

COMPACT INDOOR CURRENT TRANSFORMERS SW44 - SW45 - SW47

DESIGN

The primary is wound with pure heavy copper, to provide a maximum mechanical strength against short circuit currents.

The secondary is evenly distributed on a very low losses core for best accuracy.

The transformer is hot cast in an insulating resin under vacuum, to achieve a very compact unit.

The base plate is supplied as a standard.

A secondary cover is available upon request.

ADVANTAGES

The casting process and the resin employed allows reduced outlines and excellent dielectric strength. The reduced dimensions of these transformers are typically well adapted for their mounting in metal enclosed and metalclad cubicles.

Both SW44 and SW45 have same fixing and connecting dimension.

SW47 has same height and primary connections too.

This allow and easy standard cubicle design for any ratings.

They can be fixed in any position and require no maintenance.

FUNCTION

These current measuring units provide two functions:

-They insulate the high voltage power network from the low voltage metering circuit.

-They supply a low voltage alternative signal proportional to the network current, and intended to supply meters, protection relays, measuring instruments, etc...

STANDARDS AND TESTS

The transformers are manufactured according to the required standard: French, English, German, Canadian, American, Australian, International, etc...

They can also be designed according to any Customers specification.

All the routine tests required by the relevant standard are performed on each unit.

The results are noted in the report referred to the order.

The type tests have been passed when qualifying each type of transformer, the reports are available upon request.

CONNECTION

The secondary terminals supply a L.V. current to the measuring circuits.

They must never be open-circuited.

For each secondary winding, one terminal (one only) is to be grounded.

The primary terminals are connected to the busbars, and properly tightened.

The primary terminals are silver plated for currents from 2000A and up.

A slot is provided near each M12 primary holes on SW44 and SW45, to offer an anti-rotating option if necessary to the equipment connected.

Rated tightening torques :

Primary terminal	(M12)	35N.m
Coupling primary	(M8)	12.4N.m
Secondary terminal	(M6)	3N.m

TYPICAL RATINGS

-Insulation	7.2kV to 24kV
-Frequency	50Hz or 60Hz
-Short time current	up to 500In for SW44 800In for SW45 1000In for SW47
-Permanent over current factor	1.0 (over upon request)
-Primary current	SW44 up to 600A SW45 up to 1250A SW47 up to 3000A
-Secondary current	5A or 1A
-Number of cores	SW44 and SW45 : 1 or 2 SW47 : 1 to 3
-Accuracy : Metering	CL0.2S to CL3
-Relaying	CL5P5 to CL10P20 (IEC)
Special uses	CLX as per B.S. standard or TPS as per IEC

See attached drawings for dimensions.

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SCDO039 rév 06-09/01 page 1

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SW4 CURRENT TRANSFORMERS

TYPICAL RATINGS

IEC 60044-1 50 ou 60 Hz
SW44 up to 600A
SW45 up to 1250A
SW47 : For higher ratings

up to 600A or 2x300A (Séries - parallel)

The chart gives the lowest primary current from which the accuracy can be achieved

SW44	80xIn			8kA 1s			12.5kA 1s			16kA 1s			20kA 1s			25kA 1s			31.5kA 1s			40kA 1s		
	Single ratio	Double ratio		Single ratio	Double ratio		Single ratio	Double ratio		Single ratio	Double ratio		Single ratio	Double ratio		Single ratio	Double ratio		Single ratio	Double ratio		Single ratio	Double ratio	
7.5VA CL0.5	5	2x5		25	2x25		35	2x35		35	2x35		50	2x50		100	2x100		100	2x100		100	2x100	
15VA CL0.5	5	2x5		40	2x40		50	2x50		50	2x50		75	2x75		150	2x150		150	2x150		150	2x150	
30VA CL0.5	10	2x10		50	2x50		70	2x70		70	2x70		100	2x100		200	2x200		200	2x200		200	2x200	
5 VA 5P10	5	2x5		25	2x25		30	2x30		30	2x30		50	2x50		100	2x100		100	2x100		100	2x100	
10VA 5P10 (5VA 5P15)	5	2x5		30	2x30		40	2x40		40	2x40		60	2x60		120	2x120		120	2x120		120	2x120	
7.5VA CL0.5 + 10VA 5P10	10	2x10		60	2x60		75	2x75		75	2x75		120	2x120		225	2x225		225	2x225		225	2x225	
7.5VA CL0.5 + 15VA 5P10	15	2x15		70	2x70		100	2x100		100	2x100		125	2x125		250	2x250		250	2x250		250	2x250	
7.5VA CL0.5 + 1VA 10P30	5	2x5		40	2x40		50	2x50		50	2x50		75	2x75		150	2x150		150	2x150		150	2x150	
15VA CL0.5 + 10VA 5P10	15	2x15		70	2x70		100	2x100		100	2x100		125	2x125		250	2x250		250	2x250		250	2x250	
15VA CL0.5 + 15VA 5P10	20	2x20		75	2x75		100	2x100		100	2x100		150	2x150		300	2x300		300	2x300		300	2x300	
15VA CL0.5 + 1VA 10P30	10	2x10		50	2x50		70	2x70		70	2x70		100	2x100		200	2x200		200	2x200		200	2x200	
30VA CL0.5 + 10VA 5P10	20	2x20		75	2x75		100	2x100		100	2x100		150	2x150		300	2x300		300	2x300		300	2x300	
30VA CL0.5 + 15VA 5P10	80	2x80		100	2x100		125	2x125		150	2x150		200	2x200		400	XX		400	XX		400	XX	
30VA CL0.5 + 1VA 10P30	20	2x20		75	2x75		100	2x100		100	2x100		150	2x150		300	2x300		300	2x300		300	2x300	
SW45	80xIn			8kA 1s			12.5kA 1s			16kA 1s			20kA 1s			25kA 1s			31.5kA 1s			40kA 1s		
	Single ratio	Double ratio		Single ratio	Double ratio		Single ratio	Double ratio		Single ratio	Double ratio		Single ratio	Double ratio		Single ratio	Double ratio		Single ratio	Double ratio		Single ratio	Double ratio	
7.5VA CL0.5	5	2x5		20	2x20		20	2x25		25	2x25		40	2x40		40	2x50		50	2x50		70	2x100	
15VA CL0.5	5	2x5		25	2x25		25	2x35		40	2x40		50	2x50		50	2x70		70	2x70		100	2x125	
30VA CL0.5	5	2x5		25	2x25		30	2x40		40	2x40		50	2x50		60	2x75		75	2x75		100	2x150	
5 VA 5P10	5	2x5		15	2x15		15	2x20		20	2x20		25	2x25		30	2x40		40	2x40		50	2x75	
10VA 5P10 (5VA 5P15)	5	2x5		20	2x20		20	2x25		25	2x25		40	2x40		40	2x50		50	2x50		70	2x100	
7.5VA CL0.5 + 10VA 5P10	5	2x5		30	2x30		40	2x50		50	2x50		60	2x60		75	2x100		100	2x100		125	2x175	
7.5VA CL0.5 + 15VA 5P10	10	2x10		40	2x40		40	2x50		50	2x50		70	2x70		80	2x100		100	2x100		150	2x200	
7.5VA CL0.5 + 1VA 10P30	5	2x5		25	2x25		30	2x40		40	2x40		50	2x50		60	2x75		75	2x75		100	2x150	
15VA CL0.5 + 10VA 5P10	10	2x10		40	2x40		40	2x50		50	2x50		70	2x70		80	2x100		100	2x100		150	2x200	
15VA CL0.5 + 15VA 5P10	10	2x10		40	2x40		50	2x60		60	2x60		80	2x80		100	2x120		120	2x120		160	2x250	
15VA CL0.5 + 1VA 10P30	5	2x5		30	2x30		35	2x50		50	2x50		60	2x60		70	2x100		90	2x90		120	2x175	
30VA CL0.5 + 10VA 5P10	15	2x15		40	2x40		50	2x70		60	2x60		80	2x80		100	2x120		125	2x125		160	2x250	
30VA CL0.5 + 15VA 5P10	15	2x15		50	2x50		60	2x75		75	2x75		100	2x100		120	2x150		150	2x150		200	2x300	
30VA CL0.5 + 1VA 10P30	15	2x15		40	2x40		50	2x70		60	2x60		80	2x80		100	2x125		125	2x125		160	2x250	
15VA CL0.5 + 30VA 5P10	15	2x15		50	2x50		60	2x75		75	2x75		100	2x100		120	2x150		150	2x150		200	2x300	

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SCDO040 rév 05-09/01 page 1

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TYPICAL RATING OF EACH UNIT

50 or 60Hz

TYPE	WIDTH mm	MAX.INSUL. kV	MAX. IMPULSE kV	SHORT TIME CURRENT	MAX. PRIMARY A	NUMBER OF CORES
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WOUND PRIMARY

SW44	148	24	125	500xl	600	1 or 2
SW45	178	24	125	800xl	1250	1 or 2
SW47	178	24	125	1000xl	3000	1 to 3
SW54	178	27.5	150	500xl	1250	1 to 3
SW65-2	178	27.5	150	1000xl	3000	1 to 3
SW83R	178	36	170	200xl	400	1
SW84R	178	40.5	200	500xl	2000	1 to 3
SW85R	230	40.5	200	800xl	2500	1 to 3
SW87R	178	40.5	200	500xl	2500	1 to 3
SW88R	230	40.5	200	800xl	2500	1 to 3

SPECIFIC TYPES

SW32	158	24	125	250xl	600	1 to 2
SW33	158	24	125	500xl	600	1 to 2
SW34	158	24	125	500xl	600	1 to 2
K51	115	24	125	80xl	400	1
K52	210	24	125	250xl	1200	1 or 2
KW5	250	40.5	185	800xl	2500	1 to 3
CK15	190	15	110	110xl	1200	1

WINDOW TYPE

KTO3-2	205	17.5	95	-	2500	1 or 2
KTO5-2	285	24	125	-	5000	1 to 3
KTO6	350	24	125	-	6000	1 to 3
KTO7	350	25	150	-	6000	1 to 3
KTO11	470	24	125	-	6000	1 to 4

BAR TYPE

KT3-24	164	17.5	110	-	3000	1 or 2
KT3-36	164	25	150	-	3000	1 or 2
KT5-24	200	24	125	-	3000	1 to 3
KT5-36	200	36	170	-	3000	1 to 3

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SCDO033 rév 02-10/02 page 2

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INDOOR CURRENT TRANSFORMER

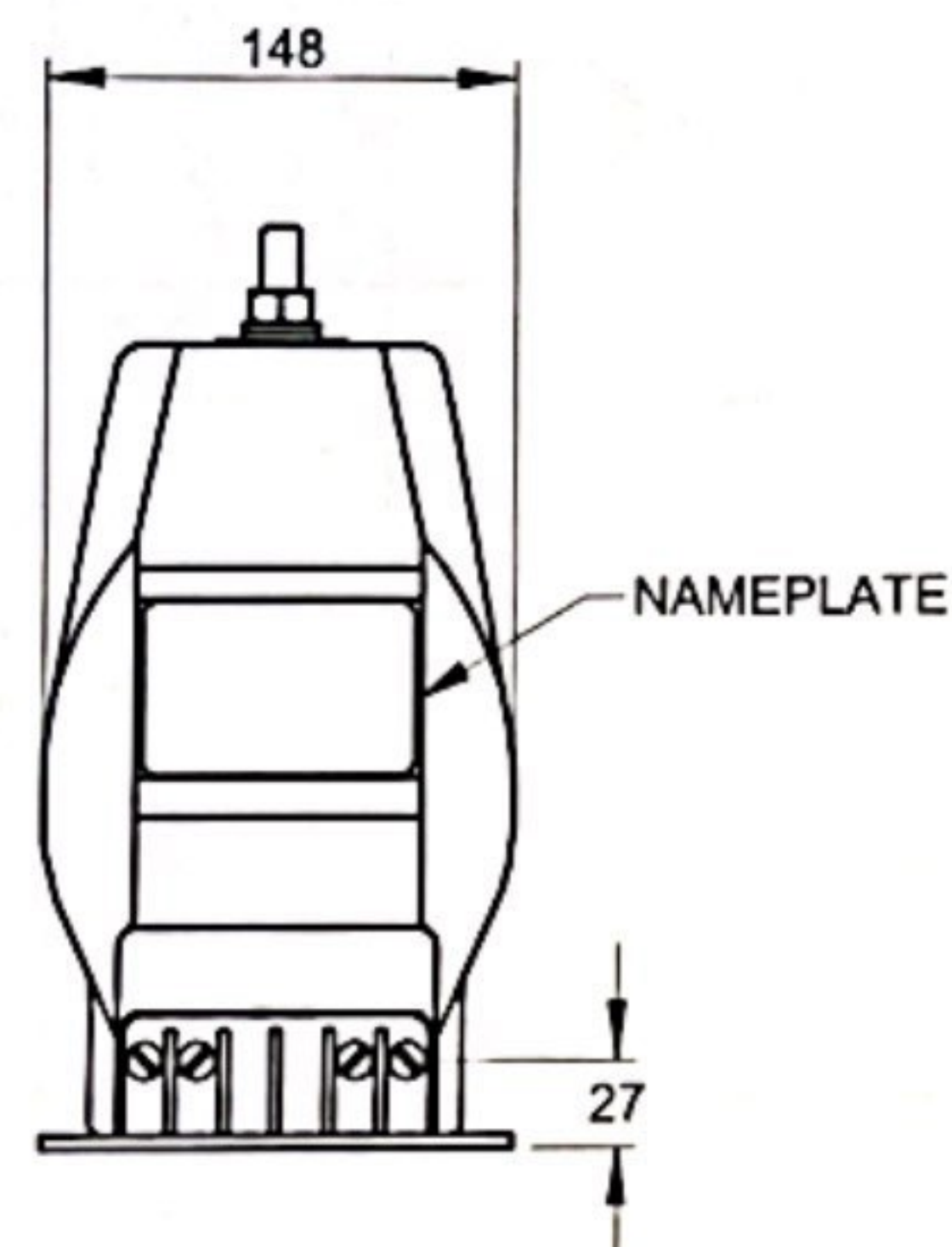
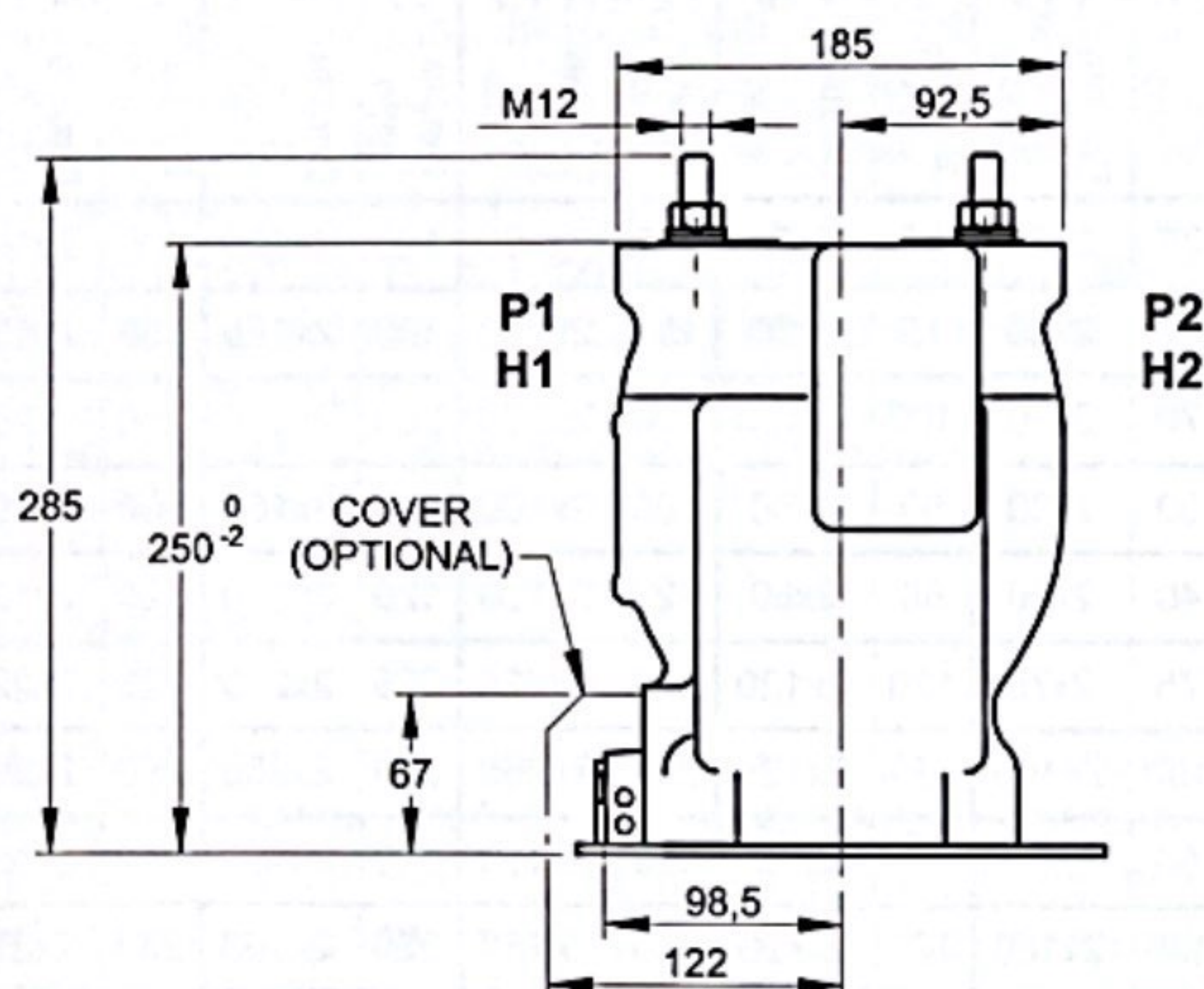
TYPE : SW44

STANDARD : IEC - BS - ANSI - CSA

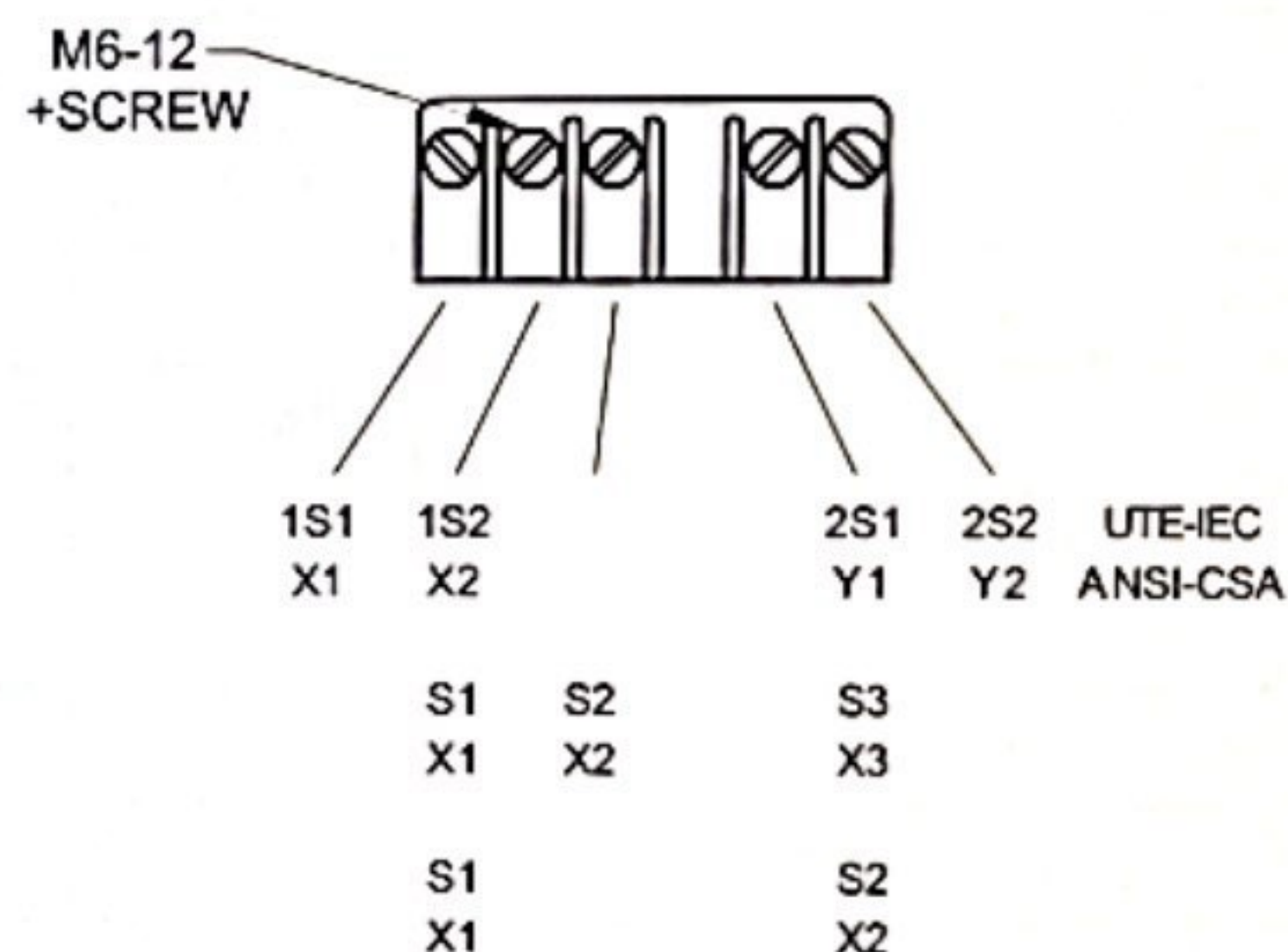
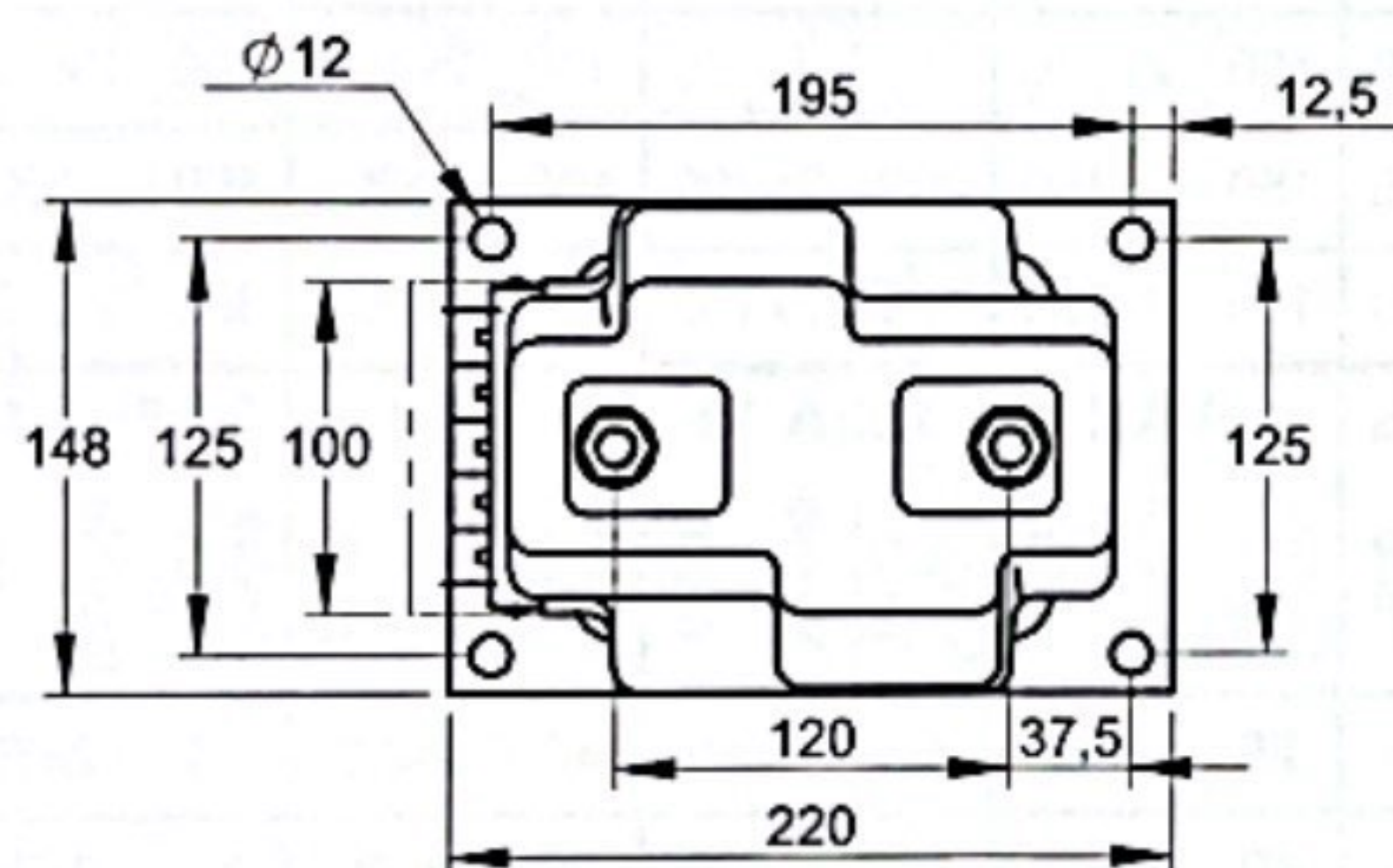
INSULATION LEVEL : up to 24/50/125kV

PRIMARY CURRENT : up to 600A

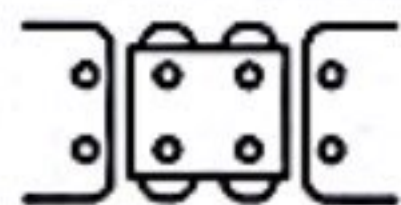
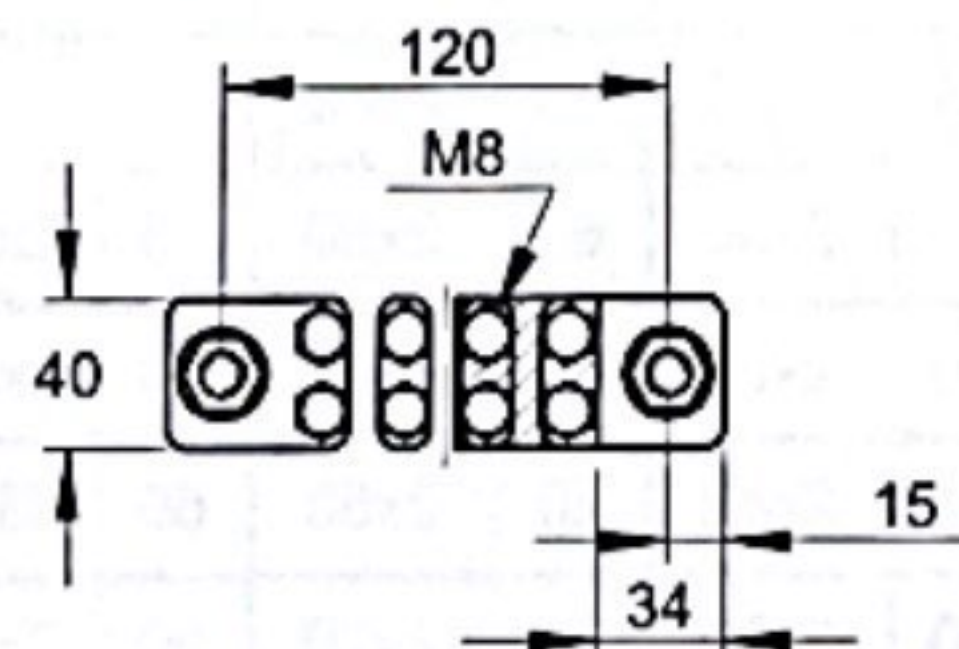
1 to 2 secondary cores



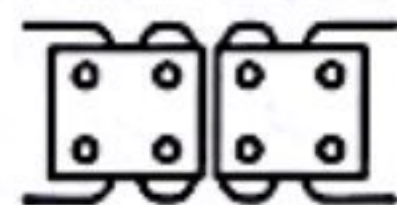
SECONDARY TERMINALS



UP TO 300-600 A



LOW RATIO



HIGH RATIO

RATED TIGHTENING TORQUE (±5%)

Primary terminals (M12)	: 35 N.m
Coupling primary (M8)	: 12.4 N.m
Secondary terminals (M6)	: 3 N.m

CANTILEVER STRENGTH > 3000 N

Approx. Weight : 13 Kg

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INSTRUMENT TRANSFORMERS

N°2-31299