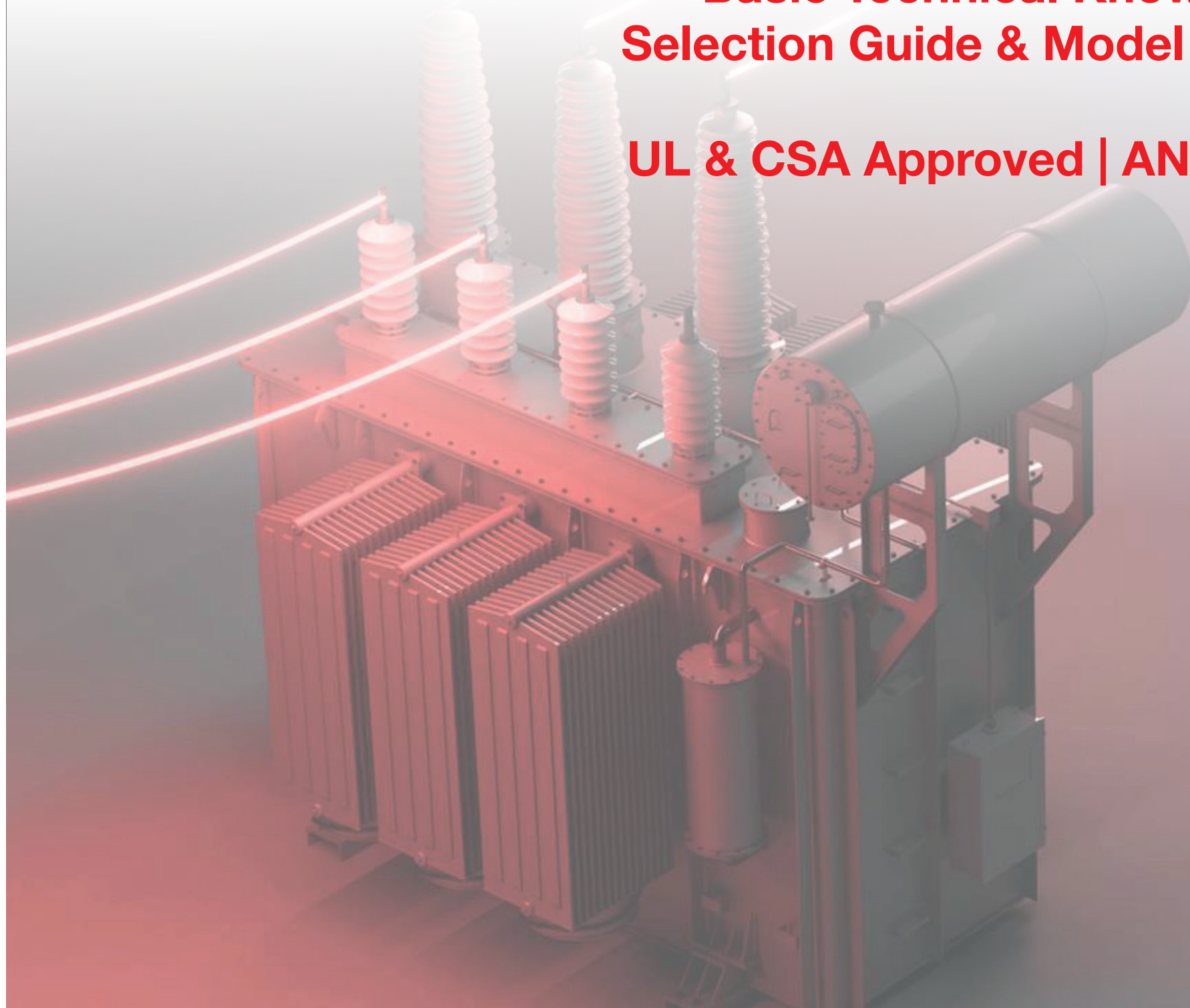




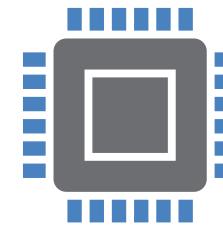
Basic Technical Knowledge Selection Guide & Model Overview

UL & CSA Approved | ANSI C57.13





UL & CSA approved
portfolio for metering
and protection



Compliant to ANSI /
IEEE C57.13 standards



Metering Class
(B0.1, B0.2, B0.5) and Relay
Class (C10, C20, C50,
C100) options



Wide range of
window sizes,
mounting
styles, and current
ratings



Multi-Ratio (MR) CTs
available for flexible
system design and
reduced inventory



Suitable for OEMs,
panel builders, utilities, and
industrial power systems



This deck helps you to:



01

**Understand the complete
product range of Sifam
Tinsley's ANSI CT portfolio**

02

**Select ANSI CT as per your
required specifications and
dimensions**

03

**Understand the
nomenclature of
the CT range**



- ANSI Metering Classes:
B0.1, B0.2, B0.5, B0.9, B1.8
- Billing / Revenue → B0.1 / B0.2
- Power Monitoring → B0.5
- Protection / Mixed
→ B0.9 / B1.8
- Always ensure total circuit
burden $\leq$ rated CT burden

Standard Burdens for Current Transformers with 5 A Secondaries*					
Burden Designation +	Resistance (Ohm)	Inductance (mH)	Impedance (ohm)	Volt Amperes (at 5 A)	Power Factor
Metering Burdens					
B-0.1	0.09	0.116	0.1	2.5	0.9
B-0.2	0.18	0.232	0.2	5	0.9
B-0.5	0.45	0.58	0.5	12.5	0.9
B-0.9	0.81	1.04	0.9	22.5	0.9
B-1.8	1.62	2.08	1.8	45	0.9
Relaying Burdens					
B-1	0.5	2.3	10	25	0.5
B-2	1	4.6	2	50	0.5
B-4	2	9.2	4	100	0.5
B-8	4	18.4	8	200	0.5



What is Relay Class & Why It Matters (Critical for protection applications)

- Relay Class CTs are designed to accurately reproduce primary current during high fault conditions without saturating, ensuring dependable operation of protective relays. They are specified under ANSI/IEEE C57.13 using C-class ratings
- C10 / C20 / C50 / C100 = voltage at $20 \times I_n \pm 10\%$ accuracy
- Higher C = higher fault reliability
- Mandatory for protection relays

Never use metering CTs for protection

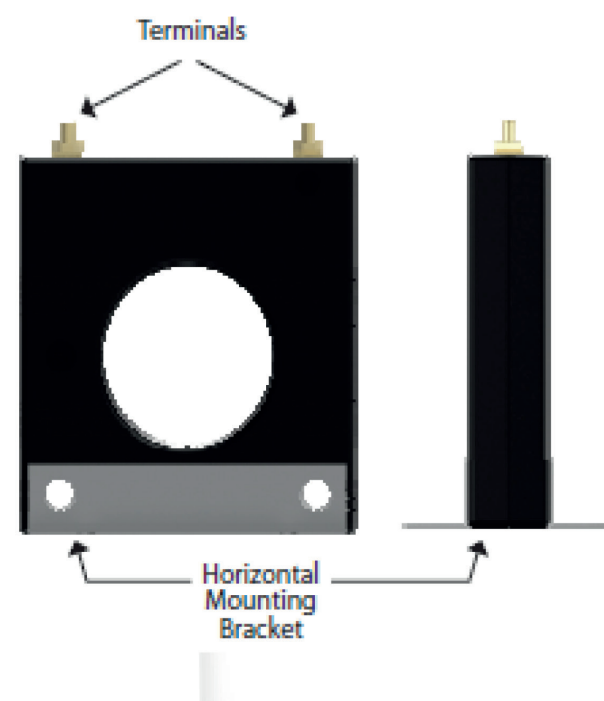


- **R = Round | S = Square**
- **F = Foot Mount | H = Horizontal | B = Bottom**
- **T = Terminal Output | L = Lead Output**
- **D = Double Axial | MR = Multi Range**



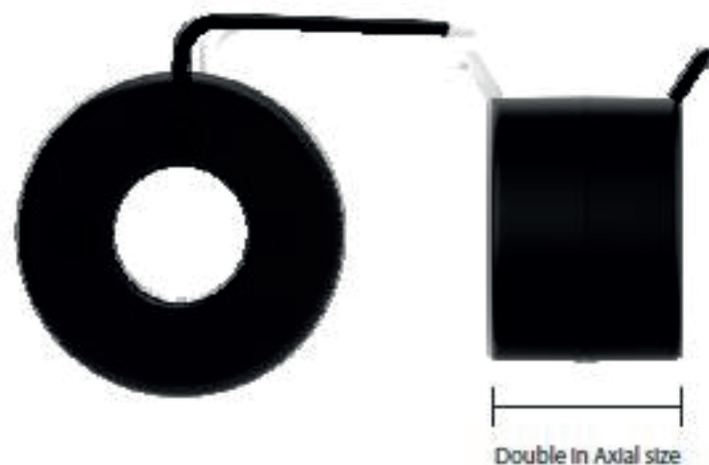
• SHT

S - Square
H - Horizontal Mounting
T - Terminals (for Output)



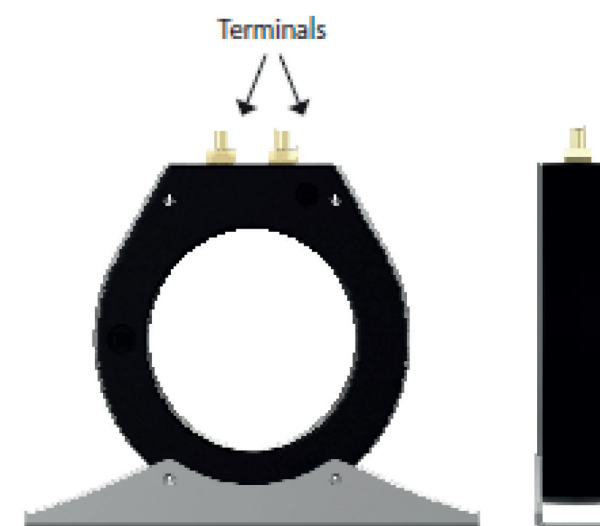
• DRL

D - Double in Axial size
R - Round
L - Leads (for Output)



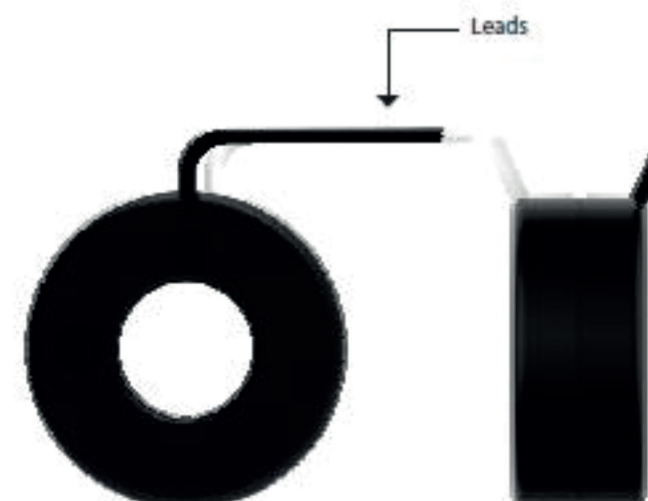
• RBT

R - Round
B - Bottom Mounting
T - Terminals (for Output)



• RL

R - Round
L - Leads (for Output)



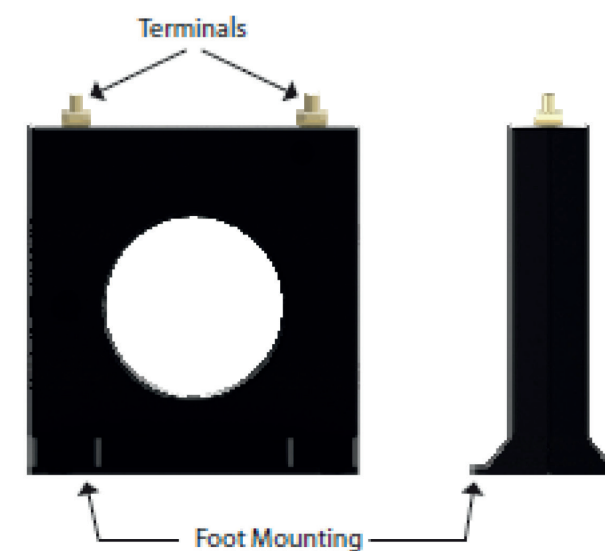
• RT

R - Round
T - Terminals (for Output)



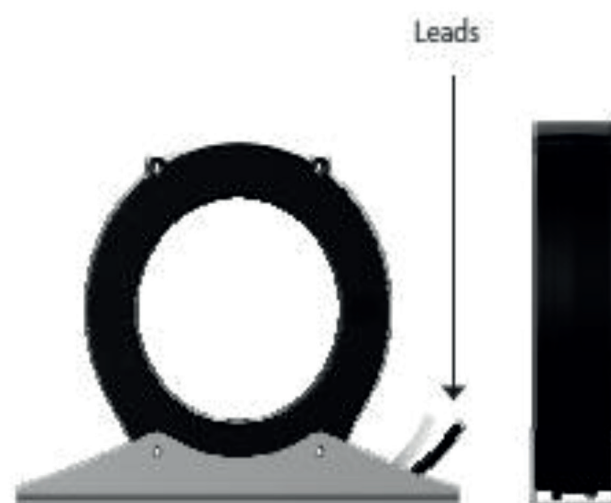
• SFT

S - Square
F - Foot Mounting
T - Terminals (for Output)

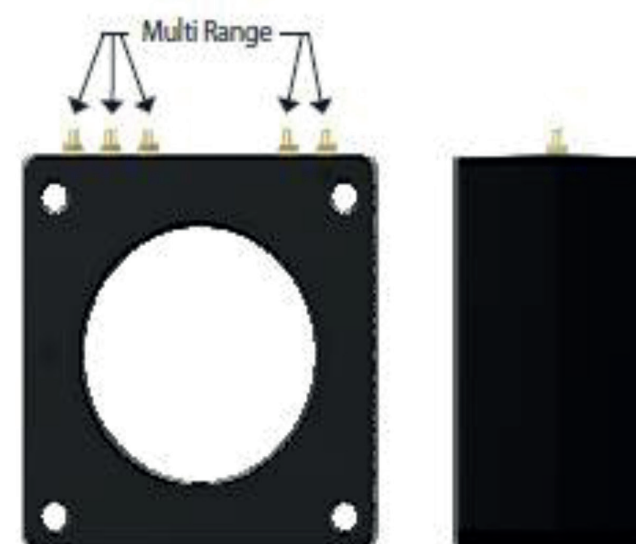


• RBL

R - Round
B - Bottom Mounting
L - Leads (for Output)



• MR - Multi Range

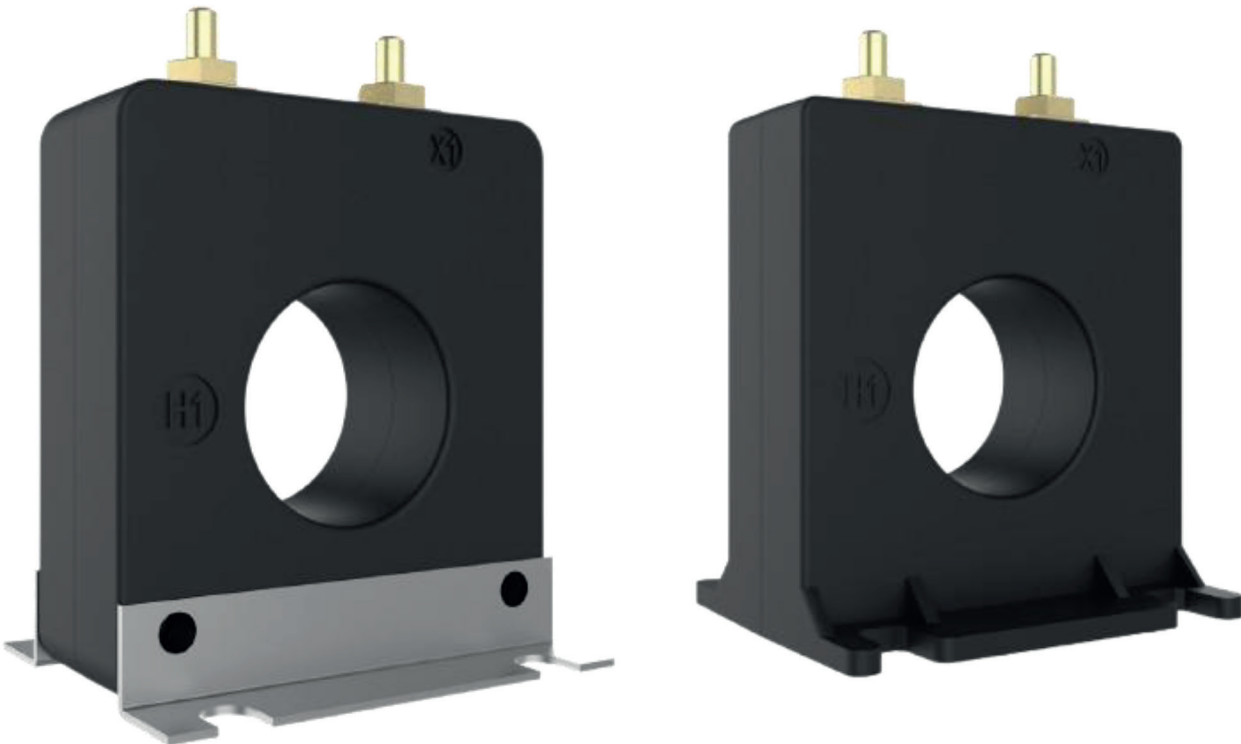


- **Bushing Type**



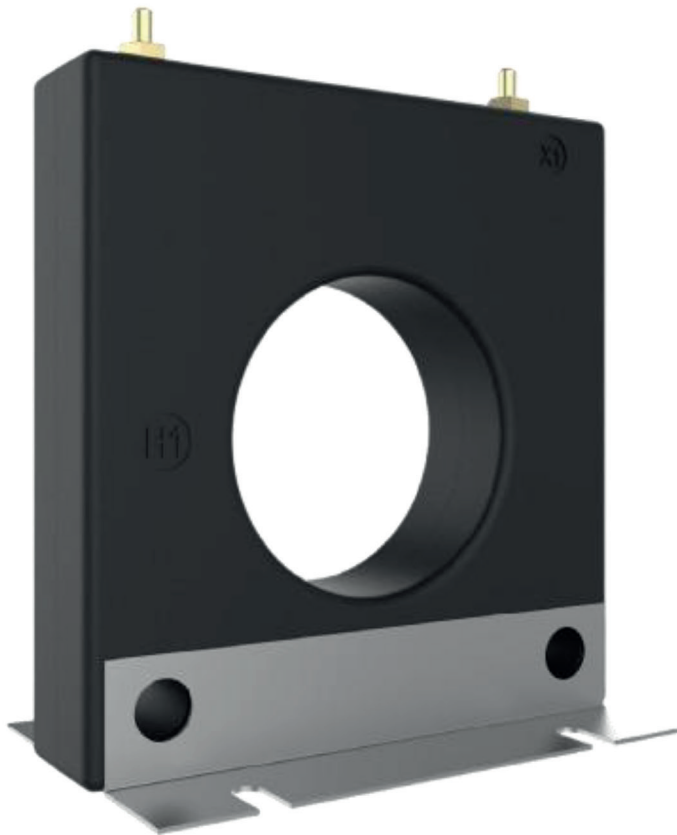


CT Model(s)	Window Size (inches)	Current Range
1RL	0.64"	50–250 A
2SFT / 2SHT / 2RL	1.13"	50–400 A
2DRL / 2ADRL	1.00"	50–300 A
5SFT / 5SHT / 5RL	1.56"	50–1200 A
5ASFT / 5ASHT / 5ARL	1.56"	50–1200 A
5DRL / 5ADRL	1.56"	50–1200 A
10ASFT	1.56"	50–600 A
15SFT	0.94"	50–200 A





CT Model(s)	Window Size (inches)	Current Range
6SFT / 6SHT / 6RL	2.06"	100–1500 A
6ASFT / 6ASHT / 6ARL	2.06"	100–1500 A
7SFT / 7SHT / 7RL	2.34"	100–1600 A
7ASFT / 7ASHT / 7ARL	2.34"	100–1600 A
8ASHT / 8ARL	3.25"	200–4000 A
19SHT / 19RL	4.25"	300–4000 A
10ASFT	1.56"	50–600 A
15SFT	0.94"	50–200 A





CT Model(s)	Window (inches)	Current Range
21ASHT	1.25	50-1000A
22ASHT	1.63	100-500A
23ASHT	2.00	100-600A
24ASHT	2.50	100-1600A
25ASHT	3.13	200-2000A
56SHT / 56SFT / 56RL	2.06	50-1200A
64ASHT	1.56	50-500A
65ASHT	2.00	50-1500A
66ASHT	2.50	50-800A
76RL / 76RT / 76RBT / 76RBL / 76SHT / 76SFT	3.00	200-2000A
100ASHT / 110ASHT / 115ASHT / 115AMR	4.00	200-3000A 200-3500A
112ASHT	2.25	50-1200A
113ASHT	2.75	50-1500A
114ASHT	3.25	50-1600A
117ASHT / 117AMR	4.62	50-4000A
120ASHT	5.75	200-4000A
125ASHT	6.31	600-4000A
126ASHT	8.25	400-5000A



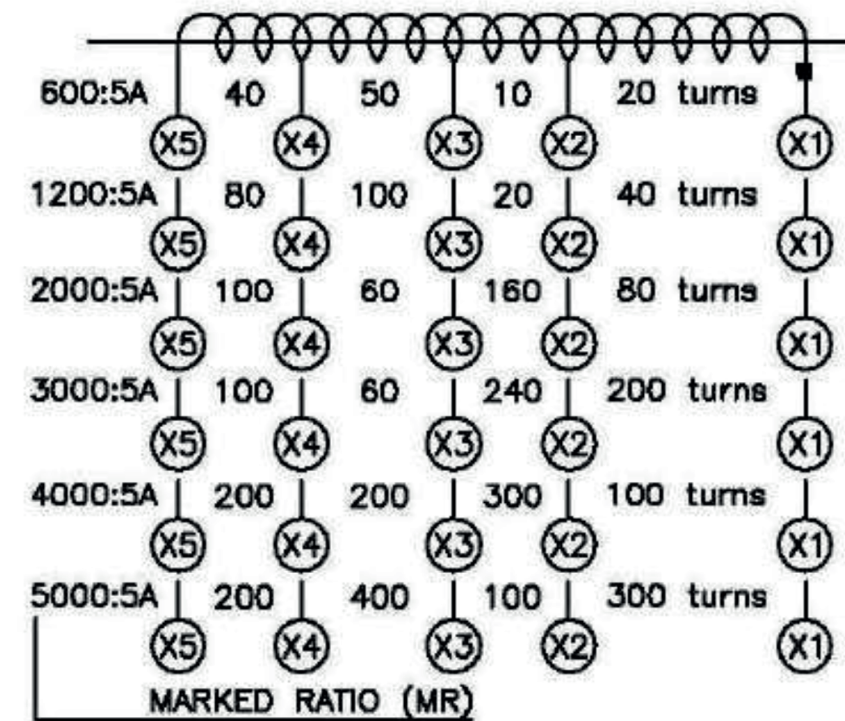


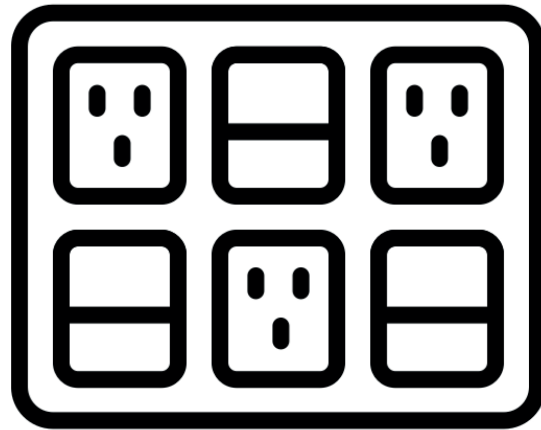
CT Model(s)	Window (inches)	Current Range
135ASHT / 135AMR	5.75"	50-5000A
140ASHT / 140AMR	8.13"	50-6000A
141ASHT / 141AMR	8.13"	50-6000A
142ASHT / 142AMR	7.25"	50-6000A
143ASHT / 143AMR	7.31"	50-6000A
144ASHT / 144AMR	6.00"	50-6000A
145ASHT / 145ARM	6.00"	50-6000A
170ASHT / 170ARL	4.25"	200-4000A
180ASHT / 180ARL	2.50"	50-2000A
189ASHT	No Window	2.5-100A
296ASHT	1.50"	50-1000A
297ASHT	2.25"	50-600A
298ASHT	3.00"	50-800A
299ASHT	3.38"	50-800A
300ASHT	3.75"	50-2000A
780ABT / 781AMR	6.50"	50-4000A
785ABT / 786AMR	6.50"	50-4000A



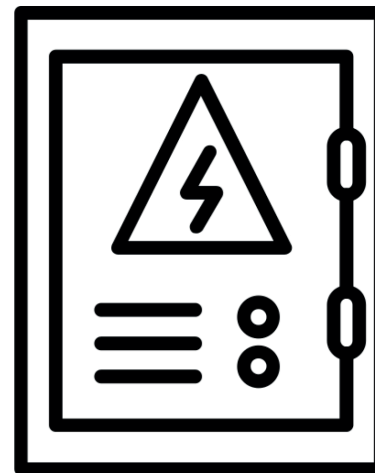
Multi-Ratio CTs reduce SKUs and increase flexibility

- 115AMR
- 117AMR
- 135AMR
- 140AMR
- 141AMR
- 142AMR
- 143AMR
- 144AMR
- 145AMR
- 781AMR
- 786AMR

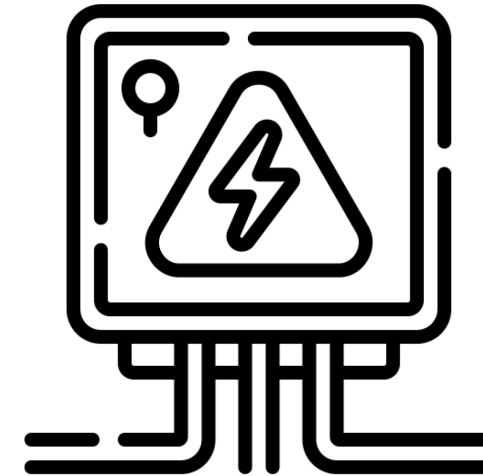




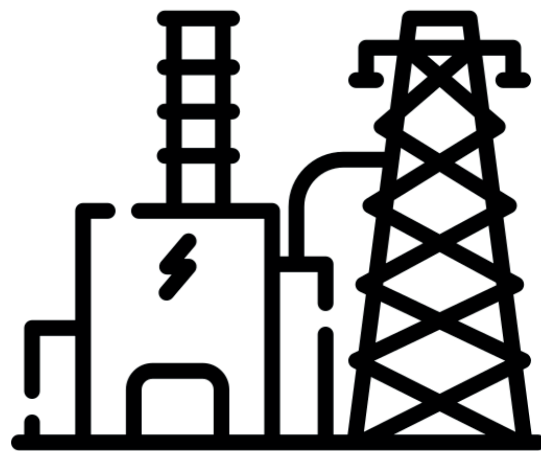
Switchboards



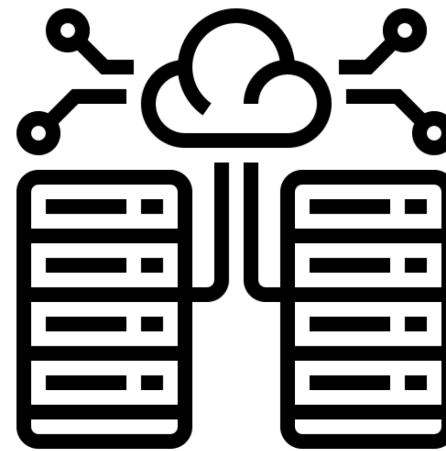
MCCs



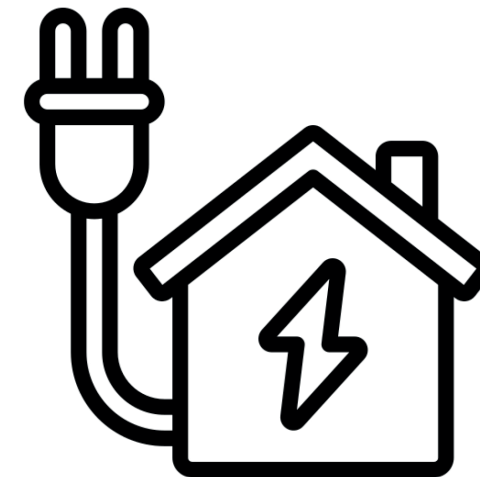
Feeders



Substations



Datacenters



Utilities

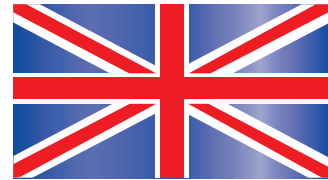


CT Model(s)	Mounting Kit Description	Code
19SHT	Mounting kit 19SHT	XA92-0A00-0012
21, 22, 23, 24, 25SHT	Mounting kit 21, 22, 23, 24, 25SHT	XA21-0A00-0029
56SHT	Mounting kit 56SHT	XA5H-0A00-0001
64, 65, 66SHT	Mounting kit 64, 65, 66SHT	X64H-0A00-0001
76SHT	Mounting kit 76SHT	X76H-0A00-0002
170SHT	Mounting kit 170SHT	X17H-0A00-0001
180SHT	Mounting kit 180SHT	X18H-0A00-0002
100SHT	Mounting kit 100SHT	XH10-0A00-0001
110SHT	Mounting kit 110SHT	XH11-0A00-0001
112 to 117SHT	Mounting kit 112 to 117SHT	XH12-0A00-0001
120SHT	Mounting kit 120SHT	X20H-0A00-0001
125SHT	Mounting kit 125SHT	X25H-0A00-0001
135SHT	Mounting kit 135SHT	X35H-0A00-0001
140, 142, 144SHT	Mounting kit 140, 142, 144SHT	X40H-0A00-0001
141, 143, 145SHT	Mounting kit 141, 143, 145SHT	X41H-0A00-0001
296 to 300SHT	Mounting kit 296 to 300SHT	X96A-0A00-0001
76RT, 76RBT, 76RBL	Mounting kit 76RT, 76RBT, 76RBL	X76T-0A00-0001
126SHT	Mounting kit 126SHT	X26H-0A00-0001



ANY QUESTIONS?

Contact Us



Sifam Tinsley Instrumentation Ltd

1 Warner Drive
Springwood Industrial Estate
Braintree
Essex
CM7 2YW

Tel: 01376 335271
Email: sales@sifamtinsley.com

www.sifamtinsley.co.uk