
Testing of refrigerating systems

Essais des machines frigorifiques

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

ISO 916:2020

<https://standards.iteh.ai/catalog/standards/iso/566c9cca-da7a-42b5-bea4-95174541bcbd/iso-916-2020>



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

ISO 916:2020

<https://standards.iteh.ai/catalog/standards/iso/566c9cca-da7a-42b5-bea4-95174541bcbd/iso-916-2020>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2020

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

Foreword	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Symbols and units	2
5 Performance warranty	3
5.1 General	3
5.2 Subject of technical warranties	3
5.2.1 General	3
5.2.2 Refrigerating capacity	3
5.2.3 Compressor absorbed power	3
5.2.4 Absorbed power of ancillaries	4
5.2.5 Absorbed power of the entire system	4
5.2.6 Cooling water demand	4
5.2.7 Coefficient of performance	4
5.3 Operating conditions for technical warranties	4
5.3.1 General	4
5.3.2 Overall refrigerating capacity	4
5.3.3 Net or useful refrigerating capacity	4
5.3.4 Conversion to warranty conditions	4
5.4 Tolerance	5
5.5 Acceptance limit	5
6 Test preparation and procedure	5
7 Measuring instruments	6
7.1 General	6
7.2 Temperature measuring instruments	6
7.3 Pressure gauges	6
7.4 Measuring instruments for electric power	6
7.5 Flow meters	6
7.6 Speed measuring devices	6
7.7 Torque measuring devices	7
7.8 Time measuring devices	7
7.9 Mass measuring devices	7
8 Determination of the refrigerating capacity	7
8.1 Direct methods	7
8.1.1 Overall refrigerating capacity	7
8.1.2 Net refrigerating capacity for a liquid cooled medium	11
8.1.3 Useful refrigerating capacity	12
8.2 Indirect methods	12
8.2.1 General	12
8.2.2 Determination of the overall refrigerating capacity by means of a calibrated compressor	12
8.2.3 Determination of the net refrigerating capacity	13
8.2.4 Determination of the useful refrigerating capacity	13
8.2.5 Determination of the overall refrigerating capacity from the overall energy balance	13
9 Determination of the drive power	14
9.1 Power absorbed by the compressor	14
10 Measurement uncertainties	14
11 Results, conversion to guaranteed values	15

12	Material properties.....	15
Bibliography		17

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

ISO 916:2020

<https://standards.itih.ai/catalog/standards/iso/566c9cca-da7a-42b5-bea4-95174541bcbd/iso-916-2020>