ISO 13043:2011-04 (E)

Road vehicles - Refrigerant systems used in mobile air conditioning systems (MAC) - Safety requirements

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Normative references 1

3 Termsanddefinitions 2

4 Safety targets 7
4.1 General 7
4.2 Risk assessment 8
4.3 Relevant inputs and scenarios for the risk assessment 9

5 System level requirements 11
5.1 Refrigerant system 11
5.2 Pressure and temperature ranges 12
5.3 System layout 12
5.4 Pressure and temperature limitation strategies 12

6 Component level requirements 12
6.1 General requirements 12
6.2 Piping and connecting technology 13
6.3 Compressor 14
6.4 Evaporator 15
6.5 Condenser/gas cooler 15
6.6 Receiver and accumulator 15
6.7 Service ports 15
6.8 Control devices 15

7 Design requirements for service and manufacturing 15

Annex A (normative) Relevant input values for the risk assessment of refrigerants R134a, R1234yf and R744 16

Annex B (normative) Pressure and temperature reference data 19

Bibliography 21