

# CURRENT TRANSFORMER

## Product Catalogue



**SR ELECTRICAL Co.**

<http://www.srelectricals.com>

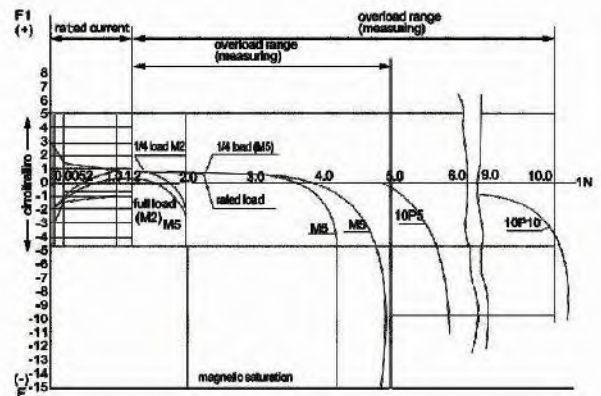
ISO 9001:2008 Certified Company

## ◆ Current errors and phase shift in protection current transformers (Fault conditions)

Accuracy class	Permissible ratio error at various Percentage of rated secondary current $\pm$	Phase shift in various percentage Of rated secondary current $\pm$		Compound error for Rated current %
		Minute(/)	Cent radian( $\pm$ )	
5P	$\pm 1$			5
10P	$\pm 3$			10

## ◆ Current errors and phase shift in measuring current transformers

Accuracy Class	Percentage of ration of current error for rated current percentage ( $\pm\%$ )				
	1%	5%	20%	100%	120%
1.0	-	3	1.5	1	1
0.5	-	1.5	0.75	0.5	0.5
0.2	-	0.75	0.35	0.2	0.2
0.5S	1.5	0.75	0.5	0.5	0.5
0.2S	0.75	0.5	0.2	0.2	0.2



## ◆ Current errors and phase shift in measuring current transformers

Primary current	5A-5000A
Secondary current	5A, 1A
Maximum voltage	0.72kV
Continuous operating current	1.2 $\times$ In
Test voltage per minute	3kV
Rated security coefficient	Fs < 5
Frequency	50/ 60Hz
Thermal rated current	Ith=100 $\times$ In
Rated load	1-30VA

## ◆ dynamic rated current:

Ratio error of current transformer can be guaranteed between 100% and 120% of rated current. Error class can be 2-3 folding. Especially the under half rated current the application, load current can be taken into consideration between  $1.2I_n$ .



◆ Device power which connected to current transformers:

Devices	Power (VA)
Ammeter	0.7- 1.5
Wattmeter	0.2-0.5
Cosmeter	2.0-6.0 VA
KWh -meter (Active & Reactive)	0.4 -1
Reactive Power Control units	12
Overload Relays	0.2 -6
Inverse Current Relay	2
Secondary Thermal Relay	7.2-9

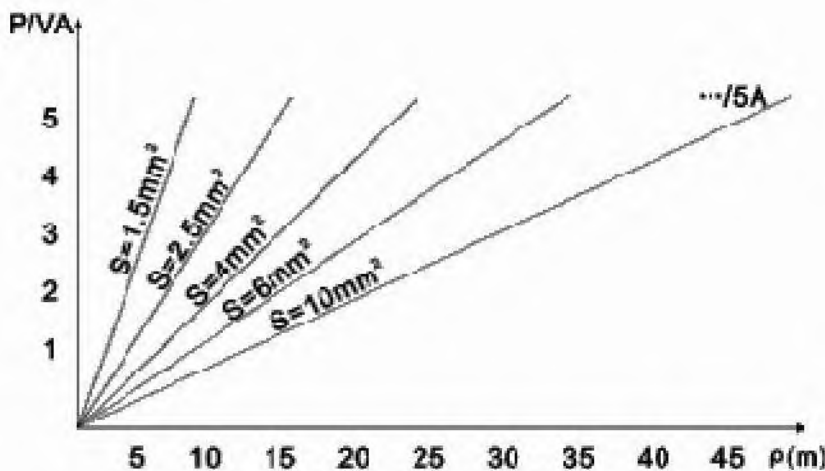
◆ Additional load due to copper cables:

Power loss(VA) at secondary current 5A

Cable (Cu)	2.5mm <sup>2</sup>	4.0mm <sup>2</sup>	6.0mm <sup>2</sup>	10.0mm <sup>2</sup>
1m	0.36	0.22	0.15	0.09
2m	0.71	0.45	0.30	0.18
3m	1.07	0.67	0.45	0.27
4m	1.43	0.89	0.60	0.36
5m	1.78	1.12	0.74	0.44
6m	2.14	1.32	0.89	0.54
7m	2.50	1.56	1.04	0.63
8m	2.86	1.79	1.19	0.71
9m	3.21	2.01	1.34	0.80
10m	3.57	2.24	1.49	0.89

◆ Power loss calculation of cable

$$P = \frac{I_{sn}^2 \times 2 \rho}{S \times 56} \text{ (VA)}$$



$I_{sn}$  = secondary rated current (A)  
 $S$  = cross section of copper cable (mm<sup>2</sup>)  
 $P$  = power loss (VA)  
 $\rho$  = Cable length of secondary side (m)

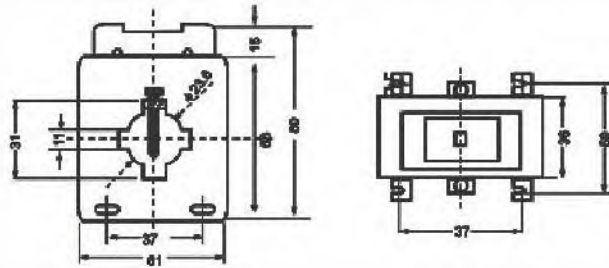
## ◆ MSQ Series:

Technical parameter



**MSQ-30M**

TYPE	Rated current(A)	Rated load (VA)		Rated Voltage(V)	Rated Frequency(Hz)
		Class:0.5	Class:1.0		
MSQ-30M	30/5	-	1	660	50/60
	50/5	-	1	660	50/60
	60/5	-	1	660	50/60
	80/5	1.5	2.5	660	50/60
	100/5	2.5	5	660	50/60
	150/5	5	5	660	50/60
	200/5	5	5	660	50/60
	250/5	5	5	660	50/60
	300/5	5	5	660	50/60







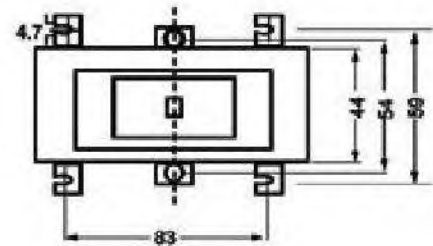
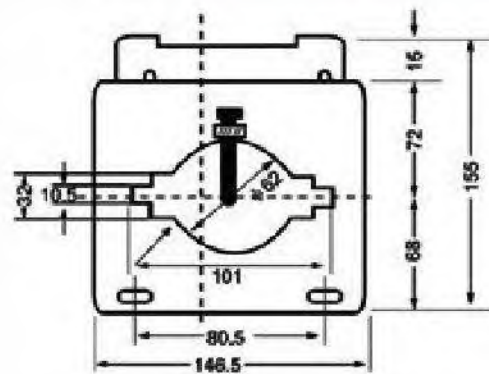
## ◆ MSQ Series:

Technical parameter



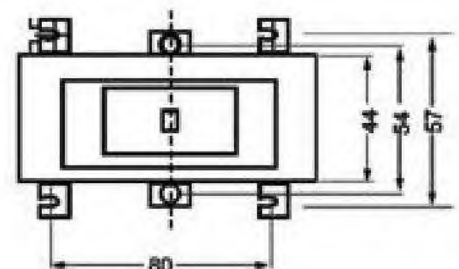
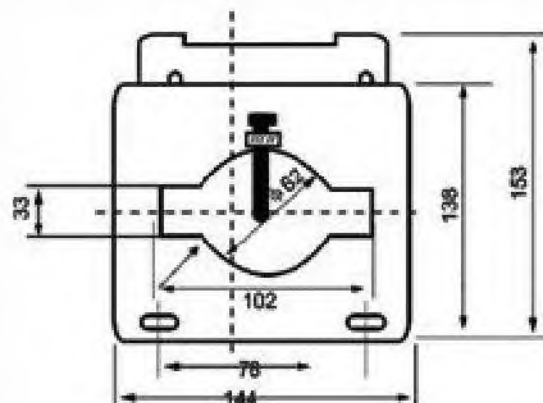
**MSQ-100**

TYPE	Rated current(A)	Rated load (VA)		Rated Voltage(V)	Rated Frequency(Hz)
		Class:0.5	Class:1.0		
MSQ-100	800/5	5	10	660	50/60
	1000/5	5	10	660	50/60
	1200/5	10	10	660	50/60
	1500/5	10	15	660	50/60
	2000/5	15	20	660	50/60
	3000/5	20	25	660	50/60



**MSQ-100B**

TYPE	Rated current(A)	Rated load (VA)		Rated Voltage(V)	Rated Frequency(Hz)
		Class:0.5	Class:1.0		
MSQ-100B	800/5	5	10	660	50/60
	1000/5	5	10	660	50/60
	1500/5	10	10	660	50/60
	1600/5	10	15	660	50/60
	2500/5	15	20	660	50/60
	3000/5	20	25	660	50/60





## ◆ MR Series



MR-80

Primary current	5A-5000A
Secondary current	5A, 1A
Rated voltage	0.72kV
Rated frequency	50/60Hz
Rated load	1-30VA
Class	0.5, 1.0, 3.0
Rated security coefficient	Fs-5

### Technical parameter



MR-125

TYPE	Rated current(A)	Rated load (VA)	Class	Rated Voltage(V)	Rated Frequency(Hz)
MR-28	30/5-100/5	1.5-5	0.5/1.0	720	50/60Hz
MR-42	100/5-250/5	5	0.5/1.0	720	50/60Hz
MR-45	300/5-400/5	5	0.5/1.0	720	50/60Hz
MR-60	400/5-800/5	5-10	0.5/1.0	720	50/60Hz
MR-85	600/5-1000/5	5-10	0.5/1.0	720	50/60Hz
MR-125	1200/5-5000/5	10-30	0.5/1.0	720	50/60Hz

### Dimension of case (mm)



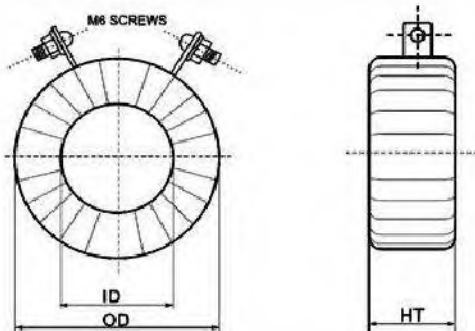
PR

TYPE	ID	OD	HT
MR-28	28	70	40
MR-42	42	80	30
MR-45	45	80	30
MR-60	60	100	30
MR-85	85	120	20
MR-125	125	165	20

### Outline drawing



PR



## ◆ BH Series:

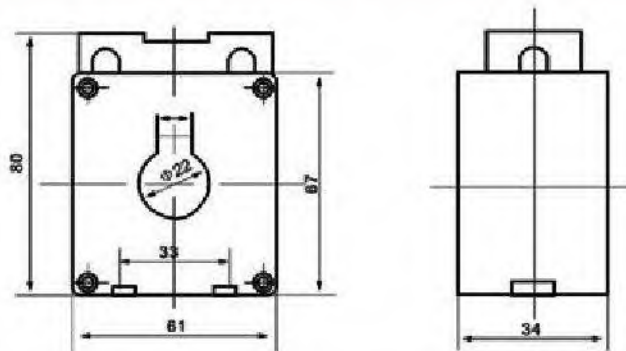
Primary current	5A-5000A
Secondary current	5A, 1A
Rated voltage	0.66kV/0.3kV
Rated frequency	50/60Hz
Rated load	1-30VA
Class	0.5 0.2 0.5S0.2S
Rated security coefficient	Fs -5

### Technical parameter



**BH-20**

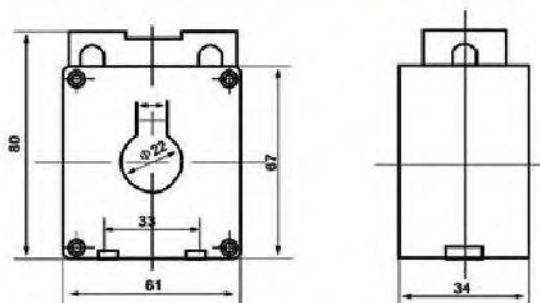
TYPE	Rated current(A)	Rated load (VA)		Rated Voltage(V)	Rated Frequency(Hz)
		Class:0.5	Class:1.0		
BH-20	5/5	1	1	660	50/60
	30/5	1	2.5	660	50/60
	50/5	2.5	2.5	660	50/60
	75/5	2.5	2.5	660	50/60
	100/5	2.5	5	660	50/60



**BH-30**

### Technical parameter

TYPE	Rated current(A)	Rated load (VA)		Rated Voltage(V)	Rated Frequency(Hz)
		Class:0.5	Class:1.0		
BH-20	5/5	1	1	660	50/60
	30/5	1	2.5	660	50/60
	50/5	2.5	2.5	660	50/60
	75/5	2.5	2.5	660	50/60
	100/5	2.5	5	660	50/60





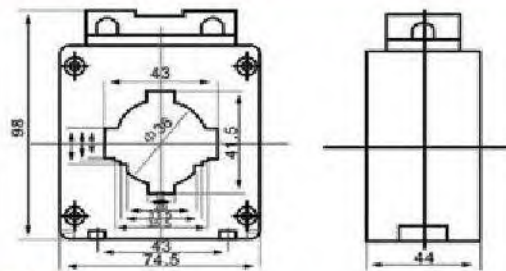
## LMK-BH-0.66 Current Transformer



**BH-40**

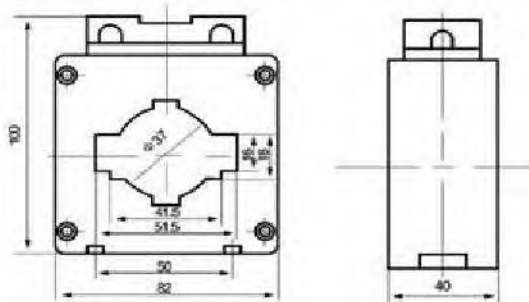
### Technical parameter

TYPE	Rated current(A)	Rated load (VA)			Rated Voltage(V)	Rated Frequency(Hz)
		Class:0.5	Class:0.2	Class:0.2S		
BH-40	200/5	5	5	5	660	50/60
	300/5	5	5	5	660	50/60
	400/5	5	5	5	660	50/60
	600/5	5	5	5	660	50/60



### Technical parameter

TYPE	Rated current(A)	Rated load (VA)			Rated Voltage(V)	Rated Frequency(Hz)
		Class:0.5	Class:0.2	Class:0.2S		
BH-50	400/5	5	5	5	660	50/60
	500/5	5	5	5	660	50/60
	600/5	5	5	5	660	50/60



### Technical parameter

TYPE	Rated current(A)	Rated load (VA)			Rated Voltage(V)	Rated Frequency(Hz)
		Class:0.5	Class:0.2	Class:0.2S		
BH-60	400/5	5	5	5	660	50/60
	600/5	5	5	5	660	50/60
	800/5	5	5	5	660	50/60



**BH-60**

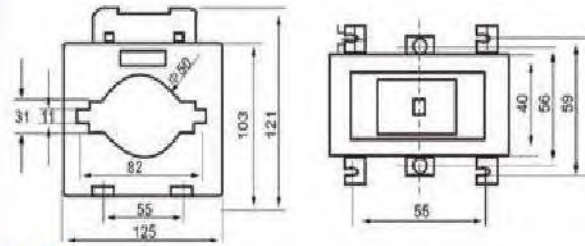
## LMK-BH-0.66 Current Transformer

### Technical parameter



**BH-80**

TYPE	Rated current(A)	Rated load (VA)			Rated Voltage(V)	Rated Frequency(Hz)
		Class:0.5	Class:0.2	Class:0.2S		
BH-80	600/5	5	5	5	660	50/60
	800/5	5	5	5	660	50/60
	1000/5	10	10	5	660	50/60
	1500/5	10	10	10	660	50/60

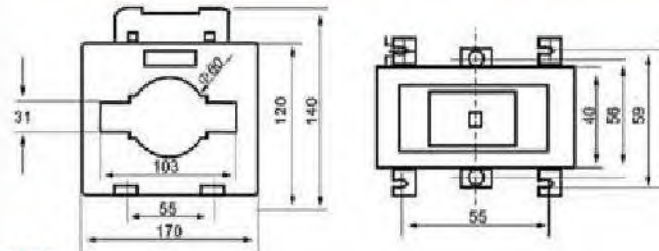


### Technical parameter



**BH-100**

TYPE	Rated current(A)	Rated load (VA)			Rated Voltage(V)	Rated Frequency(Hz)
		Class:0.5	Class:0.2	Class:0.2S		
BH-100	800/5	5	5	5	660	50/60
	1000/5	10	10	10	660	50/60
	1500/5	10	10	10	660	50/60
	2000/5	15	15	15	660	50/60

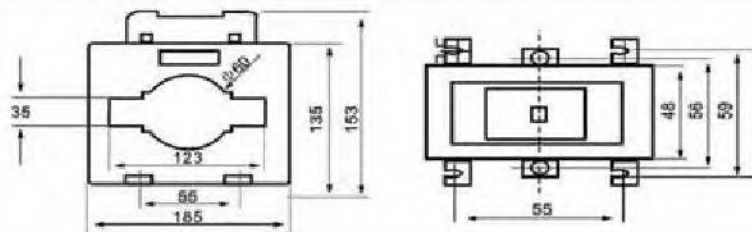


### Technical parameter



**BH-120**

TYPE	Rated current(A)	Rated load (VA)			Rated Voltage(V)	Rated Frequency(Hz)
		Class:0.5	Class:0.2	Class:0.2S		
BH-120	1500/5	10	10	10	660	50/60
	2000/5	15	15	15	660	50/60
	3000/5	20	20	20	660	50/60
	5000/5	30	30	30	660	50/60





## ◆SDH Series:



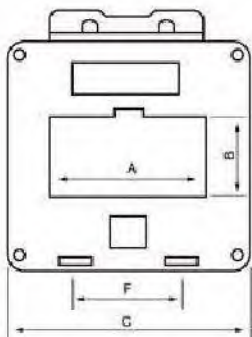
**SDH-60**



**SDH-100**



**SDH-120**



**Outline drawing**

Primary current: - 5A-5000A  
 Secondary Current: - 5A, 1A  
 Rated Voltage: - 0.66kV  
 Rated Frequency: - 50/60Hz  
 Rated load: - 1-30VA  
 Class: - 0.5, 0.2, 0.5, S, 0.2S  
 Rated security coefficient: -  $F_s < 5$

### Technical parameter

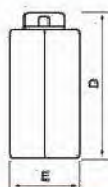
Type	Rated current(A)	Rated load (VA)	Class	Rated Voltage(V)	Rated Frequency(Hz)
SDH-40	100/5A-600/5A	1.5-5	0.2-1.0	660	50/60Hz
SDH-60	300/5A-1000/5A	5-10	0.2-1.0	660	50/60Hz
SDH-80	400/5A-2000/5A	5-20	0.2-1.0	660	50/60Hz
SDH-100	800/5-4000/5A	10-30	0.2-1.0	660	50/60Hz
SDH-120	1000/5A-5000/5A	10-30	0.2-1.0	660	50/60Hz
SDH-150	3000/5A-8000/5A	30	0.2-1.0	660	50/60Hz

### Dimension of case (mm)

Type	A	B	C	D	E	F
SDH-40	42	32	78	104	47	45
SDH-60	62	32	102	112	46	53
SDH-80	82	32	122	120	46	60
SDH-100	102	32	141	123	50	73
SDH-120	122	52	165	152	50	80
SDH-150	152	52	205	163	52	82

### Dimension of case (mm)

Type	A	B	C	D	E	F
SDH-60x50	62	52	115	98	45	53
SDH-80x50	82	52	132	112	45	60
SDH-100x50	102	52	173	148	48	80
SDH-100x80	102	85	148	190	48	80
SDH-160x100	162	102	200	245	60	135
SDH-200x60	205	62	156	245	54	185
SDH-200x80	202	81	230	245	51	185
SDH-200x50	225	52	270	150	55	175
SDH-260x80	262	102	308	210	62	205





## LMZ1/LMZJ1-0.5 Current Transformer

### Technical parameter

Type	Rated current(A)	Rated load (VA)			Rated Voltage(V)	Rated Frequency(Hz)
		Class:0.5	Class:0.2	Class:0.2S		
LMZ1-0.5	5/5-300/5	5	5	5	0.5	50/60

### Dimension of case (mm)

Type	Rated current(A)	$\phi$	B1	C1	D1	E1	F1
LMZ1-0.5	5/5-300/5	31	110	86	113	86	47



LMZ1-0.5



LMZJ1-0.5

### Technical parameter

Type	Rated current(A)	Rated load (VA)			Rated Voltage(V)	Rated Frequency(Hz)
		Class:0.5	Class:0.2	Class:0.2S		
LMZJ1-0.5	5/5-300/5	5	5	5	0.5	50/60

### Dimension of case (mm)

Type	Rated current(A)	A1	B1	C1	D1	E1	F1
LMZ1-0.5	5/5-300/5	31	110	86	113	86	47
	300/5	42	110	90	115	86	47

### Technical parameter

Type	Rated current(A)	Rated load (VA)			Rated Voltage(V)	Rated Frequency(Hz)
		Class:0.5	Class:0.2	Class:0.2S		
LMZJ1-0.5	400/5-600/5	5	5	5	0.5	50/60

### Dimension of case (mm)

Type	Rated current(A)	A1	B1	C1	D1	E1	F1
LMZJ1-0.5	400/5-600/5	56	110	95	127	86	45



LMZJ1-0.5

### Technical parameter

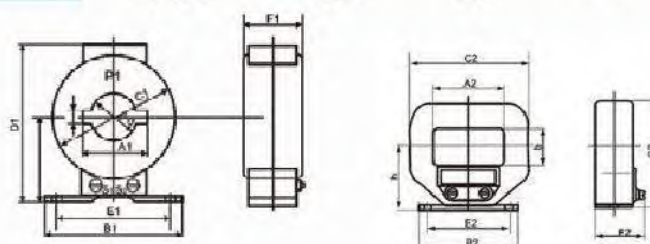
Type	Rated current(A)	Rated load (VA)			Rated Voltage(V)	Rated Frequency(Hz)
		Class:0.5	Class:0.2	Class:0.2S		
LMZJ1-0.5	800/5-5000/5	5-30	5-30	5-30	0.5	50/60

### Dimension of case (mm)

Type	Rated current(A)	A2	B2	C2	D2	E2	F2
LMZJ1-0.5	750/5-800/5	83	145	125	100	115	45
	1000/5-1500/5	102	175	143	120	123	45
	2000/5-4000/5	142	210	162	150	150	45
	5000/5	182	260	185	190	162	45



LMZJ1-0.5





## ◆ LMZJ-0.66 Series:

Primary current: - 5A-5000A  
 Secondary Current: - 5A, 1A  
 Rated Voltage: - 0.66kV  
 Rated Frequency: - 50/60Hz  
 Rated load: - 1-30VA  
 Class: - 0.5, 0.2, 0.5, S, 0.2S  
 Rated security coefficient: -  $F_s < 5$

### Technical parameter

Type	Rated current(A)	ID	Rated load (VA)	Class	Rated Voltage(V)	Rated Frequency(Hz)
LMZJ1-0.66	100/5-300/5	35	1.5-5	0.5/0.2	660	50/ 60Hz
LMZJ1-0.66	300/5-400/5	40	5	0.5/0.2	660	50/ 60Hz
LMZJ1-0.66	400/5-600/5	50	5	0.5/0.2	660	50/ 60Hz
LMZJ1-0.66	750/5-800/5	80	5-10	0.5/0.2	660	50/ 60Hz
LMZJ1-0.66	1000/5-1500/5	100	10-15	0.5/0.2	660	50/ 60Hz
LMZJ1-0.66	2000/5-3000/5	140	10-30	0.5/0.2	660	50/ 60Hz

### Dimension of case (mm)

Type	A	B	C	D	E	F
LMZJ1-0.66	36	94	15	112	45	65
LMZJ1-0.66	42	94	15	112	45	65
LMZJ1-0.66	52	104	20	115	45	65
LMZJ1-0.66	82	133	24	115	44	63
LMZJ1-0.66	102	157	25	123	44	65
LMZJ1-0.66	142	205	36	145	46	72



LMZ(J) 1-0.66

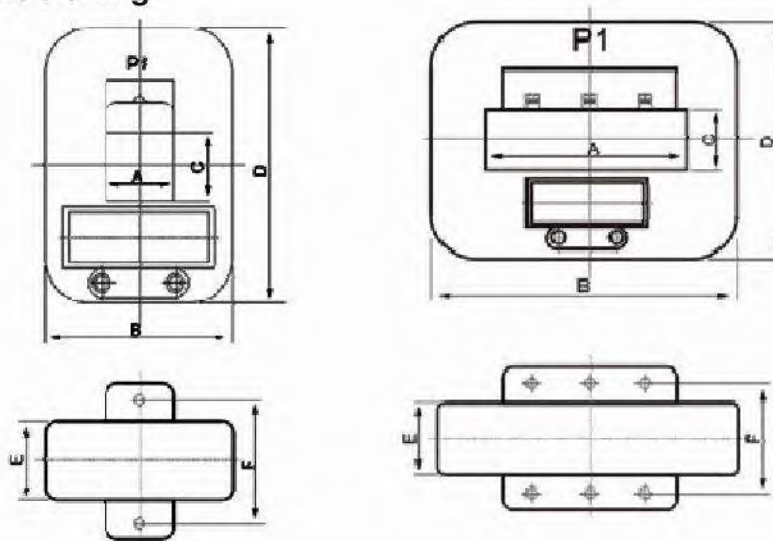


LMZ(J) 1-0.66



LMZ(J) 1-0.66

### Outline drawing





## CP Current Transformer

### CP Series:-

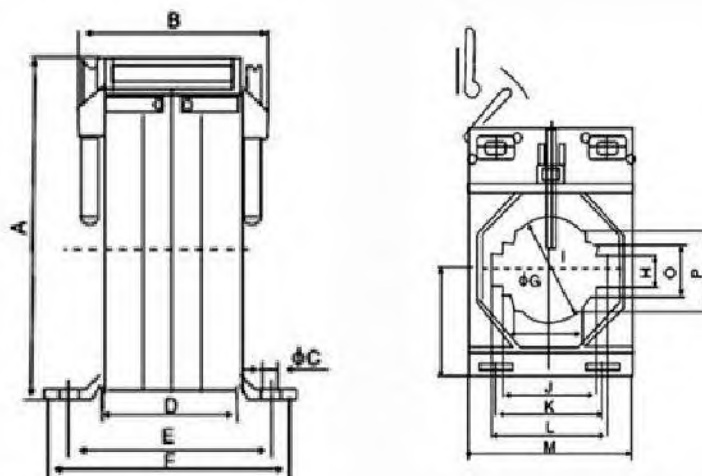
#### Dimension of case (mm)

Type	A	B	C	D	E	F	G	H	I	J	K	L	M	O	P
CP62/20	78	36	6.6	36	55	71	---	---	---	---	---	21	---	---	---
CP62/30	78	47	6.6	35	55	71	30.5	11	11	26	44	31	62	21	26
CP62/40	78	47	6.6	35	55	71	31	11	16	31	44	41	74	21	26
CP74/40	98	61	6.6	45	67	81	33	12	11	31	47	41	74	21	31
CP74/50	98	61	6.6	45	67	81	41	12	31	41	47	51	86	21	31
CP86/60	110	56	6.6	40	62	76	51	12	21	51	68	61	86	31	44
CP104/80	126	56	6.6	40	62	76	65	12	31	61	86	81	104	31	56

#### Dimension of case (mm)

Type	Rated current(A)	Rated load (VA)	Class	Rated Voltage(V)	Rated Frequency(Hz)
CP62/20	30-5A-80/5A	1.5~2.5	3.0~0.5	720	50/60
CP62/30	50/5A-300/5A	1.5~5	1.0~0.5	720	50/60
CP62/40	200/5A-600/5A	5~10	1.0~0.5	720	50/60
CP74/40	150/5A-800/5A	2.5~20	1.0~0.5	720	50/60
CP74/50	250A/5A-1000/5A	5~20	1.0~0.5	720	50/60
CP86/60	250A/5A-1200/5A	5~30	1.0~0.5	720	50/60
CP104/80	600/5A-2000/5A	5~45	1.0~0.5	720	50/60
CP140/100	1000/5A-3200/5A	5~30	1.0~0.5	720	50/60

#### Outline drawing



CP62/30



CP62/40



CP86/60



CP104/80



CP104/100



## AMC Current Transformer

### ◆ AMC Series:



AMC-30

Primary current	5A-5000A
Secondary current	5A, 1A
Rated voltage	0.66kV-0.3kV
Rated frequency	50/60Hz
Rated load	1-30VA
Class	0.5 0.2 0.5S0.2S
Rated security coefficient	Fs < 5

### Dimension of case (mm)

Type	A	B	C	D	E	F	G
AMC-30CT	85	53	95	112	13	83	18
AMC-40CT	85	53	95	112	13	83	18
AMC-60CT	111	53	131	148	13	83	18
AMC-100CT	155	53	174	192	13	83	18



AMC-40

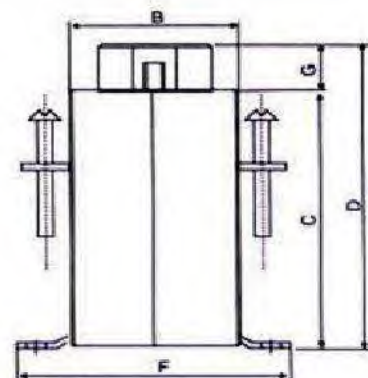
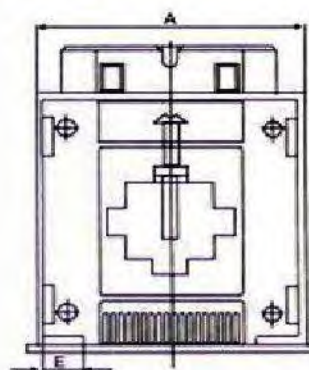
### Technical parameter

Type	Rated current(A)	Bus bar Dimension	Rated load (VA)	Class	Rated Voltage(V)	Rated Frequency(Hz)
AMC-30CT	100/5A-300/5A	30x10mm	5	0.5	660	50/60
AMC-40CT	250/5A-800/5A	40x10mm	5	0.5	660	50/60
AMC-60CT	400/5A-1200/5A	60x20mm	10	0.5	660	50/60
AMC-100CT	1000/5A-3000/5A	100x20mm	15	0.5	660	50/60



AMC-60

### Outline drawing

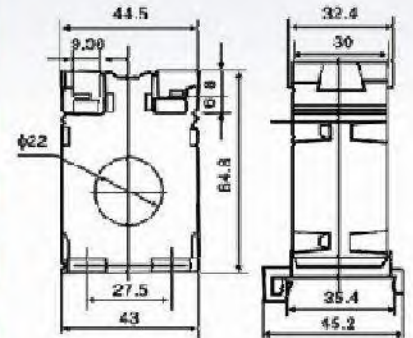


AMC-80

## DM Series:

### Technical parameter

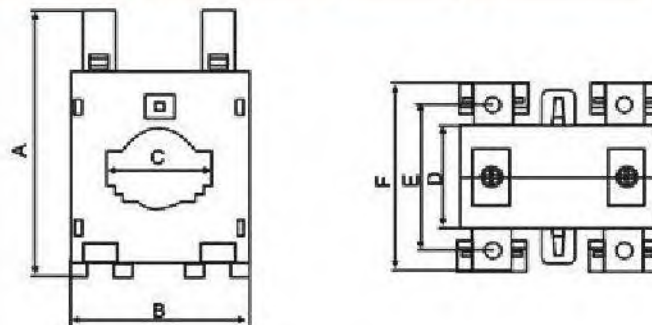
Type	Rated current (A)	Rated Voltage (V)	Class
DM-20	20/5	-	1.0
	30/5	-	1.0
	50/5	1	1.0
	60/5	1	1.0
	75/5	1.5	1.0
	100/5	2.5	1.0
	150/5	3	1.0
	200/5	5	1.0
300/5	5	1.0	



## ◆ DSC Series:

### Technical parameter

TYPE	Rated current (A)	Rated Voltage (V)	Class	Rated Voltage (V)	Rated Frequency (Hz)
DS-30	50/ 5A-400/ 5A	1.5-5	1.5-5	720	50/ 60
DS-40	200/ 5A-600/ 5A	2.5-5	1.5-5	720	50/ 60
DS-60	300/ 5A-1200/ 5A	5-10	1.5-5	720	50/ 60
DS-80	400/ 5A-1600/ 5A	5-15	1.5-5	720	50/ 60
DS-100	600/ 5A-3000/ 5A	5-20	1.5-5	720	50/ 60





## ◆ D363, D364 SERIES:

### Technical parameter



**D363**

TYPE	Rated current(A)	Cable dimension	Class	Rated load(VA)	Rated Voltage(V)	Rated Frequency(Hz)
D363	3X40/5A-500/5A	3x30mm	1.0/3.0	1.25-5VA	720	50/60
D364	3X40/5A-600/5A	3X30mm	1.0/3.0	2.5-5A	720	50/60

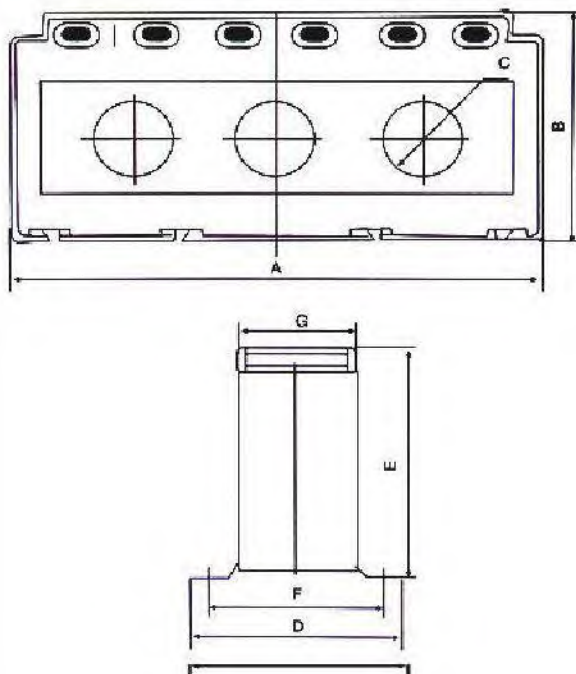
### Dimension of case(mm)











**D364**

TYPE	A	B	C	D	E	F	G
D363	185	84	27	75	87	61	41
D364	185	84	37	75	87	61	41

### Outline drawing



<p style="text-align: center;"><b>99T1</b></p> <p style="text-align: center;">48x48, 45x45</p>  <p style="text-align: right;">99T1-A, V DQ18-A, V</p>	<p style="text-align: center;"><b>DQ96</b></p> <p style="text-align: center;">96x96, 92x92</p>  <p style="text-align: right;">DQ96-AV DQ96-Hz DQ96-cos<math>\phi</math> DQ96-w</p>
<p style="text-align: center;"><b>DQ72</b></p> <p style="text-align: center;">72x72, 67x67</p>  <p style="text-align: right;">DQ72-AV DQ72-Hz DQ72-cos<math>\phi</math> DQ72-W</p>	<p style="text-align: center;"><b>42</b></p> <p style="text-align: center;">120x120, 112x112</p>  <p style="text-align: right;">42C3-AV 42C20-AV 42L6-AV 42C20-AV 42L2-Hz 42L2-cos<math>\phi</math> 42L2-W 42L2-S</p>
<p style="text-align: center;"><b>6L2</b></p> <p style="text-align: center;">80x80, 76x76</p>  <p style="text-align: right;">6L2-AV 6L2-AV 6L2-Hz 6L2-cosO 6L2-W 6L2-S</p>	<p style="text-align: center;"><b>44</b></p> <p style="text-align: center;">80x100, 70<math>\pm</math>0.4</p>  <p style="text-align: right;">DQ195I-Dx1 DQ195U-Dx1 DQ194I-Dx1 DQ194U-Dx1 DQ195I-Dx1</p>
<p style="text-align: center;"><b>85</b></p> <p style="text-align: center;">56x64, 45x0.13</p>  <p style="text-align: right;">85C1-AV 85L1-AV 85L1-Hz 85L17-AV</p>	<p style="text-align: center;"><b>69</b></p> <p style="text-align: center;">80x64, 64<math>\pm</math>0.4</p>  <p style="text-align: right;">69C13-AV 69L13-Hz 69C9-AV 69L9-AV 69L9-Hz</p>



# Technological Innovation

## Energy Saving



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