



Universal Intermediate Current Transformers Types WI23D5 and WI23D1

Applications

For differential protection

The universal intermediate current transformers are primarily used in conjunction with differential relays in the protection of generators and transformers, where they have to perform the following duties:

- Restoration of the phase shift between the currents on the primary and secondary sides of a power transformer, caused by the connection of the windings.
- Current matching, so that when the same power is being carried by the two transformer windings, the same current flows to the relay from both sides and that, at the full power of the winding, the current flowing to the relay is at least 70% of the relay rating.
- Filtering out zero-sequence currents when the transformer neutral is earthed, or in auto-transformers. For this purpose the intermediate c.t. shall be connected in star/delta on each side of the transformer which has its neutral earthed.

Avoidance of difference currents in the event of through fault currents by providing intermediate c.t. on both sides. If they were provided on one side only, i.e. an asymmetrical arrangement, the relays might trip as a result of the different transient response of the two circuits.

For the protective scheme to function correctly it is important for the intermediate c.t. to carry as light a burden as possible. In general, the following point must be borne in mind:

Intermediate c.t. should be mounted on both sides, as close to the relay as possible.

General purposes

Universal c.t. can also be utilized for general purposes, such as in measuring systems, control systems and the like (see the relevant remarks on p. 7-9). By using their overload capacity (see p. 3) countless information ratios in addition to the standardized ratios given below can be obtained.

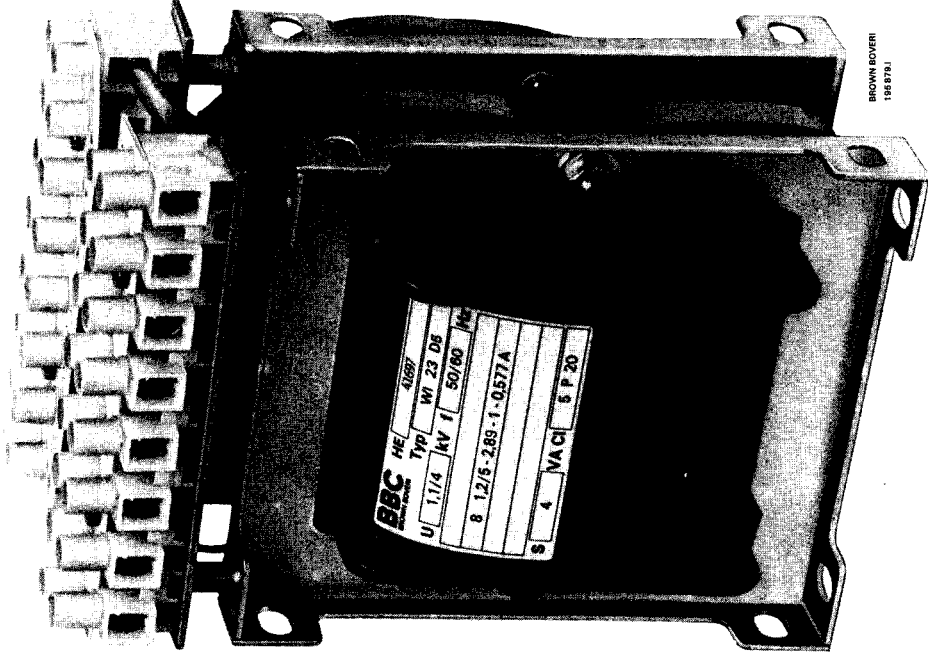


Fig. 1 - Universal intermediate current transformer type WI23D5

Dimensions

Fig. 1 - Open type

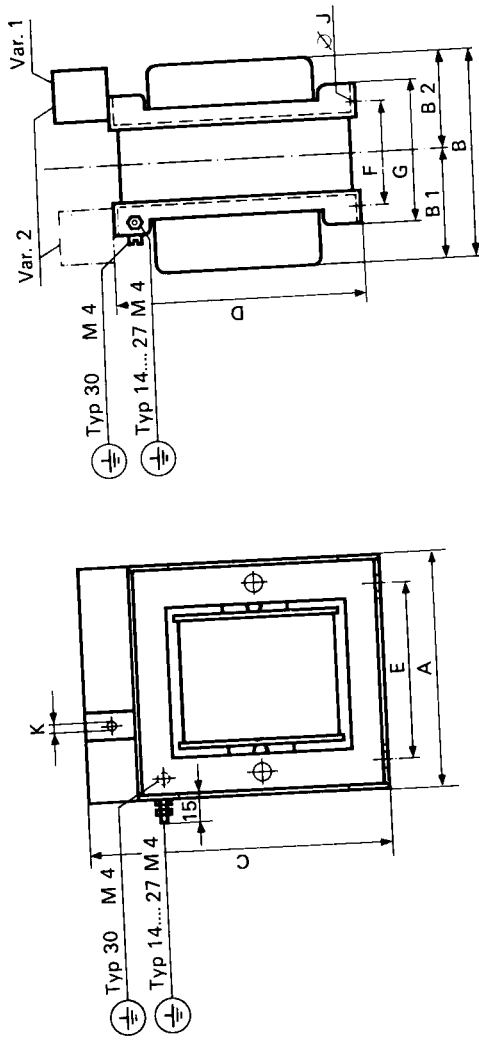
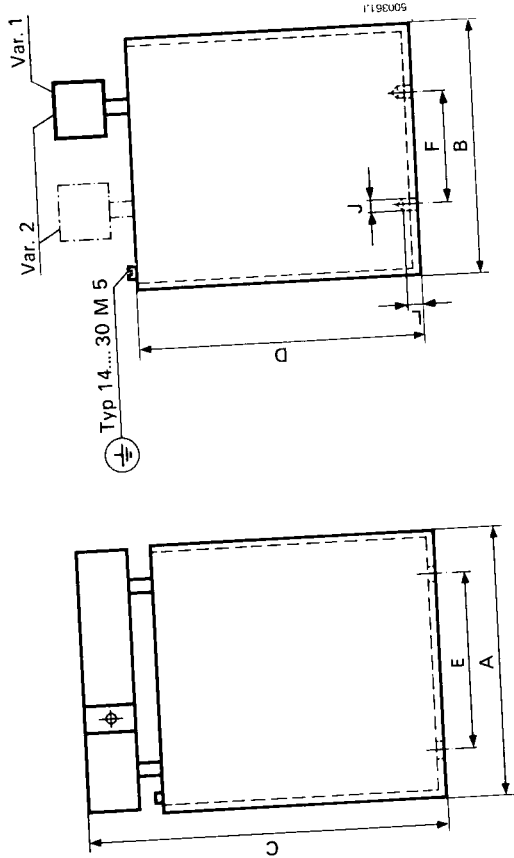


Fig. 2 - Potted type



Dimensions in mm		Fig.	A	B	B1	B2	C	D	E	F	G	J	K	L	Weight kg	Var. 1		Var. 2	
																10²	16²	10²	16²
Type																			
W...14...	1	91	73	38	35	108	86	70	43	59	5.6	3.5			1.6	8			
W...18...	1	103	84	43	41	130	108	79	43	63	5.6	3.5			2.8	8			
W...23...	1	122	112	59	53	175	133	95	59	78	7	5			5.2		8	16	
W...27...	1	143	140	74	66	200	159	114	80	106	9.5	5			8.5		9	16	
W...30...	1	180	160	84	76	245	205	130	92	112	9.5	5			17		9	16	
W...14...G	2	113	94			132	100	70	43		M5	3.5	8		2.9	8			
W...18...G	2	113	104			154	125	79	43		M5	3.5	8		4.6	8			
W...23...G	2	143	134			190	155	95	59		M6	5	8		8.8		8		
W...27...G	2	163	154			215	180	114	80		M8	5	12		13.6		9		
W...30...G	2	204	185			260	225	130	92		M8	5	12		25.7		9		