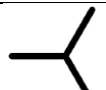
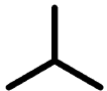
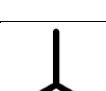
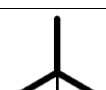
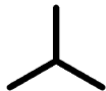
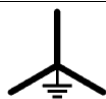
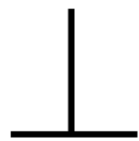
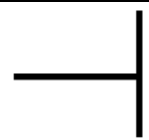
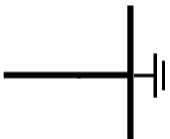
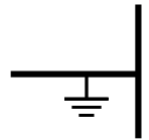
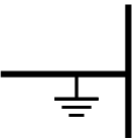


Table 1 – Application characteristics of connections

Connection		Connection is suitable to supply 3-phase, 3-wire service (secondary ungrounded or ground on one phase)	Connection is suitable to supply 3-phase, 4-wire service (neutral conductor grounded)	Phase shift high-voltage to low voltage (See Note 1)	Subject to primary grounding duty	Triple harmonic primary line currents suppressed (See Note 7)	“Problem” connections (See Note 2)
Primary	Secondary						
		Yes	No	0°	No	Yes	
		No	Yes	0°	No	Yes	
		Yes	No	-30°	No	Yes	
		No	Yes	-30°	No	Yes	
		Yes	No	-30°	No	Yes	
		No	Yes	-30°	No	Yes	
		Yes	No	0°	No	Yes	
		No	No	0°	No	Yes	Yes (See Note 3)

Connection		Connection is suitable to supply 3-phase, 3-wire service (secondary ungrounded or ground on one phase)	Connection is suitable to supply 3-phase, 4-wire service (neutral conductor grounded)	Phase shift high-voltage to low voltage (See Note 1)	Subject to primary grounding duty	Triple harmonic primary line currents suppressed (See Note 7)	“Problem” connections (See Note 2)
Primary	Secondary						
		No	No	-30°	Yes	Yes	Yes (See Note 4)
		No	No	-30°	Yes	Yes	Yes (See Note 4)
		No	No	0°	No	No	
		No	Yes (See Note 8)	0°	No	No	Yes (See Note 5) (See Note 8)
		Yes	No	See Note 6	No	No	
		No	Yes	See Note 6	No	No	
		No	Yes	See Note 6	No	No	

Connection		Connection is suitable to supply 3-phase, 3-wire service (secondary ungrounded or ground on one phase)	Connection is suitable to supply 3-phase, 4-wire service (neutral conductor grounded)	Phase shift high-voltage to low voltage (See Note 1)	Subject to primary grounding duty	Triple harmonic primary line currents suppressed (See Note 7)	“Problem” connections (See Note 2)
Primary	Secondary						
		No	No	See Note 6	Yes	Yes	Yes (See Note 4)
		No	Yes (See Note 8)	See Note 6	No	No	Yes (See Note 8)
		No	Yes	0°	No	Yes	
		No	Yes	-30°	No	Yes	
		No	Yes	-30°	No	No	

NOTE 1—Based on standard connections and phasor diagrams.

NOTE 2—“Problem” connections are those connections that should receive special consideration to avoid misapplication.

NOTE 3—This connection is incapable of furnishing a stabilized neutral, and its use may result in phase-to-neutral overvoltage on one or two legs as a result of unbalanced phase-to-neutral load.

NOTE 4—Connections designated act as primary grounding transformers and should not be used unless intended for such duty.

NOTE 5—The three-phase transformer of three-legged core-form construction is susceptible to tank heating with unbalanced phase to-neutral loads or ground faults.

NOTE 6—The T-connections in this table represent either similar or rotated orientation. The connection can be made to simulate any of the D and Y combinations.

NOTE 7—See Clause 6 for a discussion of harmonic currents and the suppression of these currents in certain winding configurations.

NOTE 8—Use only when the primary is effectively grounded (see Clause 4.1.2).