

# ATTACHMENT: TECHNICAL SPECIFICATIONS OF REVENUE METERING CURRENT TRANSFORMER (Doc No. 02C)

Nominal System Voltage	13.8kV	24kV	34.5kV	69kV	115kV	138kV	230kV
Description	13.8KV Extended Range Current Transformer	24KV Extended Range Current Transformer	34.5KV Extended Range Current Transformer	69KV Extended Range Current Transformer	115KV Extended Range Current Transformer	138KV Extended Range Current Transformer	230KV Extended Range Current Transformer
Insulation Type	Cast-Resin, Dry Type	Cast-Resin, Dry Type	Cast-Resin, Dry Type	Oil & Paper, Minimum Oil-filled or Dry Type	Oil & Paper, Minimum Oil-filled	Oil & Paper, Minimum Oil-filled	Oil & Paper, Minimum Oil-filled
Type	Single phase, Inductive						
Maximum Continuous Voltage	15.5kV	25.5kV	36.5kV	72.5kV	123kV	145kV	245kV
Basic Insulation Level							
1. Power frequency withstands	34kV	50kV	70kV	140kV	230kV	275kV	460kV
2. Lightning Impulse withstand	110kV	150kV	200kV	350kV	550kV	650kV	1050kV
Short Time Rating Current							
1. Thermal, I <sub>th</sub>	-	-	-	25kA	31.5kA	31.5kA	40kA
2. Dynamic, I <sub>dyn</sub>	-	-	-	2.5xI <sub>th</sub> kA	2.5xI <sub>th</sub> kA	2.5xI <sub>th</sub> kA	2.5xI <sub>th</sub> kA
Rated Frequency	60Hz						
Installation	Outdoor, Pedestal Mounted						
Mounting Altitude	Up to 1000m						
Ingress Protection	IP44 minimum						
Temperature, ambient	Up to 40°C, 30°C average						
Temperature Rise Limit, winding	Up to 65°C						
Wind Velocity	Up to 280kph						
Primary terminal shall withstand:							
1. Static Load	-	-	-	2500N	3000N	3000N	4000N
2. Dynamic Load	-	-	-	3500N	4200N	4200N	5600N
Seismic Condition	-	-	-	0.5g	0.5g	0.5g	0.5g
Insulator Characteristics							
1. Materials	Cycloaliphatic Resin	Cycloaliphatic Resin	Cycloaliphatic Resin	Cycloaliphatic Resin, Porcelain or Composite	Porcelain or Composite	Porcelain or Composite	Porcelain or Composite
2. Voltage Class	15.5kV	25.5kV	36.5kV	72.5kV	123kV	145kV	245kV
3. Creepage Length, minimum	25mm/kV	25mm/kV	25mm/kV	31mm/kV	31mm/kV	31mm/kV	31mm/kV



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	g) Inter-turn overvoltage test						

## RECOMMENDED CURRENT TRANSFORMER RATIO (*Annex 02C*)

### ANNEX 02C: CT RATIO TABLE

#### Revision No. 01

Nominal System Voltage	13.8kV	24kV	34.5kV	69kV	115kV	138kV	230kV
Capacity (MVA/MW)	Up to 2	Up to 10	Up to 2	Up to 10	Up to 40	Up to 50	Up to 40
CT Ratio	100:5//5	300:5//5	30:5//5	100:5//5	200:5//5	200:5//5	100:5//5
Capacity (MVA/MW)	More than 2 to 12		More than 2 to 40	More than 10 to 40	More than 40 to 150	More than 50 to 150	More than 40 to 250
CT Ratio	500:5//5		500:5//5	400:5//5	1000:5//5	800:5//5	800:5//5
Capacity (MVA/MW)	More than 12 to 25		More than 40 to 70	More than 40 to 140	More than 150 to 400	More than 150 to 500	More than 250 to 900
CT Ratio	1000:5//5	-	1200:5//5	1200:5//5	2000:5//5	2000:5//5	2500:5//5
Capacity (MVA/MW)							More than 900 to 1500
CT Ratio		-			-	-	4000:5//5

*Note: If the recommended CT ratios do not cover the proposed capacity, coordinate with NGCP Metering for the proper ratio  
Recommended CT ratios are applicable only to the recommended technical specifications of NGCP Metering (Doc. No. 02C)*