

# Turbine Generator

**TMEIC**  
We drive industry

## Empowering the Future

### Why Choose TMEIC Generators?

#### Flexibility

TMEIC designs, manufactures and tests each generator to your specific needs.

- Footprint & critical dimensions matched for easy replacement of existing machines
- Complies with major global standards (NEMA, IEEE, IEC, API)
- High Performance (High Efficiency, Short-circuit ratio, impedance, etc.)
- Multiple design options (Cooling system, excitation system types, etc.)

#### Reliability

TMEIC generators offer world class performance

- Every rotor is high speed multi-plane balanced
- TMEIC insulation system with VPI technology ensures a reliable operation
- An exclusive spring system design ensures low vibration and harmonics
- Fully factory assembled and tested
- Forged shaft of special alloy steel for high speed operation
- Three diodes in parallel plus two in series, in six arms, incorporating a rectifier with superior reliability

#### Low Maintenance

- TMEIC's excitation systems incorporate a brushless exciter eliminating brush maintenance
- Standard sleeve bearings include a floating labyrinth seal to eliminate oil leakage
- TMEIC's Generators ship fully assembled to facilitate transportation, installation and for protection of internal components



**2-Pole Synchronous Generator**  
2P-88MVA, 13.8kV 60Hz | Pulp & Paper Plant



**4-Pole Synchronous Generator**  
4P-37MVA, 11kV 60Hz Ex-p | Oil Refinery



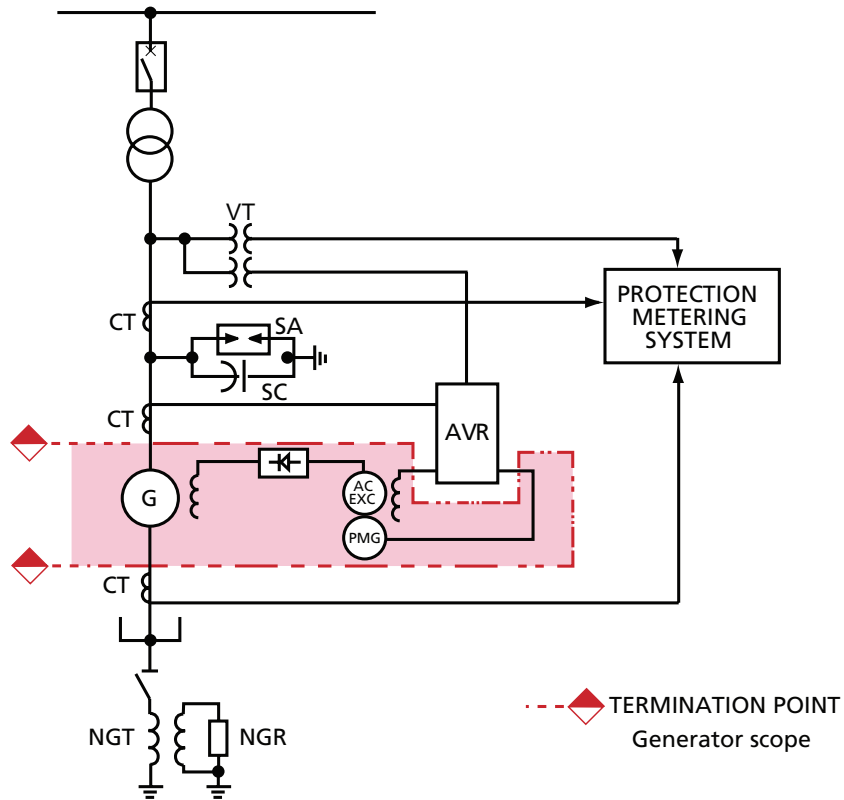
**2019** || TMEIC 2-Pole, 40MVA, Water cooled Turbine Generator designed with matched dimensions to replace existing unit

# TMEIC Turbo-Generators Specifications

Item		2-pole generators	4-pole generators	Options
Rating	Rated output	5,000-100,000kVA (approx.)	5,000-70,000kVA (approx.)	
	Rated voltage	11/13.8/15kV	6.6 to 13.8kV	Customer specified (3 to 6kV for 4-pole)
	Frequency	50Hz or 60Hz		
	Poles	2	4	
	Rated speed	3,000rpm or 3,600rpm	1,500rpm or 1,800rpm	
	Rated power factor	80%-90% lagging		Customer specified
Enclosure		Totally Enclosed Water-to-Air-Cooled (TEWAC)		Totally Enclosed Air-to-Air Cooled (TEAAC) Totally Enclosed Pipe-Ventilated (TEPV)
	Protection	IP54		Customer specified
	Cooling method	IC8A1W7		Customer specified
Applicable standard		IEC60034		Customer specified
Rotor configuration		Cylindrical rotor	Salient solid pole rotor	
Insulation rating		F-Class insulation		
Temperature rise		B-Class temperature rise		F-Class temperature rise
Excitation system		Brushless excitation (with PMG)		Customer specified
Direction of rotation		Customer specified		
Shaft construction	Shaft extension	Single shaft		Customer specified
	Shaft end geometry	Solid		Customer specified

## Ready to assist from the project definition to commissioning

Typical circuit with generator connections also showing the protective equipment, the metering system and the exciter control panel (AVR)



For specifications not mentioned here, contact TMEIC

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