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

Fire-fighting pumps - Fire-fighting centrifugal pumps with primer - Part 1: Classification - General an d 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