



Instrans

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OUR PRODUCT RANGE

CURRENT TRANSFORMERS

REF STD.: IS 16227/IEC 61869 Part 1 & 2

LOW TENSION CURRENT TRANSFORMERS

- RING TYPE (BLACK TAPE / FIBRE GLASS TAPE INSULATED)
- RESINCAST (WITH BAR EMBEDDED)
- RESINCAST (WITH CIRCULAR/RECTANGULAR OPENING TYPE)
- MOULDED CASE (WOUND PRIMARY TYPE WITH / WITHOUT MOUNTING)
- INTERPOSING CURRENT TRANSFORMERS)

HIGH TENSION CURRENT TRANSFORMERS

- RESINCAST RING/RECTANGULAR OPENING TYPE
- RESINCAST BAR PRIMARY WITH EMBEDDED BAR
- RESINCAST WOUND PRIMARY (TERMINATION ON STUD/BAR)

OUTDOOR CURRENT TRANSFORMERS

- OUTDOOR OIL COOLED CTS. UPTO 33 KV VOLTAGE CLASS WITH EPOXY CAST SECONDARY COIL (LIVE/DEAD TANK TYPE)

SPECIAL PURPOSE CURRENT TRANSFORMERS

- SUMMATION CTS (FOR INDOOR APPLICATION)
- CORE BALANCE CURRENT TRANSFORMERS (FOR EARTH FAULT PROTECTION)
- PRECISION CURRENT TRANSFORMERS (FOR LABORATORY USE)
- BUSHING CURRENT TRANSFORMERS
- DIMMER STATS

- UNIVERSAL AUXILIARY TRANSFORMERS (MULTI RATIO AUX. CT)
- SATURABLE CURRENT TRANSFORMERS (TO OPERATE WITH THERMAL OVERLOAD RELAYS)
- STANDARD CURRENT TRANSFORMERS (FOR LABORATORY USE)
- FURNACE CURRENT TRANSFORMERS
- BUS DUCT CURRENT TRANSFORMERS

VOLTAGE TRANSFORMERS

REF STD.: IS 16227/IEC 61869 Part 1 & 3

LOW TENSION VOLTAGE TRANSFORMERS

- INTERPOSING VOLTAGE TRANSFORMERS (MULTI RATIO)
- SINGLE PHASE, SINGLE RATIO VOLTAGE TRANSFORMERS (LT. FOR INDOOR APPLICATIONS)

HIGH TENSION VOLTAGE TRANSFORMER (SINGLE / THREE PHASE)

- DRY TYPE RESINCAST PTS FOR INDOOR APPLICATIONS (3.3 KV / 6.6KV / 11KV / 22 KV / 33KV.)
- HT PT 3 PHASE 3.3 KV/6.6KV/11KV

OUTDOOR VOLTAGE TRANSFORMERS (SINGLE PHASE)

- OUTDOOR OIL COOLED POTENTIAL TRANSFORMERS (SINGLE PHASE)
- UPTO 33 KV VOLTAGE CLASS

INDOOR DRY TYPE CONTROL / EXCITATION TRANSFORMER

- SINGLE PHASE HT CONTROL TRANSFORMER UPTO 10KVA
- THREE PHASE HT EXCITATION TRANSFORMER UPTO 20KVA
- THREE PHASE LT EXCITATION TRANSFORMER UPTO 25KVA
- NEUTRAL GROUNDING TRANSFORMER UPTO 50KVA

KEY SPECIFICATIONS

FOR INDOOR/OUTDOOR CURRENT TRANSFORMERS

RATIO
RATED BURDEN
ACCURACY CLASS
ALF FOR PROTECTION CORE
RATED VOLTAGE
INSULATION LEVEL

APART FROM ABOVE, THE FOLLOWING DETAILS ARE REQUIRED IF:

- RING TYPE CTS : LIMITING DIMENSIONS (ie. ID. OD & HT)
- CLASS PX CTS : MINIMUM KNEE POINT VOLTAGE & THE MAGNETISATION CURRENT AT SPECIFIED % OF VK, LIMITATION ON SECONDARY WINDING RESISTANCE
- HT CTS : THE RATED SHORT TIME CURRENT & VOLTAGE CLASS - 3.3KV & ABOVE, MOUNTING DIMENSIONS

FOR CURRENT TRANSFORMERS WITH ACCURACY CLASS PX

RATIO
MINIMUM KNEE POINT VOLTAGE
MAX. IMAG AT SPECIFIED % OF VK, LIMITATION ON SECONDARY & PRIMARY WINDING RESISTANCE IF ANY
FREQUENCY
RATED VOLTAGE
INSULATION LEVEL

FOR CORE BALANCE CURRENT TRANSFORMERS

MAKE & TYPE OF EARTH LEAKAGE RELAY TO BE USED WITH CBCT
OPENING REQUIRED FOR CBCT/CABLE SIZE PASSING THROUGH CBCT
MIN. RELAY OPERATING CURRENT ON PRIMARY SIDE (OR MIN. EARTH FAULT CURRENT TO BE DETECTED)
RELAY BURDEN
SETTING RANGE OF RELAY

FOR INDOOR/OUTDOOR VOLTAGE TRANSFORMERS

RATIO
RATED BURDEN
ACCURACY CLASS
VOLTAGE FACTOR OR SYSTEM OF EARTHING
SINGLE PHASE/3 PHASE
INSULATION LEVEL

FOR CONTROL TRANSFORMERS

- i. RATED PRIMARY VOLTAGE WITH TAPS
- ii. RATED SECONDARY VOLTAGE WITH TAPS
- iii. RATED OUTPUT
- iv. FREQUENCY

SATURABLE CURRENT TRANSFORMERS

RATIO
MOTOR FULL LOAD CURRENT
MAKE & TYPE OF BIMETAL
TRIPPING TIME FOR BIMETAL AT 2 TIMES & 6 TIMES MOTOR FULL LOAD CURRENT
LIMITING DIMENSION OF CT REQUIRED ID (MIN) / OD (MAX) / HT (MAX)

SUMMATION CURRENT TRANSFORMERS

STANDARD : IS 6949/1992
RATIO (IF FEEDER CURRENTS ARE EQUAL)
ALT :- FEEDER CT RATIOS FOR UNEQUAL FEEDER CURRENT
RATED BURDEN
ACCURACY CLASS



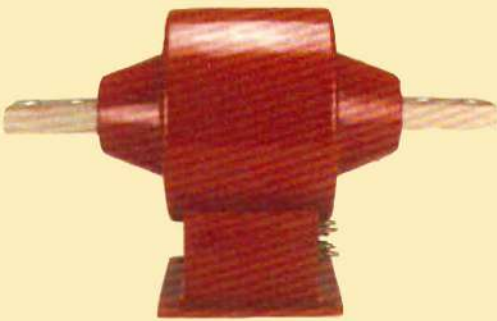
3.3KV/6.6KV/11KV INDOOR EPOXY RESIN CAST RING TYPE CURRENT TRANSFORMER



3.3KV/6.6KV/11KV INDOOR EPOXY RESINCAST NEUTRAL GROUNDING TRANSFORMER



3.3KV/6.6KV/11KV INDOOR EPOXY RESINCAST 1Ø, 1 POLE VOLTAGE TRANSFORMER



3.3KV/6.6KV/11KV INDOOR EPOXY RESIN CAST BAR PRIMARY CURRENT TRANSFORMER



3.3KV/6.6KV/11KV INDOOR EPOXY RESIN CAST RING TYPE CURRENT TRANSFORMER



22KV / 33KV, 1Ø, 1-POLE INDOOR EPOXY RESINCAST VOLTAGE TRANSFORMER



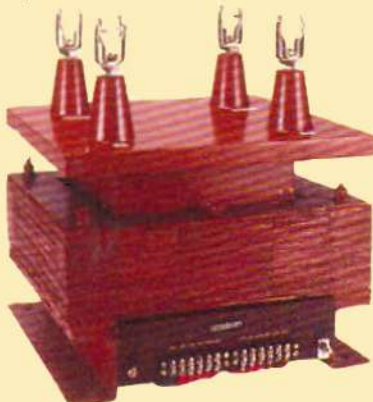
3.3KV/6.6KV/11KV INDOOR EPOXY RESINCAST 3Ø, EXCITATION TRANSFORMER



3.3KV/6.6KV/11KV INDOOR EPOXY RESINCAST 3Ø, EXCITATION TRANSFORMER



3.3KV/6.6KV/11KV INDOOR EPOXY RESIN WOUND PRIMARY CURRENT TRANSFORMER



6.6KV/11KV, RESINCAST, 2Ø EXCITATION TRANSFORMER

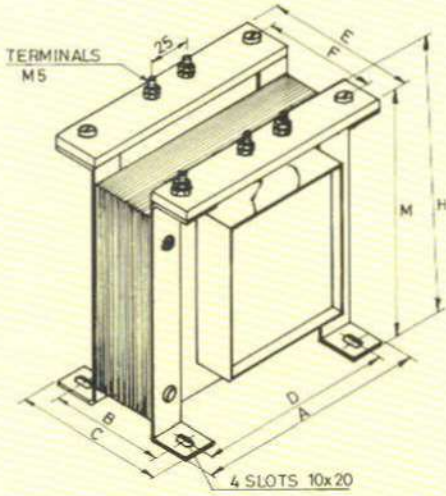


3.3KV/6.6KV/11KV, 3Ø, 3 LIMB VOLTAGE TRANSFORMER



3.3KV/6.6KV/11KV WOUND PRIMARY MULTI RATIO RESINCAST CURRENT TRANSFORMER

Ref. Table-1 / Table-2

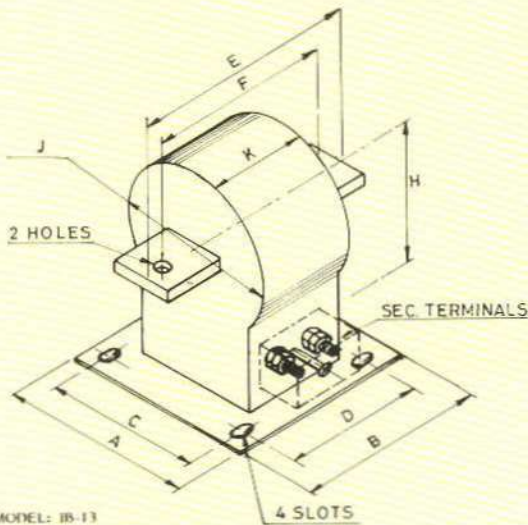


SINGLE PHASE VARNISH IMPREGNATED POTENTIAL TRANSFORMERS (415 / 110V)						
OUTPUT (VA)	A	B	C	D	H	M
15VA / 1	115	70	90	95	125	100
25VA / 1	115	70	90	95	125	100
50VA / 1	115	85	105	95	125	100
100VA / 1	155	90	110	130	160	140
200VA / 1	185	95	125	160	215	90
15VA / 0.5	115	70	90	95	125	100
25VA / 0.5	155	75	95	130	160	140
50VA / 0.5	155	90	110	130	160	140
100VA / 0.5	185	110	140	160	215	190

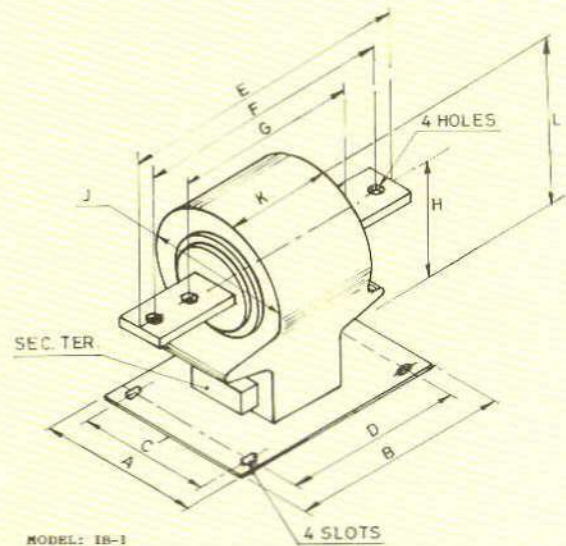
TABLE - 1

SINGLE PHASE DOUBLE WOUND VARNISH IMPREGNATED CONTROL TRANSFORMERS VOLTAGE RATIO : 415 / 110V						
OUTPUT (VA)	A	B	C	D	H	M
10	76	50	65	64	110	85
25	76	62	80	64	110	85
50	95	70	90	80	115	85
75	95	95	115	80	115	85
100	115	70	90	95	125	100
150	115	95	115	95	125	100
200	115	95	115	95	125	100
250	155	75	95	130	160	140
300	155	90	110	130	160	140
400	155	100	120	130	160	140
500	155	115	135	130	160	140
750	185	95	125	160	215	190
1000	185	95	125	160	215	190
1200	185	105	135	160	215	190
1500	185	120	150	160	215	190
1750	235	110	145	200	270	215
2000	235	125	160	200	270	215
2500	235	145	180	200	270	215
3000	235	160	195	200	270	215
4000	255	145	180	200	275	230
5000	255	155	190	200	325	280
7500	275	160	195	200	300	375
10000	305	160	195	200	325	425

TABLE - 2



MODEL: IB-11



MODEL: IB-1

11KV BAR PRIMARY (STC OFFERED UPTO 40 KA / 3 SEC)						
RATIO	MODEL*					
	IB-1 / IB-11		IB-3		IB-5	
	Core 1	Core2	Core1	Core2	Core1	Core2
200/5-5	15VA/1	10VA/5P10	15VA/1	15VA/5P15	15VA/1	15VA/5P20
300/5-5	15VA/1	15VA/5P10	15VA/1	15VA/5P20	15VA/1	20VA/5P20
400/5-5	15VA/0.5	20VA/5P10	15VA/0.5	20VA/5P20	15VA/0.5	25VA/5P20
600/5-5	20VA/0.5	25VA/5P10	20VA/0.5	25VA/5P20	20VA/0.5	30VA/5P20
800/5-5	30VA/0.5	30VA/5P10	30VA/0.5	30VA/5P20	30VA/0.5	40VA/5P20
1200/5-5	30VA/0.5	30VA/5P10	30VA/0.5	30VA/5P20	30VA/0.5	40VA/5P20

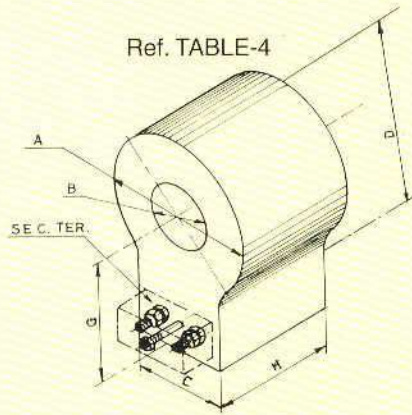
*Bus bar size appropriate for Rated Current.
Specification offered are optimum for the model

Bus Bar size: Appropriate to rated primary current

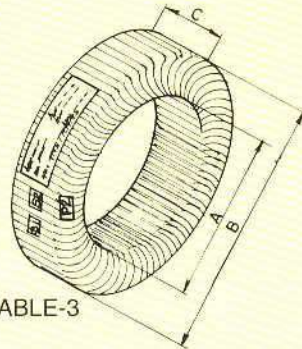
ITEM	MODEL	A	B	C	D	E	F	G	J	K	H	L
1	IB - 1	170	230	140	200	310	270	190	175	110	140	230
2	IB - 2	170	170	140	140	290	250	180	205	100	178	280
3	IB - 3	170	170	140	140	310	270	200	205	120	178	280
4	IB - 4	170	170	140	140	330	290	220	205	140	178	280
5	IB - 5	170	170	140	140	350	310	240	205	160	178	280
6	IB - 11	160	180	130	150	360	330	-	160	140	155	235
7	IB - 13	150	150	120	120	180	140	-	150	80	116	190
8	IB - 12	160	180	130	150	360	330	-	160	210	115	235

TAPE INSULATED RING TYPE CTS*						
Sl. No.	RATIO Amps/	RATED VA	ACCURACY CLASS	LIMITING DIMENSIONS		
	Amps	BURDEN		ID(A)	OD(B)	HT(C)
				(mm)	(mm)	(mm)
1.	30/5	2.5	5	20	83	80
2.	40/5	2.5	5	20	83	80
3.	50/5	5	5	28	83	50
4.	100/5	5	1	28	83	50
5.	150/5	5	1	28	83	50
6.	200/5	10	1	28	83	50
7.	300/5	15	1	55	95	50
8.	400/5	15	1	55	95	50
9.	500/5	15	1	55	95	50
10.	600/5	15	1	55	95	50
11.	800/5	15	1	80	120	40
12.	1000/5	15	1	80	120	40
13.	1200/5	15	1	80	120	40
14.	1500/5	15	1	110	150	35
15.	1600/5	15	1	110	150	35
16.	2000/5	15	1	110	150	35
17.	3000/5	15	1	170	230	60

* CTS can also be supplied in Resin Cast version
TABLE - 3



Ref. TABLE-4



Ref. TABLE-3

RATIO		MODEL RCRP					
		A	H	D	G	C	B
100/5,	5VA/10P10, 10VA/10P5	120	75	140	83	75	30
150/5,	7.5VA/5P10	120	75	140	83	75	30
150/5,	10VA/5P10	120	95	140	83	75	30
200/5,	10VA/5P10	120	75	140	83	75	40
300/5,	10VA/5P10	120	75	140	83	75	45
300/5,	15VA/5P10	120	95	140	83	75	45
400/5,	15VA/5P10	120	75	140	83	75	55
500/5,	15VA/5P10	120	75	140	83	75	55
600/5,	15VA/5P10	150	60	180	100	75	65
800/5,	15VA/5P10	150	60	180	100	75	75
1000/5,	15VA/5P10	180	50	212	122	75	80
1200/5,	15VA/5P10	180	50	212	122	75	85
1600/5,	15VA/5P10	180	50	212	122	75	105
2000/5,	15VA/5P10	200	60	239	137	80	110
2500/5,	15VA/5P10	200	60	239	137	80	125
3000/5,	15VA/5P10	200	60	239	137	80	125

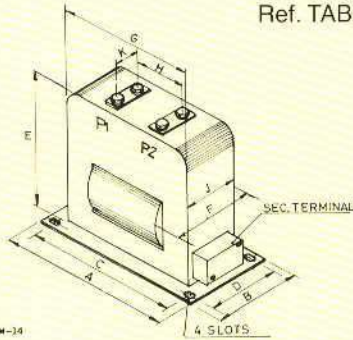
TABLE - 4

TYPICAL MODELS OF 11KV WOUND PRIMARY CURRENT TRANSFORMERS*

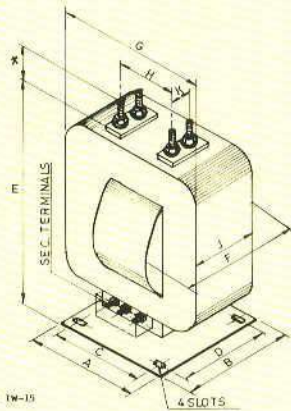
CTS WITH STC 13.1 KA FOR 1SEC			
RATIO	METERING	PROTECTION	MODEL
20/5	7.5VA/1	-	IW-11
	OR	"	IW-12
	5VA/0.5	10VA/5P10	IW-21
30/5	15VA/1 or 10VA/0.5	7.5VA/5P10	IW-11
	-	15VA/5P10	IW-12
50/5	15VA/0.5	-	IW-11
		15VA/5P10 or 15VA/5P20	IW-15
100/5	-	15VA/5P10 or 15VA/5P20	IW-12
		15VA/5P10 or 15VA/5P20	IW-12
300/5	-	15VA/5P10 or 15VA/5P20	IW-12
		15VA/5P10 or 15VA/5P20	IW-12

* CTS with higher S.T.C. ranges also available

TABLE-5



Ref. TABLES : 5,6, 7.



11KV /22KV WOUND PRIMARY CTS

ITEM	MODEL	A	B	C	D	E	G	H	J	K	F
1	IW-11	170	170	140	140	240	160	60	100	-	150
2	IW-12	320	165	285	140	250	200	95	100	40	160
3	IW-14	320	165	285	140	250	255	95	100	40	180
4	IW-16	320	165	285	140	250	255	95	100	40	175
5	IW-17	230	170	200	140	280	275	85	100	40	180
6	IW-15	170	170	140	140	280	225	85	100	40	180

TABLE-6

11KV WOUND PRIMARY 2 CORE CTS AT RATED STC OF 13.1KA/1SEC											
RATIO	MODEL/OUTPUT		MODEL / OUTPUT		MODEL / OUTPUT		MODEL / OUTPUT		MODEL / OUTPUT		
	IW - 11		IW - 12		IW - 14		IW - 16		IW - 17		
	Core 1	Core 2	Core 1	Core 2	Core 1	Core 2	Core 1	Core 2	Core 1	Core 2	
20/5-5	5VA/1	2.5VA/5P10 or 5VA/5P5	5VA/1	5VA/5P10	5VA/1	7.5VA/5P10	5VA/1	12.5VA/5P10	5VA/1	15VA/5P10	
30/5-5	7.5VA/1	5VA/5P10	7.5VA/1	7.5VA/5P10	10VA/1	12.5VA/5P10	15VA/1	15VA/5P10	15VA/1	15VA/5P15	
50/5-5	10VA/1	7.5VA/5P10	15VA/1	12.5VA/5P10	15VA/1	15VA/5P10	20VA/1 or 15VA/0.5	15VA/5P20	20VA/0.5	15VA/5P20	
100/5-5	10VA/1	10VA/5P10	15VA/1	15VA/5P15	20VA/0.5	15VA/5P20	30VA/0.5	20VA/5P20	30VA/0.5	30VA/5P20	
150/5-5	15VA/0.5	15VA/5P15	25VA/0.5	10VA/5P20	30VA/0.5	15VA/5P20	30VA/0.5	25VA/5P20	30VA/0.5	30VA/5P20	
200/5-5	15VA/0.5	15VA/5P15	25VA/0.5	10VA/5P20	30VA/0.5	15VA/5P20	30VA/0.5	25VA/5P20	30VA/0.5	30VA/5P20	

Note : CTS can be manufactured with STC rating of upto 40KA with duration of 1sec or 3secs with different ratios and specifications. Dimensions can be furnished on request with detailed specification.

TABLE-7



INDOOR TAPE INSULATED / EPOXY RESIN CAST
LT VT / CT / CONTROL TRANSFORMER



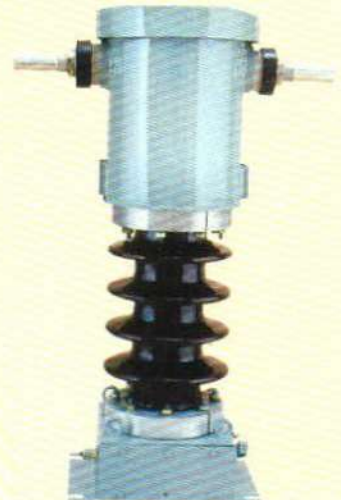
1Ø, 1 Pole Insulated
Oil Filled PT



11KV, Outdoor Oil Filled CT
(Dead Tank)



Dry Type Enclosure
Control Transformer



11KV/ 22KV /33KV Outdoor
Oil Filled CT
(Live Tank)