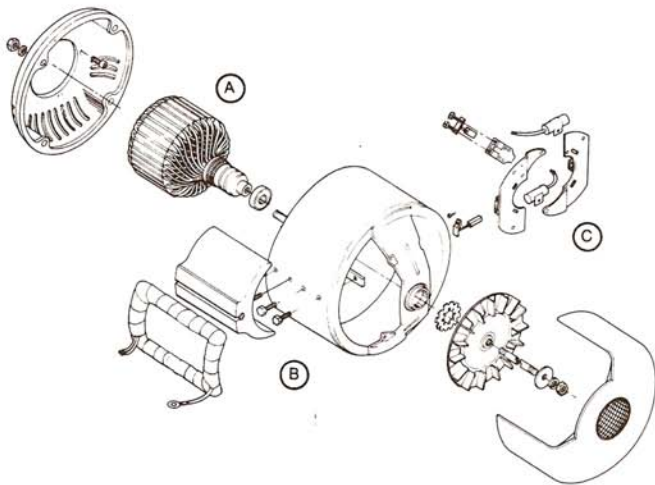


Generator Components (Rotating Armature)



A rotating armature generator consists of the following:

- A. Armature
- B. Field frame with pole shoes and field coil assembly
- C. Brush rigging

Armature: The armature is the rotating core of the generator. Laminations are pressed onto a precision ground shaft and wound with insulated wire. The magnetic field is cut by the turns of wire and a voltage is induced into them. The power is brought out of the rotating core on slip rings.

Field Frame with Pole Shoe and Field Assembly: DYNA generators feature a heavy steel frame providing a sturdy and dependable generator. The pole shoes and field windings are attached. Excitation voltage in the field coils creates a magnetic field between the pole shoes thus inducing current into the armature.

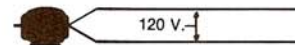
Brush Rigging: Brushes are a means by which the AC voltage produced in the armature can be carried off the slip rings and brought out of the generator as usable voltage. DYNA's solid brush rigging assembly and long life brushes ensure quality and durability.

Connection Information

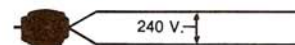
Single Phase Rotating Armature Design: Rotating armature generators are wound for a specific frequency and voltage requirement. Generators can be wound in either single or three phase configurations; however, single phase is by far the most popular. The voltage is brought out of the rotating armature with slip rings and brushes.

Single Phase:

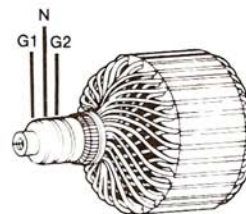
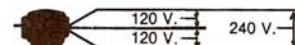
120-volt, 2-wire, 1-phase



240-volt, 2 wire, 1-phase



120/240-volt, 3-wire, 1-phase



Three Phase Rotating Field Design: DYNA offers a complete line of broad range reconnectable generators. Inside the generator the wire is wound into coils; by connecting the coils into various patterns, we can change the voltage output. The coils can be connected into series or parallel depending on the output required. From the coils the output leads are brought out for final connection.

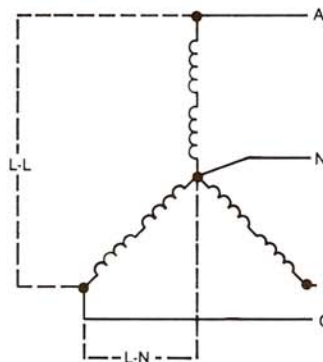
Series Connection



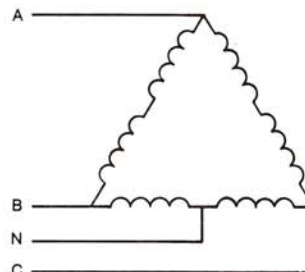
Parallel Connection



By reconnecting the output leads into either a Delta or Wye connection you can determine the output voltage from the chart below.

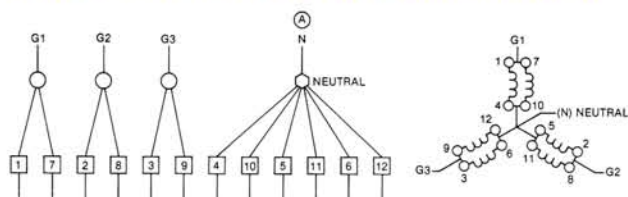


WYE CONNECTION		
VOLTAGE		
	L-L	L-N
60 Hz	416-480 208-240	240-277 120-139
50 Hz	346-400 173-200	200-230 100-115

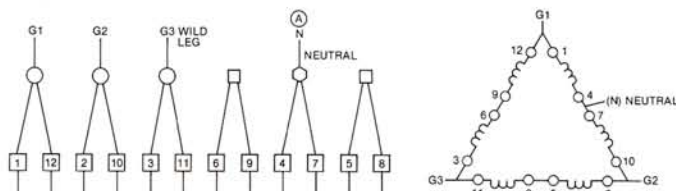


DELTA CONNECTION		
VOLTAGE		
	L-L	L-N
60 Hz	240-277 120-139	120-139 ---
50 Hz	200-230 100-115	100-115 ---

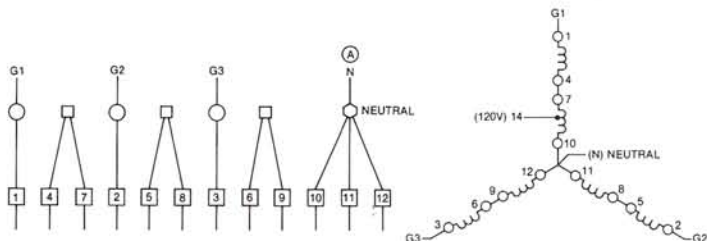
Connection Information continued



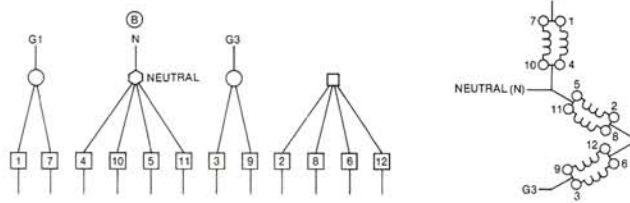
Three Phase 120/208 Volts @ 60 Hertz Wye (Star) Connection



Three Phase 120/240 Volts @ 60 Hertz Delta Connection



Three Phase 277/480 Volts @ 60 Hertz Wye (Star) Connection



Single Phase 120/240 Volts @ 60 Hertz ZigZag Connection

Voltage Connections for ITR Generators

KEY		CODE	VOLTAGE	PHASE	HERTZ
1 Rotating Armature	2 Rotating Field				
1	2	- 1	115 VOLT	1	60 Hz
1	2	- 51	115 VOLT	1	50 Hz
1	2	- 2	230 VOLT	1	60 Hz
1	2	- 52	230 VOLT	1	50 Hz
1	2	- 3	115/230 VOLT	1	60 Hz
1	2	- 53	115/230 VOLT	1	50 Hz
	2	- 4	120/208 VOLT	3	60 Hz
	2	- 54	120/208 VOLT	3	50 Hz
	2	- 5	240 VOLT	3	60 Hz
	2	- 17	120/240 VOLT	3	60 Hz
	2	- 517	120/240 VOLT	3	50 Hz
	2	- 18	277/480 VOLT	3	60 Hz
	2	- 520	220/380 VOLT	3	50 Hz

Voltage Connections for XTR Generators

60 HERTZ, 3 PHASE		50 HERTZ, 3 PHASE	
120/208	240/416	110/220	220/380
127/220	254/440	115/230	230/400
120/240	277/480	120/240	240/416
139/240	347/600		