

DIN EN 1028-1:2008-09 (E)

Fire-fighting pumps - Fire-fighting centrifugal pumps with primer - Part 1: Classification - General and safety requirements (includes Amendment A1:2008)

Contents		Page
Foreword		4
0	Introduction	5
1	Scope	6
2	Normative references	7
3	Terms and definitions	8
3.1	Pumps and their applications	8
3.2	Suction heights	9
3.3	Pressures	9
3.4	Delivery rates	11
3.5	Power	11
3.6	Speed of rotation	12
3.7	Efficiencies	12
4	List of significant hazards	12
5	Safety requirements and/or protective measures	14
5.1	General	14
5.2	Special requirements	15
5.2.1	Mechanical hazards	15
5.2.2	Electrical hazards	16
5.2.3	Thermal hazards	16
5.2.4	Hazards from neglecting ergonomic design principles	17
5.2.5	Hazards due to breakdown and/or incorrect installation of protection devices	17
6	General and performance requirements	18
6.1	Design	18
6.2	Materials	18
6.3	Nominal delivery pressure	18
6.4	Nominal delivery rate	18
6.5	Geodetic nominal suction height	18
6.6	Closing pressure	18
6.7	Primer	19
6.8	Drainability	19
6.9	Shut off valves and pump connections	19
6.10	Pump inlet screen	19
6.11	Low temperature starting	19
6.12	Very low temperature behaviour	19
6.13	Operating controls	19
6.14	Additional equipment	19
6.15	Pump integrity protection equipment	19
6.16	Efficiency	20
6.17	Guarantee points	20
6.18	Special tools	20
7	Verification of the safety requirements and/or protective measures	20
8	Verification of the general and performance requirements	20

9	Classification and brief designation	21
10	Designation	22
11	Information for use	22
11.1	General	22
11.2	Signals and warning devices	22
11.3	Accompanying documents	22
11.3.1	General	22
11.3.2	Contents	22
11.4	Marking	27
Annex ZA (informative) !Relationship between this European Standard and the Essential Requirements of EU Directive 98/37/EC""""		28
Annex ZB (informative) !Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC""""		29
Bibliography		30