DIN EN ISO 25745-1:2023-11 (E)

Energy performance of lifts, escalators and moving walks - Part 1: Energy measurement and verification (ISO 25745-1:2023)

Contents

Page

European foreword ... **4**

Foreword ... **5**

Introduction ... **6**

1 Scope ... **7**
1.1 General ... 7
1.2 Lifts ... 7
1.3 Escalators and moving walks ... 7

2 Normative references ... **8**

3 Terms and definitions ... **8**

4 Measurement and verification of lift, escalator and moving walk energy usage ... **10**
4.1 General ... 10
4.2 Lift energy measurements or escalator and moving walk power measurements ... 11
4.3 Lift, escalator and moving walk energy verification check ... 11
4.3.1 General ... 11
4.3.2 Lift ... 11
4.3.3 Escalator and moving walk ... 11
4.4 Multiple lift, escalator and moving walk installations ... 11

5 Measurement procedures for a lift installation ... **12**
5.1 Preliminaries ... 12
5.1.1 Instrumentation ... 12
5.1.2 Accuracy ... 12
5.1.3 Test setup ... 12
5.1.4 Coupling points ... 12
5.2 Procedures for the energy measurements ... 12
5.2.1 General ... 12
5.2.2 Main energy — running ... 13
5.2.3 Main energy — idle and standby ... 13
5.2.4 Ancillary energy — running ... 13
5.2.5 Ancillary energy — idle and standby ... 14
5.3 Procedures for the energy verification check ... 14
5.3.1 General ... 14
5.3.2 Main current — running ... 14
5.3.3 Main current — idle and standby ... 15
5.3.4 Ancillary current — running ... 15
5.3.5 Ancillary current — idle and standby ... 15

6 Measurement procedures for an escalator or moving walk installation ... **16**
6.1 Preliminaries ... 16
6.1.1 Instrumentation ... 16
6.1.2 Accuracy ... 16
6.1.3 Test setup ... 16
6.2 Procedures for power measurement ... 16
6.2.1 General ... 16
6.2.2 Main power — running ... 17
6.2.3 Power measured in standby condition ... 17
6.2.4 Power measured in autostart condition (if available) ... 17
6.2.5 Power measured in slow speed condition (if available) ... 17
6.2.6 Power measured in no load condition ... 17

6.2.7 Power measured in ancillary equipment 17
6.3 Procedures for the power verification check 17
7 Reporting 17
7.1 General information 17
7.2 Lift reporting 18
7.2.1 General 18
7.2.2 Main energy — running: 18
7.2.3 Main energy — Idle and standby: 18
7.2.4 Ancillary energy — running: 18
7.2.5 Ancillary energy — idle and standby: 18
7.3 Lift energy usage verification check 18
7.3.1 General 18
7.3.2 Main current — running: 18
7.3.3 Main current — idle and standby: 19
7.3.4 Ancillary current — running: 19
7.3.5 Ancillary current —idle and standby: 19
7.4 Escalator and moving walk energy reporting 19
7.5 Escalator and moving walk energy verification check reporting 19
Annex A (informative) **Measuring instrument coupling points 20**
Bibliography 22