GE Digital Energy

IEC Medium Voltage Instrument Transformers

Robust, Maintenance Free Solutions

Instrument transformers perform a critical role in the management of power delivery systems by providing the voltage and current inputs to measure, protect and control power equipment. Accurate and reliable performance with a long-service life is vital so that revenue measurements can be made accurately and equipment can be reliably protected against surge or other system events.

GE's medium voltage (MV) instrument transformers for the IEC market are engineered to provide reliable performance with a maintenance-free design that complies to global design standards. Customers can realize a number of key benefits from GE's instrument transformers including high reliability, fast response times, and the ability to customize solutions to meet any need.

Key Benefits

Extensive Global Experience and Customer Service

Regionalized sales and support teams available to directly assist customers in the product selection process.

Fast Lead Times and Delivery

Extensive vertical integration allows for standard lead times of 4-6 weeks, up to 33% better than industry average.

Robust and Reliable Design requiring Minimal Maintenance

Corrosion resistant design with maximum mechanical strength and light weight and small footprints allow for flexible mounting and ease-of-integration.

Compliance to Global Design Standards

All transformers are subjected to full routine tests as required by relevant global standards including IEC, BS, and AS. Custom designs and type testing are available upon request.

Applications

GE provides a broad range of IEC instrument transformers to support numerous applications and consists of cast epoxy resin current & voltage transformers, rated up to 36kV. Both indoor and outdoor designs are available with specifications suitable for operating revenue meters, instruments, relays and control devices.

Common applications include:

- Substation metering and relaying
- Primary and secondary distribution switchgear
- Control power for reclosers, capacitor banks, and other equipment
- Power generation equipment



Extensive Global Experience and Advanced Manufacturing

- 50+ years providing reliable instrument transformers for a wide range of applications
- ISO 9001 and ISO 14001 manufacturing and accredited testing processes
- State-of the-art technology ensures product consistency, reliability and longevity
- Computer controlled mixing and casting, resulting in partial discharge test levels consistently below the IEC 60044/IEC 61869 defined limits of 20/50pC

Industry Leading Customer Responsiveness

- Standard quote responses within 24 hours
- 4-6 week lead time from receipt of order to shipment

Customized and Specialty Transformer Designs

- Complies with DIN 42600 (where applicable)
- Vertical manufacturing integration plus mold machining capabilities allow for custom designs
- Short cycle times for standard design replacement solutions where existing product dimensions must be matched



Indoor Current Transformers

Type (Model)	Symbol	UOM	IE17CT1	IE17CT2	IE24CT1	IE24CT2	IE36CT1	IE36CT2	IE36CT3	IE36CT4	
Data Sheet			47719	47720	47721	47722	47723	47724	47725	47726	
Highest Voltage for Equipment (r.m.s.)	U _m	(kV)	17,5 24				36				
Test Voltages		(kV)	38/95 50/125				70/170				
Rated Frequency	f _R	(Hz)	50 or 60								
Maximum Rated Primary Current	I _n	(A)	2500 2500					2500	1500		
Secondary Rated Current		(A)	1 or 2 or 5								
Rated Primary Current (max)	l _{th}	(kA)	1250 x I _n ; Max. 50								
Rated Dynamic Current	l _{dyn}	(kA)	2,5 x l _{th} ; Max. 125								
Weight (±10%)		(kg)	22	35	27	48	38	55	57	21	

*Other designs available upon request

Indoor Voltage Transformers

Type (Model)	Symbol	UOM	IE121V2	IE171V1	IE241V1	IE361V1	IE361F1	IE171F1	IE122V1	IE172V1	IE242V1	IE362V1
Data Sheet			47727	49336	47728	47729	47730	47731	47732	47733	47734	47735
Highest Voltage for Equipment (r.m.s.)	U _m	(kV)	12	17,5	24	3	6	17,5	12	17,5	24	36
Test Voltages		(kV)	28/75	38/95	50/125	70/	170	38/95	28/75	38/95	50/125	70/170
Rated Frequency	f _R	(Hz)	50 or 60									
Rated Pricmary Voltage (max)	U _{pr}	(kV)	12/√3	17,5/√3	24/√3	36/√3		17,5/√3	12	17,5	24	36
Secondary Voltage		(∨)	100/√3, 110/√3, 120/√3 or U _p /3(for open delta) 100, 110, 120									
Rated Burden for Measurement in		(VA)	up to 100									
Class (0,2-0,5-1,0)												
Rated Burden for Protection in Class		(VA)	up to 1000									
(3P/6P)												
Rated Voltage Factor			1,9 × U_{pr} ; (8h)Max 1,2 × U_{pr} ; continuous									
Weight (±10%)		(kg)	21 29 43 37 47 30					24	25	43	60	

*Other designs available upon request

Outdoor Current Transformers

Type (Model)	Symbol	UOM	OE24CT1	OE24CT2	OE36CT1	OE36CT2	OE36CT3	OE36CT4	OE36CT5		
Data Sheet			47789	47790	47791	47792	47793	47794	47795		
Highest Voltage for Equipment (r.m.s.)	U _m	(kV)	2	4	36						
Test Voltages		(kV)	50/125 70/170								
Rated Frequency	f _R	(Hz)	50 or 60								
Rated Primary Current (max)	I _n	(A)	1200	2000	1200	1200	2500	2500	3000		
Secondary Rated Current		(A)	1 or 2 or 5								
Rated Short-time Thermal Current (1s)	l _{th}	(kA)	1250 × I _n ; Max. 50								
Rated Dynamic Current	l _{dyn}	(kA)	2,5 x I _{th} ; Max. 125								
Creepage Distance		(mm)	700	700	900	1080	900	1080	1200		
Weight (±10%)		(kg)	37	48	43	51	60	71	120		

*Other designs available upon request

Outdoor Voltage Transformers

Type (Model)	Symbol	UOM	OE241V1	OE361V1	OE361V2	OE361V3	OE242V1	OE362V1	OE362V2	OE362V3	
Data Sheet			47796	47797	47798	47799	47800	47801	47802	47803	
Highest Voltage for Equipment (r.m.s.)	U _m	(kV)	24 36 2					36			
Test Voltages		(kV)	50/125	50/125 70/170			50/125	70/170			
Rated Frequency	f _R	(Hz)	50 or 60								
Rated Pricmary Voltage (max)	U _{pr}	(kV)	24/√3	/\/3 36/\/3				36			
Secondary Voltage		(∨)	100/√3, 110/√3, 120/√3 or U _p /3(for open delta) 100, 110, 120)	
Rated Burden for Measurement in Class (0,2-0,5-1,0)		(VA)	up to 150								
Rated Burden for Protection in Class (3P/6P)		(VA)	up to 1000								
Rated Voltage Factor			1,9 x U _{Pr} ; (8h)Max 1,2 x U _{Pr} ; continuous							lous	
Creepage Distance		(mm)	840	900	1000	1000	840	900	1000	1000	
Weight (±10%)		(kg)	45	55	72	95	48	60	80	100	

*Other designs available upon request

For more information about GE's Power Sensing products visit GEDigitalEnergy.com/ITI

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