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

中华人民共和国国家标准

GB/T 3859.3-1993

**Semiconductor convertors—Transformers and
reactors**

半导体变流器 变压器和电抗器

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Contents

1	Scope	1
2	Referred Standard	3
3	Rated values for convertor transformers	4
	3.1 Rated current values	4
	3.2 Temperature limits of cooling media.....	4
4	Losses and voltage drops in transformers and reactors.....	5
5	Tests for convertor transformers.....	7
	Annex A Corrections to be applied when cooling medium temperature is higher than standard (Normative)	13

Semiconductor convertors—Transformers and reactors

This Standard is equivalent to IEC-1-3(1991) *SEMICONDUCTOR CONVERTORS General requirements and line commutated convertors Part 1-3: Transformers and reactors*.

1 Scope

This Standard specifies the special characteristics wherein convertor transformers. As a result, the general requirements of transformers shall apply to the rules specified in JB 2530 and IEC transformer standard.

It should be borne in mind that a rectifier transformer operates with non-sinusoidal current waveshape. In single-way connection, the current in each cell winding contains a d.c. component which calls for special attention in design and testing. In some cases, a special design is necessary when external short-circuits and cell failures would cause abnormal stress.

For certain types of transformers, the waveshape of the normal operating voltage is non-sinusoidal. The core loss of such equipment is to be determined by applying a sinusoidal voltage having the same half-cycle arithmetic mean value and the same fundamental frequency as the voltage applied in service.

2 Referred Standard

GB 1094 Power transformers

GB/T 3859.1 Semiconductor convertors—Specification of basic requirements

GB/T 3859.2 Semiconductor convertors Application guide

JB 2530 Converter transformer

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