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# NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

# GB/T 42079-2022

## Digital load side transmission lighting control(DLT) - Basic requirements

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## 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.

This document is equivalent to IEC 62756-1.2015 "Digital Transmission of Electric Power Lighting Control (DLT) Part 1.Basic Requirements".

The following minimal editorial changes have been made to this document.

--- In order to coordinate with existing standards, change the name of the standard to "Basic Requirements for Power Digital Transmission Lighting Control (DLT)";

--- Chapter 1 supplemented the scope of application;

--- Increased the description of ICD_LC (see 6.1);

--- Supplement the indexing sequence number description in Figure 4 (see 6.6.2);

--- Supplemented the headers of Table 1 to Table 5;

--- Added references.

Please note that some contents of this document may refer to patents. The issuing agency of this document assumes no responsibility for identifying patents.

## 1 Scope

This document specifies the protocol, electrical interface and test procedures for the control of electronic lighting equipment by digital signals on power digital lines.

This document does not include security requirements.

This document applies to power line digital transmission lighting control systems using a sine wave voltage of 220V and a frequency of 50Hz.

## 2 Normative references

The contents of the following documents constitute the essential provisions of this document through normative references in the text. Among them, dated references

For documents, only the version corresponding to the date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to

this document.

IEC 60038 IEC standard voltages (IEC standard voltages)

## 3 Terms and Definitions

The following terms and definitions apply to this document.

3.1

load side loadside

A wire that runs from an output of a control device to an input of one or several control devices.

3.2

interface interface

Wires used to transmit AC power and data.

3.3

control device controldevice

A device connected to an interface and used to send commands to at least one control device.

[Source. IEC 62386-101.2009, 3.1, with modifications --- will be "used to control other

devices (such as lamps) connected to the same interface

control device)" with "to at least one control device"]

3.4

Control devicecontrolgear

Connected between the power supply and one or several lamps to change the power supply voltage, limit the lamp current to the specified value, provide starting voltage and pre-set

One or several components for hot current, protection against cold start, correction of power factor or reduction of radio interference.

Note. The lamp may have an integrated control device, such as an integrated compact fluorescent lamp or an integral LED lamp. References to controls may include any such integrated lights.

[Source. IEC 62386-101.2009, 3.2]

3.5

Master device master

A device that sends data over an interface.