



# 验证报告

## VERIFICATION REPORT

**验证企业:** 国药集团威奇达药业有限公司  
**验证地址:** 山西省大同市云州区第一医药园区国药集团威奇达药业有限公司  
**验证对象:** 头孢事业部110车间 冷库(三)  
**温控信息:**  $-22.0^{\circ}\text{C} \sim -18.0^{\circ}\text{C}$   
**验证性质:** 使用前验证  
**验证环境:** 低温  
**验证类别:** 空载  
**验证项目:** 温控设施设备运行参数及使用状况测试  
温度监测系统配置的测点终端安装位置确认  
开门作业对温控库房温度分布影响的确认  
设备故障或外部供电中断的状况下温控库房保温性能及变化趋势确定  
存储空间温度的偏差、均匀度和波动度确认  
本地区高温或低温等极端外部环境条件下的温度稳定性确认  
风机除霜作业对温控库房温度分布影响的确认  
温控设施设备运行参数及使用状况测试-多组风机轮换

**验证实施日期:**

**签发:**

### 验证标准和技术要求:

依照《药品经营质量管理规范》(GSP)及附录五《验证管理》、《GBT34399-2017医药产品冷链物流温控设施设备验证性能确认技术规范的要求》、《中华人民共和国人类遗传资源管理条例》。

### 适用范围:

医药产品储存运输过程中涉及的温控仓库、温控车辆、冷藏箱、保温箱、冰柜及温度监测系统的性能确认等活动。  
保藏机构的仪器设备应保证资源的质量和安全性, 根据需要定期维护和更换。关键仪器设备应定期进行验证、检定或校准。保藏机构的存储设备应有明确的监控措施或监控设备。

**签发日期:**

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## 1 参与人员及培训记录

### 1.1 验证报告的起草、审核与批准

职责	姓名	职务	企业	签名
起草	赵一		请填写企业名称	
校对	钱二		请填写企业名称	
审核	孙三		请填写企业名称	
批准	李四		请填写企业名称	

### 1.2 验证参与人员

职责	姓名	职务	企业	签名
副组长	吴六		请填写企业名称	
组员	周五		请填写企业名称	

### 1.3 培训记录

## 2 验证目的

- 1、确定冷藏库的运行参数及性能，验证冷藏库在实际工况中是否满足冷链药品储存温度要求。
- 2、获得明确的冷藏库在实际工况运行中温度分布特性，依据温度分布特性确认库房冷点及热点所在位置，对温湿度监测系统日常监测点安装位置给予指导。
- 3、发现可能存在的冷藏库设施设备运行或使用不符合要求的状况、系统参数设定的不合理情况等偏差并进行调整和纠正，使相关设施设备及系统的运行状况符合冷链药品储存规定的要求。
- 4、验证冷藏库在断电或设备故障等特殊情况下冷藏库的保温性能，以建立应急措施。
- 5、验证测试开门作业对冷藏库内温度变化的影响，提供冷藏库日常操作指导。

## 3 验证依据

- 1、《药品经营质量管理规范》及附录五《验证管理》。
- 2、《医药产品冷链物流温控设施设备验证性能确认技术规范 GB/T 34399-2017》。
- 3、前述《验证方案》。
- 4、验证测试判断标准：
  - (1) 温度自动监测系统测点终端与验证用温度记录仪的差值应在 $\pm 1^{\circ}\text{C}$ 以内(冷冻库差值应在 $\pm 2^{\circ}\text{C}$ 以内)；
  - (2) 测点终端安装数量及位置符合要求。

## 4 本次验证所用主要测量设备

#### 4.1 验证设备标准

1. 验证所使用的温度传感器应当经法定计量机构校准。
2. 验证所使用的温度传感器应当适用被验证设备的测量范围，测量范围在0℃~75℃之间，温度的最大允许误差为±0.5℃；测量范围在-30℃~0℃之间，温度的最大允许误差为±1.0℃。
3. 设备的校准证书复印件应当作为验证报告的必要附件。

#### 4.2 验证设备描述

型号	品牌	测量范围	精度	分辨率	最小采集间隔
SVB-YZ-REC-02	世福宝	-30℃~75℃	±0.5℃ (≥0℃时) ); ±1℃ (<0℃时)	0.1℃	1分钟
SVB-YZ-HOST	世福宝	-30℃~75℃	±0.5℃ (≥0℃时) ); ±1℃ (<0℃时)	0.1℃	1分钟

#### 4.3 验证设备清单

序号	型号	设备号	校准单位	校准证书	有效期	校准结果
1	SVB-YZ-REC-01	SF308010100212408088040803	济南市计量检定测试院	25001453974G1	2026-12-11	合格
2	SVB-YZ-REC-01	SF308010100212408088059803	济南市计量检定测试院	25001453987G1	2026-12-11	合格
3	SVB-YZ-REC-01	SF308010100212408088023803	济南市计量检定测试院	25001454003G1	2026-12-11	合格
4	SVB-YZ-REC-02	SF304070100022306148457803	济南市计量检定测试院	25001454060G1	2026-12-11	合格
5	SVB-YZ-REC-02	SF304070100022306088195803	济南市计量检定测试院	25001454104G1	2026-12-11	合格

序号	型号	设备号	校准单位	校准证书	有效期	校准结果
6	SVB-YZ-REC-01	SF308010100212408088041803	济南市计量检定测试院	25001463961G1	2026-12-11	合格
7	SVB-YZ-REC-02	SF304070100022306148095803	济南市计量检定测试院	25001474053G1	2026-12-11	合格
8	SVB-YZ-REC-02	SF304070100022306148131803	济南市计量检定测试院	25001474091G1	2026-12-11	合格
9	SVB-YZ-REC-01	SF308010100212408028030803	济南市计量检定测试院	25001463985G1	2026-12-11	合格
10	SVB-YZ-REC-02	SF304070100022306148107803	济南市计量检定测试院	25001454059G1	2026-12-11	合格
11	SVB-YZ-REC-01	SF308010100212408088039803	济南市计量检定测试院	25001463974G1	2026-12-11	合格
12	SVB-YZ-REC-02	SF304070100022306148246803	济南市计量检定测试院	25001454073G1	2026-12-11	合格
13	SVB-YZ-REC-01	SF308010100212408088009803	济南市计量检定测试院	25001453997G1	2026-12-11	合格
14	SVB-YZ-REC-02	SF304070100022306148135803	济南市计量检定测试院	25001474095G1	2026-12-11	合格
15	SVB-YZ-REC-01	SF308010100212408028006803	济南市计量检定测试院	25001464000G1	2026-12-11	合格
16	SVB-YZ-REC-02	SF304070100022306088024803	济南市计量检定测试院	25001474056G1	2026-12-11	合格

序号	型号	设备号	校准单位	校准证书	有效期	校准结果
17	SVB-YZ-REC-01	SF308010100212408088046803	济南市计量检定测试院	25001453970G1	2026-12-11	合格
18	SVB-YZ-REC-02	SF304070100022306148073803	济南市计量检定测试院	25001454071G1	2026-12-11	合格
19	SVB-YZ-REC-01	SF308010100212408088052803	济南市计量检定测试院	25001453986G1	2026-12-11	合格
20	SVB-YZ-REC-01	SF308010100212408088019803	济南市计量检定测试院	25001453968G1	2026-12-11	合格
21	SVB-YZ-REC-01	SF308010100212408028031803	济南市计量检定测试院	25001453998G1	2026-12-11	合格
22	SVB-YZ-REC-01	SF308010100212408028014803	济南市计量检定测试院	25001463964G1	2026-12-11	合格
23	SVB-YZ-REC-01	SF308010100212408088007803	济南市计量检定测试院	25001463983G1	2026-12-11	合格
24	SVB-YZ-REC-01	SF308010100212408088034803	济南市计量检定测试院	25001453976G1	2026-12-11	合格
25	SVB-YZ-REC-02	SF304070100022306088108803	济南市计量检定测试院	25001474061G1	2026-12-11	合格
26	SVB-YZ-REC-02	SF304070100022306088191803	济南市计量检定测试院	25001474059G1	2026-12-11	合格
27	SVB-YZ-REC-02	SF304070100022306148129803	济南市计量检定测试院	25001474084G1	2026-12-11	合格

序号	型号	设备号	校准单位	校准证书	有效期	校准结果
28	SVB-YZ-REC-02	SF304070100022306148507803	济南市计量检定测试院	25001494094G1	2026-12-11	合格
29	SVB-YZ-REC-02	SF304070100022306148630803	济南市计量检定测试院	25001494100G1	2026-12-11	合格
30	SVB-YZ-REC-02	SF304070100022306148165803	济南市计量检定测试院	25001494099G1	2026-12-11	合格
31	SVB-YZ-REC-02	SF304070100022306088041803	济南市计量检定测试院	25001474103G1	2026-12-11	合格
32	SVB-YZ-REC-01	SF308010100212408028017803	济南市计量检定测试院	25001463981G1	2026-12-11	合格
33	SVB-YZ-REC-01	SF308010100212408028037803	济南市计量检定测试院	25001463991G1	2026-12-11	合格
34	SVB-YZ-REC-02	SF304070100022306148200803	济南市计量检定测试院	25001494064G1	2026-12-11	合格
35	SVB-YZ-REC-02	SF304070100022306148606803	济南市计量检定测试院	25001494097G1	2026-12-11	合格
36	SVB-YZ-REC-01	SF308010100212408088035803	济南市计量检定测试院	25001463960G1	2026-12-11	合格
37	SVB-YZ-REC-02	SF304070100022306088201803	济南市计量检定测试院	25001474049G1	2026-12-11	合格
38	SVB-YZ-REC-02	SF304070100022306148448803	济南市计量检定测试院	25001494101G1	2026-12-11	合格

序号	型号	设备号	校准单位	校准证书	有效期	校准结果
39	SVB-YZ-REC-01	SF308010100212408028026803	济南市计量检定测试院	25001463999G1	2026-12-11	合格
40	SVB-YZ-REC-01	SF308010100212408028012803	济南市计量检定测试院	25001463996G1	2026-12-11	合格
41	SVB-YZ-REC-02	SF304070100022306088175803	济南市计量检定测试院	25001454103G1	2026-12-11	合格
42	SVB-YZ-REC-01	SF308010100212408088013803	济南市计量检定测试院	25001464002G1	2026-12-11	合格

## 5 验证对象

### 5.1 对象说明

名称	头孢事业部110车间 冷库(三)
长宽高(mm)	6450*4687*3500
面积(平米)	
验证范围	-22.0℃~-18.0℃
验证状态	使用前

### 5.2 验证项目

序号	验证项目
1	温控设施设备运行参数及使用状况测试
2	温度监测系统配置的测点终端安装位置确认
3	开门作业对温控库房温度分布影响的确认
4	设备故障或外部供电中断的状况下温控库房保温性能及变化趋势确定
5	存储空间温度的偏差、均匀度和波动度确认
6	本地区高温或低温等极端外部环境条件下的温度稳定性确认
7	风机除霜作业对温控库房温度分布影响的确认

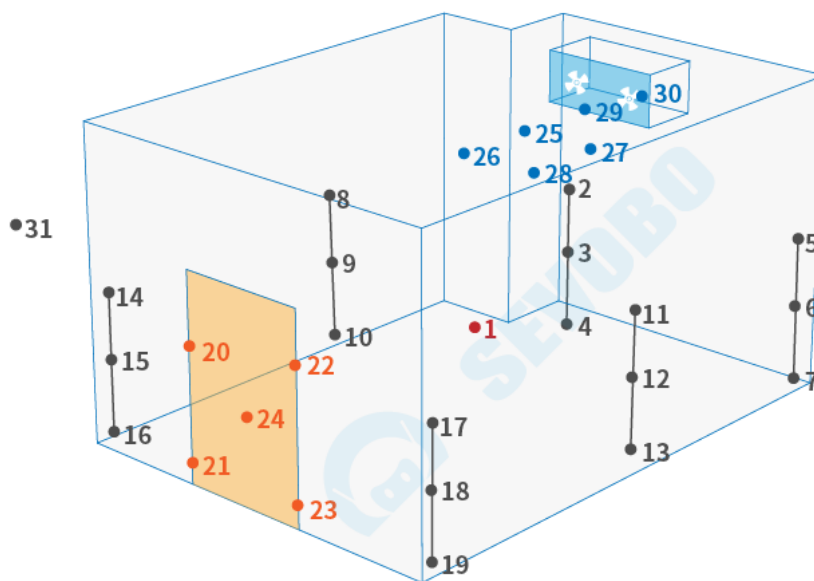
序号	验证项目
8	温控设施设备运行参数及使用状况测试-多组风机轮换
9	风机工作情况确认

### 5.3 布点依据

- 1、在仓库内一次性同步布点，确保各测点采集数据的同步、有效；
- 2、每个库房中均匀性布点数量不应少于9个，仓间各角及中心位置均应布置测点，每两个测点的水平间距不应大于5m，垂直间距不应超过2m。
- 3、库房每个作业出入口及风机出风口区域至少布置5个测点，库房中每组货架或建筑结构的风向死角位置至少应布置3个测点。
- 4、特殊区域应布设温度监测点，包括空调或制冷设备回风位置、温度自动监测系统测点终端安装位置、门、窗、灯等位置。
- 5、温度监测点均应布设在货位上或货物可能存放的位置。

### 5.4 测点布置

#### 5.4.1 布点示意图



布点示意图

#### 5.4.2 布点位置详表

序号	名称	位置编码	类型	设备型号	设备编号
1	中心点1	A01	中心点	SVB-YZ-REC-01	SF308010100212408088040803

序号	名称	位置编码	类型	设备型号	设备编号
2	均匀布点 2	A02	均匀布点	SVB-YZ- REC-01	SF308010100212408088059803
3	均匀布点 3	A03	均匀布点	SVB-YZ- REC-01	SF308010100212408088023803
4	均匀布点 4	A04	均匀布点	SVB-YZ- REC-02	SF304070100022306148457803
5	均匀布点 5	A05	均匀布点	SVB-YZ- REC-02	SF304070100022306088195803
6	均匀布点 6	A06	均匀布点	SVB-YZ- REC-01	SF308010100212408088041803
7	均匀布点 7	A07	均匀布点	SVB-YZ- REC-02	SF304070100022306148095803
8	均匀布点 8	A08	均匀布点	SVB-YZ- REC-02	SF304070100022306148131803
9	均匀布点 9	A09	均匀布点	SVB-YZ- REC-01	SF308010100212408028030803
10	均匀布点 10	A10	均匀布点	SVB-YZ- REC-02	SF304070100022306148107803
11	均匀布点 11	A11	均匀布点	SVB-YZ- REC-01	SF308010100212408088039803
12	均匀布点 12	A12	均匀布点	SVB-YZ- REC-02	SF304070100022306148246803
13	均匀布点 13	A13	均匀布点	SVB-YZ- REC-01	SF308010100212408088009803
14	均匀布点 14	A14	均匀布点	SVB-YZ- REC-02	SF304070100022306148135803
15	均匀布点 15	A15	均匀布点	SVB-YZ- REC-01	SF308010100212408028006803
16	均匀布点 16	A16	均匀布点	SVB-YZ- REC-02	SF304070100022306088024803
17	均匀布点 17	A17	均匀布点	SVB-YZ- REC-01	SF308010100212408088046803
18	均匀布点 18	A18	均匀布点	SVB-YZ- REC-02	SF304070100022306148073803

序号	名称	位置编码	类型	设备型号	设备编号
19	均匀布点 19	A19	均匀布点	SVB-YZ- REC-01	SF308010100212408088052803
20	门20	A20	门	SVB-YZ- REC-01	SF308010100212408088019803
21	门21	A21	门	SVB-YZ- REC-01	SF308010100212408028031803
22	门22	A22	门	SVB-YZ- REC-01	SF308010100212408028014803
23	门23	A23	门	SVB-YZ- REC-01	SF308010100212408088007803
24	门24	A24	门	SVB-YZ- REC-01	SF308010100212408088034803
25	风机2出 风口25	A25	风机	SVB-YZ- REC-02	SF304070100022306088108803
26	风机2出 风口26	A26	风机	SVB-YZ- REC-02	SF304070100022306088191803
27	风机2出 风口27	A27	风机	SVB-YZ- REC-02	SF304070100022306148129803
28	风机2出 风口28	A28	风机	SVB-YZ- REC-02	SF304070100022306148507803
29	风机2出 风口29	A29	风机	SVB-YZ- REC-02	SF304070100022306148630803
30	风机2回 风口30	A30	风机	SVB-YZ- REC-02	SF304070100022306148165803
31	风机1出 风口31	A31	风机	SVB-YZ- REC-02	SF304070100022306088041803
32	风机1出 风口32	A32	风机	SVB-YZ- REC-01	SF308010100212408028017803
33	风机1出 风口33	A33	风机	SVB-YZ- REC-01	SF308010100212408028037803
34	风机1出 风口34	A34	风机	SVB-YZ- REC-02	SF304070100022306148200803
35	风机1出 风口35	A35	风机	SVB-YZ- REC-02	SF304070100022306148606803

序号	名称	位置编码	类型	设备型号	设备编号
36	风机1回 风口36	A36	风机	SVB-YZ- REC-01	SF308010100212408088035803
37	房顶37	A37	风向死角	SVB-YZ- REC-02	SF304070100022306088201803
38	房顶38	A38	风向死角	SVB-YZ- REC-02	SF304070100022306148448803
39	地面39	A39	风向死角	SVB-YZ- REC-01	SF308010100212408028026803
40	地面40	A40	风向死角	SVB-YZ- REC-01	SF308010100212408028012803
41	环境温度 41	A41	环境外温	SVB-YZ- REC-02	SF304070100022306088175803
42	仓库外温 42	A42	仓库外温	SVB-YZ- REC-01	SF308010100212408088013803

#### 5.4.3 现场照片

### 6 验证实施前准备及检查

#### 6.1 验证对象运行确认

序号	检查项目	要求	结果
1	控制箱电源接通和关闭	制冷系统启动(停止)设备运行正常	合格
2	温度控制器及温湿度自动监测系统	a、可在允许范围内设定，自动调控温度 b、正常运行，可显示实际温度 c、能在规定的记录时段内正常记录温湿度变化的情况 d、温度异常时，自动报警系统开始工作	合格
3	照明灯	灯的开关正常	合格
4	密封门	开、关灵活，密封	合格

#### 6.2 验证前准备及检查

序号	操作内容	操作标准	结果
1	制冷压缩机安装	a、安装正确，无缺损 b、制冷效果正常	合格
2	冷风机安装	a、安装正确，无缺损 b、制冷效果正常	合格
3	冷库门板	a、密封性能良好、开关灵活 b、安装牢固，无缝隙	合格
4	地板	安装牢固，无缝隙	合格

## 7 验证项目实施

### 7.1 风机工作状况

时间	均匀点位 平均值	所有点位 最大值	所有点位 最小值	环境温度	备注
2026-01-27 19:00					
2026-01-27 19:01					
2026-01-27 19:02					
2026-01-27 19:03					
2026-01-27 19:04					
2026-01-27 19:05					
2026-01-27 19:06					
2026-01-27 19:07					
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2026-01-27 19:16					
2026-01-27 19:17					

时间	均匀点位 平均值	所有点位 最大值	所有点位 最小值	环境温度	备注
2026-01-27 19:18					
2026-01-27 19:19					
2026-01-27 19:20					
2026-01-27 19:21					
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时间	均匀点位 平均值	所有点位 最大值	所有点位 最小值	环境温度	备注
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时间	均匀点位 平均值	所有点位 最大值	所有点位 最小值	环境温度	备注
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时间	均匀点位 平均值	所有点位 最大值	所有点位 最小值	环境温度	备注
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时间	均匀点位 平均值	所有点位 最大值	所有点位 最小值	环境温度	备注
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时间	均匀点位 平均值	所有点位 最大值	所有点位 最小值	环境温度	备注
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时间	均匀点位 平均值	所有点位 最大值	所有点位 最小值	环境温度	备注
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2026-01-28 13:43					
2026-01-28 13:44					
2026-01-28 13:45					
2026-01-28 13:46					
2026-01-28 13:47					

时间	均匀点位 平均值	所有点位 最大值	所有点位 最小值	环境温度	备注
2026-01-28 13:48					
2026-01-28 13:49					
2026-01-28 13:50					
2026-01-28 13:51					
2026-01-28 13:52					
2026-01-28 13:53					
2026-01-28 13:54					
2026-01-28 13:55					
2026-01-28 13:56					
2026-01-28 13:57					
2026-01-28 13:58					
2026-01-28 13:59					
2026-01-28 14:00					
2026-01-28 14:01					
2026-01-28 14:02					
2026-01-28 14:03					
2026-01-28 14:04					
2026-01-28 14:05					
2026-01-28 14:06					
2026-01-28 14:07					
2026-01-28 14:08					
2026-01-28 14:09					
2026-01-28 14:10					
2026-01-28 14:11					
2026-01-28 14:12					
2026-01-28 14:13					
2026-01-28 14:14					
2026-01-28 14:15					
2026-01-28 14:16					
2026-01-28 14:17					

时间	均匀点位 平均值	所有点位 最大值	所有点位 最小值	环境温度	备注
2026-01-28 14:18					
2026-01-28 14:19					
2026-01-28 14:20					
2026-01-28 14:21					
2026-01-28 14:22					
2026-01-28 14:23					
2026-01-28 14:24					
2026-01-28 14:25					
2026-01-28 14:26					
2026-01-28 14:27					
2026-01-28 14:28					
2026-01-28 14:29					
2026-01-28 14:30					
2026-01-28 14:31					
2026-01-28 14:32					
2026-01-28 14:33					
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2026-01-28 14:37					
2026-01-28 14:38					
2026-01-28 14:39					
2026-01-28 14:40					
2026-01-28 14:41					
2026-01-28 14:42					
2026-01-28 14:43					
2026-01-28 14:44					
2026-01-28 14:45					
2026-01-28 14:46					
2026-01-28 14:47					

时间	均匀点位 平均值	所有点位 最大值	所有点位 最小值	环境温度	备注
2026-01-28 14:48					
2026-01-28 14:49					
2026-01-28 14:50					
2026-01-28 14:51					
2026-01-28 14:52					
2026-01-28 14:53					
2026-01-28 14:54					
2026-01-28 14:55					
2026-01-28 14:56					
2026-01-28 14:57					
2026-01-28 14:58					
2026-01-28 14:59					
2026-01-28 15:00					
2026-01-28 15:01					
2026-01-28 15:02					
2026-01-28 15:03					
2026-01-28 15:04					
2026-01-28 15:05					
2026-01-28 15:06					
2026-01-28 15:07					
2026-01-28 15:08					
2026-01-28 15:09					
2026-01-28 15:10					
2026-01-28 15:11					
2026-01-28 15:12					
2026-01-28 15:13					
2026-01-28 15:14					
2026-01-28 15:15					
2026-01-28 15:16					
2026-01-28 15:17					

时间	均匀点位 平均值	所有点位 最大值	所有点位 最小值	环境温度	备注
2026-01-28 15:18					
2026-01-28 15:19					
2026-01-28 15:20					
2026-01-28 15:21					
2026-01-28 15:22					
2026-01-28 15:23					
2026-01-28 15:24					
2026-01-28 15:25					
2026-01-28 15:26					
2026-01-28 15:27					
2026-01-28 15:28					
2026-01-28 15:29					
2026-01-28 15:30					
2026-01-28 15:31					
2026-01-28 15:32					
2026-01-28 15:33					
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2026-01-28 15:37					
2026-01-28 15:38					
2026-01-28 15:39					
2026-01-28 15:40					
2026-01-28 15:41					
2026-01-28 15:42					
2026-01-28 15:43					
2026-01-28 15:44					
2026-01-28 15:45					
2026-01-28 15:46					
2026-01-28 15:47					

时间	均匀点位 平均值	所有点位 最大值	所有点位 最小值	环境温度	备注
2026-01-28 15:48					
2026-01-28 15:49					
2026-01-28 15:50					
2026-01-28 15:51					
2026-01-28 15:52					
2026-01-28 15:53					
2026-01-28 15:54					
2026-01-28 15:55					
2026-01-28 15:56					
2026-01-28 15:57					
2026-01-28 15:58					
2026-01-28 15:59					
2026-01-28 16:00					
2026-01-28 16:01					
2026-01-28 16:02					
2026-01-28 16:03					
2026-01-28 16:04					
2026-01-28 16:05					
2026-01-28 16:06					
2026-01-28 16:07					
2026-01-28 16:08					
2026-01-28 16:09					
2026-01-28 16:10					
2026-01-28 16:11					
2026-01-28 16:12					
2026-01-28 16:13					
2026-01-28 16:14					
2026-01-28 16:15					
2026-01-28 16:16					
2026-01-28 16:17					

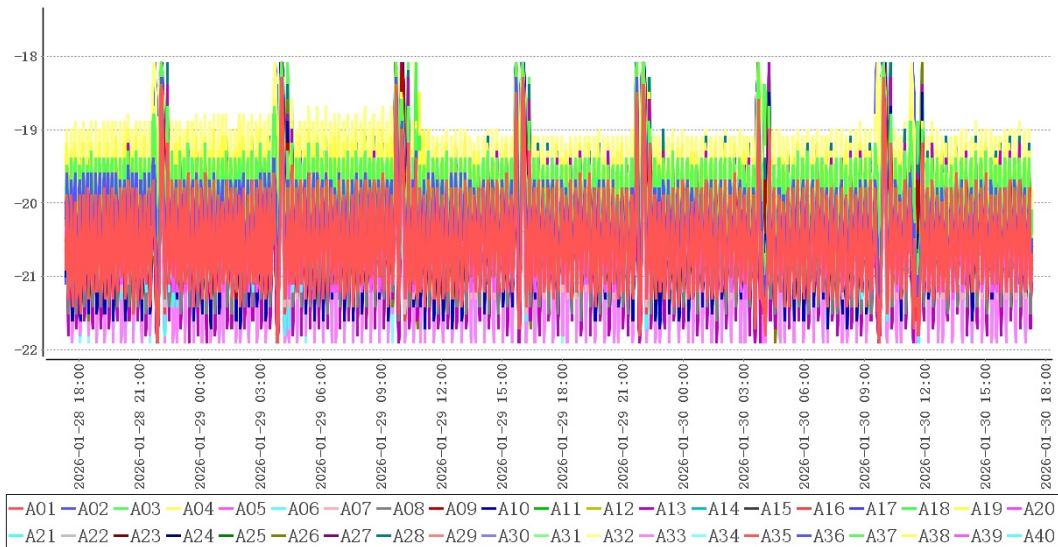
时间	均匀点位 平均值	所有点位 最大值	所有点位 最小值	环境温度	备注
2026-01-28 16:18					
2026-01-28 16:19					
2026-01-28 16:20					
2026-01-28 16:21					
2026-01-28 16:22					
2026-01-28 16:23					
2026-01-28 16:24					
2026-01-28 16:25					
2026-01-28 16:26					
2026-01-28 16:27					
2026-01-28 16:28					
2026-01-28 16:29					
2026-01-28 16:30					
2026-01-28 16:31					
2026-01-28 16:32					
2026-01-28 16:33					
2026-01-28 16:34					
2026-01-28 16:35					
2026-01-28 16:36					
2026-01-28 16:37					
2026-01-28 16:38					
2026-01-28 16:39					
2026-01-28 16:40					
2026-01-28 16:41					
2026-01-28 16:42					
2026-01-28 16:43					
2026-01-28 16:44					
2026-01-28 16:45					
2026-01-28 16:46					
2026-01-28 16:47					

时间	均匀点位 平均值	所有点位 最大值	所有点位 最小值	环境温度	备注
2026-01-28 16:48					
2026-01-28 16:49					
2026-01-28 16:50					
2026-01-28 16:51					
2026-01-28 16:52					
2026-01-28 16:53					
2026-01-28 16:54					
2026-01-28 16:55					
2026-01-28 16:56					
2026-01-28 16:57					
2026-01-28 16:58					
2026-01-28 16:59					
2026-01-28 17:00					

存货区在2026-01-27 19:00:00~2026-01-28 17:00:00时间段内无数据

### 7.2 温控设施设备运行参数及使用状况测试—参数测试

风机名称	设定启动	设定停止	检测启动	检测停止	结果
风机01					
风机02					

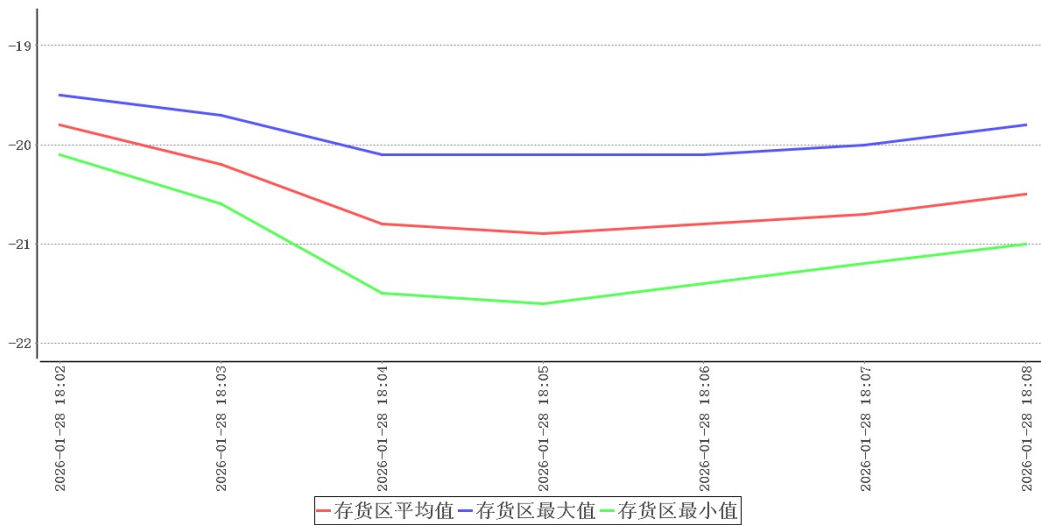


测点	最大值	最小值	平均值
A01	-18.3	-21.9	-20.5
A02	-18.3	-21.4	-20.3
A03	-18.1	-21.1	-20.0
A04	-18.1	-21.3	-20.0
A05	-18.1	-21.6	-20.5
A06	-18.3	-21.9	-20.5
A07	-18.1	-21.7	-20.5
A08	-18.1	-21.9	-20.5
A09	-18.1	-21.5	-20.3
A10	-18.1	-21.9	-20.4
A11	-18.1	-21.6	-20.4
A12	-18.1	-21.7	-20.4
A13	-18.1	-21.9	-20.4
A14	-18.1	-21.9	-20.5
A15	-18.1	-21.6	-20.3
A16	-18.1	-21.8	-20.3
A17	-18.1	-21.6	-20.3
A18	-18.1	-21.9	-20.4
A19	-18.1	-21.9	-19.9
A20	-18.1	-21.5	-20.2
A21	-18.1	-21.9	-20.4
A22	-18.1	-21.4	-20.0
A23	-18.1	-21.3	-20.1
A24	-18.1	-21.2	-20.1
A25	-18.1	-21.8	-20.5
A26	-18.1	-21.9	-20.5
A27	-18.2	-21.9	-20.5
A28	-18.1	-21.9	-20.2
A29	-18.1	-21.9	-20.5
A30	-18.1	-21.7	-20.4

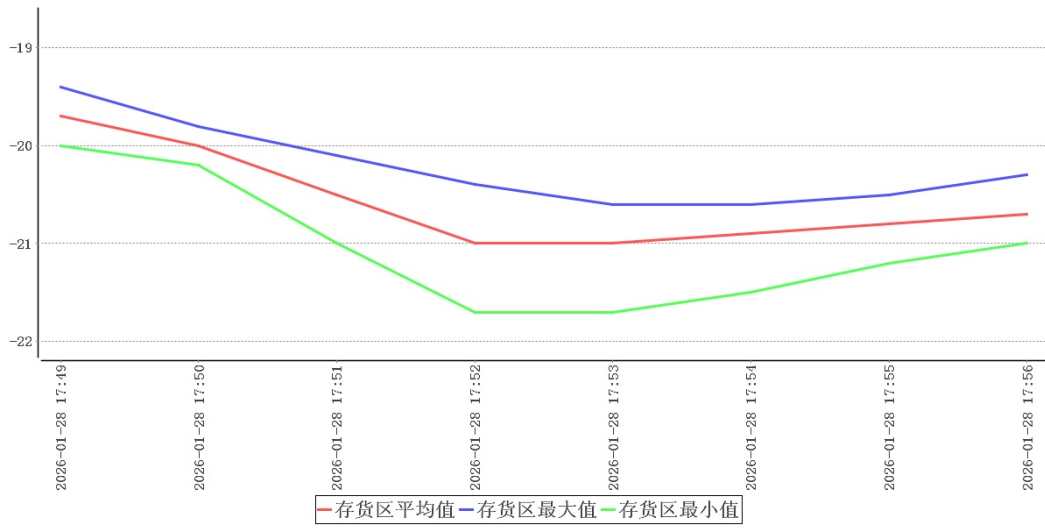
测点	最大值	最小值	平均值
A31	-18.1	-21.2	-20.0
A32	-18.1	-21.0	-19.6
A33	-18.1	-21.9	-20.7
A34	-18.1	-21.9	-20.6
A35	-18.1	-21.9	-20.3
A36	-18.1	-21.5	-20.5
A37	-18.1	-21.5	-19.9
A38	-18.1	-21.8	-20.4
A39	-18.1	-21.3	-19.9
A40	-18.1	-21.1	-20.1

在当前设置的工作条件下，库内温度在-21.9℃~-18.1℃之间，符合-22.0℃~-18.0℃验证标准。

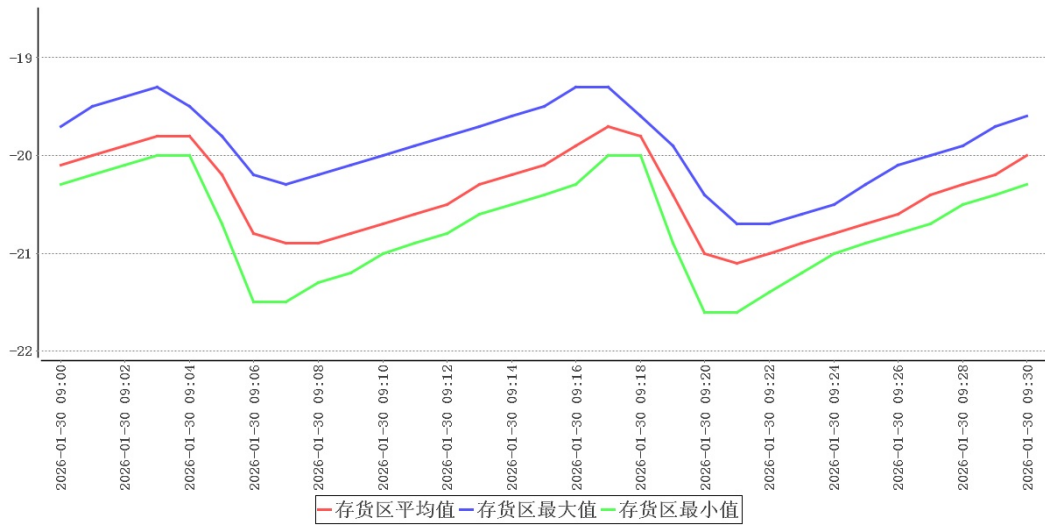
### 7.3 温控设施设备运行参数及使用状况测试—多组风机轮换



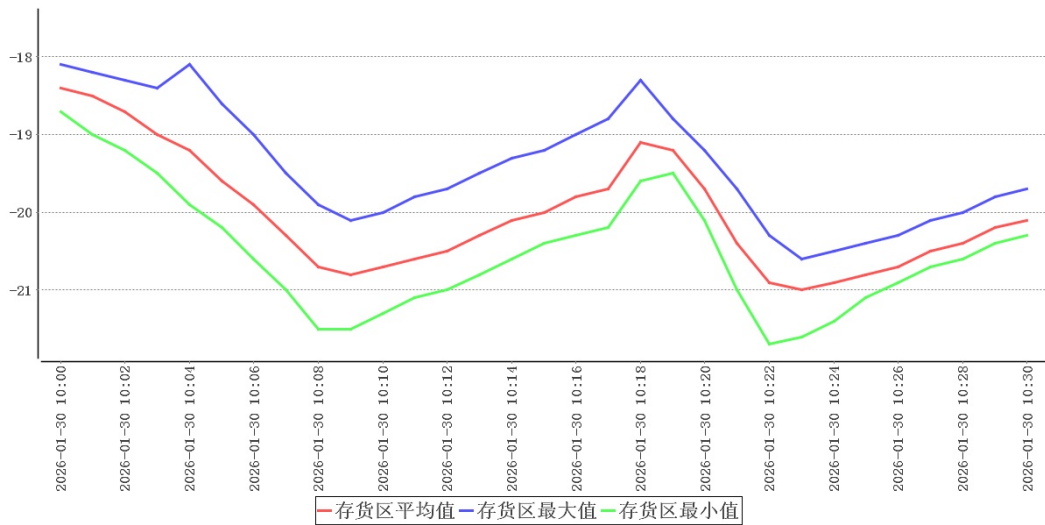
风机01启动时温度分布曲线



风机02启动时温度分布曲线



风机01启动时温度分布曲线



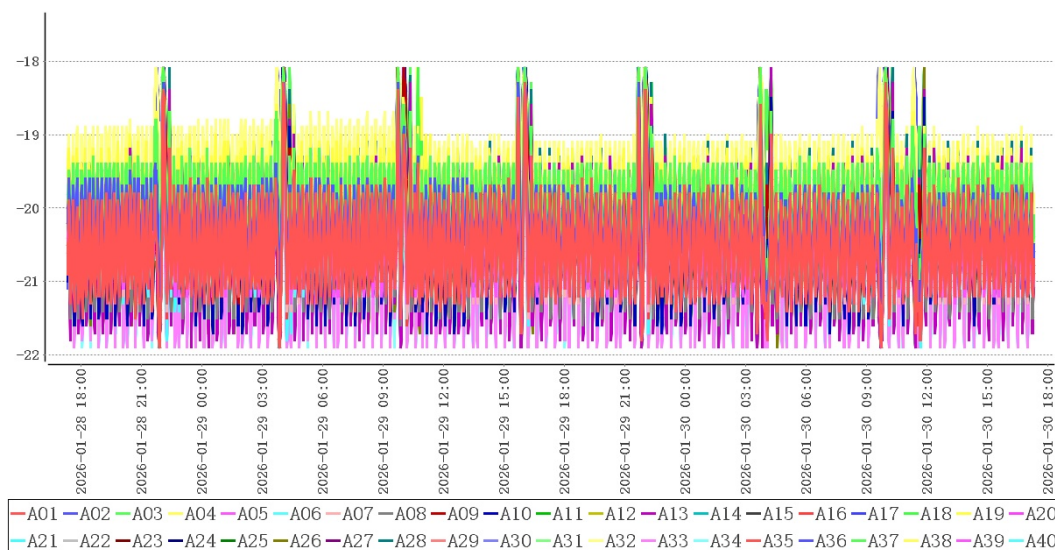
风机02启动时温度分布曲线

检测项目	时间	规范要求	检测结果	结论
风机01启动	2026-01-28 18:02:00~2026-01-28 18:08:00	全部测点温度范围 (-22.0~-18.0) °C	-21.6°C~-19.5°C	合格
风机02启动	2026-01-28 17:49:00~2026-01-28 17:56:00	全部测点温度范围 (-22.0~-18.0) °C	-21.7°C~-19.4°C	合格
风机01启动	2026-01-30 09:00:00~2026-01-30 09:30:00	全部测点温度范围 (-22.0~-18.0) °C	-21.6°C~-19.3°C	合格
风机02启动	2026-01-30 10:00:00~2026-01-30 10:30:00	全部测点温度范围 (-22.0~-18.0) °C	-21.7°C~-18.1°C	合格

从上表可以看出：当风机01开启时，库内温度最高点为-19.5°C，库内温度最低点为-21.6°C，符合-22.0°C~-18.0°C验证标准。当风机02开启时，库内温度最高点为-19.4°C，库内温度最低点为-21.7°C，符合-22.0°C~-18.0°C验证标准。当风机01开启时，库内温度最高点为-19.3°C，库内温度最低点为-21.6°C，符合-22.0°C~-18.0°C验证标准。当风机02开启时，库内温度最高点为-18.1°C，库内温度最低点为-21.7°C，符合-22.0°C~-18.0°C验证标准。

### 7.4 温度分布特性测试

#### 7.4.1 温度分布特性



### (1)、温度偏差

温度偏差指温控设施设备稳定状态下, 测试空间的中心点在规定时间内多次实测温度的平均值与温度设定值的差值, 计算公式:  $\Delta t_d = t_d - t_o$

式中:

$\Delta t_d$  ——温度偏差, 单位为摄氏度(°C);

$t_d$  ——温度设定值, 单位为摄氏度(°C);

$t_o$  ——中心点在规定时间内n 次测量平均值, 单位为摄氏度(°C)

点位类型	测点	设定值( $t_d$ )	平均值( $t_o$ )
中心点	A01	-20.0	-20.5

温度偏差 $\Delta t_d = t_d - t_o = 0.5^\circ\text{C}$

### (2)、均匀度

温度均匀度指温控设施设备稳定状态下, 测试空间各测点在规定时间内每次测量中实测最高温度与最低温度之差的算术平均值, 计算公式:  $\Delta t_u = \sum (t_{imax} - t_{imin}) / n$

式中:

$\Delta t_u$  ——温度均匀度, 单位为摄氏度(°C);

$t_{imax}$  ——各测点在规定时间内第i次测得的最高温度, 单位为摄氏度(°C);

$t_{imin}$  ——各测点在规定时间内第i次测得的最低温度, 单位为摄氏度(°C)。

n ——测量次数。

各测点最大值和最小值见附录A: 各测点极值表

均匀度 $\Delta t_u = \sum (t_{imax} - t_{imin}) / n = 1.5^\circ\text{C}$

### (3)、波动度

温度波动度指温控设施设备稳定状态下, 测试空间的中心点在规定时间内多次实测最高温度与最低温度之差的一半, 计算公式:  $\Delta t_f = \pm (t_{omax} - t_{omin}) / 2$

式中:

$\Delta t_f$  ——温度波动度, 单位为摄氏度(°C);

$t_{omax}$  ——中心点在规定时间内n 次测量中的最高温度, 单位为摄氏度(°C);

$t_{omin}$  ——中心点在规定时间内n 次测量中的最低温度, 单位为摄氏度(°C)。

点位类型	测点	最大值(tomax)	最小值(tomin)
中心点	A01	-18.3	-21.9

波动度 $\Delta t_f = \pm (tomax - tomin) / 2 = 1.8^\circ\text{C}$

#### (4)、结论综述

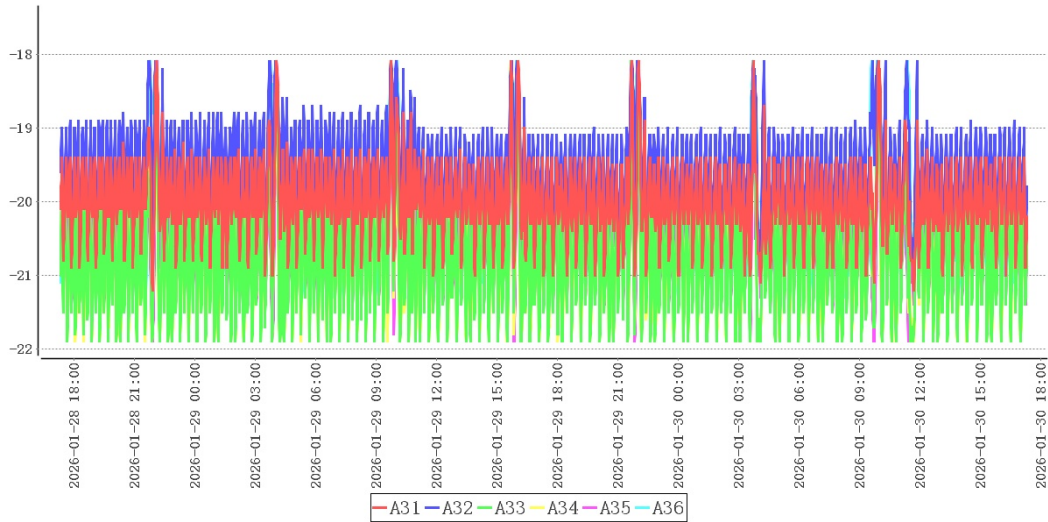
点位类型	测点	最大值	最小值	平均值
中心点	A01	-18.3	-21.9	-20.5
均匀布点	A02	-18.3	-21.4	-20.3
	A03	-18.1	-21.1	-20.0
	A04	-18.1	-21.3	-20.0
	A05	-18.1	-21.6	-20.5
	A06	-18.3	-21.9	-20.5
	A07	-18.1	-21.7	-20.5
	A08	-18.1	-21.9	-20.5
	A09	-18.1	-21.5	-20.3
	A10	-18.1	-21.9	-20.4
	A11	-18.1	-21.6	-20.4
	A12	-18.1	-21.7	-20.4
	A13	-18.1	-21.9	-20.4
	A14	-18.1	-21.9	-20.5
	A15	-18.1	-21.6	-20.3
	A16	-18.1	-21.8	-20.3
	A17	-18.1	-21.6	-20.3
	A18	-18.1	-21.9	-20.4
	A19	-18.1	-21.9	-19.9
	出入口	A20	-18.1	-21.5
A21		-18.1	-21.9	-20.4
A22		-18.1	-21.4	-20.0
A23		-18.1	-21.3	-20.1
A24		-18.1	-21.2	-20.1
风机	A25	-18.1	-21.8	-20.5

	A26	-18.1	-21.9	-20.5
	A27	-18.2	-21.9	-20.5
	A28	-18.1	-21.9	-20.2
	A29	-18.1	-21.9	-20.5
	A30	-18.1	-21.7	-20.4
	A31	-18.1	-21.2	-20.0
	A32	-18.1	-21.0	-19.6
	A33	-18.1	-21.9	-20.7
	A34	-18.1	-21.9	-20.6
	A35	-18.1	-21.9	-20.3
	A36	-18.1	-21.5	-20.5
风向死角	A37	-18.1	-21.5	-19.9
	A38	-18.1	-21.8	-20.4
	A39	-18.1	-21.3	-19.9
	A40	-18.1	-21.1	-20.1
环境外温	A41	13.0	-10.6	-2.7
仓库外温	A42	21.2	11.9	18.3

在库房空调或制冷系统温度控制参数符合设定要求、库房温度符合设定范围后，数据有效持续采集时间为48小时0分钟，在环境温度处于-10.6℃~13.0℃情况下，库内各测点温度在-

## 7.4.2 风机

### 7.4.2.1 风机01



测点	最大值	最小值	平均值
A31	-18.1	-21.2	-20.0
A32	-18.1	-21.0	-19.6
A33	-18.1	-21.9	-20.7
A34	-18.1	-21.9	-20.6
A35	-18.1	-21.9	-20.3
A36	-18.1	-21.5	-20.5

检测项目	规范要求	检测结果	结论
风机01附近温度均匀性	全部测点温度范围(-22.0~-18.0)℃	-21.9~-18.1℃	合格

### 7.4.2.2 风机02



测点	最大值	最小值	平均值
A25	-18.1	-21.8	-20.5
A26	-18.1	-21.9	-20.5
A27	-18.2	-21.9	-20.5
A28	-18.1	-21.9	-20.2
A29	-18.1	-21.9	-20.5
A30	-18.1	-21.7	-20.4

检测项目	规范要求	检测结果	结论
风机02附近温度均匀性	全部测点温度范围(-22.0~-18.0)℃	-21.9~-18.1℃	合格

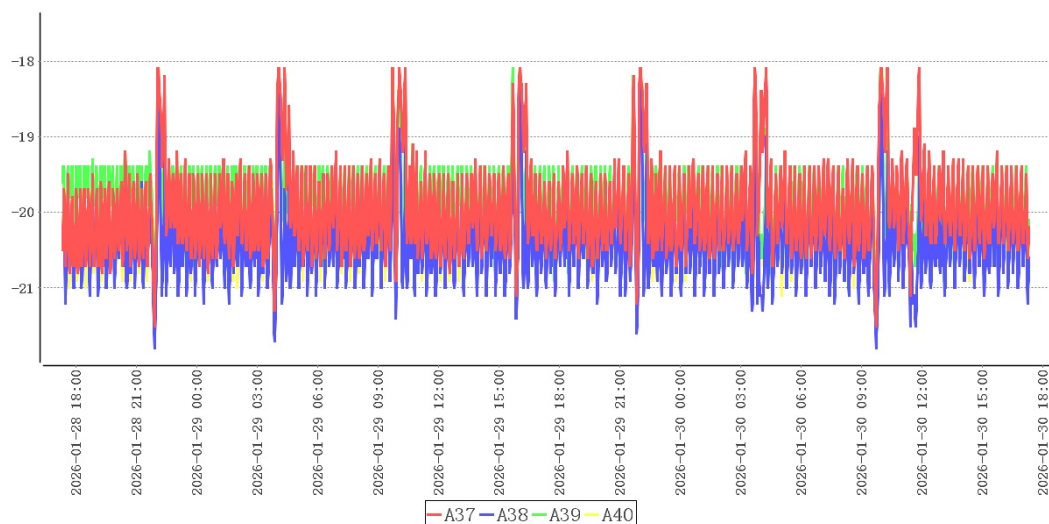
### 7.4.3 出入口



测点	最大值	最小值	平均值
A20	-18.1	-21.5	-20.2
A21	-18.1	-21.9	-20.4
A22	-18.1	-21.4	-20.0
A23	-18.1	-21.3	-20.1
A24	-18.1	-21.2	-20.1

检测项目	规范要求	检测结果	结论
门01附近温度均匀性	全部测点温度范围(-22.0~-18.0)℃	-21.9~-18.1℃	合格

#### 7.4.4 风向死角



测点	最大值	最小值	平均值
A37	-18.1	-21.5	-19.9
A38	-18.1	-21.8	-20.4
A39	-18.1	-21.3	-19.9
A40	-18.1	-21.1	-20.1

检测项目	规范要求	检测结果	结论
风向死角附近温度均匀性	全部测点温度范围(-22.0~-18.0)℃	-21.8~-18.1℃	合格

#### 7.4.5 适宜存放的安全位置及区域

根据以上分析，该冷库中除个别温度易超标区域不适合存放药品外，其他区域皆可放置。

不适合存放药品的区域有：风机出口下沿下方0.3m以上空间, 门口1米空间范围内, 风向死角范围内。

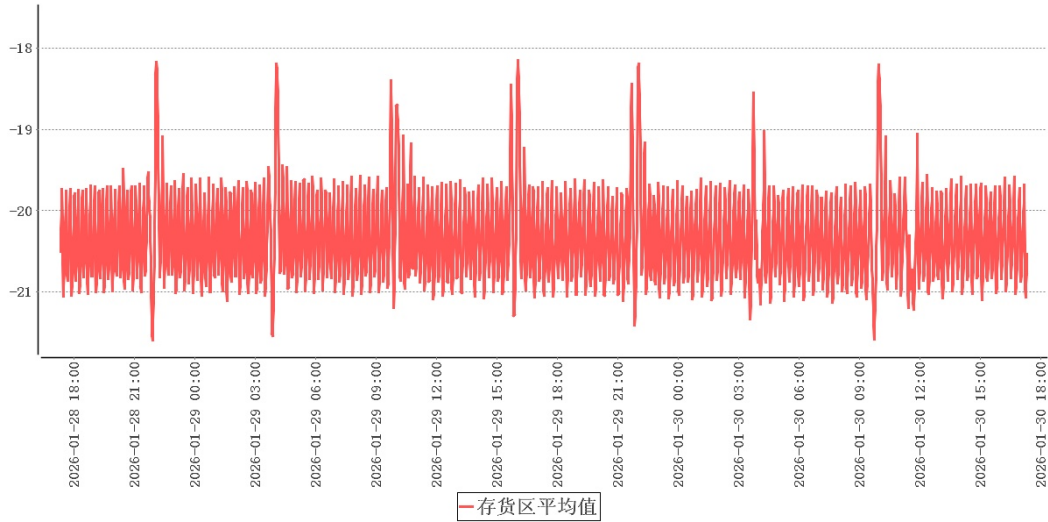
### 7.5 温度自动监测设备安装位置确认



结合温度分布特性可得出以下表格：

冷点热点表

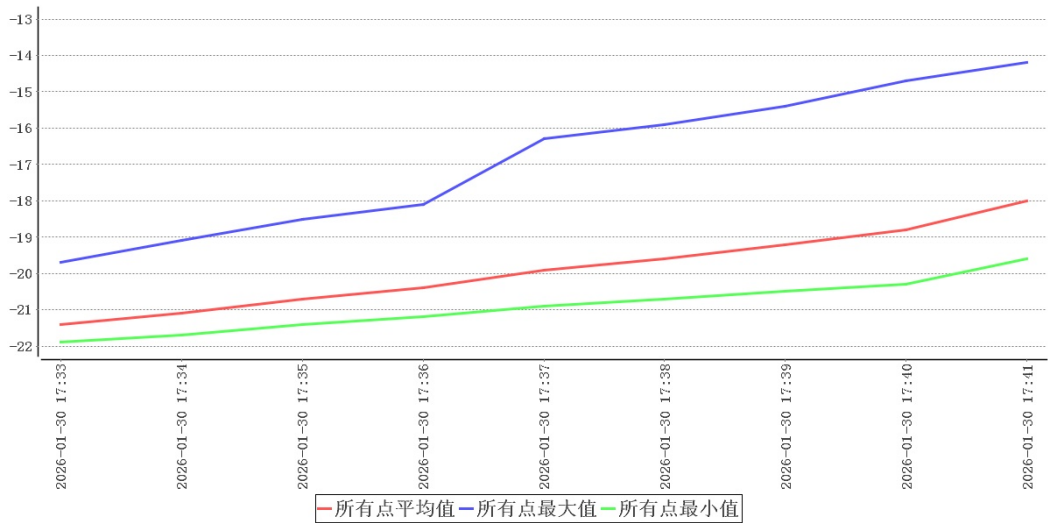
测点	最大值	最小值	平均值
A19(热点)	-18.1	-21.9	-19.9
A01(冷点)	-18.3	-21.9	-20.5
A06(冷点)	-18.3	-21.9	-20.5
A08(冷点)	-18.1	-21.9	-20.5
A14(冷点)	-18.1	-21.9	-20.5
货区点位	-18.1	-21.9	-20.3



结合库内高温敏感区、低温敏感区分析，库内热点为A19，库内冷点为A01、A06、A08、A14。请综合考虑实际布点位置确认监测点位，并安装/移动监测点位。

## 7.6 开关门验证

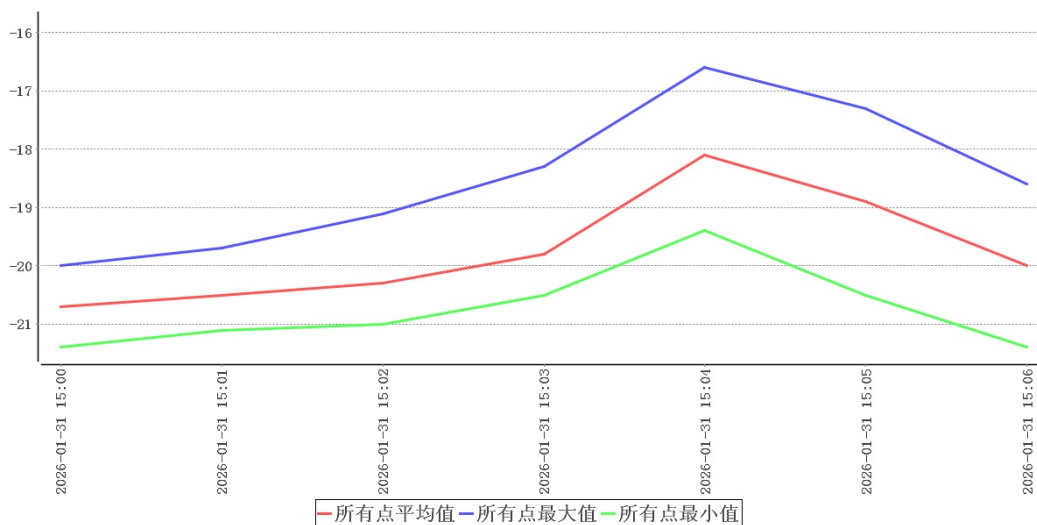
### 1、第1次开门测试



时间	所有点最大值	所有点最小值	所有点平均值	冷库外温	环境外温	备注
2026-01-30 17:33:00	-19.7	-21.9	-21.4	16.9	0.2	开门
2026-01-30 17:34:00	-19.1	-21.7	-21.1	17.0	0.1	
2026-01-30 17:35:00	-18.5	-21.4	-20.7	17.0	0.1	
2026-01-30 17:36:00	-18.1	-21.2	-20.4	17.1	0.1	关门

门01在环境温度处于0.1℃~0.2℃情况下，共持续3分钟，各测点温度在-21.9℃ (A13, A18, A21, A26, A27, A29)~-18.1℃ (A36)之间，未超出温控范围-22.0℃~-18.0℃。

2、第2次开门测试



时间	所有点最大值	所有点最小值	所有点平均值	冷库外温	环境外温	备注
2026-01-31 15:00:00	-20.0	-21.4	-20.7	19.7	3.8	开门
2026-01-31 15:01:00	-19.7	-21.1	-20.5	19.8	3.8	
2026-01-31 15:02:00	-19.1	-21.0	-20.3	20.0	3.9	

时间	所有点最大值	所有点最小值	所有点平均值	冷库外温	环境外温	备注
2026-01-31 15:03:00	-18.3	-20.5	-19.8	20.1	3.9	
2026-01-31 15:04:00	-16.6	-19.4	-18.1	20.2	4.1	关门

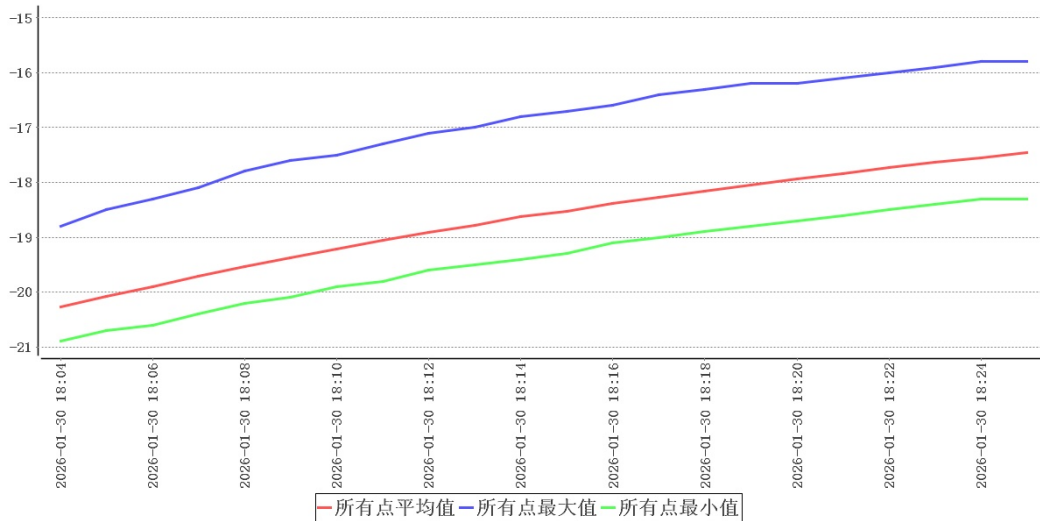
门01在环境温度处于3.8℃~4.1℃情况下，点位A03于2026-01-31 15:04:00最先达到-16.6℃，测试结束，满足不超出温控范围-22.0℃~-18.0℃的开门时长为4分钟。

### 3、 门01开门测试总结

门01在环境温度0.1℃~4.1℃情况下，不同作业条件下进行开门测试，满足不超出温控范围-22.0℃~-18.0℃的开门时长分别为3/4分钟，综合考虑，实际操作规程建议开门时间不应超过4分钟。

## 7.7 设备故障或外部供电中断的状况下保温性能及变化趋势

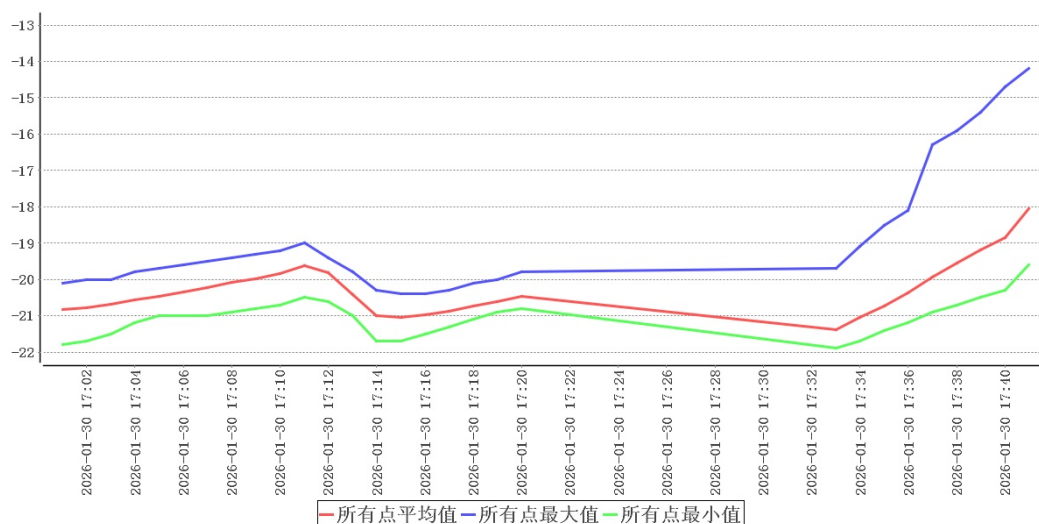
### 1、 第1次断电测试



断电开始时间	2026-01-30 18:00:00	断电结束时间	2026-01-30 18:30:00
断电测试期间最高温度	-15.8℃	断电测试期间最低温度	-20.9℃
升温最快的测点	A34	升温速率	0.195℃/分
平均外温	-0.7℃	推断超温时限	13分钟
最先超温(-18.0℃)测点	A37	超温时间点	2026-01-30 18:08:00

在环境温度处于-0.8℃~-0.6℃情况下,从2026-01-30 18:00:00断电开始变化最快的点为A34,升温速率为0.195℃/分,据此计算该点到达超温(-18.0℃)时长为13分钟;同时点位A37于2026-01-30 18:08:00最先达到-17.8℃,综合考虑满足不超出温控范围-22.0℃~-18.0℃的断电保温时长8分钟。

## 2、第2次断电测试



断电开始时间	2026-01-30 17:01:00	断电结束时间	2026-01-30 17:36:00
断电测试期间最高温度	-18.1℃	断电测试期间最低温度	-21.9℃
升温最快的测点	A36	升温速率	0.083℃/分
平均外温	0.8℃	推断超温时限	36分钟

在环境温度处于0.1℃~1.4℃情况下,从2026-01-30 17:01:00断电开始变化最快的点为A36,升温速率为0.083℃/分,据此计算该点到达超温(-18.0℃)时长为36分钟。

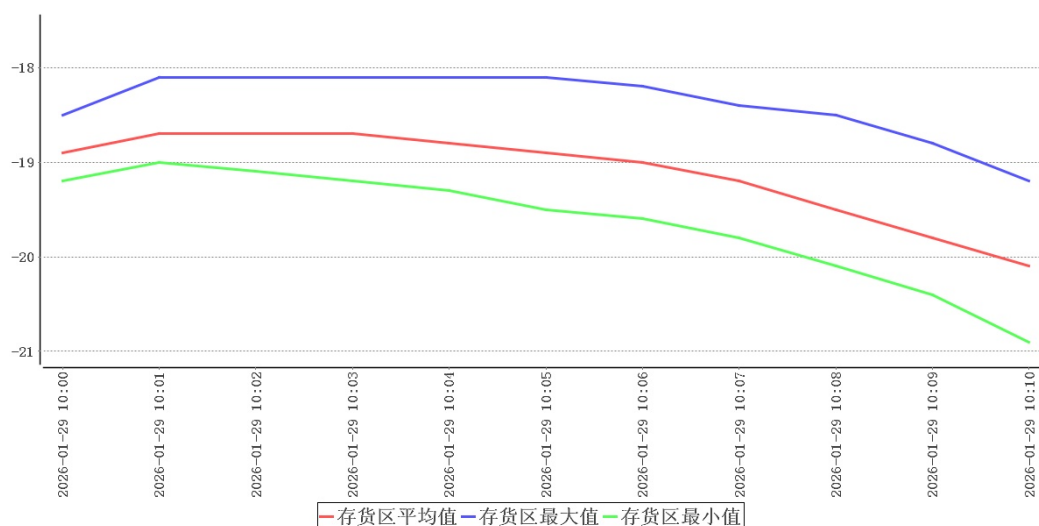
## 3、断电测试总结

在环境温度-0.8℃~0.8℃情况下，不同作业条件下进行断电测试，基于变化速率最快点位温度变化推算时间分别为8/36分钟，综合考虑，实际操作规程建议断电时间不应超过22分钟，如果不能及时恢复供电，需要对库内药品做转库处理。

### 7.8 风机除霜

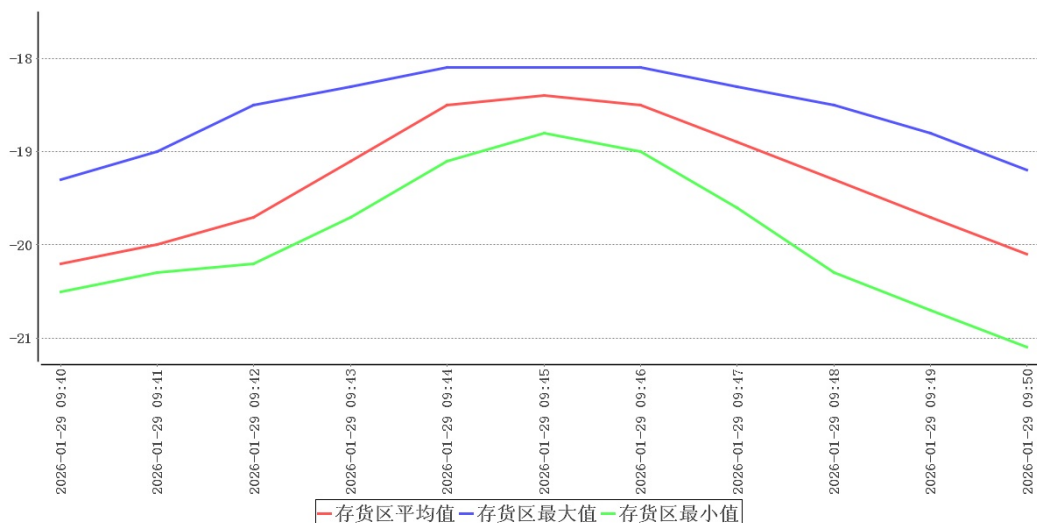
风机名称	风机编号	化霜间隔参数 (Hrs)	化霜时间参数 (mins)	滴水时间参数 (mins)	化霜停止温度 (℃)
风机01	F01	-	-	-	-
风机02	F02	-	-	-	-

#### 7.8.1 风机01



本次验证共持续0小时10分钟，在环境温度处于0.1℃~2.2℃情况下，各测点温度在-21.7℃~-18.1℃之间，未超出温控范围-22.0℃~-18.0℃。

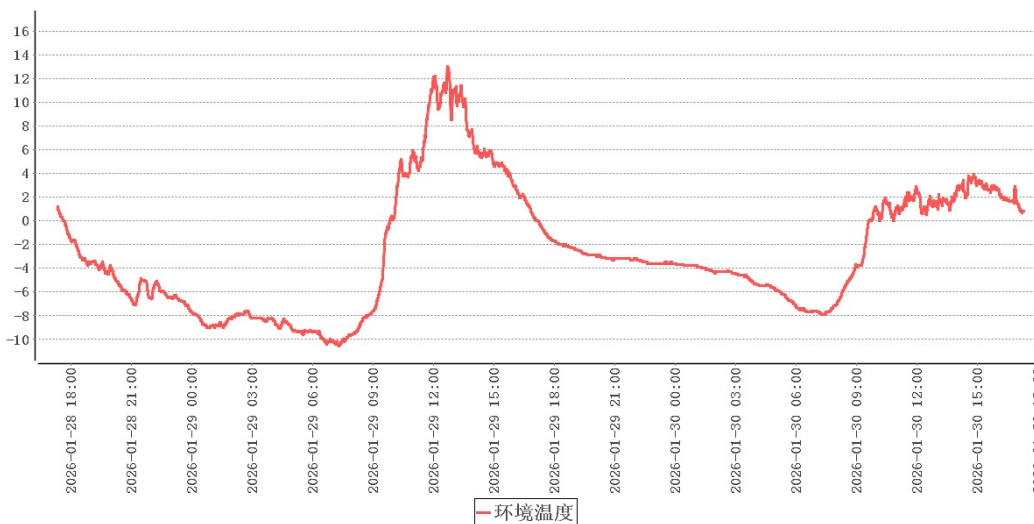
#### 7.8.2 风机02



本次验证共持续0小时10分钟，在环境温度处于-0.9℃~-0.1℃情况下，各测点温度在-21.1℃~-18.1℃之间，未超出温控范围-22.0℃~-18.0℃。

### 7.9 本地区的高温或低温等极端外部环境条件下保温效果评估

外部温度	最大值	最小值	采集次数	平均值
仓库室外温度	13.0	-10.6	2880次	-2.7
库外室内温度	21.2	11.9	2880次	18.3



本次验证实施期间库外温度-10.6℃~13.0℃，各项验证结论可视为极寒验证，建议在本地区的高温环境下再次实施极热验证。

## 8 偏差处理

无

## 9 验证结论

序号	项目名称	结论
1	本地区高温或低温等极端外部环境条件下的温度稳定性确认	本次验证实施期间库外温度-10.6℃~13.0℃，各项验证结论可视为极寒验证，建

序号	项目名称	结论
2	温度监测系统配置的测点终端安装位置确认	结合库内高温敏感区、低温敏感区分析，库内热点为A19，库内冷点为A01、A06、A08、A14。请

序号	项目名称	结论
3	温控设施设备运行参数及使用状况测试	在当前设置的工作条件下，库内温度在-21.9℃~-18.1℃之间，符

序号	项目名称	结论
4	<p>在库房空调或制冷系统温度控制参数符合设定要求、库房温度符合设定范围后，数据有效持续采集时间为</p> <p>度在-21.9℃ (A01, A06, A08, A10, A13, A14, A18, A19, A21, A26, A27, A28, A29, A30, A31, A32, A33, A34, A35, A36, A37, A38, A39, A40, A41, A42, A43, A44, A45, A46, A47, A48, A49, A50, A51, A52, A53, A54, A55, A56, A57, A58, A59, A60, A61, A62, A63, A64, A65, A66, A67, A68, A69, A70, A71, A72, A73, A74, A75, A76, A77, A78, A79, A80, A81, A82, A83, A84, A85, A86, A87, A88, A89, A90, A91, A92, A93, A94, A95, A96, A97, A98, A99, A100)</p> <p>18.1℃ (A03, A04, A05, A07, A08, A09, A10, A11, A12, A13, A14, A15, A16, A17, A18, A19, A20, A21, A22, A23, A24, A25, A26, A27, A28, A29, A30, A31, A32, A33, A34, A35, A36, A37, A38, A39, A40, A41, A42, A43, A44, A45, A46, A47, A48, A49, A50, A51, A52, A53, A54, A55, A56, A57, A58, A59, A60, A61, A62, A63, A64, A65, A66, A67, A68, A69, A70, A71, A72, A73, A74, A75, A76, A77, A78, A79, A80, A81, A82, A83, A84, A85, A86, A87, A88, A89, A90, A91, A92, A93, A94, A95, A96, A97, A98, A99, A100)</p> <p>间，未超出温控范围-22.0℃~ -18.0℃。根据《GBT34399-2025医药产品冷链物流温控设施设备验证性能验证通则》规定，偏差<math>\Delta t_f = \pm (t_{max} - t_{min}) / 2 = 1.8^\circ\text{C}</math>、均匀度<math>\Delta t_u = \sum (t_{imax} - t_{imin}) / n = 1.5^\circ\text{C}</math>，可知偏差、</p> <p>温度的偏差、均匀度和波动度确认</p>	

序号	项目名称	结论
5	温控设施设备运行参数及使用状况测试 - 多组风机轮换	当风机01开启时，库内温度最高点为-19.5℃，库内温度最低点为-21.6℃

序号	项目名称	结论
6	温控设施设备运行参数及使用状况测试 - 多组风机轮换	当风机02开启时，库内温度最高点为-19.4℃，库内温度最低点为-21.7

序号	项目名称	结论
7	温控设施设备运行参数及使用状况测试 - 多组风机轮换	当风机01开启时，库内温度最高点为-19.3℃，库内温度最低点为-21.6℃

序号	项目名称	结论
8	温控设施设备运行参数及使用状况测试 - 多组风机轮换	当风机02开启时，库内温度最高点为-18.1℃，库内温度最低点为-21.7
9	风机工作情况确认	存货区在2026-01-27 19:00:00~2026-01-28 17:00:

序号	项目名称	结论
10	开门作业对温控库房温度分布影响的确认	门01在环境温度0.1℃~4.1℃情况下，不同作业条件下进行开门测试，满足不超出温控范围-22.0℃~-18.0℃，不应超过4分钟。

序号	项目名称	结论
11	设备故障或外部供电中断的状况下温控库房保温性能及变化趋势确定	在环境温度-0.8℃~0.8℃情况下，不同作业条件下进行断电测试，基于变化速率最快点位温度变化推算22分钟,如果不能及时恢复供电，需要对库内药品

序号	项目名称	结论
12	风机除霜作业对温控库房温度分布影响的确认	本次验证共持续0小时10分钟，在环境温度处于0.1℃~2.2℃情况下，各测点温度在-21.7

序号	项目名称	结论
13	风机除霜作业对温控库房温度分布影响的确认	本次验证共持续0小时10分钟，在环境温度处于-0.9℃~-0.1℃情况下，各测点温度在-21.

## 10 风险防范及预防措施

## 11 附件

1. 详见验证数据汇总
2. 详见验证设备的校准证书（法定计量单位出具）复印件

## 12 报告确认

经验证小组审批，各项确认结果均符合标准要求，批准投入使用，特此声明。

确认项目名称：头孢事业部110车间 冷库(三)低温空载验证

负责人 \_\_\_\_\_

附录A: 各测点极值表

时间	所有点最大值 (t <sub>imax</sub> )	所有点最小值 (t <sub>imin</sub> )	t <sub>imax</sub> -t <sub>imin</sub>
2026-01-28 17:20:00	-19.6	-21.1	1.5
2026-01-28 17:21:00	-19.5	-21.0	1.5
2026-01-28 17:22:00	-19.3	-21.0	1.7
2026-01-28 17:23:00	-19.1	-20.8	1.7
2026-01-28 17:24:00	-19.0	-20.7	1.7
2026-01-28 17:25:00	-19.0	-20.5	1.5
2026-01-28 17:26:00	-19.6	-20.6	1.0
2026-01-28 17:27:00	-20.1	-21.3	1.2
2026-01-28 17:28:00	-20.3	-21.8	1.5
2026-01-28 17:29:00	-20.3	-21.7	1.4
2026-01-28 17:30:00	-20.3	-21.5	1.2
2026-01-28 17:31:00	-20.1	-21.2	1.1
2026-01-28 17:32:00	-20.0	-21.0	1.0
2026-01-28 17:33:00	-19.8	-20.8	1.0
2026-01-28 17:34:00	-19.6	-20.6	1.0
2026-01-28 17:35:00	-19.4	-20.4	1.0
2026-01-28 17:36:00	-19.2	-20.3	1.1
2026-01-28 17:37:00	-19.0	-20.0	1.0
2026-01-28 17:38:00	-19.1	-20.3	1.2
2026-01-28 17:39:00	-19.4	-21.7	2.3
2026-01-28 17:40:00	-19.8	-21.9	2.1
2026-01-28 17:41:00	-19.8	-21.7	1.9
2026-01-28 17:42:00	-19.8	-21.6	1.8
2026-01-28 17:43:00	-19.7	-21.5	1.8
2026-01-28 17:44:00	-19.6	-21.2	1.6
2026-01-28 17:45:00	-19.5	-21.1	1.6
2026-01-28 17:46:00	-19.3	-21.0	1.7
2026-01-28 17:47:00	-19.2	-20.9	1.7

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-28 17:48:00	-19.0	-20.8	1.8
2026-01-28 17:49:00	-18.9	-20.7	1.8
2026-01-28 17:50:00	-19.5	-20.7	1.2
2026-01-28 17:51:00	-19.9	-21.1	1.2
2026-01-28 17:52:00	-20.2	-21.7	1.5
2026-01-28 17:53:00	-20.3	-21.7	1.4
2026-01-28 17:54:00	-20.3	-21.5	1.2
2026-01-28 17:55:00	-20.2	-21.3	1.1
2026-01-28 17:56:00	-20.0	-21.0	1.0
2026-01-28 17:57:00	-19.8	-20.8	1.0
2026-01-28 17:58:00	-19.6	-20.6	1.0
2026-01-28 17:59:00	-19.4	-20.5	1.1
2026-01-28 18:00:00	-19.2	-20.4	1.2
2026-01-28 18:01:00	-19.0	-20.2	1.2
2026-01-28 18:02:00	-19.0	-20.3	1.3
2026-01-28 18:03:00	-19.3	-21.4	2.1
2026-01-28 18:04:00	-19.8	-21.9	2.1
2026-01-28 18:05:00	-19.8	-21.8	2.0
2026-01-28 18:06:00	-19.8	-21.7	1.9
2026-01-28 18:07:00	-19.7	-21.5	1.8
2026-01-28 18:08:00	-19.6	-21.1	1.5
2026-01-28 18:09:00	-19.5	-21.1	1.6
2026-01-28 18:10:00	-19.4	-21.0	1.6
2026-01-28 18:11:00	-19.2	-21.0	1.8
2026-01-28 18:12:00	-19.0	-20.8	1.8
2026-01-28 18:13:00	-18.9	-20.6	1.7
2026-01-28 18:14:00	-19.3	-20.6	1.3
2026-01-28 18:15:00	-19.9	-20.9	1.0
2026-01-28 18:16:00	-20.2	-21.6	1.4
2026-01-28 18:17:00	-20.3	-21.6	1.3

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-28 18:18:00	-20.4	-21.5	1.1
2026-01-28 18:19:00	-20.3	-21.3	1.0
2026-01-28 18:20:00	-20.1	-21.1	1.0
2026-01-28 18:21:00	-19.9	-20.8	0.9
2026-01-28 18:22:00	-19.7	-20.6	0.9
2026-01-28 18:23:00	-19.5	-20.5	1.0
2026-01-28 18:24:00	-19.3	-20.3	1.0
2026-01-28 18:25:00	-19.1	-20.2	1.1
2026-01-28 18:26:00	-19.0	-20.2	1.2
2026-01-28 18:27:00	-19.3	-21.4	2.1
2026-01-28 18:28:00	-19.7	-21.9	2.2
2026-01-28 18:29:00	-19.8	-21.8	2.0
2026-01-28 18:30:00	-19.8	-21.7	1.9
2026-01-28 18:31:00	-19.7	-21.5	1.8
2026-01-28 18:32:00	-19.6	-21.1	1.5
2026-01-28 18:33:00	-19.5	-21.0	1.5
2026-01-28 18:34:00	-19.3	-21.0	1.7
2026-01-28 18:35:00	-19.2	-21.0	1.8
2026-01-28 18:36:00	-19.0	-20.8	1.8
2026-01-28 18:37:00	-18.9	-20.7	1.8
2026-01-28 18:38:00	-19.2	-20.6	1.4
2026-01-28 18:39:00	-19.8	-20.8	1.0
2026-01-28 18:40:00	-20.1	-21.6	1.5
2026-01-28 18:41:00	-20.3	-21.7	1.4
2026-01-28 18:42:00	-20.3	-21.5	1.2
2026-01-28 18:43:00	-20.2	-21.3	1.1
2026-01-28 18:44:00	-20.0	-21.1	1.1
2026-01-28 18:45:00	-19.8	-20.9	1.1
2026-01-28 18:46:00	-19.7	-20.7	1.0
2026-01-28 18:47:00	-19.5	-20.5	1.0

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-28 18:48:00	-19.3	-20.4	1.1
2026-01-28 18:49:00	-19.1	-20.3	1.2
2026-01-28 18:50:00	-18.9	-20.0	1.1
2026-01-28 18:51:00	-19.1	-20.7	1.6
2026-01-28 18:52:00	-19.5	-21.6	2.1
2026-01-28 18:53:00	-19.9	-21.9	2.0
2026-01-28 18:54:00	-19.9	-21.8	1.9
2026-01-28 18:55:00	-19.8	-21.7	1.9
2026-01-28 18:56:00	-19.7	-21.3	1.6
2026-01-28 18:57:00	-19.6	-21.0	1.4
2026-01-28 18:58:00	-19.4	-20.9	1.5
2026-01-28 18:59:00	-19.3	-20.9	1.6
2026-01-28 19:00:00	-19.1	-20.8	1.7
2026-01-28 19:01:00	-19.0	-20.7	1.7
2026-01-28 19:02:00	-19.0	-20.6	1.6
2026-01-28 19:03:00	-19.6	-20.7	1.1
2026-01-28 19:04:00	-20.0	-21.2	1.2
2026-01-28 19:05:00	-20.2	-21.7	1.5
2026-01-28 19:06:00	-20.2	-21.6	1.4
2026-01-28 19:07:00	-20.2	-21.5	1.3
2026-01-28 19:08:00	-20.2	-21.2	1.0
2026-01-28 19:09:00	-20.0	-21.0	1.0
2026-01-28 19:10:00	-19.8	-20.7	0.9
2026-01-28 19:11:00	-19.6	-20.6	1.0
2026-01-28 19:12:00	-19.4	-20.5	1.1
2026-01-28 19:13:00	-19.1	-20.4	1.3
2026-01-28 19:14:00	-18.9	-20.2	1.3
2026-01-28 19:15:00	-19.0	-20.3	1.3
2026-01-28 19:16:00	-19.3	-21.5	2.2
2026-01-28 19:17:00	-19.7	-21.9	2.2

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-28 19:18:00	-19.8	-21.8	2.0
2026-01-28 19:19:00	-19.7	-21.6	1.9
2026-01-28 19:20:00	-19.7	-21.3	1.6
2026-01-28 19:21:00	-19.5	-21.2	1.7
2026-01-28 19:22:00	-19.4	-21.1	1.7
2026-01-28 19:23:00	-19.3	-21.0	1.7
2026-01-28 19:24:00	-19.1	-21.0	1.9
2026-01-28 19:25:00	-19.0	-20.9	1.9
2026-01-28 19:26:00	-18.9	-20.7	1.8
2026-01-28 19:27:00	-19.3	-20.7	1.4
2026-01-28 19:28:00	-19.8	-20.9	1.1
2026-01-28 19:29:00	-20.2	-21.6	1.4
2026-01-28 19:30:00	-20.3	-21.7	1.4
2026-01-28 19:31:00	-20.3	-21.5	1.2
2026-01-28 19:32:00	-20.2	-21.3	1.1
2026-01-28 19:33:00	-20.0	-21.0	1.0
2026-01-28 19:34:00	-19.8	-20.9	1.1
2026-01-28 19:35:00	-19.6	-20.7	1.1
2026-01-28 19:36:00	-19.4	-20.5	1.1
2026-01-28 19:37:00	-19.2	-20.4	1.2
2026-01-28 19:38:00	-19.0	-20.3	1.3
2026-01-28 19:39:00	-18.9	-20.0	1.1
2026-01-28 19:40:00	-19.2	-21.0	1.8
2026-01-28 19:41:00	-19.6	-21.8	2.2
2026-01-28 19:42:00	-19.8	-21.9	2.1
2026-01-28 19:43:00	-19.8	-21.7	1.9
2026-01-28 19:44:00	-19.7	-21.7	2.0
2026-01-28 19:45:00	-19.7	-21.2	1.5
2026-01-28 19:46:00	-19.5	-21.1	1.6
2026-01-28 19:47:00	-19.4	-21.0	1.6

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-28 19:48:00	-19.3	-21.0	1.7
2026-01-28 19:49:00	-19.1	-20.9	1.8
2026-01-28 19:50:00	-18.9	-20.7	1.8
2026-01-28 19:51:00	-19.0	-20.6	1.6
2026-01-28 19:52:00	-19.5	-20.7	1.2
2026-01-28 19:53:00	-20.0	-21.2	1.2
2026-01-28 19:54:00	-20.3	-21.6	1.3
2026-01-28 19:55:00	-20.4	-21.6	1.2
2026-01-28 19:56:00	-20.3	-21.4	1.1
2026-01-28 19:57:00	-20.1	-21.2	1.1
2026-01-28 19:58:00	-19.9	-20.9	1.0
2026-01-28 19:59:00	-19.7	-20.7	1.0
2026-01-28 20:00:00	-19.6	-20.5	0.9
2026-01-28 20:01:00	-19.3	-20.5	1.2
2026-01-28 20:02:00	-19.1	-20.4	1.3
2026-01-28 20:03:00	-18.9	-20.1	1.2
2026-01-28 20:04:00	-19.1	-20.5	1.4
2026-01-28 20:05:00	-19.6	-21.7	2.1
2026-01-28 20:06:00	-20.0	-21.9	1.9
2026-01-28 20:07:00	-20.0	-21.8	1.8
2026-01-28 20:08:00	-19.9	-21.7	1.8
2026-01-28 20:09:00	-19.8	-21.3	1.5
2026-01-28 20:10:00	-19.7	-21.0	1.3
2026-01-28 20:11:00	-19.5	-21.0	1.5
2026-01-28 20:12:00	-19.4	-20.9	1.5
2026-01-28 20:13:00	-19.2	-20.8	1.6
2026-01-28 20:14:00	-19.1	-20.7	1.6
2026-01-28 20:15:00	-18.9	-20.5	1.6
2026-01-28 20:16:00	-19.1	-20.7	1.6
2026-01-28 20:17:00	-19.5	-21.8	2.3

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-28 20:18:00	-19.8	-21.9	2.1
2026-01-28 20:19:00	-19.8	-21.8	2.0
2026-01-28 20:20:00	-19.7	-21.7	2.0
2026-01-28 20:21:00	-19.7	-21.3	1.6
2026-01-28 20:22:00	-19.5	-21.2	1.7
2026-01-28 20:23:00	-19.4	-21.1	1.7
2026-01-28 20:24:00	-19.2	-21.0	1.8
2026-01-28 20:25:00	-19.0	-20.9	1.9
2026-01-28 20:26:00	-18.9	-20.8	1.9
2026-01-28 20:27:00	-18.8	-20.5	1.7
2026-01-28 20:28:00	-19.3	-20.6	1.3
2026-01-28 20:29:00	-19.8	-20.9	1.1
2026-01-28 20:30:00	-20.2	-21.6	1.4
2026-01-28 20:31:00	-20.2	-21.6	1.4
2026-01-28 20:32:00	-20.3	-21.4	1.1
2026-01-28 20:33:00	-20.2	-21.2	1.0
2026-01-28 20:34:00	-20.0	-20.9	0.9
2026-01-28 20:35:00	-19.8	-20.7	0.9
2026-01-28 20:36:00	-19.6	-20.6	1.0
2026-01-28 20:37:00	-19.4	-20.5	1.1
2026-01-28 20:38:00	-19.3	-20.3	1.0
2026-01-28 20:39:00	-19.0	-20.1	1.1
2026-01-28 20:40:00	-19.0	-20.3	1.3
2026-01-28 20:41:00	-19.3	-21.5	2.2
2026-01-28 20:42:00	-19.7	-21.9	2.2
2026-01-28 20:43:00	-19.8	-21.8	2.0
2026-01-28 20:44:00	-19.8	-21.7	1.9
2026-01-28 20:45:00	-19.7	-21.4	1.7
2026-01-28 20:46:00	-19.6	-21.1	1.5
2026-01-28 20:47:00	-19.5	-21.1	1.6

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-28 20:48:00	-19.3	-21.0	1.7
2026-01-28 20:49:00	-19.2	-21.0	1.8
2026-01-28 20:50:00	-19.0	-20.8	1.8
2026-01-28 20:51:00	-18.9	-20.7	1.8
2026-01-28 20:52:00	-19.0	-20.6	1.6
2026-01-28 20:53:00	-19.7	-20.7	1.0
2026-01-28 20:54:00	-20.1	-21.5	1.4
2026-01-28 20:55:00	-20.3	-21.6	1.3
2026-01-28 20:56:00	-20.3	-21.5	1.2
2026-01-28 20:57:00	-20.2	-21.3	1.1
2026-01-28 20:58:00	-20.1	-21.1	1.0
2026-01-28 20:59:00	-19.8	-20.9	1.1
2026-01-28 21:00:00	-19.7	-20.7	1.0
2026-01-28 21:01:00	-19.5	-20.5	1.0
2026-01-28 21:02:00	-19.3	-20.4	1.1
2026-01-28 21:03:00	-19.1	-20.3	1.2
2026-01-28 21:04:00	-18.9	-20.1	1.2
2026-01-28 21:05:00	-19.1	-20.7	1.6
2026-01-28 21:06:00	-19.5	-21.7	2.2
2026-01-28 21:07:00	-19.8	-21.9	2.1
2026-01-28 21:08:00	-19.9	-21.8	1.9
2026-01-28 21:09:00	-19.8	-21.7	1.9
2026-01-28 21:10:00	-19.7	-21.3	1.6
2026-01-28 21:11:00	-19.6	-21.1	1.5
2026-01-28 21:12:00	-19.4	-21.0	1.6
2026-01-28 21:13:00	-19.2	-21.0	1.8
2026-01-28 21:14:00	-19.1	-20.9	1.8
2026-01-28 21:15:00	-19.0	-20.8	1.8
2026-01-28 21:16:00	-18.9	-20.6	1.7
2026-01-28 21:17:00	-19.4	-20.6	1.2

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-28 21:18:00	-20.0	-21.1	1.1
2026-01-28 21:19:00	-20.2	-21.8	1.6
2026-01-28 21:20:00	-20.3	-21.7	1.4
2026-01-28 21:21:00	-20.3	-21.5	1.2
2026-01-28 21:22:00	-20.1	-21.3	1.2
2026-01-28 21:23:00	-20.0	-21.0	1.0
2026-01-28 21:24:00	-19.8	-20.8	1.0
2026-01-28 21:25:00	-19.6	-20.6	1.0
2026-01-28 21:26:00	-19.4	-20.5	1.1
2026-01-28 21:27:00	-19.2	-20.4	1.2
2026-01-28 21:28:00	-19.0	-20.3	1.3
2026-01-28 21:29:00	-18.9	-20.1	1.2
2026-01-28 21:30:00	-19.2	-21.1	1.9
2026-01-28 21:31:00	-19.6	-21.9	2.3
2026-01-28 21:32:00	-19.8	-21.8	2.0
2026-01-28 21:33:00	-19.7	-21.7	2.0
2026-01-28 21:34:00	-19.6	-21.4	1.8
2026-01-28 21:35:00	-19.6	-21.2	1.6
2026-01-28 21:36:00	-19.4	-21.0	1.6
2026-01-28 21:37:00	-19.3	-20.8	1.5
2026-01-28 21:38:00	-19.1	-20.5	1.4
2026-01-28 21:39:00	-18.9	-20.3	1.4
2026-01-28 21:40:00	-18.4	-20.0	1.6
2026-01-28 21:41:00	-18.3	-19.9	1.6
2026-01-28 21:42:00	-18.2	-20.2	2.0
2026-01-28 21:43:00	-18.1	-20.5	2.4
2026-01-28 21:44:00	-18.1	-20.6	2.5
2026-01-28 21:45:00	-18.1	-20.8	2.7
2026-01-28 21:46:00	-18.1	-20.9	2.8
2026-01-28 21:47:00	-18.2	-21.0	2.8

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-28 21:48:00	-18.3	-21.2	2.9
2026-01-28 21:49:00	-18.4	-21.4	3.0
2026-01-28 21:50:00	-18.4	-21.6	3.2
2026-01-28 21:51:00	-18.5	-21.7	3.2
2026-01-28 21:52:00	-18.6	-21.9	3.3
2026-01-28 21:53:00	-18.7	-21.9	3.2
2026-01-28 21:54:00	-18.7	-21.9	3.2
2026-01-28 21:55:00	-18.8	-21.9	3.1
2026-01-28 21:56:00	-18.8	-21.7	2.9
2026-01-28 21:57:00	-18.7	-21.6	2.9
2026-01-28 21:58:00	-18.6	-21.3	2.7
2026-01-28 21:59:00	-18.5	-21.1	2.6
2026-01-28 22:00:00	-18.4	-20.8	2.4
2026-01-28 22:01:00	-18.3	-20.6	2.3
2026-01-28 22:02:00	-18.2	-20.4	2.2
2026-01-28 22:03:00	-18.1	-19.3	1.2
2026-01-28 22:04:00	-18.1	-18.6	0.5
2026-01-28 22:05:00	-18.1	-18.6	0.5
2026-01-28 22:06:00	-18.1	-19.0	0.9
2026-01-28 22:07:00	-18.1	-19.3	1.2
2026-01-28 22:08:00	-18.1	-19.7	1.6
2026-01-28 22:09:00	-18.2	-20.1	1.9
2026-01-28 22:10:00	-18.3	-20.4	2.1
2026-01-28 22:11:00	-18.4	-20.8	2.4
2026-01-28 22:12:00	-18.6	-21.2	2.6
2026-01-28 22:13:00	-18.7	-21.5	2.8
2026-01-28 22:14:00	-18.8	-21.7	2.9
2026-01-28 22:15:00	-19.0	-21.8	2.8
2026-01-28 22:16:00	-19.3	-21.9	2.6
2026-01-28 22:17:00	-19.4	-21.8	2.4

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-28 22:18:00	-19.3	-21.7	2.4
2026-01-28 22:19:00	-19.2	-21.2	2.0
2026-01-28 22:20:00	-19.1	-20.8	1.7
2026-01-28 22:21:00	-18.9	-20.6	1.7
2026-01-28 22:22:00	-18.7	-20.4	1.7
2026-01-28 22:23:00	-18.4	-20.2	1.8
2026-01-28 22:24:00	-18.1	-19.5	1.4
2026-01-28 22:25:00	-18.3	-19.4	1.1
2026-01-28 22:26:00	-19.0	-20.2	1.2
2026-01-28 22:27:00	-19.5	-21.0	1.5
2026-01-28 22:28:00	-20.0	-21.6	1.6
2026-01-28 22:29:00	-20.1	-21.6	1.5
2026-01-28 22:30:00	-20.1	-21.5	1.4
2026-01-28 22:31:00	-20.1	-21.2	1.1
2026-01-28 22:32:00	-19.9	-21.0	1.1
2026-01-28 22:33:00	-19.7	-20.7	1.0
2026-01-28 22:34:00	-19.5	-20.5	1.0
2026-01-28 22:35:00	-19.3	-20.3	1.0
2026-01-28 22:36:00	-19.1	-20.1	1.0
2026-01-28 22:37:00	-18.9	-19.9	1.0
2026-01-28 22:38:00	-19.1	-20.5	1.4
2026-01-28 22:39:00	-19.5	-21.7	2.2
2026-01-28 22:40:00	-20.0	-21.9	1.9
2026-01-28 22:41:00	-20.0	-21.8	1.8
2026-01-28 22:42:00	-19.9	-21.7	1.8
2026-01-28 22:43:00	-19.8	-21.4	1.6
2026-01-28 22:44:00	-19.7	-21.0	1.3
2026-01-28 22:45:00	-19.6	-20.9	1.3
2026-01-28 22:46:00	-19.4	-20.8	1.4
2026-01-28 22:47:00	-19.2	-20.7	1.5

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-28 22:48:00	-19.0	-20.6	1.6
2026-01-28 22:49:00	-18.9	-20.3	1.4
2026-01-28 22:50:00	-19.2	-21.0	1.8
2026-01-28 22:51:00	-19.6	-21.7	2.1
2026-01-28 22:52:00	-20.0	-21.9	1.9
2026-01-28 22:53:00	-19.9	-21.8	1.9
2026-01-28 22:54:00	-19.9	-21.7	1.8
2026-01-28 22:55:00	-19.7	-21.3	1.6
2026-01-28 22:56:00	-19.6	-21.0	1.4
2026-01-28 22:57:00	-19.4	-21.0	1.6
2026-01-28 22:58:00	-19.2	-20.9	1.7
2026-01-28 22:59:00	-19.1	-20.8	1.7
2026-01-28 23:00:00	-18.9	-20.7	1.8
2026-01-28 23:01:00	-19.0	-20.6	1.6
2026-01-28 23:02:00	-19.5	-20.7	1.2
2026-01-28 23:03:00	-20.0	-21.4	1.4
2026-01-28 23:04:00	-20.3	-21.7	1.4
2026-01-28 23:05:00	-20.3	-21.5	1.2
2026-01-28 23:06:00	-20.3	-21.3	1.0
2026-01-28 23:07:00	-20.1	-21.1	1.0
2026-01-28 23:08:00	-19.9	-20.8	0.9
2026-01-28 23:09:00	-19.7	-20.7	1.0
2026-01-28 23:10:00	-19.6	-20.5	0.9
2026-01-28 23:11:00	-19.4	-20.4	1.0
2026-01-28 23:12:00	-19.2	-20.3	1.1
2026-01-28 23:13:00	-19.0	-20.1	1.1
2026-01-28 23:14:00	-19.0	-20.2	1.2
2026-01-28 23:15:00	-19.4	-21.6	2.2
2026-01-28 23:16:00	-19.9	-21.9	2.0
2026-01-28 23:17:00	-20.0	-21.8	1.8

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-28 23:18:00	-20.0	-21.7	1.7
2026-01-28 23:19:00	-19.9	-21.5	1.6
2026-01-28 23:20:00	-19.8	-21.1	1.3
2026-01-28 23:21:00	-19.6	-21.1	1.5
2026-01-28 23:22:00	-19.5	-21.0	1.5
2026-01-28 23:23:00	-19.3	-20.9	1.6
2026-01-28 23:24:00	-19.1	-20.8	1.7
2026-01-28 23:25:00	-18.9	-20.6	1.7
2026-01-28 23:26:00	-18.9	-20.5	1.6
2026-01-28 23:27:00	-19.5	-20.6	1.1
2026-01-28 23:28:00	-19.9	-21.3	1.4
2026-01-28 23:29:00	-20.1	-21.9	1.8
2026-01-28 23:30:00	-20.3	-21.7	1.4
2026-01-28 23:31:00	-20.2	-21.4	1.2
2026-01-28 23:32:00	-20.1	-21.2	1.1
2026-01-28 23:33:00	-19.9	-21.0	1.1
2026-01-28 23:34:00	-19.7	-20.7	1.0
2026-01-28 23:35:00	-19.6	-20.6	1.0
2026-01-28 23:36:00	-19.4	-20.4	1.0
2026-01-28 23:37:00	-19.2	-20.3	1.1
2026-01-28 23:38:00	-18.9	-20.2	1.3
2026-01-28 23:39:00	-18.9	-20.0	1.1
2026-01-28 23:40:00	-19.2	-21.4	2.2
2026-01-28 23:41:00	-19.7	-21.9	2.2
2026-01-28 23:42:00	-19.8	-21.9	2.1
2026-01-28 23:43:00	-19.8	-21.7	1.9
2026-01-28 23:44:00	-19.7	-21.6	1.9
2026-01-28 23:45:00	-19.6	-21.2	1.6
2026-01-28 23:46:00	-19.5	-20.9	1.4
2026-01-28 23:47:00	-19.4	-20.9	1.5

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-28 23:48:00	-19.2	-20.9	1.7
2026-01-28 23:49:00	-19.0	-20.8	1.8
2026-01-28 23:50:00	-18.9	-20.7	1.8
2026-01-28 23:51:00	-18.8	-20.5	1.7
2026-01-28 23:52:00	-19.5	-20.6	1.1
2026-01-28 23:53:00	-20.0	-21.2	1.2
2026-01-28 23:54:00	-20.3	-21.8	1.5
2026-01-28 23:55:00	-20.3	-21.7	1.4
2026-01-28 23:56:00	-20.3	-21.5	1.2
2026-01-28 23:57:00	-20.1	-21.2	1.1
2026-01-28 23:58:00	-19.9	-21.0	1.1
2026-01-28 23:59:00	-19.7	-20.8	1.1
2026-01-29 00:00:00	-19.6	-20.7	1.1
2026-01-29 00:01:00	-19.4	-20.5	1.1
2026-01-29 00:02:00	-19.2	-20.4	1.2
2026-01-29 00:03:00	-19.0	-20.3	1.3
2026-01-29 00:04:00	-18.9	-20.0	1.1
2026-01-29 00:05:00	-19.1	-20.9	1.8
2026-01-29 00:06:00	-19.6	-21.9	2.3
2026-01-29 00:07:00	-19.9	-21.9	2.0
2026-01-29 00:08:00	-19.9	-21.8	1.9
2026-01-29 00:09:00	-19.8	-21.6	1.8
2026-01-29 00:10:00	-19.7	-21.2	1.5
2026-01-29 00:11:00	-19.6	-21.0	1.4
2026-01-29 00:12:00	-19.5	-21.0	1.5
2026-01-29 00:13:00	-19.3	-20.9	1.6
2026-01-29 00:14:00	-19.2	-20.8	1.6
2026-01-29 00:15:00	-19.0	-20.7	1.7
2026-01-29 00:16:00	-18.8	-20.5	1.7
2026-01-29 00:17:00	-19.1	-20.5	1.4

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 00:18:00	-19.8	-20.8	1.0
2026-01-29 00:19:00	-20.1	-21.7	1.6
2026-01-29 00:20:00	-20.3	-21.9	1.6
2026-01-29 00:21:00	-20.3	-21.7	1.4
2026-01-29 00:22:00	-20.2	-21.4	1.2
2026-01-29 00:23:00	-20.1	-21.2	1.1
2026-01-29 00:24:00	-19.9	-21.0	1.1
2026-01-29 00:25:00	-19.7	-20.8	1.1
2026-01-29 00:26:00	-19.5	-20.6	1.1
2026-01-29 00:27:00	-19.3	-20.4	1.1
2026-01-29 00:28:00	-19.1	-20.3	1.2
2026-01-29 00:29:00	-18.9	-20.1	1.2
2026-01-29 00:30:00	-19.0	-20.4	1.4
2026-01-29 00:31:00	-19.4	-21.7	2.3
2026-01-29 00:32:00	-19.8	-21.9	2.1
2026-01-29 00:33:00	-19.9	-21.8	1.9
2026-01-29 00:34:00	-19.8	-21.7	1.9
2026-01-29 00:35:00	-19.7	-21.6	1.9
2026-01-29 00:36:00	-19.6	-21.3	1.7
2026-01-29 00:37:00	-19.5	-21.3	1.8
2026-01-29 00:38:00	-19.4	-21.2	1.8
2026-01-29 00:39:00	-19.2	-21.1	1.9
2026-01-29 00:40:00	-19.0	-21.0	2.0
2026-01-29 00:41:00	-18.9	-20.8	1.9
2026-01-29 00:42:00	-18.8	-20.6	1.8
2026-01-29 00:43:00	-19.3	-20.7	1.4
2026-01-29 00:44:00	-20.0	-21.2	1.2
2026-01-29 00:45:00	-20.2	-21.8	1.6
2026-01-29 00:46:00	-20.3	-21.7	1.4
2026-01-29 00:47:00	-20.3	-21.5	1.2

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 00:48:00	-20.1	-21.2	1.1
2026-01-29 00:49:00	-19.9	-21.0	1.1
2026-01-29 00:50:00	-19.7	-20.8	1.1
2026-01-29 00:51:00	-19.6	-20.6	1.0
2026-01-29 00:52:00	-19.4	-20.5	1.1
2026-01-29 00:53:00	-19.2	-20.4	1.2
2026-01-29 00:54:00	-19.0	-20.3	1.3
2026-01-29 00:55:00	-18.8	-20.1	1.3
2026-01-29 00:56:00	-19.0	-20.6	1.6
2026-01-29 00:57:00	-19.5	-21.7	2.2
2026-01-29 00:58:00	-19.8	-21.9	2.1
2026-01-29 00:59:00	-19.9	-21.8	1.9
2026-01-29 01:00:00	-19.8	-21.7	1.9
2026-01-29 01:01:00	-19.7	-21.3	1.6
2026-01-29 01:02:00	-19.6	-21.0	1.4
2026-01-29 01:03:00	-19.4	-21.0	1.6
2026-01-29 01:04:00	-19.3	-21.0	1.7
2026-01-29 01:05:00	-19.1	-20.9	1.8
2026-01-29 01:06:00	-18.9	-20.7	1.8
2026-01-29 01:07:00	-18.8	-20.4	1.6
2026-01-29 01:08:00	-19.0	-20.6	1.6
2026-01-29 01:09:00	-19.6	-21.7	2.1
2026-01-29 01:10:00	-20.0	-21.9	1.9
2026-01-29 01:11:00	-20.0	-21.8	1.8
2026-01-29 01:12:00	-19.9	-21.7	1.8
2026-01-29 01:13:00	-19.8	-21.4	1.6
2026-01-29 01:14:00	-19.6	-21.2	1.6
2026-01-29 01:15:00	-19.4	-21.2	1.8
2026-01-29 01:16:00	-19.3	-21.1	1.8
2026-01-29 01:17:00	-19.1	-21.0	1.9

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 01:18:00	-19.0	-20.9	1.9
2026-01-29 01:19:00	-18.8	-20.7	1.9
2026-01-29 01:20:00	-19.3	-20.7	1.4
2026-01-29 01:21:00	-19.7	-20.9	1.2
2026-01-29 01:22:00	-20.2	-21.7	1.5
2026-01-29 01:23:00	-20.2	-21.6	1.4
2026-01-29 01:24:00	-20.3	-21.5	1.2
2026-01-29 01:25:00	-20.2	-21.2	1.0
2026-01-29 01:26:00	-20.1	-21.0	0.9
2026-01-29 01:27:00	-19.9	-20.8	0.9
2026-01-29 01:28:00	-19.7	-20.7	1.0
2026-01-29 01:29:00	-19.5	-20.5	1.0
2026-01-29 01:30:00	-19.3	-20.4	1.1
2026-01-29 01:31:00	-19.1	-20.3	1.2
2026-01-29 01:32:00	-19.0	-20.2	1.2
2026-01-29 01:33:00	-19.4	-20.3	0.9
2026-01-29 01:34:00	-19.9	-21.0	1.1
2026-01-29 01:35:00	-20.2	-21.7	1.5
2026-01-29 01:36:00	-20.3	-21.7	1.4
2026-01-29 01:37:00	-20.3	-21.5	1.2
2026-01-29 01:38:00	-20.3	-21.3	1.0
2026-01-29 01:39:00	-20.1	-21.1	1.0
2026-01-29 01:40:00	-20.0	-20.9	0.9
2026-01-29 01:41:00	-19.8	-20.7	0.9
2026-01-29 01:42:00	-19.6	-20.5	0.9
2026-01-29 01:43:00	-19.4	-20.4	1.0
2026-01-29 01:44:00	-19.2	-20.2	1.0
2026-01-29 01:45:00	-19.0	-20.1	1.1
2026-01-29 01:46:00	-19.1	-20.3	1.2
2026-01-29 01:47:00	-19.4	-21.5	2.1

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 01:48:00	-19.8	-21.9	2.1
2026-01-29 01:49:00	-19.9	-21.8	1.9
2026-01-29 01:50:00	-19.9	-21.7	1.8
2026-01-29 01:51:00	-19.7	-21.4	1.7
2026-01-29 01:52:00	-19.6	-21.1	1.5
2026-01-29 01:53:00	-19.5	-21.0	1.5
2026-01-29 01:54:00	-19.3	-21.0	1.7
2026-01-29 01:55:00	-19.2	-20.9	1.7
2026-01-29 01:56:00	-19.0	-20.8	1.8
2026-01-29 01:57:00	-18.8	-20.7	1.9
2026-01-29 01:58:00	-18.8	-20.4	1.6
2026-01-29 01:59:00	-19.0	-21.0	2.0
2026-01-29 02:00:00	-19.5	-21.8	2.3
2026-01-29 02:01:00	-19.7	-21.9	2.2
2026-01-29 02:02:00	-19.8	-21.8	2.0
2026-01-29 02:03:00	-19.7	-21.6	1.9
2026-01-29 02:04:00	-19.6	-21.2	1.6
2026-01-29 02:05:00	-19.5	-21.2	1.7
2026-01-29 02:06:00	-19.4	-21.2	1.8
2026-01-29 02:07:00	-19.2	-21.1	1.9
2026-01-29 02:08:00	-19.1	-21.0	1.9
2026-01-29 02:09:00	-18.9	-20.9	2.0
2026-01-29 02:10:00	-18.8	-20.7	1.9
2026-01-29 02:11:00	-19.2	-20.7	1.5
2026-01-29 02:12:00	-19.8	-21.0	1.2
2026-01-29 02:13:00	-20.2	-21.7	1.5
2026-01-29 02:14:00	-20.3	-21.6	1.3
2026-01-29 02:15:00	-20.3	-21.5	1.2
2026-01-29 02:16:00	-20.1	-21.3	1.2
2026-01-29 02:17:00	-20.0	-21.0	1.0

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 02:18:00	-19.8	-20.8	1.0
2026-01-29 02:19:00	-19.6	-20.7	1.1
2026-01-29 02:20:00	-19.4	-20.5	1.1
2026-01-29 02:21:00	-19.3	-20.4	1.1
2026-01-29 02:22:00	-19.1	-20.3	1.2
2026-01-29 02:23:00	-18.9	-20.1	1.2
2026-01-29 02:24:00	-19.0	-20.6	1.6
2026-01-29 02:25:00	-19.5	-21.8	2.3
2026-01-29 02:26:00	-19.9	-21.9	2.0
2026-01-29 02:27:00	-19.9	-21.8	1.9
2026-01-29 02:28:00	-19.8	-21.7	1.9
2026-01-29 02:29:00	-19.7	-21.4	1.7
2026-01-29 02:30:00	-19.6	-21.3	1.7
2026-01-29 02:31:00	-19.5	-21.3	1.8
2026-01-29 02:32:00	-19.3	-21.2	1.9
2026-01-29 02:33:00	-19.1	-21.0	1.9
2026-01-29 02:34:00	-18.9	-20.9	2.0
2026-01-29 02:35:00	-18.8	-20.7	1.9
2026-01-29 02:36:00	-19.1	-20.6	1.5
2026-01-29 02:37:00	-19.8	-20.9	1.1
2026-01-29 02:38:00	-20.2	-21.6	1.4
2026-01-29 02:39:00	-20.3	-21.6	1.3
2026-01-29 02:40:00	-20.4	-21.5	1.1
2026-01-29 02:41:00	-20.3	-21.2	0.9
2026-01-29 02:42:00	-20.1	-21.0	0.9
2026-01-29 02:43:00	-19.9	-20.8	0.9
2026-01-29 02:44:00	-19.7	-20.7	1.0
2026-01-29 02:45:00	-19.5	-20.6	1.1
2026-01-29 02:46:00	-19.3	-20.5	1.2
2026-01-29 02:47:00	-19.1	-20.3	1.2

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 02:48:00	-18.9	-20.2	1.3
2026-01-29 02:49:00	-19.0	-20.3	1.3
2026-01-29 02:50:00	-19.4	-21.8	2.4
2026-01-29 02:51:00	-19.8	-21.9	2.1
2026-01-29 02:52:00	-19.9	-21.8	1.9
2026-01-29 02:53:00	-19.8	-21.7	1.9
2026-01-29 02:54:00	-19.7	-21.3	1.6
2026-01-29 02:55:00	-19.6	-21.1	1.5
2026-01-29 02:56:00	-19.5	-21.1	1.6
2026-01-29 02:57:00	-19.3	-21.0	1.7
2026-01-29 02:58:00	-19.1	-20.9	1.8
2026-01-29 02:59:00	-19.0	-20.7	1.7
2026-01-29 03:00:00	-18.8	-20.6	1.8
2026-01-29 03:01:00	-19.0	-20.5	1.5
2026-01-29 03:02:00	-19.7	-20.7	1.0
2026-01-29 03:03:00	-20.1	-21.5	1.4
2026-01-29 03:04:00	-20.3	-21.7	1.4
2026-01-29 03:05:00	-20.3	-21.6	1.3
2026-01-29 03:06:00	-20.2	-21.3	1.1
2026-01-29 03:07:00	-20.1	-21.1	1.0
2026-01-29 03:08:00	-19.9	-20.9	1.0
2026-01-29 03:09:00	-19.7	-20.7	1.0
2026-01-29 03:10:00	-19.5	-20.6	1.1
2026-01-29 03:11:00	-19.3	-20.5	1.2
2026-01-29 03:12:00	-19.2	-20.4	1.2
2026-01-29 03:13:00	-18.9	-20.2	1.3
2026-01-29 03:14:00	-18.9	-20.0	1.1
2026-01-29 03:15:00	-19.2	-21.4	2.2
2026-01-29 03:16:00	-19.7	-21.9	2.2
2026-01-29 03:17:00	-19.9	-21.9	2.0

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 03:18:00	-19.8	-21.7	1.9
2026-01-29 03:19:00	-19.7	-21.6	1.9
2026-01-29 03:20:00	-19.7	-21.2	1.5
2026-01-29 03:21:00	-19.5	-21.1	1.6
2026-01-29 03:22:00	-19.4	-21.0	1.6
2026-01-29 03:23:00	-19.2	-21.0	1.8
2026-01-29 03:24:00	-19.1	-20.9	1.8
2026-01-29 03:25:00	-18.9	-20.7	1.8
2026-01-29 03:26:00	-18.8	-20.6	1.8
2026-01-29 03:27:00	-19.3	-20.6	1.3
2026-01-29 03:28:00	-19.9	-21.1	1.2
2026-01-29 03:29:00	-20.3	-21.7	1.4
2026-01-29 03:30:00	-20.4	-21.7	1.3
2026-01-29 03:31:00	-20.4	-21.5	1.1
2026-01-29 03:32:00	-20.3	-21.3	1.0
2026-01-29 03:33:00	-20.1	-21.1	1.0
2026-01-29 03:34:00	-19.9	-20.8	0.9
2026-01-29 03:35:00	-19.7	-20.7	1.0
2026-01-29 03:36:00	-19.5	-20.5	1.0
2026-01-29 03:37:00	-19.3	-20.3	1.0
2026-01-29 03:38:00	-19.1	-20.2	1.1
2026-01-29 03:39:00	-18.7	-20.0	1.3
2026-01-29 03:40:00	-18.5	-19.8	1.3
2026-01-29 03:41:00	-18.3	-20.1	1.8
2026-01-29 03:42:00	-18.2	-20.4	2.2
2026-01-29 03:43:00	-18.1	-20.5	2.4
2026-01-29 03:44:00	-18.1	-20.7	2.6
2026-01-29 03:45:00	-18.1	-20.9	2.8
2026-01-29 03:46:00	-18.2	-21.1	2.9
2026-01-29 03:47:00	-18.3	-21.3	3.0

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 03:48:00	-18.4	-21.5	3.1
2026-01-29 03:49:00	-18.4	-21.7	3.3
2026-01-29 03:50:00	-18.5	-21.8	3.3
2026-01-29 03:51:00	-18.6	-21.9	3.3
2026-01-29 03:52:00	-18.7	-21.9	3.2
2026-01-29 03:53:00	-18.7	-21.8	3.1
2026-01-29 03:54:00	-18.8	-21.7	2.9
2026-01-29 03:55:00	-18.8	-21.6	2.8
2026-01-29 03:56:00	-18.7	-21.3	2.6
2026-01-29 03:57:00	-18.6	-21.0	2.4
2026-01-29 03:58:00	-18.4	-20.8	2.4
2026-01-29 03:59:00	-18.3	-20.6	2.3
2026-01-29 04:00:00	-18.2	-20.3	2.1
2026-01-29 04:01:00	-18.1	-19.5	1.4
2026-01-29 04:02:00	-18.1	-18.7	0.6
2026-01-29 04:03:00	-18.1	-18.4	0.3
2026-01-29 04:04:00	-18.1	-18.9	0.8
2026-01-29 04:05:00	-18.1	-19.3	1.2
2026-01-29 04:06:00	-18.1	-19.5	1.4
2026-01-29 04:07:00	-18.2	-19.9	1.7
2026-01-29 04:08:00	-18.3	-20.2	1.9
2026-01-29 04:09:00	-18.4	-20.6	2.2
2026-01-29 04:10:00	-18.5	-21.1	2.6
2026-01-29 04:11:00	-18.6	-21.5	2.9
2026-01-29 04:12:00	-18.7	-21.7	3.0
2026-01-29 04:13:00	-18.8	-21.9	3.1
2026-01-29 04:14:00	-19.2	-21.9	2.7
2026-01-29 04:15:00	-19.3	-21.8	2.5
2026-01-29 04:16:00	-19.3	-21.6	2.3
2026-01-29 04:17:00	-19.2	-21.1	1.9

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 04:18:00	-18.9	-20.7	1.8
2026-01-29 04:19:00	-18.7	-20.6	1.9
2026-01-29 04:20:00	-18.4	-20.4	2.0
2026-01-29 04:21:00	-18.2	-20.2	2.0
2026-01-29 04:22:00	-18.1	-19.8	1.7
2026-01-29 04:23:00	-18.3	-20.7	2.4
2026-01-29 04:24:00	-18.6	-21.5	2.9
2026-01-29 04:25:00	-19.1	-21.8	2.7
2026-01-29 04:26:00	-19.5	-21.9	2.4
2026-01-29 04:27:00	-19.7	-21.8	2.1
2026-01-29 04:28:00	-19.6	-21.7	2.1
2026-01-29 04:29:00	-19.5	-21.3	1.8
2026-01-29 04:30:00	-19.3	-21.0	1.7
2026-01-29 04:31:00	-19.1	-20.7	1.6
2026-01-29 04:32:00	-19.0	-20.5	1.5
2026-01-29 04:33:00	-18.8	-20.4	1.6
2026-01-29 04:34:00	-18.6	-20.3	1.7
2026-01-29 04:35:00	-18.6	-20.2	1.6
2026-01-29 04:36:00	-19.1	-20.5	1.4
2026-01-29 04:37:00	-19.7	-21.3	1.6
2026-01-29 04:38:00	-20.1	-21.8	1.7
2026-01-29 04:39:00	-20.2	-21.6	1.4
2026-01-29 04:40:00	-20.2	-21.3	1.1
2026-01-29 04:41:00	-20.1	-21.1	1.0
2026-01-29 04:42:00	-19.9	-20.9	1.0
2026-01-29 04:43:00	-19.7	-20.7	1.0
2026-01-29 04:44:00	-19.6	-20.5	0.9
2026-01-29 04:45:00	-19.4	-20.4	1.0
2026-01-29 04:46:00	-19.2	-20.2	1.0
2026-01-29 04:47:00	-19.0	-20.1	1.1

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 04:48:00	-19.0	-19.9	0.9
2026-01-29 04:49:00	-19.2	-21.2	2.0
2026-01-29 04:50:00	-19.8	-21.9	2.1
2026-01-29 04:51:00	-20.0	-21.9	1.9
2026-01-29 04:52:00	-20.0	-21.8	1.8
2026-01-29 04:53:00	-19.9	-21.6	1.7
2026-01-29 04:54:00	-19.7	-21.2	1.5
2026-01-29 04:55:00	-19.6	-20.9	1.3
2026-01-29 04:56:00	-19.4	-20.8	1.4
2026-01-29 04:57:00	-19.2	-20.8	1.6
2026-01-29 04:58:00	-19.1	-20.7	1.6
2026-01-29 04:59:00	-18.9	-20.6	1.7
2026-01-29 05:00:00	-18.9	-20.5	1.6
2026-01-29 05:01:00	-19.6	-20.6	1.0
2026-01-29 05:02:00	-20.0	-21.4	1.4
2026-01-29 05:03:00	-20.3	-21.8	1.5
2026-01-29 05:04:00	-20.4	-21.6	1.2
2026-01-29 05:05:00	-20.3	-21.3	1.0
2026-01-29 05:06:00	-20.1	-21.1	1.0
2026-01-29 05:07:00	-19.9	-20.9	1.0
2026-01-29 05:08:00	-19.7	-20.7	1.0
2026-01-29 05:09:00	-19.6	-20.5	0.9
2026-01-29 05:10:00	-19.4	-20.4	1.0
2026-01-29 05:11:00	-19.3	-20.4	1.1
2026-01-29 05:12:00	-19.0	-20.2	1.2
2026-01-29 05:13:00	-18.9	-20.0	1.1
2026-01-29 05:14:00	-19.1	-20.9	1.8
2026-01-29 05:15:00	-19.6	-21.8	2.2
2026-01-29 05:16:00	-19.8	-21.9	2.1
2026-01-29 05:17:00	-19.8	-21.8	2.0

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 05:18:00	-19.7	-21.6	1.9
2026-01-29 05:19:00	-19.6	-21.3	1.7
2026-01-29 05:20:00	-19.5	-21.2	1.7
2026-01-29 05:21:00	-19.4	-21.1	1.7
2026-01-29 05:22:00	-19.2	-21.0	1.8
2026-01-29 05:23:00	-19.1	-21.0	1.9
2026-01-29 05:24:00	-18.8	-20.8	2.0
2026-01-29 05:25:00	-18.7	-20.6	1.9
2026-01-29 05:26:00	-18.9	-20.5	1.6
2026-01-29 05:27:00	-19.7	-20.7	1.0
2026-01-29 05:28:00	-20.1	-21.6	1.5
2026-01-29 05:29:00	-20.3	-21.7	1.4
2026-01-29 05:30:00	-20.2	-21.5	1.3
2026-01-29 05:31:00	-20.1	-21.3	1.2
2026-01-29 05:32:00	-19.9	-21.1	1.2
2026-01-29 05:33:00	-19.8	-20.9	1.1
2026-01-29 05:34:00	-19.6	-20.7	1.1
2026-01-29 05:35:00	-19.5	-20.5	1.0
2026-01-29 05:36:00	-19.3	-20.4	1.1
2026-01-29 05:37:00	-19.1	-20.3	1.2
2026-01-29 05:38:00	-18.9	-20.2	1.3
2026-01-29 05:39:00	-18.9	-20.0	1.1
2026-01-29 05:40:00	-19.2	-21.0	1.8
2026-01-29 05:41:00	-19.6	-21.9	2.3
2026-01-29 05:42:00	-19.8	-21.9	2.1
2026-01-29 05:43:00	-19.7	-21.7	2.0
2026-01-29 05:44:00	-19.7	-21.4	1.7
2026-01-29 05:45:00	-19.6	-21.2	1.6
2026-01-29 05:46:00	-19.5	-21.1	1.6
2026-01-29 05:47:00	-19.3	-21.1	1.8

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 05:48:00	-19.2	-21.0	1.8
2026-01-29 05:49:00	-19.0	-20.9	1.9
2026-01-29 05:50:00	-18.9	-20.8	1.9
2026-01-29 05:51:00	-18.7	-20.5	1.8
2026-01-29 05:52:00	-19.1	-20.5	1.4
2026-01-29 05:53:00	-19.8	-20.9	1.1
2026-01-29 05:54:00	-20.2	-21.7	1.5
2026-01-29 05:55:00	-20.3	-21.7	1.4
2026-01-29 05:56:00	-20.3	-21.5	1.2
2026-01-29 05:57:00	-20.2	-21.3	1.1
2026-01-29 05:58:00	-20.0	-21.0	1.0
2026-01-29 05:59:00	-19.8	-20.9	1.1
2026-01-29 06:00:00	-19.7	-20.7	1.0
2026-01-29 06:01:00	-19.5	-20.5	1.0
2026-01-29 06:02:00	-19.3	-20.4	1.1
2026-01-29 06:03:00	-19.1	-20.4	1.3
2026-01-29 06:04:00	-18.9	-20.2	1.3
2026-01-29 06:05:00	-18.9	-20.2	1.3
2026-01-29 06:06:00	-19.3	-21.5	2.2
2026-01-29 06:07:00	-19.7	-21.9	2.2
2026-01-29 06:08:00	-19.8	-21.8	2.0
2026-01-29 06:09:00	-19.8	-21.7	1.9
2026-01-29 06:10:00	-19.7	-21.4	1.7
2026-01-29 06:11:00	-19.6	-21.1	1.5
2026-01-29 06:12:00	-19.5	-21.0	1.5
2026-01-29 06:13:00	-19.3	-21.0	1.7
2026-01-29 06:14:00	-19.2	-20.9	1.7
2026-01-29 06:15:00	-19.0	-20.8	1.8
2026-01-29 06:16:00	-18.8	-20.7	1.9
2026-01-29 06:17:00	-18.7	-20.5	1.8

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 06:18:00	-19.2	-20.5	1.3
2026-01-29 06:19:00	-19.9	-21.0	1.1
2026-01-29 06:20:00	-20.2	-21.7	1.5
2026-01-29 06:21:00	-20.3	-21.6	1.3
2026-01-29 06:22:00	-20.3	-21.4	1.1
2026-01-29 06:23:00	-20.1	-21.2	1.1
2026-01-29 06:24:00	-20.0	-21.0	1.0
2026-01-29 06:25:00	-19.8	-20.7	0.9
2026-01-29 06:26:00	-19.6	-20.6	1.0
2026-01-29 06:27:00	-19.5	-20.5	1.0
2026-01-29 06:28:00	-19.3	-20.4	1.1
2026-01-29 06:29:00	-19.1	-20.3	1.2
2026-01-29 06:30:00	-18.9	-20.1	1.2
2026-01-29 06:31:00	-19.0	-20.3	1.3
2026-01-29 06:32:00	-19.4	-21.7	2.3
2026-01-29 06:33:00	-19.9	-21.9	2.0
2026-01-29 06:34:00	-19.9	-21.8	1.9
2026-01-29 06:35:00	-19.8	-21.7	1.9
2026-01-29 06:36:00	-19.7	-21.3	1.6
2026-01-29 06:37:00	-19.6	-21.3	1.7
2026-01-29 06:38:00	-19.5	-21.1	1.6
2026-01-29 06:39:00	-19.3	-21.0	1.7
2026-01-29 06:40:00	-19.1	-21.0	1.9
2026-01-29 06:41:00	-19.0	-20.9	1.9
2026-01-29 06:42:00	-18.8	-20.6	1.8
2026-01-29 06:43:00	-18.9	-20.4	1.5
2026-01-29 06:44:00	-19.4	-21.5	2.1
2026-01-29 06:45:00	-19.9	-21.9	2.0
2026-01-29 06:46:00	-20.0	-21.8	1.8
2026-01-29 06:47:00	-19.9	-21.7	1.8

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 06:48:00	-19.8	-21.5	1.7
2026-01-29 06:49:00	-19.7	-21.3	1.6
2026-01-29 06:50:00	-19.5	-21.2	1.7
2026-01-29 06:51:00	-19.4	-21.1	1.7
2026-01-29 06:52:00	-19.2	-21.0	1.8
2026-01-29 06:53:00	-19.0	-21.0	2.0
2026-01-29 06:54:00	-18.8	-20.8	2.0
2026-01-29 06:55:00	-18.9	-20.6	1.7
2026-01-29 06:56:00	-19.4	-20.7	1.3
2026-01-29 06:57:00	-20.0	-21.3	1.3
2026-01-29 06:58:00	-20.3	-21.7	1.4
2026-01-29 06:59:00	-20.3	-21.5	1.2
2026-01-29 07:00:00	-20.3	-21.3	1.0
2026-01-29 07:01:00	-20.1	-21.1	1.0
2026-01-29 07:02:00	-19.9	-20.9	1.0
2026-01-29 07:03:00	-19.7	-20.7	1.0
2026-01-29 07:04:00	-19.6	-20.7	1.1
2026-01-29 07:05:00	-19.4	-20.5	1.1
2026-01-29 07:06:00	-19.2	-20.5	1.3
2026-01-29 07:07:00	-19.0	-20.4	1.4
2026-01-29 07:08:00	-18.9	-20.1	1.2
2026-01-29 07:09:00	-19.0	-20.5	1.5
2026-01-29 07:10:00	-19.5	-21.7	2.2
2026-01-29 07:11:00	-19.8	-21.9	2.1
2026-01-29 07:12:00	-19.8	-21.8	2.0
2026-01-29 07:13:00	-19.8	-21.7	1.9
2026-01-29 07:14:00	-19.7	-21.3	1.6
2026-01-29 07:15:00	-19.6	-21.2	1.6
2026-01-29 07:16:00	-19.5	-21.2	1.7
2026-01-29 07:17:00	-19.3	-21.0	1.7

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 07:18:00	-19.1	-20.9	1.8
2026-01-29 07:19:00	-18.9	-20.8	1.9
2026-01-29 07:20:00	-18.8	-20.6	1.8
2026-01-29 07:21:00	-19.0	-20.6	1.6
2026-01-29 07:22:00	-19.7	-20.7	1.0
2026-01-29 07:23:00	-20.1	-21.5	1.4
2026-01-29 07:24:00	-20.3	-21.6	1.3
2026-01-29 07:25:00	-20.4	-21.5	1.1
2026-01-29 07:26:00	-20.3	-21.3	1.0
2026-01-29 07:27:00	-20.1	-21.1	1.0
2026-01-29 07:28:00	-19.9	-20.9	1.0
2026-01-29 07:29:00	-19.7	-20.7	1.0
2026-01-29 07:30:00	-19.6	-20.6	1.0
2026-01-29 07:31:00	-19.4	-20.5	1.1
2026-01-29 07:32:00	-19.2	-20.4	1.2
2026-01-29 07:33:00	-19.0	-20.3	1.3
2026-01-29 07:34:00	-18.9	-20.1	1.2
2026-01-29 07:35:00	-19.0	-20.5	1.5
2026-01-29 07:36:00	-19.5	-21.7	2.2
2026-01-29 07:37:00	-19.7	-21.9	2.2
2026-01-29 07:38:00	-19.8	-21.8	2.0
2026-01-29 07:39:00	-19.8	-21.7	1.9
2026-01-29 07:40:00	-19.7	-21.3	1.6
2026-01-29 07:41:00	-19.6	-21.0	1.4
2026-01-29 07:42:00	-19.4	-21.0	1.6
2026-01-29 07:43:00	-19.3	-21.0	1.7
2026-01-29 07:44:00	-19.1	-20.8	1.7
2026-01-29 07:45:00	-18.9	-20.7	1.8
2026-01-29 07:46:00	-18.8	-20.7	1.9
2026-01-29 07:47:00	-18.8	-20.5	1.7

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 07:48:00	-19.5	-20.6	1.1
2026-01-29 07:49:00	-20.0	-21.4	1.4
2026-01-29 07:50:00	-20.3	-21.8	1.5
2026-01-29 07:51:00	-20.3	-21.6	1.3
2026-01-29 07:52:00	-20.4	-21.5	1.1
2026-01-29 07:53:00	-20.2	-21.2	1.0
2026-01-29 07:54:00	-20.0	-21.0	1.0
2026-01-29 07:55:00	-19.8	-20.8	1.0
2026-01-29 07:56:00	-19.6	-20.6	1.0
2026-01-29 07:57:00	-19.5	-20.5	1.0
2026-01-29 07:58:00	-19.3	-20.4	1.1
2026-01-29 07:59:00	-19.1	-20.3	1.2
2026-01-29 08:00:00	-18.9	-20.2	1.3
2026-01-29 08:01:00	-18.9	-20.2	1.3
2026-01-29 08:02:00	-19.4	-21.4	2.0
2026-01-29 08:03:00	-19.8	-21.9	2.1
2026-01-29 08:04:00	-19.9	-21.8	1.9
2026-01-29 08:05:00	-19.8	-21.7	1.9
2026-01-29 08:06:00	-19.7	-21.3	1.6
2026-01-29 08:07:00	-19.6	-21.1	1.5
2026-01-29 08:08:00	-19.5	-21.1	1.6
2026-01-29 08:09:00	-19.3	-21.0	1.7
2026-01-29 08:10:00	-19.1	-20.9	1.8
2026-01-29 08:11:00	-18.9	-20.8	1.9
2026-01-29 08:12:00	-18.8	-20.6	1.8
2026-01-29 08:13:00	-18.7	-20.5	1.8
2026-01-29 08:14:00	-19.3	-20.5	1.2
2026-01-29 08:15:00	-19.9	-21.2	1.3
2026-01-29 08:16:00	-20.3	-21.7	1.4
2026-01-29 08:17:00	-20.4	-21.6	1.2

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 08:18:00	-20.4	-21.5	1.1
2026-01-29 08:19:00	-20.2	-21.2	1.0
2026-01-29 08:20:00	-20.0	-21.0	1.0
2026-01-29 08:21:00	-19.8	-20.8	1.0
2026-01-29 08:22:00	-19.7	-20.6	0.9
2026-01-29 08:23:00	-19.5	-20.5	1.0
2026-01-29 08:24:00	-19.3	-20.4	1.1
2026-01-29 08:25:00	-19.1	-20.3	1.2
2026-01-29 08:26:00	-19.0	-20.2	1.2
2026-01-29 08:27:00	-18.9	-20.0	1.1
2026-01-29 08:28:00	-19.4	-21.2	1.8
2026-01-29 08:29:00	-19.9	-21.9	2.0
2026-01-29 08:30:00	-20.0	-21.8	1.8
2026-01-29 08:31:00	-19.9	-21.7	1.8
2026-01-29 08:32:00	-19.8	-21.4	1.6
2026-01-29 08:33:00	-19.7	-21.2	1.5
2026-01-29 08:34:00	-19.6	-21.1	1.5
2026-01-29 08:35:00	-19.4	-21.0	1.6
2026-01-29 08:36:00	-19.2	-21.0	1.8
2026-01-29 08:37:00	-19.0	-20.9	1.9
2026-01-29 08:38:00	-18.8	-20.7	1.9
2026-01-29 08:39:00	-18.8	-20.5	1.7
2026-01-29 08:40:00	-19.4	-20.6	1.2
2026-01-29 08:41:00	-19.9	-21.2	1.3
2026-01-29 08:42:00	-20.2	-21.7	1.5
2026-01-29 08:43:00	-20.3	-21.5	1.2
2026-01-29 08:44:00	-20.2	-21.3	1.1
2026-01-29 08:45:00	-20.1	-21.1	1.0
2026-01-29 08:46:00	-19.9	-20.9	1.0
2026-01-29 08:47:00	-19.7	-20.7	1.0

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 08:48:00	-19.5	-20.7	1.2
2026-01-29 08:49:00	-19.4	-20.5	1.1
2026-01-29 08:50:00	-19.2	-20.5	1.3
2026-01-29 08:51:00	-19.0	-20.4	1.4
2026-01-29 08:52:00	-18.9	-20.2	1.3
2026-01-29 08:53:00	-18.9	-20.2	1.3
2026-01-29 08:54:00	-19.5	-21.5	2.0
2026-01-29 08:55:00	-19.9	-21.9	2.0
2026-01-29 08:56:00	-20.0	-21.8	1.8
2026-01-29 08:57:00	-19.9	-21.7	1.8
2026-01-29 08:58:00	-19.8	-21.4	1.6
2026-01-29 08:59:00	-19.7	-21.3	1.6
2026-01-29 09:00:00	-19.5	-21.2	1.7
2026-01-29 09:01:00	-19.4	-21.0	1.6
2026-01-29 09:02:00	-19.1	-21.0	1.9
2026-01-29 09:03:00	-18.9	-20.8	1.9
2026-01-29 09:04:00	-18.8	-20.7	1.9
2026-01-29 09:05:00	-18.7	-20.5	1.8
2026-01-29 09:06:00	-19.5	-20.6	1.1
2026-01-29 09:07:00	-20.0	-21.3	1.3
2026-01-29 09:08:00	-20.3	-21.7	1.4
2026-01-29 09:09:00	-20.4	-21.6	1.2
2026-01-29 09:10:00	-20.3	-21.4	1.1
2026-01-29 09:11:00	-20.1	-21.2	1.1
2026-01-29 09:12:00	-19.9	-20.9	1.0
2026-01-29 09:13:00	-19.7	-20.8	1.1
2026-01-29 09:14:00	-19.6	-20.6	1.0
2026-01-29 09:15:00	-19.4	-20.5	1.1
2026-01-29 09:16:00	-19.3	-20.4	1.1
2026-01-29 09:17:00	-19.1	-20.3	1.2

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 09:18:00	-18.9	-20.2	1.3
2026-01-29 09:19:00	-19.0	-20.3	1.3
2026-01-29 09:20:00	-19.3	-21.6	2.3
2026-01-29 09:21:00	-19.7	-21.9	2.2
2026-01-29 09:22:00	-19.9	-21.8	1.9
2026-01-29 09:23:00	-19.8	-21.7	1.9
2026-01-29 09:24:00	-19.7	-21.5	1.8
2026-01-29 09:25:00	-19.6	-21.1	1.5
2026-01-29 09:26:00	-19.5	-21.0	1.5
2026-01-29 09:27:00	-19.4	-21.0	1.6
2026-01-29 09:28:00	-19.2	-20.9	1.7
2026-01-29 09:29:00	-19.0	-20.8	1.8
2026-01-29 09:30:00	-18.8	-20.7	1.9
2026-01-29 09:31:00	-18.7	-20.4	1.7
2026-01-29 09:32:00	-19.1	-21.2	2.1
2026-01-29 09:33:00	-19.6	-21.9	2.3
2026-01-29 09:34:00	-20.1	-21.7	1.6
2026-01-29 09:35:00	-20.4	-21.7	1.3
2026-01-29 09:36:00	-20.2	-21.5	1.3
2026-01-29 09:37:00	-20.1	-21.1	1.0
2026-01-29 09:38:00	-19.8	-20.9	1.1
2026-01-29 09:39:00	-19.3	-20.7	1.4
2026-01-29 09:40:00	-18.7	-20.5	1.8
2026-01-29 09:41:00	-18.5	-20.3	1.8
2026-01-29 09:42:00	-18.3	-20.2	1.9
2026-01-29 09:43:00	-18.1	-19.7	1.6
2026-01-29 09:44:00	-18.1	-19.1	1.0
2026-01-29 09:45:00	-18.1	-18.8	0.7
2026-01-29 09:46:00	-18.1	-19.0	0.9
2026-01-29 09:47:00	-18.2	-19.6	1.4

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 09:48:00	-18.3	-20.3	2.0
2026-01-29 09:49:00	-18.4	-20.7	2.3
2026-01-29 09:50:00	-18.5	-21.1	2.6
2026-01-29 09:51:00	-18.7	-21.5	2.8
2026-01-29 09:52:00	-18.7	-21.8	3.1
2026-01-29 09:53:00	-18.8	-21.9	3.1
2026-01-29 09:54:00	-18.8	-21.8	3.0
2026-01-29 09:55:00	-18.7	-21.5	2.8
2026-01-29 09:56:00	-18.6	-21.2	2.6
2026-01-29 09:57:00	-18.5	-20.8	2.3
2026-01-29 09:58:00	-18.4	-20.5	2.1
2026-01-29 09:59:00	-18.2	-20.1	1.9
2026-01-29 10:00:00	-18.1	-19.3	1.2
2026-01-29 10:01:00	-18.1	-19.5	1.4
2026-01-29 10:02:00	-18.1	-19.8	1.7
2026-01-29 10:03:00	-18.1	-20.1	2.0
2026-01-29 10:04:00	-18.1	-20.3	2.2
2026-01-29 10:05:00	-18.1	-20.4	2.3
2026-01-29 10:06:00	-18.2	-20.6	2.4
2026-01-29 10:07:00	-18.4	-21.0	2.6
2026-01-29 10:08:00	-18.5	-21.2	2.7
2026-01-29 10:09:00	-18.6	-21.5	2.9
2026-01-29 10:10:00	-18.7	-21.7	3.0
2026-01-29 10:11:00	-18.8	-21.8	3.0
2026-01-29 10:12:00	-18.9	-21.9	3.0
2026-01-29 10:13:00	-19.2	-21.8	2.6
2026-01-29 10:14:00	-19.2	-21.7	2.5
2026-01-29 10:15:00	-19.1	-21.5	2.4
2026-01-29 10:16:00	-19.0	-21.0	2.0
2026-01-29 10:17:00	-18.8	-20.7	1.9

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 10:18:00	-18.5	-20.6	2.1
2026-01-29 10:19:00	-18.3	-20.4	2.1
2026-01-29 10:20:00	-18.2	-20.2	2.0
2026-01-29 10:21:00	-18.1	-19.5	1.4
2026-01-29 10:22:00	-18.2	-19.5	1.3
2026-01-29 10:23:00	-18.8	-20.1	1.3
2026-01-29 10:24:00	-19.4	-21.0	1.6
2026-01-29 10:25:00	-20.1	-21.7	1.6
2026-01-29 10:26:00	-20.3	-21.6	1.3
2026-01-29 10:27:00	-20.2	-21.5	1.3
2026-01-29 10:28:00	-20.1	-21.2	1.1
2026-01-29 10:29:00	-19.9	-20.9	1.0
2026-01-29 10:30:00	-19.7	-20.7	1.0
2026-01-29 10:31:00	-19.5	-20.5	1.0
2026-01-29 10:32:00	-19.3	-20.4	1.1
2026-01-29 10:33:00	-19.1	-20.3	1.2
2026-01-29 10:34:00	-18.9	-20.1	1.2
2026-01-29 10:35:00	-18.9	-19.9	1.0
2026-01-29 10:36:00	-19.1	-21.1	2.0
2026-01-29 10:37:00	-19.7	-21.9	2.2
2026-01-29 10:38:00	-19.9	-21.9	2.0
2026-01-29 10:39:00	-19.9	-21.8	1.9
2026-01-29 10:40:00	-19.8	-21.6	1.8
2026-01-29 10:41:00	-19.3	-21.1	1.8
2026-01-29 10:42:00	-18.5	-20.6	2.1
2026-01-29 10:43:00	-18.1	-20.1	2.0
2026-01-29 10:44:00	-18.1	-20.0	1.9
2026-01-29 10:45:00	-18.2	-20.1	1.9
2026-01-29 10:46:00	-18.5	-20.6	2.1
2026-01-29 10:47:00	-18.9	-21.2	2.3

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 10:48:00	-19.2	-21.6	2.4
2026-01-29 10:49:00	-19.1	-21.7	2.6
2026-01-29 10:50:00	-19.1	-21.5	2.4
2026-01-29 10:51:00	-18.8	-21.1	2.3
2026-01-29 10:52:00	-18.5	-20.7	2.2
2026-01-29 10:53:00	-18.5	-20.5	2.0
2026-01-29 10:54:00	-18.5	-20.3	1.8
2026-01-29 10:55:00	-18.5	-20.0	1.5
2026-01-29 10:56:00	-18.9	-20.7	1.8
2026-01-29 10:57:00	-19.3	-21.7	2.4
2026-01-29 10:58:00	-19.8	-21.9	2.1
2026-01-29 10:59:00	-19.8	-21.8	2.0
2026-01-29 11:00:00	-19.7	-21.7	2.0
2026-01-29 11:01:00	-19.7	-21.4	1.7
2026-01-29 11:02:00	-19.6	-21.1	1.5
2026-01-29 11:03:00	-19.5	-20.9	1.4
2026-01-29 11:04:00	-19.4	-20.8	1.4
2026-01-29 11:05:00	-19.3	-20.7	1.4
2026-01-29 11:06:00	-19.1	-20.6	1.5
2026-01-29 11:07:00	-19.0	-20.5	1.5
2026-01-29 11:08:00	-19.0	-20.3	1.3
2026-01-29 11:09:00	-19.3	-21.2	1.9
2026-01-29 11:10:00	-19.7	-21.8	2.1
2026-01-29 11:11:00	-19.9	-21.9	2.0
2026-01-29 11:12:00	-20.0	-21.8	1.8
2026-01-29 11:13:00	-19.9	-21.7	1.8
2026-01-29 11:14:00	-19.8	-21.5	1.7
2026-01-29 11:15:00	-19.7	-21.1	1.4
2026-01-29 11:16:00	-19.5	-21.0	1.5
2026-01-29 11:17:00	-19.4	-20.9	1.5

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 11:18:00	-19.3	-20.8	1.5
2026-01-29 11:19:00	-19.2	-20.7	1.5
2026-01-29 11:20:00	-19.0	-20.6	1.6
2026-01-29 11:21:00	-19.1	-20.5	1.4
2026-01-29 11:22:00	-19.5	-20.6	1.1
2026-01-29 11:23:00	-19.9	-21.3	1.4
2026-01-29 11:24:00	-20.3	-21.7	1.4
2026-01-29 11:25:00	-20.3	-21.5	1.2
2026-01-29 11:26:00	-20.3	-21.3	1.0
2026-01-29 11:27:00	-20.2	-21.2	1.0
2026-01-29 11:28:00	-20.0	-21.0	1.0
2026-01-29 11:29:00	-19.9	-20.7	0.8
2026-01-29 11:30:00	-19.7	-20.6	0.9
2026-01-29 11:31:00	-19.6	-20.5	0.9
2026-01-29 11:32:00	-19.4	-20.4	1.0
2026-01-29 11:33:00	-19.3	-20.3	1.0
2026-01-29 11:34:00	-19.1	-20.2	1.1
2026-01-29 11:35:00	-19.1	-20.0	0.9
2026-01-29 11:36:00	-19.3	-21.2	1.9
2026-01-29 11:37:00	-19.7	-21.9	2.2
2026-01-29 11:38:00	-19.9	-21.9	2.0
2026-01-29 11:39:00	-20.0	-21.8	1.8
2026-01-29 11:40:00	-19.9	-21.7	1.8
2026-01-29 11:41:00	-19.8	-21.3	1.5
2026-01-29 11:42:00	-19.7	-21.0	1.3
2026-01-29 11:43:00	-19.6	-20.9	1.3
2026-01-29 11:44:00	-19.5	-20.9	1.4
2026-01-29 11:45:00	-19.4	-20.8	1.4
2026-01-29 11:46:00	-19.3	-20.7	1.4
2026-01-29 11:47:00	-19.1	-20.6	1.5

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 11:48:00	-19.2	-20.5	1.3
2026-01-29 11:49:00	-19.8	-20.7	0.9
2026-01-29 11:50:00	-20.1	-21.5	1.4
2026-01-29 11:51:00	-20.3	-21.7	1.4
2026-01-29 11:52:00	-20.4	-21.6	1.2
2026-01-29 11:53:00	-20.3	-21.3	1.0
2026-01-29 11:54:00	-20.3	-21.2	0.9
2026-01-29 11:55:00	-20.1	-21.0	0.9
2026-01-29 11:56:00	-20.0	-20.8	0.8
2026-01-29 11:57:00	-19.8	-20.6	0.8
2026-01-29 11:58:00	-19.6	-20.5	0.9
2026-01-29 11:59:00	-19.5	-20.5	1.0
2026-01-29 12:00:00	-19.4	-20.4	1.0
2026-01-29 12:01:00	-19.2	-20.3	1.1
2026-01-29 12:02:00	-19.1	-20.1	1.0
2026-01-29 12:03:00	-19.2	-20.7	1.5
2026-01-29 12:04:00	-19.6	-21.7	2.1
2026-01-29 12:05:00	-19.9	-21.9	2.0
2026-01-29 12:06:00	-20.0	-21.8	1.8
2026-01-29 12:07:00	-20.0	-21.7	1.7
2026-01-29 12:08:00	-19.9	-21.5	1.6
2026-01-29 12:09:00	-19.7	-21.2	1.5
2026-01-29 12:10:00	-19.7	-21.0	1.3
2026-01-29 12:11:00	-19.6	-21.0	1.4
2026-01-29 12:12:00	-19.4	-20.9	1.5
2026-01-29 12:13:00	-19.3	-20.8	1.5
2026-01-29 12:14:00	-19.2	-20.7	1.5
2026-01-29 12:15:00	-19.0	-20.5	1.5
2026-01-29 12:16:00	-19.3	-20.6	1.3
2026-01-29 12:17:00	-19.8	-21.0	1.2

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 12:18:00	-20.2	-21.7	1.5
2026-01-29 12:19:00	-20.3	-21.7	1.4
2026-01-29 12:20:00	-20.4	-21.5	1.1
2026-01-29 12:21:00	-20.3	-21.3	1.0
2026-01-29 12:22:00	-20.1	-21.1	1.0
2026-01-29 12:23:00	-20.0	-20.9	0.9
2026-01-29 12:24:00	-19.8	-20.7	0.9
2026-01-29 12:25:00	-19.7	-20.6	0.9
2026-01-29 12:26:00	-19.5	-20.5	1.0
2026-01-29 12:27:00	-19.4	-20.5	1.1
2026-01-29 12:28:00	-19.3	-20.4	1.1
2026-01-29 12:29:00	-19.1	-20.3	1.2
2026-01-29 12:30:00	-19.1	-20.1	1.0
2026-01-29 12:31:00	-19.3	-21.1	1.8
2026-01-29 12:32:00	-19.7	-21.9	2.2
2026-01-29 12:33:00	-20.0	-21.9	1.9
2026-01-29 12:34:00	-20.0	-21.8	1.8
2026-01-29 12:35:00	-19.9	-21.7	1.8
2026-01-29 12:36:00	-19.8	-21.3	1.5
2026-01-29 12:37:00	-19.7	-21.2	1.5
2026-01-29 12:38:00	-19.6	-21.2	1.6
2026-01-29 12:39:00	-19.5	-21.0	1.5
2026-01-29 12:40:00	-19.4	-21.0	1.6
2026-01-29 12:41:00	-19.3	-20.9	1.6
2026-01-29 12:42:00	-19.2	-20.8	1.6
2026-01-29 12:43:00	-19.0	-20.6	1.6
2026-01-29 12:44:00	-19.4	-20.6	1.2
2026-01-29 12:45:00	-19.9	-21.0	1.1
2026-01-29 12:46:00	-20.3	-21.7	1.4
2026-01-29 12:47:00	-20.3	-21.6	1.3

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 12:48:00	-20.3	-21.5	1.2
2026-01-29 12:49:00	-20.3	-21.3	1.0
2026-01-29 12:50:00	-20.1	-21.1	1.0
2026-01-29 12:51:00	-20.0	-20.9	0.9
2026-01-29 12:52:00	-19.8	-20.7	0.9
2026-01-29 12:53:00	-19.7	-20.6	0.9
2026-01-29 12:54:00	-19.5	-20.5	1.0
2026-01-29 12:55:00	-19.4	-20.4	1.0
2026-01-29 12:56:00	-19.3	-20.3	1.0
2026-01-29 12:57:00	-19.1	-20.2	1.1
2026-01-29 12:58:00	-19.0	-20.0	1.0
2026-01-29 12:59:00	-19.3	-21.1	1.8
2026-01-29 13:00:00	-19.7	-21.9	2.2
2026-01-29 13:01:00	-19.9	-21.8	1.9
2026-01-29 13:02:00	-19.9	-21.7	1.8
2026-01-29 13:03:00	-19.8	-21.6	1.8
2026-01-29 13:04:00	-19.7	-21.3	1.6
2026-01-29 13:05:00	-19.6	-21.2	1.6
2026-01-29 13:06:00	-19.5	-21.1	1.6
2026-01-29 13:07:00	-19.4	-21.0	1.6
2026-01-29 13:08:00	-19.3	-20.9	1.6
2026-01-29 13:09:00	-19.2	-20.8	1.6
2026-01-29 13:10:00	-19.1	-20.7	1.6
2026-01-29 13:11:00	-19.0	-20.5	1.5
2026-01-29 13:12:00	-19.6	-20.7	1.1
2026-01-29 13:13:00	-20.0	-21.2	1.2
2026-01-29 13:14:00	-20.3	-21.7	1.4
2026-01-29 13:15:00	-20.3	-21.6	1.3
2026-01-29 13:16:00	-20.3	-21.5	1.2
2026-01-29 13:17:00	-20.3	-21.2	0.9

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 13:18:00	-20.1	-21.0	0.9
2026-01-29 13:19:00	-19.9	-20.8	0.9
2026-01-29 13:20:00	-19.8	-20.7	0.9
2026-01-29 13:21:00	-19.6	-20.6	1.0
2026-01-29 13:22:00	-19.5	-20.5	1.0
2026-01-29 13:23:00	-19.3	-20.4	1.1
2026-01-29 13:24:00	-19.2	-20.3	1.1
2026-01-29 13:25:00	-19.1	-20.2	1.1
2026-01-29 13:26:00	-19.2	-20.5	1.3
2026-01-29 13:27:00	-19.7	-21.8	2.1
2026-01-29 13:28:00	-20.0	-21.9	1.9
2026-01-29 13:29:00	-20.0	-21.8	1.8
2026-01-29 13:30:00	-20.0	-21.7	1.7
2026-01-29 13:31:00	-19.9	-21.4	1.5
2026-01-29 13:32:00	-19.8	-21.1	1.3
2026-01-29 13:33:00	-19.7	-21.0	1.3
2026-01-29 13:34:00	-19.6	-21.0	1.4
2026-01-29 13:35:00	-19.5	-21.0	1.5
2026-01-29 13:36:00	-19.3	-20.8	1.5
2026-01-29 13:37:00	-19.2	-20.7	1.5
2026-01-29 13:38:00	-19.2	-20.4	1.2
2026-01-29 13:39:00	-19.5	-21.2	1.7
2026-01-29 13:40:00	-19.9	-21.8	1.9
2026-01-29 13:41:00	-20.1	-21.9	1.8
2026-01-29 13:42:00	-20.1	-21.8	1.7
2026-01-29 13:43:00	-20.0	-21.7	1.7
2026-01-29 13:44:00	-19.9	-21.4	1.5
2026-01-29 13:45:00	-19.8	-21.1	1.3
2026-01-29 13:46:00	-19.7	-21.0	1.3
2026-01-29 13:47:00	-19.6	-20.9	1.3

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 13:48:00	-19.4	-20.8	1.4
2026-01-29 13:49:00	-19.3	-20.8	1.5
2026-01-29 13:50:00	-19.1	-20.7	1.6
2026-01-29 13:51:00	-19.3	-20.7	1.4
2026-01-29 13:52:00	-19.7	-20.9	1.2
2026-01-29 13:53:00	-20.2	-21.6	1.4
2026-01-29 13:54:00	-20.3	-21.6	1.3
2026-01-29 13:55:00	-20.4	-21.5	1.1
2026-01-29 13:56:00	-20.3	-21.2	0.9
2026-01-29 13:57:00	-20.3	-21.0	0.7
2026-01-29 13:58:00	-20.1	-20.9	0.8
2026-01-29 13:59:00	-19.9	-20.7	0.8
2026-01-29 14:00:00	-19.8	-20.7	0.9
2026-01-29 14:01:00	-19.6	-20.6	1.0
2026-01-29 14:02:00	-19.5	-20.5	1.0
2026-01-29 14:03:00	-19.3	-20.4	1.1
2026-01-29 14:04:00	-19.2	-20.3	1.1
2026-01-29 14:05:00	-19.1	-20.1	1.0
2026-01-29 14:06:00	-19.3	-20.8	1.5
2026-01-29 14:07:00	-19.7	-21.8	2.1
2026-01-29 14:08:00	-20.0	-21.9	1.9
2026-01-29 14:09:00	-20.0	-21.8	1.8
2026-01-29 14:10:00	-20.0	-21.7	1.7
2026-01-29 14:11:00	-19.9	-21.4	1.5
2026-01-29 14:12:00	-19.8	-21.1	1.3
2026-01-29 14:13:00	-19.6	-21.1	1.5
2026-01-29 14:14:00	-19.5	-21.0	1.5
2026-01-29 14:15:00	-19.4	-20.9	1.5
2026-01-29 14:16:00	-19.3	-20.8	1.5
2026-01-29 14:17:00	-19.2	-20.7	1.5

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 14:18:00	-19.0	-20.6	1.6
2026-01-29 14:19:00	-19.4	-20.6	1.2
2026-01-29 14:20:00	-19.9	-21.0	1.1
2026-01-29 14:21:00	-20.3	-21.7	1.4
2026-01-29 14:22:00	-20.4	-21.6	1.2
2026-01-29 14:23:00	-20.4	-21.5	1.1
2026-01-29 14:24:00	-20.3	-21.3	1.0
2026-01-29 14:25:00	-20.2	-21.1	0.9
2026-01-29 14:26:00	-20.0	-20.9	0.9
2026-01-29 14:27:00	-19.9	-20.7	0.8
2026-01-29 14:28:00	-19.7	-20.6	0.9
2026-01-29 14:29:00	-19.6	-20.5	0.9
2026-01-29 14:30:00	-19.4	-20.4	1.0
2026-01-29 14:31:00	-19.3	-20.4	1.1
2026-01-29 14:32:00	-19.1	-20.3	1.2
2026-01-29 14:33:00	-19.0	-20.1	1.1
2026-01-29 14:34:00	-19.3	-20.7	1.4
2026-01-29 14:35:00	-19.8	-21.7	1.9
2026-01-29 14:36:00	-20.1	-21.9	1.8
2026-01-29 14:37:00	-20.1	-21.8	1.7
2026-01-29 14:38:00	-20.1	-21.7	1.6
2026-01-29 14:39:00	-20.0	-21.4	1.4
2026-01-29 14:40:00	-19.8	-21.1	1.3
2026-01-29 14:41:00	-19.7	-21.0	1.3
2026-01-29 14:42:00	-19.6	-21.0	1.4
2026-01-29 14:43:00	-19.5	-20.8	1.3
2026-01-29 14:44:00	-19.3	-20.8	1.5
2026-01-29 14:45:00	-19.2	-20.7	1.5
2026-01-29 14:46:00	-19.0	-20.5	1.5
2026-01-29 14:47:00	-19.5	-20.6	1.1

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 14:48:00	-19.9	-21.1	1.2
2026-01-29 14:49:00	-20.2	-21.7	1.5
2026-01-29 14:50:00	-20.3	-21.6	1.3
2026-01-29 14:51:00	-20.3	-21.4	1.1
2026-01-29 14:52:00	-20.3	-21.2	0.9
2026-01-29 14:53:00	-20.1	-21.0	0.9
2026-01-29 14:54:00	-20.0	-20.8	0.8
2026-01-29 14:55:00	-19.8	-20.7	0.9
2026-01-29 14:56:00	-19.6	-20.6	1.0
2026-01-29 14:57:00	-19.5	-20.5	1.0
2026-01-29 14:58:00	-19.4	-20.5	1.1
2026-01-29 14:59:00	-19.3	-20.4	1.1
2026-01-29 15:00:00	-19.1	-20.3	1.2
2026-01-29 15:01:00	-19.1	-20.2	1.1
2026-01-29 15:02:00	-19.4	-21.5	2.1
2026-01-29 15:03:00	-20.0	-21.9	1.9
2026-01-29 15:04:00	-20.1	-21.8	1.7
2026-01-29 15:05:00	-20.0	-21.7	1.7
2026-01-29 15:06:00	-20.0	-21.5	1.5
2026-01-29 15:07:00	-19.9	-21.3	1.4
2026-01-29 15:08:00	-19.7	-21.0	1.3
2026-01-29 15:09:00	-19.6	-20.9	1.3
2026-01-29 15:10:00	-19.5	-20.8	1.3
2026-01-29 15:11:00	-19.4	-20.8	1.4
2026-01-29 15:12:00	-19.3	-20.7	1.4
2026-01-29 15:13:00	-19.1	-20.5	1.4
2026-01-29 15:14:00	-19.2	-20.5	1.3
2026-01-29 15:15:00	-19.7	-20.6	0.9
2026-01-29 15:16:00	-20.1	-21.5	1.4
2026-01-29 15:17:00	-20.3	-21.8	1.5

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 15:18:00	-20.3	-21.6	1.3
2026-01-29 15:19:00	-20.4	-21.4	1.0
2026-01-29 15:20:00	-20.2	-21.2	1.0
2026-01-29 15:21:00	-20.1	-21.0	0.9
2026-01-29 15:22:00	-19.9	-20.8	0.9
2026-01-29 15:23:00	-19.7	-20.7	1.0
2026-01-29 15:24:00	-19.6	-20.6	1.0
2026-01-29 15:25:00	-19.5	-20.5	1.0
2026-01-29 15:26:00	-19.3	-20.4	1.1
2026-01-29 15:27:00	-19.2	-20.3	1.1
2026-01-29 15:28:00	-19.1	-20.2	1.1
2026-01-29 15:29:00	-19.1	-20.7	1.6
2026-01-29 15:30:00	-19.6	-21.9	2.3
2026-01-29 15:31:00	-20.0	-21.9	1.9
2026-01-29 15:32:00	-20.0	-21.8	1.8
2026-01-29 15:33:00	-20.0	-21.7	1.7
2026-01-29 15:34:00	-19.9	-21.5	1.6
2026-01-29 15:35:00	-19.8	-21.2	1.4
2026-01-29 15:36:00	-19.6	-20.9	1.3
2026-01-29 15:37:00	-19.4	-20.6	1.2
2026-01-29 15:38:00	-19.1	-20.4	1.3
2026-01-29 15:39:00	-18.6	-20.2	1.6
2026-01-29 15:40:00	-18.2	-19.8	1.6
2026-01-29 15:41:00	-18.1	-19.2	1.1
2026-01-29 15:42:00	-18.1	-18.9	0.8
2026-01-29 15:43:00	-18.1	-19.0	0.9
2026-01-29 15:44:00	-18.1	-19.4	1.3
2026-01-29 15:45:00	-18.2	-19.8	1.6
2026-01-29 15:46:00	-18.3	-20.3	2.0
2026-01-29 15:47:00	-18.4	-20.7	2.3

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 15:48:00	-18.6	-21.1	2.5
2026-01-29 15:49:00	-18.7	-21.6	2.9
2026-01-29 15:50:00	-18.7	-21.8	3.1
2026-01-29 15:51:00	-18.8	-21.9	3.1
2026-01-29 15:52:00	-18.8	-21.9	3.1
2026-01-29 15:53:00	-18.7	-21.8	3.1
2026-01-29 15:54:00	-18.6	-21.5	2.9
2026-01-29 15:55:00	-18.5	-21.3	2.8
2026-01-29 15:56:00	-18.4	-21.0	2.6
2026-01-29 15:57:00	-18.3	-20.8	2.5
2026-01-29 15:58:00	-18.2	-20.6	2.4
2026-01-29 15:59:00	-18.1	-20.3	2.2
2026-01-29 16:00:00	-18.1	-19.6	1.5
2026-01-29 16:01:00	-18.1	-18.8	0.7
2026-01-29 16:02:00	-18.1	-18.5	0.4
2026-01-29 16:03:00	-18.1	-18.8	0.7
2026-01-29 16:04:00	-18.1	-19.2	1.1
2026-01-29 16:05:00	-18.1	-19.6	1.5
2026-01-29 16:06:00	-18.2	-20.0	1.8
2026-01-29 16:07:00	-18.3	-20.4	2.1
2026-01-29 16:08:00	-18.4	-20.8	2.4
2026-01-29 16:09:00	-18.5	-21.3	2.8
2026-01-29 16:10:00	-18.6	-21.5	2.9
2026-01-29 16:11:00	-18.7	-21.7	3.0
2026-01-29 16:12:00	-18.8	-21.9	3.1
2026-01-29 16:13:00	-19.1	-21.9	2.8
2026-01-29 16:14:00	-19.2	-21.8	2.6
2026-01-29 16:15:00	-19.1	-21.7	2.6
2026-01-29 16:16:00	-19.0	-21.3	2.3
2026-01-29 16:17:00	-18.9	-20.9	2.0

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 16:18:00	-18.8	-20.6	1.8
2026-01-29 16:19:00	-18.6	-20.4	1.8
2026-01-29 16:20:00	-18.5	-20.3	1.8
2026-01-29 16:21:00	-18.3	-19.8	1.5
2026-01-29 16:22:00	-18.4	-19.5	1.1
2026-01-29 16:23:00	-18.9	-20.1	1.2
2026-01-29 16:24:00	-19.5	-20.9	1.4
2026-01-29 16:25:00	-20.0	-21.6	1.6
2026-01-29 16:26:00	-20.2	-21.7	1.5
2026-01-29 16:27:00	-20.1	-21.6	1.5
2026-01-29 16:28:00	-20.1	-21.3	1.2
2026-01-29 16:29:00	-20.0	-21.1	1.1
2026-01-29 16:30:00	-19.9	-20.9	1.0
2026-01-29 16:31:00	-19.8	-20.7	0.9
2026-01-29 16:32:00	-19.6	-20.5	0.9
2026-01-29 16:33:00	-19.5	-20.3	0.8
2026-01-29 16:34:00	-19.3	-20.1	0.8
2026-01-29 16:35:00	-19.1	-20.0	0.9
2026-01-29 16:36:00	-19.1	-20.1	1.0
2026-01-29 16:37:00	-19.5	-21.4	1.9
2026-01-29 16:38:00	-19.9	-21.9	2.0
2026-01-29 16:39:00	-20.1	-21.9	1.8
2026-01-29 16:40:00	-20.1	-21.8	1.7
2026-01-29 16:41:00	-20.0	-21.7	1.7
2026-01-29 16:42:00	-19.9	-21.4	1.5
2026-01-29 16:43:00	-19.8	-21.0	1.2
2026-01-29 16:44:00	-19.6	-20.8	1.2
2026-01-29 16:45:00	-19.5	-20.6	1.1
2026-01-29 16:46:00	-19.4	-20.5	1.1
2026-01-29 16:47:00	-19.3	-20.4	1.1

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 16:48:00	-19.1	-20.3	1.2
2026-01-29 16:49:00	-19.3	-20.3	1.0
2026-01-29 16:50:00	-19.7	-20.7	1.0
2026-01-29 16:51:00	-20.1	-21.6	1.5
2026-01-29 16:52:00	-20.3	-21.8	1.5
2026-01-29 16:53:00	-20.3	-21.6	1.3
2026-01-29 16:54:00	-20.3	-21.4	1.1
2026-01-29 16:55:00	-20.2	-21.2	1.0
2026-01-29 16:56:00	-20.0	-21.0	1.0
2026-01-29 16:57:00	-19.9	-20.8	0.9
2026-01-29 16:58:00	-19.7	-20.6	0.9
2026-01-29 16:59:00	-19.6	-20.5	0.9
2026-01-29 17:00:00	-19.5	-20.3	0.8
2026-01-29 17:01:00	-19.3	-20.2	0.9
2026-01-29 17:02:00	-19.2	-20.1	0.9
2026-01-29 17:03:00	-19.1	-20.0	0.9
2026-01-29 17:04:00	-19.5	-21.2	1.7
2026-01-29 17:05:00	-20.0	-21.9	1.9
2026-01-29 17:06:00	-20.1	-21.9	1.8
2026-01-29 17:07:00	-20.1	-21.8	1.7
2026-01-29 17:08:00	-20.0	-21.7	1.7
2026-01-29 17:09:00	-20.0	-21.3	1.3
2026-01-29 17:10:00	-19.8	-21.1	1.3
2026-01-29 17:11:00	-19.7	-20.9	1.2
2026-01-29 17:12:00	-19.6	-20.8	1.2
2026-01-29 17:13:00	-19.5	-20.7	1.2
2026-01-29 17:14:00	-19.4	-20.6	1.2
2026-01-29 17:15:00	-19.3	-20.6	1.3
2026-01-29 17:16:00	-19.1	-20.4	1.3
2026-01-29 17:17:00	-19.5	-20.5	1.0

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 17:18:00	-20.0	-21.1	1.1
2026-01-29 17:19:00	-20.3	-21.6	1.3
2026-01-29 17:20:00	-20.4	-21.5	1.1
2026-01-29 17:21:00	-20.4	-21.4	1.0
2026-01-29 17:22:00	-20.3	-21.2	0.9
2026-01-29 17:23:00	-20.2	-21.0	0.8
2026-01-29 17:24:00	-20.0	-20.9	0.9
2026-01-29 17:25:00	-19.9	-20.7	0.8
2026-01-29 17:26:00	-19.7	-20.6	0.9
2026-01-29 17:27:00	-19.6	-20.5	0.9
2026-01-29 17:28:00	-19.4	-20.4	1.0
2026-01-29 17:29:00	-19.3	-20.3	1.0
2026-01-29 17:30:00	-19.1	-20.2	1.1
2026-01-29 17:31:00	-19.1	-20.1	1.0
2026-01-29 17:32:00	-19.5	-21.4	1.9
2026-01-29 17:33:00	-20.0	-21.9	1.9
2026-01-29 17:34:00	-20.1	-21.8	1.7
2026-01-29 17:35:00	-20.1	-21.7	1.6
2026-01-29 17:36:00	-20.0	-21.7	1.7
2026-01-29 17:37:00	-19.9	-21.3	1.4
2026-01-29 17:38:00	-19.8	-21.0	1.2
2026-01-29 17:39:00	-19.7	-20.8	1.1
2026-01-29 17:40:00	-19.6	-20.8	1.2
2026-01-29 17:41:00	-19.5	-20.7	1.2
2026-01-29 17:42:00	-19.3	-20.7	1.4
2026-01-29 17:43:00	-19.2	-20.6	1.4
2026-01-29 17:44:00	-19.1	-20.4	1.3
2026-01-29 17:45:00	-19.6	-20.6	1.0
2026-01-29 17:46:00	-20.0	-21.2	1.2
2026-01-29 17:47:00	-20.3	-21.8	1.5

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 17:48:00	-20.3	-21.6	1.3
2026-01-29 17:49:00	-20.3	-21.5	1.2
2026-01-29 17:50:00	-20.3	-21.2	0.9
2026-01-29 17:51:00	-20.1	-21.0	0.9
2026-01-29 17:52:00	-20.0	-20.9	0.9
2026-01-29 17:53:00	-19.8	-20.7	0.9
2026-01-29 17:54:00	-19.7	-20.6	0.9
2026-01-29 17:55:00	-19.5	-20.5	1.0
2026-01-29 17:56:00	-19.4	-20.4	1.0
2026-01-29 17:57:00	-19.3	-20.4	1.1
2026-01-29 17:58:00	-19.1	-20.3	1.2
2026-01-29 17:59:00	-19.1	-20.1	1.0
2026-01-29 18:00:00	-19.5	-21.2	1.7
2026-01-29 18:01:00	-20.0	-21.9	1.9
2026-01-29 18:02:00	-20.1	-21.8	1.7
2026-01-29 18:03:00	-20.1	-21.7	1.6
2026-01-29 18:04:00	-20.0	-21.6	1.6
2026-01-29 18:05:00	-19.9	-21.2	1.3
2026-01-29 18:06:00	-19.8	-21.0	1.2
2026-01-29 18:07:00	-19.7	-20.8	1.1
2026-01-29 18:08:00	-19.6	-20.8	1.2
2026-01-29 18:09:00	-19.5	-20.8	1.3
2026-01-29 18:10:00	-19.3	-20.7	1.4
2026-01-29 18:11:00	-19.2	-20.6	1.4
2026-01-29 18:12:00	-19.2	-20.3	1.1
2026-01-29 18:13:00	-19.5	-21.2	1.7
2026-01-29 18:14:00	-19.9	-21.9	2.0
2026-01-29 18:15:00	-20.1	-21.9	1.8
2026-01-29 18:16:00	-20.1	-21.8	1.7
2026-01-29 18:17:00	-20.0	-21.7	1.7

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 18:18:00	-19.9	-21.4	1.5
2026-01-29 18:19:00	-19.8	-21.0	1.2
2026-01-29 18:20:00	-19.7	-21.0	1.3
2026-01-29 18:21:00	-19.5	-20.9	1.4
2026-01-29 18:22:00	-19.4	-20.8	1.4
2026-01-29 18:23:00	-19.3	-20.8	1.5
2026-01-29 18:24:00	-19.1	-20.6	1.5
2026-01-29 18:25:00	-19.1	-20.5	1.4
2026-01-29 18:26:00	-19.5	-20.6	1.1
2026-01-29 18:27:00	-19.9	-21.2	1.3
2026-01-29 18:28:00	-20.3	-21.6	1.3
2026-01-29 18:29:00	-20.4	-21.5	1.1
2026-01-29 18:30:00	-20.4	-21.3	0.9
2026-01-29 18:31:00	-20.3	-21.2	0.9
2026-01-29 18:32:00	-20.2	-21.0	0.8
2026-01-29 18:33:00	-20.0	-20.8	0.8
2026-01-29 18:34:00	-19.8	-20.7	0.9
2026-01-29 18:35:00	-19.7	-20.6	0.9
2026-01-29 18:36:00	-19.5	-20.5	1.0
2026-01-29 18:37:00	-19.4	-20.5	1.1
2026-01-29 18:38:00	-19.3	-20.4	1.1
2026-01-29 18:39:00	-19.1	-20.3	1.2
2026-01-29 18:40:00	-19.1	-20.2	1.1
2026-01-29 18:41:00	-19.5	-21.3	1.8
2026-01-29 18:42:00	-20.0	-21.9	1.9
2026-01-29 18:43:00	-20.1	-21.8	1.7
2026-01-29 18:44:00	-20.1	-21.7	1.6
2026-01-29 18:45:00	-20.0	-21.6	1.6
2026-01-29 18:46:00	-19.9	-21.3	1.4
2026-01-29 18:47:00	-19.8	-21.0	1.2

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 18:48:00	-19.6	-21.0	1.4
2026-01-29 18:49:00	-19.5	-20.9	1.4
2026-01-29 18:50:00	-19.4	-20.8	1.4
2026-01-29 18:51:00	-19.3	-20.7	1.4
2026-01-29 18:52:00	-19.1	-20.6	1.5
2026-01-29 18:53:00	-19.1	-20.5	1.4
2026-01-29 18:54:00	-19.5	-20.6	1.1
2026-01-29 18:55:00	-20.0	-21.4	1.4
2026-01-29 18:56:00	-20.3	-21.8	1.5
2026-01-29 18:57:00	-20.3	-21.7	1.4
2026-01-29 18:58:00	-20.4	-21.5	1.1
2026-01-29 18:59:00	-20.2	-21.2	1.0
2026-01-29 19:00:00	-20.1	-21.0	0.9
2026-01-29 19:01:00	-19.9	-20.8	0.9
2026-01-29 19:02:00	-19.8	-20.7	0.9
2026-01-29 19:03:00	-19.6	-20.6	1.0
2026-01-29 19:04:00	-19.5	-20.5	1.0
2026-01-29 19:05:00	-19.3	-20.5	1.2
2026-01-29 19:06:00	-19.2	-20.4	1.2
2026-01-29 19:07:00	-19.1	-20.3	1.2
2026-01-29 19:08:00	-19.1	-20.1	1.0
2026-01-29 19:09:00	-19.6	-21.5	1.9
2026-01-29 19:10:00	-20.0	-21.9	1.9
2026-01-29 19:11:00	-20.0	-21.8	1.8
2026-01-29 19:12:00	-20.0	-21.7	1.7
2026-01-29 19:13:00	-19.9	-21.5	1.6
2026-01-29 19:14:00	-19.8	-21.2	1.4
2026-01-29 19:15:00	-19.7	-21.1	1.4
2026-01-29 19:16:00	-19.6	-21.0	1.4
2026-01-29 19:17:00	-19.5	-20.9	1.4

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 19:18:00	-19.4	-20.8	1.4
2026-01-29 19:19:00	-19.3	-20.7	1.4
2026-01-29 19:20:00	-19.1	-20.5	1.4
2026-01-29 19:21:00	-19.1	-20.5	1.4
2026-01-29 19:22:00	-19.6	-20.7	1.1
2026-01-29 19:23:00	-20.1	-21.4	1.3
2026-01-29 19:24:00	-20.3	-21.8	1.5
2026-01-29 19:25:00	-20.3	-21.6	1.3
2026-01-29 19:26:00	-20.3	-21.4	1.1
2026-01-29 19:27:00	-20.3	-21.2	0.9
2026-01-29 19:28:00	-20.1	-21.0	0.9
2026-01-29 19:29:00	-20.0	-20.8	0.8
2026-01-29 19:30:00	-19.8	-20.7	0.9
2026-01-29 19:31:00	-19.6	-20.6	1.0
2026-01-29 19:32:00	-19.5	-20.5	1.0
2026-01-29 19:33:00	-19.4	-20.5	1.1
2026-01-29 19:34:00	-19.2	-20.4	1.2
2026-01-29 19:35:00	-19.1	-20.2	1.1
2026-01-29 19:36:00	-19.1	-20.4	1.3
2026-01-29 19:37:00	-19.5	-21.7	2.2
2026-01-29 19:38:00	-19.9	-21.9	2.0
2026-01-29 19:39:00	-20.0	-21.8	1.8
2026-01-29 19:40:00	-20.0	-21.7	1.7
2026-01-29 19:41:00	-19.9	-21.6	1.7
2026-01-29 19:42:00	-19.8	-21.3	1.5
2026-01-29 19:43:00	-19.7	-21.1	1.4
2026-01-29 19:44:00	-19.6	-21.1	1.5
2026-01-29 19:45:00	-19.5	-21.0	1.5
2026-01-29 19:46:00	-19.4	-20.9	1.5
2026-01-29 19:47:00	-19.3	-20.8	1.5

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 19:48:00	-19.1	-20.7	1.6
2026-01-29 19:49:00	-19.0	-20.6	1.6
2026-01-29 19:50:00	-19.5	-20.7	1.2
2026-01-29 19:51:00	-20.0	-21.1	1.1
2026-01-29 19:52:00	-20.3	-21.6	1.3
2026-01-29 19:53:00	-20.4	-21.6	1.2
2026-01-29 19:54:00	-20.4	-21.5	1.1
2026-01-29 19:55:00	-20.3	-21.3	1.0
2026-01-29 19:56:00	-20.1	-21.1	1.0
2026-01-29 19:57:00	-20.0	-20.9	0.9
2026-01-29 19:58:00	-19.8	-20.7	0.9
2026-01-29 19:59:00	-19.7	-20.6	0.9
2026-01-29 20:00:00	-19.5	-20.6	1.1
2026-01-29 20:01:00	-19.4	-20.5	1.1
2026-01-29 20:02:00	-19.3	-20.4	1.1
2026-01-29 20:03:00	-19.1	-20.3	1.2
2026-01-29 20:04:00	-19.1	-20.1	1.0
2026-01-29 20:05:00	-19.4	-21.3	1.9
2026-01-29 20:06:00	-20.0	-21.9	1.9
2026-01-29 20:07:00	-20.1	-21.8	1.7
2026-01-29 20:08:00	-20.1	-21.7	1.6
2026-01-29 20:09:00	-20.0	-21.6	1.6
2026-01-29 20:10:00	-19.9	-21.3	1.4
2026-01-29 20:11:00	-19.8	-21.0	1.2
2026-01-29 20:12:00	-19.7	-21.0	1.3
2026-01-29 20:13:00	-19.6	-20.9	1.3
2026-01-29 20:14:00	-19.5	-20.8	1.3
2026-01-29 20:15:00	-19.3	-20.7	1.4
2026-01-29 20:16:00	-19.2	-20.7	1.5
2026-01-29 20:17:00	-19.1	-20.5	1.4

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 20:18:00	-19.6	-20.6	1.0
2026-01-29 20:19:00	-20.0	-21.2	1.2
2026-01-29 20:20:00	-20.3	-21.8	1.5
2026-01-29 20:21:00	-20.3	-21.7	1.4
2026-01-29 20:22:00	-20.3	-21.5	1.2
2026-01-29 20:23:00	-20.3	-21.3	1.0
2026-01-29 20:24:00	-20.2	-21.1	0.9
2026-01-29 20:25:00	-20.0	-20.9	0.9
2026-01-29 20:26:00	-19.8	-20.8	1.0
2026-01-29 20:27:00	-19.7	-20.7	1.0
2026-01-29 20:28:00	-19.5	-20.6	1.1
2026-01-29 20:29:00	-19.4	-20.5	1.1
2026-01-29 20:30:00	-19.3	-20.4	1.1
2026-01-29 20:31:00	-19.1	-20.3	1.2
2026-01-29 20:32:00	-19.1	-20.1	1.0
2026-01-29 20:33:00	-19.5	-21.3	1.8
2026-01-29 20:34:00	-20.0	-21.9	1.9
2026-01-29 20:35:00	-20.1	-21.9	1.8
2026-01-29 20:36:00	-20.1	-21.7	1.6
2026-01-29 20:37:00	-20.0	-21.6	1.6
2026-01-29 20:38:00	-19.9	-21.3	1.4
2026-01-29 20:39:00	-19.8	-21.1	1.3
2026-01-29 20:40:00	-19.6	-21.0	1.4
2026-01-29 20:41:00	-19.5	-21.0	1.5
2026-01-29 20:42:00	-19.4	-20.9	1.5
2026-01-29 20:43:00	-19.3	-20.7	1.4
2026-01-29 20:44:00	-19.1	-20.6	1.5
2026-01-29 20:45:00	-19.2	-20.4	1.2
2026-01-29 20:46:00	-19.5	-21.6	2.1
2026-01-29 20:47:00	-20.0	-21.9	1.9

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 20:48:00	-20.1	-21.8	1.7
2026-01-29 20:49:00	-20.1	-21.7	1.6
2026-01-29 20:50:00	-20.0	-21.6	1.6
2026-01-29 20:51:00	-19.9	-21.4	1.5
2026-01-29 20:52:00	-19.7	-21.0	1.3
2026-01-29 20:53:00	-19.6	-21.0	1.4
2026-01-29 20:54:00	-19.5	-20.9	1.4
2026-01-29 20:55:00	-19.4	-20.9	1.5
2026-01-29 20:56:00	-19.3	-20.7	1.4
2026-01-29 20:57:00	-19.1	-20.6	1.5
2026-01-29 20:58:00	-19.2	-20.6	1.4
2026-01-29 20:59:00	-19.5	-20.7	1.2
2026-01-29 21:00:00	-19.9	-21.4	1.5
2026-01-29 21:01:00	-20.3	-21.7	1.4
2026-01-29 21:02:00	-20.4	-21.5	1.1
2026-01-29 21:03:00	-20.4	-21.3	0.9
2026-01-29 21:04:00	-20.2	-21.1	0.9
2026-01-29 21:05:00	-20.1	-20.9	0.8
2026-01-29 21:06:00	-19.9	-20.8	0.9
2026-01-29 21:07:00	-19.8	-20.7	0.9
2026-01-29 21:08:00	-19.6	-20.7	1.1
2026-01-29 21:09:00	-19.5	-20.6	1.1
2026-01-29 21:10:00	-19.4	-20.5	1.1
2026-01-29 21:11:00	-19.2	-20.4	1.2
2026-01-29 21:12:00	-19.1	-20.3	1.2
2026-01-29 21:13:00	-19.3	-20.3	1.0
2026-01-29 21:14:00	-19.7	-20.8	1.1
2026-01-29 21:15:00	-20.2	-21.7	1.5
2026-01-29 21:16:00	-20.4	-21.8	1.4
2026-01-29 21:17:00	-20.4	-21.6	1.2

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 21:18:00	-20.3	-21.4	1.1
2026-01-29 21:19:00	-20.2	-21.2	1.0
2026-01-29 21:20:00	-20.0	-21.0	1.0
2026-01-29 21:21:00	-19.9	-20.8	0.9
2026-01-29 21:22:00	-19.7	-20.7	1.0
2026-01-29 21:23:00	-19.6	-20.5	0.9
2026-01-29 21:24:00	-19.4	-20.4	1.0
2026-01-29 21:25:00	-19.3	-20.3	1.0
2026-01-29 21:26:00	-19.2	-20.1	0.9
2026-01-29 21:27:00	-19.0	-20.0	1.0
2026-01-29 21:28:00	-19.1	-20.5	1.4
2026-01-29 21:29:00	-19.5	-21.8	2.3
2026-01-29 21:30:00	-19.9	-21.9	2.0
2026-01-29 21:31:00	-20.0	-21.8	1.8
2026-01-29 21:32:00	-19.9	-21.7	1.8
2026-01-29 21:33:00	-19.8	-21.6	1.8
2026-01-29 21:34:00	-19.7	-21.2	1.5
2026-01-29 21:35:00	-19.6	-20.9	1.3
2026-01-29 21:36:00	-19.4	-20.7	1.3
2026-01-29 21:37:00	-19.1	-20.5	1.4
2026-01-29 21:38:00	-18.6	-20.3	1.7
2026-01-29 21:39:00	-18.3	-20.1	1.8
2026-01-29 21:40:00	-18.1	-19.4	1.3
2026-01-29 21:41:00	-18.1	-18.9	0.8
2026-01-29 21:42:00	-18.1	-18.9	0.8
2026-01-29 21:43:00	-18.1	-19.3	1.2
2026-01-29 21:44:00	-18.2	-19.9	1.7
2026-01-29 21:45:00	-18.3	-20.3	2.0
2026-01-29 21:46:00	-18.4	-20.7	2.3
2026-01-29 21:47:00	-18.5	-21.2	2.7

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 21:48:00	-18.7	-21.7	3.0
2026-01-29 21:49:00	-18.7	-21.8	3.1
2026-01-29 21:50:00	-18.8	-21.9	3.1
2026-01-29 21:51:00	-18.8	-21.9	3.1
2026-01-29 21:52:00	-18.7	-21.8	3.1
2026-01-29 21:53:00	-18.6	-21.7	3.1
2026-01-29 21:54:00	-18.5	-21.6	3.1
2026-01-29 21:55:00	-18.4	-21.2	2.8
2026-01-29 21:56:00	-18.3	-20.9	2.6
2026-01-29 21:57:00	-18.2	-20.7	2.5
2026-01-29 21:58:00	-18.1	-20.5	2.4
2026-01-29 21:59:00	-18.1	-20.2	2.1
2026-01-29 22:00:00	-18.1	-19.1	1.0
2026-01-29 22:01:00	-18.1	-18.5	0.4
2026-01-29 22:02:00	-18.1	-18.7	0.6
2026-01-29 22:03:00	-18.1	-19.2	1.1
2026-01-29 22:04:00	-18.1	-19.5	1.4
2026-01-29 22:05:00	-18.2	-20.0	1.8
2026-01-29 22:06:00	-18.3	-20.4	2.1
2026-01-29 22:07:00	-18.4	-20.9	2.5
2026-01-29 22:08:00	-18.5	-21.4	2.9
2026-01-29 22:09:00	-18.6	-21.7	3.1
2026-01-29 22:10:00	-18.7	-21.8	3.1
2026-01-29 22:11:00	-18.8	-21.9	3.1
2026-01-29 22:12:00	-19.1	-21.9	2.8
2026-01-29 22:13:00	-19.2	-21.7	2.5
2026-01-29 22:14:00	-19.1	-21.6	2.5
2026-01-29 22:15:00	-19.0	-21.2	2.2
2026-01-29 22:16:00	-18.9	-20.8	1.9
2026-01-29 22:17:00	-18.7	-20.6	1.9

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 22:18:00	-18.6	-20.4	1.8
2026-01-29 22:19:00	-18.4	-20.3	1.9
2026-01-29 22:20:00	-18.3	-19.8	1.5
2026-01-29 22:21:00	-18.3	-19.5	1.2
2026-01-29 22:22:00	-18.8	-20.0	1.2
2026-01-29 22:23:00	-19.4	-20.9	1.5
2026-01-29 22:24:00	-20.0	-21.6	1.6
2026-01-29 22:25:00	-20.2	-21.7	1.5
2026-01-29 22:26:00	-20.2	-21.5	1.3
2026-01-29 22:27:00	-20.1	-21.3	1.2
2026-01-29 22:28:00	-20.1	-21.1	1.0
2026-01-29 22:29:00	-20.0	-20.9	0.9
2026-01-29 22:30:00	-19.8	-20.7	0.9
2026-01-29 22:31:00	-19.7	-20.5	0.8
2026-01-29 22:32:00	-19.5	-20.3	0.8
2026-01-29 22:33:00	-19.4	-20.2	0.8
2026-01-29 22:34:00	-19.2	-20.1	0.9
2026-01-29 22:35:00	-19.1	-19.9	0.8
2026-01-29 22:36:00	-19.1	-20.6	1.5
2026-01-29 22:37:00	-19.5	-21.8	2.3
2026-01-29 22:38:00	-19.9	-21.9	2.0
2026-01-29 22:39:00	-19.9	-21.8	1.9
2026-01-29 22:40:00	-19.8	-21.7	1.9
2026-01-29 22:41:00	-19.8	-21.6	1.8
2026-01-29 22:42:00	-19.7	-21.2	1.5
2026-01-29 22:43:00	-19.6	-21.0	1.4
2026-01-29 22:44:00	-19.5	-20.8	1.3
2026-01-29 22:45:00	-19.4	-20.7	1.3
2026-01-29 22:46:00	-19.3	-20.6	1.3
2026-01-29 22:47:00	-19.2	-20.5	1.3

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 22:48:00	-19.1	-20.3	1.2
2026-01-29 22:49:00	-19.2	-20.8	1.6
2026-01-29 22:50:00	-19.6	-21.9	2.3
2026-01-29 22:51:00	-20.0	-21.9	1.9
2026-01-29 22:52:00	-20.0	-21.8	1.8
2026-01-29 22:53:00	-20.0	-21.7	1.7
2026-01-29 22:54:00	-19.9	-21.6	1.7
2026-01-29 22:55:00	-19.8	-21.2	1.4
2026-01-29 22:56:00	-19.7	-21.0	1.3
2026-01-29 22:57:00	-19.6	-21.0	1.4
2026-01-29 22:58:00	-19.4	-20.9	1.5
2026-01-29 22:59:00	-19.3	-20.8	1.5
2026-01-29 23:00:00	-19.2	-20.7	1.5
2026-01-29 23:01:00	-19.0	-20.5	1.5
2026-01-29 23:02:00	-19.2	-20.6	1.4
2026-01-29 23:03:00	-19.7	-21.0	1.3
2026-01-29 23:04:00	-20.3	-21.6	1.3
2026-01-29 23:05:00	-20.4	-21.7	1.3
2026-01-29 23:06:00	-20.4	-21.5	1.1
2026-01-29 23:07:00	-20.3	-21.3	1.0
2026-01-29 23:08:00	-20.1	-21.0	0.9
2026-01-29 23:09:00	-20.0	-20.9	0.9
2026-01-29 23:10:00	-19.8	-20.7	0.9
2026-01-29 23:11:00	-19.7	-20.7	1.0
2026-01-29 23:12:00	-19.6	-20.6	1.0
2026-01-29 23:13:00	-19.4	-20.5	1.1
2026-01-29 23:14:00	-19.3	-20.4	1.1
2026-01-29 23:15:00	-19.1	-20.3	1.2
2026-01-29 23:16:00	-19.1	-20.1	1.0
2026-01-29 23:17:00	-19.2	-20.8	1.6

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 23:18:00	-19.7	-21.8	2.1
2026-01-29 23:19:00	-20.0	-21.9	1.9
2026-01-29 23:20:00	-20.1	-21.8	1.7
2026-01-29 23:21:00	-20.0	-21.7	1.7
2026-01-29 23:22:00	-19.9	-21.5	1.6
2026-01-29 23:23:00	-19.8	-21.2	1.4
2026-01-29 23:24:00	-19.7	-21.1	1.4
2026-01-29 23:25:00	-19.6	-21.0	1.4
2026-01-29 23:26:00	-19.5	-20.9	1.4
2026-01-29 23:27:00	-19.3	-20.8	1.5
2026-01-29 23:28:00	-19.2	-20.7	1.5
2026-01-29 23:29:00	-19.0	-20.5	1.5
2026-01-29 23:30:00	-19.3	-20.5	1.2
2026-01-29 23:31:00	-19.8	-20.8	1.0
2026-01-29 23:32:00	-20.2	-21.6	1.4
2026-01-29 23:33:00	-20.3	-21.6	1.3
2026-01-29 23:34:00	-20.3	-21.5	1.2
2026-01-29 23:35:00	-20.3	-21.3	1.0
2026-01-29 23:36:00	-20.2	-21.1	0.9
2026-01-29 23:37:00	-20.0	-21.0	1.0
2026-01-29 23:38:00	-19.9	-20.8	0.9
2026-01-29 23:39:00	-19.7	-20.7	1.0
2026-01-29 23:40:00	-19.6	-20.6	1.0
2026-01-29 23:41:00	-19.5	-20.5	1.0
2026-01-29 23:42:00	-19.3	-20.4	1.1
2026-01-29 23:43:00	-19.2	-20.4	1.2
2026-01-29 23:44:00	-19.1	-20.2	1.1
2026-01-29 23:45:00	-19.1	-20.2	1.1
2026-01-29 23:46:00	-19.5	-21.7	2.2
2026-01-29 23:47:00	-19.8	-21.9	2.1

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-29 23:48:00	-20.0	-21.8	1.8
2026-01-29 23:49:00	-19.9	-21.7	1.8
2026-01-29 23:50:00	-19.9	-21.6	1.7
2026-01-29 23:51:00	-19.8	-21.3	1.5
2026-01-29 23:52:00	-19.7	-21.2	1.5
2026-01-29 23:53:00	-19.6	-21.1	1.5
2026-01-29 23:54:00	-19.5	-21.0	1.5
2026-01-29 23:55:00	-19.4	-21.0	1.6
2026-01-29 23:56:00	-19.3	-20.9	1.6
2026-01-29 23:57:00	-19.1	-20.8	1.7
2026-01-29 23:58:00	-19.0	-20.6	1.6
2026-01-29 23:59:00	-19.4	-20.6	1.2
2026-01-30 00:00:00	-19.8	-21.1	1.3
2026-01-30 00:01:00	-20.3	-21.7	1.4
2026-01-30 00:02:00	-20.4	-21.6	1.2
2026-01-30 00:03:00	-20.4	-21.5	1.1
2026-01-30 00:04:00	-20.3	-21.3	1.0
2026-01-30 00:05:00	-20.1	-21.1	1.0
2026-01-30 00:06:00	-20.0	-20.9	0.9
2026-01-30 00:07:00	-19.8	-20.7	0.9
2026-01-30 00:08:00	-19.7	-20.7	1.0
2026-01-30 00:09:00	-19.5	-20.6	1.1
2026-01-30 00:10:00	-19.4	-20.5	1.1
2026-01-30 00:11:00	-19.3	-20.4	1.1
2026-01-30 00:12:00	-19.1	-20.4	1.3
2026-01-30 00:13:00	-19.1	-20.1	1.0
2026-01-30 00:14:00	-19.3	-21.0	1.7
2026-01-30 00:15:00	-19.8	-21.9	2.1
2026-01-30 00:16:00	-19.9	-21.9	2.0
2026-01-30 00:17:00	-20.0	-21.7	1.7

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-30 00:18:00	-19.9	-21.5	1.6
2026-01-30 00:19:00	-19.8	-21.4	1.6
2026-01-30 00:20:00	-19.7	-21.1	1.4
2026-01-30 00:21:00	-19.6	-21.0	1.4
2026-01-30 00:22:00	-19.5	-21.0	1.5
2026-01-30 00:23:00	-19.4	-20.9	1.5
2026-01-30 00:24:00	-19.3	-20.8	1.5
2026-01-30 00:25:00	-19.2	-20.7	1.5
2026-01-30 00:26:00	-19.1	-20.5	1.4
2026-01-30 00:27:00	-19.2	-20.8	1.6
2026-01-30 00:28:00	-19.6	-21.7	2.1
2026-01-30 00:29:00	-20.0	-21.9	1.9
2026-01-30 00:30:00	-20.1	-21.8	1.7
2026-01-30 00:31:00	-20.1	-21.7	1.6
2026-01-30 00:32:00	-20.0	-21.6	1.6
2026-01-30 00:33:00	-19.8	-21.2	1.4
2026-01-30 00:34:00	-19.7	-21.1	1.4
2026-01-30 00:35:00	-19.6	-21.0	1.4
2026-01-30 00:36:00	-19.5	-21.0	1.5
2026-01-30 00:37:00	-19.3	-20.9	1.6
2026-01-30 00:38:00	-19.2	-20.8	1.6
2026-01-30 00:39:00	-19.1	-20.6	1.5
2026-01-30 00:40:00	-19.3	-20.6	1.3
2026-01-30 00:41:00	-19.6	-20.8	1.2
2026-01-30 00:42:00	-20.2	-21.6	1.4
2026-01-30 00:43:00	-20.3	-21.8	1.5
2026-01-30 00:44:00	-20.4	-21.6	1.2
2026-01-30 00:45:00	-20.4	-21.4	1.0
2026-01-30 00:46:00	-20.2	-21.2	1.0
2026-01-30 00:47:00	-20.1	-21.0	0.9

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-30 00:48:00	-19.9	-20.8	0.9
2026-01-30 00:49:00	-19.8	-20.7	0.9
2026-01-30 00:50:00	-19.6	-20.7	1.1
2026-01-30 00:51:00	-19.5	-20.6	1.1
2026-01-30 00:52:00	-19.4	-20.5	1.1
2026-01-30 00:53:00	-19.2	-20.4	1.2
2026-01-30 00:54:00	-19.1	-20.3	1.2
2026-01-30 00:55:00	-19.1	-20.2	1.1
2026-01-30 00:56:00	-19.4	-21.4	2.0
2026-01-30 00:57:00	-20.0	-21.9	1.9
2026-01-30 00:58:00	-20.1	-21.8	1.7
2026-01-30 00:59:00	-20.1	-21.7	1.6
2026-01-30 01:00:00	-20.0	-21.6	1.6
2026-01-30 01:01:00	-19.9	-21.3	1.4
2026-01-30 01:02:00	-19.7	-21.0	1.3
2026-01-30 01:03:00	-19.6	-21.0	1.4
2026-01-30 01:04:00	-19.5	-20.9	1.4
2026-01-30 01:05:00	-19.4	-20.8	1.4
2026-01-30 01:06:00	-19.3	-20.8	1.5
2026-01-30 01:07:00	-19.1	-20.7	1.6
2026-01-30 01:08:00	-19.0	-20.5	1.5
2026-01-30 01:09:00	-19.4	-20.6	1.2
2026-01-30 01:10:00	-19.8	-21.1	1.3
2026-01-30 01:11:00	-20.3	-21.7	1.4
2026-01-30 01:12:00	-20.4	-21.7	1.3
2026-01-30 01:13:00	-20.4	-21.5	1.1
2026-01-30 01:14:00	-20.3	-21.2	0.9
2026-01-30 01:15:00	-20.1	-21.0	0.9
2026-01-30 01:16:00	-20.0	-20.9	0.9
2026-01-30 01:17:00	-19.8	-20.8	1.0

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-30 01:18:00	-19.7	-20.7	1.0
2026-01-30 01:19:00	-19.5	-20.6	1.1
2026-01-30 01:20:00	-19.4	-20.5	1.1
2026-01-30 01:21:00	-19.3	-20.4	1.1
2026-01-30 01:22:00	-19.1	-20.4	1.3
2026-01-30 01:23:00	-19.1	-20.1	1.0
2026-01-30 01:24:00	-19.2	-21.0	1.8
2026-01-30 01:25:00	-19.7	-21.9	2.2
2026-01-30 01:26:00	-20.0	-21.9	1.9
2026-01-30 01:27:00	-20.0	-21.8	1.8
2026-01-30 01:28:00	-20.0	-21.7	1.7
2026-01-30 01:29:00	-19.9	-21.5	1.6
2026-01-30 01:30:00	-19.8	-21.2	1.4
2026-01-30 01:31:00	-19.7	-21.1	1.4
2026-01-30 01:32:00	-19.6	-21.0	1.4
2026-01-30 01:33:00	-19.5	-21.0	1.5
2026-01-30 01:34:00	-19.4	-20.9	1.5
2026-01-30 01:35:00	-19.3	-20.8	1.5
2026-01-30 01:36:00	-19.1	-20.6	1.5
2026-01-30 01:37:00	-19.1	-20.5	1.4
2026-01-30 01:38:00	-19.6	-20.7	1.1
2026-01-30 01:39:00	-20.0	-21.4	1.4
2026-01-30 01:40:00	-20.3	-21.9	1.6
2026-01-30 01:41:00	-20.4	-21.7	1.3
2026-01-30 01:42:00	-20.4	-21.5	1.1
2026-01-30 01:43:00	-20.3	-21.3	1.0
2026-01-30 01:44:00	-20.1	-21.1	1.0
2026-01-30 01:45:00	-20.0	-20.9	0.9
2026-01-30 01:46:00	-19.8	-20.7	0.9
2026-01-30 01:47:00	-19.7	-20.7	1.0

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-30 01:48:00	-19.6	-20.6	1.0
2026-01-30 01:49:00	-19.4	-20.5	1.1
2026-01-30 01:50:00	-19.3	-20.4	1.1
2026-01-30 01:51:00	-19.1	-20.4	1.3
2026-01-30 01:52:00	-19.1	-20.1	1.0
2026-01-30 01:53:00	-19.3	-20.9	1.6
2026-01-30 01:54:00	-19.9	-21.9	2.0
2026-01-30 01:55:00	-20.1	-21.9	1.8
2026-01-30 01:56:00	-20.0	-21.8	1.8
2026-01-30 01:57:00	-20.0	-21.7	1.7
2026-01-30 01:58:00	-19.9	-21.4	1.5
2026-01-30 01:59:00	-19.7	-21.1	1.4
2026-01-30 02:00:00	-19.7	-21.0	1.3
2026-01-30 02:01:00	-19.5	-21.0	1.5
2026-01-30 02:02:00	-19.4	-20.9	1.5
2026-01-30 02:03:00	-19.3	-20.8	1.5
2026-01-30 02:04:00	-19.2	-20.7	1.5
2026-01-30 02:05:00	-19.0	-20.5	1.5
2026-01-30 02:06:00	-19.2	-20.5	1.3
2026-01-30 02:07:00	-19.8	-21.0	1.2
2026-01-30 02:08:00	-20.3	-21.7	1.4
2026-01-30 02:09:00	-20.3	-21.7	1.4
2026-01-30 02:10:00	-20.3	-21.5	1.2
2026-01-30 02:11:00	-20.3	-21.3	1.0
2026-01-30 02:12:00	-20.1	-21.1	1.0
2026-01-30 02:13:00	-20.0	-20.9	0.9
2026-01-30 02:14:00	-19.8	-20.8	1.0
2026-01-30 02:15:00	-19.7	-20.7	1.0
2026-01-30 02:16:00	-19.6	-20.7	1.1
2026-01-30 02:17:00	-19.4	-20.5	1.1

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-30 02:18:00	-19.3	-20.5	1.2
2026-01-30 02:19:00	-19.2	-20.4	1.2
2026-01-30 02:20:00	-19.1	-20.2	1.1
2026-01-30 02:21:00	-19.2	-20.5	1.3
2026-01-30 02:22:00	-19.8	-21.8	2.0
2026-01-30 02:23:00	-20.1	-21.9	1.8
2026-01-30 02:24:00	-20.1	-21.8	1.7
2026-01-30 02:25:00	-20.0	-21.7	1.7
2026-01-30 02:26:00	-19.9	-21.4	1.5
2026-01-30 02:27:00	-19.8	-21.1	1.3
2026-01-30 02:28:00	-19.7	-21.0	1.3
2026-01-30 02:29:00	-19.6	-21.0	1.4
2026-01-30 02:30:00	-19.5	-20.9	1.4
2026-01-30 02:31:00	-19.4	-20.8	1.4
2026-01-30 02:32:00	-19.2	-20.7	1.5
2026-01-30 02:33:00	-19.1	-20.7	1.6
2026-01-30 02:34:00	-19.1	-20.6	1.5
2026-01-30 02:35:00	-19.6	-20.7	1.1
2026-01-30 02:36:00	-20.1	-21.5	1.4
2026-01-30 02:37:00	-20.4	-21.6	1.2
2026-01-30 02:38:00	-20.4	-21.5	1.1
2026-01-30 02:39:00	-20.3	-21.3	1.0
2026-01-30 02:40:00	-20.2	-21.1	0.9
2026-01-30 02:41:00	-20.1	-20.9	0.8
2026-01-30 02:42:00	-19.9	-20.8	0.9
2026-01-30 02:43:00	-19.8	-20.7	0.9
2026-01-30 02:44:00	-19.6	-20.7	1.1
2026-01-30 02:45:00	-19.5	-20.6	1.1
2026-01-30 02:46:00	-19.3	-20.5	1.2
2026-01-30 02:47:00	-19.2	-20.4	1.2

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-30 02:48:00	-19.1	-20.3	1.2
2026-01-30 02:49:00	-19.0	-20.1	1.1
2026-01-30 02:50:00	-19.4	-21.3	1.9
2026-01-30 02:51:00	-19.9	-21.9	2.0
2026-01-30 02:52:00	-20.1	-21.9	1.8
2026-01-30 02:53:00	-20.0	-21.7	1.7
2026-01-30 02:54:00	-20.0	-21.6	1.6
2026-01-30 02:55:00	-19.8	-21.3	1.5
2026-01-30 02:56:00	-19.7	-21.0	1.3
2026-01-30 02:57:00	-19.6	-21.0	1.4
2026-01-30 02:58:00	-19.5	-20.9	1.4
2026-01-30 02:59:00	-19.4	-20.8	1.4
2026-01-30 03:00:00	-19.3	-20.7	1.4
2026-01-30 03:01:00	-19.1	-20.7	1.6
2026-01-30 03:02:00	-19.1	-20.4	1.3
2026-01-30 03:03:00	-19.5	-21.1	1.6
2026-01-30 03:04:00	-19.8	-21.9	2.1
2026-01-30 03:05:00	-20.1	-21.9	1.8
2026-01-30 03:06:00	-20.1	-21.8	1.7
2026-01-30 03:07:00	-20.0	-21.7	1.7
2026-01-30 03:08:00	-19.9	-21.4	1.5
2026-01-30 03:09:00	-19.8	-21.1	1.3
2026-01-30 03:10:00	-19.7	-21.0	1.3
2026-01-30 03:11:00	-19.6	-21.0	1.4
2026-01-30 03:12:00	-19.4	-20.9	1.5
2026-01-30 03:13:00	-19.3	-20.8	1.5
2026-01-30 03:14:00	-19.1	-20.7	1.6
2026-01-30 03:15:00	-19.1	-20.6	1.5
2026-01-30 03:16:00	-19.3	-20.7	1.4
2026-01-30 03:17:00	-19.8	-21.2	1.4

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-30 03:18:00	-20.3	-21.8	1.5
2026-01-30 03:19:00	-20.3	-21.7	1.4
2026-01-30 03:20:00	-20.3	-21.5	1.2
2026-01-30 03:21:00	-20.3	-21.3	1.0
2026-01-30 03:22:00	-20.1	-21.1	1.0
2026-01-30 03:23:00	-20.0	-21.0	1.0
2026-01-30 03:24:00	-19.8	-20.8	1.0
2026-01-30 03:25:00	-19.7	-20.7	1.0
2026-01-30 03:26:00	-19.6	-20.7	1.1
2026-01-30 03:27:00	-19.5	-20.6	1.1
2026-01-30 03:28:00	-19.3	-20.5	1.2
2026-01-30 03:29:00	-19.2	-20.4	1.2
2026-01-30 03:30:00	-19.1	-20.3	1.2
2026-01-30 03:31:00	-19.4	-20.4	1.0
2026-01-30 03:32:00	-19.8	-21.0	1.2
2026-01-30 03:33:00	-19.8	-21.6	1.8
2026-01-30 03:34:00	-19.4	-21.9	2.5
2026-01-30 03:35:00	-19.3	-21.9	2.6
2026-01-30 03:36:00	-19.0	-21.7	2.7
2026-01-30 03:37:00	-18.7	-21.4	2.7
2026-01-30 03:38:00	-18.6	-21.1	2.5
2026-01-30 03:39:00	-18.5	-20.9	2.4
2026-01-30 03:40:00	-18.4	-20.7	2.3
2026-01-30 03:41:00	-18.3	-20.5	2.2
2026-01-30 03:42:00	-18.2	-20.3	2.1
2026-01-30 03:43:00	-18.1	-20.0	1.9
2026-01-30 03:44:00	-18.1	-19.2	1.1
2026-01-30 03:45:00	-18.1	-18.9	0.8
2026-01-30 03:46:00	-18.2	-19.6	1.4
2026-01-30 03:47:00	-18.2	-20.2	2.0

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-30 03:48:00	-18.3	-20.9	2.6
2026-01-30 03:49:00	-18.3	-21.6	3.3
2026-01-30 03:50:00	-18.4	-21.9	3.5
2026-01-30 03:51:00	-18.5	-21.1	2.6
2026-01-30 03:52:00	-18.6	-20.8	2.2
2026-01-30 03:53:00	-18.8	-21.0	2.2
2026-01-30 03:54:00	-19.1	-21.3	2.2
2026-01-30 03:55:00	-19.4	-21.7	2.3
2026-01-30 03:56:00	-19.7	-21.9	2.2
2026-01-30 03:57:00	-19.5	-21.9	2.4
2026-01-30 03:58:00	-19.2	-21.9	2.7
2026-01-30 03:59:00	-19.0	-21.8	2.8
2026-01-30 04:00:00	-18.8	-21.7	2.9
2026-01-30 04:01:00	-18.4	-21.7	3.3
2026-01-30 04:02:00	-18.4	-21.7	3.3
2026-01-30 04:03:00	-18.5	-21.8	3.3
2026-01-30 04:04:00	-18.7	-21.9	3.2
2026-01-30 04:05:00	-18.9	-21.9	3.0
2026-01-30 04:06:00	-19.1	-21.8	2.7
2026-01-30 04:07:00	-19.2	-21.7	2.5
2026-01-30 04:08:00	-19.1	-21.6	2.5
2026-01-30 04:09:00	-18.9	-21.2	2.3
2026-01-30 04:10:00	-18.7	-21.1	2.4
2026-01-30 04:11:00	-18.6	-20.9	2.3
2026-01-30 04:12:00	-18.5	-20.7	2.2
2026-01-30 04:13:00	-18.4	-20.6	2.2
2026-01-30 04:14:00	-18.3	-20.4	2.1
2026-01-30 04:15:00	-18.2	-20.3	2.1
2026-01-30 04:16:00	-18.1	-19.6	1.5
2026-01-30 04:17:00	-18.2	-19.4	1.2

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-30 04:18:00	-18.4	-19.9	1.5
2026-01-30 04:19:00	-19.1	-20.8	1.7
2026-01-30 04:20:00	-19.9	-21.6	1.7
2026-01-30 04:21:00	-20.1	-21.6	1.5
2026-01-30 04:22:00	-20.1	-21.4	1.3
2026-01-30 04:23:00	-20.1	-21.2	1.1
2026-01-30 04:24:00	-19.9	-21.0	1.1
2026-01-30 04:25:00	-19.8	-20.7	0.9
2026-01-30 04:26:00	-19.6	-20.6	1.0
2026-01-30 04:27:00	-19.5	-20.4	0.9
2026-01-30 04:28:00	-19.4	-20.3	0.9
2026-01-30 04:29:00	-19.2	-20.2	1.0
2026-01-30 04:30:00	-19.1	-20.1	1.0
2026-01-30 04:31:00	-19.0	-19.9	0.9
2026-01-30 04:32:00	-19.5	-20.3	0.8
2026-01-30 04:33:00	-19.9	-21.1	1.2
2026-01-30 04:34:00	-20.2	-21.8	1.6
2026-01-30 04:35:00	-20.3	-21.9	1.6
2026-01-30 04:36:00	-20.4	-21.7	1.3
2026-01-30 04:37:00	-20.3	-21.5	1.2
2026-01-30 04:38:00	-20.1	-21.3	1.2
2026-01-30 04:39:00	-20.0	-21.0	1.0
2026-01-30 04:40:00	-19.8	-20.9	1.1
2026-01-30 04:41:00	-19.7	-20.7	1.0
2026-01-30 04:42:00	-19.6	-20.5	0.9
2026-01-30 04:43:00	-19.4	-20.4	1.0
2026-01-30 04:44:00	-19.3	-20.3	1.0
2026-01-30 04:45:00	-19.1	-20.1	1.0
2026-01-30 04:46:00	-19.0	-19.9	0.9
2026-01-30 04:47:00	-19.2	-20.7	1.5

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-30 04:48:00	-19.7	-21.8	2.1
2026-01-30 04:49:00	-20.0	-21.9	1.9
2026-01-30 04:50:00	-20.0	-21.8	1.8
2026-01-30 04:51:00	-20.0	-21.7	1.7
2026-01-30 04:52:00	-19.9	-21.3	1.4
2026-01-30 04:53:00	-19.7	-21.1	1.4
2026-01-30 04:54:00	-19.6	-20.8	1.2
2026-01-30 04:55:00	-19.5	-20.7	1.2
2026-01-30 04:56:00	-19.4	-20.7	1.3
2026-01-30 04:57:00	-19.3	-20.6	1.3
2026-01-30 04:58:00	-19.2	-20.5	1.3
2026-01-30 04:59:00	-19.1	-20.3	1.2
2026-01-30 05:00:00	-19.2	-20.7	1.5
2026-01-30 05:01:00	-19.6	-21.8	2.2
2026-01-30 05:02:00	-19.9	-21.9	2.0
2026-01-30 05:03:00	-20.0	-21.9	1.9
2026-01-30 05:04:00	-20.0	-21.7	1.7
2026-01-30 05:05:00	-19.9	-21.6	1.7
2026-01-30 05:06:00	-19.8	-21.3	1.5
2026-01-30 05:07:00	-19.7	-21.0	1.3
2026-01-30 05:08:00	-19.6	-21.0	1.4
2026-01-30 05:09:00	-19.5	-20.9	1.4
2026-01-30 05:10:00	-19.4	-20.8	1.4
2026-01-30 05:11:00	-19.2	-20.7	1.5
2026-01-30 05:12:00	-19.1	-20.6	1.5
2026-01-30 05:13:00	-19.2	-20.5	1.3
2026-01-30 05:14:00	-19.6	-20.7	1.1
2026-01-30 05:15:00	-20.1	-21.5	1.4
2026-01-30 05:16:00	-20.4	-21.7	1.3
2026-01-30 05:17:00	-20.4	-21.5	1.1

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-30 05:18:00	-20.4	-21.4	1.0
2026-01-30 05:19:00	-20.3	-21.2	0.9
2026-01-30 05:20:00	-20.1	-21.0	0.9
2026-01-30 05:21:00	-20.0	-20.8	0.8
2026-01-30 05:22:00	-19.8	-20.7	0.9
2026-01-30 05:23:00	-19.7	-20.6	0.9
2026-01-30 05:24:00	-19.6	-20.5	0.9
2026-01-30 05:25:00	-19.4	-20.4	1.0
2026-01-30 05:26:00	-19.3	-20.4	1.1
2026-01-30 05:27:00	-19.1	-20.3	1.2
2026-01-30 05:28:00	-19.1	-20.1	1.0
2026-01-30 05:29:00	-19.3	-21.2	1.9
2026-01-30 05:30:00	-19.8	-21.9	2.1
2026-01-30 05:31:00	-20.0	-21.9	1.9
2026-01-30 05:32:00	-20.0	-21.7	1.7
2026-01-30 05:33:00	-19.9	-21.6	1.7
2026-01-30 05:34:00	-19.8	-21.4	1.6
2026-01-30 05:35:00	-19.7	-21.1	1.4
2026-01-30 05:36:00	-19.6	-21.0	1.4
2026-01-30 05:37:00	-19.5	-21.0	1.5
2026-01-30 05:38:00	-19.4	-20.9	1.5
2026-01-30 05:39:00	-19.3	-20.8	1.5
2026-01-30 05:40:00	-19.2	-20.7	1.5
2026-01-30 05:41:00	-19.0	-20.5	1.5
2026-01-30 05:42:00	-19.2	-20.5	1.3
2026-01-30 05:43:00	-19.7	-20.8	1.1
2026-01-30 05:44:00	-20.2	-21.6	1.4
2026-01-30 05:45:00	-20.4	-21.6	1.2
2026-01-30 05:46:00	-20.4	-21.5	1.1
2026-01-30 05:47:00	-20.4	-21.3	0.9

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-30 05:48:00	-20.2	-21.1	0.9
2026-01-30 05:49:00	-20.1	-20.9	0.8
2026-01-30 05:50:00	-19.9	-20.8	0.9
2026-01-30 05:51:00	-19.8	-20.7	0.9
2026-01-30 05:52:00	-19.6	-20.6	1.0
2026-01-30 05:53:00	-19.5	-20.5	1.0
2026-01-30 05:54:00	-19.3	-20.4	1.1
2026-01-30 05:55:00	-19.2	-20.4	1.2
2026-01-30 05:56:00	-19.1	-20.3	1.2
2026-01-30 05:57:00	-19.1	-20.3	1.2
2026-01-30 05:58:00	-19.5	-21.5	2.0
2026-01-30 05:59:00	-19.9	-21.9	2.0
2026-01-30 06:00:00	-20.0	-21.8	1.8
2026-01-30 06:01:00	-20.0	-21.7	1.7
2026-01-30 06:02:00	-20.0	-21.6	1.6
2026-01-30 06:03:00	-19.9	-21.3	1.4
2026-01-30 06:04:00	-19.8	-21.1	1.3
2026-01-30 06:05:00	-19.6	-21.0	1.4
2026-01-30 06:06:00	-19.5	-20.9	1.4
2026-01-30 06:07:00	-19.4	-20.8	1.4
2026-01-30 06:08:00	-19.3	-20.8	1.5
2026-01-30 06:09:00	-19.2	-20.7	1.5
2026-01-30 06:10:00	-19.0	-20.5	1.5
2026-01-30 06:11:00	-19.3	-20.6	1.3
2026-01-30 06:12:00	-19.8	-20.9	1.1
2026-01-30 06:13:00	-20.3	-21.7	1.4
2026-01-30 06:14:00	-20.4	-21.7	1.3
2026-01-30 06:15:00	-20.4	-21.6	1.2
2026-01-30 06:16:00	-20.4	-21.4	1.0
2026-01-30 06:17:00	-20.3	-21.2	0.9

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-30 06:18:00	-20.1	-21.0	0.9
2026-01-30 06:19:00	-20.0	-20.8	0.8
2026-01-30 06:20:00	-19.8	-20.7	0.9
2026-01-30 06:21:00	-19.7	-20.7	1.0
2026-01-30 06:22:00	-19.5	-20.6	1.1
2026-01-30 06:23:00	-19.4	-20.5	1.1
2026-01-30 06:24:00	-19.3	-20.4	1.1
2026-01-30 06:25:00	-19.1	-20.4	1.3
2026-01-30 06:26:00	-19.1	-20.1	1.0
2026-01-30 06:27:00	-19.3	-21.2	1.9
2026-01-30 06:28:00	-19.9	-21.9	2.0
2026-01-30 06:29:00	-20.0	-21.8	1.8
2026-01-30 06:30:00	-20.0	-21.7	1.7
2026-01-30 06:31:00	-20.0	-21.6	1.6
2026-01-30 06:32:00	-19.8	-21.3	1.5
2026-01-30 06:33:00	-19.7	-21.2	1.5
2026-01-30 06:34:00	-19.6	-21.1	1.5
2026-01-30 06:35:00	-19.5	-21.1	1.6
2026-01-30 06:36:00	-19.4	-21.0	1.6
2026-01-30 06:37:00	-19.3	-20.9	1.6
2026-01-30 06:38:00	-19.2	-20.7	1.5
2026-01-30 06:39:00	-19.0	-20.6	1.6
2026-01-30 06:40:00	-19.2	-20.6	1.4
2026-01-30 06:41:00	-19.7	-20.8	1.1
2026-01-30 06:42:00	-20.2	-21.6	1.4
2026-01-30 06:43:00	-20.3	-21.6	1.3
2026-01-30 06:44:00	-20.3	-21.5	1.2
2026-01-30 06:45:00	-20.3	-21.2	0.9
2026-01-30 06:46:00	-20.1	-21.0	0.9
2026-01-30 06:47:00	-20.0	-20.9	0.9

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-30 06:48:00	-19.9	-20.7	0.8
2026-01-30 06:49:00	-19.7	-20.7	1.0
2026-01-30 06:50:00	-19.6	-20.6	1.0
2026-01-30 06:51:00	-19.5	-20.5	1.0
2026-01-30 06:52:00	-19.3	-20.4	1.1
2026-01-30 06:53:00	-19.2	-20.4	1.2
2026-01-30 06:54:00	-19.1	-20.2	1.1
2026-01-30 06:55:00	-19.1	-20.5	1.4
2026-01-30 06:56:00	-19.6	-21.8	2.2
2026-01-30 06:57:00	-20.0	-21.9	1.9
2026-01-30 06:58:00	-20.1	-21.8	1.7
2026-01-30 06:59:00	-20.0	-21.7	1.7
2026-01-30 07:00:00	-20.0	-21.6	1.6
2026-01-30 07:01:00	-19.8	-21.3	1.5
2026-01-30 07:02:00	-19.7	-21.0	1.3
2026-01-30 07:03:00	-19.6	-20.9	1.3
2026-01-30 07:04:00	-19.5	-20.8	1.3
2026-01-30 07:05:00	-19.3	-20.7	1.4
2026-01-30 07:06:00	-19.2	-20.7	1.5
2026-01-30 07:07:00	-19.1	-20.5	1.4
2026-01-30 07:08:00	-19.1	-20.5	1.4
2026-01-30 07:09:00	-19.5	-21.7	2.2
2026-01-30 07:10:00	-20.0	-21.9	1.9
2026-01-30 07:11:00	-20.1	-21.8	1.7
2026-01-30 07:12:00	-20.1	-21.7	1.6
2026-01-30 07:13:00	-20.0	-21.6	1.6
2026-01-30 07:14:00	-19.9	-21.5	1.6
2026-01-30 07:15:00	-19.8	-21.2	1.4
2026-01-30 07:16:00	-19.7	-21.0	1.3
2026-01-30 07:17:00	-19.6	-21.0	1.4

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-30 07:18:00	-19.5	-20.9	1.4
2026-01-30 07:19:00	-19.3	-20.8	1.5
2026-01-30 07:20:00	-19.2	-20.7	1.5
2026-01-30 07:21:00	-19.0	-20.6	1.6
2026-01-30 07:22:00	-19.2	-20.6	1.4
2026-01-30 07:23:00	-19.6	-20.9	1.3
2026-01-30 07:24:00	-20.2	-21.6	1.4
2026-01-30 07:25:00	-20.4	-21.6	1.2
2026-01-30 07:26:00	-20.4	-21.5	1.1
2026-01-30 07:27:00	-20.3	-21.3	1.0
2026-01-30 07:28:00	-20.1	-21.1	1.0
2026-01-30 07:29:00	-20.0	-20.9	0.9
2026-01-30 07:30:00	-19.8	-20.8	1.0
2026-01-30 07:31:00	-19.7	-20.7	1.0
2026-01-30 07:32:00	-19.5	-20.7	1.2
2026-01-30 07:33:00	-19.4	-20.6	1.2
2026-01-30 07:34:00	-19.3	-20.5	1.2
2026-01-30 07:35:00	-19.2	-20.4	1.2
2026-01-30 07:36:00	-19.0	-20.3	1.3
2026-01-30 07:37:00	-19.3	-20.3	1.0
2026-01-30 07:38:00	-19.8	-20.9	1.1
2026-01-30 07:39:00	-20.3	-21.6	1.3
2026-01-30 07:40:00	-20.4	-21.8	1.4
2026-01-30 07:41:00	-20.4	-21.6	1.2
2026-01-30 07:42:00	-20.4	-21.4	1.0
2026-01-30 07:43:00	-20.2	-21.2	1.0
2026-01-30 07:44:00	-20.1	-21.0	0.9
2026-01-30 07:45:00	-19.9	-20.8	0.9
2026-01-30 07:46:00	-19.8	-20.7	0.9
2026-01-30 07:47:00	-19.6	-20.5	0.9

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-30 07:48:00	-19.5	-20.4	0.9
2026-01-30 07:49:00	-19.4	-20.3	0.9
2026-01-30 07:50:00	-19.2	-20.2	1.0
2026-01-30 07:51:00	-19.1	-20.2	1.1
2026-01-30 07:52:00	-19.0	-20.0	1.0
2026-01-30 07:53:00	-19.3	-21.1	1.8
2026-01-30 07:54:00	-19.9	-21.9	2.0
2026-01-30 07:55:00	-20.0	-21.9	1.9
2026-01-30 07:56:00	-20.0	-21.7	1.7
2026-01-30 07:57:00	-19.9	-21.6	1.7
2026-01-30 07:58:00	-19.8	-21.3	1.5
2026-01-30 07:59:00	-19.7	-21.1	1.4
2026-01-30 08:00:00	-19.6	-21.0	1.4
2026-01-30 08:01:00	-19.5	-21.0	1.5
2026-01-30 08:02:00	-19.4	-20.9	1.5
2026-01-30 08:03:00	-19.3	-20.8	1.5
2026-01-30 08:04:00	-19.2	-20.7	1.5
2026-01-30 08:05:00	-19.1	-20.6	1.5
2026-01-30 08:06:00	-19.1	-20.5	1.4
2026-01-30 08:07:00	-19.5	-21.6	2.1
2026-01-30 08:08:00	-20.0	-21.9	1.9
2026-01-30 08:09:00	-20.1	-21.9	1.8
2026-01-30 08:10:00	-20.0	-21.8	1.8
2026-01-30 08:11:00	-20.0	-21.6	1.6
2026-01-30 08:12:00	-19.8	-21.4	1.6
2026-01-30 08:13:00	-19.7	-21.3	1.6
2026-01-30 08:14:00	-19.6	-21.2	1.6
2026-01-30 08:15:00	-19.5	-21.1	1.6
2026-01-30 08:16:00	-19.3	-21.0	1.7
2026-01-30 08:17:00	-19.2	-21.0	1.8

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-30 08:18:00	-19.1	-20.8	1.7
2026-01-30 08:19:00	-19.0	-20.6	1.6
2026-01-30 08:20:00	-19.3	-20.7	1.4
2026-01-30 08:21:00	-19.7	-21.1	1.4
2026-01-30 08:22:00	-20.3	-21.7	1.4
2026-01-30 08:23:00	-20.4	-21.6	1.2
2026-01-30 08:24:00	-20.4	-21.4	1.0
2026-01-30 08:25:00	-20.2	-21.2	1.0
2026-01-30 08:26:00	-20.1	-21.0	0.9
2026-01-30 08:27:00	-19.9	-20.9	1.0
2026-01-30 08:28:00	-19.8	-20.8	1.0
2026-01-30 08:29:00	-19.6	-20.7	1.1
2026-01-30 08:30:00	-19.5	-20.6	1.1
2026-01-30 08:31:00	-19.4	-20.5	1.1
2026-01-30 08:32:00	-19.2	-20.5	1.3
2026-01-30 08:33:00	-19.1	-20.4	1.3
2026-01-30 08:34:00	-19.0	-20.2	1.2
2026-01-30 08:35:00	-19.1	-20.5	1.4
2026-01-30 08:36:00	-19.6	-21.9	2.3
2026-01-30 08:37:00	-19.9	-21.9	2.0
2026-01-30 08:38:00	-20.0	-21.8	1.8
2026-01-30 08:39:00	-19.9	-21.7	1.8
2026-01-30 08:40:00	-19.8	-21.6	1.8
2026-01-30 08:41:00	-19.7	-21.2	1.5
2026-01-30 08:42:00	-19.7	-21.1	1.4
2026-01-30 08:43:00	-19.6	-21.0	1.4
2026-01-30 08:44:00	-19.5	-21.0	1.5
2026-01-30 08:45:00	-19.3	-20.9	1.6
2026-01-30 08:46:00	-19.2	-20.8	1.6
2026-01-30 08:47:00	-19.1	-20.7	1.6

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-30 08:48:00	-18.9	-20.5	1.6
2026-01-30 08:49:00	-19.3	-20.6	1.3
2026-01-30 08:50:00	-19.9	-21.1	1.2
2026-01-30 08:51:00	-20.3	-21.8	1.5
2026-01-30 08:52:00	-20.4	-21.6	1.2
2026-01-30 08:53:00	-20.4	-21.5	1.1
2026-01-30 08:54:00	-20.3	-21.3	1.0
2026-01-30 08:55:00	-20.1	-21.1	1.0
2026-01-30 08:56:00	-20.0	-20.9	0.9
2026-01-30 08:57:00	-19.8	-20.8	1.0
2026-01-30 08:58:00	-19.7	-20.7	1.0
2026-01-30 08:59:00	-19.5	-20.6	1.1
2026-01-30 09:00:00	-19.4	-20.6	1.2
2026-01-30 09:01:00	-19.3	-20.5	1.2
2026-01-30 09:02:00	-19.1	-20.4	1.3
2026-01-30 09:03:00	-19.0	-20.3	1.3
2026-01-30 09:04:00	-19.0	-20.3	1.3
2026-01-30 09:05:00	-19.4	-21.6	2.2
2026-01-30 09:06:00	-19.9	-21.9	2.0
2026-01-30 09:07:00	-20.0	-21.8	1.8
2026-01-30 09:08:00	-20.0	-21.7	1.7
2026-01-30 09:09:00	-19.9	-21.6	1.7
2026-01-30 09:10:00	-19.8	-21.3	1.5
2026-01-30 09:11:00	-19.7	-21.1	1.4
2026-01-30 09:12:00	-19.6	-21.0	1.4
2026-01-30 09:13:00	-19.5	-21.0	1.5
2026-01-30 09:14:00	-19.4	-20.9	1.5
2026-01-30 09:15:00	-19.3	-20.8	1.5
2026-01-30 09:16:00	-19.1	-20.7	1.6
2026-01-30 09:17:00	-19.0	-20.5	1.5

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-30 09:18:00	-19.3	-20.6	1.3
2026-01-30 09:19:00	-19.8	-21.0	1.2
2026-01-30 09:20:00	-20.3	-21.6	1.3
2026-01-30 09:21:00	-20.4	-21.6	1.2
2026-01-30 09:22:00	-20.4	-21.5	1.1
2026-01-30 09:23:00	-20.4	-21.3	0.9
2026-01-30 09:24:00	-20.2	-21.1	0.9
2026-01-30 09:25:00	-20.0	-20.9	0.9
2026-01-30 09:26:00	-19.9	-20.8	0.9
2026-01-30 09:27:00	-19.7	-20.7	1.0
2026-01-30 09:28:00	-19.6	-20.7	1.1
2026-01-30 09:29:00	-19.5	-20.6	1.1
2026-01-30 09:30:00	-19.3	-20.4	1.1
2026-01-30 09:31:00	-19.2	-20.3	1.1
2026-01-30 09:32:00	-19.0	-20.0	1.0
2026-01-30 09:33:00	-18.8	-19.9	1.1
2026-01-30 09:34:00	-18.3	-20.3	2.0
2026-01-30 09:35:00	-18.2	-20.9	2.7
2026-01-30 09:36:00	-18.1	-21.2	3.1
2026-01-30 09:37:00	-18.2	-21.4	3.2
2026-01-30 09:38:00	-18.3	-21.5	3.2
2026-01-30 09:39:00	-18.1	-21.6	3.5
2026-01-30 09:40:00	-18.2	-21.6	3.4
2026-01-30 09:41:00	-18.3	-21.7	3.4
2026-01-30 09:42:00	-18.5	-21.8	3.3
2026-01-30 09:43:00	-18.7	-21.9	3.2
2026-01-30 09:44:00	-18.7	-21.9	3.2
2026-01-30 09:45:00	-18.8	-21.9	3.1
2026-01-30 09:46:00	-18.8	-21.8	3.0
2026-01-30 09:47:00	-18.7	-21.8	3.1

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-30 09:48:00	-18.6	-21.5	2.9
2026-01-30 09:49:00	-18.5	-21.3	2.8
2026-01-30 09:50:00	-18.4	-21.1	2.7
2026-01-30 09:51:00	-18.3	-20.9	2.6
2026-01-30 09:52:00	-18.2	-20.7	2.5
2026-01-30 09:53:00	-18.1	-20.5	2.4
2026-01-30 09:54:00	-18.1	-20.3	2.2
2026-01-30 09:55:00	-18.1	-19.7	1.6
2026-01-30 09:56:00	-18.1	-18.8	0.7
2026-01-30 09:57:00	-18.1	-18.5	0.4
2026-01-30 09:58:00	-18.1	-18.8	0.7
2026-01-30 09:59:00	-18.1	-19.3	1.2
2026-01-30 10:00:00	-18.1	-19.7	1.6
2026-01-30 10:01:00	-18.1	-19.9	1.8
2026-01-30 10:02:00	-18.2	-20.1	1.9
2026-01-30 10:03:00	-18.3	-20.6	2.3
2026-01-30 10:04:00	-18.1	-21.0	2.9
2026-01-30 10:05:00	-18.5	-21.3	2.8
2026-01-30 10:06:00	-18.6	-21.7	3.1
2026-01-30 10:07:00	-18.7	-21.8	3.1
2026-01-30 10:08:00	-18.8	-21.9	3.1
2026-01-30 10:09:00	-19.1	-21.8	2.7
2026-01-30 10:10:00	-19.2	-21.7	2.5
2026-01-30 10:11:00	-19.1	-21.6	2.5
2026-01-30 10:12:00	-19.0	-21.0	2.0
2026-01-30 10:13:00	-18.7	-20.8	2.1
2026-01-30 10:14:00	-18.5	-20.6	2.1
2026-01-30 10:15:00	-18.3	-20.4	2.1
2026-01-30 10:16:00	-18.2	-20.3	2.1
2026-01-30 10:17:00	-18.1	-20.2	2.1

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-30 10:18:00	-18.1	-19.6	1.5
2026-01-30 10:19:00	-18.2	-19.5	1.3
2026-01-30 10:20:00	-18.7	-20.2	1.5
2026-01-30 10:21:00	-19.4	-21.0	1.6
2026-01-30 10:22:00	-20.1	-21.7	1.6
2026-01-30 10:23:00	-20.2	-21.6	1.4
2026-01-30 10:24:00	-20.2	-21.5	1.3
2026-01-30 10:25:00	-20.1	-21.2	1.1
2026-01-30 10:26:00	-20.0	-21.0	1.0
2026-01-30 10:27:00	-19.9	-20.8	0.9
2026-01-30 10:28:00	-19.7	-20.6	0.9
2026-01-30 10:29:00	-19.6	-20.4	0.8
2026-01-30 10:30:00	-19.4	-20.3	0.9
2026-01-30 10:31:00	-19.3	-20.2	0.9
2026-01-30 10:32:00	-19.1	-20.1	1.0
2026-01-30 10:33:00	-19.0	-19.8	0.8
2026-01-30 10:34:00	-19.2	-20.6	1.4
2026-01-30 10:35:00	-19.7	-21.8	2.1
2026-01-30 10:36:00	-20.1	-21.9	1.8
2026-01-30 10:37:00	-20.1	-21.8	1.7
2026-01-30 10:38:00	-20.0	-21.7	1.7
2026-01-30 10:39:00	-20.0	-21.5	1.5
2026-01-30 10:40:00	-19.8	-21.1	1.3
2026-01-30 10:41:00	-19.7	-20.9	1.2
2026-01-30 10:42:00	-19.6	-20.7	1.1
2026-01-30 10:43:00	-19.5	-20.5	1.0
2026-01-30 10:44:00	-19.3	-20.5	1.2
2026-01-30 10:45:00	-19.2	-20.4	1.2
2026-01-30 10:46:00	-19.1	-20.2	1.1
2026-01-30 10:47:00	-19.3	-20.7	1.4

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-30 10:48:00	-19.7	-21.9	2.2
2026-01-30 10:49:00	-20.0	-21.9	1.9
2026-01-30 10:50:00	-20.1	-21.8	1.7
2026-01-30 10:51:00	-20.1	-21.7	1.6
2026-01-30 10:52:00	-20.0	-21.6	1.6
2026-01-30 10:53:00	-19.9	-21.3	1.4
2026-01-30 10:54:00	-19.7	-21.0	1.3
2026-01-30 10:55:00	-19.6	-20.9	1.3
2026-01-30 10:56:00	-19.5	-20.9	1.4
2026-01-30 10:57:00	-19.4	-20.8	1.4
2026-01-30 10:58:00	-19.2	-20.7	1.5
2026-01-30 10:59:00	-19.1	-20.6	1.5
2026-01-30 11:00:00	-18.9	-20.4	1.5
2026-01-30 11:01:00	-19.2	-20.5	1.3
2026-01-30 11:02:00	-19.6	-20.9	1.3
2026-01-30 11:03:00	-20.2	-21.7	1.5
2026-01-30 11:04:00	-20.3	-21.7	1.4
2026-01-30 11:05:00	-20.4	-21.5	1.1
2026-01-30 11:06:00	-20.3	-21.2	0.9
2026-01-30 11:07:00	-20.1	-21.0	0.9
2026-01-30 11:08:00	-20.0	-20.9	0.9
2026-01-30 11:09:00	-19.8	-20.7	0.9
2026-01-30 11:10:00	-19.7	-20.6	0.9
2026-01-30 11:11:00	-19.6	-20.5	0.9
2026-01-30 11:12:00	-19.4	-20.4	1.0
2026-01-30 11:13:00	-19.3	-20.2	0.9
2026-01-30 11:14:00	-19.1	-20.1	1.0
2026-01-30 11:15:00	-18.8	-19.9	1.1
2026-01-30 11:16:00	-18.6	-20.0	1.4
2026-01-30 11:17:00	-18.5	-20.3	1.8

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-30 11:18:00	-18.4	-20.6	2.2
2026-01-30 11:19:00	-18.3	-20.8	2.5
2026-01-30 11:20:00	-18.2	-21.0	2.8
2026-01-30 11:21:00	-18.1	-21.1	3.0
2026-01-30 11:22:00	-18.2	-21.2	3.0
2026-01-30 11:23:00	-18.1	-21.4	3.3
2026-01-30 11:24:00	-18.1	-21.6	3.5
2026-01-30 11:25:00	-18.2	-21.8	3.6
2026-01-30 11:26:00	-18.3	-21.9	3.6
2026-01-30 11:27:00	-18.4	-21.5	3.1
2026-01-30 11:28:00	-18.5	-20.9	2.4
2026-01-30 11:29:00	-18.7	-20.9	2.2
2026-01-30 11:30:00	-19.0	-21.4	2.4
2026-01-30 11:31:00	-19.5	-21.7	2.2
2026-01-30 11:32:00	-19.8	-21.8	2.0
2026-01-30 11:33:00	-19.8	-21.9	2.1
2026-01-30 11:34:00	-19.6	-21.9	2.3
2026-01-30 11:35:00	-19.4	-21.8	2.4
2026-01-30 11:36:00	-19.2	-21.8	2.6
2026-01-30 11:37:00	-19.0	-21.7	2.7
2026-01-30 11:38:00	-18.9	-21.7	2.8
2026-01-30 11:39:00	-18.9	-21.8	2.9
2026-01-30 11:40:00	-19.0	-21.8	2.8
2026-01-30 11:41:00	-19.2	-21.9	2.7
2026-01-30 11:42:00	-19.5	-21.9	2.4
2026-01-30 11:43:00	-19.5	-21.8	2.3
2026-01-30 11:44:00	-19.5	-21.7	2.2
2026-01-30 11:45:00	-19.3	-21.3	2.0
2026-01-30 11:46:00	-19.1	-21.2	2.1
2026-01-30 11:47:00	-18.9	-21.0	2.1

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-30 11:48:00	-18.7	-20.9	2.2
2026-01-30 11:49:00	-18.4	-20.7	2.3
2026-01-30 11:50:00	-18.3	-20.6	2.3
2026-01-30 11:51:00	-18.2	-20.4	2.2
2026-01-30 11:52:00	-18.1	-20.1	2.0
2026-01-30 11:53:00	-18.1	-19.4	1.3
2026-01-30 11:54:00	-18.3	-19.7	1.4
2026-01-30 11:55:00	-18.9	-20.5	1.6
2026-01-30 11:56:00	-19.5	-21.4	1.9
2026-01-30 11:57:00	-19.9	-21.6	1.7
2026-01-30 11:58:00	-20.1	-21.5	1.4
2026-01-30 11:59:00	-20.1	-21.3	1.2
2026-01-30 12:00:00	-20.0	-21.1	1.1
2026-01-30 12:01:00	-19.9	-20.9	1.0
2026-01-30 12:02:00	-19.8	-20.7	0.9
2026-01-30 12:03:00	-19.7	-20.6	0.9
2026-01-30 12:04:00	-19.5	-20.5	1.0
2026-01-30 12:05:00	-19.4	-20.3	0.9
2026-01-30 12:06:00	-19.3	-20.2	0.9
2026-01-30 12:07:00	-19.2	-20.1	0.9
2026-01-30 12:08:00	-19.1	-19.9	0.8
2026-01-30 12:09:00	-19.3	-20.8	1.5
2026-01-30 12:10:00	-19.7	-21.8	2.1
2026-01-30 12:11:00	-20.0	-21.9	1.9
2026-01-30 12:12:00	-20.0	-21.8	1.8
2026-01-30 12:13:00	-20.0	-21.7	1.7
2026-01-30 12:14:00	-19.9	-21.4	1.5
2026-01-30 12:15:00	-19.8	-21.2	1.4
2026-01-30 12:16:00	-19.7	-20.8	1.1
2026-01-30 12:17:00	-19.6	-20.7	1.1

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-30 12:18:00	-19.4	-20.6	1.2
2026-01-30 12:19:00	-19.3	-20.5	1.2
2026-01-30 12:20:00	-19.2	-20.5	1.3
2026-01-30 12:21:00	-19.1	-20.4	1.3
2026-01-30 12:22:00	-18.9	-20.3	1.4
2026-01-30 12:23:00	-19.4	-20.4	1.0
2026-01-30 12:24:00	-19.8	-21.2	1.4
2026-01-30 12:25:00	-20.3	-21.7	1.4
2026-01-30 12:26:00	-20.3	-21.6	1.3
2026-01-30 12:27:00	-20.3	-21.5	1.2
2026-01-30 12:28:00	-20.3	-21.3	1.0
2026-01-30 12:29:00	-20.1	-21.0	0.9
2026-01-30 12:30:00	-20.0	-20.9	0.9
2026-01-30 12:31:00	-19.8	-20.7	0.9
2026-01-30 12:32:00	-19.7	-20.6	0.9
2026-01-30 12:33:00	-19.5	-20.4	0.9
2026-01-30 12:34:00	-19.4	-20.3	0.9
2026-01-30 12:35:00	-19.3	-20.2	0.9
2026-01-30 12:36:00	-19.1	-20.1	1.0
2026-01-30 12:37:00	-19.0	-20.0	1.0
2026-01-30 12:38:00	-19.1	-20.5	1.4
2026-01-30 12:39:00	-19.6	-21.7	2.1
2026-01-30 12:40:00	-20.0	-21.9	1.9
2026-01-30 12:41:00	-20.1	-21.8	1.7
2026-01-30 12:42:00	-20.0	-21.7	1.7
2026-01-30 12:43:00	-19.9	-21.6	1.7
2026-01-30 12:44:00	-19.8	-21.2	1.4
2026-01-30 12:45:00	-19.7	-21.0	1.3
2026-01-30 12:46:00	-19.6	-20.9	1.3
2026-01-30 12:47:00	-19.5	-20.9	1.4

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-30 12:48:00	-19.4	-20.8	1.4
2026-01-30 12:49:00	-19.3	-20.7	1.4
2026-01-30 12:50:00	-19.1	-20.6	1.5
2026-01-30 12:51:00	-19.1	-20.4	1.3
2026-01-30 12:52:00	-19.3	-20.8	1.5
2026-01-30 12:53:00	-19.6	-21.9	2.3
2026-01-30 12:54:00	-20.0	-21.9	1.9
2026-01-30 12:55:00	-20.1	-21.8	1.7
2026-01-30 12:56:00	-20.1	-21.7	1.6
2026-01-30 12:57:00	-20.0	-21.5	1.5
2026-01-30 12:58:00	-19.8	-21.2	1.4
2026-01-30 12:59:00	-19.7	-21.0	1.3
2026-01-30 13:00:00	-19.6	-21.0	1.4
2026-01-30 13:01:00	-19.5	-20.9	1.4
2026-01-30 13:02:00	-19.3	-20.8	1.5
2026-01-30 13:03:00	-19.2	-20.7	1.5
2026-01-30 13:04:00	-19.1	-20.6	1.5
2026-01-30 13:05:00	-19.2	-20.5	1.3
2026-01-30 13:06:00	-19.5	-20.8	1.3
2026-01-30 13:07:00	-20.1	-21.5	1.4
2026-01-30 13:08:00	-20.3	-21.6	1.3
2026-01-30 13:09:00	-20.3	-21.5	1.2
2026-01-30 13:10:00	-20.3	-21.3	1.0
2026-01-30 13:11:00	-20.2	-21.1	0.9
2026-01-30 13:12:00	-20.0	-20.9	0.9
2026-01-30 13:13:00	-19.9	-20.8	0.9
2026-01-30 13:14:00	-19.8	-20.7	0.9
2026-01-30 13:15:00	-19.6	-20.7	1.1
2026-01-30 13:16:00	-19.5	-20.6	1.1
2026-01-30 13:17:00	-19.4	-20.5	1.1

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-30 13:18:00	-19.2	-20.4	1.2
2026-01-30 13:19:00	-19.1	-20.3	1.2
2026-01-30 13:20:00	-19.1	-20.1	1.0
2026-01-30 13:21:00	-19.5	-21.1	1.6
2026-01-30 13:22:00	-20.0	-21.9	1.9
2026-01-30 13:23:00	-20.1	-21.8	1.7
2026-01-30 13:24:00	-20.1	-21.7	1.6
2026-01-30 13:25:00	-20.0	-21.6	1.6
2026-01-30 13:26:00	-19.9	-21.3	1.4
2026-01-30 13:27:00	-19.8	-21.1	1.3
2026-01-30 13:28:00	-19.7	-21.0	1.3
2026-01-30 13:29:00	-19.6	-21.0	1.4
2026-01-30 13:30:00	-19.5	-20.9	1.4
2026-01-30 13:31:00	-19.3	-20.8	1.5
2026-01-30 13:32:00	-19.2	-20.7	1.5
2026-01-30 13:33:00	-19.1	-20.5	1.4
2026-01-30 13:34:00	-19.1	-20.5	1.4
2026-01-30 13:35:00	-19.5	-20.6	1.1
2026-01-30 13:36:00	-20.0	-21.5	1.5
2026-01-30 13:37:00	-20.4	-21.5	1.1
2026-01-30 13:38:00	-20.4	-21.5	1.1
2026-01-30 13:39:00	-20.4	-21.3	0.9
2026-01-30 13:40:00	-20.3	-21.1	0.8
2026-01-30 13:41:00	-20.1	-20.9	0.8
2026-01-30 13:42:00	-20.0	-20.8	0.8
2026-01-30 13:43:00	-19.8	-20.7	0.9
2026-01-30 13:44:00	-19.7	-20.6	0.9
2026-01-30 13:45:00	-19.5	-20.5	1.0
2026-01-30 13:46:00	-19.4	-20.5	1.1
2026-01-30 13:47:00	-19.3	-20.4	1.1

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-30 13:48:00	-19.1	-20.3	1.2
2026-01-30 13:49:00	-19.0	-20.1	1.1
2026-01-30 13:50:00	-19.3	-20.7	1.4
2026-01-30 13:51:00	-19.8	-21.8	2.0
2026-01-30 13:52:00	-20.1	-21.9	1.8
2026-01-30 13:53:00	-20.1	-21.8	1.7
2026-01-30 13:54:00	-20.1	-21.7	1.6
2026-01-30 13:55:00	-20.0	-21.4	1.4
2026-01-30 13:56:00	-19.8	-21.2	1.4
2026-01-30 13:57:00	-19.7	-21.1	1.4
2026-01-30 13:58:00	-19.6	-21.0	1.4
2026-01-30 13:59:00	-19.5	-21.0	1.5
2026-01-30 14:00:00	-19.4	-20.9	1.5
2026-01-30 14:01:00	-19.3	-20.8	1.5
2026-01-30 14:02:00	-19.1	-20.7	1.6
2026-01-30 14:03:00	-19.0	-20.5	1.5
2026-01-30 14:04:00	-19.5	-20.6	1.1
2026-01-30 14:05:00	-19.9	-21.1	1.2
2026-01-30 14:06:00	-20.3	-21.8	1.5
2026-01-30 14:07:00	-20.3	-21.7	1.4
2026-01-30 14:08:00	-20.3	-21.5	1.2
2026-01-30 14:09:00	-20.3	-21.2	0.9
2026-01-30 14:10:00	-20.2	-21.0	0.8
2026-01-30 14:11:00	-20.0	-20.9	0.9
2026-01-30 14:12:00	-19.8	-20.7	0.9
2026-01-30 14:13:00	-19.7	-20.7	1.0
2026-01-30 14:14:00	-19.6	-20.5	0.9
2026-01-30 14:15:00	-19.4	-20.5	1.1
2026-01-30 14:16:00	-19.3	-20.4	1.1
2026-01-30 14:17:00	-19.2	-20.3	1.1

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-30 14:18:00	-19.1	-20.1	1.0
2026-01-30 14:19:00	-19.1	-20.4	1.3
2026-01-30 14:20:00	-19.5	-21.9	2.4
2026-01-30 14:21:00	-19.8	-21.9	2.1
2026-01-30 14:22:00	-20.0	-21.8	1.8
2026-01-30 14:23:00	-19.9	-21.7	1.8
2026-01-30 14:24:00	-19.8	-21.5	1.7
2026-01-30 14:25:00	-19.8	-21.2	1.4
2026-01-30 14:26:00	-19.7	-21.0	1.3
2026-01-30 14:27:00	-19.6	-21.0	1.4
2026-01-30 14:28:00	-19.4	-20.9	1.5
2026-01-30 14:29:00	-19.3	-20.8	1.5
2026-01-30 14:30:00	-19.2	-20.7	1.5
2026-01-30 14:31:00	-19.1	-20.6	1.5
2026-01-30 14:32:00	-18.9	-20.5	1.6
2026-01-30 14:33:00	-19.2	-20.4	1.2
2026-01-30 14:34:00	-19.8	-20.7	0.9
2026-01-30 14:35:00	-20.2	-21.6	1.4
2026-01-30 14:36:00	-20.3	-21.7	1.4
2026-01-30 14:37:00	-20.4	-21.5	1.1
2026-01-30 14:38:00	-20.3	-21.3	1.0
2026-01-30 14:39:00	-20.1	-21.1	1.0
2026-01-30 14:40:00	-20.0	-20.9	0.9
2026-01-30 14:41:00	-19.8	-20.7	0.9
2026-01-30 14:42:00	-19.7	-20.7	1.0
2026-01-30 14:43:00	-19.6	-20.6	1.0
2026-01-30 14:44:00	-19.4	-20.5	1.1
2026-01-30 14:45:00	-19.3	-20.4	1.1
2026-01-30 14:46:00	-19.2	-20.4	1.2
2026-01-30 14:47:00	-19.0	-20.2	1.2

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-30 14:48:00	-19.0	-20.1	1.1
2026-01-30 14:49:00	-19.4	-21.1	1.7
2026-01-30 14:50:00	-19.9	-21.9	2.0
2026-01-30 14:51:00	-20.1	-21.9	1.8
2026-01-30 14:52:00	-20.0	-21.7	1.7
2026-01-30 14:53:00	-20.0	-21.6	1.6
2026-01-30 14:54:00	-19.9	-21.3	1.4
2026-01-30 14:55:00	-19.7	-21.0	1.3
2026-01-30 14:56:00	-19.6	-21.0	1.4
2026-01-30 14:57:00	-19.5	-20.9	1.4
2026-01-30 14:58:00	-19.4	-20.8	1.4
2026-01-30 14:59:00	-19.3	-20.7	1.4
2026-01-30 15:00:00	-19.2	-20.7	1.5
2026-01-30 15:01:00	-19.0	-20.5	1.5
2026-01-30 15:02:00	-19.1	-20.5	1.4
2026-01-30 15:03:00	-19.7	-20.7	1.0
2026-01-30 15:04:00	-20.2	-21.6	1.4
2026-01-30 15:05:00	-20.4	-21.8	1.4
2026-01-30 15:06:00	-20.4	-21.6	1.2
2026-01-30 15:07:00	-20.4	-21.5	1.1
2026-01-30 15:08:00	-20.2	-21.2	1.0
2026-01-30 15:09:00	-20.1	-21.0	0.9
2026-01-30 15:10:00	-20.0	-20.8	0.8
2026-01-30 15:11:00	-19.8	-20.7	0.9
2026-01-30 15:12:00	-19.6	-20.6	1.0
2026-01-30 15:13:00	-19.5	-20.5	1.0
2026-01-30 15:14:00	-19.4	-20.5	1.1
2026-01-30 15:15:00	-19.2	-20.4	1.2
2026-01-30 15:16:00	-19.1	-20.3	1.2
2026-01-30 15:17:00	-19.0	-20.1	1.1

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-30 15:18:00	-19.2	-20.6	1.4
2026-01-30 15:19:00	-19.6	-21.8	2.2
2026-01-30 15:20:00	-20.0	-21.9	1.9
2026-01-30 15:21:00	-20.1	-21.8	1.7
2026-01-30 15:22:00	-20.0	-21.7	1.7
2026-01-30 15:23:00	-19.9	-21.5	1.6
2026-01-30 15:24:00	-19.8	-21.1	1.3
2026-01-30 15:25:00	-19.7	-21.0	1.3
2026-01-30 15:26:00	-19.6	-20.9	1.3
2026-01-30 15:27:00	-19.5	-20.9	1.4
2026-01-30 15:28:00	-19.4	-20.8	1.4
2026-01-30 15:29:00	-19.3	-20.7	1.4
2026-01-30 15:30:00	-19.1	-20.6	1.5
2026-01-30 15:31:00	-19.1	-20.4	1.3
2026-01-30 15:32:00	-19.3	-21.0	1.7
2026-01-30 15:33:00	-19.8	-21.8	2.0
2026-01-30 15:34:00	-20.1	-21.9	1.8
2026-01-30 15:35:00	-20.1	-21.8	1.7
2026-01-30 15:36:00	-20.0	-21.7	1.7
2026-01-30 15:37:00	-19.9	-21.4	1.5
2026-01-30 15:38:00	-19.8	-21.1	1.3
2026-01-30 15:39:00	-19.6	-21.0	1.4
2026-01-30 15:40:00	-19.5	-20.9	1.4
2026-01-30 15:41:00	-19.4	-20.8	1.4
2026-01-30 15:42:00	-19.3	-20.8	1.5
2026-01-30 15:43:00	-19.1	-20.7	1.6
2026-01-30 15:44:00	-19.1	-20.5	1.4
2026-01-30 15:45:00	-19.3	-20.7	1.4
2026-01-30 15:46:00	-19.8	-21.2	1.4
2026-01-30 15:47:00	-20.3	-21.8	1.5

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-30 15:48:00	-20.4	-21.7	1.3
2026-01-30 15:49:00	-20.4	-21.5	1.1
2026-01-30 15:50:00	-20.2	-21.3	1.1
2026-01-30 15:51:00	-20.1	-21.1	1.0
2026-01-30 15:52:00	-20.0	-20.9	0.9
2026-01-30 15:53:00	-19.8	-20.7	0.9
2026-01-30 15:54:00	-19.7	-20.7	1.0
2026-01-30 15:55:00	-19.5	-20.6	1.1
2026-01-30 15:56:00	-19.4	-20.5	1.1
2026-01-30 15:57:00	-19.3	-20.4	1.1
2026-01-30 15:58:00	-19.1	-20.4	1.3
2026-01-30 15:59:00	-19.0	-20.2	1.2
2026-01-30 16:00:00	-19.1	-20.5	1.4
2026-01-30 16:01:00	-19.6	-21.7	2.1
2026-01-30 16:02:00	-20.0	-21.9	1.9
2026-01-30 16:03:00	-20.1	-21.8	1.7
2026-01-30 16:04:00	-20.0	-21.7	1.7
2026-01-30 16:05:00	-19.9	-21.5	1.6
2026-01-30 16:06:00	-19.8	-21.1	1.3
2026-01-30 16:07:00	-19.7	-21.0	1.3
2026-01-30 16:08:00	-19.6	-21.0	1.4
2026-01-30 16:09:00	-19.5	-20.9	1.4
2026-01-30 16:10:00	-19.4	-20.8	1.4
2026-01-30 16:11:00	-19.3	-20.7	1.4
2026-01-30 16:12:00	-19.1	-20.6	1.5
2026-01-30 16:13:00	-19.0	-20.5	1.5
2026-01-30 16:14:00	-19.5	-20.6	1.1
2026-01-30 16:15:00	-20.0	-21.1	1.1
2026-01-30 16:16:00	-20.3	-21.6	1.3
2026-01-30 16:17:00	-20.3	-21.5	1.2

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-30 16:18:00	-20.3	-21.3	1.0
2026-01-30 16:19:00	-20.2	-21.2	1.0
2026-01-30 16:20:00	-20.1	-21.0	0.9
2026-01-30 16:21:00	-19.9	-20.8	0.9
2026-01-30 16:22:00	-19.8	-20.7	0.9
2026-01-30 16:23:00	-19.7	-20.6	0.9
2026-01-30 16:24:00	-19.5	-20.6	1.1
2026-01-30 16:25:00	-19.4	-20.5	1.1
2026-01-30 16:26:00	-19.2	-20.4	1.2
2026-01-30 16:27:00	-19.1	-20.3	1.2
2026-01-30 16:28:00	-19.0	-20.1	1.1
2026-01-30 16:29:00	-19.2	-20.6	1.4
2026-01-30 16:30:00	-19.7	-21.8	2.1
2026-01-30 16:31:00	-20.0	-21.9	1.9
2026-01-30 16:32:00	-20.1	-21.8	1.7
2026-01-30 16:33:00	-20.0	-21.7	1.7
2026-01-30 16:34:00	-19.9	-21.4	1.5
2026-01-30 16:35:00	-19.8	-21.1	1.3
2026-01-30 16:36:00	-19.7	-21.1	1.4
2026-01-30 16:37:00	-19.6	-21.0	1.4
2026-01-30 16:38:00	-19.5	-21.0	1.5
2026-01-30 16:39:00	-19.3	-20.8	1.5
2026-01-30 16:40:00	-19.2	-20.7	1.5
2026-01-30 16:41:00	-19.1	-20.7	1.6
2026-01-30 16:42:00	-18.9	-20.5	1.6
2026-01-30 16:43:00	-19.5	-20.6	1.1
2026-01-30 16:44:00	-19.9	-21.1	1.2
2026-01-30 16:45:00	-20.3	-21.7	1.4
2026-01-30 16:46:00	-20.4	-21.6	1.2
2026-01-30 16:47:00	-20.4	-21.5	1.1

时间	所有点最大值 (timax)	所有点最小值 (timin)	timax-timin
2026-01-30 16:48:00	-20.3	-21.2	0.9
2026-01-30 16:49:00	-20.1	-21.0	0.9
2026-01-30 16:50:00	-20.0	-20.9	0.9
2026-01-30 16:51:00	-19.8	-20.7	0.9
2026-01-30 16:52:00	-19.7	-20.7	1.0
2026-01-30 16:53:00	-19.5	-20.6	1.1
2026-01-30 16:54:00	-19.4	-20.5	1.1
2026-01-30 16:55:00	-19.3	-20.4	1.1
2026-01-30 16:56:00	-19.1	-20.3	1.2
2026-01-30 16:57:00	-19.0	-20.2	1.2
2026-01-30 16:58:00	-19.1	-20.5	1.4
2026-01-30 16:59:00	-19.6	-21.7	2.1
2026-01-30 17:00:00	-20.0	-21.9	1.9
2026-01-30 17:01:00	-20.1	-21.8	1.7
2026-01-30 17:02:00	-20.0	-21.7	1.7
2026-01-30 17:03:00	-20.0	-21.5	1.5
2026-01-30 17:04:00	-19.8	-21.2	1.4
2026-01-30 17:05:00	-19.7	-21.0	1.3
2026-01-30 17:06:00	-19.6	-21.0	1.4
2026-01-30 17:07:00	-19.5	-21.0	1.5
2026-01-30 17:08:00	-19.4	-20.9	1.5
2026-01-30 17:09:00	-19.3	-20.8	1.5
2026-01-30 17:10:00	-19.2	-20.7	1.5
2026-01-30 17:11:00	-19.0	-20.5	1.5
2026-01-30 17:12:00	-19.4	-20.6	1.2
2026-01-30 17:13:00	-19.8	-21.0	1.2
2026-01-30 17:14:00	-20.3	-21.7	1.4
2026-01-30 17:15:00	-20.4	-21.7	1.3
2026-01-30 17:16:00	-20.4	-21.5	1.1
2026-01-30 17:17:00	-20.3	-21.3	1.0

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时间	所有点最大值 (t <sub>imax</sub> )	所有点最小值 (t <sub>imin</sub> )	t <sub>imax</sub> -t <sub>imin</sub>
2026-01-30 17:18:00	-20.1	-21.1	1.0
2026-01-30 17:19:00	-20.0	-20.9	0.9
2026-01-30 17:20:00	-19.8	-20.8	1.0