

INSTRUMENT TRANSFORMERS, INC.
Product Bulletin

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| SECTION: | High Voltage |
| NUMBER: | HV-10-PB006 |
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**VOLTAGE TRANSFORMERS & COUPLING CAPACITOR VOLTAGE
TRANSFORMER COMPARISON**

| Voltage Transformer | Coupling Capacitor Voltage Transformer |
|---|---|
| (1) IEEE defined and "Precision Plus" accuracies achievable. Accuracy depends on turns ratio only | IEEE defined and "Precision Plus" accuracies achievable. Accuracy depends on: (a) Capacitor voltage divider (b) Reactance (c) Turns ratio of intermediate voltage transformer |
| (2) Accuracy not sensitive to system frequency variation | Accuracy adversely affected by system frequency change |
| (3) Suitable for line discharge | No line discharge capability |
| (4) Excellent transient response under system faults | Inferior transient response under system faults |
| (5) System ferro-resonance is a concern | Ferro-resonance is localized in the secondary circuit |
| (6) No PLC coupling capability | Suitable for PLC coupling |
| (7) Capable to be used for station service | Limited thermal burden depending on protective gap settings |
| (8) Limited ground potential rise during disconnect operation | Ground potential rise depending on capacitance |
| (9) Tested at lower insulation levels | Tested at higher insulation levels |
| (10) No impact on station insulation as capacitance is very low. | Because of capacitance, the insulation withstand of station is improved. |