

BUREAU OF INDIAN STANDARDS
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IS/ISO 20140-5 : 2024
July 2025

भारतीय मानक मसौदा

**स्वचालन पद्धति और एकीकरण — ऊर्जा दक्षता और पर्यावरण को प्रभावित करने वाले,
उत्पादन प्रणालियों के अन्य कारकों का मूल्यांकन**

भाग 5 पर्यावरण निष्पादन मूल्यांकन डेटा

(पहला पुनरीक्षण)

Draft Indian Standard

**Automation Systems and Integration — Evaluating Energy Efficiency and other
Factors of Manufacturing Systems that Influence the Environment**

Part 5 Environmental Performance Evaluation Data

(First Revision)

ICS 25.040.01

Industrial Automation Systems and Robotics Sectional Committee, PGD 18	Last date for Comment: 08 August 2025
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NATIONAL FOREWORD

This Indian Standard (Part 5) (First Revision) which is identical with ISO 20140-5 : 2024 ‘Automation Systems and Integration — Evaluating Energy Efficiency and other Factors of Manufacturing Systems that Influence the Environment Part 5: Environmental Performance Evaluation Data’ issued by the International Organization for Standardization (ISO) will be adopted by the Bureau of Indian Standards on the recommendation of the Industrial Automation Systems and Robotics Sectional Committee and approval of the Production and General Engineering Division Council.

This standard was originally published in 2023 which was identical with ISO 20140-5 : 2017 ‘Automation Systems and Integration — Evaluating Energy Efficiency and other Factors of Manufacturing Systems that Influence the Environment Part 5 Environmental Performance Evaluation Data’. This first revision has been brought out to align it with ISO 20140-5 : 2024.

The major changes in this revision is as follows:

- a) Clause 4 has been updated according to new Environmental Performance Evaluation (EPE) data class definition;
- b) Clauses 5 to 8 have been restructured and updated to new Clause 5 and Clause 6 in terms of EPE data class definitions and their properties; and
- c) Informative annexures A to G have been replaced with new Annex A on relationship with other standards, Annex B on use cases and Annex C on EPE data in manufacturing systems.

This standard is published in four parts. Other parts in this series are:

- Part 1 Overview and general principles
- Part 2 Environmental performance evaluation process
- Part 3 Environmental performance evaluation data aggregation process

The text of ISO Standard has been approved as suitable for publication as an Indian Standard without deviations. Certain conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- a) Wherever the words ‘International Standard’ appear referring to this standard, they should be read as ‘Indian Standard’.
- b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to certain International Standards for which Indian Standards also exist. The corresponding Indian Standards, which are to be substituted in their respective places, are listed below along with their degree of equivalence for the editions indicated:

<i>International Standard</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
IEC 60721 (all parts) Classification of environmental conditions	IS 13736 (all parts) Classification of environmental conditions	Identical
ISO 20140-1 Automation systems and integration — Evaluating energy efficiency and other factors of manufacturing systems that influence the environment — Part 1: Overview and general principles	IS/ISO 20140-1 : 2019 Automation systems and integration — Evaluating energy efficiency and other factors of manufacturing systems that influence the environment — Part 1 Overview and general principles	Identical

The technical committee has reviewed the provisions of the following International Standards referred in this adopted standard and has decided that they are acceptable for use in conjunction with this standard:

<i>International Standard</i>	<i>Title</i>
ISO 10303 (all parts)	Industrial automation systems and integration — Product data representation and exchange
ISO 11014	Safety data sheet for chemical products — Content and order of sections
ISO 13584-42	Industrial automation systems and integration — Parts library — Part 42: Description methodology: Methodology for structuring parts families
ISO 14224	Petroleum, petrochemical and natural gas industries — Collection and exchange of reliability and maintenance data for equipment
ISO/TS 15926-4	Industrial automation systems and integration — Integration of life-cycle data for process plants including oil and gas production facilities — Part 4: Initial reference data
IEC TS 62720	Identification of units of measurement for computer-based processing
IEC 61360-4, IEC/SC 3D	Common Data Dictionary (CDD — V2.0015.0004)
IEC 61987 (all parts)	Industrial-process measurement and control — Data structures and elements in process equipment catalogues
IEC 62683-1	Low-voltage switchgear and controlgear — Product data and properties for information exchange — Part 1: Catalogue data
IEC/TR 63213	Power measurement applications within electrical distribution networks and electrical installations