

ICS 27.010
CCS F01



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB 45247-2025

**Norm of energy consumption per unit production of gas-steam
combined cycle power set**

燃气-蒸汽联合循环发电机组单位产品能源消耗限额

Issued on: January 24, 2025

Implemented on: August 1, 2025

**Issued by: State Administration for Market Regulation;
Standardization Administration of China**

Table of Contents

- 1 Scope
- 2 Normative references
- 3 Terms and definitions

Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part

1. Structure and drafting rules for standardization documents" Drafting. Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents. This document is proposed and coordinated by the National Standardization Administration. Gas-steam combined cycle generator unit products Energy consumption limit

1 Scope

GB 45247-2025 is the Chinese national standard on norm of energy consumption per unit production of gas-steam combined cycle power set, in the field of energy and heat transfer engineering. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 24 January 2025 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 August 2025. Classification: ICS 27.010, CCS F01. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document specifies the limit level, technical requirements and specifications of unit product energy consumption (hereinafter referred to as energy consumption) of gas-steam combined cycle power generation units. Requirements, statistical scope and calculation methods. This document applies to the coal consumption rate of gas-steam combined cycle power generation units (hereinafter referred to as units) with a capacity of 100MW and above Calculation and assessment of heating coal consumption rate, as well as energy consumption control of newly built, modified or expanded units. This document does not apply to distributed gas-fired power generation projects.

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document. For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document.

GB/T 2589 General rules for comprehensive energy consumption calculation

GB/T 12723 General rules for the compilation of energy consumption limits per unit product

GB/T 15135 Gas Turbine Vocabulary

GB 17820 Natural Gas DL/T 904 Calculation methods for technical and economic indicators of thermal power plants DL/T 1365 Terminology and Terms Electricity Energy Saving

3 Terms and definitions

The terms and definitions defined in GB/T 12723, GB/T 15135, GB 17820, DL/T 1365 and the following apply to this document.

3.1 net[standard]coalconsumptionrate During the statistical period, the average amount of standard coal consumed by the unit for each 1kW·h of electricity provided externally.
[Source: DL/T 1365-2014, 5.3.1.19, modified]

3.2 Heating [standard] coal consumption rate During the statistical period, the average amount of standard coal consumed by the unit to provide 1GJ of heat to the outside.
[Source: DL/T 1365-2014, 5.3.1.18, modified]

3.3 heat-supplyratio The percentage of unit heat supply to combined cycle heat consumption during the statistical period. [Source: DL/T 1365-2014, 5.3.1.6, modified]