
Sistemi za ogrevanje in hlajenje z vodo v stavbah - Projektiranje sistemov za hlajenje z vodo

Heating systems and water-based cooling systems in buildings - Design for water-based cooling systems

Heizungsanlagen und wassergeführte Kühlanlagen in Gebäuden - Planung von wassergeführten Kühlanlagen

Systèmes de chauffage et systèmes de refroidissement à eau dans les bâtiments - Conception des systèmes de refroidissement à eau

Ta slovenski standard je istoveten z: EN 17671:2025

SIST EN 17671:2025

<https://standards.iteh.ai/catalog/standards/sist/a4c7a9c0-f515-408c-9841-b176302724d1/sist-en-17671-2025>

ICS:

91.140.30

Prezračevalni in klimatski sistemi

Ventilation and air-conditioning systems

SIST EN 17671:2025

en,fr,de

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 17671

August 2025

ICS 91.140.30

English Version

**Heating systems and water-based cooling systems in
buildings - Design for water-based cooling systems**

Systèmes de chauffage et systèmes de refroidissement
à eau dans les bâtiments - Conception des systèmes de
refroidissement à eau

Heizungsanlagen und wassergeführte Kühlanlagen in
Gebäuden - Planung von wassergeführten Kühlanlagen

This European Standard was approved by CEN on 16 June 2025.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and United Kingdom.

SIST EN 17671:2025

<https://standards.iteh.ai/catalog/standards/sist/a4c7a9e0-f515-408e-9841-b176302724d1/sist-en-17671-2025>



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents

Page

European foreword	4
1 Scope.....	5
2 Normative references.....	6
3 Terms and definitions	6
4 Symbols and subscripts	10
4.1 Symbols	10
4.2 Subscripts	10
5 System design requirements	11
5.1 General requirements	11
5.2 Requirements for preliminary design information	11
5.3 Chilling system.....	12
5.3.1 General.....	12
5.3.2 Sizing	13
5.3.3 Devices for water-based heat rejection system (recooler)	13
5.4 Primary and secondary distribution circuits	13
5.4.1 General.....	13
5.4.2 Requirements for the chilled water	14
5.4.3 Flow rate	14
5.4.4 Circulation pumps	14
5.4.5 Pipework.....	15
5.4.6 Hydronic balancing	16
5.5 Cooling emission system – coolers	16
5.5.1 General.....	16
5.5.2 Sizing	16
5.5.3 Positioning of coolers.....	16
5.5.4 Protection against damage to buildings and installations.....	17
5.5.5 Unnecessary cooling consumption	17
5.5.6 Cleaning.....	17
5.6 Cooling system controls.....	17
5.6.1 General.....	17
5.6.2 Central control	17
5.6.3 Local temperature control.....	18
5.6.4 Zone control	18
5.6.5 Supply temperature control	18
5.6.6 Time control of cooling	19
5.7 Safety arrangements.....	19
5.7.1 General.....	19
5.7.2 Protection against temperatures falling below the minimum system safety temperature.....	20
5.7.3 Safety valves, rating, design and arrangements	20
5.7.4 Flow control device	20
5.7.5 Pressurization systems.....	20
5.8 Operational requirements.....	21
5.8.1 General.....	21
5.8.2 Provision for monitoring operating conditions.....	22

5.8.3	Temperature/power controller	22
5.8.4	Pressure maintaining control device	22
5.8.5	Filling and feeding device	22
5.9	Thermal insulation	22
5.10	Preventing corrosion	24
5.11	Documentation	24
5.12	Instructions for maintenance, operation and use	24
5.13	Installation and commissioning	24
Annex A (informative)	Information for the design of diaphragm expansion vessels (static pressurization and pressurization stations (dynamic pressurization) for closed systems	25
A.1	General	25
A.2	Expansion vessel size calculation	27
Annex B (informative)	Hydraulic schemes for heating and cooling	31
B.1	General	31
Bibliography		37

iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

[SIST EN 17671:2025](https://standards.iteh.ai/catalog/standards/sist/a4c7a9e0-f515-408e-9841-b176302724d1/sist-en-17671-2025)

<https://standards.iteh.ai/catalog/standards/sist/a4c7a9e0-f515-408e-9841-b176302724d1/sist-en-17671-2025>