

ISO 9386-2:2000-11 (E)

Power-operated lifting platforms for persons with impaired mobility - Rules for safety, dimensions and functional operation - Part 2: Powered stairlifts for seated, standing and wheelchair users moving in an inclined plane

Contents		Page
Foreword		v
Introduction		vi
1	Scope	1
2	Normative references	1
3	Terms and definitions	2
4	General requirements for stairlifts	6
4.1	Pattern of use	6
4.2	Protection against hazards	7
4.3	General design	7
4.4	Design guidelines particular to the installation	7
4.5	Access for maintenance, repair and inspection	7
4.6	Fire resistance	7
4.7	Rated speed	7
4.8	Rated load	7
4.9	General safety factor	8
4.10	Resistance to operating forces	8
4.11	Protection of equipment against harmful external influences	8
4.12	Suppression of radio and television interference	8
4.13	Guarding	8
5	Guide rails and mechanical stops	9
5.1	Guide rails	9
5.2	Folding guide rails	9
5.3	Stairlift guide rail	9
5.4	Mechanical end stops	9
6	Safety gear and overspeed governor	9
6.1	General	9
6.2	Control	10
6.3	Release	10
6.4	Access for inspection	10
6.5	Electrical checking	10
6.6	Overspeed governor	10
6.7	Rotation monitor unit	11
6.8	Safety nut	11
7	Driving units and drive system	11
7.1	General requirements	11
7.2	Braking system	12
7.3	Emergency/manual operation	12
7.4	Additional requirements for rope suspension drive	13
7.5	Additional requirements for rack and pinion drive	14
7.6	Additional requirements for chain suspension drive	15
7.7	Additional requirements for screw and nut drive	15

7.8	Additional requirements for guided rope and ball drive	16
7.9	Additional requirements for worm-toothed segment drive	16
7.10	Additional requirements for friction/traction drive	16
7.11	Additional requirements for guided chain drive	16
7.12	Additional requirements for guided chain drive with bearing rollers and bearing segments	17
7.13	Additional requirements for hydraulic drive	17
8	Electrical installation and equipment	19
8.1	General	19
8.2	Drive contactors	20
8.3	Motor and brake circuits for stopping the machine and checking its stopped condition ...	20
8.4	Creepage and clearance distances and enclosure requirements	21
8.5	Protection against electrical faults	21
8.6	Electric safety devices	22
8.7	Time delay	23
8.8	Protection of the driving motor	23
8.9	Electrical wiring	23
8.10	Safety circuits	24
8.11	Residual current devices	24
8.12	Additional requirements for battery-powered operation	24
8.13	Cableless controls	25
8.14	Operating devices	26
8.15	Terminal limit switches and final limit safety switches	26
8.16	Emergency alarm devices	26
9	Carriage	27
9.1	General requirements	27
9.2	Chair carriage	28
9.3	Carriage with standing platform	29
9.4	Carriage with wheelchair platform	30
10	Testing, inspection and servicing	33
10.1	Test and examination after installation	33
10.2	Periodic examinations, tests and servicing	34
11	Technical literature	34
12	Labels, notices and operating instructions	35
12.1	General	35
12.2	Information to be displayed	35
12.3	Operating instructions	36
Annex A (informative) Guidance in selection and purchase of suitable stairlifts		42
Annex B (informative) Recommendation for examination and testing before going into service		44
Annex C (informative) Recommendations for the provisions and use of specially adapted operating devices, switches and sensors		46
Annex D (informative) In-use periodic examination, tests and servicing		47
Annex E (informative) Example of certificate of acceptance by purchaser/user after initial tests and examination		49
Annex F (normative) Safety circuits -- Requirements for circuit design and component and circuit fault analysis		50
Annex G (informative) Summary of different requirements for private/public access		54
Bibliography		55