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JAPANESE INDUSTRIAL STANDARD

Glossary of terms and definitions
of engine-Driven generating sets

JIS B 0149-1990

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Japanese Standards Association

JAPANESE INDUSTRIAL STANDARD

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Glossary of Terms and Definitions of Engine—
Driven Generating Sets

B 0149-1990

1. Scope

This Japanese Industrial Standard specifies the terms and definitions related mainly to reciprocating internal combustion engines, hereinafter referred to as the "engines", among the electric power generating sets driven by the reciprocating internal combustion engines.

2. Classification

The terms shall be classified as given in the following:

- (1) General
- (2) Installing and mounting types
- (3) Connecting methods of engine with generator
- (4) Operational characteristics
- (5) Powers
- (6) Speeds of rotation
- (7) Loads
- (8) Governings
- (9) Engine controls for generating sets
- (10) Starting characteristics
- (11) Electric powers
- (12) Others

3. Terms and Definitions

The terms and definitions shall be as given in the following.

Furthermore, English equivalents are given for informative reference.

- Remarks
1. The part given in () in the term, if it is not confusing, may be omitted.
 2. KANAGAKI (for the Chinese letters and European letters) given in () under the terms indicate how to read.
 3. In the case where two or more terms are appended, the term given in the upper should be used preferentially.

Applicable Standards:

JIS B 0110-Glossary of Terms Relating to Reciprocating Internal-Combustion Engines (Attachments)

JIS B 0882-General Rules for Test Code of Reciprocating Internal-Combustion Engines

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(1) General

No.	Term (Japanese character)	Reading	Definition	Informative reference English equivalent
1.1	発電セット	HATUDEN SETTO	Sets which are composed of engines generating mechanical energy, generators converting the mechanical energy into electrical energy, and the parts transmitting and controlling the energies (for example, such as couplings, gear devices, controlling devices and wirings). In some cases, bearings and installing parts are included.	generating sets
1.1.1	補機一休形発電セット	HOKI-ITTAIGATA HATUDEN SETTO	A generating set of which auxiliaries to be used therein are driven directly by a part of the engine power and are assembled into an integral construction.	generating sets with dependent auxiliaries
1.1.2	補機分離形発電セット	HOKI-BUNRIGATA HATUDEN SETTO	A generating set so constructed that the auxiliaries to be used therein are driven independent of the engine.	generating sets with independent auxiliaries
1.2	発電所	HATUDENSYO	That has been summarized of a generating set, accessory equipments therein and related control devices. A shelter on periphery of building and special equipments for protection against weather are also included.	power station

(2) Installing and mounting types

No.	Term (Japanese character)	Reading	Definition	Informative reference	
				English equivalent	
2.1	設置方式	SETTI-HŌSIKI	Systems to install generating sets.	installation configuration	
2.1.1	定置式セット	TEITISIKI SETTO	A generating set which has been installed in a fixed type.	fixed type sets	
2.1.2	移動式セット	IDŌSIKI SETTO	A generating set which has been mounted on an exclusive vehicle with movable wheels.	mobile type sets	
2.1.3	可搬式セット	KAHANSIKI SETTO	Other generating sets excluding the fixed type and mobile type sets.	transportable type sets	
2.1.3.1	携帯式セット	KEITAI SIKI SETTO	A small-sized generating set of portable type among the transportable type sets.	portable type sets	
2.2	支持方式	SIZIHŌSIKI	Types of which generating sets are mounted.	type of mounting	
2.2.1	固定支持方式	KOTEI-SIZIHŌSIKI	A type of which generating set is mounted directly.	rigid mounting type	
2.2.2	弾性支持方式	DANSEI-SIZIHŌSIKI	Types in which each generating set is mounted resiliently as a countermeasure for vibration.	resilient mounting type	
2.2.2.1	完全弾性支持方式	KANZEN-DANSEI-SIZIHŌSIKI	A type in which an engine and generator are mounted resiliently on a base-frame or foundation.	fully resilient mounting type	

No.	Term (Japanese character)	Reading	Definition	Informative reference	
				English equivalent	
2.2.2.2	半弾性支持方式	HAN-DANSEI-SIZIHOSIKI	A type in which an engine is mounted in vibration proof on a base-frame or foundation and a generator is rigidly-mounted together with the constituting components for preventing vibrations.	semi-resilient mounting type	
2.3	台板構造 (だいばんこうぞう)	DAIBAN-KOZŌ	The constructions of foundation on which each generating set is installed.	set configurations	
2.3.1	共通台板なし	KYŌTŪ-DAIBAN-NASI	That construction without common base-frame to an engine and generator.	set without base-frame	
2.3.2	共通台板付	KYŌTŪ-DAIBAN-TUKI	That construction with a common base-frame to the engine and generator.	set with base-frame	
2.3.2.1	共通台板付発電セット	KYŌTŪ-DAIBAN-TUKI HATUDEN SETTO	A generating set which has been mounted on a common base-frame, and, further, on which a control device and accessory devices are also installed on the same base-frame.	set with base-frame & integrally mounted	
2.4	設置場所	SETTI BASYO	The conditions of the site where a generating set is to be installed.	installation features	
2.4.1	屋内設置	OKUNAI-SETTI	An installation at the site where the generating set is not subjected to the direct influence of the weather. Remarks: In this case, the consideration for the maximum and minimum room temperatures is required.	inside installation	

No.	Term (Japanese character)	Reading	Definition	Informative reference English equivalent
2.4.2	屋外設置	OKUGAI-SETTI	An installation at outdoor where the generating set has been exposed completely to the influence of the weather.	outside installation
2.4.3	エンクロウジャ設置	ENKUROUZYA SETTI	Without distinction of the indoor and outdoor, a type of installation in which the generating set is enclosed in a shelter as a countermeasure against the weather and noises.	enclosure installation

(3) Connecting methods of engine with generator

No.	Term (Japanese character)	Reading	Definition	Informative reference English equivalent
3.1	継手方式	TUGITE-HŌSIKI	Systems by which each engine is connected to each generator.	coupling arrangement
3.1.1	固定継手方式	KOTEI-TUGITE-HŌSIKI	A system which fixes the shaft of engine to the shaft of generator.	rigid coupling
3.1.2	弾性継手方式	DANSEI-TUGITE-HŌSIKI	A system in which the shaft of engine and the shaft of generator are connected resiliently.	flexible coupling
3.2	組立方式	KUMITATE-HŌSIKI	Systems in which each engine body is coupled with each generator body.	assembly arrangement
3.2.1	フランジハウジング付	HURANZI-HAUZINGU TUKI	A system in which an engine body is coupled with a generator body in a flange type.	assembly arrangement with flange housing

No.	Term (Japanese character)	Reading	Definition	Informative reference English equivalent
3.2.2	フランジハウジングなし	HURANZI- HAUZINGU NASI	A system in which an engine body is coupled with a generator body in a separated condition.	assembly arrangement without flange-housing

(4) Operational characteristics

No.	Term (Japanese character)	Reading	Definition	Informative reference English equivalent
4.1	運転モード	UNTEN MŌDO	Conditions which are required for the operation of generating set.	modes of operation
4.1.1	連続運転	RENZOKU-UNTEN	The operation of a generating set without limitation on running hours.	continuous operation
4.1.2	時間制限運転	ZIKAN-SEIGEN- UNTEN	The operation of a generating set with limitation on running hours.	limited time running operation
4.2	発電モード	HATUDEN MŌDO	The conditions of the electric power side which are required for the generating set.	modes of power generation
4.2.1	常用発電	ZYŌYŌ HATUDEN	The power generation in the case where a continuous operation is required as usual.	continuous power generating
4.2.2	ピークカット用発電	PĪKU-KATTO-YŌ HATUDEN	The power generation in the case where a continuous operation is required for a certain period in pace with a demand of electric power.	peak-cut power generating



No.	Term (Japanese character)	Reading	Definition	Informative reference	
				English equivalent	
4.2.3	非常用発電	HIZYŌYŌ-HATUDEN	The power generation in the case where necessary electric powers in correspondence with emergencies such as a fire and others are to be supplied.	emergency power generating	
4.3	運転条件	UNTEN-ZYŌKEN	The conditions as a supply power source in operations.	operating conditions	
4.3.1	単機運転	TANKI-UNTEN	In the case where a single unit of generating set is operated as an exclusive power source. Remarks: The exclusive power source means that case where any supply of electric power from an external power source is not presented.	single operation	
4.3.2	並列運転	HEIRETU-UNTEN	The case where 2 sets or more of generating sets are connected electrically to supply electric power to common loads.	parallel operation	
4.3.3	系統連系運転	KEITŌ-RENKEI-UNTEN	In the case where a generating set is connected with a commercial power source electrically to supply electric power to common loads.	parallel operation with mains	
4.4	電力中断時の発電特性	DENRYOKU-TYŪDANZI-NO-HATUDEN-TOKUSEI	Requirements at a electric power side for the start of an engine in response to an interruption of power.	generating behaviour in case of interrupted power supply	
4.4.1	始動立上り時間規定がない発電セット	SIDŌ-TATIAGARI-ZIKAN-KITEI GA NAI HATUDEN SETTO	Under the operatable condition as a generating set, that generating set of which time from that instant a electric power is required until that instant it becomes usable is not specified.	generating sets with no specified start-up time	

No.	Term (Japanese character)	Reading	Definition	Informative reference
4.4.2	始動立上り時間規定がある 発電セット	SIDŌ-TATIAGARI- ZIKAN-KITEI GA ARU HATUDEN SETTO	Generating sets which are specified the time from the stoppage of supply of electric power from other power source until it can be in use. Remarks: In this case, the start is an automatic-start in general.	generating sets with a specified start-up time
4.4.2.1	長時間中断発電セット	TYŌZIKAN-TYŪDAN HATUDEN SETTO	A generating set to which a fairly long period is allowed, from a stoppage of the supply of electric power from other power source until it becomes to be usable.	long break set
4.4.2.2	短時間中断発電セット	TANZIKAN-TYŪDAN HATUDEN SETTO	In the case where the supply of electric power from other power source has been stopped, a generating set which performs necessary switching operation within very short time to carry out the supply of electric power. The continuance of the rotation of electric machine is supplied from the stored mechanical or electrical energy. Remarks: The permissible value for the slip of frequency shall be determined according to agreement between the parties concerned with delivery.	short break set
4.4.2.3	電力中断がない発電セット	DENRYOKU-TYŪDAN GA NAI HATUDEN SETTO	Even though the supply of electric power from other power source has been stopped, a generating set which performs the supply of electric power perfectly without interruption. Remarks: The permissible value for the slip of frequency shall be determined according to agreement between the parties concerned with delivery.	no break set

(5) Powers

No.	Term (Japanese character)	Reading	Definition	Informative reference
				English equivalent
5.1	出力の種類	SYUTURYOKU-NO-SYURUI	Types of power determined by the engine manufacturers.	kinds of declared power
5.1.1	発電セット出力	HATUDEN SETTO SYUTURYOKU	The generated electric powers as a generating set which have considered power factors.	generating set power
5.1.1.1	定格出力	TEIKAKU SYUTURYOKU	In the case where the manufacturer of a generating set delivers under defined operating conditions, a power at the generating set terminals. The unit is expressed by kVA. Remarks: Unless otherwise specified, it may also be expressed by kW taking the power factor as 0.8.	declared power
5.1.1.1.2	連続出力	RENZOKU SYUTURYOKU	As a generating set, a power which is capable of being generated continuously without limitation of annual operating hours, under a prescribed maintenance interval and atmospheric conditions. Remarks: In the case where the maintenance is made as determined by the manufacturer.	continuous power

