

# ISO 8528-5:2018 (E)

## Reciprocating internal combustion engine driven alternating current generating sets — Part 5: Generating sets

---

### Contents

	Foreword
1	Scope
2	Normative references
3	Terms and definitions
4	Other regulations and additional requirements
5	Frequency characteristics
5.1	General
5.2	Safety frequency
6	Voltage characteristics
7	Sustained short-circuit current
8	Factors affecting generating set performance
8.1	General
8.2	Power
8.3	Frequency and voltage
8.4	Load acceptance
9	Cyclic irregularity
10	Starting characteristics
11	Stop time characteristics
12	Parallel operation
12.1	Generating sets coupled with each other without grid
12.1.1	Active power sharing
12.1.1.1	Factors influencing active power sharing
12.1.1.2	Calculation method
12.1.1.3	Examples of active power sharing
12.1.2	Reactive power sharing
12.1.2.1	Factors influencing reactive power sharing
12.1.2.2	Calculation method
12.1.2.2.1	Examples of reactive power sharing
12.1.2.2.2	Influence on parallel-operating behaviour
12.2	Generating sets connected to the grid
12.2.1	General
12.2.2	Influence on operating behaviour
12.2.3	Design features
12.2.3.1	General
12.2.3.2	Reactive power capacity
12.2.3.3	Fault voltage ride through
12.2.3.4	Voltage response according to under frequency
13	Rating plates
14	Additional factors influencing generating set performance

- 14.1 Starting methods
  - 14.2 Shutdown methods
  - 14.3 Fuel and lubrication oil supply
  - 14.4 Combustion air
  - 14.5 Exhaust system
  - 14.6 Cooling and room ventilation
  - 14.7 Monitoring
  - 14.8 Noise emission
  - 14.9 Coupling
  - 14.10 Vibration
    - 14.10.1 General
    - 14.10.2 Torsional vibration
    - 14.10.3 Linear vibration
      - 14.10.3.1 Dynamic bending deformation
      - 14.10.3.2 Structural vibrations
        - 14.10.3.2.1 General
        - 14.10.3.2.2 Measurement location and measurement conditions
  - 14.11 Foundations
- 15 Performance class operating limit values
- 15.1 General
  - 15.2 Recommendation for gas engine operating limit values
- Annex A (informative) Low voltage ride through capability

Page count: 42