

NATIONAL STANDARD  
OF THE PEOPLE'S REPUBLIC OF CHINA

中华人民共和国国家标准

Code for Design of Grounding in Industrial  
and Civil Power Installations

工业与民用电力装置的接地设计规范

GBJ65-83

(Tentative)

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## NOTICE

This code is written in Chinese and English. The Chinese text shall be taken as the ruling one in the event of any inconsistency between the Chinese text and the English text.

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## Main symbols

$E_j$ —Max. allowable contact potential for ground devices when grounding short-circuit occurs;

$F_k$ —Max. allowable pace potential for ground devices when grounding short-circuit occurs;

$L$ —Overall length of horizontal and vertical ground bodies in grounding grid;

$n$ —Number of horizontal radiant ground bodies;

$R$ —Power-frequency ground resistance;

$r$ —Radius of circle equal to the area of grounding grid, or equivalent radius of grounding grid;

$S$ —Total area of grounding grid;

$I$ —Grounding fault current for calculation;

$p$ —Soil resistivity; and

$P_b$ —Soil resistivity of ground surface.

## **1.0 General**

**1.0.1** The grounding for power devices must be designed in strict compliance with the national technical and economical policies, which should ensure personal safety, reliable power service, advanced technology, economy and rationality.

**1.0.2** For the design of grounding for power devices, rational proposal should be defined based on characteristics, sizes and development plans, and geological characteristics.

**1.0.3** The grounding for power devices should be designed in a manner that non-ferrous metals and copper are saved.

**1.0.4** This code applies to the design of grounding for AC and DC power devices in industry, transportation, power, post and telecommunication, finance, culture and education and other sectors.

**1.0.5** In addition, the grounding for power devices should be designed in compliance with current related national standards and codes.



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