

DIN 18650-1:2010-06 (E)

Powered pedestrian doors - Part 1: Product requirements and test methods

Contents		Page
Foreword		4
1	Scope	5
2	Normative references	5
3	Terms and definitions	6
4	Classification	11
4.1	Coding system	11
4.2	Type of drive (first digit)	11
4.3	Drive durability (second digit)	11
4.4	Type of door (third digit)	12
4.5	Suitability for use as a fire door (fourth digit)	12
4.6	Drive safety devices (fifth digit)	12
4.7	Special requirements for drives/functions/ fittings (sixth digit)	12
4.8	Safety of powered door system -- Construction/installation (seventh digit)	13
4.9	Ambient temperature (eighth digit)	13
4.10	Example of classification	13
5	Requirements	13
5.1	General	13
5.2	Product information	14
5.2.1	For installation, operation and maintenance	14
5.2.2	For initial type testing (type examination)	14
5.3	Drive system	14
5.3.1	General	14
5.3.2	Devices for stopping the leaf movement	15
5.3.3	Activation of the drive	15
5.3.4	Electrical equipment	15
5.3.5	Hydraulic or pneumatic equipment (if fitted)	16
5.4	Door leaf (leaves)	16
5.4.1	Materials	16
5.4.2	Shape of leaves	16
5.4.3	Leaf travel limiting device	16
5.5	Manual operation	16
5.6	Tracks	17
5.7	Avoidance of danger points and safeguarding at danger points	17
5.7.1	General	17
5.7.2	Safety distances	17
5.7.3	Limitation of leaf forces	17
5.7.4	Protective devices	19
5.7.5	Guards/barriers	19
5.8	Additional requirements	20
5.8.1	Additional requirements for revolving doors	20
5.8.2	Additional requirements for doors in escape routes and emergency exits	21
5.9	Additional requirements for powered doors used as fire doors	24
5.10	Electromagnetic compatibility	24
6	Test methods	25
6.1	General	25
6.2	Test conditions	25

6.2.1	General	25
6.2.2	Measuring equipment	26
6.3	Documentation required for testing	26
7	Test procedures	26
7.1	Durability test	26
7.1.1	General	26
7.1.2	Testing under normal conditions	26
7.1.3	Testing under extreme temperatures	27
7.1.4	Additional test for doors with a break-out system	27
7.1.5	Additional test for doors without a break-out system	27
7.2	Test for electromagnetic compatibility	27
7.2.1	General	27
7.2.2	Test for unwanted electromagnetic emissions	27
7.2.3	Test for electromagnetic immunity	27
7.3	Special tests for danger points on revolving doors (except for doors as in 3.9 (low-energy powered doors))	27
7.3.1	Danger point: main closing edge/opposing closing edge	27
7.3.2	Danger point: secondary closing edge/floor	28
7.3.3	Danger point: main closing edge/inside wall	28
7.4	Tests for further requirements	28
7.5	Test results	30
8	Marking	31
9	Evaluation of conformity	31
9.1	General	31
9.1.1	Evaluation of conformity for level 0 requirements for drive systems	31
9.1.2	Evaluation of conformity for all other levels of requirements for drive systems	31
9.2	Initial type test (type examination)	31
9.3	Factory production control	32
9.3.1	Documentation	32
9.3.2	Routine tests during manufacture	32
9.3.3	Treatment of non-conforming products	32
	Annex A (informative) Illustration of some essential terms for various types of door	33
	Annex B (normative) Measuring points	34
	Annex C (normative) Tests for presence detection devices	38
	Annex D (normative) Electrical equipment	45
	Annex E (informative) List of potential hazards	47
	Annex F (informative) Additional terms and definitions	51
	Annex G (informative) Emergency break-out sign	56
	Bibliography	57