

ISO 12759-2:2019 (E)

Fans — Efficiency classification for fans — Part 2: Standard losses for drive components

Contents

	Foreword
	Introduction
1	Scope
2	Normative references
3	Terms, definitions and symbols
3.1	Terms and definitions
3.2	Symbols
4	Fan system efficiency calculations
4.1	General
4.2	Components
4.2.1	Fan
4.2.2	Power transmission
4.2.2.1	V-belt transmission
4.2.2.2	Synchronous belt transmission
4.2.2.3	Coupling
4.2.2.4	No power transmission
4.2.3	Motor and controller
4.2.3.1	Regulated polyphase induction motors controlled by a VFD
4.2.3.2	Regulated polyphase induction motors powered direct on line (DOL)
4.3	System integration
5	Reporting of results
Annex A	(informative) Fan system power losses
Annex B	(informative) EPCA nominal motor efficiency (60 Hz motors)
Annex C	(informative) IEC 60034-30-1 nominal motor efficiency at 50 Hz
C.1	IE1 and IE2 at 50 Hz
C.2	IE3 and IE4 at 50 Hz
C.3	IE1 and IE2 at 60 Hz
C.4	IE3 and IE4 at 60 Hz
Annex D	(informative) Nominal motor efficiency according to Reference [7] for China
Annex E	(normative) Horsepower rated polyphase induction motor performance constants when fed from VFD
Annex F	(normative) Kilowatt rated polyphase induction motor performance constants when fed from VFD
Annex G	(normative) Horsepower rated VFD performance constants
Annex H	(normative) Kilowatt rated VFD performance constants
Annex I	(normative) Polyphase induction motor performance constants (DOL, hp rated motors)
Annex J	(normative) Polyphase induction motor performance constants (DOL, kW rated motors)