rated frequency	50 Hz, 60 Hz
Primary rated current	50 - 1000 A
Secondary reconnection	on request
Secondary rated current	1A, 5A
Rated short-time thermal current I_{th} (1s)	min. 100 x In
Rated dynamic current I_{dyn}	unlimited
Short-time load (mechanical)	3000 N
Insulation class	E
Ambient temperature	-5 +40 °C
Altitude	1000 m
Standard	IEC, ANSI , AS



INFORMATION

NO	X	TYPE
1	60	KAT-80/215-60
2	80	KAT-80/215-80
3	100	KAT-80/215-100

QTY	DESCRIPTION	POS	DIMENSIONS	WEIGHT	PART OR DIN NO.	MATERIAL
	NO	DATE	NAME	MODIFICATION		
					25-04-07	
	TOLERANCES DIN 7168 9	KAT-80 L.V CURRENT TRANSFORMER			MATERIAL CODE	REV.
	SCALE 1:1				REPLACES THE DRAWING NO.	
	ALCE	ERCEM			DR'N	
					CH'D	
					APP'D	
C.C	MT				INFORMATION	



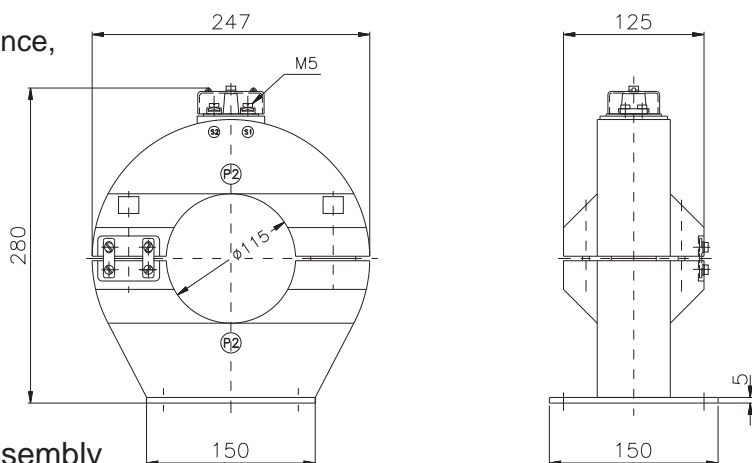
Dimensions



Indoor split-core current transformer

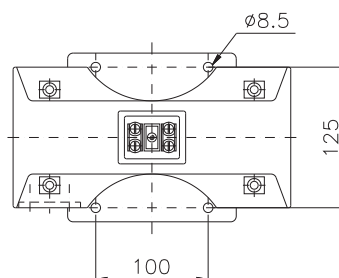
Type KAA

cast resin, for cable entrance,
openable
Window type
One core



NOTE :Assembly should be done according to the assembly instructions that are given with the product.

Type	Ratio A / A	Class		Security factor	Rated power VA
		Measuring	Protection		
KAA-115	60 / 1	3	10P	FS10	2,5
			10P	10	2,5
	100 / 1	3	10P	FS10	3,75
			10P	10	3,75



SCREW	TORQUE Nm
M5	2-2,5
M6	2,5-3,5

Technical Data

Operating voltage (maximum)	0,72 kV
Rated power-frequency withstand voltage (1 minute)	3 kV
Rated impulse test voltage (1,2/50 μ s) full wave	-
Rated frequency	50 Hz, 60 Hz
Primary rated current	60 - 2500 A
Secondary reconnection	-
Secondary rated current	1A, 5A
Rated short-time thermal current I_{th} (1s)	min. 100 x I_n
Rated dynamic current I_{dyn}	unlimited
Short-time load (mechanical)	3000 N
Insulation class	E
Ambient temperature	-5 +35 °C
Altitude	1000 m
Standard	IEC, VDE 0414 Teil 44-1 2003-12, ANSI



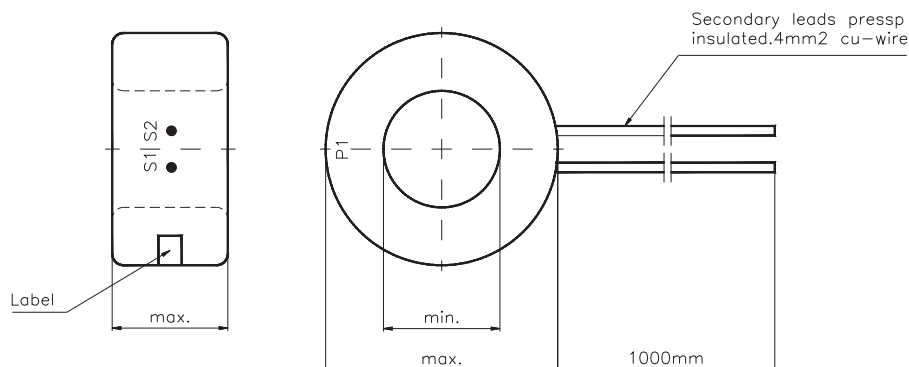
Technical Descriptions



Indoor ring-core current transformer

ring core, bandaged, installation under oil with free secondary taps

Weight and dimensions according to technical data. Internal diameter, external diameter and max. height to be indicated.



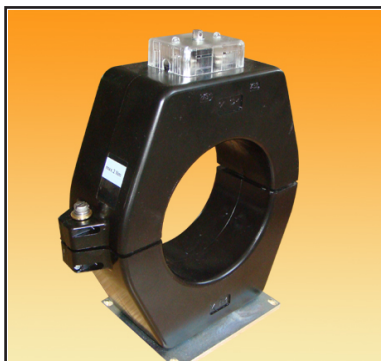
For high-voltage bushings of oil type power transformers. Unprotected construction, suitable for installation under oil of a maximum temperature of 105 °C. The secondary winding is uniformly distributed on a jointless ring core. The secondary winding terminates in two loose ends. (approx. 1000mm)

Technical Data

Operating voltage (maximum)	0,72 kV
Rated power-frequency withstand voltage (1 minute)	3 kV
Rated Impulse test voltage (1,2/50 μ s) full wave	-
Rated frequency	50 Hz, 60 Hz
Primary rated current	50 - 10000 A
Secondary reconnection	on request
Secondary rated current	1A, 5A
Rated short-time thermal current I_{th} (1s)	min. 100 x I_n
Rated dynamic current I_{dyn}	unlimited
Insulation class	E
Ambient temperature	-5 +40 °C
Altitude	1000 m
Standard	IEC, VDE 0414 Teil 44-1 2003-12, ANSI



Dimensions



Indoor split-core current transformer

Type SAA-80 , SAA-120

thermoplastic housing, resin insulated
for cable entrance
openable
Window type
One core

NOTE :Assembly should be done according to the assembly instructions that are given with the product.

Primary A	Secondary A	
50	1	-
60	1	-
75	1	-
100	1	-
125	1	-
150	1	-
175	1	-
200	1	5
250	1	5
300	1	5
350	1	5
400	1	5
450	1	5
500	1	5
600	1	5
700	1	5
800	1	5
900	1	5
1000	1	5
1200	1	5
1500	1	5
2000	1	5

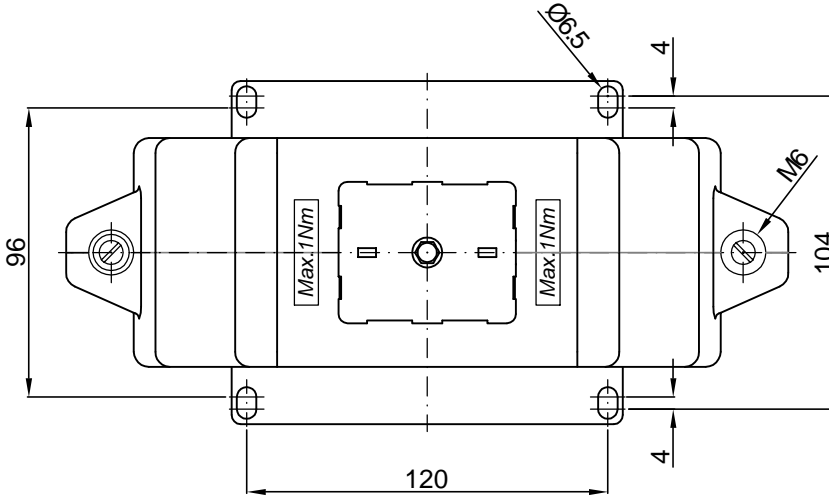
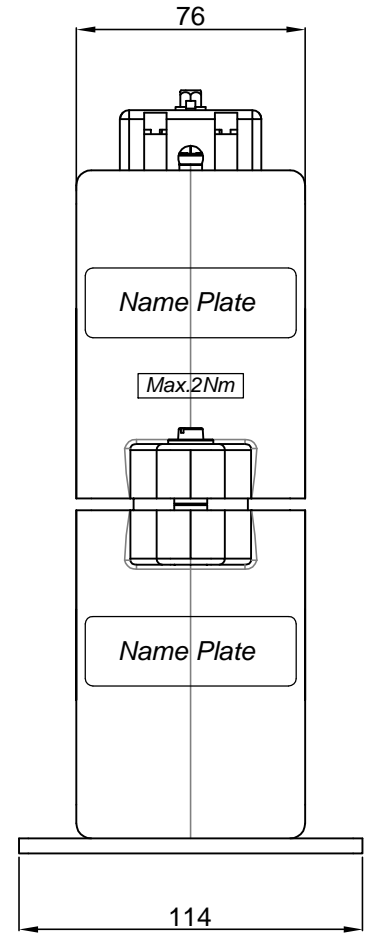
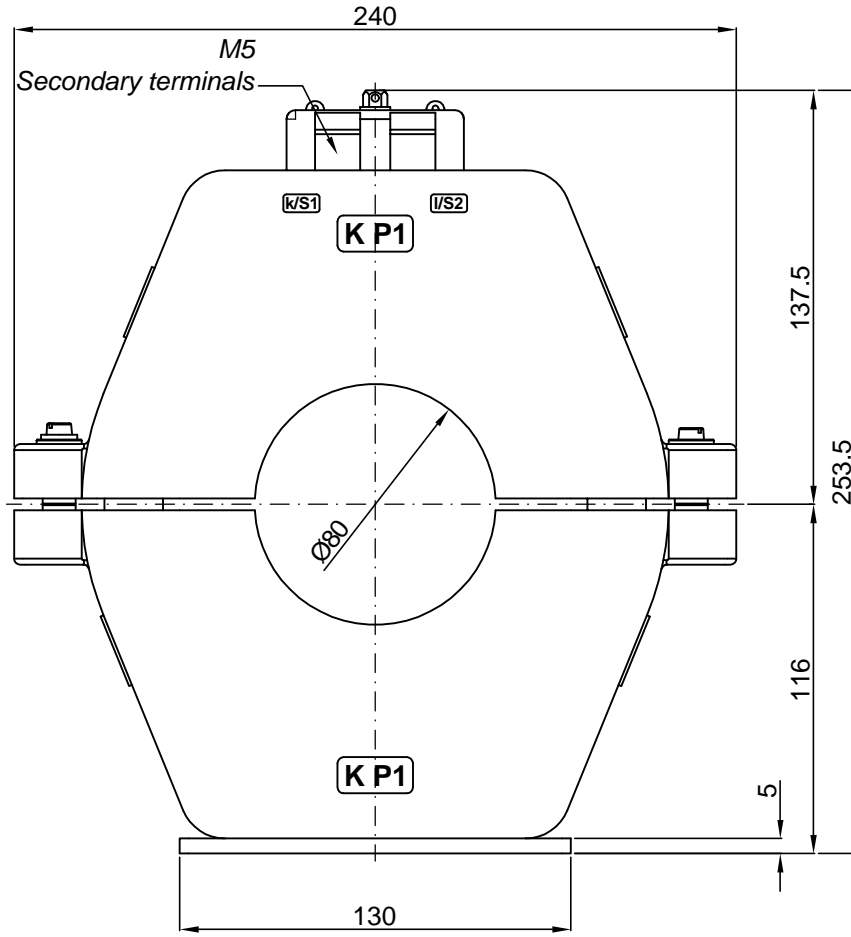
SAA 80			
max. Ø 80mm for cable			
Measuring / VA		Protection / VA	
kl: 0,5	kl: 1	kl: 5P10	kl: 10P10
-	-	-	2,5
-	1,25 **	-	2,5
1,25 **	1,25 **	-	3,75
2,5 **	2,5 **	-	5
2,5 **	3,75 **	-	5
5 **	5 **	-	7,5
5 **	7,5 **	7,5	7,5
7,5 **	10 **	10	10
10 **	15 **	12,5	12,5
15 **	15 **	15	15
15 **	20 **	15	15
15 **	20 **	15	15
20 ***	30 ***	20	20
20 ***	30 ***	20	20
25 ****	30 ****	25	25
25 ****	30 ****	25	25
30 ****	45 ****	30	30
30 ****	45 ****	30	30
30 ****	45 ****	30	30
45 ****	45 ****	45	45
45 ****	45 ****	45	45
45 ****	45 ****	45	45

SAA 120			
max. Ø 120mm for cable			
Measuring / VA		Protection / VA	
kl: 0,5	kl: 1	kl: 5P10	kl: 10P10
-	-	-	1,25
-	1,25 **	-	1,25
-	1,25 **	-	2
1,25 **	2,5 **	-	2,5
2,5 **	3,75 **	-	2,5
3,75 **	5 **	-	3,75
5 **	7,5 **	3,75	3,75
7,5 **	10 **	5	5
10 **	15 **	5	5
10 **	15 **	7,5	7,5
10 **	15 **	7,5	7,5
15 **	20 **	7,5	7,5
15 **	20 **	10	10
15 **	20 **	10	10
15 **	20 **	10	10
20 **	25 **	10	10
20 **	25 **	10	10
20 **	25 **	15	15
25 ***	30 ***	15	15
25 ***	30 ***	15	15
30 ****	45 ****	15	15
30 ****	45 ****	20	20

Security factor for measuring core : FS10** , FS15*** , FS20 ****
Over current factor for protection core n > 10

Technical Data

Operating voltage (maximum)	0,72 kV
Rated power-frequency withstand voltage (1 minute)	3 kV
Rated Impulse test voltage (1,2/50 µs) full wave	-
Rated frequency	50 Hz, 60 Hz
Primary rated current	50 - 2000 A
Secondary reconnection	-
Secondary rated current	1A, 5A
Rated short-time thermal current I _{th} (1s)	min. 100 x I _n
Rated dynamic current I _{dyn}	unlimited
Short-time load (mechanical)	3000 N
Insulation class	E
Ambient temperature	-5 +40 °C
Altitude	1000 m
Standard	IEC, ANSI , AS

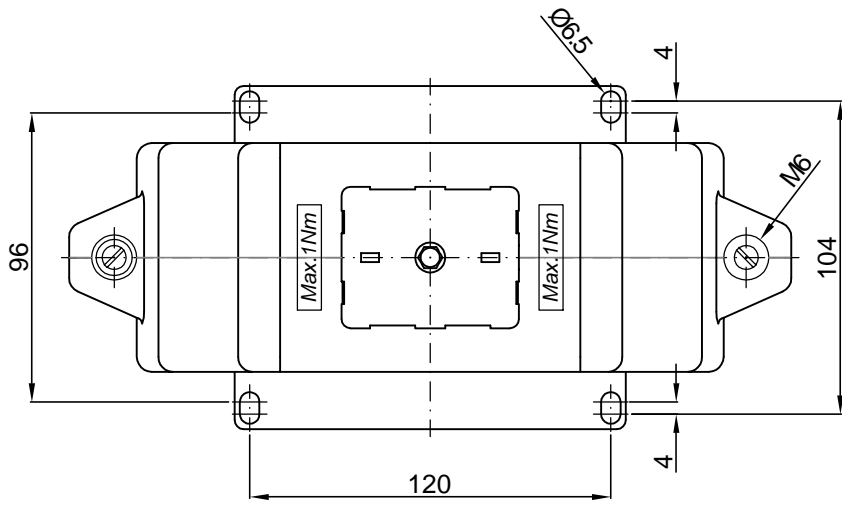
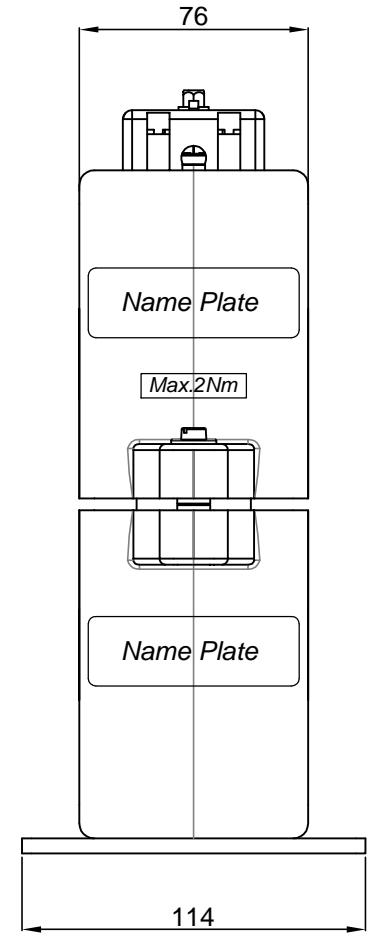
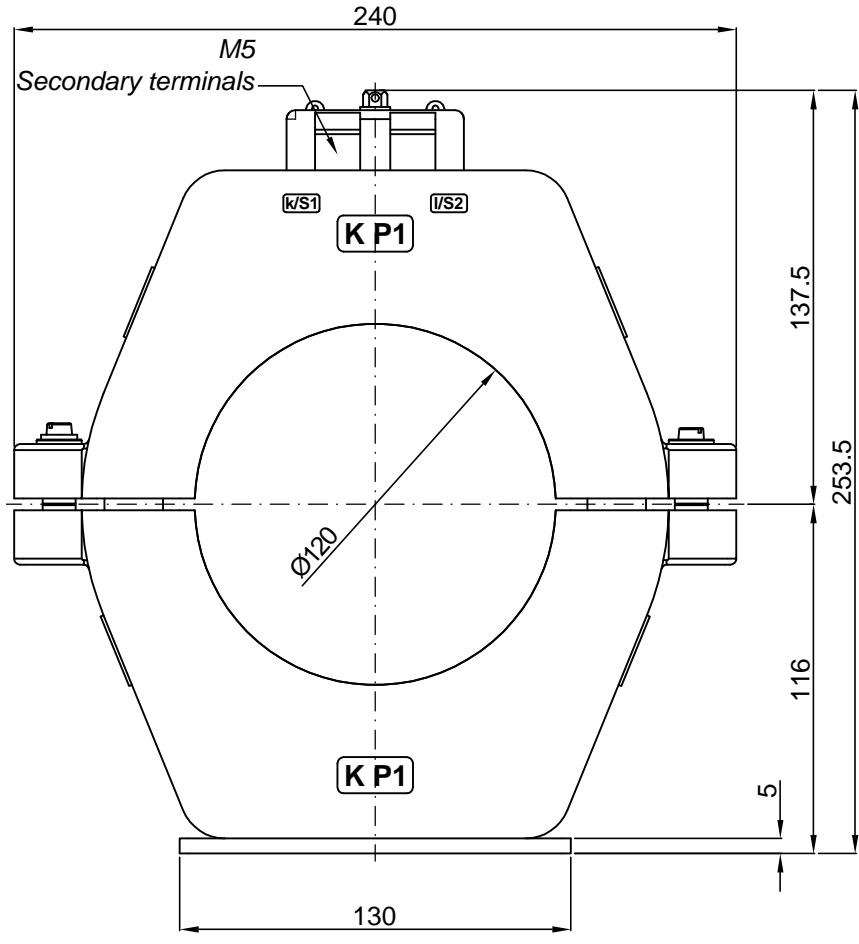


SCREW	TORQUE Nm
M5	1
M6	2

DEĞİŞİKLİK
TEKNİK BÜRO
Tarih 09/07/2007

QTY	DESCRIPTION	POS	DIMENSIONS	WEIGHT	PART OR DIN NO.	Cast-resin MATERIAL
	NO	DATE	NAME	MODIFICATION		
	A	05.07.2007	SÜKRAN	Torque table was changed. Name plate added		
				17.01.2007	PLATE CODE	M PLK TRF ST 187
	TOLERANCES DIN 7168 C	SAA-80 SPLIT TYPE CURRENT TRANSFORMER				REV. 070012 - A
	SCALE 1/2.5	REPLACES THE DRAWING NO.			DR'N	SÜKRAN
	ALCE	ÖLÇÜ TRAFÖ			CH'D	
					APP'D	
c.c	QC	MT	S1	S2	INFORMATION	

ALCE 029 (RB) BU RESMIN BÜTÜN HAKLARI ALCE ELEKTRİK SAN.VE TIC. A.Ş.'E AITTİR. TAKLİT EDİLEMEZ İZİNSİZ ÇOĞALTILAMAZ. RESİM ÜZERİNDEN ÖLÇÜ ALMAYINIZ.



SCREW	TORQUE Nm
M5	1
M6	2

DEĞİŞİKLİK
 TEKNİK BÜRO
 Tarih 09/07/2007

OTY	DESCRIPTION	POS	DIMENSIONS	WEIGHT	PART OR DIN NO.	Cast-resin MATERIAL
	NO DATE NAME MODIFICATION					
	A 05.07.2007 SÜKRAN Torque table was changed. Name plate added					
				17.01.2007	PLATE CODE	M PLK TRF ST 187
	TOLERANCES DIN 7168 C	SAA-120			070001 - A	
	SCALE 1/2.5	SPLIT TYPE CURRENT TRANSFORMER				
	REPLACES THE DRAWING NO.				DR'N	SÜKRAN
	ALCE				CH'D	
	ÖLÇÜ TRAFÖ				APP'D	
c.c	QC	MT	S1	S2	INFORMATION	