

Contents

| | |
|-----------|--|
| | Foreword |
| | Introduction |
| 1 | Scope |
| 2 | Normative references |
| 3 | Terms and definitions |
| 4 | General 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 |
| 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 job 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 (informative) Measurement data sheet

Annex B (informative) Calculation of comprehensive energy consumption

Annex C (informative) Calculation of carbon footprints for print media products

- C.1 General
- C.2 Calculation method for Greenhouse Gas (GHG) emission
- C.3 Scenario for energy measurement

Page count: 37