ISO 21632:2018 (E)

Graphic technology — Determination of the energy consumption of digital printing devices including transitional and related modes

Contents

	Fore	word
	Intro	duction
1	Scop	ee
2	Normative references	
•	T	
3	ierm	s and definitions
4	Gene	eral conditions
	4.1	Condition, age and machine configuration
	4.2	Connection conditions
	4.3	Printing conditions and operational modes
	4.3.1	General
	4.3.2	Measurements referred to in ISO 20690 as well as in this document
	4.3.2.1	General
	4.3.2.2	Off
	4.3.2.3	Sleep
	4.3.2.4	Print-ready
	4.3.2.5	Production print (BQ)
	4.3.2.6	Production print (BP)
	4.3.3	Additional measurements required for this document to estimate comprehensive
		energy consumption
	4.3.3.1	Maintenance
	4.3.3.2	Transition from off to print-ready
	4.3.3.3	Transition from sleep to print-ready
	4.3.3.4	Transition from print-ready to FPPT
	4.4	Measuring conditions
	4.5	Test procedures
	4.5.1	General
	4.5.2	Power measurement for production print mode
	4.5.2.1	Job definition for production print
	4.5.2.2	Power measurement for production print mode
	4.5.3	Procedures to determine power consumption of other relevant modes for the
		calculation of comprehensive energy consumption of the digital printing device
	4.5.3.1	Power measurement for print waiting modes
	4.5.3.1.1	Power measurement of off mode
	4.5.3.1.2	Power measurement of print-ready mode
	4.5.3.1.3	Power measurement of sleep mode
	4.5.3.1.4	Power measurement of maintenance mode
	4.5.3.2	Power measurement of transitional modes
	4.5.3.2.1	Power measurement for transition from print-ready to FPPT
	4.5.3.2.2	Power measurement for transition from off to print-ready
	4.5.3.2.3	Power measurement for transition from sleep to print-ready
	4.5.3.2.4	Power measurement for transition from production print to print-ready
	4.5.3.2.5	Illustrations of transitional mode measurement
	4.5.4	Combined test flow
	4.6	Calculation and documentation of measurement results
	4.6.1	General D. Harris and D. Harri
	4.6.2	Formulae for the average power P, the average productivity S and the nominal energy efficiency Enom during continuous production printing
	4.6.3	Rounding rule of data to be reported

4.7	Calculation of comprehensive daily energy consumption based on a typical jol
	structure using power measurement values
4.7.1	Power measurement values
4.7.2	Typical job structure
4.7.3	Calculation of daily energy consumption
4.7.4	Calculation of effective energy efficiency
Annex A (inf	ormative) Measurement data sheet
Annex B (inf	ormative) Calculation of comprehensive energy consumption

- Anne
- Annex C (informative) Calculation of carbon footprints for print media products
 - C.1 General
 - Calculation method for Greenhouse Gas (GHG) emission Scenario for energy measurement C.2
 - C.3

Page count: 37