

EMC TEST REPORT

SCOPE OF WORK

Testing of < Commercial Type Vertical Refrigerator, VN9-G-T-SE-W-KF>

REPORT NUMBER

202200841IST-001

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EMC TEST REPORT

Intertek Report Number : 202200841IST-001
Test Item Description : Commercial Type Vertical Refrigerator
Applicant Name : Frenoks Endüstriyel Soğutma San. ve Tic. A.Ş.
Applicant Address : Topçular Mah. Tikveşli Sk. No:8 34055 Eyüp-İstanbul/Türkiye
Manufacturer Name : Frenoks Endüstriyel Soğutma San. ve Tic. A.Ş.
Manufacturer Address : Topçular Mah. Tikveşli Sk. No:8 34055 Eyüp-İstanbul/Türkiye
Manufacturing Site : www.frenox.com

Product Description

Product : Commercial Type Vertical Refrigerator
Trademark(s) : Frenoks
Model Number : VN9-G-T-SE-W-KF
Serial Number : 2091465VN9
Electrical Rating : 220 V AC, 650 W, 50/60 Hz
Date Received : 16.09.2022
Date Test Conducted : 19.09.2022 – 29.09.2022
Test Standards : TS EN 61000-6-1:2019, EN IEC 61000-6-1:2019
TS EN 61000-6-3:2021, EN IEC 61000-6-3:2021

Testing Location/Address

All tests have been performed in LVT Test Laboratuvarları Ltd. Şti under supervision of Intertek Engineer. The address of test location, accreditation number and referenced report number information as below:

Modern Keresteciler San. Sit. 4. Cadde No:9 Saray-Kazan-ANKARA-TÜRKİYE

TÜRKAK Accreditation Number : AB-0341-T
Referenced Report Number : 22-2695-R0-N1-1

Completed by: Yusuf İdris MERAL
Title: Senior Project Engineer
Signature: 
(e-signature)
Date: 11.10.2022

Reviewed by: Zafer YÜCESOY
Title: Laboratory Manager
Signature: 
(e-signature)
Date: 11.10.2022

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1. **Numunelerin Tanımı** : Dikey Tip Endüstriyel Buzdolabı
Definition of the Samples

1.1 **VN9-G-T-SE-W-KF**

Numune Kabul Tarihi Date of Receive	: 16.09.2022
Numune Seri No Serial No	: 2091465VN9
Beyan Gerilimi Rated Voltage	U_n : 220V _{AC}
Beyan Akımı Rated Current	I_n : 3A
Beyan Güç Rated Power	P_n : 650W
Beyan Frekans Rated Frequency	f_n : 50-60Hz

2. **Deney Sonuçları**
Test Results

Deney sonuçları, müşteri tarafından laboratuvara teslim edilen ve sadece deneyi yapılan numuneye aittir.

The test results only belong to the tested sample(s) delivered to the laboratory by client

Numune Sample	Uygulanan Deney Applied Test	Uygulanan Standartlar Applied standards	Sonuç Result
VN9-G-T-SE-W-KF	Elektrostatik Boşalma Bağışıklık Deneyi (Electrostatic Discharge Immunity Test)	EN 61000-4-2:2009	OLUMLU Passed
	Işıyan, radyo frekans, elektromanyetik alan, bağışıklık deneyi (Radiated, radio- frequency, electromagnetic field immunity test)	EN IEC 61000-4-3:2020*	
	Elektriksel Hızlı Geçici Rejim/Patlama Bağışıklık Deneyi (Electrical Fast Transient/Burst Immunity Test)	EN 61000-4-4:2012	
	Ani Yükselmelere Karşı Bağışıklık Deneyi (Surge Immunity Test)	EN 61000-4-5:2014	
	RF Alanlar Tarafından Endüklenen,İletilen Bozulmalara Karşı Bağışıklık Deneyi (Immunity to Conducted Disturbances Induced by Radio Frequency Fields)	EN 61000-4-6:2015	
	Şebeke frekanslı manyetik alan bağışıklık deneyi (Mains frequency magnetic field immunity test)	EN 61000-4-8:2010	
	Gerilim Çukurları,Kısa Kesintiler ve Gerilim Değişimleri Bağışıklık Deneyi (Voltage Dips,Short Interruptions and Voltage Variations Immunity Test)	EN IEC 61000-4-11: 2020/ AC:2020-06	
	Bağlantı Ucu Bozulma Gerilimi (Conducted Emission)	EN 55011:2016/A11:2020	
	Yayılım Bozulması (Radiated Emission)	EN 55011:2016/A11:2020	
	Harmonikler (Harmonics)	EN IEC 61000-3-2:2019/A1:2021	
	Kırpışma (Voltage Variations and Flicker)	EN 61000-3-3:2013/ A2:2021/AC:2022-01	

* 1000MHz ile 3000MHz arası TS EN 61000-4-3 deneyi akreditasyon kapsamı dahilinde değildir.

3.	Çevre Şartları <i>Environmental Conditions</i>	
3.1	Ortam Sıcaklığı <i>Ambient Temperature</i>	: 15-35 °C
3.2	Ortam Nemi <i>Ambient Moisture</i>	: 30-60 %Rh
4.	Deney Metodundan Sapma, Ekleme ve Çıkarmalar <i>Deviations, Additions & Cutbacks from the Test Method</i>	: Deneyler; standart deney metoduna göre uygulanmıştır. <i>Tests were made according to the clauses of the relevant standards.</i>
5.	Şartnamelere Uygunluk (Gerekli Hallerde) <i>Conformity to Specifications (If Necessary)</i>	: -
6.	Dağıtım Bilgileri <i>Distribution Information</i>	: FRENOKS ENDÜSTRİYEL SOĞUTMA SAN. ve TİC. A.Ş.
7.	Açıklama <i>Explanatio</i>	: -
8.	Ölçüm Belirsizliği (Talep Halinde) <i>Uncertainty of Measurement (If required)</i>	: Detaylar aşağıdaki tabloda verilmiştir. <i>The details are mentioned table below.</i>

Beyan edilen genişletilmiş ölçüm belirsizliği, standart belirsizliğin k=2 olarak alınan genişletme katsayısı ile çarpımı sonucunda bulunan değerdir ve % 95 oranında güvenilirlik sağlamaktadır.

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2 which for a normal distribution corresponds to a coverage probability of approximately 95 %.

Yayınım Test <i>Emission Test</i>	Belirsizlik <i>Uncertainty</i>
Bağlantı Ucu Bozulma Gerilimi <i>(Conducted Emission)</i>	4,20 dB
Harmonikler <i>(Harmonics)</i>	%2,93
Gerilim Dalgalanmaları ve Kıpraşma Ölçümü <i>Voltage Fluctuation and Flicker Measurement</i>	3,14 dB
Yayılım Bozulması <i>(Radiated Emission)</i>	4,64 dB
Bağışıklık Testi (Immunity Tests)	Belirsizlik (Uncertainty)
Elektrostatik Boşalma Bağışıklık Deneyi <i>(Electrostatic Discharge Immunity Test)</i>	Cihaz standart gereksinimlerini karşılamıştır. <i>The device has meet the standard requirements.</i>
Ani Yükselmelere Karşı Bağışıklık Deneyi <i>(Surge Immunity Test)</i>	Cihaz standart gereksinimlerini karşılamıştır. <i>The device has meet the standard requirements.</i>
Elektriksel Hızlı Geçici Rejim/Patlama Bağışıklık Deneyi <i>(Electrical Fast Transient/Burst Immunity Test)</i>	Cihaz standart gereksinimlerini karşılamıştır. <i>The device has meet the standard requirements.</i>
Şebeke frekanslı manyetik alan bağışıklık deneyi <i>(Mains frequency magnetic field immunity test)</i>	2,64 A/m
RF Alanlar Tarafından Endüklenen,İletilen Bozulmalara Karşı Bağışıklık Deneyi <i>(Immunity to Conducted Disturbances Induced by Radio Frequency Fields)</i>	3,55 dB
Gerilim Çukurları,Kısa Kesintiler ve Gerilim Değişimleri Bağışıklık Deneyi <i>(Voltage Dips,Short Interruptions and Voltage Variations Immunity Test)</i>	Cihaz standart gereksinimlerini karşılamıştır. <i>The device has compared the standard requirements.</i>
İşıyan, radyo frekans, elektromanyetik alan, bağışıklık deneyi <i>(Radiated, radio- frequency, electromagnetic field immunity test)</i>	2,71 dB

9. **Deney Uygulamaları:**
Test Applications

Performans Kriterleri
Performance Criteria

Performans Kriteri A;

Test esnasında ve sonrasında EUT operatör müdahalesi olmadan amaçlanan şekilde çalışmaya devam edecektir. Performansın bozulmasına veya işlev kaybına minimum seviyenin altında (EUT amaçlandığı gibi kullanıldığında imalatçı tarafından izin verilen seviye) izin verilmemektedir. Performans seviyesi , izin verilebilir bir performans kaybı ile yer değiştirilebilir. İzin verilebilir performans kaybı yada minimum performans seviyesi imalatçı tarafından belirtilmemişse , bu değerler/seviyeler ürün tanımı ve dokümantasyonundan ve kullanıcının tanımlanan kullanımda haklı bir şekilde oluşan beklentisi ile tanımlanabilir.

Performance criterion A;

During and after the test the EUT shall continue to operate as intended without operator intervention. No degradation of performance or loss of function is allowed below a minimum performance level specified by the manufacturer when the EUT is used as intended. The performance level may be replaced by a permissible loss of performance. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and by what the user may reasonably expect from the EUT if used as intended.

Performans Kriteri B;

Test sonrasında EUT operatör müdahalesi olmadan amaçlanan şekilde çalışmaya devam edecektir. Performansın bozulmasına veya işlev kaybına, uygulama sonunda aşağıdaki durum seviyelerine (EUT amaçlandığı gibi kullanıldığında imalatçı tarafından izin verilen seviye) izin verilmemektedir. Performans seviyesi , izin verilebilir bir performans kaybı ile yer değiştirilebilir. Test sırasında performans kaybına izin verilir ancak çalışma durumundaki yada depolanan verideki değişim/bozulma/kayıp durumu devamlı/kalıcı bir durum göstermemelidir. İzin verilebilir performans kaybı yada minimum performans seviyesi imalatçı tarafından belirtilmemişse , bu değerler/seviyeler ürün tanımı ve dokümantasyonundan ve kullanıcının tanımlanan kullanımda haklı bir şekilde oluşan beklentisi ile tanımlanabilir.

Performance criterion B;

After the test, the EUT shall continue to operate as intended without operator intervention. No degradation of performance or loss of function is allowed, after the application of the phenomena below a performance level specified by the manufacturer, when the EUT is used as intended. The performance level may be replaced by a permissible loss of performance. During the test, degradation of performance is allowed. However, no change of operating state or stored data is allowed to persist after the test. If the minimum performance level (or the permissible performance loss) is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and by what the user may reasonably expect from the EUT if used as intended.

Performans Kriteri C;

Test sırasında ve sonrasında, geçici bir işlev kaybına izin verilir. Ancak sağlanan fonksiyon kontrol işlemi ile kendi kendine toparlanabilir veya düzeltilebilir olmalıdır.

Performance criterion C;

During and after testing, a temporary loss of function is allowed. However, the provided function must be self-recovering or correctable by the control process.

Bağıışıklık Deneyleri
*Immunity Tests***9.1 Elektrostatik Boşalma Bağıışıklık Deneyi**
*Electrostatic Discharge Immunity Test***9.1.1 Deney Şartları**
Test Specifications

Numune Numarası <i>Sample No</i>	:	
Deney Tarihi <i>Test Date</i>	:	28.09.2022
Temel Standard <i>Basic Standard</i>	:	TS EN 61000-4-2:2014, EN 61000-4-2:2009
Boşalma Empedansı <i>Discharge Impedance</i>	:	330 Ohm / 150 pF
Boşalma Gerilimi <i>Discharge Voltage</i>	kV :	4-8
Kutuplaşma <i>Polarity</i>	:	P&N
Boşalma Sayısı <i>Number of Discharge</i>	:	Nokta başına en az : 10 (Havadan) , 10 (Temasla) <i>For each point minimum (Air) (Contact)</i>
Boşalma Metodu <i>Discharge Mode</i>	:	Single
Boşalma Periyodu <i>Discharge Period</i>	:	1 sec.
Çevresel Şartlar <i>Environmental Conditions</i>	:	20,3 °C - %36,4 Rh

9.1.2 Deney Cihazları
Test Instruments

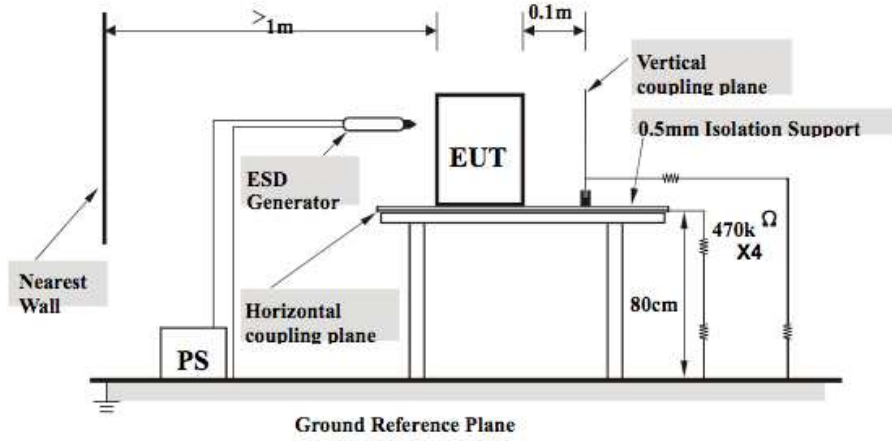
Cihazın Tanımı <i>Device Description</i>	İmalatçı <i>Manufacturer</i>	Kodu <i>Code</i>	Sertifika Numarası <i>Certificate No</i>	Kalibrasyon Bitiş Tarihi <i>Calibration Due Date</i>
ESD Similatör	EMCPartner	LC89	E2109860	12/2022
Sıcaklık & Nem Cihazı	CEM	LC348	6215	01/2023

9.1.3 Deney Prosedürü
Test Procedure

Elektrostatik boşalma uygulamaları sadece numunenin normal kullanımında erişilebilen noktalarına uygulanmaktadır. Uygulama önceden belirlenmiş noktalara en hassas polaritede en az 10 tek (single) boşalma şeklinde yapılmaktadır. Uygulamaların arasında en az 1 saniyelik bekleme süresi olmaktadır. Geri dönüş kablosu test esnasında numuneden en az 0.2 metre uzakta olacak şekilde konumlandırılır. Temasla boşalma gerilimleri numunenin iletken olan yüzeylerine , sivri uç ile kaplamanın altına temas edecek biçimde uygulanır. Havadan boşalma gerilimleri yuvarlak uç ile , mekanik bir arıza oluşturmayaacak şekilde , her bir uygulamadan sonra cihazın tekrar tetikleninceye kadar geri çekilerek ve bütün uygulamalar tamamlanıncaya kadar uygulanır. En hassas polaritede , en az 10 tek boşalma numunenin 0,1 metre önüne uygulanacak şekilde yerleştirilmiş yatay bağdaştırıcı düzleme uygulanır. Gerilimler, numunenin eksenlerinin merkezine karşılık gelen noktalara uygulanır. En hassas polaritede , en az 10 tek boşalma dikey bağdaştırıcı düzlemin merkezine numunenin dört yüzeyini kapsayacak şekilde uygulanır. 0.5 x 0.5 boyutlarındaki yatay düzlem numuneden 0.1 metre mesafede konumlandırılır.

Electrostatic discharges were applied only to those points and surfaces of the EUT that are accessible to users during normal operation. The test was performed with at least ten single discharges on the pre-selected points in the most sensitive polarity. The time interval between two successive single discharges was at least 1 second. The ESD generator was held perpendicularly to the surface to which the discharge was applied and the return cable was at least 0.2 meters from the EUT. Contact discharges were applied to the non-insulating coating, with the pointed tip of the generator penetrating the coating and contacting the conducting substrate. Air discharges were applied with the round discharge tip of the discharge electrode approaching the EUT as fast as possible (without causing mechanical damage) to touch the EUT. After each discharge, the ESD generator was removed from the EUT and re-triggered for a new single discharge. The test was repeated until all discharges were complete. At least ten single discharges (in the most sensitive polarity) were applied at the front edge of each Horizontal Coupling Plane opposite the center point of each unit of the EUT and 0.1 meters from the front of the EUT. The long axis of the discharge electrode was in the plane of the HCP and perpendicular to its front edge during the discharge. At least ten single discharges (in the most sensitive polarity) were applied to the center of one vertical edge of the Vertical Coupling Plane in sufficiently different positions that the four faces of the EUT were completely illuminated. The VCP (dimensions 0.5m x 0.5m) was placed vertically to and 0.1 meters from the EUT.

Deney Düzeneği Test Setup



9.1.4 Deney Sonucu Test Results

Boşalma Tipi <i>Discharge Type</i>	Boşalma Seviyesi <i>Discharge Level</i>	Kutuplaşma <i>Polarity</i>	Deney Sonucu <i>Test Result</i>
Temasla Boşalma (Direk Uygulama) <i>Contact Discharge (Direct Application)</i>	☒ 4 kV	+/-	UYGUN/PASS
Havadan Boşalma (Direk Uygulama) <i>Air Discharge (Direct Application)</i>	☒ 8 kV	+/-	UYGUN/PASS
Yatay Bağdaştırıcı Düzlem (Dolaylı Uygulama) <i>Horizontal Coupling Plane (Indirect Application)</i>	☒ 4 kV	+/-	UYGUN/PASS
Dikey Bağdaştırıcı Düzlem (Dolaylı Uygulama) <i>Vertical Coupling Plane (Indirect Application)</i>	☒ 4 kV	+/-	UYGUN/PASS
Not; DGC ,TS EN 61000-6-1:2019 Standardı Madde 4'de belirtilen Performans Kriteri B'ye ilişkin şartları sağlamıştır. <i>EUT is proper for Performans Criterion B with related to EN IEC 61000-6-1:2019 Item 4</i>			

9.2 Işıyan , Radyo Frekans , Elektromanyetik Alan Bağışıklık Deneyi

Radiated , Radio-Frequency , Electromagnetic Field Immunity Test

9.2.1 Deney Şartları

Test Specifications

Numune Numarası	:	
Sample No		
Deney Tarihi	:	27.09.2022
Test Date		
Temel Standart	:	TS EN 61000-4-3:2021, EN IEC 61000-4-3:2020
Basic Standard		
Frekans Aralığı	MHz	: 80-1000 MHz, 1400-3000 MHz,
Frequency Range		
Alan Şiddeti	V/m	: 3V/m 3V/m
Field Strength		
Modülasyon	:	AM 80% 1kHz
Modulation		
Frekans Adımı	%	: %1
Frequency Step		
Anten Polaritesi	:	Yatay (Horizontal)
Polarity of Antenna		Dikey (Vertical)
Deney Mesafesi	m	: 3
Test Distance		
Bekleme Süresi	sec	: 2
Dwell Time		

9.2.2 Deney Cihazları

Test Instruments

Cihazın Tanımı	İmalatçı	Kodu	Sertifika Numarası	Kalibrasyon Tarihi
Device Description	Manufacturer	Code	Certificate No	Calibration Date
Sinyal Jeneratörü	Rohde&schwarz	LC291	E2109859	12/2022
Alan probu	frankonia	LC99	G1ER-0044	05/2023
150 W 1GHz AMPLIFIER	AFJ	LC289	-	K.Gerektirmez.
IMMUNITY ANTEN STLP 9128 D	Schwarzbeck	LC110	-	K.Gerektirmez.

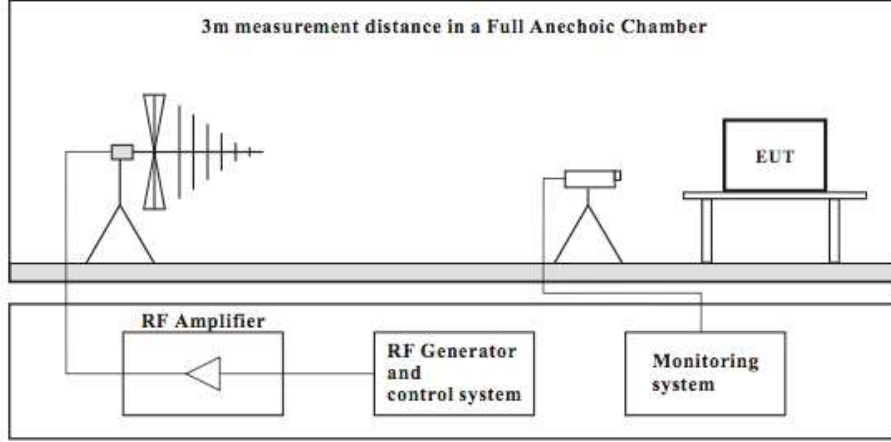
9.2.3 Deney Prosedürü

Test Procedure

Deney TS EN 61000-4-3 standardına göre gerçekleştirilmiştir. Uygulama yansız oda içerisinde gerçekleştirilmiştir. Bağışıklık anteni numuneden 3 metre mesafede konumlandırılmıştır. Sinyal seviyesi %1 artış oranı ile %80 genlikteki 1 kHz 'lik taşıyıcı sinyal ile uygulanmıştır. Seviye 80MHz – 3000 MHz seviyesinde uygulanmıştır. Yatay ve dikey polaritelerde numunenin her bir yüzeyi teste tabi tutulmuştur

The test procedure was in accordance with EN 61000-4-3. The testing was performed in a fully-anechoic chamber. The transmit antenna was located at a distance of 3 meters from the EUT. The frequency range is swept from 80 MHz to 3000 MHz, with the signal 80% amplitude modulated with a 1kHz sinewave where the frequency range is swept incrementally, the step size was 1 % of preceding frequency value.

Deney Düzenegi Test Setup



9.2.4 Deney Sonucu Test Results

Frekans Frequency	Polarite Polarity	Açı Angle	Alan Şiddeti Field Strength	Deney Sonucu Test Result
80 – 1000 MHz	V&H	0	☒ 3 V/m	UYGUN/PASS
80 – 1000 MHz	V&H	90	☒ 3 V/m	UYGUN/PASS
80 – 1000 MHz	V&H	180	☒ 3 V/m	UYGUN/PASS
80 – 1000 MHz	V&H	270	☒ 3 V/m	UYGUN/PASS
Not; DGC ,TS EN 61000-6-1:2019 Standardı Madde 4'de belirtilen Performans Kriteri A'ye ilişkin şartları sağlamıştır. EUT is proper for Performans Criterion A with related to EN IEC 61000-6-1:2019 Item 4				

Frekans* Frequency	Polarite Polarity	Açı Angle	Alan Şiddeti Field Strength	Deney Sonucu Test Result
1400– 3000 MHz	V&H	0	☒ 3 V/m	UYGUN/PASS
1400– 3000 MHz	V&H	90	☒ 3 V/m	UYGUN/PASS
1400– 3000 MHz	V&H	180	☒ 3 V/m	UYGUN/PASS
1400– 3000 MHz	V&H	270	☒ 3 V/m	UYGUN/PASS
Not; DGC ,TS EN 61000-6-1:2019 Standardı Madde 4'de belirtilen Performans Kriteri A'ye ilişkin şartları sağlamıştır. EUT is proper for Performans Criterion A with related to EN IEC 61000-6-1:2019 Item 4				

* TS EN 61000-4-3 deneyi 1000MHz ile 3000 MHz arası akreditasyon kapsamı dışında gerçekleştirilmiştir.

9.3 Elektriksel Hızlı Geçici Rejime / Ani Darbeye Karşı Bağışıklık Deneyi

Electrical Fast Transient / Burst Immunity Test

9.3.1 Deney Şartları

Test Specifications

Numune Numarası <i>Sample No</i>	:	
Deney Tarihi <i>Test Date</i>	:	28.09.2022
Temel Standart <i>Basic Standard</i>	:	TS EN 61000-4-4:2013, EN 61000-4-4:2012
Deney Gerilimi <i>Test Voltage</i>	kV :	Power line : ☐ 0,5 kV - ☒ 1 kV - ☐ 2 kV Control/Signal line : ☐ 0,5 kV - ☐ 1 kV - ☐ 2 kV
Darbe Frekansı & Formu <i>Impulse Frequenc & Wave Shape</i>	:	☐ 2,5 kHz - ☒ 5 kHz - ☐ 100 kHz 5/50ns
Darbe Deney Süresi <i>Test Duration</i>	:	0.75 ms .
Deney Periyot <i>Test Period</i>	:	300 ms.
Deney Süresi <i>Test Duration</i>	:	Min. 60 sec.

9.3.2 Deney Cihazları

Test Instruments

Cihazın Tanımı <i>Device Description</i>	İmalatçı <i>Manufacturer</i>	Kodu <i>Code</i>	Sertifika Numarası <i>Certificate No</i>	Kalibrasyon Bitiş Tarihi <i>Calibration Due Date</i>
ESG Simulator Compact	EMtest	LC90	E2202489	04/2023

9.3.3 Deney Prosedürü

Test Procedure

Numune ilgili standardın gerilim seviyelerine göre teste tabi tutulmuştur. Uygulamalar pozitif ve negatif polaritelerde uygulanmıştır. Gerilim simülasyonu ve numune arasında bağlantıyı sağlayan kablo 1 metreden daha uzun olmayacak şekilde seçilmiştir. Ardışık test uygulamalarının arasında bekleme süresi 1 dakika olarak belirlenmiştir. Masa üstü ekipmanlar referans toprak düzleminin üzerine yerleştirilmiş ve 0.8 metre yüksekliğe sahip ahşap test masası üzerinde konumlandırılarak teste tabi tutulmuşlardır. Numune ile oda duvarları yada herhangi bir metal düzlem arasında 0.5 metre mesafenin korunmasına dikkat edilmiştir. Dikey konumlandırılan ekipmanlar ise 0.1 metrelik izolasyon ile referans düzleminden ayrılmışlardır.

The EUT was tested with voltage discharges to the AC power input leads and voltage discharges to the interconnect cables according to relevant standards. Both positive and negative polarity discharges were applied. The length of the "hot wire" from the coaxial output of the EFT generator to the terminals on the EUT should not exceed 1 meter. The duration time of each test sequential was 1 minute. The transient/burst waveform was in accordance with IEC 61000-4-4. Tabletop equipments were placed on the wooden table (0.8 meter-high) which is placed on the ground reference plane. A minimum distance of 0.5 m. was provided between EUT and the walls of the laboratory or any metallic surface. Floor standing equipments were isolated from ground surface plane by an insulating support that is 0.1 meter thick.

Deney Düzenegi Test Setup

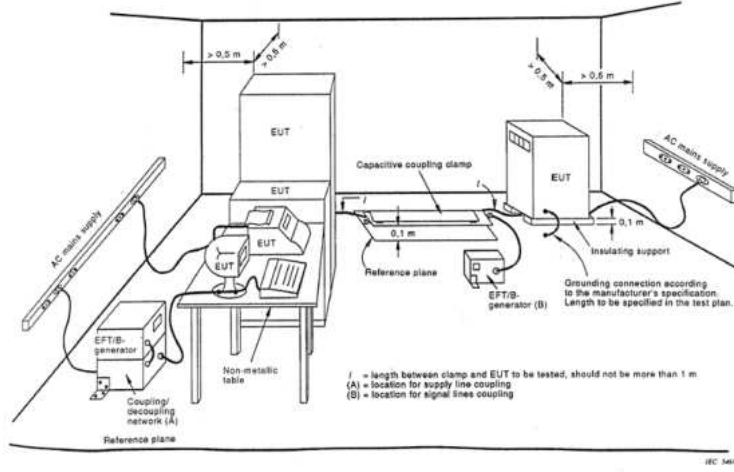


Figure 7 – General test set-up for laboratory type tests

9.3.4 Deney Sonucu Test Results

Güç Portları Power Ports	Gerilim Voltage	Uygulama Noktası Application Point	Polarite Polarity	Deney Sonucu Test Result
	1 kV	L		
		N		
		L-N		
		PE		
		L-PE		
		N-PE		
		L N-PE		
Kontrol/Sinyal Portları Control/Signal Ports	-	-	-	-
	-	-	-	-

Not; DGC ,TS EN 61000-6-1:2019 Standardı Madde 4'de belirtilen Performans Kriteri B'ye ilişkin şartları sağlamıştır.
EUT is proper for Performans Criterion B with related to EN IEC 61000-6-1:2019 Item 4

9.4 Darbe Bağışıklık Deneyi

Surge Immunity Test

9.4.1 Deney Şartları

Test Specifications

Numune Numarası	:	
Sample No		
Deney Tarihi	:	28.09.2022
Test Date		
Temel Standart	:	TS EN 61000-4-5/A1:2018, EN 61000-4-5:2014/A1;2017
Basic Standard		
Deney Gerilimi	kV	☐ 0,5 - ☒ 1 - ☒ 2 - ☐ 3 - ☐ 4 - ☐ 5 - ☐ 6
Test Voltage		
Darbe Karakteristiği	:	☒ 1.2µs/50µs ☐ 8µs/20µs
Impulse Characteristic		
Bağdaştırma Metodu	:	☒ L+N - ☒ L+PE - ☒ N+PE ☒ L+N+PE
Coupling Method		
Polarite	:	P&N
Polarity		
Faz Açısı	:	0-90-180-270 (degree)
Phase Angle		
Darbe Sayısı	:	(5) for each polarity
Impulse Number		
Tekrarlama Oranı	:	☐ 10s - ☒ 60s
Repetition Rate		

9.4.2 Deney Cihazları

Test Instruments

Cihazın Tanımı	İmalatçı	Kodu	Sertifika Numarası	Kalibrasyon Bitiş Tarihi
Device Description	Manufacturer	Code	Certificate No	Calibration Due Date
ESG Simulator Compact	EMtest	LC90	E2202488	04/2023

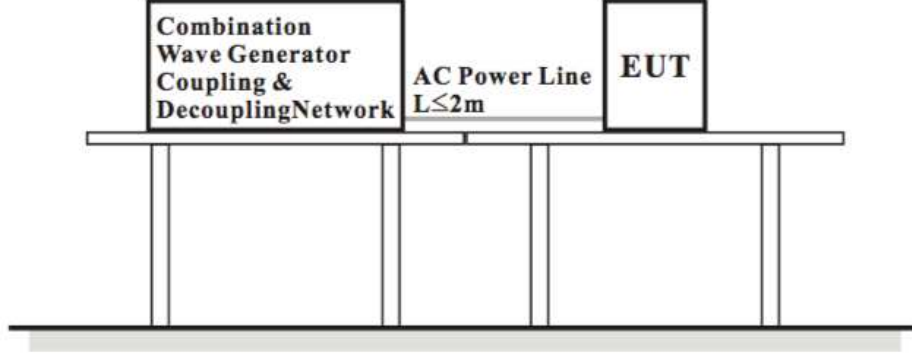
9.4.3 Deney Prosedürü

Test Procedure

Sinyaller (ani yükselmeler) numunenin terminallerine kapasitif bağdaştırıcı (capacitive coupling network) ile uygulanmaktadır. Aynı hatta bağlı ekipmanların etkilenmemesi için dekuplaj devresinin (decoupling network) kullanması gerekmektedir. Numune ve bağdaştırıcı devre arasındaki kablounun 1 metre yada daha kısa olması gerekmektedir.

The surge is to be applied to the EUT terminals via the capacitive coupling network. Decoupling networks are required in order to avoid possible adverse effects on equipment not under test that may be powered by the same lines, and to provide sufficient decoupling impedance to the surge wave. The power cord between the EUT and the coupling/decoupling networks shall be 1 meters in length (or shorter).

Deney Düzenegi
Test Setup



9.4.4 Deney Sonucu
Test Results

Gerilim <i>Voltage</i>	Uygulama Noktası <i>Application Point</i>	Polarite <i>Polarity</i>	Deney Sonucu <i>Test Result</i>
1 kV	L-N	+/-	UYGUN/PASS
2 kV	L-PE		
2 kV	N-PE		
2 kV	L N-PE		
Not; DGC ,TS EN 61000-6-1:2019 Standardı Madde 4'de belirtilen Performans Kriteri B'ye ilişkin şartları sağlamıştır. <i>EUT is proper for Performans Criterion B with related to EN IEC 61000-6-1:2019 Item 4</i>			

9.5 Radyofrekans Alanlarının Neden Olduğu Temaslı Rahatsızlıklara Karşı Bağışıklık
*Immunity to Conducted Disturbances , Induced by Radio-Frequency Fields***9.5.1 Deney Şartları**
Test Specifications

Numune Numarası <i>Sample No</i>	:	
Deney Tarihi <i>Test Date</i>	:	29.09.2022
Temel Standart <i>Basic Standard</i>	:	TS EN 61000-4-6/AC:2021, EN 61000-4-6:2014/AC:2015
Gerilim Seviyesi <i>Voltage Level</i>	:	☒ 3 V - ☐ 10V
Frekans Aralığı <i>Frequency Range</i>	:	150 kHz – 80 MHz
Frekans Adımı <i>Frequency Step</i>	% :	1
Bekleme Süresi <i>Dwell Time</i>	sec :	2
Modülasyon <i>Modulation</i>	:	1 kHz Sin.Wave %80 AM
Bağdaştırıcı Cihaz <i>Coupling Device</i>	:	CDN-M2&3

9.5.2 Deney Cihazları
Test Instruments

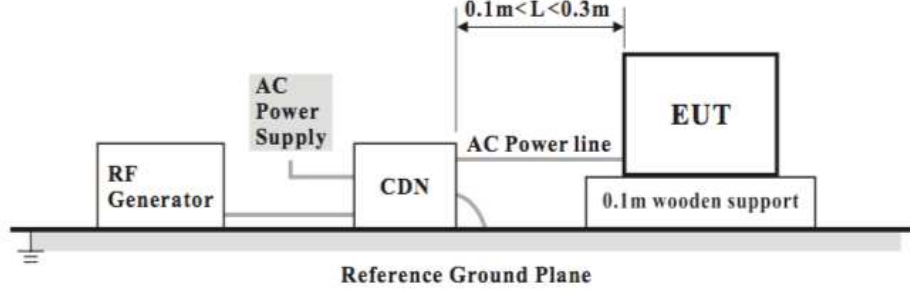
Cihazın Tanımı <i>Device Description</i>	İmalatçı <i>Manufacturer</i>	Kodu <i>Code</i>	Sertifika Numarası <i>Certificate No</i>	Kalibrasyon Bitiş Tarihi <i>Calibration Due Date</i>
Sinyal Kaynağı	Rohde& schwarz	LC291	E2109859	12/2022
Amplifier	Frankonia	LC93	-	Kalibrasyon Gerektirmez
CDN	Frankonia	LC103	RDCAL-3720	06/2023

9.5.3 Deney Prosedürü
Test Procedure

Numune normal çalışma ortamında test edilmelidir. Test ; üretcin bağdaştırıcıların dönüşüne bağlanmış şeklinde ve bağdaştırıcının diğer RF portlarının 50 ohm'lık dirence bağlı olduğu şekilde gerçekleştirilmektedir. Uygulanan frekans ; %80'lik genlikteki , 1kHz'lik taşıyıcı sinyal ile , 150 kHz – 80 MHz aralığında uygulanmaktadır. Gerilim artışları %1'lik adımlar ile gerçekleştirilmektedir. Herbir frekans aralığında bekleme süresi , en az numunenin tepki verme süresi kadar olacak şekilde ayarlanmaktadır. Bekleme süreleri ayarlanırken saat frekansları , harmonikler ve baskın frekanslar ayrı ayrı analiz edilmektedir.

The EUT shall be tested within its intended operating and climatic conditions. The test shall be performed with the test generator connected to each of the coupling and decoupling devices in turn, while the other non-excited RF input ports of the coupling devices are terminated by a 50-ohm load resistor. The frequency range is swept from 150 kHz to 80 MHz, using the signal level established during the setting process and with a disturbance signal of 80 % amplitude. The signal is modulated with a 1 kHz sine wave, pausing to adjust the RF signal level or the switch coupling devices as necessary. The step size shall not exceed 1 % of the start and thereafter 1 % of the preceding frequency value where the frequency is swept incrementally. The dwell time at each frequency shall not be less than the time necessary for the EUT to be exercised, and able to respond. Sensitive frequencies such as clock frequency(ies) and harmonics or frequencies of dominant interest, shall be analyzed separately.

Deney Düzenegi Test Setup



9.5.4 Deney Sonucu Test Results

	Frekans Frequency	Gerilim (rms) Voltage (rms)	Kablo Cable	Metot Method	Deney Sonucu Test Result
Güç Portları Power Ports	0,15-80 MHz	3V	AC power	CDN-M3	UYGUN/PASS
Kontrol/Sinyal Portları Control/Signal Ports	-	-	-	-	-
	-	-	-	-	-
Not; DGC ,TS EN 61000-6-1:2019 Standardı Madde 4'de belirtilen Performans Kriteri A'ye ilişkin şartları sağlamıştır. EUT is proper for Performans Criterion A with related to EN IEC 61000-6-1:2019 Item 4					

9.6 Şebeke Frekanslı Manyetik Alan Bağışıklık Deneyi

Power Frequency Magnetic Field Immunity

9.6.1 Deney Şartları

Test Specifications

Numune Numarası	:	
Sample No		
Deney Tarihi	:	21.09.2022
Test Date		
Temel Standart	:	TS EN 61000-4-8:2010, EN 61000-4-8:2010
Basic Standard		
Alan Şiddeti	A/m :	☐ 1 - ☒ 3 - ☐ 10 - ☐ 30
Field Strength		
Deney Frekansı	:	50 Hz
Test Frequency		
Gözlem Zamanı	:	60 s
Observation Time		
Numune Özelliği	:	☒ Dikili Tip ☐ Masa Tipi
Sample Property		Standing Type Table-top Type

9.6.2 Deney Cihazları

Test Instruments

Cihazın Tanımı	İmalatçı	Kodu	Sertifika Numarası	Kalibrasyon Bitiş Tarihi
Device Description	Manufacturer	Code	Certificate No	Calibration Due Date
LOOP ANTENNA	LVT	LC101	20KD3734	11/2022
AMPERE METER CLAMP	UNI-T	LC474	31405	02/2023
MCB MAGNETIC TESTER	FINE UNITY	LC56	E2206065	08/2023

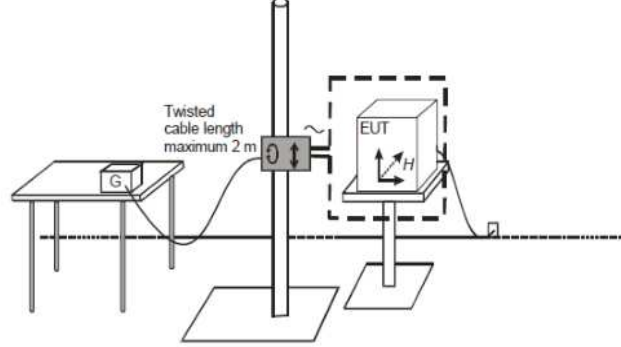
9.6.3 Deney Prosedürü

Test Procedure

Numune fonksiyonel özelliklerini yerine getirecek şekilde çalıştırılmaktadır. Referans düzleminden 0.1 metre izole edilen numunenin varsa mahfazası, toprak terminalinden referans düzleme bağlanmaktadır. Besleme ve sinyal çıkış bağlantıları yapılan numunenin imalatçı tarafından temin edilen kablolarının 1'er metrelik kısımları manyetik alana maruz kalacak şekilde konumlandırılır.

The equipment is configured and connected to satisfy its functional requirements. It shall be placed on the GRP with the interposition of a 0.1m-thick insulating support. The equipment cabinets shall be connected to the safety earth directly on the GRP via the earth terminal of the EUT. The power supply, input and output circuits shall be connected to the sources of power supply, control and signal. The cables supplied or recommended by the equipment manufacturer shall be used. 1 meter of all cables used shall be exposed to the magnetic field.

Deney Düzenegi
Test Setup



9.6.4 Deney Sonucu
Test Results

Düzlem <i>Direction</i>	Deney Sonucu <i>Test Result</i>
X	UYGUN/PASS
Y	UYGUN/PASS
Z	UYGUN/PASS
Not; DGC ,TS EN 61000-6-1:2019 Standardı Madde 4'de belirtilen Performans Kriteri A'ye ilişkin şartları sağlamıştır. <i>EUT is proper for Performans Criterion A with related to EN IEC 61000-6-1:2019 Item 4</i>	

9.7 Gerilim Çukurları , Kısa Kesintiler ve Gerilim Değişimleri ile İlgili Bağışıklık Deneyleri
*Voltage Dips , Short Interruptions and Voltage Variations Immunity Tests***9.7.1 Deney Şartları**
Test Specifications

Numune Numarası <i>Sample No</i>	:	
Deney Tarihi <i>Test Date</i>	:	28.09.2022
Temel Standart <i>Basic Standard</i>	:	TS EN IEC 61000-4-11:2020/AC:2020 EN 61000-4-11:2020/AC:2020-06
Deney Süresi <i>Test Duration</i>	:	Minimum three test events in sequence
Bekleme Aralığı <i>Interval Time</i>	:	10 sec.
Faz Açısı <i>Phase Angle</i>	:	0°
Deney Çevrimi <i>Test Cycle</i>	:	3

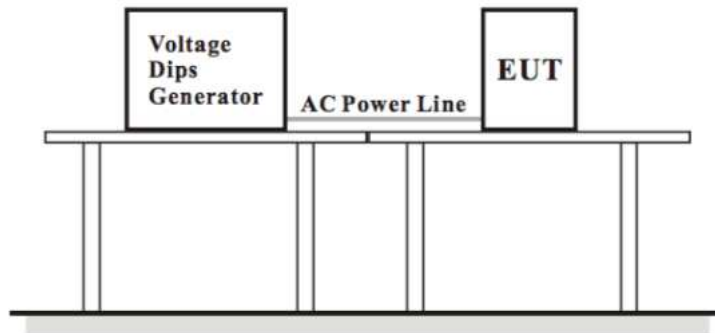
9.6.2 Deney Cihazları
Test Instruments

Cihazın Tanımı <i>Device Description</i>	İmalatçı <i>Manufacturer</i>	Kodu <i>Code</i>	Sertifika Numarası <i>Certificate No</i>	Kalibrasyon Bitiş Tarihi <i>Calibration Due Date</i>
ESG Simulator Compact	EMtest	LC90	E2202487	04/2023
MOBİL GERİLİM KAYNAĞI	VARSAN / 17 3352	LC379	63410	04/2023

9.7.3 Deney Prosedürü
Test Procedure

Numune seçilmiş her kombinasyon için uygun test seviyelerinde ve sürelerinde ,her ardışık uygulamada 3 adet gerilim çukuru/kesinti uygulanacak şekilde ,10'ar saniye bekleme süreleri ile test edilmektedir. Her temsili modda teste tabi tutulmalıdır. Besleme gerilimindeki ani değişimler,gerilimin sıfır noktasında gerçekleşmelidir.

The EUT shall be tested for each selected combination of test levels and duration with a sequence of three dips/interruptions with intervals of 10 s minimum (between each test event). Each representative mode of operation shall be tested. Abrupt changes in supply voltage shall occur at zero crossings of the voltage waveform.

Deney Düzenegi
Test Setup

9.7.4 Deney Sonucu
Test Results

Gerilim Düşümü % <i>Voltage Reduction</i>	Peryot <i>Period</i>	Deney Sonucu <i>Test Result</i>
0	0,5	UYGUN/PASS
0	1	UYGUN/PASS
70	25	UYGUN/PASS
0	250	UYGUN/PASS
Not; DGC ,TS EN 61000-6-1:2019 Standardı Madde 4'de belirtilen Performans Kriteri B,B,C'ye ilişkin şartları sağlamıştır. <i>EUT is proper for Performans Criterion B,B,C with related to EN IEC 61000-6-1:2019 Item 4</i>		

Yayılım Deneyleri
Emission Tests

9.8 İletim Yolu ile Yayılım
Conducted Emission

9.8.1 Deney Şartları
Test Specifications

Numune Numarası :
Sample No

Deney Tarihi : 27.09.2022
Test Date

Frequency (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 - 0.50	79	66	66-56	56-46
0.50 - 5.00	73	60	56	46
5.00 - 30.00	73	60	60	50

9.8.2 Deney Cihazları
Test Instruments

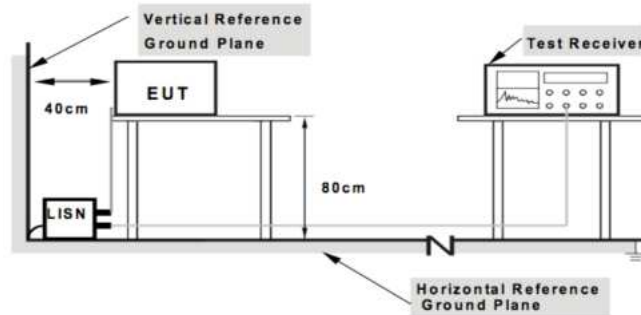
Cihazın Tanımı <i>Device Description</i>	İmalatçı <i>Manufacturer</i>	Kodu <i>Code</i>	Sertifika Numarası <i>Certificate No</i>	Kalibrasyon Bitiş Tarihi <i>Calibration Due Date</i>
Receiver	FRANKONIA	LC95	30206-RC203	03/2023
LISN LS16C10	AFJ	LC290	RDCAL3718	06/2023

9.8.3 Deney Prosedürü
Test Procedure

Numune ekranlı odanın 0.4 metre uzağında olacak şekilde konumlandırılır ve beslemesi LISN üzerinden gerçekleştirilir. Diğer destek üniteleri (varsa) güç beslemesine başka bir LISN ile bağlanır. Ölçü cihazı için bu LISN'lar 50 ohm / 50 uH 'lık bir empedans sağlamaktadır. Beslemenin her hattı en yüksek iletkenlik girişimine karşı kontrol edilir. Frekans aralığı 150 kHz – 30 MHz arasında taranır. Limitlerin 10 dB altındaki seviyeler raporlanmaz.

The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument. Both lines of the power mains connected to the EUT were checked for maximum conducted interference. The frequency range from 150 kHz to 30 MHz was searched. Emission levels over 10dB under the prescribed limits could not be reported.

Deney Düzenneği
Test Setup



9.8.4 Deney Sonucu

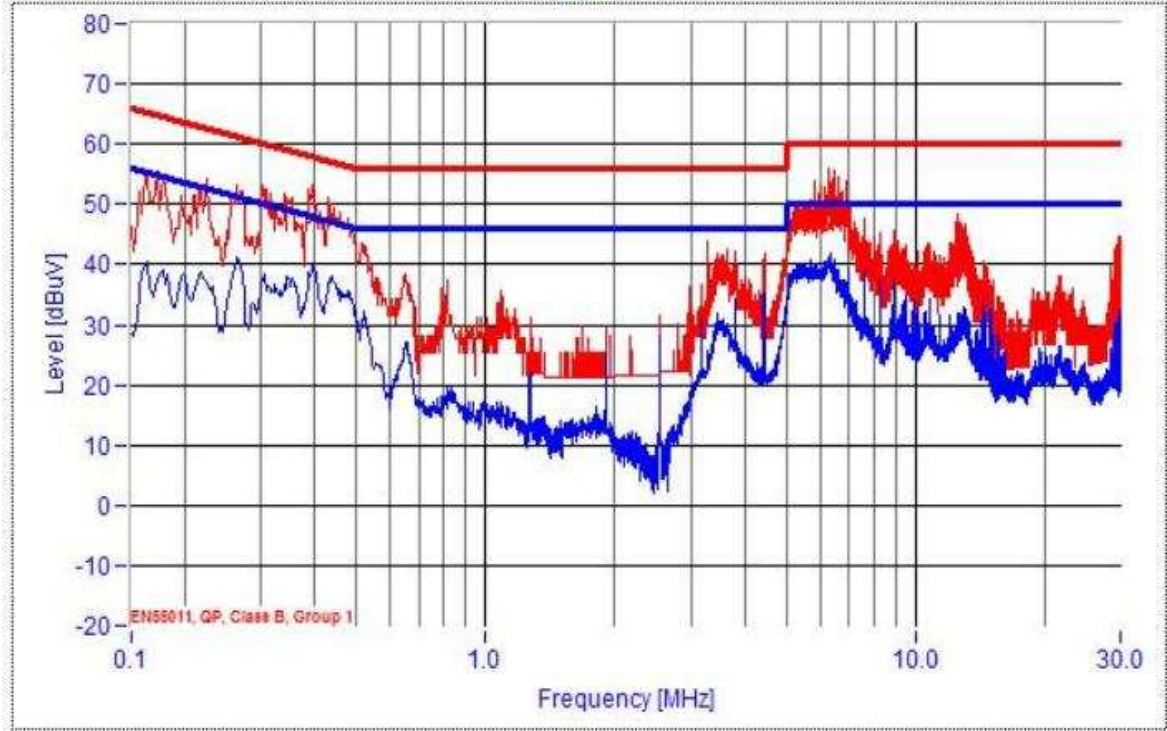
Test Results

Giriş Gücü : 230 V AC , 50 Hz
Input Power

Uygulama : ☐N ☒L ☐Telecommunication Ports
Application

Result :

Pass

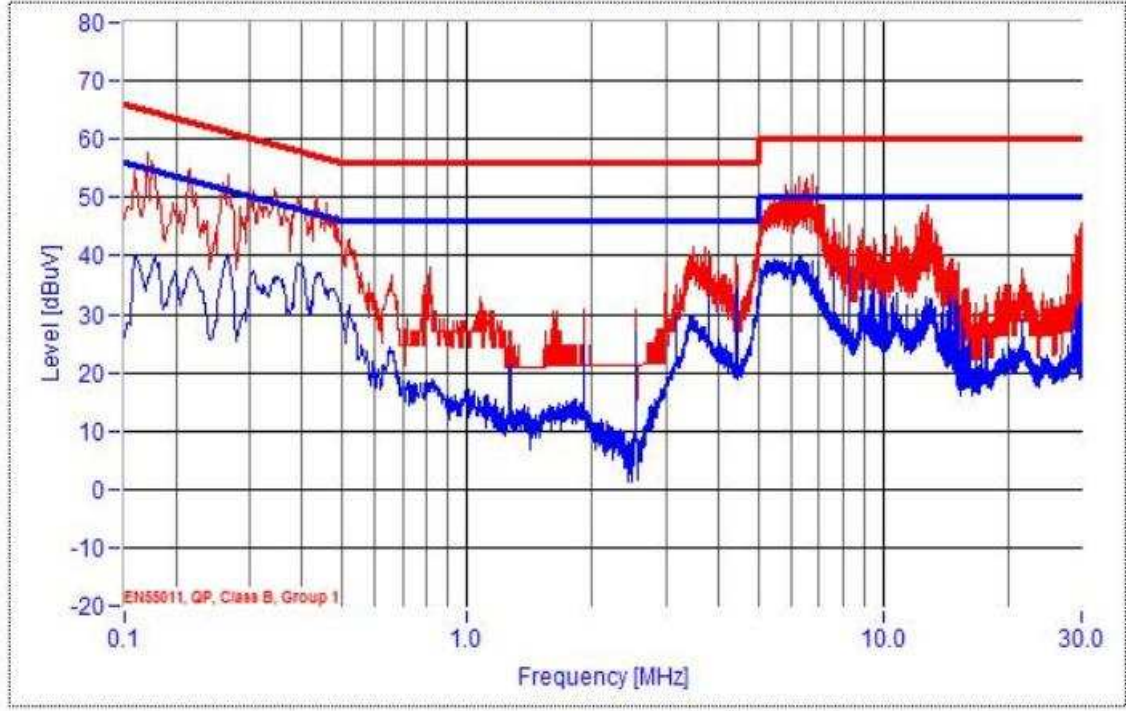


Giriş Gücü : 230 V AC , 50 Hz
Input Power

Uygulama : ☒N ☐L ☐Telecommunication Ports
Application

Result :

Pass



9.9 Işınım Yolu ile Yayılım
*Radiated Emission***9.9.1 Deney Şartları**
*Test Specifications***Numune Numarası** :
*Sample No***Deney Tarihi** : 20.09.2022
Test Date

Frequency (MHz)	Class A (3 m) dBuV/m	Class B (3 m) dBuV/m
30-230	50	40
230-1000	57	47

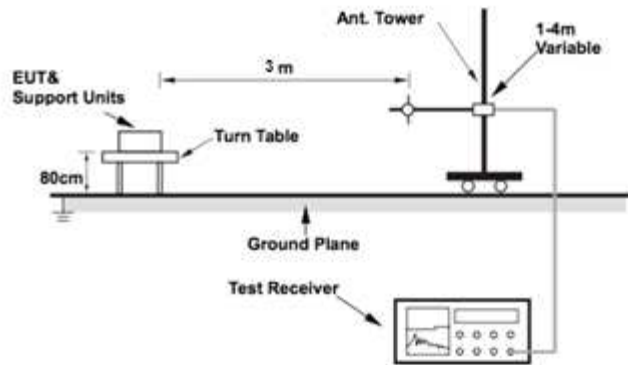
9.9.2 Deney Cihazları
Test Instruments

Cihazın Tanımı <i>Device Description</i>	İmalatçı <i>Manufacturer</i>	Kodu <i>Code</i>	Sertifika Numarası <i>Certificate No</i>	Kalibrasyon Bitiş Tarihi <i>Calibration Due Date</i>
Receiver	FRANKONIA	LC95	30206-RC203	03/2023
Log Periodic	EMC	LC95	G1ER-0121	12/2022

9.9.3 Deney Prosedürü
Test Procedure

Numune 0,8 metre yükseklikteki dönen tabla üstünde en yüksek yayılımı belirlemek için teste tabi tutulur. Ölçümler yarı yansız oda da 3 metre mesafeden gerçekleştirilir. Numune 360 derece dönen tablanın üzerinde en yüksek alan değerini yakalamak için taranır.

The sample was tested to determine the maximum emission level on 0,8 meter highturning table The measurements were recorded from 3 meters in semi anechoic chamber The test was performed for 360 degree

Deney Düzeneği
Test Setup

9.9.4 Deney Sonucu

Test Results

Giriş Gücü : 230V AC, 50 Hz

Input Power

Polarite : ☒Vertical ☐Horizontal

Polarity

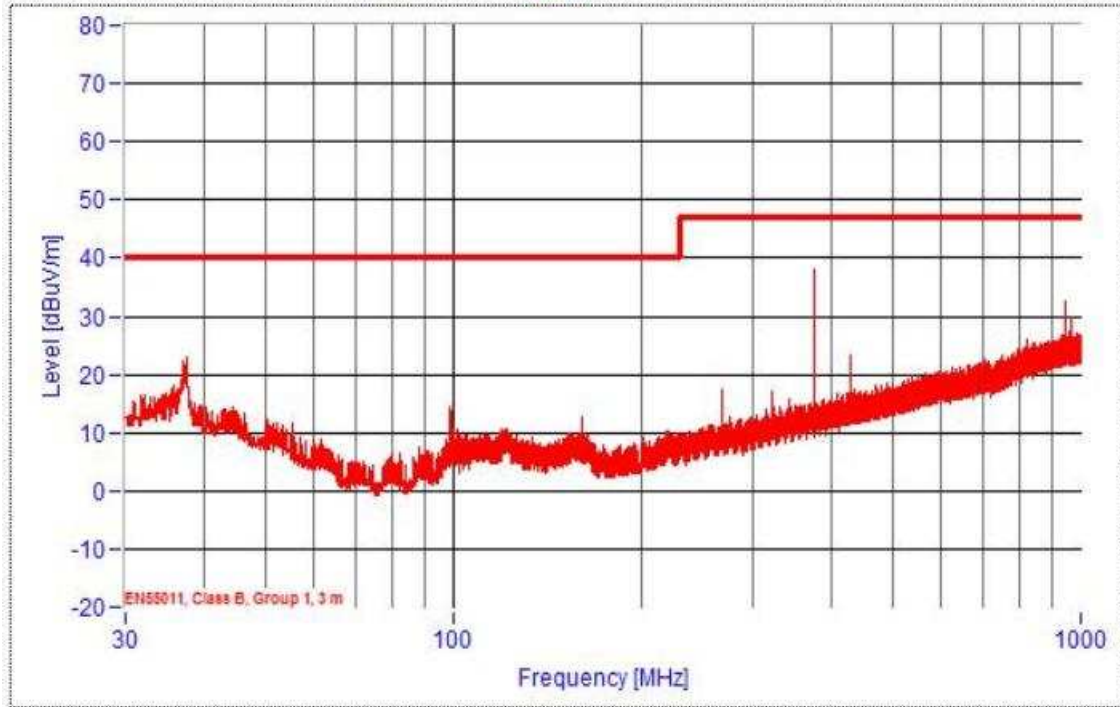
Frekans Aralığı : 30 – 1000 MHz

Frequency Range

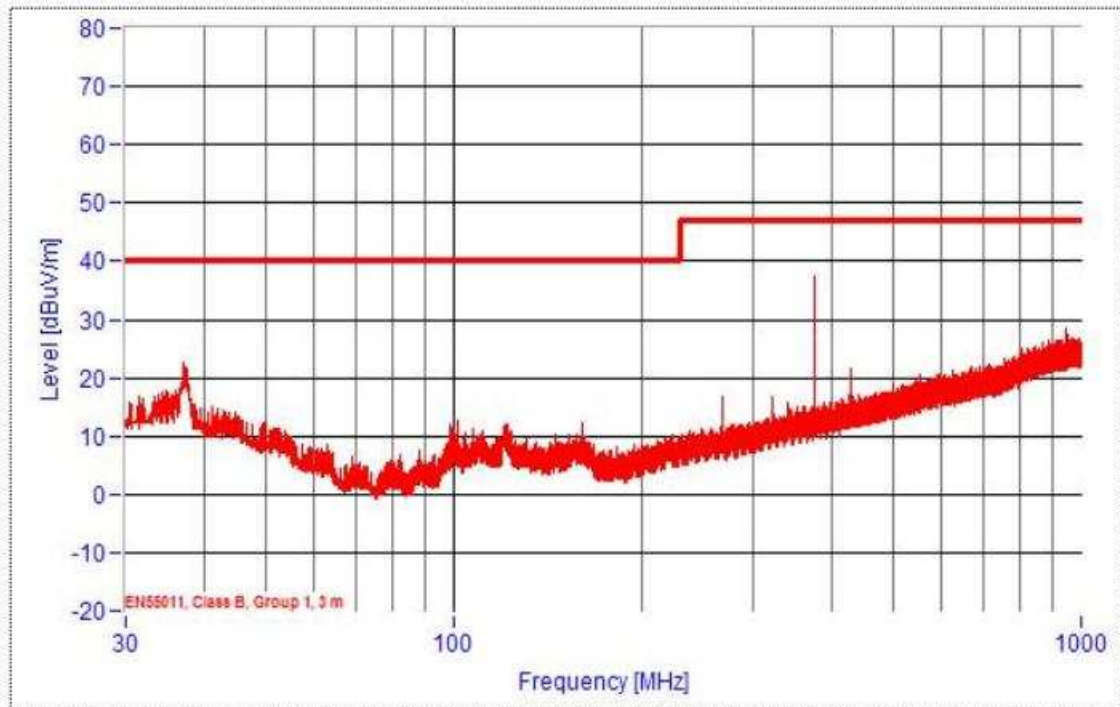
Deney Mesafesi : 3 m

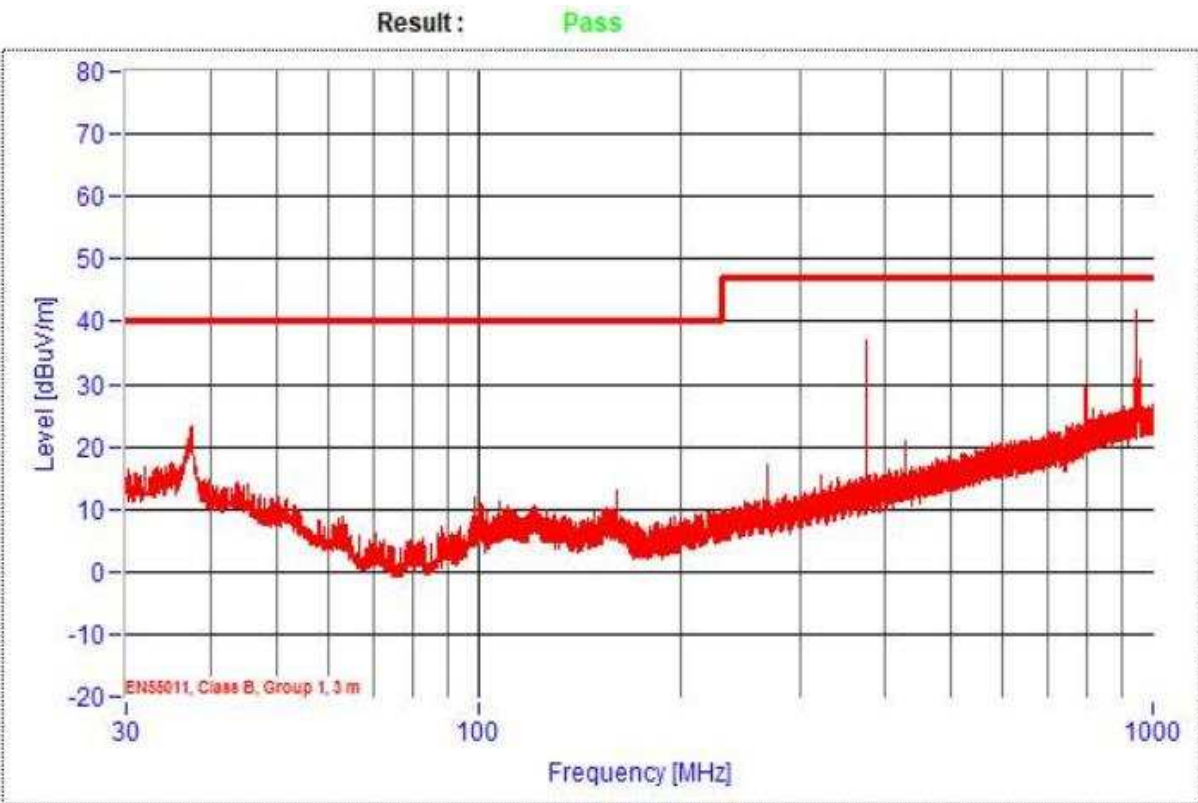
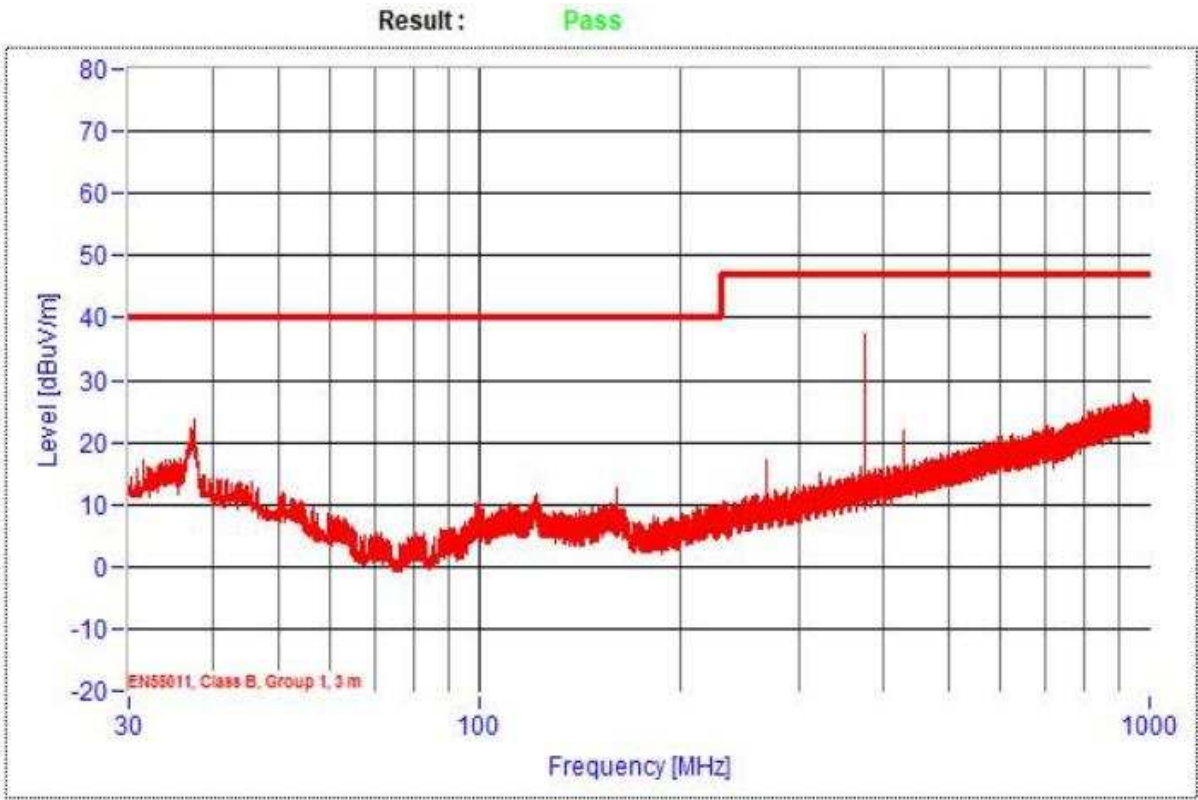
Test Distance

Result : **Pass**



Result : **Pass**





Giriş Gücü : 230V AC, 50 Hz

Input Power

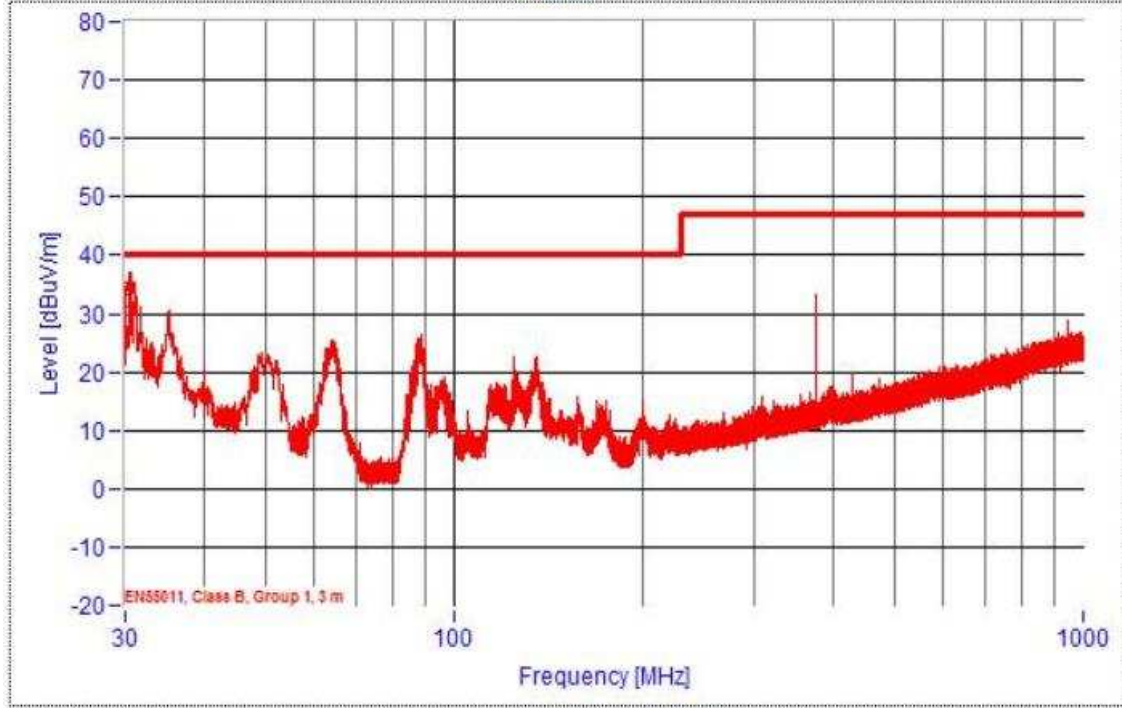
Polarite : ☐Vertical ☒Horizontal
Polarity

Frekans Aralığı : 30 – 1000 MHz

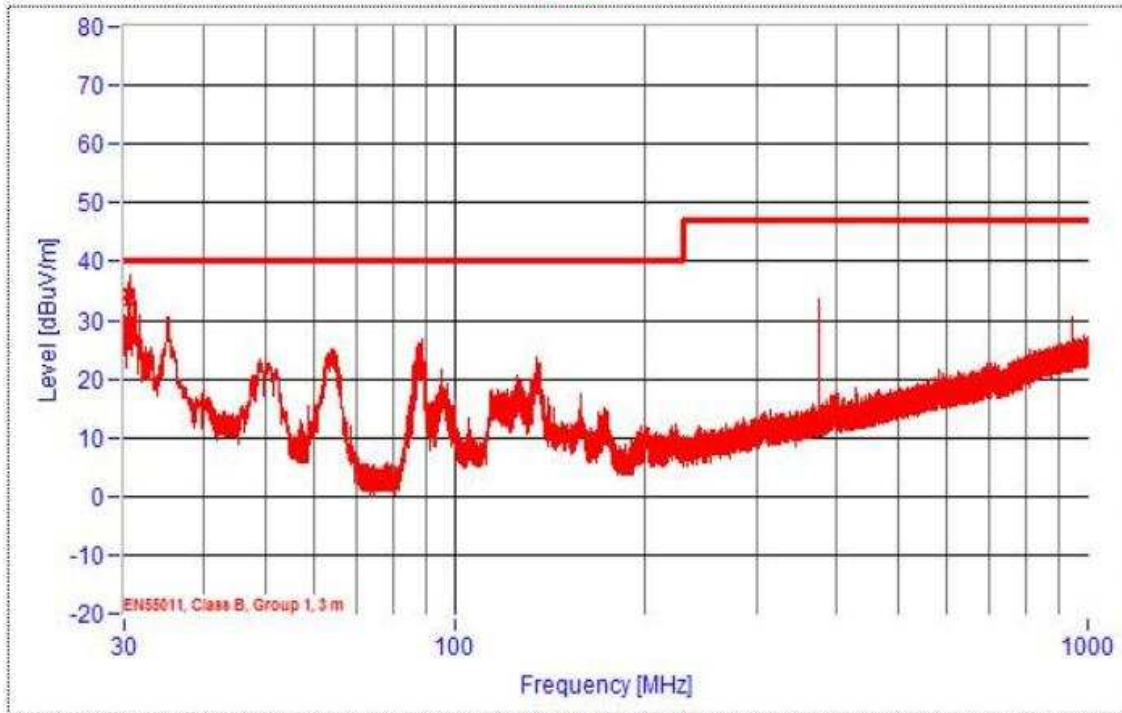
Frequency Range

Deney Mesafesi : 3 m
Test Distance

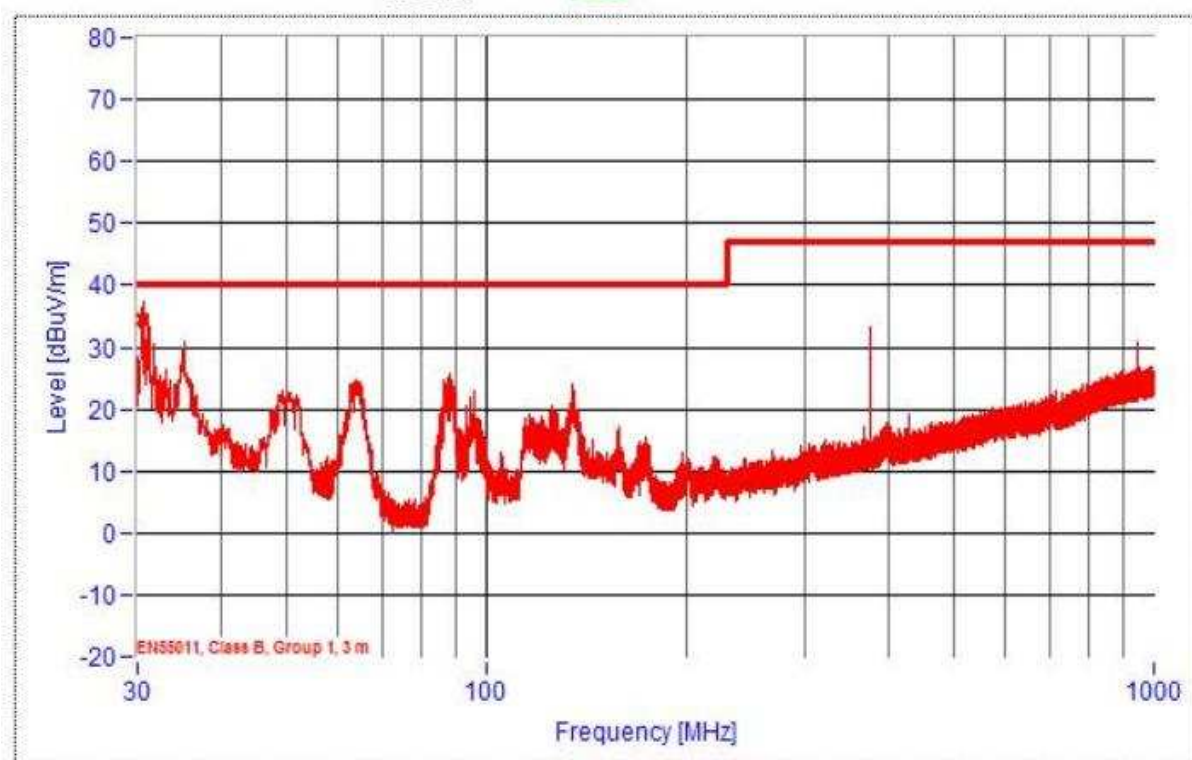
Result : **Pass**



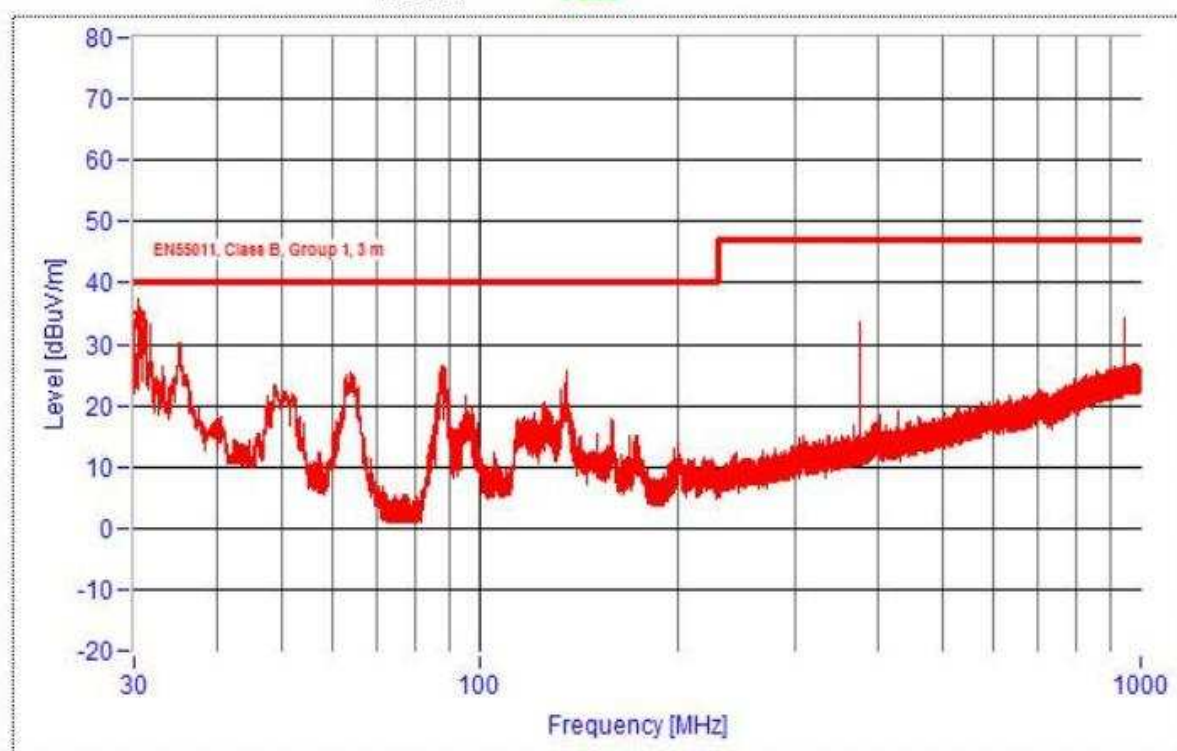
Result : **Pass**



Result : **Pass**



Result : **Pass**



9.10 Harmonik Akım Ölçümü

9.10.1 Deney Şartları

Numune Numarası :
Sample No

Deney Tarihi : 19.09.2022
Test Date

[illegible]

9.10.2 Deney Cihazları

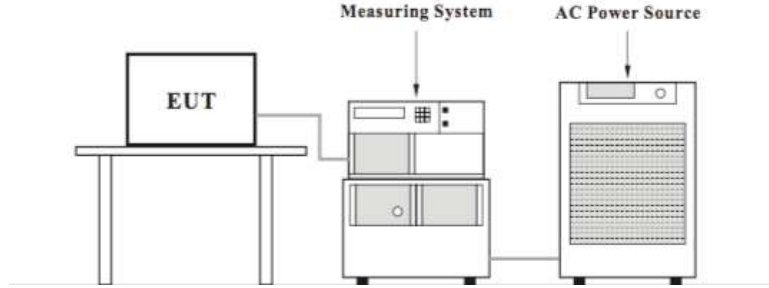
Cihazın Tanımı Device Description	İmalatçı Manufacturer	Kodu Code	Sertifika Numarası Certificate No	Kalibrasyon Bitiş Tarihi Calibration Due Date
HARMONIC & FLICKER TESTER	TTI	LC96	E2202485	04/2023
SUPPLY FILTER	TTI	LC97	20EL2875	09/2022

9.10.3 Deney Prosedürü

Numune zeminden 0.8 metre yükseklikteki ahşap masaya yerleştirilir (sadece masaüstü ekipmanlar için) ve normal operasyon şartlarında en yüksek harmonik bileşenlerinin tayini için teste tabi tutulur. Sınıflandırma EN 61000-3-2 standardına göre gerçekleştirilir.

The EUT was placed on the top of a wooden table 0.8 meters above the ground (only for tabletop EUT) and operated to produce the maximum harmonic components under normal operating conditions for each successive harmonic component in turn. The classification of EUT is according to section 5 of EN 61000-3-2.

Deney Düzenegi
Test Setup



9.10.4 Deney Sonucu

Test Results

Equipment Under Test : VN9-G-T-SE-W-KF BUZDOLABI

Serial Number : 2091465VN9

Tested by : SEFA KAYALI

Supply Voltage : 225.8 to 226.0 Vrms 316.0 Vpk Frequency : 49.98 to 50.00 Hz

Supply Meets EN Requirements

Load Power : 0.20 to 397.00 W 509.2 VA Power Factor 0.776

Load Current : 1.1 to 2.3 Arms 1.6 to 3.3 Apk Crest Factor 1.393

Max THC : 262.5 mA

Measurement Standard : EN61000-4-7:2002+A1:2009

Limits Applied : EN61000-3-2:2014 Class A Limits Apply.

Harmonic Number	Limit Current mA	Average (filtered) mA	% Limit	max. Value (Filtered) mA	% Limit	Assessment
Fundamental :		1435.9				
2 :	1080.0	93.1	8.6	164.3	15.2	Pass
3 :	2300.0	97.6	4.2	162.2	7.1	Pass
4 :	430.0	18.9	4.4	30.2	7.0	Pass
5 :	1140.0	74.4	6.5	110.7	9.7	Pass
6 :	300.0	9.6	3.2	14.7	4.9	Pass
7 :	770.0	39.4	5.1	51.7	6.7	Pass
8 :	230.0	8.2	3.6	12.9	5.6	Pass
9 :	400.0	30.5	7.6	39.2	9.8	Pass
10 :	184.0	5.7	3.1	7.9	4.3	Pass
11 :	330.0	20.0	6.1	25.5	7.7	Pass
12 :	153.3	3.8	2.5	5.0	3.3	Pass
13 :	210.0	8.8	4.2	13.3	6.3	Pass
14 :	131.4	3.2	2.4	4.3	3.3	Pass
15 :	150.0	7.6	5.1	12.5	8.3	Pass
16 :	115.0	2.5	2.2	3.5	3.0	Pass
17 :	132.3	9.3	7.0	16.5	12.5	Pass
18 :	102.2	2.0	2.0	3.5	3.4	Pass
19 :	118.4	7.5	6.3	14.7	12.4	Pass
20 :	92.0	1.6	1.7	2.8	3.0	Pass
21 :	107.1	7.4	6.9	11.8	11.0	Pass
22 :	83.6	1.2	1.4	2.5	3.0	Pass
23 :	97.8	5.5	5.6	7.1	7.3	Pass
24 :	76.7	1.3	1.7	2.5	3.3	Pass
25 :	90.0	3.8	4.2	6.1	6.8	Pass
26 :	70.8	1.3	1.8	2.1	3.0	Pass
27 :	83.3	4.6	5.5	5.7	6.8	Pass
28 :	65.7	1.3	2.0	2.1	3.2	Pass
29 :	77.6	5.0	6.4	6.8	8.8	Pass
30 :	61.3	1.2	2.0	2.1	3.4	Pass
31 :	72.6	4.6	6.3	6.8	9.4	Pass
32 :	57.5	1.1	1.9	1.7	3.0	Pass
33 :	68.2	2.9	4.3	4.6	6.7	Pass
34 :	54.1	0.8	1.5	1.7	3.1	Pass
35 :	64.3	2.0	3.1	2.8	4.4	Pass
36 :	51.1	0.6	1.2	1.4	2.7	Pass
37 :	60.8	1.5	2.5	2.1	3.5	Pass
38 :	48.4	0.7	1.4	1.4	2.9	Pass
39 :	57.7	2.0	3.5	3.2	5.5	Pass
40 :	46.0	0.6	1.3	1.4	3.0	Pass
21 - 39 :	251.4	14.0	5.6	18.3	7.3	-

9.11 Gerilim Dalgalanmaları ve Kıpırşma Ölçümü
Voltage Fluctuation and Flicker Measurement**9.11.1 Deney Şartları**
Test Specifications**Numune Numarası** :

Sample No

Deney Tarihi : 19.09.2022

Test Date

Test Item	Limit	Note
P_{st}	1.0	Short term flicker indicator
P_{lt}	0.65	Long term flicker indicator
T_{dt} (ms)	500	Maximum time that dt exceeds %3.3
d_{max} (%)	%4	Maximum relative voltage change
dc (%)	%3.3	Relative steady-state voltage change

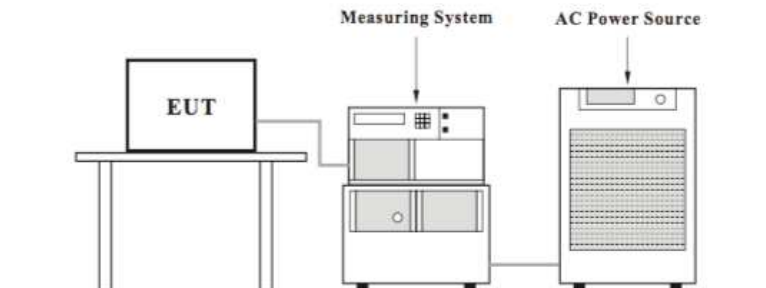
9.11.2 Deney Cihazları
Test Instruments

Cihazın Tanımı Device Description	İmalatçı Manufacturer	Kodu Code	Sertifika Numarası Certificate No	Kalibrasyon Bitiş Tarihi Calibration Due Date
HARMONIC & FLICKER TESTER	TTI	LC96	E2202485	04/2023
SUPPLY FILTER	TTI	LC97	E20EL2875	09/2022

9.11.3 Deney Prosedürü
Test Procedure

Numune 0.8 metre yüksekliğindeki ahşap masaya yerleştirilir (Masa üstü ekipmanlar için) ve normal çalışma şartlarında en olumsuz gerilim değişimlerini oluşturması için çalıştırılır. Kıpırşma ölçümlerinde ölçüm süresi en elverişsiz şartların oluşacağı zamanı kapsayacak şekilde ayarlanmaktadır. Kısa surely gözlemler 10 dakika içinde gerçekleştirilirken , uzun surely gözlemler 2 saatlik bir süre içinde gerçekleşir.

The EUT was placed on the top of a wooden table 0.8 meters above the ground and operated to produce the most unfavorable sequence of voltage changes under normal operating conditions. During the flick measurement, the measure time shall include that part of whole operation cycle in which the EUT produce the most unfavorable sequence of voltage changes. The observation period for short-term flicker indicator is 10 minutes and the observation period for long-term flicker indicator is 2 hours.

Deney Düzenegi
Test Setup

9.11.4 Deney Sonucu

Test Results

Equipment Under Test : VN9-G-T-SE-W-KF BUZDOLABI
Serial Number : 2091465VN9
Tested by : SEFA KAYALI

Load Power : 0.693 kW 0.781 kVA Power Factor 0.887
Load Current : 0.3 to 3.5 Arms 0.6 to 5.1 Apk Crest Factor 1.404

EN 61000-3-3:2013 - Voltage reduction is positive

Voltage Variations

Nominal Voltage: 230 Vrms
Highest Half-cycle level: +0.42%
Lowest Half-cycle level: +4.29%

d(max):	+3.51%	Limit: 4%	PASS
t(max):	0.02seconds	Limit: 500ms	PASS

Steady State definition: >1000ms within +/- 0.2%
Largest d(c) change down: +1.06%
Largest d(c) change up: -0.52%
Largest d(c) change: +1.06% Limit: 3.3% PASS

Flicker

Short Term Flicker Pst:	0.47	Limit: 1.00	PASS
Long Term Flicker Plt:	0.20	Limit: 0.65	PASS

Pst Classifier		Plt Calculation	
Duration	Flicker	Interval	Pst
0.7%	0.19	1:	0.47
1.0%	0.06	2:	0.00
1.5%	0.00	3:	0.00
2.2%	0.00	4:	0.00
3%	0.00	5:	0.00
4%	0.00	6:	0.00
6%	0.00	7:	0.00
8%	0.00	8:	0.00
10%	0.00	9:	0.00
13%	0.00	10:	0.00
17%	0.00	11:	0.00
30%	0.00	12:	0.00
30%	0.00		
50%	0.00	Plt =	0.20
80%	0.00		

Equipment Under Test : VN9-G-T-SE-W-KF BUZDOLABI
Serial Number : 2091465VN9
Tested by : SEFA KAYALI

Load Power : 0.410 kW 0.527 kVA Power Factor 0.778
Load Current : 2.3 Arms 3.3 Apk Crest Factor 1.406

EN 61000-3-3:2013 - Voltage reduction is positive

Voltage Variations

Nominal Voltage: 230 Vrms
Highest Half-cycle level: +0.42%
Lowest Half-cycle level: +0.50%

d(max): 0.00% Limit: 4% PASS
t(max): 0.00seconds Limit: 500ms PASS

Steady State definition: >1000ms within +/- 0.2%
Largest d(c) change down: 0.00%
Largest d(c) change up: +0.00%
Largest d(c) change: 0.00% Limit: 3.3% PASS

Flicker

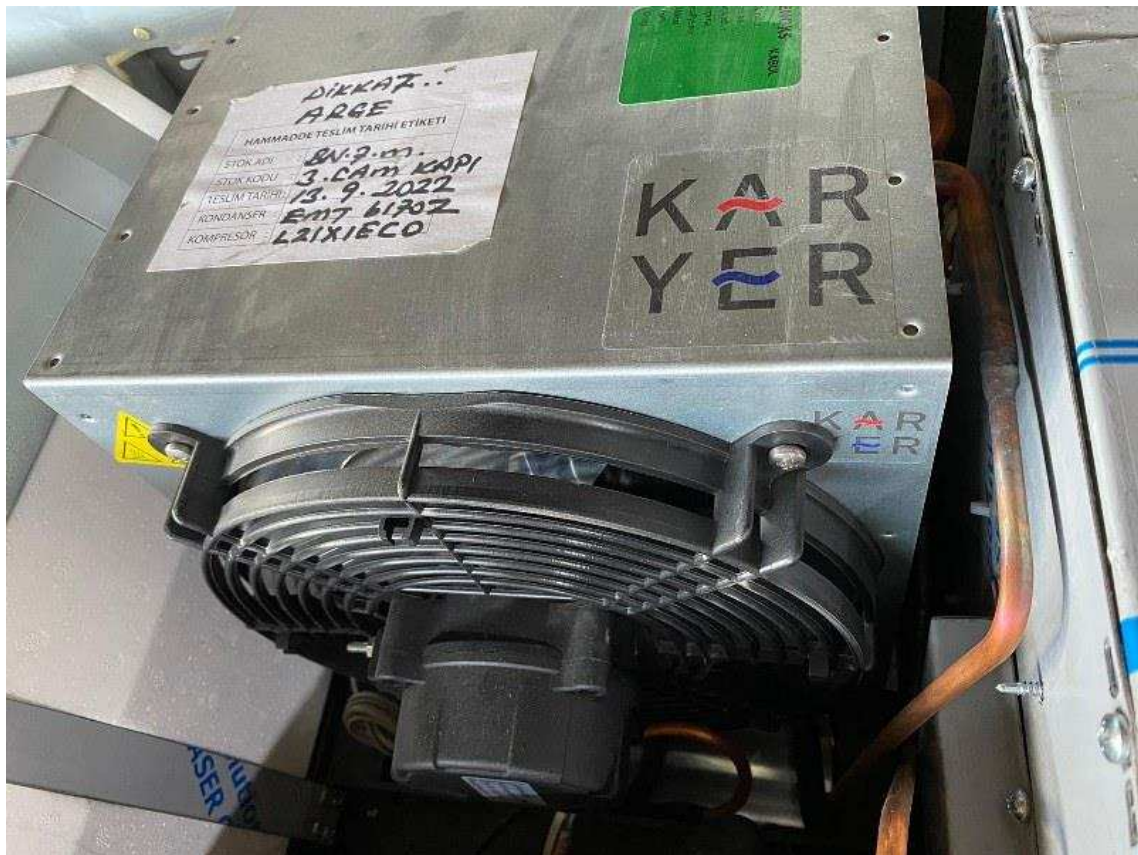
Short Term Flicker Pst: 0.00 Limit: 1.00 PASS
Long Term Flicker Plt: 0.00 Limit: 0.65 PASS

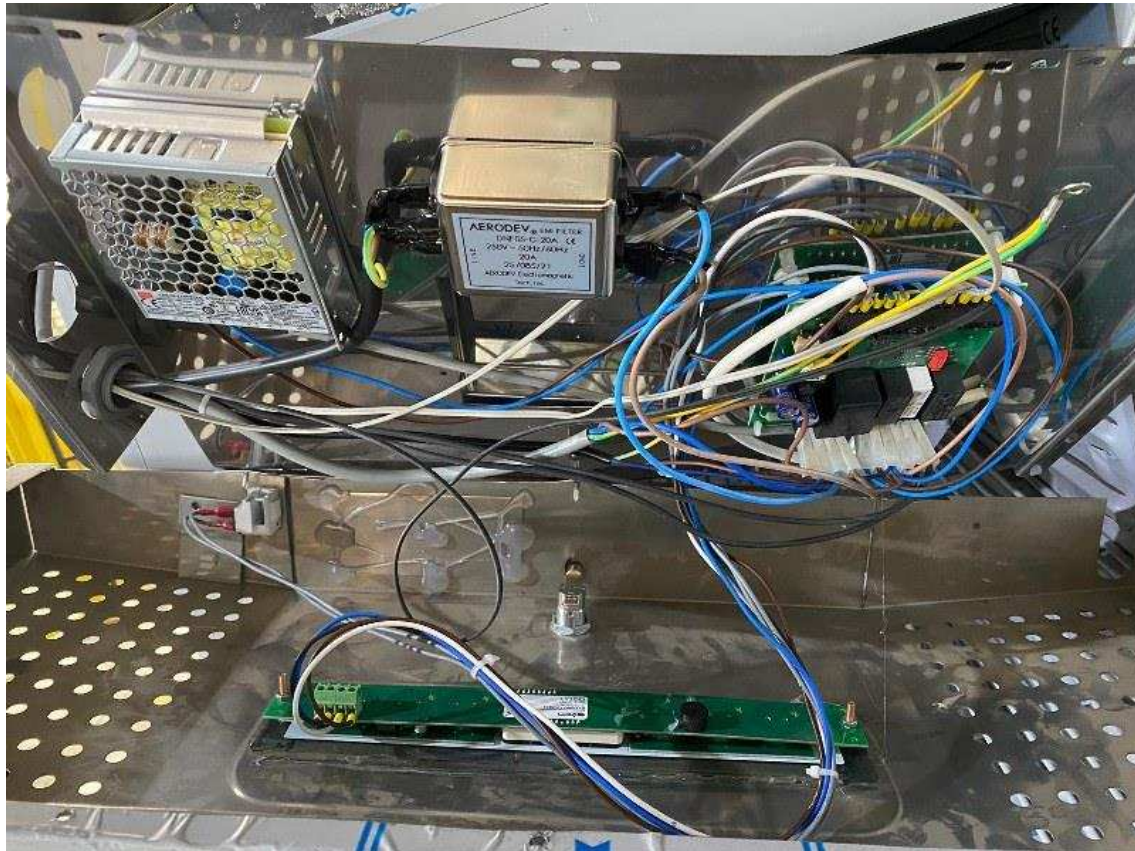
Pst Classifier		Plt Calculation	
Duration	Flicker	Interval	Pst
0.7%	0.00	1:	0.00
1.0%	0.00	2:	0.00
1.5%	0.00	3:	0.00
2.2%	0.00	4:	0.00
3%	0.00	5:	0.00
4%	0.00	6:	0.00
6%	0.00	7:	0.00
8%	0.00	8:	0.00
10%	0.00	9:	0.00
13%	0.00	10:	0.00
17%	0.00	11:	0.00
30%	0.00	12:	0.00
30%	0.00		
50%	0.00	Plt =	0.00
80%	0.00		

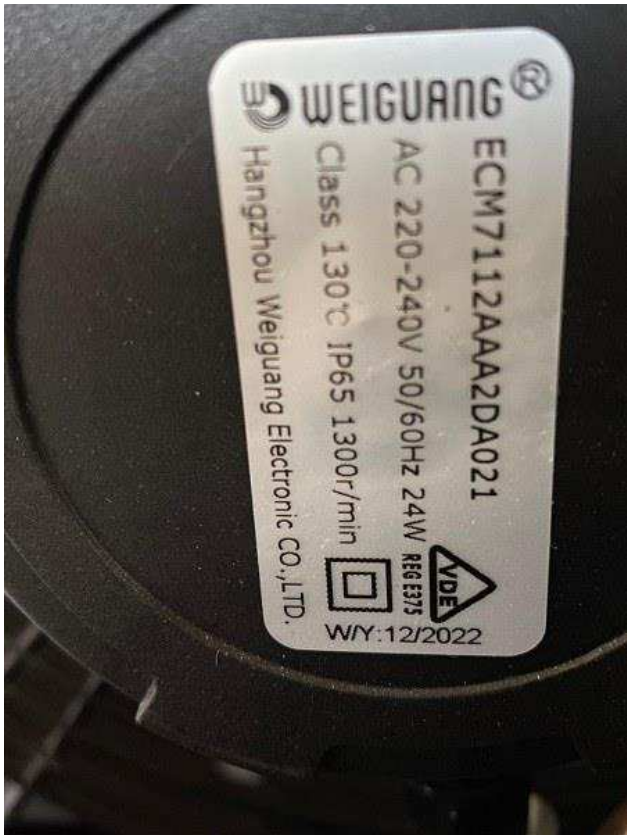
10. Deney Fotoğrafları:
Test Photographs

Deneye Giren Cihaz
Equipment Under Test









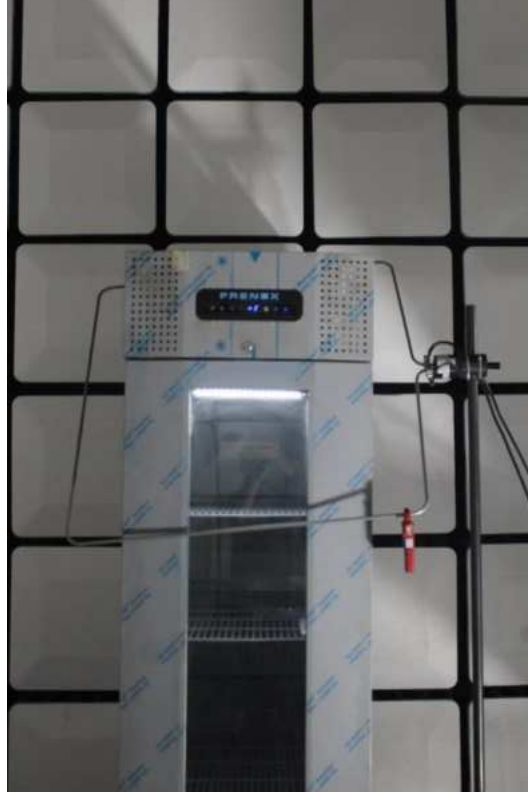
Bağlantı Ucu Bozulma Gerilimi
(Conducted Emission)



Harmonikler-Gerilim Dalgalanmaları ve Kıpırşma Ölçümü
(Harmonics -Voltage Fluctuation and Flicker Measurement)



Şebeke Frekanslı Manyetik Alan Bağışıklık Deneyi
Power Frequency Magnetic Field Immunity



RF Alanlar Tarafından Endüklenen,İletilen Bozulmalara Karşı Bağışıklık Deneyi
(Immunity to Conducted Disturbances Induced by Radio Frequency Fields)



Yayılım Bozulması
(Radiated Emission)



Işıyan, radyo frekans, elektromanyetik alan, bağışıklık deneyi
(Radiated, radio- frequency, electromagnetic field immunity test)



Elektrostatik Boşalma Bağışıklık Deneyi
(Electrostatic Discharge Immunity Test)



Elektriksel Hızlı Geçici Rejim/Patlama Bağışıklık Deneyi - Ani Yükselmelere Karşı Bağışıklık Deneyi - Gerilim Çukurları,Kısa Kesintiler ve Gerilim Değişimleri Bağışıklık Deneyi
(Electrical Fast Transient/Burst Immunity Test - Surge Immunity Test - Voltage Dips, Short Interruptions and Voltage Variations Immunity Test)



11. Firma Dökümanları:

Documentary of Client

Firma Ünvanı	:	FRENOKS ENDÜSTRİYEL SOĞUTMA SAN. VE TİC. A.Ş.
Company Title	:	
Firma Adresi	:	TOPÇULAR MAHALLESİ TIKVEŞLİ SK. NO:8 34055 EYÜP / İSTANBUL, TÜRKİYE
Company Address	:	
Üretici Ünvanı	:	FRENOKS ENDÜSTRİYEL SOĞUTMA SAN. VE TİC. A.Ş.
Manufacturer Title	:	
Üretici Adresi	:	TOPÇULAR MAHALLESİ TIKVEŞLİ SK. NO:8 34055 EYÜP / İSTANBUL, TÜRKİYE
Manufacturer Address	:	
Marka	:	FRENOKS
Brand	:	
Model	:	VN9-G-T-SE-W-KF
Type	:	
Seri No	:	2091465VN9
S/N	:	
Beyan Gerilimi	:	220 V AC
Rated Voltage	:	
Beyan Akımı	:	3 A
Rated Current	:	
Beyan Gücü	:	650 W
Rated Power	:	
Beyan Frekansı	:	50-60 Hz
Rated Frequency	:	
Numunenin Tanımı	:	DIKEY TİP ENDÜSTRİYEL BUZDOLABI
Test Item Descriptions	:	-T: TOUCH CONTROLLER APPEARANCE -W: WITH WHEELS -H: HACCP APPEARANCE -WP: WATER PROOF APPEARANCE -D: DRAWER -M: MONOBLOCK UNIT -KF: CANOPY WITH FAN -SE: SE APPEARANCE -V: V APPEARANCE -SL: SLIDING DOOR -L: LEFT DOOR -G: GLASS DOOR B: 430 SHEET V: 304 SHEET XR2 - 201 SHEET

Kritik Komponent Listesi**

Critical Component List

Bileşen Detayları	İmalatçı/Marka Detayları	Tip/Model Numarası	Bileşene Ait Teknik Özellikler	Bileşenin Belgelendirildiği Standart	İlgili Belgenin Sertifikası vb. Numarası
Compressor	Embraco	Hermetic Reciprocating Motor Type: CSIR	Rated voltage: 220 - 240 V, 50Hz Class: I Refrigerant: R134A, R404A, R280, R452, R600	IEC/EN 60335-1 IEC/EN 60335-2-89 EN12900 ASHRAE	VDE 40027157
Evaporator Fan Motor	KELI	Y161-25A P/N: A00FA134	230V 50Hz 28W	IEC/EN 60335-1 IEC/EN 60335-2-89	Tested in appliance
Condenser Fan Motor	WEIGUANG	ECM7112AAZDA021	230V 50-60Hz 24W Class 130°C IP65 1300r/min	IEC/EN 60335-1 IEC/EN 60335-2-89	Tested in appliance
Power Cable	Oznur Kablo	H07V-U, H07V-R (TSE), NYA (VDE)	Maks. çalışma sıcaklığı 700 C Maks. kısa devre sıcaklığı s300 mm2 için 1600 C >300 mm2 için 1400C	TS EN 50525-2-31, VDE 0281, BS 6004, IEC 60227	TS EN 50525-2-31, VDE 0281, BS 6004, IEC 60227
Cable	NKS KABLO	NKS FLEX-JB	3X1,50mm 2943/04	TS EN 50525-2-31, VDE 0281, BS 6004, IEC 60227	TS EN 50525-2-31, VDE 0281, BS 6004, IEC 60227
Plug	Gençler Kablo	3GE01	250V 16A	VDE 0620-2-1	VDE 40003893
Display PCB	EVCO	EVF200XXVM801	Control Unit	EN 60730-2-9 EN60730-1	TUV 60104885
Door switch	NOVA	DR 104	250V 25A	EN 61058-1	TUV R 60097566
Heating Element	RIKA	1EFKCG7000001 100RS4227 100RS3979 100RS3688 1A5511249 1C7X1640C	220-265V AC	IEC/EN 60335-1 IEC/EN 60335-2-89	Tested in appliance
Defrost Heater		1EFKCG7000001 100RS4227 100RS3979 100RS3688 1A5511249 1C2U640C	220-265V AC	IEC/EN 60335-1 IEC/EN 60335-2-89	Tested in appliance
Door Heater	Sedes Group	Flexible	240V AC input	IEC/EN 60335-1 IEC/EN 60335-2-89	Tested in appliance

**FRENOKS İÇ VE DIŞ
TİCARET ANONİM ŞİRKETİ**
Topçular Mh. Tikveşli Yolu No:84
Bayrampaşa Vergi Dairesi
Tic. Sic. No: 119915
Bayrampaşa V.D. 388 107 9225

Components information					
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾
Compressor	Embraco	Hermetic Reciprocating Motor Type: CSIR	Rated voltage: 220 - 240 V, 50Hz Class: I Refrigerant: R134A, R404A, R290, R452, R600	IEC/EN 60335-1 IEC/EN 60335-2-89 EN12900 ASHRAE	VDE 40027157
Evaporator Fan Motor	KELI	YJ61-25A P/N: A00FA134	230V 50Hz 28W	IEC/EN 60335-1 IEC/EN 60335-2-89	Tested in appliance
Condenser Fan Motor	WEIGUANG	ECM7112AAA2DA021	230V 50-60Hz 24W Class 130°C IP65 1300r/min	IEC/EN 60335-1 IEC/EN 60335-2-89	Tested in appliance
Power Cable	Oznur Kablo	H07V-U, H07V-R (TSE) , NYA (VDE)	Maks. çalışma sıcaklığı 700 C Maks. kısa devre sıcaklığı ≤300 mm2 için 1600 C >300 mm2 için 1400 C	TS EN 50525-2-31, VDE 0281, BS 6004, IEC 60227	TS EN 50525-2-31, VDE 0281, BS 6004, IEC 60227
Cable	NKS KABLO	NKSFLEX-JB	3X1,50mm 2943/04	TS EN 50525-2-31, VDE 0281, BS 6004, IEC 60227	TS EN 50525-2-31, VDE 0281, BS 6004, IEC 60227
Plug	Gençler Kablo	3GE01	250V 16A	VDE 0620-2-1	VDE 40003893
Display PCB	EVCO	EVF200XXVMB01	Control Unit	EN 60730-2-9 EN60730-1	TUV 60104885
Door switch	NOVA	DR 104	250V 25A	EN 61058-1	TUV R 60097566
Heating Element	RICA	1EFICG7000001 100RS4227 100RS3979 100RS3688 1ASS11249 1CZXJ640C	220-265V AC	IEC/EN 60335-1 IEC/EN 60335-2-89	Tested in appliance
Defrost Heater		1EFICG7000001 100RS4227 100RS3979 100RS3688 1ASS11249 1CZXJ640C	220-265V AC	IEC/EN 60335-1 IEC/EN 60335-2-89	Tested in appliance
Door Heater	Sedes Group	Flexible	240V AC input	IEC/EN 60335-1 IEC/EN 60335-2-89	Tested in appliance

**FRENOKS İÇ VE DIŞ
TİCARET ANONİM ŞİRKETİ**
Topçular Mh. / Tıkvesli Yolu No:8/1
Bayrampaşa Vergi Dairesi
Tic. Sic. No: 119915
Bayrampaşa V.D. 388 107 9225

30/09/2022

AYNİYAT BEYANI
IDENTITY DECLARATION

Sayfa 2 ve 3 de bulunan model ürünlerin bütün teknik özelliklerinin (soğutma çevrimindeki bileşenler, elektrik bileşenleri ve kritik komponentler) aynı olduğunu beyan ederiz.

We declare that the products mentioned in pages 2 & 3 are identical in all technical respects such as cooling and electrical components and critical parts

Model/Type Ref : VN9-G-T-SE-W-KF

FRENOKS İÇ VE DIŞ
TİCARET ANONİM ŞİRKETİ
Topçular Mh. Tiryakili Yolu No:9/1
Bayrampaşa Vergi Dairesi
Tic. Sic. No: 119915
Bayrampaşa V.D. 388 107 9225

BB150, BB250, BB350, BBN2, BBN2-R290, BBN3, BBN3-R290, BBN4, BBN4-R290, BF4, BF4-R290, BG100, BGH2-TG, BGH2-TG-R290, BGH3-TG, BGH3-TG-R290, BGH4-TG, BGH4-TG-R290, BGL1-C, BGL1-C-R290, BGL2, BGL2-M, BGL2-M-R290, BGL2-R290, BGL3, BGL3-M, BGL3-M-R290, BGL3-R290, BGL4, BGL4-M, BGL4-M-R290, BGL4-R290, BGN1-C, BGN1-C-R290, BGN2, BGN2-3G, BGN2-3G-R290, BGN2-3SGC, BGN2-3SGC-R290, BGN2-M, BGN2-M-R290, BGN2-R290, BGN2-SG, BGN2-SGC, BGN2-SG-CL, BGN2-SG-CL-R290, BGN2-SGC-R290, BGN2-SG-R290, BGN2-TG, BGN2-TG-R290, BGN3, BGN3-4G, BGN3-4G-R290, BGN3-4SGC, BGN3-4SGC-R290, BGN3-M, BGN3-M-R290, BGN3-R290, BGN3-SG, BGN3-SGC, BGN3-SG-CL, BGN3-SG-CL-R290, BGN3-SGC-R290, BGN3-SG-R290, BGN3-TG, BGN3-TG-R290, BGN4, BGN4-5G, BGN4-5G-R290, BGN4-5SGC, BGN4-5SGC-R290, BGN4-M, BGN4-M-R290, BGN4-R290, BGN4-SG, BGN4-SGC, BGN4-SG-CL, BGN4-SG-CL-R290, BGN4-SGC-R290, BGN4-SG-R290, BGN4-TG, BGN4-TG-R290, BGNL2-M, BGNL2-M-R290, BGNL3-M, BGNL3-M-R290, BGNL4, BGNL4-M, BGNL4-M-R290, BGNL4-R290, BL10, BL10-R290, BL12, BL12-R290, BL14, BL14-M, BL14-M-R290, BL164, BL164-R290, BL16-P, BL16-P-R290, BL18, BL18-R290, BL20, BL20-R290, BL223, BL223-R290, BL4, BL4-R290, BL5, BL5-R290, BL6, BL6-R290, BL7, BL7-M, BL7-M-R290, BL8-EV-ICE, BL8-EV-ICE-R290, BL8-P, BL8-P-R290, BL8-RP-R290, BL9, BL9-R290, BMN155, BMN155-R290, BMN164, BMN164-R290, BMN210, BMN210-R290, BMN223, BMN223-R290, BMP164, BMP164-R290, BMP223, BMP223-R290, BN10, BN10-R290, BN12, BN12-R290, BN14, BN14-M, BN14-M-R290, BN16-P, BN16-P-R290, BN18, BN18-R290, BN20, BN20-R290, BN4, BN4-R290, BN5, BN5-R290, BN6, BN6-R290, BN7, BN7-M, BN7-M-R290, BN8-P, BN8-P-R290, BN9, BN9-R290, BPL2, BPL2-R290, BPL3, BPL3-R290, BPN2, BPN2-R290, BPN3, BPN3-R290, BSL1, BSL1-C, BSL1-C-R290, BSL1-R290, BSL1-ST, BSL1-ST-R290, BSL2, BSL2-R290, BSL2-M, BSL2-M-R290, BSL3, BSL3-R290, BSL3-M, BSL3-M-R290, BSL4, BSL4-R290, BSL4-M, BSL4-M-R290, BSN1, BSN1-R290, BSN1-C, BSN1-C-R290, BSN2, BSN2-R290, BSN2-M, BSN2-M-R290, BSN3, BSN3-R290, BSN3-M, BSN3-M-R290, BSN4, BSN4-R290, BSN4-M, BSN4-M-R290, BZT155, BZT155-R290, BZT160, BZT160-R290, BZT210, BZT210-R290, BZT215, BZT215-R290, CEK1, CEK2, CGL1-C, CGL1-C-R290, CGL2, CGL2-M, CGL2-M-R290, CGL2-R290, CGL3, CGL3-M, CGL3-M-R290, CGL3-R290, CGL4, CGL4-M, CGL4-M-R290, CGL4-R290, CGN1-C, CGN1-C-R290, CGN2, CGN2-3G, CGN2-3G-R290, CGN2-3SGC, CGN2-3SGC-R290, CGN2-BG, CGN2-BG-R290, CGN2-M, CGN2-M-R290, CGN2-MT, CGN2-MT-R290, CGN2-R, CGN2-R290, CGN2-SG, CGN2-SGC, CGN2-SG-CL, CGN2-SG-CL-R290, CGN2-SGC-R290, CGN2-SG-R290, CGN2-SH, CGN2-SH-R290, CGN2-SL, CGN2-SL-R290, CGN2-YM, CGN2-YM-R290, CGN3, CGN3-4G, CGN3-4G-R290, CGN3-4SGC, CGN3-4SGC-R290, CGN3-BG, CGN3-BG-R290, CGN3-M, CGN3-M-R290, CGN3-MT, CGN3-MT-R290, CGN3-R, CGN3-R290, CGN3-SG, CGN3-SGC, CGN3-SG-CL, CGN3-SG-CL-R290, CGN3-SGC-R290, CGN3-SG-R290, CGN3-SH, CGN3-SH-R290, CGN3-SL, CGN3-SL-R290, CGN3-YM, CGN3-YM-R290, CGN4, CGN4-5G, CGN4-5G-R290, CGN4-5SGC, CGN4-5SGC-R290, CGN4-BG, CGN4-BG-R290, CGN4-M, CGN4-M-R290, CGN4-MT, CGN4-MT-R290, CGN4-R, CGN4-R290, CGN4-SG, CGN4-SGC, CGN4-SG-CL, CGN4-SG-CL-R290, CGN4-SGC-R290, CGN4-SG-R290, CGN4-SH, CGN4-SH-R290, CGN4-YM, CGN4-YM-R290, CGNL2-M, CGNL2-M-R290, CGNL3-M, CGNL3-M-R290, CGNL4, CGNL4-M, CGNL4-M-R290, CGNL4-R290, CKT2, CKT2-R290, CKT3, CKT3-R290, CL100, CN100, CSL1-C, CSL1-C-R290, CSL2, CSL2-R290, CSL2-M, CSL2-M-R290, CSL3, CSL3-R290, CSL3-M, CSL3-M-R290, CSL4, CSL4-R290, CSL4-M, CSL4-M-R290, CSN1-C, CSN1-C-R290, CSN2, CSN2-BG, CSN2-BG-R290, CSN2-M, CSN2-M-R290, CSN2-MT, CSN2-MT-R290, CSN2-R, CSN2-R290, CSN2-SH, CSN2-SH-R290, CSN2-SL, CSN2-SL-R290, CSN3, CSN3-BG, CSN3-BG-R290, CSN3-M, CSN3-M-R290, CSN3-MT, CSN3-MT-R290, CSN3-R, CSN3-R290, CSN3-SH, CSN3-SH-R290, CSN3-SL, CSN3-SL-R290, CSN4, CSN4-BG, CSN4-BG-R290, CSN4-M, CSN4-M-R290, CSN4-MT, CSN4-MT-R290, CSN4-R, CSN4-R290, CSN4-SH, CSN4-SH-R290, CSNL4, CSNL4-R290, DL4, DL4-R290, DN4, DN4-R290, DN4-CK, DN4-CK-R290, DR10, DR10-R290, DR13, DR13-R290, DR250, DR250, DR6, DR6-R290, DSP100, DSP140, DSP155, DSP160, DSP186, DSP210, DSP215, FRH2, FRH2-R290, FRH3, FRH3-R290, FRH4, FRH4-R290, GL13, GL13-R290, GL6, GL6-R290, GN13, GN13-R290, GN6, GN6-R290, GRN-BGL2-M, GRN-BGL3-M, GRN-BGL4-M, GRN-BGN2-M, GRN-BGN3-M, GRN-BGN4-M, GRN-BL18, GRN-BL9, GRN-BN18, GRN-BN9, GRN-BSL2-M, GRN-BSL3-M, GRN-BSL4-M, GRN-BSN2-M, GRN-BSN3-M, GRN-BSN4-M, GRN-CGL2-M, GRN-CGL3-M, GRN-CGL4-M, GRN-CGN2-M, GRN-CGN3-M, GRN-CGN4-M, GRN-CSL2-M,

FRENOKS İÇ VE DİŞ
TİCARET ANONİM ŞİRKETİ
Topçular Mah. Tilkışlı Yolu No:5/1
Bayrampaşa/İstanbul
Tic. Sic. No: 119915
Bayrampaşa V.D. 388 107 9225

GRN-CSL3-M, GRN-CSL4-M, GRN-CSN2-M, GRN-CSN3-M, GRN-CSN4-M, GRN-VL18, GRN-VL9, GRN-VN18, GRN-VN9, HGH2-TG, HGH3-TG, HGH4-TG, JB130, JB130-CK, JB90, JB90-CK, KCN2, KCN2-R290, KCN3, KCN3-R290, KCN4, KCN4-R290, KEG4, KEG6, KEG8, KGN2, KGN2-R290, KGN3, KGN3-R290, KGN4, KGN4-R290, KMN2, KMN2-R290, KMN3, KMN3-R290, KSN2-K, KSN2-K-R290, KSN3-K, KSN3-K-R290, KSN4-K, KSN4-K-R290, MB100, MB100-R290, MB150, MB200, MB200-R290, MB250, MB350, MGA2-04, MGA2-04-R290, MGA2-06, MGA2-06-R290, MGA3-04, MGA3-04-R290, MGA3-06, MGA3-06-R290, MGA4-04, MGA4-04-R290, MGA4-06, MGA4-06-R290, MGN2, MGN2-R290, MGN3, MGN3-R290, MGN4, MGN4-R290, ML10, ML10-R290, ML20, ML20-R290, ML4, ML4-R290, MN10, MN10-R290, MN20, MN20-R290, MN4, MN4-R290, MPN2, MPN2-R290, MPN3, MPN3-R290, MPN4, MPN4-R290, MS100, MS100-R290, MS150, MS250, MS350, MSL1, MSN1, P164, P164-R290, P223, P223-R290, PA-BL14, PA-BL14-R290, PA-BL7, PA-BL7-R290, PA-BN14, PA-BN14-R290, PA-BN7, PA-BN7-R290, PA-VL14, PA-VL14-R290, PA-VL7, PA-VL7-R290, PA-VL7-RO, PA-VL7-RO-R290, PA-VL7-RO-PASS, PA-VL7-RO-PASS-R290, PA-VL7-RO-RP, PA-VL7-RO-RP-R290, PA-VN14, PA-VN14-R290, PA-VN7, PA-VN7-R290, PA-VN7-RO, PA-VN7-RO-R290, PA-VN7-RO-PASS, PA-VN7-RO-PASS-R290, PGL1015, PGL1520, PGL3050, PGL3050-R290, PGL5175, PGL7610, PGN1015, PGN1520, PGN3050, PGN3050-R290, PGN5175, PGN5175-R290, PGN7610, PIZ179, PIZ179-R290, PIZ237, PIZ237-R290, PL164, PL164-R290, PL223, PL223-R290, PMN155, PMN155-R290, PMN164, PMN164-R290, PMN210, PMN210-R290, PMN223, PMN223-R290, PMP164, PMP164-R290, PMP223, PMP223-R290, PN164, PN164-R290, PN223, PN223-R290, PPL2, PPL2-R290, PPL3, PPL3-R290, PPN2, PPN2-R290, PPN3, PPN3-R290, PSL18, PSL18-R290, PSL9, PSL9-R290, PWT1, PWT1-R290, PWT2, PWT2-R290, PZT155, PZT155-R290, PZT160, PZT160-R290, PZT210, PZT210-R290, PZT215, PZT215-R290, SB1, SB1-R290, SB300, SB300-R290, SGL3050, SGL3050-R290, SGL5175, SGN1, SGN1-R290, SGN2, SGN2-R290, SGN3, SGN3-R290, SGN3050, SGN3050-R290, SGN4, SGN4-R290, SGN5175, SGN5175-R290, SGN7610, SHY70, SL1, SL1-R290, SL13, SL13-R290, SL150, SL150-R290, SL6, SL6-R290, SN13, SN13-R290, SN6, SN6-R290, SPD11, SPD11-217, SPD11-240, SPD11-330, SPD11-A, SPD11-B, SPD6, SPL1520, SPL3075, SPL7615, SPN1520, SPN3075, SPN7615, SS150, SS250, SS300, SS300-R290, SS350, SSN1, SSN1-R290, SSN2, SSN2-R290, SSN3, SSN3-R290, SSN4, SSN4-R290, ST150, ST250, ST350, SY13, SY13-R290, SY150, SY150-R290, SY250, SY250-R290, SY6, SY6-R290, TEZ1, TEZ2, TEZ3, TEZ4, UGL2, UGL2-R290, UGL3, UGL3-R290, UGL4, UGL4-R290, UGN2, UGN2-R290, UGN2-SH, UGN2-SH-R290, UGN3, UGN3-R290, UGN3-SH, UGN3-SH-R290, UGN4, UGN4-R290, UGN4-SH, UGN4-SH-R290, USL2, USL2-R290, USL3, USL3-R290, USL4, USL4-R290, USN2, USN2-R290, USN2-SH, USN2-SH-R290, USN3, USN3-R290, USN3-SH, USN3-SH-R290, USN4, USN4-R290, USN4-SH, USN4-SH-R290, VBL10, VBL10-R290, VBL10-2/1, VBL14-3, VBL14-3-R290, VBL15, VBL20, VBL40, VBL5, VBL5-R290, VBL7, VBL7-R290, VBN14-3, VBN14-3-R290, VL10, VL10-R290, VL12, VL12-R290, VL14, VL14-M, VL14-M-R290, VL14-P, VL14-P-R290, VL16-P, VL16-P-R290, VL18, VL18-R290, VL20, VL20-R290, VL21, VL21-R290, VL6, VL6-R290, VL7, VL7-M, VL7-M-R290, VL7-P, VL7-PAS, VL7-PAS-R290, VL8-P, VL8-P-R290, VL9, VL9-R290, VLL14, VLL14-R290, VLL18, VLL18-R290, VLL7, VLL7-R290, VLLN21, VLLN21-R290, VLS7, VLS7-R290, VN10, VN10-R290, VN12, VN12-R290, VN14, VN14-M, VN14-M-R290, VN14-P, VN14-P-R290, VN16-P, VN16-P-R290, VN18, VN18-R290, VN20, VN20-R290, VN6, VN6-R290, VN7, VN7-M, VN7-M-R290, VN7-P, VN7-P-R290, VN8-P, VN8-P-R290, VN9, VN9-CK, VN9-CK-R290, VN9-R290, VNL14, VNL14-R290, VNL18, VNL18-R290, VNL7, VNL7-R290, VNN14, VNN14-R290, VNN18, VNN18-R290, VNN7, VNN7-R290, VNNL21, VNNL21-R290, VNS7, VNS7-R290, VTN100, VTN120, VTN160, VTN170-OP, VTN190-OP, VTN200, VTN80, VTN90, VTN90-OP, WL13, WL13-R290, WL6, WL6-R290, WN1-R290, WN10-2-BH, WN10-2-BH-R290, WN10-2-SB, WN10-2-SB-R290, WN10-2-VB, WN10-2-VB-R290, WN10-BH, WN10-BH-R290, WN10-SB, WN10-SB-R290, WN13, WN13-R290, WN4, WN4-R290, WN4/2, WN4/2-R290, WN6, WN6-R290

FRENOKS İÇ VE DİŞ
TİCARET ANONİM ŞİRKETİ
Topçular Mh. Tekveşli Yolu No:8/1
Bayrampaşa Vergi Dairesi
Tic. Sic. No: 119915
Bayrampaşa V.D. 388 107 9225



Identify of operator or importer:

Identify of materials of articles: Fridge/Freezer

For materials made from plastic intended to come into contact with food:

Polystyrene, Polystyrene PS002, Polystyrene PS062, Polyethylene PE009:SB053

Hereby we declare that the products complies with European Regulations on Plastic materials Regulation (EC) No 10/2011, as well as Regulation (EC) No 1935/2004, both in their relevant versions.

When used as specified, the overall migration as well as the specific migration do not exceed the legal limits. The materials and raw materials used comply with the Regulation (EC) No 10/2011 related to plastic materials and articles to come into contact with foodstuffs and its amendments.

The following substances subject to limitations and/or specification are used in the above mentioned products:

Material	Ref.no.	CAS	Name of Substance	Limits/restrictions
PS001	13630	106-99-0	Butadiene	Not detectable
	25610	100-42-5	Styrene	Not restriction
	68320	2082-79-3	Octadecyl-3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	SML=6mg/kg
	/	557-05-1	Zinc stearate	<25mg/kg expressed as zinc(2005/79/3,Annex II,2.(b))
	95883	8042-47-5	White mineral oils, paraffinic derived from petroleum based hydrocarbon feedstocks	In compliance laid down in EU 2002/72/EC, Annex V
PS002	/	557-05-1	Zinc from zinc salts	<25mg/kg expressed as zinc(2005/79/3,Annex II,2.(b))
PS062	13630	106-99-0	Butadiene	Not detectable
	68320	2082-79-3	Octadecyl-3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	SML=6mg/kg
PE009	Monomers and additives are not regulated with specific migration limits			
SB053	13630	106-99-0	Butadiene	SML= not detectable (defection limit of method 0,02 mg/kg food)

Specification of the intended use or limitations:

Refrigerators and freezers with drawers for vegetable and fruit. Vegetables, fruits, packaged foods and dry foods are stored in this equipment. In freezers food is stored below -18 °C. Refrigerators: food is stored between 0 °C and 10 °C.

Ratio of the area of the food contact material to the volume used to determine the compliance of the plastic the plastic food contact material or article: (approximately 300 cm² of surface area of drawer comes into contact with the food while the volume of the drawer is approx. 500 cm³).

A functional barrier made from plastic is not used in the above mentioned products.

FRENOKS END. SOĞ. SAN VE TİC. A.Ş.



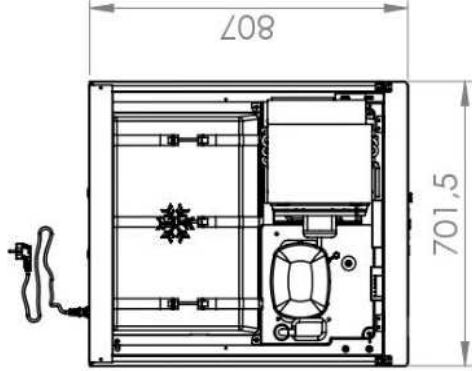
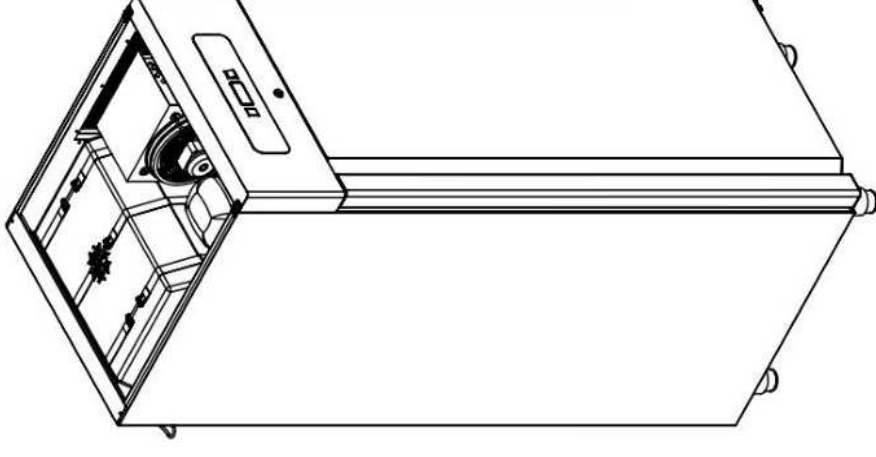
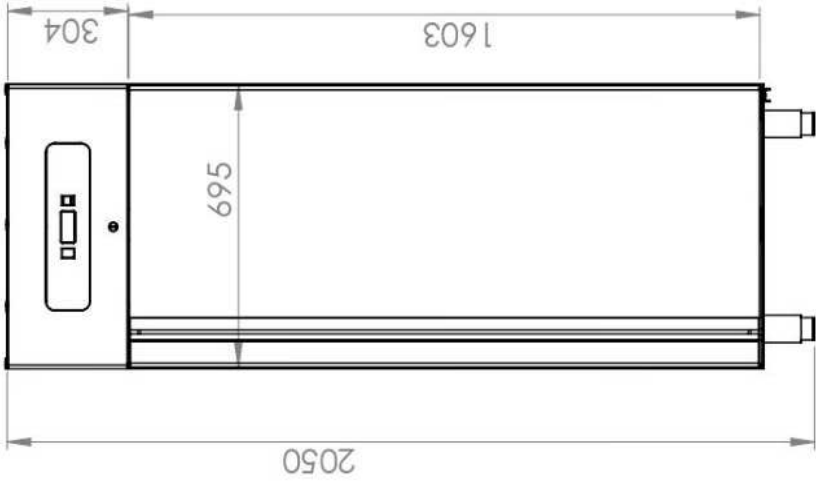
BN7-M-R290
DIK BUZDOLABI
MALZEME VE TEKNİK ÖZELLİKLER DOSYASI



BN7-M-R290
DİK BUZDOLABI
MALZEME VE TEKNİK ÖZELLİKLER DOSYASI
MATERIAL AND TECHNICAL CHARACTERISTICS MANUEL

İÇİNDEKİLER / INDEX :

- 1. KARAKTERİSTİK / CHARACTERISTICS**
- 2. İÇ VE DIŞ ÖLÇÜLER / INSIDE , OUTSIDE DIMENSIONS**
- 3. PATLAMIŞ RESİMLER / EXPLODED WIEV**
- 4. YEDEK PARÇA LİSTESİ / SPARE PART LIST**
- 5. GAZ VE ELEKTRİK ŞEMASI / GAS AND ELECTRICAL SCHEME**



DIŞ BOYUTLAR / OUTSIDE DIMENSIONS : 701,5x807x2050
İÇ BOYUTLAR / IN DIMENSIONS : 581x685x1500

İSİM	ONAY	TARİH	ÖLÇÜLER:	RESİM NO:	BN7-M-R290	FRENEX ENDÜSTRİYEL SOĞUTMA SAN. ve TİC. A.Ş.
ÇİZEN: M. Ali ÖZÇELİK		25.04.2024	MALZEME:	REV. NO:		
KONTROL: Burak İNCEÇAM						

BN7-M-R290 KARAKTERİSTİK ÖZELLİKLERİ /BN7-M-R290 CHARACTERISTIC SPECIALITIES

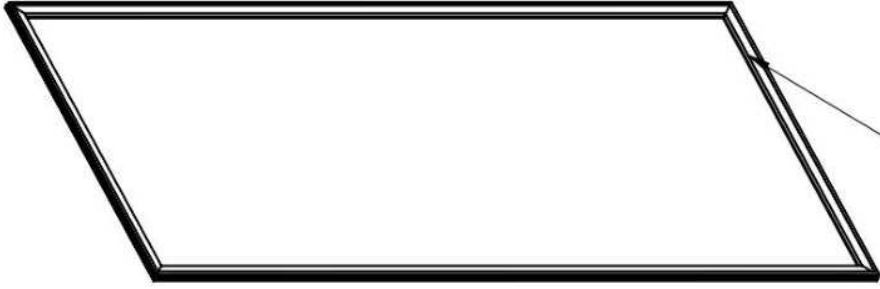
Çalışma Sıcaklığı / Working Tempature C	: -2C / +8C
Termoster Set Sıcaklığı / Thermostate Set Tempature	: +1C
Ortam Sıcaklığı / Environment Tempature	: +43C
Ortam Nem Oranı / Environment Moisture Propertion	: %65
Voltaj- Frekans / Voltage- Frekans	: 230V / 50 Hz

AKSESUARLAR VE KONTROL LAMBALARI / ACCESORIES AND CONTROL SWITCHES

Dijital Termostat / Digital Thermometer	: Digital Thermometer
Enerji Lambası / Energy Lamp	: Ad / PCC 1
Açma Kapama Düğmesi / Power Switch	: Ad / PCS 1
Menteşe Grubu / Hinges Group	: Ad / PCS 1
Ayak / Stand	: 4 Paslanmaz Ayak / 4 Stainless Steel Stand
Raf / Shelf	: 3 Ad. Plastik Kaplı Raf/3 Unts PlasticCoatedShelf

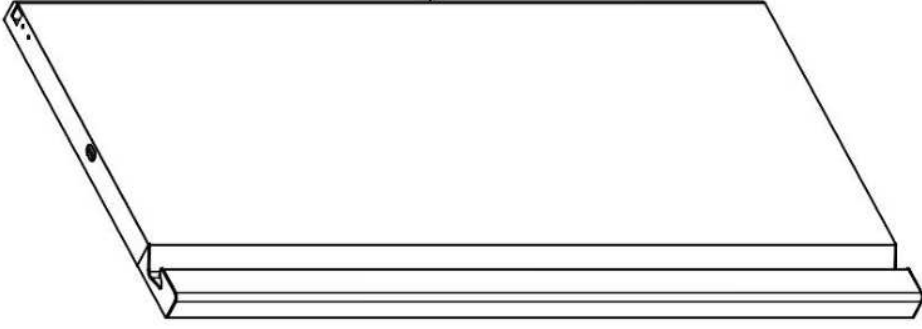
TEKNİK ÖZELLİKLER / TECHNICAL CHARACTERISTICS

Dış boyutlar / Outside Dimensions	: 701,5x807x2050mm
İç Boyutlar / Inside Dimensions	: 581x685x1500mm
Ambalaj Boyutları / Package Dimensions	: 800x925x2200mm
İç Hacim / Inside Volume	: 650 lt
Brüt Ağırlık / Gross Weight	: 160 kg
Net Ağırlık / Net Weigt	: 120 kg
Dış Gövde / Outside Body	: 0,60 mm INOX 430 SB+PVC
İç Gövde / Inside Body	: 0,50 mm INOX 430 MAT+PVC
Yalıtım Maddesi Kalınlığı / Insulation Metarial Thicnes	: 60 mm
Yalıtım Maddesi Yoğunluğu / Insulation Metarial Volume	: 42 Kg / m3 +/-1
Kompresör / Compresor	: EMC 3130 U R290 50Hz
Kondanser / Condanser	: VN7-K KONDANSER FANSIZ R-290 B-22017
Kondenser Fanı / Condanser Fan	: ECM7112/7108 ENERJİ SAVING FAN MOTORU
Evaporatör / Evaporatör	: EVAPORATOR VN7-K R290 B-22989
Evaporatör Fan / Evaporatör Fan	: KELİ MOTOR FAN (B2315YJ001A)
Kurutucu Filtre / Dryer	: DRAYER (30 GR.)(GAZ FİLTRESİ) KOMPLE 83,5 GR
Soğutucu Akışkan Gaz / refrigerator Gas	: R290
Soğutucu Akışkan Miktarı / Ref. Gas Quantity	: 80 gr
Onaylar / Certifications	: TS 2225 EN 30335-2-4' ye uygundur.
Seri No / Serial No	: Ambalajlı Halde Okunacak Şekilde Uygun Yere Yazılır / Packed And Easy Read
Ambalaj / Packing	: Altta Tahta Palet, Karton ve Havalı Naylon İçinde / Wooden Palet İs Down And Covered
Garanti Süresi / Qualty Time	: Kullanım Noktasına Ulaşımından İtibaren İmalat Hatalarına Karşı 2 Yıl. Her Ürün İle Garanti Belgesi ve Yetkili Servis Listesi Mevcuttur. / 2 Years After arriving the end user point. Warranty Certicate and User Manuel With the Unit.



HM-A00CO119

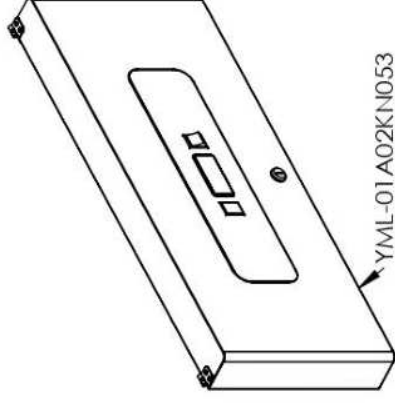
BOOKK100



YML-01A01KA112



İSİM	ONAY	TARİH	PARÇA ADI	RESİM NO:	REV. NO:	FRENEX
V. Ali ÖZÇELİK		25.04.2024	BN7 - KAPI - R290	YML-01A01KA112		ENDÜSTRİYEL SOĞUTMA SAN. ve TİC. A.Ş.
3ürak İNCEÇAM						



YML-01A02KN053

YML-C16200027

YML-G4480054

YML-G4480054

YML-G4480054

YML-G4480054

YML-G4480054

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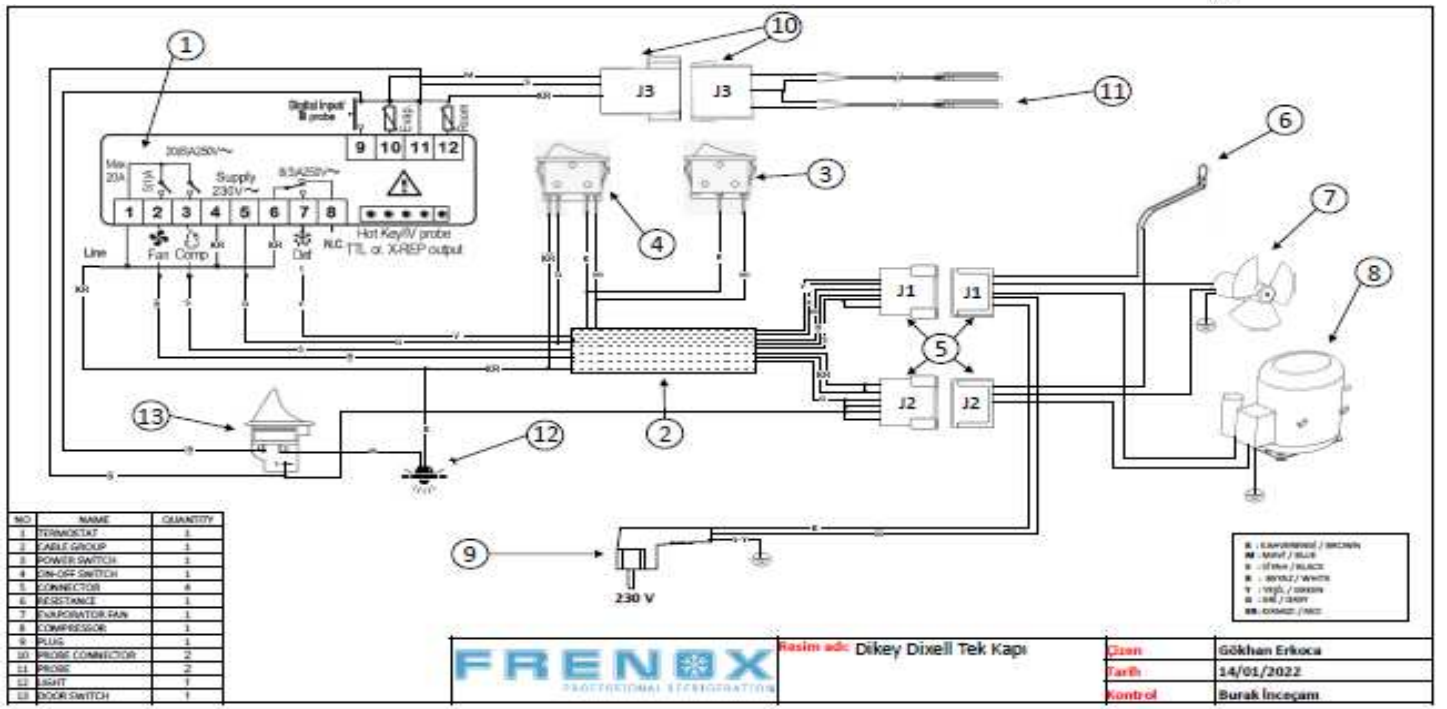
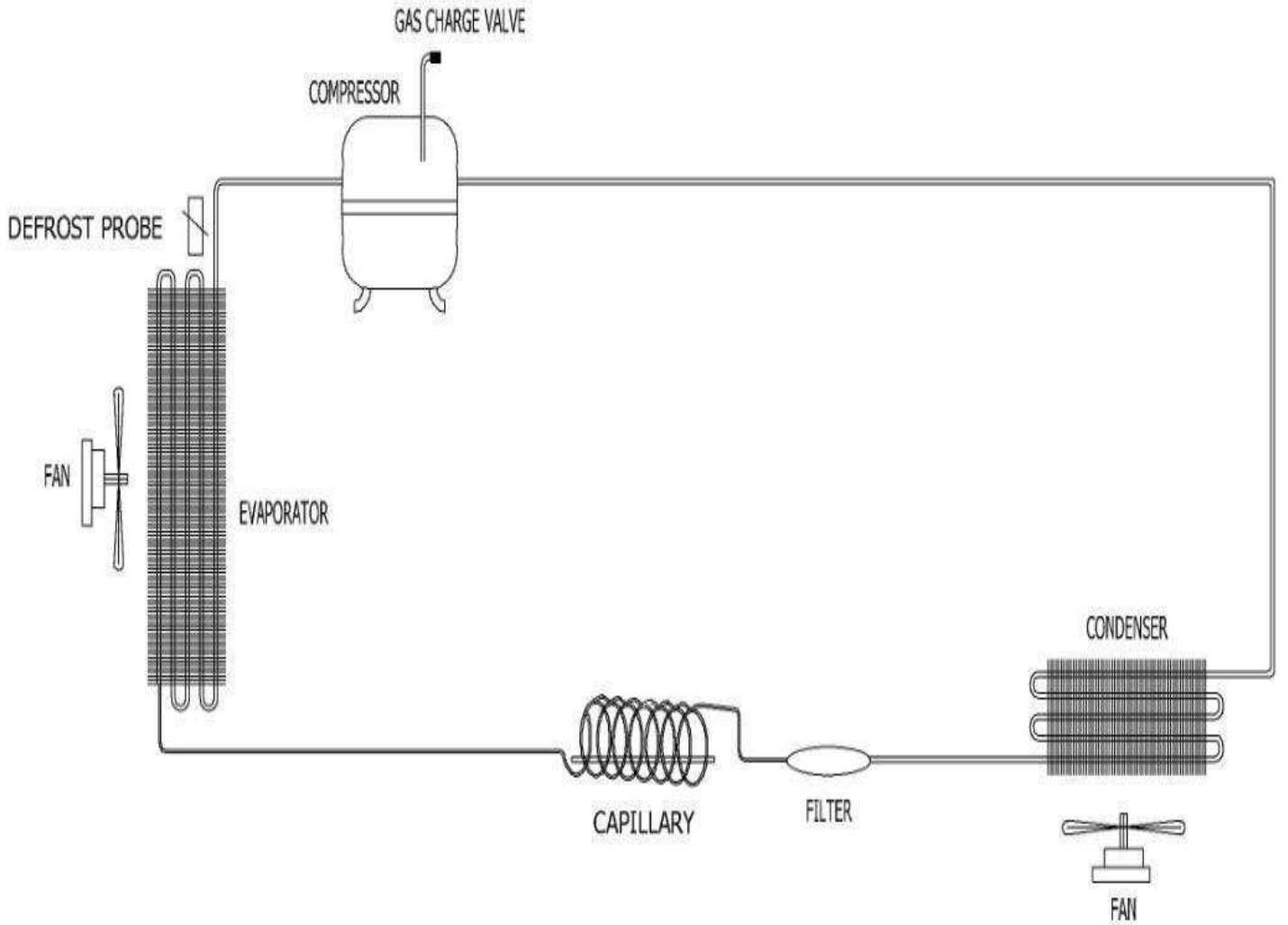
YML-G4480054

BL7-M_R290 KANOPI GRUBU

İSİM	ONAY	TARİH	PARÇA ADI	RESİM NO: YML-01A02KN053	FRENOX
M. Ali ÖZÇELİK		30.04.2024	MAZEME	REV. NO:	ENDÜSTRİYEL SOĞUTMA SAN. ve TİC. AŞ.
Burak İNCEÇAM			ADET		

BN7-M-R290 YEDEK PARÇA LİSTESİ / BN7-M-R290 SPARE PART LIST

STOK NO	PARÇA ADI	MATERIAL NAME	ADET QTY
HM-A00DJ109	PROP UCU - 3mt	PROBE 3mt	1
YMZ-B00TK100	PROP KAPAĞI	PROBE COVER	1
YML-G1570004	ARKA L DESTEK SACI	REAR L SUPPORT SHEET	1
YML-C16070040	HAVALANDIRMA İÇ SACI 01	VENTILATION INNER SHEET 01	1
YML-C16070065	HAVALANDIRMA İÇ SACI 02	VENTILATION INNER SHEET 02	1
YML-C11070025	GN RAF KIZAGI - 630mm	SHELF GUIDE - 630mm	6
YMZ-B01RF102	RAF 650x530	SHELF 650x530	3
YML-C11070027	DIK DOLAP ON RAF DIKME	SHELF SURPORT BRACKET FRONT	2
YML-C11070026	DIK DOLAP ARKA RAF DIKME	SHELF SURPORT BRACKET BACK	2
YMZ-B00AY100	AYAK PASLANMAZ	STAINLESS STEEL LEG	4
YMZ-B00FK100	ŞEBEKE KABLOSU	PLUG CABLE	1
YMZ-B00SP100	HAVA KANALI ALT PLASTİĞİ	AIR DUCT BOTTOM PLASTIC	1
YML-01A01KA112	KAPI	DOOR	1
YMZ-B02ME106	DİK DOLAP MENTEŞE YAYLI MENTEŞE	VERTICAL CABINET HINGE	1
YMZ-P30090008	ALT MENTEŞE BRAKETİ	LOWER HINGE BRACKET	1
YMZ-P30090007	ÜST MENTEŞE BRAKETİ	UPPER HINGE BRACKET	1
YMZ-B00KK100	PLASTİK KİLİT DELİĞİ	PLASTIC LOCK HOLE	2
YMZ-B02ME101	ÜST MENTEŞE PİMİ	UPPER HINGE PIN	1
HM-A00CO119	DIK DOLAP CONTASI	UPRIGHT DOOR GASKET	1
YMZ-B02ME102	ÜST MENTEŞE PLASTİK BURÇ	UPPER HINGE PLASTIC BUSHING	1
YML-01A01SG367	MONOBLOK SOĞUTMA GRUBU	MONOBLOCK COOLING GROUP	1
HM-A00DR100	DRAYER	DRYER	1
HM-A00KO905	KOMPRESÖR	COMPRESSOR	1
HM-A00FA134	KELİ MOTOR FAN	KELI MOTOR FAN	1
YMZ-B00SG100	MONOBLOK KAPAK PİMİ (YİVLİ)	MONOBLOCK COVER PIN (GROOVED)	3
YMZ-B00SG101	MONOBLOK KAPAK PİMİ (DÜZ)	MONOBLOCK COVER PIN (FLAT)	3
HM-A00EV702	BN7-M-R290 EVAPORATOR	BN7-M-R290 EVAPORATOR	1
HM-A00KN702	BN7-M-R290 CONDENSER	BN7-M-R290 CONDENSER	1
HM-A00FA128	KONDANSER FAN MOTORU	CONDENSER FAN MOTOR	1
HM-A00EP103	KONDANSER FAN KORUMA PLASTİĞİ	CONDENSER FAN PLASTIC COVER	1
YMZ-B00REZ116	200W FIŞEK REZİSTANS	200W RESISTANCE	2
YMZ-E01Vi102	M6 X 80 VİDA	SCREW - M6 X 80	3
YML-01A01PU100	MONOBLOK STRAFOR KAPAĞI	MONOBLOCK STYROFOAM COVER	1
YML-01A01PU102	MONOBLOK PLASTİK TAVA	MONOBLOCK BASE PLASTIC	1
YML-P300090910	EVAPORATÖR ALT SACI	EVAPORATOR BOTTOM SHEET	1
YMZ-B00PV100	Ø15CM PLASTİK KANAT	Ø15CM PLASTIC PROPELLER	1
YML-P17000233	FAN SABİTLEME BRAKETİ	ENGINE FIXING BRACKET	1
YMZ-B00SP111	EVAPORATÖR FAN MUHAFAZA PLASTİĞİ	EVAPORATOR FAN COVER PLASTIC	1
YML-B00KK101	GERDİRME SACI UZUN - KISA	TENSIONING SHEET LONG - SHORT	3
HM-A00FA131	Ø230 -31° PLASTİK KANAT	Ø230-31° PLASTIC PROPELLER	1
YML-P300090911	BORU SABİTLEME SACI	PIPE FIXING SHEET	2
YML-AL01010001	BORU BUHAR SACI	PIPE STEAM SHEET	1
HM-A00BB801	180cm BÜKÜMLÜ BAKIR BORU (BN7-M)-1/4 0,70	180cm BENDED COPPER PIPE (BN7-M)-1/4 0.70	1
YML-01A02KN053	KANOPI GRUBU	CANOPY GROUP	1
YML-C16200027	KANOPI SACI	CANOPY SHEET	1
YMZ-B01ME111	KANOPI MENTEŞE	CANOPY HINGE	2
HM-A00DJ106	DİJİTAL DİK DOLAP ETİKET	DIGITAL LABEL FOR VERTICAL	1
YMZ-B00KI100	KİLİT KAPI	DOOR LOCK	1
HM-A00DJ100	ÇİFT PROPLU DİJİTAL(DİXELL)	TWO PROBE DIGITAL THERMOSTAT (DIXELL)	1
YMZ-B00DU101	POWER TUŞU	POWER BUTTON	1
YMZ-B00DU102	ON - OFF TUŞU	ON - OFF BUTTON	1
YMZ-B00LA107	DIK DOLAP AYDINLATMA CAMI	UPRIGHT LIGHTNING GLASS	1
YMZ-B00LA132	DİK DOLAP LAMBA DUYU	VERTICAL CABINET LAMP HOLDER	1
YMZ-G4480055	LAMBA TUTUCU	LAMP HOLDER	1
YMZ-B00LA131	DİK DOLAP KANOPI AMPÜL	VERTICAL CABINET CANOPY BULB	1
HM-G448055	IŞIK YUVASI	LIGHT COVER	1
YML-G4480054	DİK DOLAP KANOPI ELEKTRİK KUTUSU	VERTICAL CABINET CANOPY ELECTRIC BOX	1
YML-G4480056	DİK DOLAP KANOPI ELEKTRİK KUTUSU KAPAĞI	VERTICAL CABINET CANOPY ELECTRIC BOX COVER	1
YMZ-B00DU103	KAPI DÜĞMESİ	DOOR SWITCH	1
YMZ-E00KR200	6'LI DIŞI SOKET	6-PIECE SOCKET	3



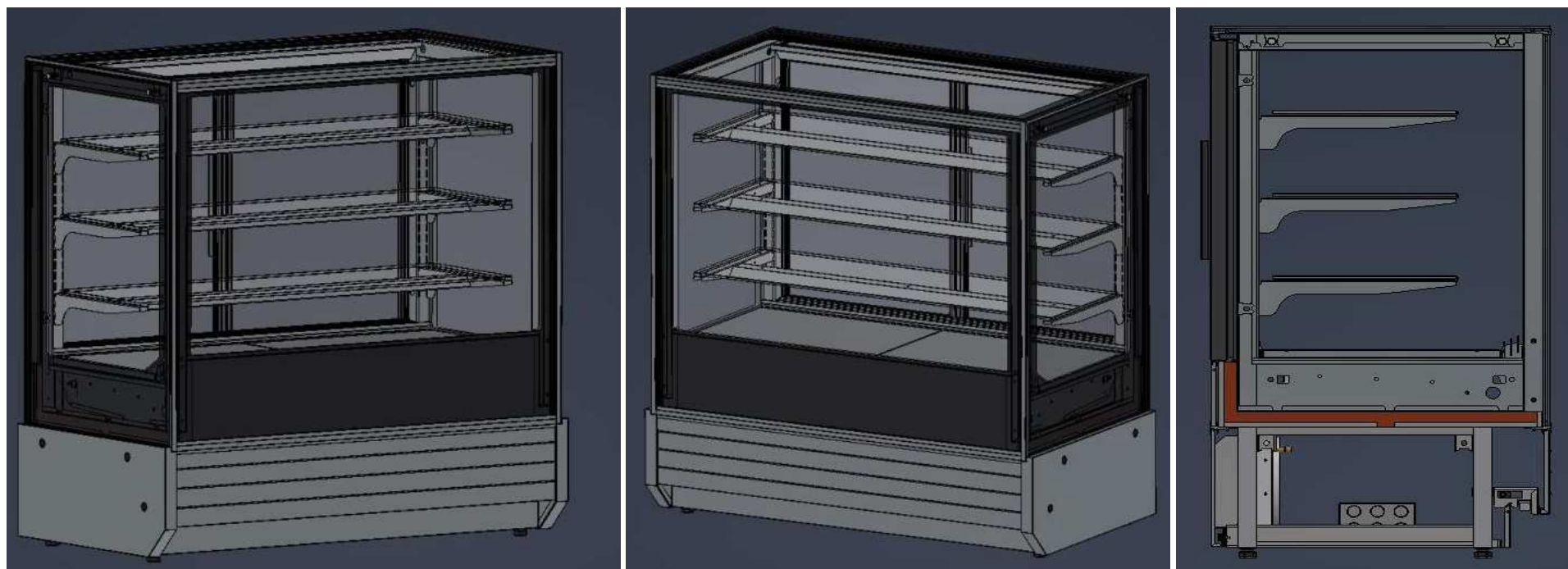


EN 23953-2 TEMPERATURE TEST REPORT

Cabinet Name : BUTTERFLY V1 PR/SS/SP L-1250

Temperature : -1C/+7 °C in test package product. (3M2)

Date of Test : 03-04.10.2021





CONTENTS:

- Dates and conditions of tests carried out.
- Location of Test.
- Test Witnessed by
- Test description.
- General Components.
- Temperature Result.
- Direct Energy Consumption Data.
- Commissioning Data.
- Photo record of test.
- Test Package position.
- Photo record of test. Test results: (1 x 24 hours graphs per item).
- Cabinet Component list.



Dates and conditions of tests carried out.

Test 1 – Room at 25C/60%rh, 0.2m/s cross airflow. Duration 24 hours.

Test commencement: 15:06 hrs 03th October 2021.

Test completion: 15:06 hrs 04th October 2021.

Location of Test.

Proso Profesyonel Soğutma Isıt. Elek. Elektr. San. Ve Tic. Ltd. Şti

Tel: +90 262 658 01 31 - 32 (Pbx) / Fax: +90 262 658 01 33

Osmangazi Mahallesi, Kanuni Sk. No:7, 41700 Darıca / Kocaeli / TÜRKİYE

www.prosogutma.com Harita/Map:[<https://goo.gl/maps/4AdPKCkjLcYCbVqe7>]

Test Witnessed by.

Report produced by Proso Technical Department.

Mr Azim DEMİR



Test Description.

Test 1 –Room at 25C/60%rh, 0.2m/s cross airflow. Duration 24 hours.

The goods was taken into the Proso test room and connected to the data logging system. The cabinet was loaded with 'Madi' test packages but with an uneven surface and the positions were also arranged by considering ISO23953. The cabinet was operated for at least 24 hours at the test conditions to ensure that all package's temperatures were stabilised prior to the commencement of the test as required; all test results were saved by data logger. Evaluation of the test results were done by Proso techical team and refrigeration duty calculations were completed by the same team. All data output and evaluations are harmonised in order to create this report.



General Components

Controller	: Dixel XR 06 CX
Probes	: Ntc
Expansion Valve	: CAPILLARY TUBE
Orifice Number	: *
Capillary Number	: 1,5*2,5 mm
Compressor	: EMBRACO NEU 6215 GK
Refrigerant	: R404 A
Unit Supply (Voltage)	: 230 V
Unit Supply (Frequency)	: 50 Hz



Temperature Results

Evaporating Temperature : -10°C
Highest Temperature of the M-Package : 7°C
Lowest Temperature of the M-Package : 1,5°C
Amount of Refrigerant : 500 gr.



Direct energy consumption

Voltage\Frequency : 230 V \ 50 Hz

Current A : 4,3 A

Energy Consumption (Power kW/h) : 0,8 kW

Vaporizing Heater (Current A) : 2,25 A

Vaporizing Heater (Power kW/h) : Optional 500 watt



Comissioning data

Control Air Off Weighting : (S1)Air On
Cut-Out Temperature : 2°C
Cut-In Temperature : 4°C
Defrost Type : Off-cycle
Maximum Defrost Duration : 45 Min.
Defrost Termination Temp. : 10°C
Number Of Defrost : N/24h - 4
Fan Run During Defrost : Yes



Photo record of the test





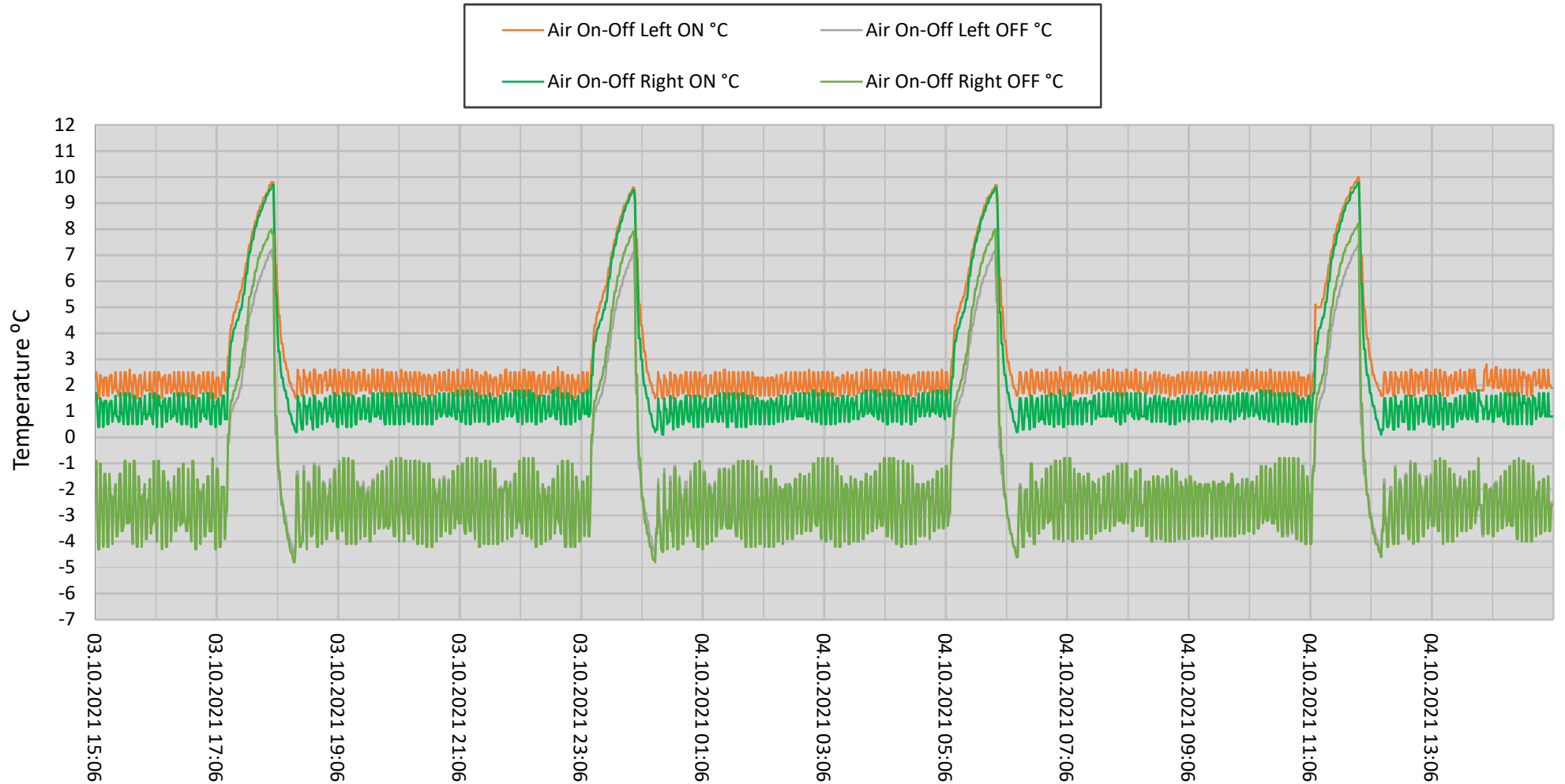
Test Package Position



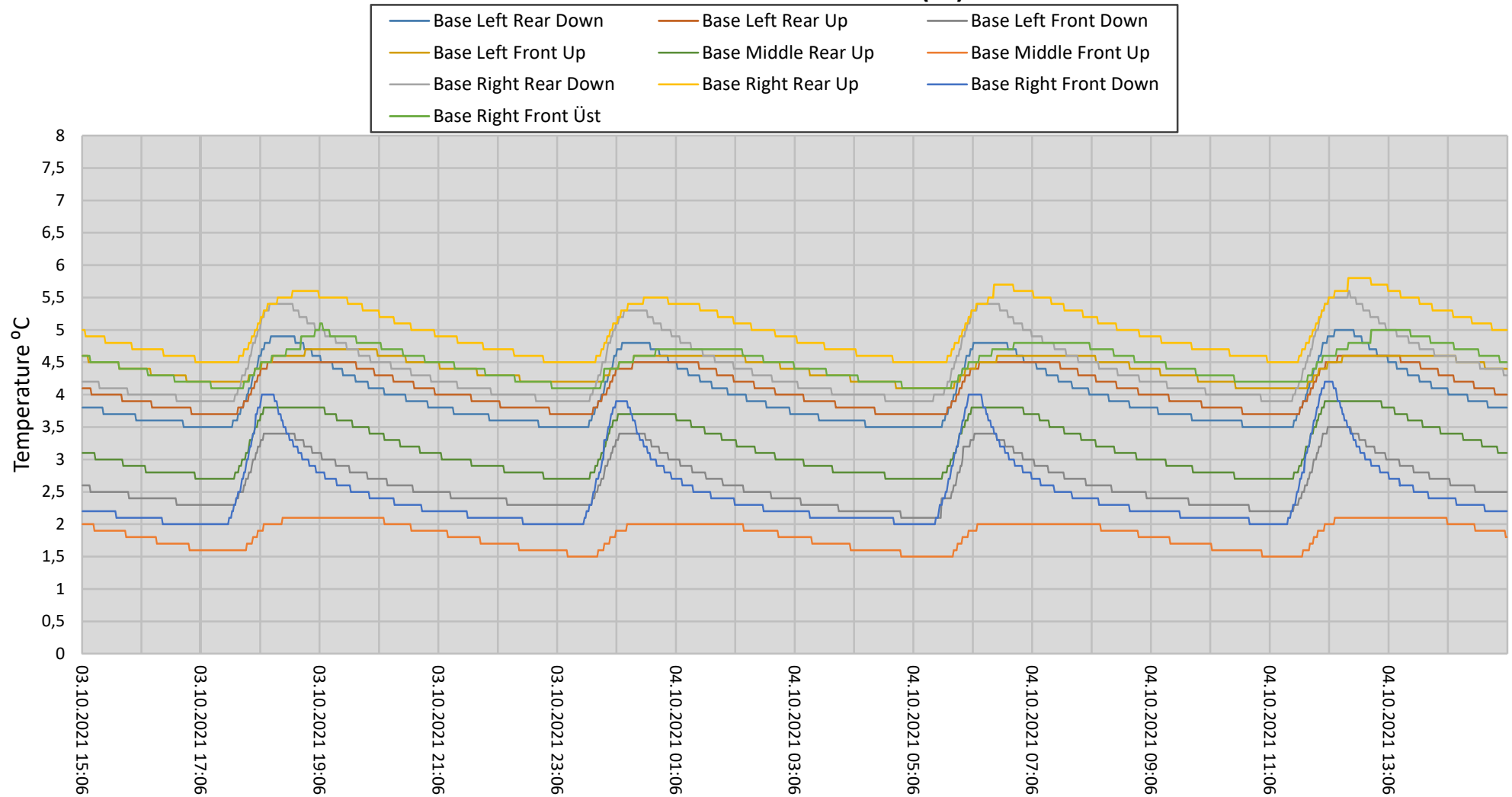


Photo record of test. Test results: (1x24 hours graphs per item).

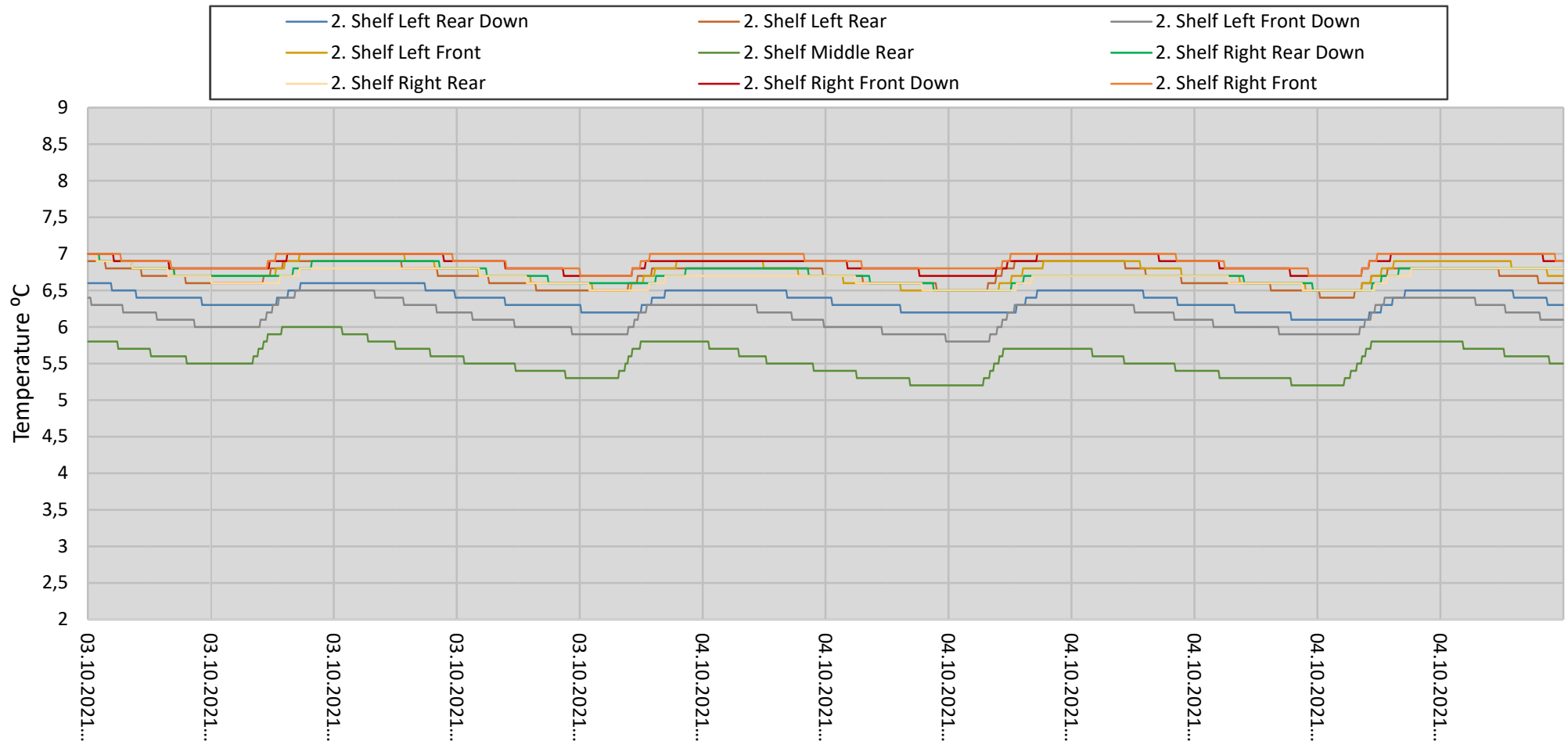
AIR ON - AIR OFF TEMPERATURES (°C)



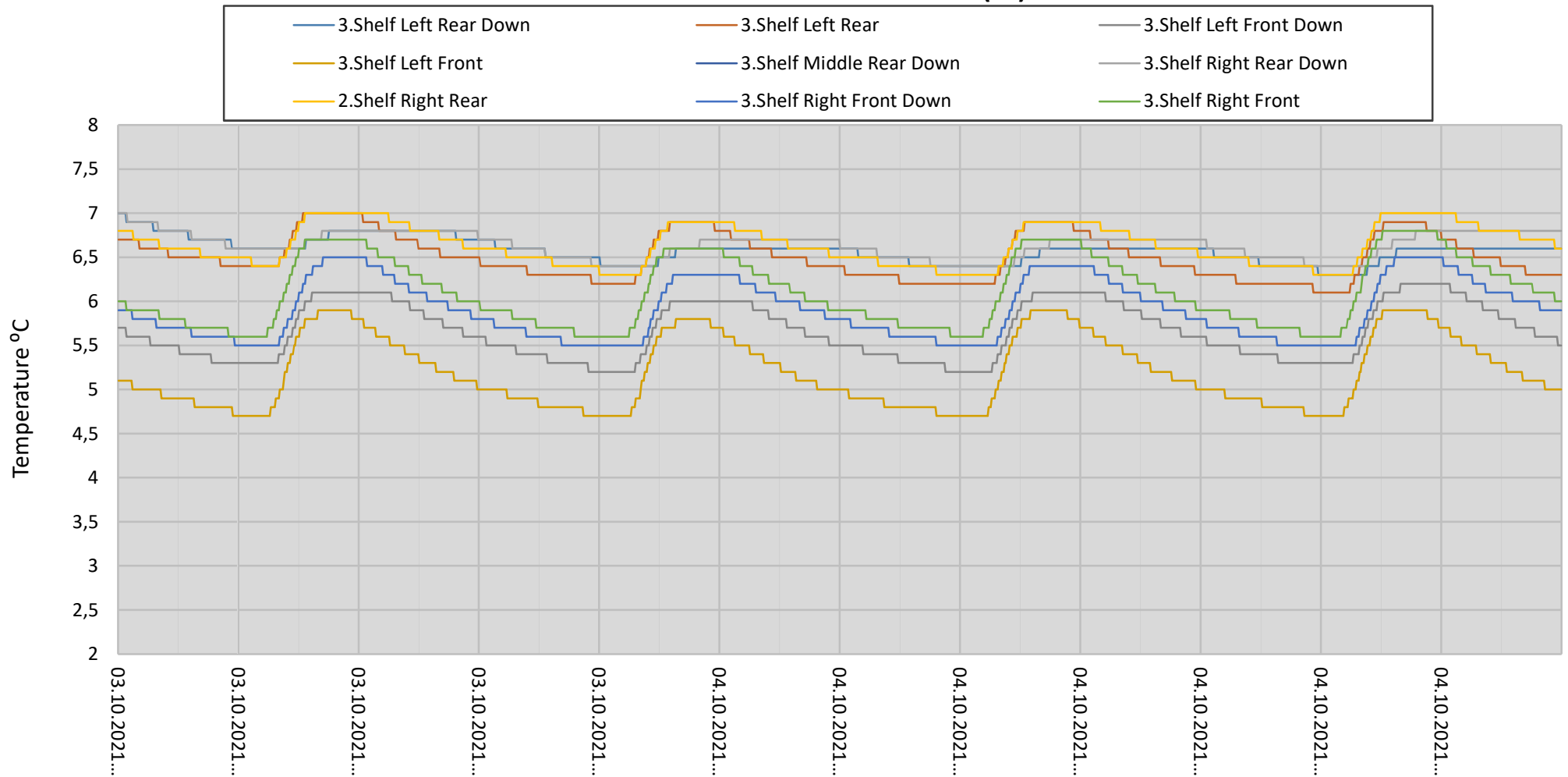
BASE TRAY PACKAGE TEMPERATURES (°C)



2. SHELF PACKAGE TEMPERATURES (°C)

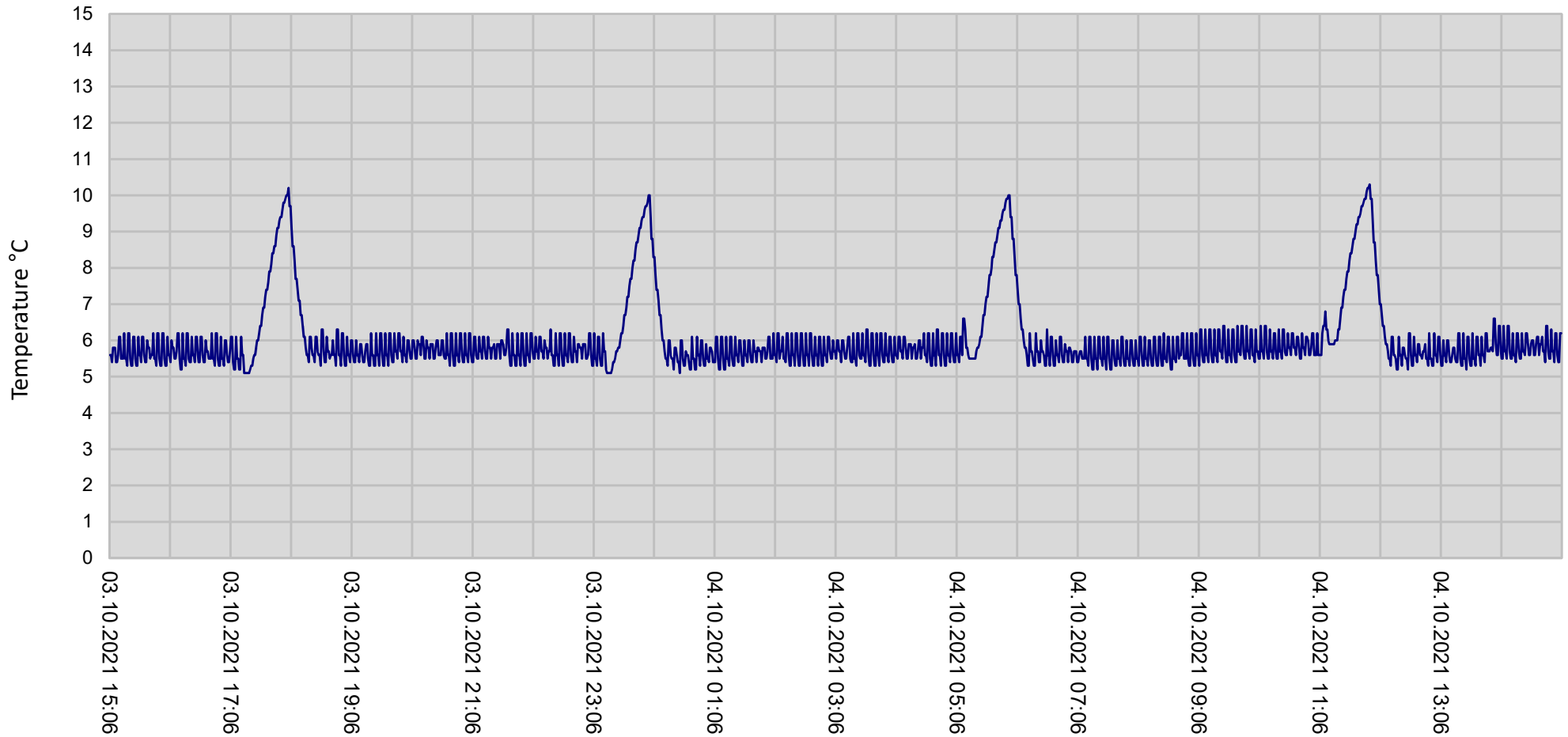


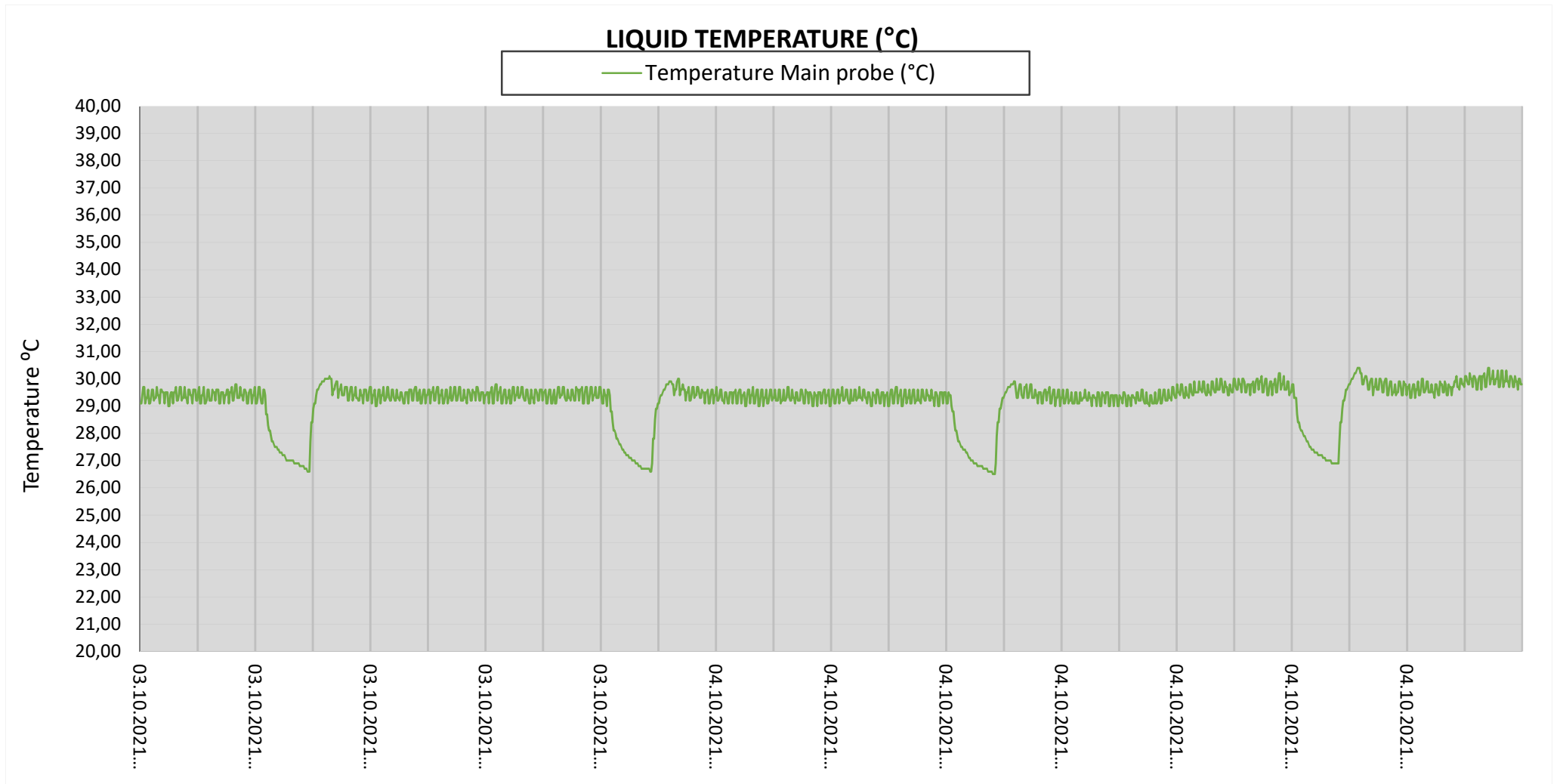
3. SHELF PACKAGE TEMPERATURES (°C)



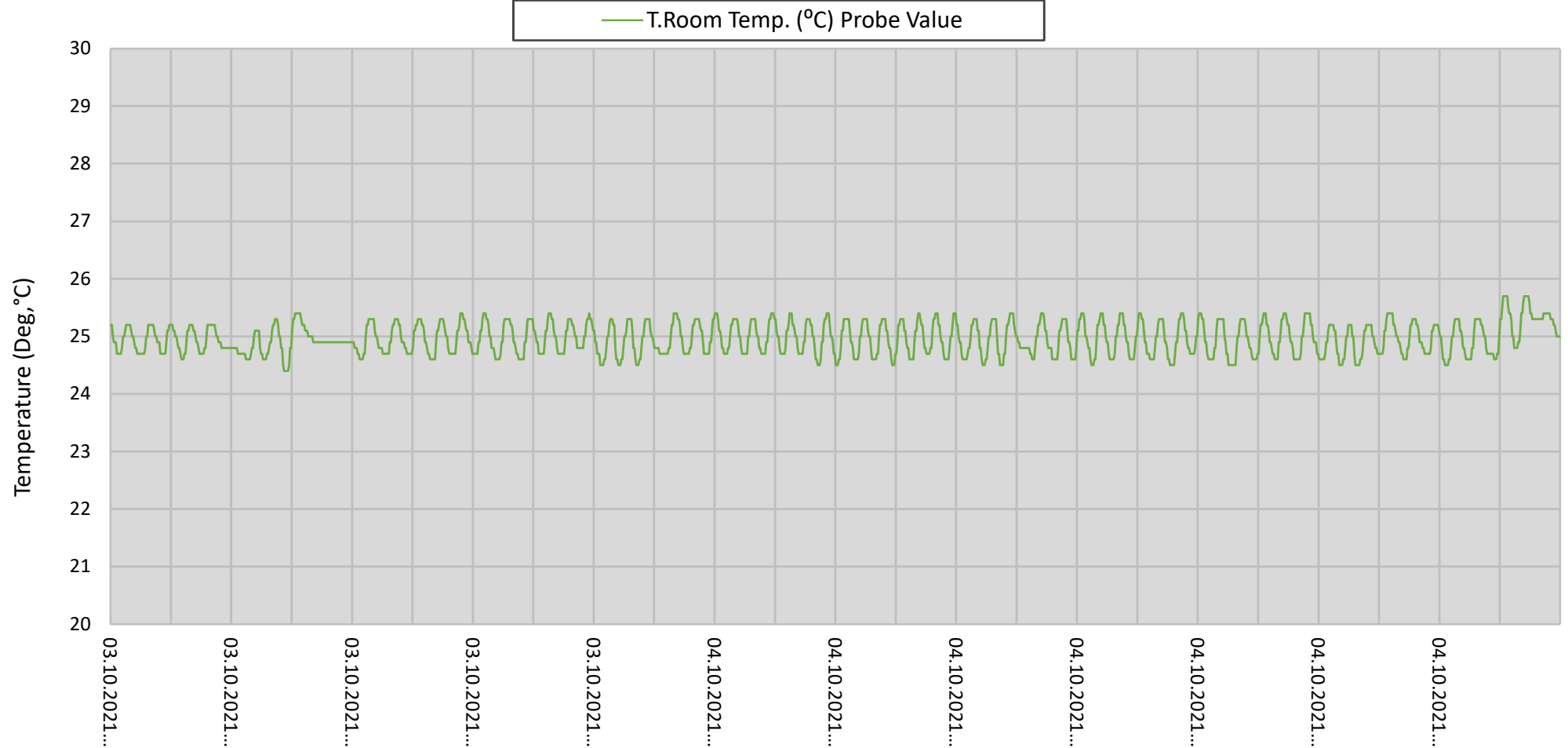
SUCTION TEMPERATURES (°C)

— Suction Temperature Main probe (°C)



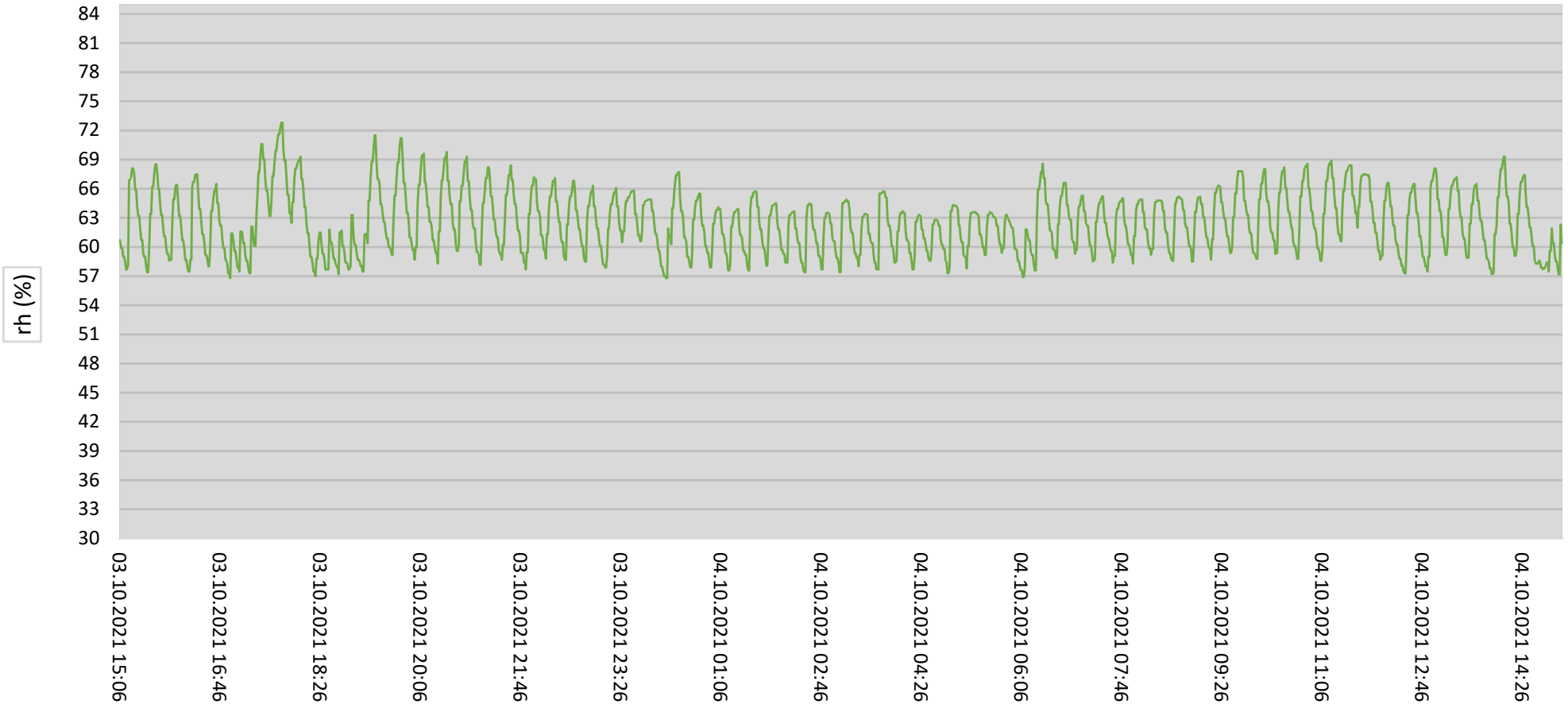


TEST ROOM TEMPERATURE (°C)



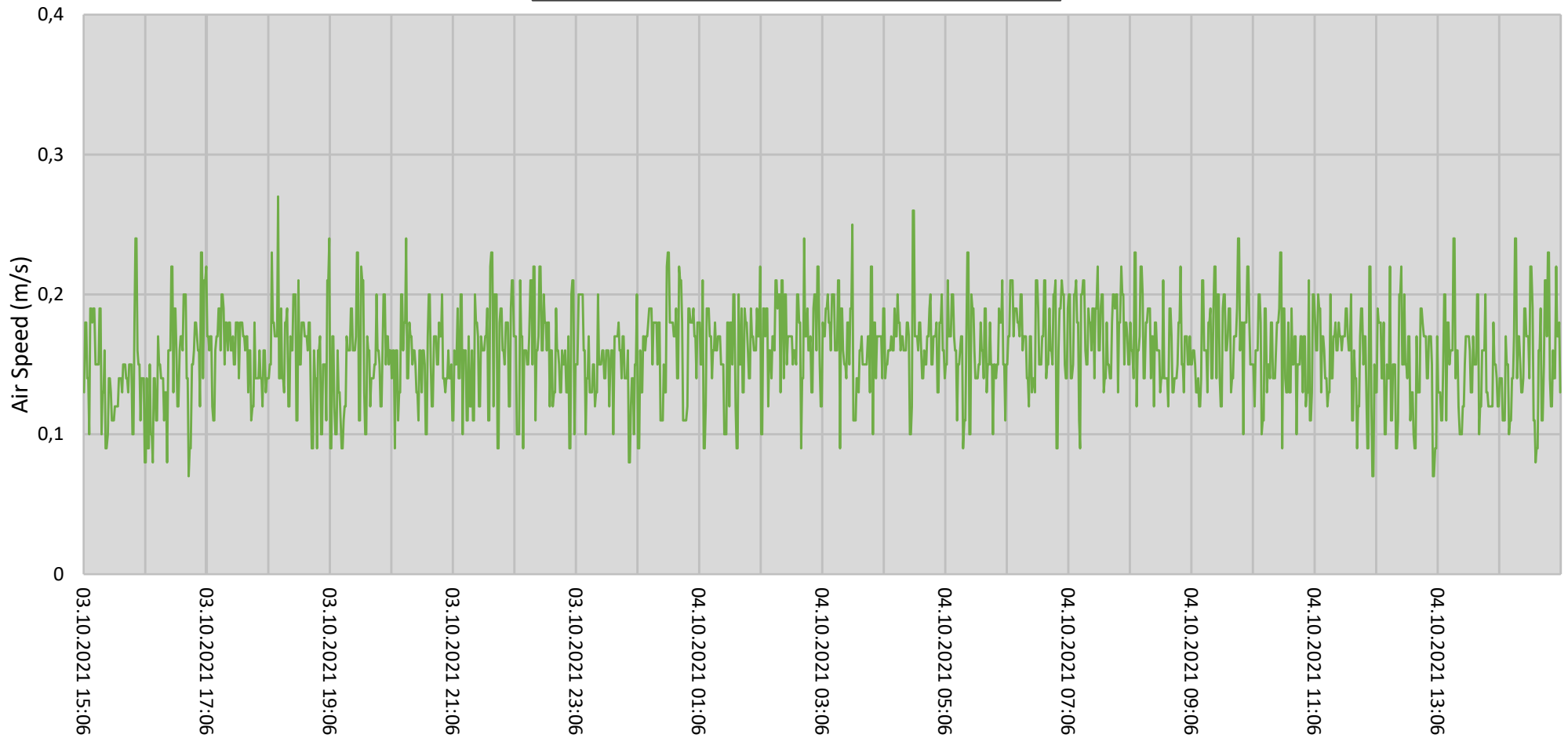
RELATIVE HUMUDITY (RH %)

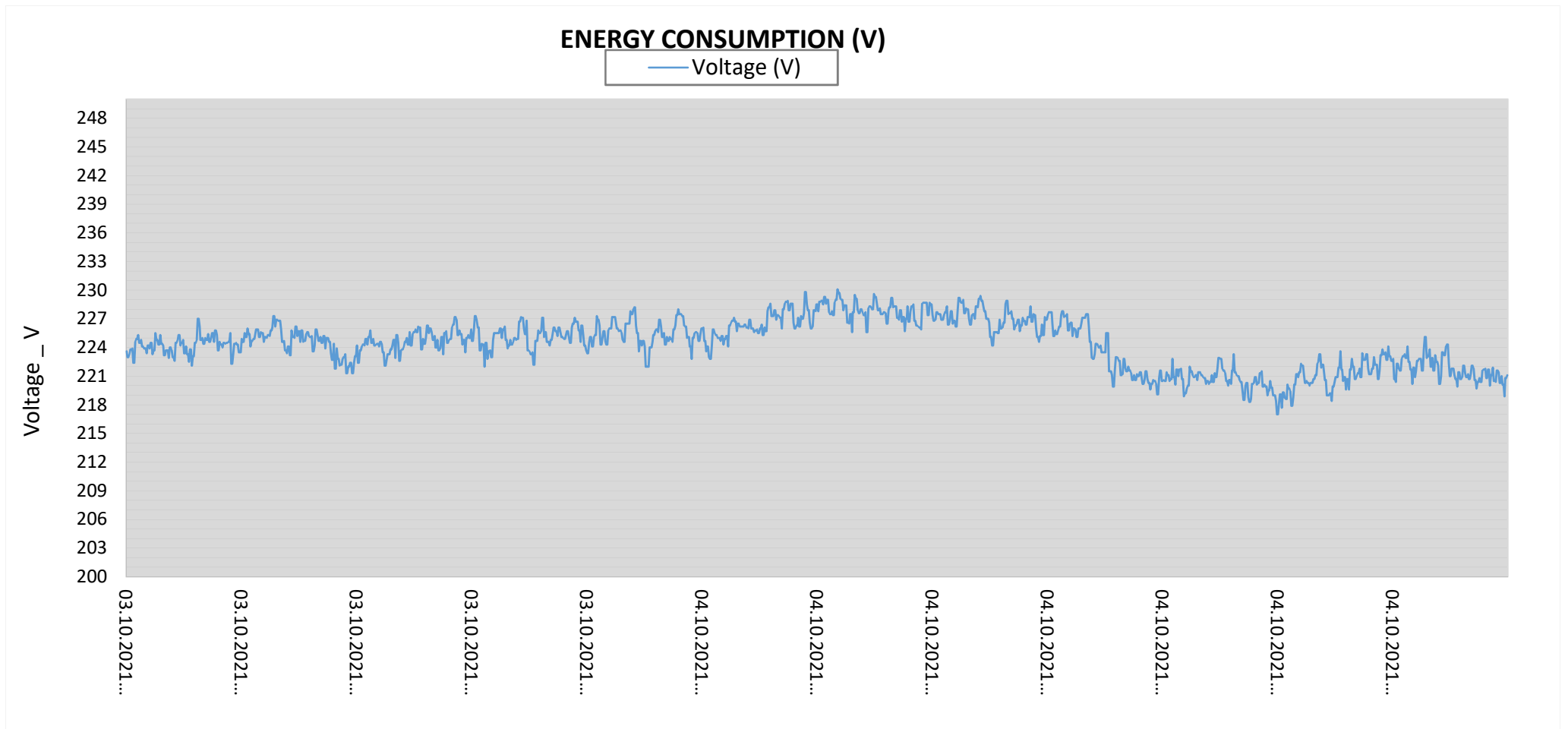
— rh %



TEST ROOM AIR SPEED (M/S)

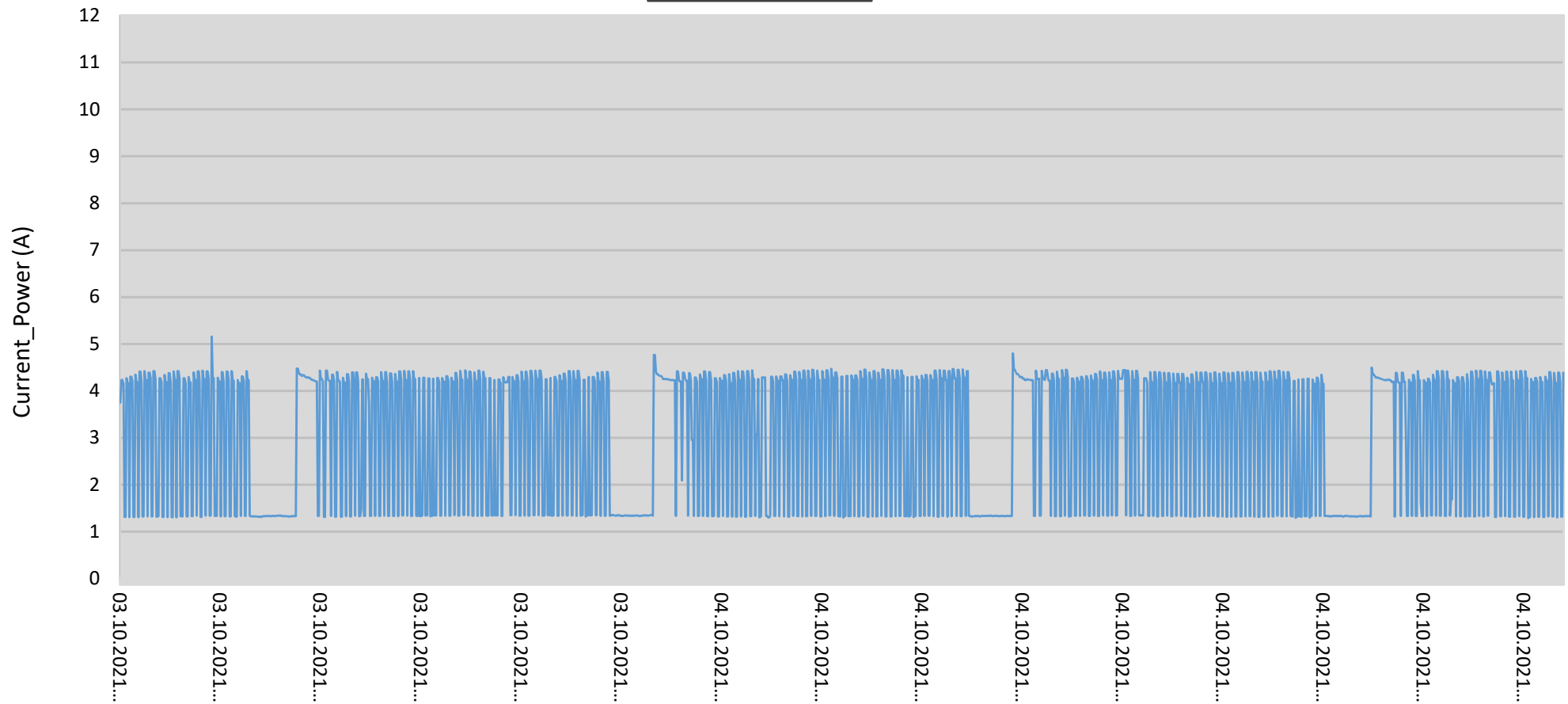
— Air Flow (M/s) Probe Value





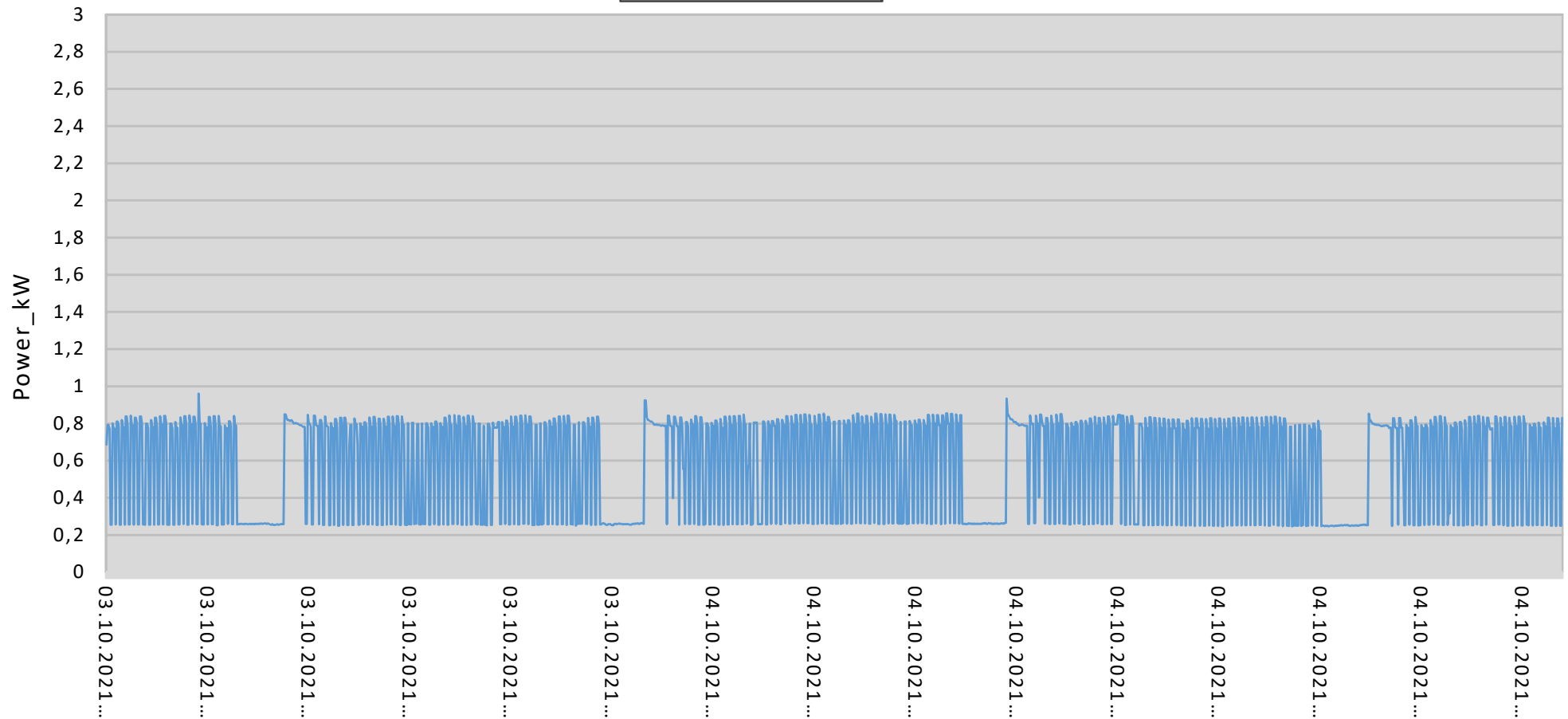
ENERGY CONSUMPTION (A)

— Current / A



ENERGY CONSUMPTION (kW)

Power / kW





Cabinet Component list.

COMPONENT NAME			QUANTITY PCS
CABINET EQUIPMENT	CONTROL THERMOSTAT	DIXEL XR 06CX	1 Pcs.
	TEMPERATURE PROBE	NTC	2 Pcs.
	EVAPORATOR	18 PIPE 1250 BOUTIQUE	1 Pcs.
	EVAPORATOR FAN MOTOR	COMPACT 120*120 14 WATT	2 Pcs.
	FRAME +DOORS HEATER	FRAME HEATER	1 Pcs.
	EXPANSION VALVE	CAPILLARY TUBE	1 Pcs.
	LED DRIVER	MEAN WELL 100WATT	1 Pcs.
	LIGHTING CANOPY	1250 STICK LED CANOPY	1 Pcs.
	LIGHTING SHELF	1250 STICK LED SHELF	3 Pcs.
CONDENSING UNIT EQUIPMENT	COMPRESSOR	EMBRACO NEU 6215 GK	1 Pcs.
	CONDENSER	MICRO CHANNEL EU 7	1 Pcs.
	CONDENSER FAN MOTOR	FMI 95 WATT	1 Pcs.
	CONDENSER FAN BLADE	250 MM 28°	1 Pcs.
	FILTER , DRYER	DENA 50 GR	1 Pcs.
	REFRIGERANT	R 404A	*
	REFRIGERANT QUANTITY	R 404 A 500 GR	500 gr.
	LP.PRESSURE SWITCH	RANCO SPST 1,5 / 0,5 BAR	1 Pcs.
	HP.PRESSURE SWITCH	RANCO SPDT 22,5 / 27,5 BAR	1 Pcs.
	MCB CIRCUIT	EATON CLS4-C16A-DE	1 Pcs.
	COMPRESSOR CONTACTOR	EATON DIL M 9	1 Pcs.
	VAPORIZING HEATER CONTACTOR	EATON DIL M 9 MINIATURE	1 Pcs.
	VAPORIZING HEATER – OPTIONAL	500 WATT	1 Pcs.
	CABLE WITH PLUK	3*2,5MM L-1,5 MT	1 Pcs.
	ON & OFF SWITCH	VD AN-EL RKD4A3	2 Pcs.

BUTTERFLY V1 NOTR PN 75 135 1250

RENDERING VISUAL

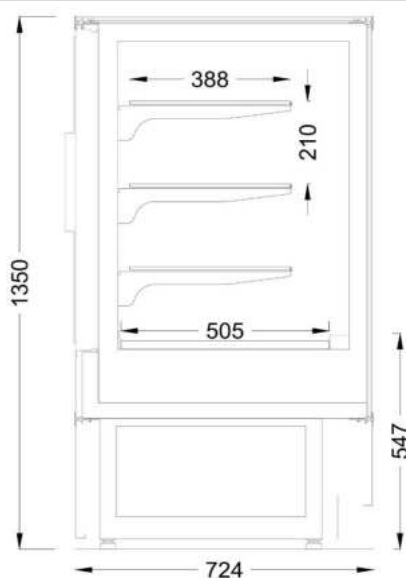


GENERAL FEATURES

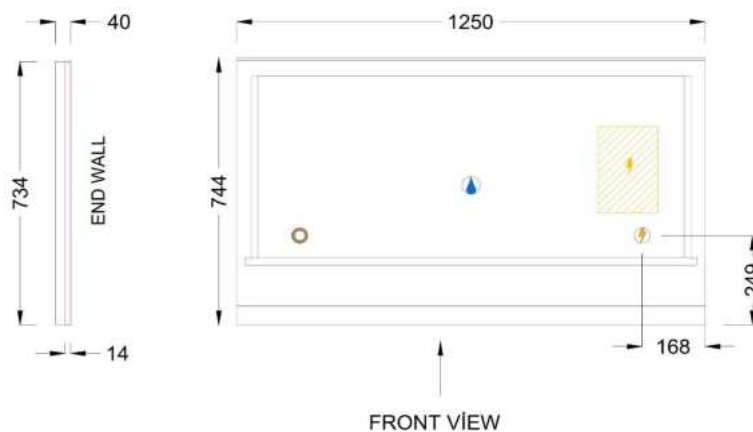
cabinet model : BUTTERFLY V1
cabinet family : semi-vertical, assisted-service
refrigeration type : non-refrigerated
electrical supply : 230Vac/1Ph/50Hz [1P+N+E]
climate class : Class 3 [25°C DBT; 60% RH]
evaporator fans : standart
interior lighting : LED
drain outlet size : 40mm [gravity]
protection class : IP21
shelving column slot pitch : 30 mm
number of shelf per mod : 3
allowable shelf depths : 388 mm
max weight load for shelf : 40 kg/m² [glass shelf]
base deck depth : 505 mm
max weight load for base deck : 180 kg/m²



SIDE ELEVATION



FOOTPRINT (CAD BLOCK)



⚡ ELECTRICAL CONNECTION ⦿ COPPER TUBE 💧 DRAINAGE ○ ADJUSTABLE FOOT

CABINET CLASSIFICATION

average product temperature

cabinet classification

Unit	Baked Product
[°C]	-1 °, +7 ° C
-	3M2

DIMENSIONAL CHARACTERISTICS

module	[unit]	937
length [w/o end walls]	[mm]	937
depth [w/o bumprail]	[mm]	724
nominal height	[mm]	1350

ELECTRICAL DATA

module	[unit]	937
evaporator fans	[W]	16
	[A]	0,06
compressors	[W]	450,0
	[A]	1,86
shelf lighting	[W]	31,7
	[A]	0,29

RATED ELECTRICAL DATA

module	[unit]	937
power rate, current	[W]	466
	[A]	1,92

Proso reserves the right to change details and information without prior notice.

Heated display case

OPERATION INSTRUCTIONS



Thank you for choosing and purchasing our product. Please carefully read the operation instructions before use for a correct application and satisfactory effect.

Contents

- 2. General
- 2. Structure and Parts
- 2. Safety
- 3. Preparation and Power Supply
- 3. Installation and operation
- 4. Maintenance and cleaning
- 5. Cautions
- 5. Major Parameters
- 5. Electric Circuit Diagram

Note

- 1. The electric circuit diagram and parameters on the product name plate are final ones if they have been changed.
- 2. The design might be improved without notice.



Meaning of crossed out wheeled dustbin:
Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities. Contact you local government for information regarding the collection systems available.
If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.
When replacing old appliances with new ones, the retailer is legally obligated to take back your old appliance for disposals at least free of charge.



Caution hot surface
Do not put the food direct contact with the shelf.

Maintenance

- ※ Check the mains lead from time to time to ensure it is not damaged in any way. Never use the device if the lead is damaged. If the lead is damaged, it must be replaced by a qualified electrician.
- ※ Only a qualified technician should carry out repairs and maintenance of the device. Do not attempt to repair the device by yourself.
- ※ Appliances must be disconnected from their power supply during cleaning or maintenance and when replacing parts.

Cautions

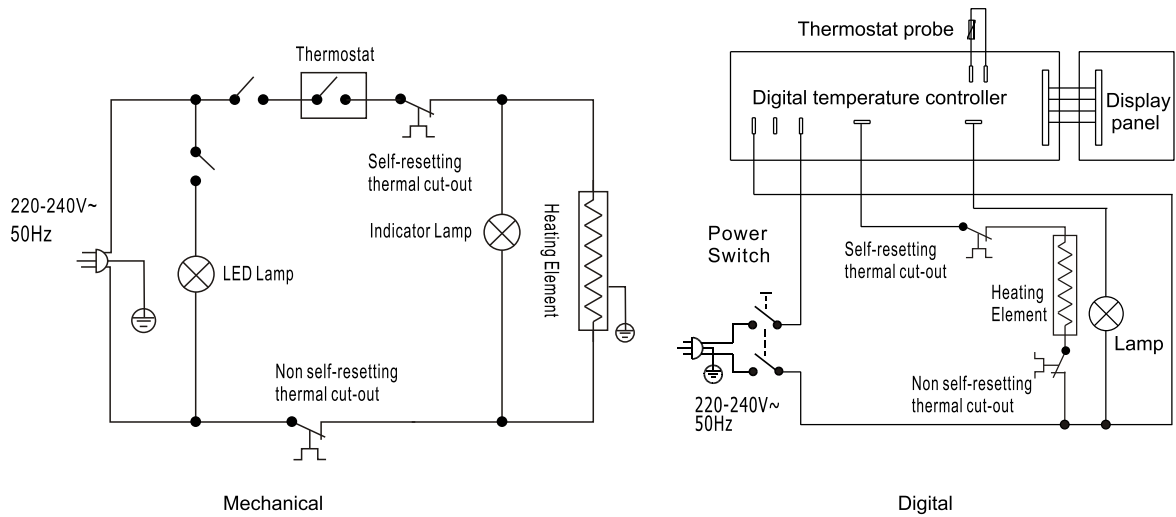
Children should be supervised to ensure that they do not play with the appliance.

- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

Major Parameters

Parameter	Model	RTR-120L	RTR-160L	RTR-202L
Temperature range(℃)		30-90	30-90	30-90
General Rated Input Power(W)		1100	1500	1800
Rated Current (A)		4.75	6.3	7.8
Rated Voltage(V~)		220-240	220-240	220-240
Rated Frequency(Hz)		50	50	50
Storage Volume(L)		120	160	202
Net Weight(kg)		35	43	56.5
Grade of Waterproof		IPX4	IPX4	IPX4
Overall Dimension(mm)		678x568x686	856x568x686	1219x568x685
Lamp power(W)		2(LED)	2.5(LED)	2.5(LED)

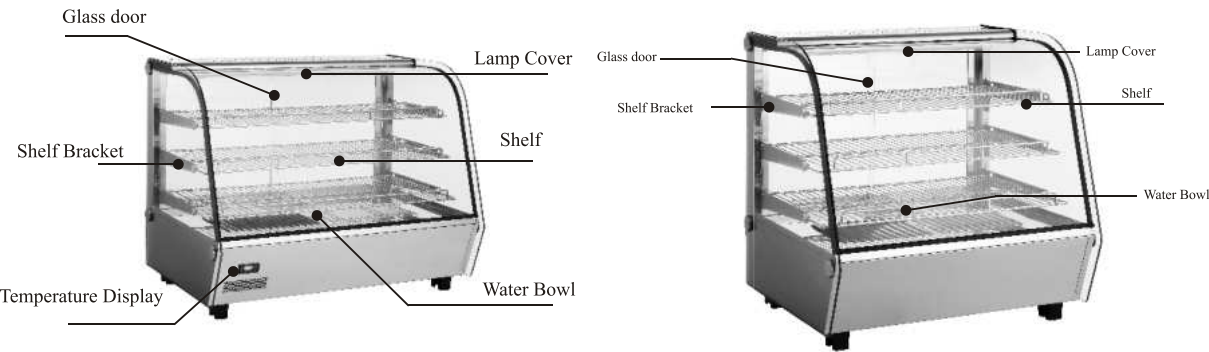
Circuit Diagram



General

1. This instruction manual contains information about the installation, operation and maintenance of the device and should be consulted as an important source of information and reference guide.
2. Awareness of the safety instructions and instructions for use in this manual will ensure the safe and correct use of the device.

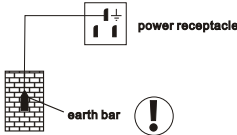
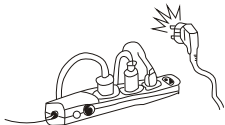
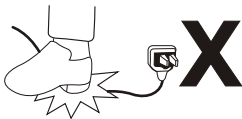
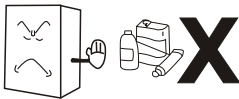
Structure and Parts



Safety

- ※ The appliance is not to be used by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction
- ※ Children being supervised not to play with the appliance.
- ※ This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved
- ※ Children shall not play with the appliance
- ※ Cleaning and user maintenance shall not be made by children without supervision
- ※ If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- ※ Don't use any kind of pressure water jet for cleaning the device.
- ※ To prevent hazards and to ensure optimum efficiency, no modifications or alterations to the device that are not explicitly approved by the manufacturer may be undertaken.
This device may only be operated in technically proper and safe condition.
- ※ The device should be never left unattended during operation. Keep away children.
- ※ Preserve this manual safely. When passing on/selling the device to a third party, the manuals must be handed over along with the device.
- ※ Every person using the device must act in accordance to the manuals and under consideration of the safety advice.
- ※ The device is to be used indoors only.
- ※ Any technical interventions, as well as assembly and maintenance are to be made by a qualified customer service only.

Preparation and Power Supply

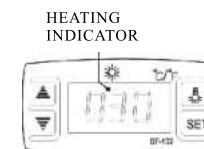
Exclusive power socket The power receptacle must have a reliable earth connection. 	No share on socket Never let the device share the common socket with other appliance, otherwise the cable becomes hot and fire might be resulted 
Protect cables Never break or damage the cables otherwise current leakage and fire might be resulted. 	No water flushing Never give the device surface a flush otherwise current leakage might be resulted. 
Prevent from flammables and explosive Never put any flammable or explosive inside the device such as ether, gasoline, alcohol, adhesive and explosive. Never put dangerous product nearby the device. 	

Installation and Operation

- Installation
- ※ Place the device on top of an even and safe surface which supports the weight of the device and is not heat sensitive.
 - ※ Not at any time should you place the device on an inflammable surface (such as table cloth, carpet, etc)
 - ※ You must no position the device near open fireplaces, electric ovens/arc furnaces/electric heaters or other heat sources.
 - ※ Position the device in such a way that the plug is easily accessible.

Operation

- ※ Before first use, clean the inner sides and the playing grids with a soft cloth and a mild cleaning agent. Afterwards, dry the device thoroughly.
- ※ Remove the water bowl from the device. The water bowl is installed inside the device and then fill the water bowl with water.
- ※ Connect the device to a single grounded power socket.
- ※ Operation Panel



SET TEMPERATURE

- 1、Press “SET” button, the set temperature is displayed.
Press ▲ or ▼ button to modify and store the displayed value.
Press “SET” button to exist the adjustment and display inside temperature of the unit.
If no more button is pressed within 10 seconds, display inside temperature of the unit
 - 2、Illumination: Press ☼ button, light is on, press again, light is off.
 - 3、Heating Indicator: During heating, LED is on, when the temperature inside is constant, the LED is off.
- ※ Set the temperature as required for respective foods. You may adjust the desired temperature in the range between 30℃-90℃.
 - ※ The temperature inside of the hot display can be read from the front display.
 - ※ Put the foods in appropriate containers before playing them inside the hot display and shut it by using the sliding door.
 - ※ Some of the device parts become very hot, always use safety gloves when placing or removing foods.
 - ※ The foods are kept warm at the temperature set by you previously.
 - ※ In order to place or remove foods, you may open the door at rear side.
 - ※ Switch on the inner light when required using the light switch of the device.
 - ※ Disconnect the device from the power socket when the device is not in use.

Cleaning and Maintenance

- ※ Before beginning with repair or cleaning works make sure the device has been disconnected from the power socket and has cooled down.
- ※ Don't use any acid agents and make sure no water ingresses the device.
- ※ To protected yourself from the electric shock, never immerse the device, its cables and the plug in water or other liquids.
- ※ Don't use any kind of pressure water jet for cleaning the device.

Cleaning

- ※ The device should be cleaned regularly.
- ※ Clean the device from the inside and outside with a soft, damp cloth and a mild cleaning agent.
- ※ Clean the placing grids and the housing with a soft, damp cloth and a mild cleaning agent.
- ※ Clean the water bowl regularly. Calcifications at the water bowl may be removed with common agents or liquids.
- ※ Only use a soft cloth and make sure you never use any kind of abrasive agents or pads which could scratch the surface.
- ※ After the cleaning procedure, you should use a soft and dry cloth to wipe dry and polish the surface.
- ※ Make sure the device has been cleaned properly before storing it in a dry place.



www.kayalarmutfak.com.tr

EU DECLARATION OF COMFORMITY

AB UYGUNLUK BEYANI

Manufacturer Name <i>Üretici Adı</i>	KAYALAR ÇELİK SAN. VE TİC. A.Ş.	
Manufacturer Address <i>Üretici Adresi</i>	Türkoba Mah. Kayalar Cad. No:7 Büyükçekmece /İSTANBUL	
Manufacturer Contact <i>Üretici İletişim Bilgileri</i>	Phone / Telefon	0212-444 59 57
	Fax / Faks	0212-859 0014
	E-Mail / E-Posta	info@kayalarmutfak.com.tr
	Website	www.kayalarmutfak.com.tr
Product Description <i>Ürün Tanımı</i>	Su Isıtıcısı / Hot Water Boiler	
Product Type / Models <i>Ürün Tipi / Modeli</i>	Product Types and Models are Attached Ürün Tipi ve Modelleri Ektedir	
European Directive(s) <i>İlgili AT Direktifleri</i>	2014/35/EU Directive of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of Member States relating to the making available on the market of electrical equipment designed for use within certain voltage limits	
Base Of Declaration <i>Deklerasyonun Dayanağı</i>	File of Technical Documentation and Test Reports Teknik Dokümantasyon Dosyası ve Test Raporları	
European Standart(s) / Harmonised Standart(s) <i>İlgili AT Standartları / Harmonize Standartlar</i>	TS EN 60335-1 TS EN 60335-2-15	
Declaration Date <i>Beyan Tarihi</i>	06.01.2025	

Declaration Beyan

The technical file and test reports of the following product have been based and found in compliance with the European Parliament and Council Directive 2014/35/EU of 26 February 2014 on the harmonization of the laws of Member States “relating to electrical equipment designed for use within certain voltage limits”, by Kayalar Çelik San. Tic. A.Ş. is declared.

Teknik dosya ve test raporlarına dayanarak, belirtilen ürünün Avrupa Birliği Teknik Komisyonu tarafından 26 Şubat 2014 tarihinde yayınlanan 2014/35/AB “Belirli Gerilim Sınırları Dahilinde Çalışmak Üzere Tasarlanmış Teçhizat” ile ilgili yönetmeliğe uygunluğu, Kayalar Çelik San. Tic. A.Ş. tarafından beyan edilir.

Ürün Listesi (Product List)

No	Ürün Kodu (Product Code)	Ürün Adı-Türkçe (Product Description-Turkish)	Ürün Adı- İngilizce (Product Description- English)
1	58003000001	SU ISITICI 13 LT	WATER BOILER 13 LT
2	58003000002	SU ISITICI 17 LT	WATER BOILER 17 LT
3	58003000003	SU ISITICI 23 LT	WATER BOILER 23 LT
4	58003000004	SU ISITICI 35 LT	WATER BOILER 35 LT
5	58003000005	SU ISITICI 5 LT	WATER BOILER 5 LT
6	58003000006	SU ISITICI 50 LT 380V 4,5 KW	WATER BOILER 50 LT 380V 4,5 KW
7	58003000007	SU ISITICI 7 LT	WATER BOILER 7 LT
8	58003000009	SU ISITICI 9 LT	WATER BOILER 9 LT
9	58003000010	SU ISITICI 100 LT 380V 4,5 KW	WATER BOILER 100 LT 380V 4,5 KW

KAYALAR ÇELİK SAN. TİC. A.Ş.

KAYALAR ÇELİK SAN. TİC. A.Ş.
Türkoba Mah. Kayalar Çel. Kayalar
Çelik Fabrikası A.Ş. No: 7/1
Büyükdere / İSTANBUL
T: 0212 444 59 57 F: 0212 859 00 14
Büyükdere Y.D.: 538 003 1842

İSLAM KAYA
General Manager / Genel Müdür



TERMOBOX

INSTRUCTIONS MANUAL TERMOBOX MODEL



EMP.BOX-200



EMP.BOX-300



EMP.BOX-S



EMP.BOX-600



EMP.BOX-600-K



**EMP.BOX-800-K
EMP.BOX-800-K-T**



EMP.BOX-600+600-K



**EMP.BOX-800+800-K
EMP.BOX-800+800-K-T**

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A4	UNPACKING	Page	7
E	CLEANING and MAINTENANCE	Page	7
G	SPARE PARTS LIST - DISASSEMBLED VIEW	Page	12

TERMOBOX

A. GENERAL INFORMATIONS

READ THE OPERATING AND MAINTENANCE INSTRUCTIONS BEFORE INSTALLING THIS APPLIANCE.

READ CAREFULLY. INCORRECT ASSEMBLY AND REPLACEMENT OF PARTS DAMAGE TO THE PRODUCT

IT CAN CAUSE OR INJURY PEOPLE. OUR COMPANY IS NOT RESPONSIBLE FOR INDIVIDUAL DAMAGE TO THE DEVICE, NEGLIGENCE, DAMAGES OR WRONG CONNECTIONS DUE TO FOLLOWING INSTRUCTIONS AND REGULATIONS. UNAUTHORIZED INTERFERENCE WITH THE DEVICE WILL VOID THE PRODUCT WARRANTY.

1. Keep this booklet in a safe place at hand for future reference to other operators.
2. The device must be installed by authorized personnel in accordance with the current regulations and instructions in the country where it will be used.
3. This device should be used by trained persons.
4. device failing in case of device turn it off. to the device Only producer by authorized One service central service should give. Original spare piece please ask.

WARNING:

- This device in effect to legislation suitable should be established and Only Good ventilated Onein the field should be used. Loading And this device without using before to your instructions Look.
- incorrect assembly, adjustment, changing, service or care material damage, injury or can cause death . Installation, use and maintenance before installing or servicing this equipmentread the instructions

SECURITY SYMBOLS



these symbols are intended to alert the user to the presence of importantoperating and maintenance instructions in the manual accompanying the appliance .

SERVİS VE BAKIM / MAINTENANCE AND REPAIRS

Contact your local authorized service agent for service or required maintenance.

Contactez un technicien agréé pour toute réparation ou maintenance.

Please record the model number, serial number, voltage and purchase date in the area below and have it ready when you call to ensure a faster service.

Model No.	
Serial No.	
Voltage	
Purchase Date	

Authorized Service Agent Listing Reference the listing provided with the unit Or for an updated listing go to

Website / Site web: www.empero.com.tr

E-mail / Courriel: empero@empero.com.tr

IMPORTANT

device without running before all paper protection And your packaging since it was dismantled sure be. This device Only closed mounted in position should be done.



WARNING : Device trained employee by should be used.

A1 IDENTIFICATION

Modele	Capacity	Length (A) cm/inch	Depth (B) Cm / inch	Height (C) Cm / inch	Approximate Weight	
					Unpacked Kg/Lb	packaged Kg/Lb
EMP.BOX-200	Non Heating GN 1/1-150	422 mm 16,6"	617 mm 24,30"	308 mm 12,1"	6 kg 13.2 lb	7 kg 15.4 lb
EMP.BOX-300	Non Heating GN 1/1-200	422 mm 16,6"	617 mm 24,3	408 mm 16,6"	7 kg 15.4 lb	8 kg 17.6 lb
EMP.BOX-600	Non Heating TOTAL 63 lt.	604,1 mm 23,78"	636 mm 25,04"	632,5 mm 24,09"	11 kg 24.25 lb	12 kg 26.45 lb
EMP.BOX-600-K	Non Heating TOTAL 63 lt.	604,1 mm 23,78"	636 mm 25,04"	632,5 mm 24,09"	11 kg 24.25 lb	12 kg 26.45 lb
EMP.BOX-600+600-K	Non Heating TOTAL 126 lt.	636 mm 25.0"	540 mm 21.33"	1403 mm 55.2"	55,500 kg 122.35 lb	61,500 kg 135.58 lb
EMP.BOX-800-K	Non Heating TOTAL 127,5 lt.	713 mm 28"	804 mm 31,6"	622 mm 24,5"	13,600 kg 29.98 lb	15 kg 33.06 lb
EMP.BOX-800-K-T	Non Heating TOTAL 127,5 lt.	708 mm 27,9"	802 mm 31,6"	600 mm 23,6"	32,500 kg 71.65 lb	35 kg 77.16 lb
EMP.BOX-800+800-K	Non Heating TOTAL 255 lt.	804 mm 31,6"	761mm 30"	1383 mm 54,5"	58,800 kg 129.63 lb	62,400 kg 137.5 lb
EMP.BOX-800+800-K-T	Non Heating TOTAL 255 lt.	800 mm 31,5"	761mm 30"	1383 mm 54,5"	58,800 kg 129.63 lb	62,400 kg 137.5 lb
EMP.BOX-S	Non Heating TOTAL 19 lt.	424 mm 16.7"	373 mm 14,7"	500 mm 19,7"	5 kg 11.0 lb	6 kg 13.2 lb

TERMOBOX

A3 TRANSPORT

*This device is handheld. Do not hit or drop the device while carrying it.

A4 UNPACKING

*The device must be opened and its packaging must be destroyed in accordance with the regulations in the country of use. All plastic parts are marked with the symbol of the material.

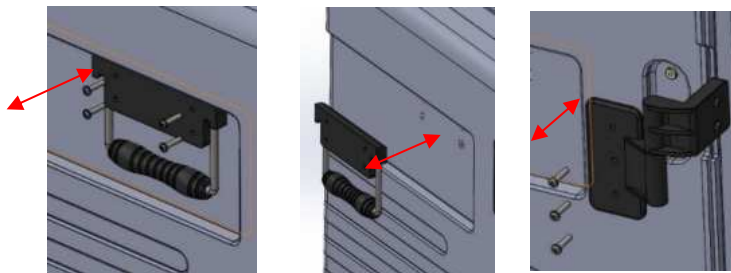
*Check that the parts of the device are complete and that there is no damage during transportation.

E CLEANING and MAINTENANCE

What to Do After Each Use:

- Clean the outer surface of the device with a damp cloth.
- Do not use acid or similar materials when cleaning the device.

The screws on the hinges and handles can be removed with the help of a screwdriver and the surfaces where the hinge and handle sit can be cleaned with a damp cloth. After the cleaning process is finished, the hinges and handles are screwed back into place.



- Do not use any cleaners containing ammonia or bleach or steel wool/abrasive pads or brushes.

CLEANING USE

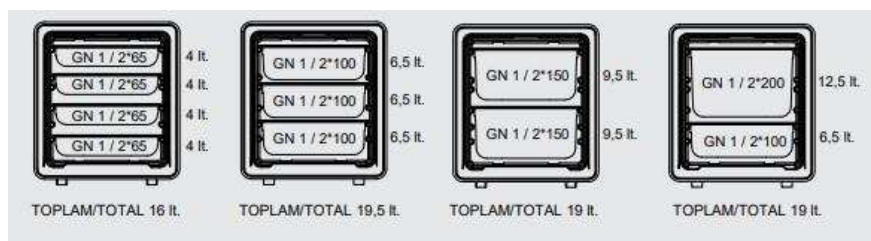
- Plug the appliance into an outlet.
- After warming up for a while, remove the plug.
- Wipe off dissolved oil and residues with a damp cloth.



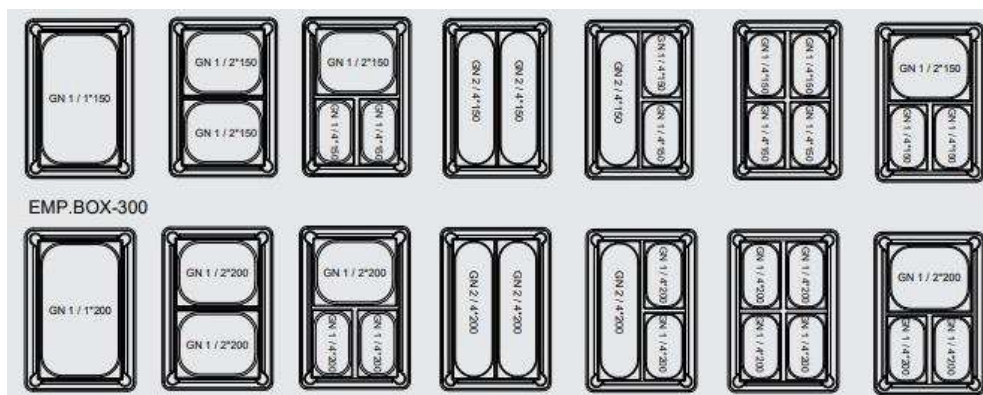
The products with the following codes can be washed with water.

EMP.BOX-200
EMP.BOX-300
EMP.BOX-600
EMP.BOX-600-K
EMP.BOX-800-K
EMP.BOX-800-K-T
EMP.BOX-800+800-K
EMP.BOX-800+800-K-T
EMP.BOX-S

EMP.BOX-S CAPACITY

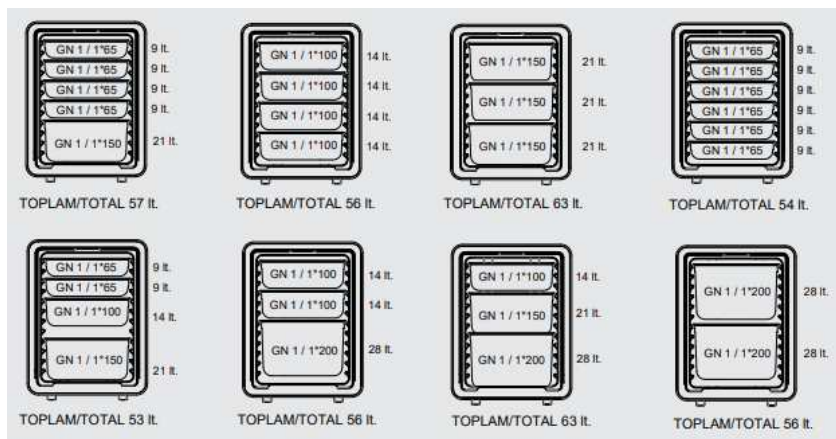


EMP.BOX-200 / EMP.BOX-300 CAPACITY

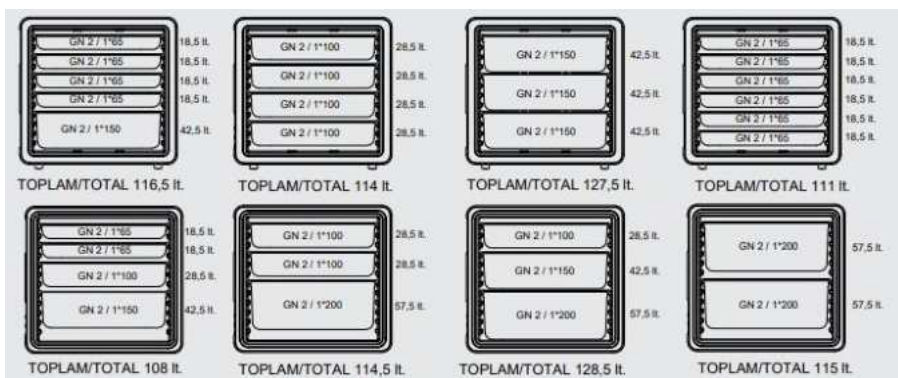


TERMOBOX

EMP.BOX-600 / EMP.BOX-600-K / CAPACITY

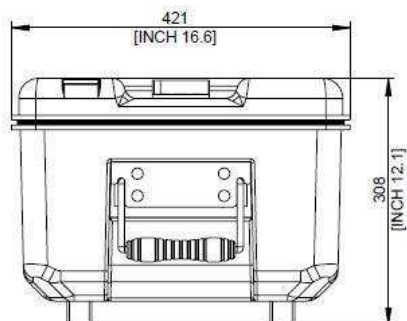
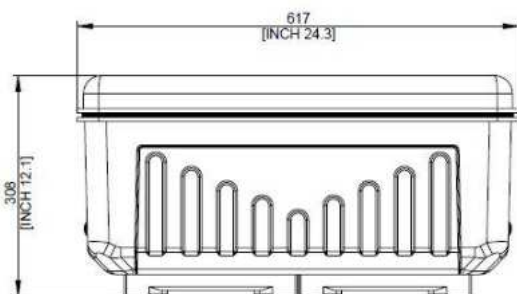
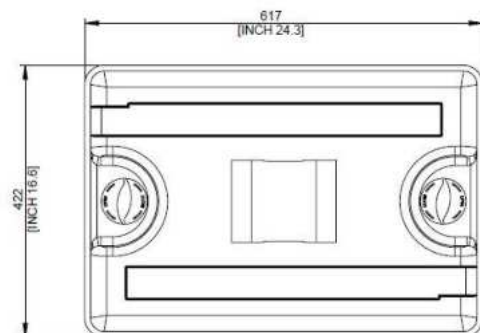


EMP.BOX-800-K / EMP.BOX-800-K-T / CAPACITY



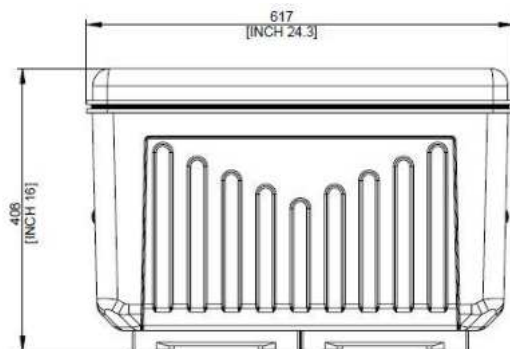
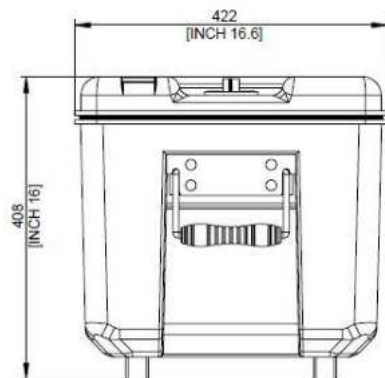
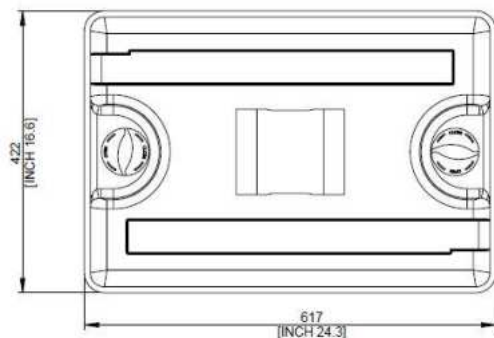
EMP.BOX-800+800-K * DOUBLE CAPACITY

EMP.BOX-200

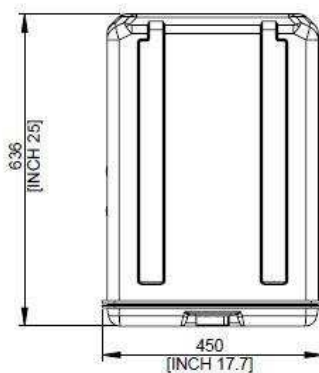
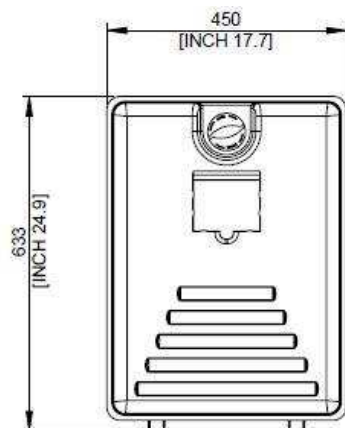


TERMOBOX

EMP.BOX-300

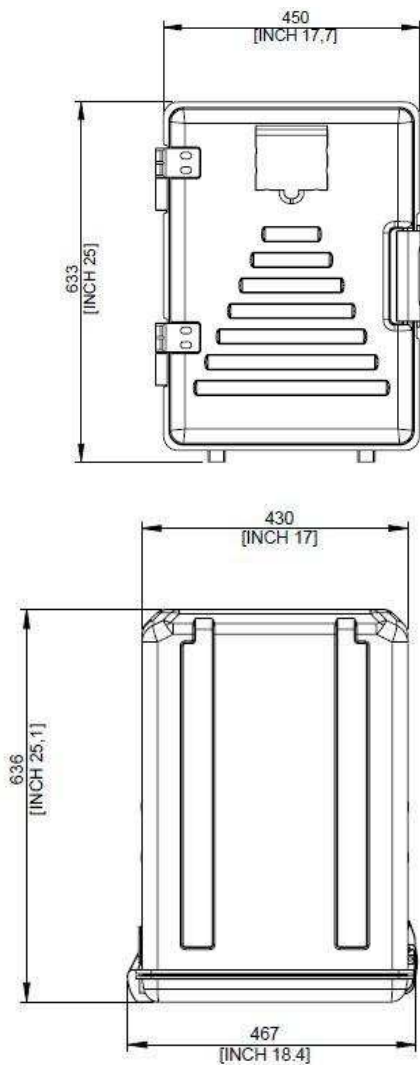


EMP.BOX-600

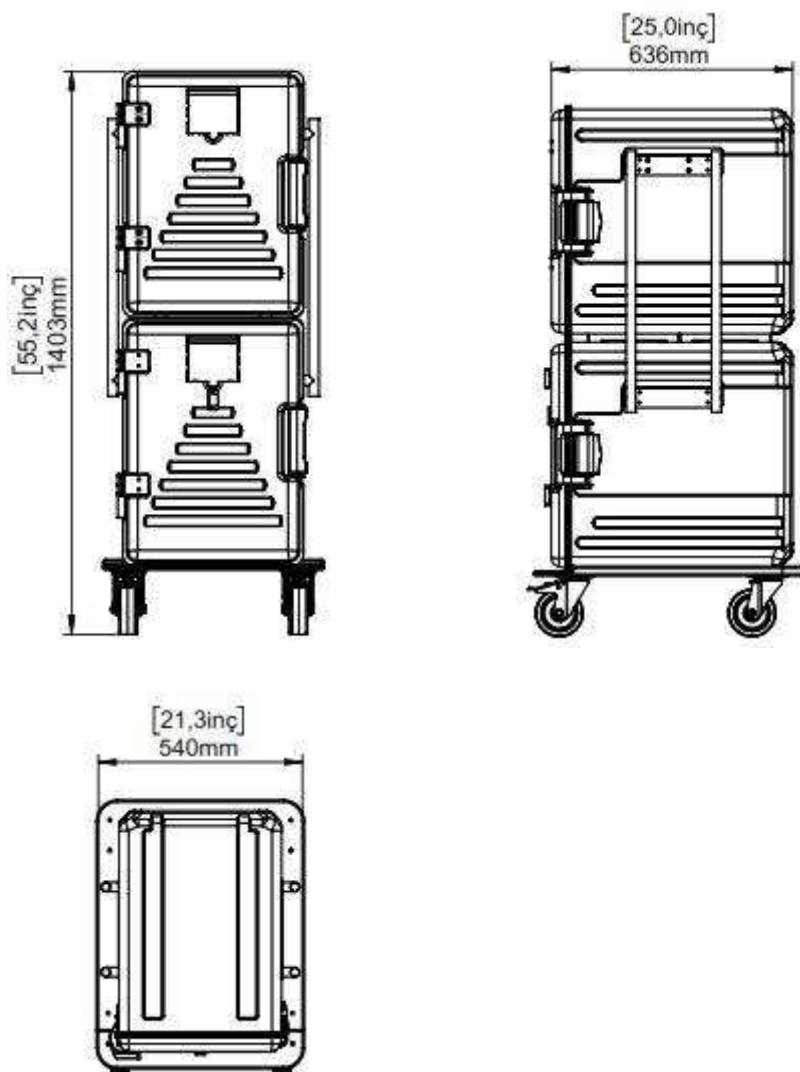


TERMOBOX

EMP.BOX-600-K

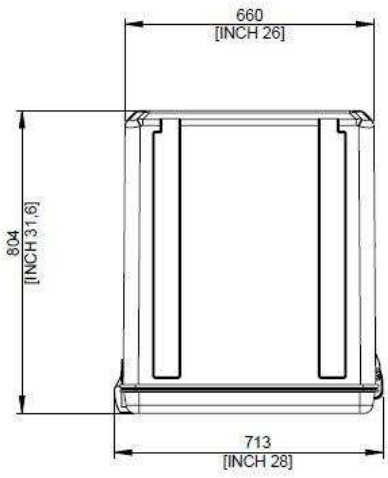
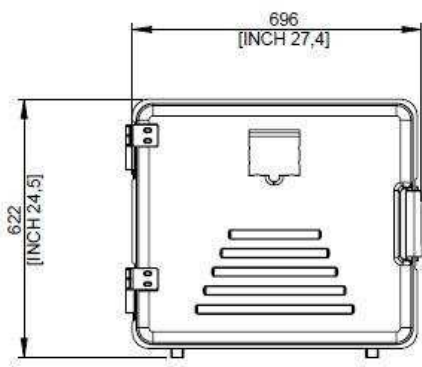


EMP.BOX-600-600-K

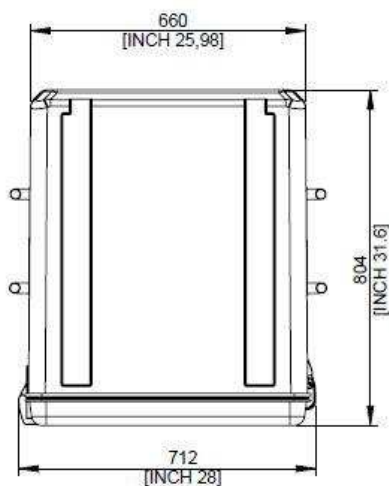
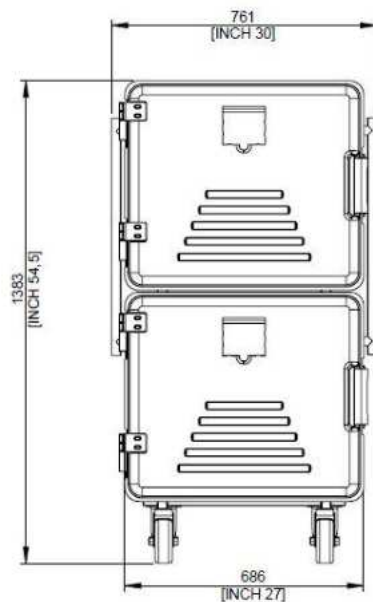


TERMOBOX

EMP.BOX-800-K
EMP.BOX-800-K-T

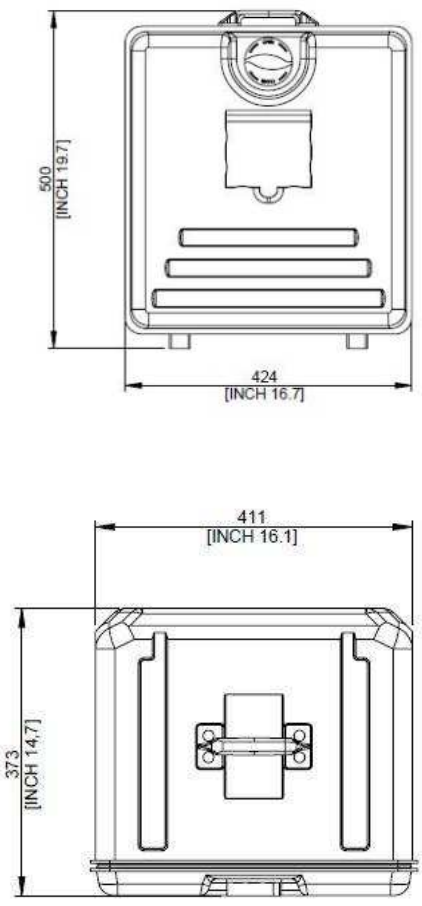


EMP.BOX-800+800-K
EMP.BOX-800+800-K-T

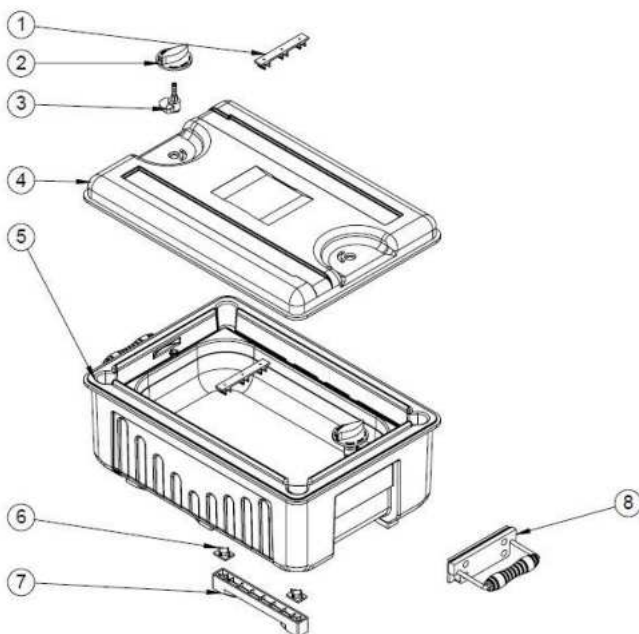


TERMOBOX

EMP.BOX-S



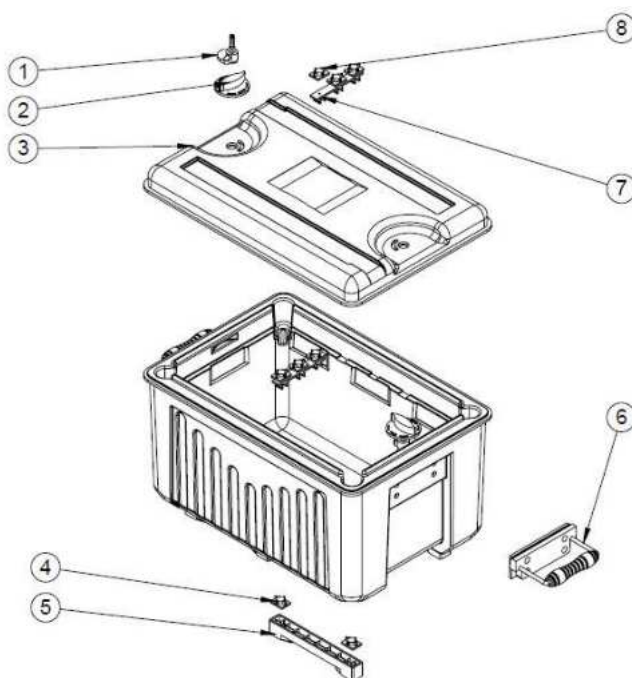
SPARE PARTS LIST - DISASSEMBLED VIEW EMP.BOX-200



PRODUCT CODE : EMP.BOX-200		
NO	NAME OF THE PRODUCT	PRODUCT CODE
1	AVATHERM GREEN BUCKLE HANDLE	EMP.BOX-200
2	BOX-600 LID LOCK HANDLE	M.ENJ-GST-PLS-BOX-015
3	BOX-600 COVER LOCK LOCK	M.ENJ-GST-PLS-BOX-014
4	LID	EMP.BOX-200-300
5	BODY	EMP.BOX-200
6	EMP.BOX FOOT CONNECTION PLASTIC THICK	M.ENJ-GST-PLS-BOX-002
7	EMP.BOX PLASTIC FOOT	M.ENJ-GST-PLS-BOX-006
8	BOX HANDLE	EMP.BOX-200

TERMOBOX

SPARE PARTS LIST - DISASSEMBLED VIEW EMP.BOX-300

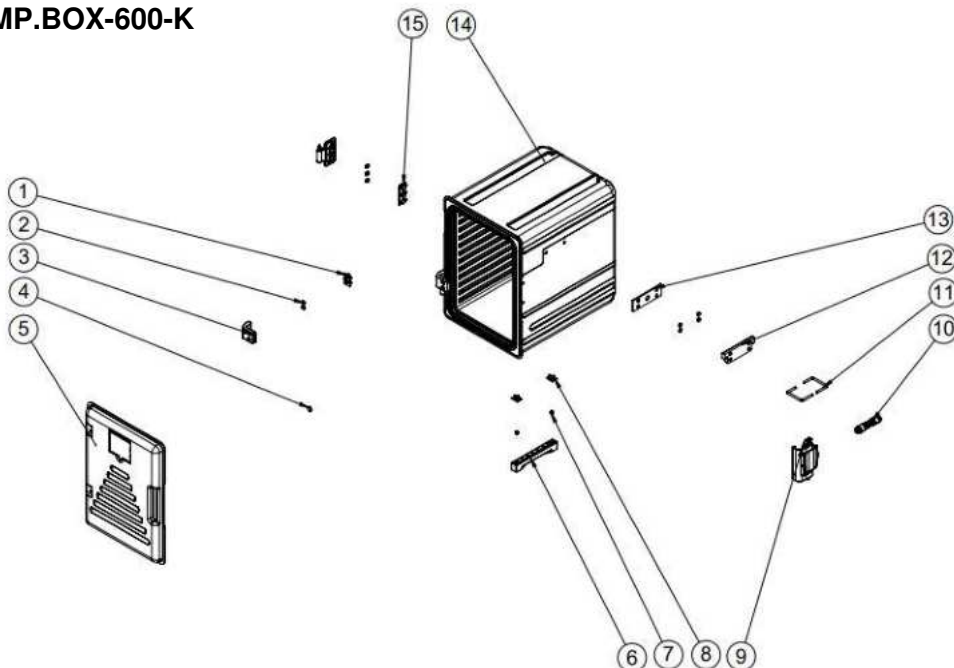


PRODUCT CODE : EMP.BOX-300

NO	NAME OF THE PRODUCT	PRODUCT CODE
1	BOX-600 COVER LOCK LOCK	M.ENJ-GST-PLS-BOX-014
2	BOX-600 LID LOCK HANDLE	M.ENJ-GST-PLS-BOX-015
3	LID	EMP.BOX-200-300
4	EMP.BOX FOOT CONNECTION PLASTIC THICK	M.ENJ-GST-PLS-BOX-002
5	EMP.BOX PLASTIC FOOT	M.ENJ-GST-PLS-BOX-006
6	BOX HANDLE MOUNTING	EMP.BOX-200-300
7	AVATHERM GREEN BUCKLE HANDLE	EMP.BOX-200-300
8	EMP.BOX FOOT CONNECTION PLASTIC THICK	M.ENJ-GST-PLS-BOX-002

SPARE PARTS LIST - DISASSEMBLED VIEW

EMP.BOX-600-K

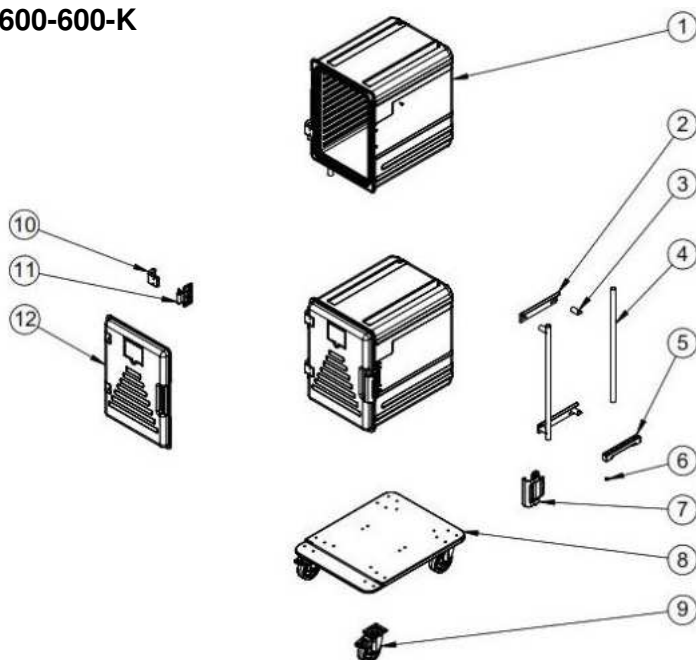


PRODUCT CODE : EMP.BOX-600-K

NO	NAME OF THE PRODUCT	PRODUCT CODE
1	FOOT CONNECTION PLASTIC	M.ENJ-GST-PLS-BOX-002
2	SLOT CLOSING PLASTIC	M.ENJ-GST-PLS-BOX-010
3	HINGE THREAD	M.ENJ-GST-PLS-BOX-005
4	COVER HOLE PLUG	M.ENJ-GST-PLS-BOX-010
5	STANDARD HINGED DOOR NEW TYPE	M.PLS-TRM-011
6	PLASTIC FOOT	M.ENJ-GST-PLS-BOX-006
7	CIRCULAR CLOSING PLASTIC	M.ENJ-GST-PLS-BOX-010
8	HINGE BOTTOM CONNECTION PLASTIC THICK	M.ENJ-GST-PLS-BOX-010
9	FOOT CONNECTION PLASTIC THICK	M.ENJ-GST-PLS-BOX-002
10	HANDLE HANDLE	M.ENJ-GST-PLS-BOX-009
11	HANDLE NATIONAL	YTL-GST.BOX-KS-0001
12	HANDLE MAIN BODY	M.ENJ-GST-PLS-BOX-008
13	HANDLE CONNECTION PLASTIC	M.ENJ-GST-PLS-BOX-011
14	BODY HINGED	M.PLS-TRM-002
15	MALE HINGE LOWER SUPPORT AND CONNECTING PLASTIC	M.ENJ-GST-PLS-BOX-007

TERMOBOX

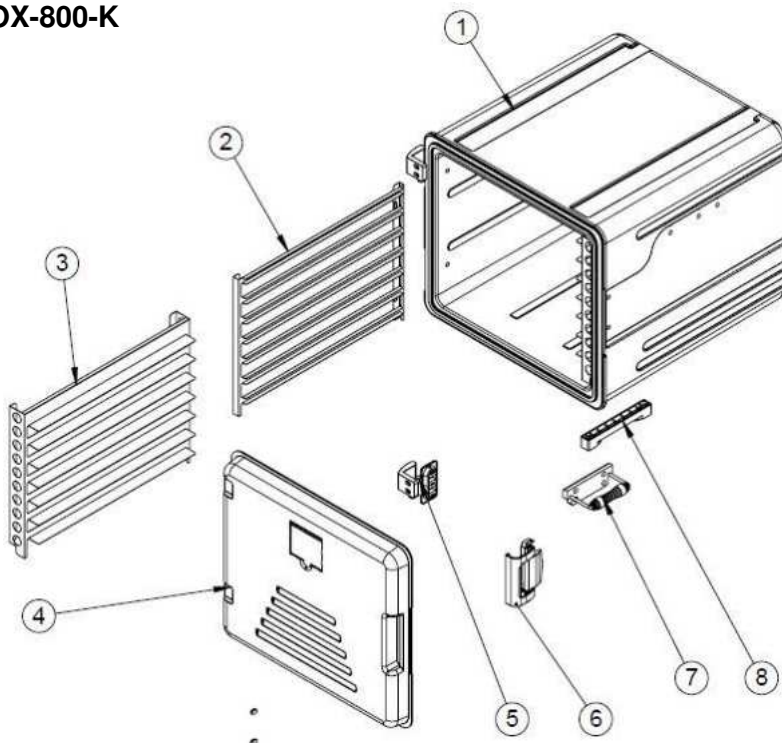
SPARE PARTS LIST - DISASSEMBLED VIEW EMP.BOX-600-600-K



PRODUCT CODE : EMP.BOX-600-600-K

NO	NAME OF THE PRODUCT	PRODUCT CODE
1	EMP.BOX-600 BODY	YMH-GST.BOX-KS-0002
2	BOX-800+800 HANDLE SHEET	YSC-GST.BOX-LZ-0008
3	EMP.BOX-800-800 HANDLE ADDITIONAL PIPE	YBR-GST.BOX-KS-0002
4	EMP.BOX-600-600 HANDLE TUBE	YBR-GST.BOX-KS-0003
5	EMP.BOX PLASTIC FOOT	M.ENJ-GST-PLS-BOX-006
6	EMP.BOX ROUND CLOSURE PLASTIC	M.ENJ-GST-PLS-BOX-010
7	EMP.BOX DOOR LOCK	M.ENJ-GST-PLS-BOX-001
8	BOX-600-600-I-G BLACK BANQUET BUMPER	-
9	BRAKED WHEEL	M.AKS-AYK-INX-004
10	EMP.BOX HINGE TOOTH	M.ENJ-GST-PLS-BOX-005
11	EMP.BOX HINGE MALE	M.ENJ-GST-PLS-BOX-004
12	EMP.BOX-600 STANDARD COVER	YMH-GST.BOX-KS-0003

SPARE PARTS LIST - DISASSEMBLED VIEW EMP.BOX-800-K

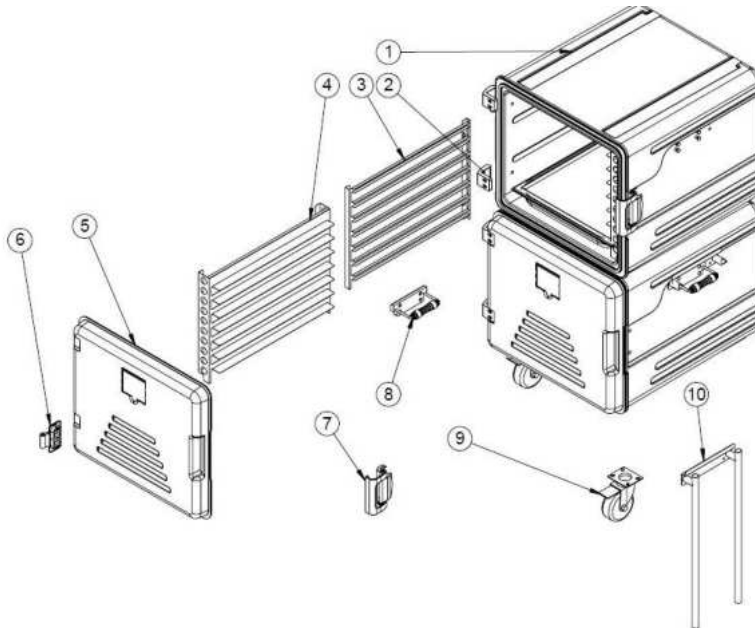


PRODUCT CODE : EMP.BOX-800-K

NO	NAME OF THE PRODUCT	PRODUCT CODE
1	SAMPLE PRODUCT TAKEN FROM THE MOLD 18.02.2023	EMP.800-UL
2	BOX-800-UL 2-1 SHELF SHEET	YSC-BOX-800-LZ-0002
3	BOX-800 SHELF SHEET 60x40 TRAY	YSC-BOX-800-LZ-0003
4	LID	EMP.800-UL
5	EMP.BOX HEATED DOOR HINGE	M.ENJ-GST-PLS-BOX-016
6	EMP.BOX DOOR LOCK	M.ENJ-GST-PLS-BOX-001
7	HANDLE	EMP.BOX-800
8	EMP.BOX PLASTIC FOOT	M.ENJ-GST-PLS-BOX-006

TERMOBOX

SPARE PARTS LIST - DISASSEMBLED VIEW BOX-800+800-K



PRODUCT CODE : EMP.BOX-800+800-K NO

NAME OF THE PRODUCT		PRODUCT CODE
1	SAMPLE PRODUCT TAKEN FROM THE MOLD 18.02.2023	EMP.800-UL
2	EMP.BOX HEATED DOOR HINGE	M.ENJ-GST-PLS-BOX-016
3	BOX-800-UL 2-1 SHELF SHEET	YSC-BOX-800-LZ-0002
4	BOX-800 SHELF SHEET 60x40 TRAY	YSC-BOX-800-LZ-0003
5	SAMPLE COVER PRODUCT TAKEN FROM THE MOLD 21.02.2023.	EMP.800-UL
6	HINGE	EMP.800-UL
7	EMP.BOX DOOR LOCK	M.ENJ-GST-PLS-BOX-001
8	HANDLE	EMP.800-UL
9	125 ORKO-(BANKET CAR) WITH WHEEL BRAKE	M.AKS-TKR-KFS-002
10	HOLDING HAND MNTJ.	EMP.BOX-800 x 800



T.C.
KONYA VALİLİĞİ
Çevre, Şehircilik ve İklim Değişikliği İl Müdürlüğü



Sayı : E-47342952-220.03-13082661

21.07.2025

Konu : ÇED Kapsam Dışı

ERSÖZ & GONCA MUTFAK MAK. VE EKİP. SAN. TİC. A.Ş. NE
Büyükkayacık Mahallesi Organize Sanayi Bölgesi 9. nolu Sokak 4. No:20 Selçuklu/KONYA

İlgi : a) Enviro Müh. Med. İnş. Kauç. ve Mad. San. Tic. LTD. Şti.'nün 16.07.2025 tarihli ve 153 sayılı yazısı.

b) 21.07.2025 tarihli ve 218778 Referans no'lu başvuru.

İlimiz Selçuklu İlçesi, Büyükkayacık Mahallesi 9 nolu Sokak 4. No:20 adresinde, toplam alanda Ersöz-Gonca Mutfak Makine ve Ekipmanları San. ve Tic. A.Ş. olarak "mutfak makinaları ve madeni eşya üretimi" faaliyeti yapıldığı, Çevresel Etki Değerlendirme (ÇED) Yönetmeliği kapsamında değerlendirme yapılması talep edilmektedir.

Müdürlüğümüz kayıtlarında yapılan inceleme sonucunda; belirtilen adreste gerçekleştirilmesi planlanan proje ile ilgili, 17/07/2008 tarih ve 26939 Sayılı Resmi Gazete yayımlanarak yürürlüğe giren ÇED Yönetmeliğinin Ek-2 listesi 17. maddesi (beyaz eşya üretimi veya boyamasının yapıldığı tesisler) kapsamına göre 07/04/2010 tarihli ve 588/2698 numaralı ÇED Gerekli Değildir Belgesi verildiği, belgeye esas proje tanıtım dosyasında tesiste, mutfak makinaları ve madeni eşya üretimi faaliyeti olarak 2900 yıl/adet olarak planlandığı ve 29/11/2026 tarihine kadar geçerli kapasite raporuna göre de 3700 adet/yıl üretimi olduğu anlaşılmıştır.

İlgi (a) başvurunuz, ilgi (b) referans numarası ile çevrimiçi ÇED süreci Yönetim sistemine kayıt edilmiş olup, başvurunuzun incelenmesi neticesinde; belirtilen adreste yapılması düşünülen "mutfak makinaları ve madeni eşya üretimi (yüzet temizleme ve kapalama yapılmaması kaydıyla)" projesi, 29.07.2022 tarih ve 31907 Sayılı Resmi Gazete'de yayımlanarak yürürlüğe giren ÇED Yönetmeliği Listelerinde yer almadığından kapsam dışı olarak değerlendirilmiştir.

Bununla birlikte planlanan yatırım ile ilgili olarak 2872 sayılı Çevre Kanunu ile bu Kanuna istinaden çıkarılan Yönetmeliklerin ilgili hükümlerine uyulması, mer'i mevzuat uyarınca ilgili kurum/kuruluşlardan gerekli izinlerin alınması, ekolojik dengenin bozulmaması, çevrenin korunması ve geliştirilmesine yönelik tedbirlere riayet edilmesi ve projede yapılacak yönetmeliğe tabi değişiklikler öncesinde Bakanlığımıza veya Valiliğimize (Çevre, Şehircilik ve İklim Değişikliği İl Müdürlüğü) başvurulması hususunda;

Bilgilerinizi ve gereğini rica ederim.

Özgür SOMUNCU
Vali a.
İl Müdür Yardımcısı

Dağıtım:

Gereği:

Bilgi:

Bu belge, güvenli elektronik imza ile imzalanmıştır.

Doğrulama Kodu: D198C318-7E65-4E40-B4E0-BD75E0A1B0E8

Doğrulama Adresi: <https://www.turkiye.gov.tr>

Horoğluhan Mahallesi Ankara Caddesi 145/2 Selçuklu/ KONYA

Tel : (332)2239000 Faks: (332)2239313

e-Posta: konya@csb.gov.tr <https://konya.csb.gov.tr>

KEP Adresi : konyacevrevesehirilik@hs01.kon.tr

Bilgi için: Cem CANBAZ

Mühendis





www.kayalarmutfak.com.tr



Catalogue : KITCHEN AUXILIARY EQUIPMENT
Chapter : CARRYING CONTAINER ISOLATED
Article :
Code : 53003000003



Açıklama

TR

* Cihaz gövdesi AISI - 304 (iç - dış) paslanmaz çelik taşı sacdan üretilmiştir.

* Kapak, mukavemet açısından özel form verilmiş paslanmaz çelik sacdan çift cidarlı olarak üretilmiştir.

EN

* Device body is made from AISI - 304 (inside-outside) stainless steel stone plate.

* Cover is made from stainless steel plate which is special

Dimensions & Weight	Net Dimensions	Packed
Çap – Diameter (cm) :	32	
Kapasite – Capacity (Lt) :	20	
Yükseklik – Height(mm) :	30	

Adres: Turkoba Mah. Kayalar Cad. No:7 B.Çekmece - İSTANBUL / TÜRKİYE
Tel: 444 59 57 Fax: +90 212 859 00 14 Mail: info@kayalarmutfak.com.tr



www.kayalarmutfak.com.tr



Catalogue : SERVICE EQUIPMENTS
Chapter : HOT WATER DISPENSER
Article :
Code : 58003000001



Açıklama

TR

- * Cihaz gövdesi AISI - 304 paslanmaz çelik taşı sacdan üretilmiştir.
- * Kapak, mukavemet açısından özel form verilmiş paslanmaz çelik sacdan çift cidarlı olarak üretilmiştir.
- * Çok kademeli termostat ile 30-100°C arasında sıcaklık ayar imkanına sahiptir.
- * Tavada herhangi bir arıza olma durumunda otomatik olarak enerjiyi kesen emniyet sistemi (limit termostat) vardır.
- * Tüm elektrik / gaz kumanda ve kontrol donanımları uluslararası standartlara uygundur.

EN

- * Device body is made from AISI - 304 stainless steel stone plate.
- * Cover is made from stainless steel plate which is special
- * Multi stage thermostat can adjust temperature between 30-100°C
- * There is a safety system that cut the electricity if any malfunction occurs at pan (limited thermostat).
- * All electrical / gas and control equipment are suitable to international standards.

Dimensions & Weight	Net Dimensions	Packed
Uzunluk - Length(mm)	: 1500	
Derinlik - Dept(mm)	: 1000	
Yükseklik - Height(mm)	: 850	
Net Weight (Kg)	:	
Güç / Power (Kw)	: 1,5	
Hacim / Volume (Lt)	: 13	
Voltaj / Voltage (V)	: 220	

Adres: Turkoba Mah. Kayalar Cad. No:7 B.Çekmece - İSTANBUL / TÜRKİYE
Tel: 444 59 57 **Fax:** +90 212 859 00 14 **Mail:** info@kayalarmutfak.com.tr



TÜRKAK BDS NO
YS-9B66-6C6E

KALİTE YÖNETİM SİSTEMİ BELGESİ

QUALITY MANAGEMENT SYSTEM CERTIFICATE



TÜRK STANDARDLARI ENSTİTÜSÜ
bu belge ile

ERSÖZ-GONCA MUTFAK MAKİNA VE
EKİPMANLARI SAN. VE TİC. A.Ş.
KONYA OSB BÜYÜK KAYACIK MAH. 9
NOLU SOK. NO:20 SELÇUKLU -
KONYA / TÜRKİYE

kuruluşunun TS EN ISO 9001:2015 şartlarına uygun bir KALİTE
YÖNETİM SİSTEMİNE sahip olduğunu onaylar.

Belge kapsamı Ek'te verilmiştir

Bu belge belgelendirme şartlarına
uygunluk sağlandığı surece geçerlidir.



TÜRK STANDARDLARI ENSTİTÜSÜ
TURKISH STANDARDS INSTITUTION

Konya Bölge Koordinatörü V.
Konya Regional Coordinator A.

[Signature]
İzzet ŞEN

Türk Standardları Enstitüsü Türk Akreditasyon Kurumu TÜRKAK tarafından akredite edilmiştir.
Turkish Standards Institution, has been accredited by the Turkish Accreditation Agency TÜRKAK.

TURKISH STANDARDS INSTITUTION
hereby certifies that the organization

ERSÖZ-GONCA MUTFAK MAKİNA VE
EKİPMANLARI SAN. VE TİC. A.Ş.
KONYA OSB BÜYÜK KAYACIK MAH. 9 NOLU
SOK. NO:20 SELÇUKLU -
KONYA / TÜRKİYE

has a QUALITY MANAGEMENT SYSTEM which fulfills
the requirements of the TS EN ISO 9001:2015

Scope of the certificate is given in annex

Belge No / Certificate No

KY-1970-03/KG-02/09-R15

Belge Tarihi / Date of Certificate

13.07.2024

Geçerlilik Tarihi / Valid Until

13.07.2027

Revizyon Tarihi / Date of Revision

23.07.2024

İlk Belge Tarihi / Initial Certification Date

09.07.2002

This certificate is valid provided that compliance
with the certification requirement is maintained



KALİTE YÖNETİM SİSTEMİ BELGESİ

QUALITY MANAGEMENT SYSTEM CERTIFICATE

EK / APPENDIX



Belge No / Certificate No: **KY-1970-03/KG-02/09-R15**

Belgeli Kuruluş Adı, Adresi:

Name and Address of the Certified Organization:

Belge Kapsamı:

TS EN ISO 9001:2015

- MUTFAK EKİPMANLARI
- GIDA SANAYİ ALET VE MAKİNALARI
- SOĞUTUCU EKİPMANLARI
- TİCARİ SOĞUTUCU DOLAPLAR

TASARIM VE ÜRETİMİ

K - Q
TSE-ISO-EN
9001

Belge Tarihi / Date of Certificate: **13.07.2024**

ERSÖZ-GONCA MUTFAK MAKİNA VE
EKİPMANLARI SAN. VE TİC. A.Ş.
KONYA OSB BÜYÜK KAYACIK MAH. 9
NOLU SOK. NO:20 SELÇUKLU -
KONYA / TÜRKİYE

Scope of the Certificate:

TS EN ISO 9001:2015

DESIGN AND PRODUCTION OF

- KITCHEN EQUIPMENTS
- TOOLS AND MACHINES FOR FOOD INDUSTRY
- REFRIGERATING EQUIPMENTS
- COMMERCIAL REFRIGERATING CABINETS

Certificate

TSE has issued an IQNet recognized certificate that the organization:

**ERSÖZ-GONCA MUTFAK MAKİNA VE EKİPMANLARI SAN. VE TİC.
A.Ş.**

KONYA OSB BÜYÜK KAYACIK MAH. 9 NOLU SOK. NO:20 SELÇUKLU -
KONYA / TÜRKİYE

has implemented and maintains a
QUALITY MANAGEMENT SYSTEM
for the following scope:
Scope of the certificate is given in annex

which fulfills the requirements of the following standard:

TS EN ISO 9001:2015

Issued on: 13-07-2024

First Issued on: 09-07-2002

Expires on: 13-07-2027

Registration Number : TR-KY-1970-03/KG-02/09-R15


Alex Stoichitoiu
President of IQNet


İzzet ŞEN
Konya Regional Coordinator A.



This attestation is directly linked to the IQNet Member's original certificate and shall not be used as a stand-alone document.

IQNet Members:*

AENOR Spain AFNOR Certification France APCER Portugal CISQ Italy CQC China CQM China CQS Czech Republic
Cro Cert Croatia DQS Holding GmbH Germany EAGLE Certification Group USA FCAV Brazil FONDONORMA Venezuela
ICONTEC Colombia ICS Bosnia and Herzegovina INTECO Costa Rica IRAM Argentina JQA Japan
KFQ Korea LSQA Uruguay MIRTEC Greece MSZT Hungary Nemko AS Norway NSAI Ireland NYCE Mexico PCBC Poland
Quality Austria Austria SII Israel SIQ Slovenia SIRIM QAS International Malaysia SQS Switzerland SRAC Romania TSE Türkiye YUQS Serbia

Certificate

Annex to IQNET Certificate Number :TR-KY-1970-03/KG-02/09-R15

Name and Address of the certified organization

**ERSÖZ-GONCA MUTFAK MAKİNA VE EKİPMANLARI SAN. VE TİC.
A.Ş.**

KONYA OSB BÜYÜK KAYACIK MAH. 9 NOLU SOK. NO:20 SELÇUKLU - KONYA / TÜRKİYE

Scope of the Certificate

DESIGN AND PRODUCTION OF

- KITCHEN EQUIPMENTS
- TOOLS AND MACHINES FOR FOOD INDUSTRY
- REFRIGERATING EQUIPMENTS
- COMMERCIAL REFRIGERATING CABINETS

This annex is only valid in connection with the original certificate number mentioned above.

JS
IQNet Members*:

AENOR Spain AFNOR Certification France APCER Portugal CISQ Italy CQC China CQM China CQS Czech Republic
Cro Cert Croatia DQS Holding GmbH Germany EAGLE Certification Group USA FCAV Brazil FONDONORMA Venezuela
ICONTEC Colombia ICS Bosnia and Herzegovina INTECO Costa Rica IRAM Argentina JQA Japan
KFQ Korea LSQA Uruguay MIRTEC Greece MSZT Hungary Nemko AS Norway NSAI Ireland NYCE México PCBC Poland
Quality Austria Austria SII Israel SIQ Slovenia SIRIM QAS International Malaysia SQS Switzerland SRAC Romania TSE Türkiye YUQS Serbia



ENERJİ YÖNETİM SİSTEMİ BELGESİ ENERGY MANAGEMENT SYSTEM CERTIFICATE



TÜRK STANDARDLARI ENSTİTÜSÜ
bu belge ile

ERSÖZ-GONCA MUTFAK MAKİNA VE
EKİPMANLARI SAN. VE TİC. A.Ş.
KONYA OSB BÜYÜK KAYACIK MAH. 9
NOLU SOK. NO:20 SELÇUKLU -
KONYA / TÜRKİYE

kuruluşunun TS EN ISO 50001:2018 şartlarına uygun bir
ENERJİ YÖNETİM SİSTEMİ'ne sahip olduğunu onaylar.

TURKISH STANDARDS INSTITUTION
hereby certifies that the organization

ERSÖZ-GONCA MUTFAK MAKİNA VE
EKİPMANLARI SAN. VE TİC. A.Ş.
KONYA OSB BÜYÜK KAYACIK MAH. 9 NOLU
SOK. NO:20 SELÇUKLU -
KONYA / TÜRKİYE

has a ENERGY MANAGEMENT SYSTEM CERTIFICATE
which fulfills the requirements of the TS EN ISO 50001:2018



Belge kapsamı Ek'te verilmiştir

TÜRK STANDARDLARI ENSTİTÜSÜ
TURKISH STANDARDS INSTITUTION

Scope of the certificate is given in annex



Bu belge belgelendirme şartlarına
uygunluk sağlandığı sürece geçerlidir.

Konya Belgelendirme Müdürü
Konya Certification Manager

Türk Standardları Enstitüsü Türk Akreditasyon Kurumu TÜRKAK tarafından akredite edilmiştir.
Turkish Standards Institution, has been accredited by the Turkish Accreditation Agency TÜRKAK.

Belge No / Certificate No

EYB-266/23

Belge Tarihi / Date of Certificate

06.10.2023

Geçerlilik Tarihi / Valid Until

06.10.2026

Revizyon Tarihi / Date of Revision

06.10.2023

İlk Belge Tarihi / Initial Certification Date

06.10.2023

This certificate is valid provided that compliance
with the certification requirement is maintained.



ENERJİ YÖNETİM SİSTEMİ BELGESİ
ENERGY MANAGEMENT SYSTEM CERTIFICATE
EK / ANNEX



Belge No / Certificate No: EYB-266/23

Belgeli Kuruluş Adı, Adresi:

Name and Address of the Certified Organization:

Belge Kapsamı:

TS EN ISO 50001:2018

-ENDÜSTRİYEL MUTFAK EKİPMANLARI
ÜRETİMİ

TSE
TS - EN - ISO
50001

Belge Tarihi / Date of Certificate: 06.10.2023

ERSÖZ-GONCA MUTFAK MAKİNA VE
EKİPMANLARI SAN. VE TİC. A.Ş.
KONYA OSB BÜYÜK KAYACIK MAH. 9
NOLU SOK. NO:20 SELÇUKLU -
KONYA / TÜRKİYE

Scope of the Certificate:

TS EN ISO 50001:2018

-PRODUCTION OF
INDUSTRIAL KITCHEN EQUIPMENT



Certificate

TSE has issued an IQNet recognized certificate that the organization:

**ERSÖZ-GONCA MUTFAK MAKİNA VE EKİPMANLARI SAN. VE TİC.
A.Ş.**

KONYA OSB BÜYÜK KAYACIK MAH. 9 NOLU SOK. NO:20 SELÇUKLU -
KONYA / TÜRKİYE

has implemented and maintains a
ENERGY MANAGEMENT SYSTEM
for the following scope:

Scope of the certificate is given in annex

which fulfills the requirements of the following standard:

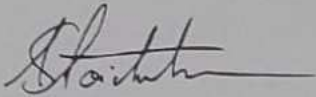
TS EN ISO 50001:2018

Issued on: 06-10-2023

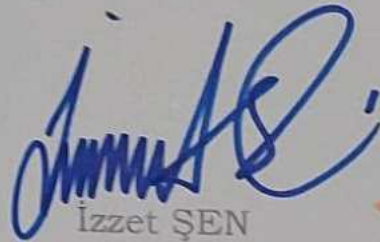
First Issued on: 06-10-2023

Expires on: 06-10-2026

Registration Number : TR-EYB-266/23



Alex Stoichitoiu
President of IQNet



İzzet ŞEN
Konya Certification Manager



This attestation is directly linked to the IQNet Member's original certificate and shall not be used as a stand-alone document.

IQNet Members*:

AENOR Spain AFNOR Certification France APCER Portugal CISQ Italy CQC China CQM China CQS Czech Republic
Cro Cert Croatia DQS Holding GmbH Germany EAGLE Certification Group USA FCAV Brazil FONDONORMA Venezuela
ICONTEC Colombia ICS Bosnia and Herzegovina INTECO Costa Rica IRAM Argentina JQA Japan
KFQ Korea LSQA Uruguay MIRTEC Greece MSZT Hungary Nemko AS Norway NSAI Ireland NYCE Mexico PCBC Poland
Quality Austria Austria SII Israel SIQ Slovenia SIRIM QAS International Malaysia SQS Switzerland SRAC Romania TSE Türkiye YUQS Serbia

* The list of IQNet Members is valid at the time of issue of this certificate. Updated information is available under www.iqnet-certification.com

Certificate

Annex to IQNET Certificate Number :TR-EYB-266/23

Name and Address of the certified organization

**ERSÖZ-GONCA MUTFAK MAKİNA VE EKİPMANLARI SAN. VE TİC.
A.Ş.**

KONYA OSB BÜYÜK KAYACIK MAH. 9 NOLU SOK. NO:20 SELÇUKLU - KONYA / TÜRKİYE

Scope of the Certificate

-PRODUCTION OF
INDUSTRIAL KITCHEN EQUIPMENT

This annex is only valid in connection with the original certificate number mentioned above.

IQNet Members*:

AENOR Spain **AFNOR Certification** France **APCER** Portugal **CISQ** Italy **CQC** China **CQM** China **CQS** Czech Republic
Cro Cert Croatia **DQS Holding GmbH** Germany **EAGLE Certification Group** USA **FCAV** Brazil **FONDONORMA** Venezuela
ICONTEC Colombia **ICS** Bosnia and Herzegovina **INTECO** Costa Rica **IRAM** Argentina **JQA** Japan
KFQ Korea **LSQA** Uruguay **MIRTEC** Greece **MSZT** Hungary **Nemko AS** Norway **NSAI** Ireland **NYCE** Mexico **PCBC** Poland
Quality Austria Austria **SII** Israel **SIQ** Slovenia **SIRIM QAS International** Malaysia **SQS** Switzerland **SRAC** Romania **TSE** Türkiye **YUQS** Serbia

Шкаф холодильный UGUR USS 374 DTK BK

Код товара: 141885

72 342 руб.

Заказать монтаж

В кредит от 2 615 руб. в мес. 

-  Статус: **в наличии**
- Гарантия: **24 мес.**
- Доставка по Москве: **1500р.**
- Доставка в любую ТК: **1500р.**
- Рассчитать стоимость доставки в [другой город](#)

[Инструкция на UGUR USS 374 DTK BK](#)
PDF файл

Основные характеристики

Назначение	универсальный
Температурный режим	от 1 до 10 °С
Объем	от 345 до 372 л
Охлаждение	динамическое
Холодильный агрегат	встроенный
Исполнение двери	глухая
Напряжение	220 В
Потребляемая мощность	0.179 кВт/ч
Ширина	595 мм
Глубина	640 мм
Высота	1840 мм
Вес (без упаковки)	64 кг
Цвет	белый
Страна производства	Турция

EU DECLARATION OF CONFORMITY

We: UGUR Sogutma Makinaları Sanayi ve Ticaret A.S.

Yeni Sanayi Mahallesi Batı Denizli Bulvarı no:95 – 09900 Nazilli – Aydın - TURKEY

Declare under our own responsibility that the product:

USS 374 DTK BK

To which the declaration refers is in compliance with the following:

MACHINERY SAFETY-DIRECTIVES 2006/42/EC (Machine) and IC 087, 2014/35/EU (Low Voltage)

EN 60335-1:2012/A1:2019	Safety of household and similar electrical appliances – Part 1 – General requirements
IEC 60335-2-89	Safety of household and similar electrical appliances – Part 2-89 – Specific requirements for Commercial refrigerator and freezers
EN 62233:2008	Measurements method for Electromagnetic Field (EMF) of Household Appliances and similar apparatus with regard to Human exposure
EN 62471:2009	Photo biological safety of lamps and lamp system

ELECTROMAGNETIC COMPATIBILITY (EMC)-DIRECTIVE 2014/30/EU (harmonisation of the laws relating to EMC)

EN 55014-1:2017	Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus. Part 1: Emission
EN 55014-2:2015	Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus. Part 2: Immunity
EN IEC 61000-3-2:2019	Electromagnetic Compatibility (EMC) - Part 3-2: Limits for harmonic current emissions (equipment input current $\leq 16A$ per phase
EN 61000-3-3:2013	Electromagnetic Compatibility (EMC) - Part 3: Limits. Section 3: Limitation of voltage fluctuations and flicker in low-voltage supply systems for equipment with rated current $\leq 16A$

PRESSURE EQUIPMENT DIRECTIVE (PED) 2014/68/EU

As the equipment falls into a class lower than I, this directive does not apply to the product (art.1 par.3.6)
--

ECODESIGN- ErP DIRECTIVE 2009/125/EC

Reg. (EU) 2017/1369	Energy Consumption Labelling Indications by Energy-related products
Reg. (EU) 2019/2018	Supplementing Regulation (EU) 2017/1369 of the European Parliament and of the Council with regard to energy labelling of refrigerating appliances with a direct sales function
Reg. (EU) 2019/2024	Laying down ecodesign requirements for refrigerating appliances with a direct sales function pursuant to Directive 2009/125/EC of the European Parliament and of the Council

FOODSTAFF COMPATIBILITY

Regulation (EU) Nr. 10/2011	Plastics intended to come into contact with food
Regulation (EC) Nr. 1935/2004	Materials and articles intended to come into contact with food
Regulation (EC) Nr. 2023/2006 (amending reg. 1935/2004)	Good manufacturing practise for materials and articles intended to come into contact with food
Regulation (EU) 2022/1616	Recycled plastic Materials and articles intended to come into contact with food

ROHS AND WEEE

EN IEC 63000:2018	Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances
Directive 2011/65	EC of the European Parliament and of the Council of 8th June 2011
Directive 2012/19	Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012

REACH (Registration, Evaluation, Authorisation and restriction of Chemicals)

Regulation (EC) Nr. 1907/2006	Registration, Evaluation, Authorisation and restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending dir. 1999/45 and replacing the following: Reg. CEE nr. 793/93 - Reg. CEE nr. 1488/94 - dir. 76/769/CEE - dir. 91/155/CEE - dir. 93/67/CEE - dir. 93/105/CE - dir. 2000/21/CE.
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SUBSTANCES THAT DEplete THE OZONE LAYER

Regulation (EU) 2024/590	This Regulation lays down rules on the production, import, export, placing on the market, storage and subsequent supply of ozone-depleting substances, as well as on their use, recovery, recycling, reclamation and destruction, and on the reporting of information related to those substances and on the import, export, placing on the market, subsequent supply and use of products and equipment containing ozone-depleting substances or whose functioning relies upon those substances.
Regulation (EU) 2024/573	This Regulation lays down rules on containment, use, recovery, recycling, reclamation and destruction of fluorinated greenhouse gases and on related ancillary measures, such as certification and training, which includes the safe handling of fluorinated greenhouse gases and of alternative substances that are not fluorinated;

The person authorized to draw-up the Technical Documentation is:

Bora DEVRİM (COO)

Nazilli: 12.02.2025



Шкаф морозильный UGUR UDD 370 DTK BK

Код товара: 142362

111 029 руб.

~~116 873 руб.~~

Заказать монтаж

В кредит от 4 014 руб. в мес. 

-  Статус: **в наличии**
- Гарантия: **24 мес.**
- Доставка по Москве: **1500р.**
- Доставка в любую ТК: **1500р.**
- Рассчитать стоимость доставки в [другой город](#)

[Каталог UGUR \(англ.\)](#)
PDF файл

[Инструкция на UGUR UDD 370 DTK BK](#)
PDF файл

Основные характеристики

Температурный режим	от -22 до -12 °C
Объем	300 л
Система охлаждения	динамическая
Количество дверей	1
Исполнение	глухие двери
Напряжение	220 В
Потребляемая мощность	0.208 кВт
Ширина	595 мм
Глубина	640 мм
Высота	1840 мм
Вес (без упаковки)	69.8 кг
Цвет	белый
Страна производства	Турция