



TURKISH ACCREDITATION AGENCY

ACCREDITATION CERTIFICATE

As a Testing Laboratory,

**HES HACILAR ELEKTRİK SANAYİ VE TİCARET A.Ş. Hes
Hacılar Elektrik Sanayi Ve Ticaret A.ş. Deney Laboratuvarı**

Erciyes Mahallesi Hes Cad. No:22 Hacılar 38210 KAYSERİ /
TURKEY

is accredited in accordance with TS EN ISO/IEC 17025:2017 standard within the scope given in Annex following the assessment conducted by **TURKAK**.

Accreditation Number : AB-0585-T

Accreditation Date : 16 November 2012

Revision Date / Number : 28 May 2021 / 04

This certificate shall remain in force until **12 February 2025**, subject to continuing compliance with the standard **TS EN ISO/IEC 17025:2017**, related regulations and requirements.





Banültepe
G. Banu MÜDERRİSOĞLU
Secretary General

Turkish Accreditation Agency (TURKAK) is a signatory to the European co-operation for Accreditation (EA) Multilateral Agreement (MLA) and International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Agreement (MRA) in the scope of ISO/IEC 17025.

Annex of the certificate (Page 1/8)

Accreditation Scope

 	<p align="center">HES HACILAR ELEKTRİK SANAYİ VE TİCARET A.Ş. Hes Hacılar Elektrik Sanayi Ve Ticaret A.ş. Deney Laboratuvarı</p> <p align="center">Accreditation Nr: AB-0585-T Revision Nr: 04 Date: 28.05.2021</p>	
	<p>As a Testing Laboratory</p>	
<p>Address: Erciyes Mahallesi Hes Cad. No:22 Hacılar 38210 KAYSERİ/TÜRKİYE</p>	<p>Phone : 0 352 207 45 00 Fax : 0 352 442 25 50 E-Mail : hes@hes.com.tr Website : www.hes.com.tr</p>	


Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Cables	Electrical test methods for electric cables -- Part 3:Test methods for partial discharge measurements on lengths of extruded power cables	TS EN 60885-3 TS IEC 60502-2 Clause 18.2.5 TS IEC 60840 Clause 12.4.4 EN 60885-3 IEC 60502-2 Clause 18.2.5 IEC 60840 Clause 12.4.4
Cables	Bending Test	TS IEC 60502-2 Clause 18.2.4 TS IEC 60840 Clause 12.4.3 IEC 60502-2 Clause 18.2.4 IEC 60840 Clause 12.4.3
Cables	Tan δ measurement for cables of rated voltage 6/10 (12) kV and above	TS IEC 60502-2 Clause 18.2.6 and Clause 18.2.3 TS IEC 60840 Clause 12.4.5 IEC 60502-2 Clause 18.2.6 and Clause 18.2.3 IEC 60840 Clause 12.4.5
Cables	Heating Cycle Test	TS IEC 60502-2 Clause 18.2.7 TS IEC 60840 Clause 12.4.6 IEC 60502-2 Clause 18.2.7 IEC 60840 Clause 12.4.6
Cables	Impulse test followed by a voltage test	TS EN 60230 TS IEC 60502-1 Clause 17.4 TS IEC 60502-2 Clause 18.2.8 TS IEC 60840 Clause 12.4.7 EN 60230 IEC 60502-1 Clause 17.4 IEC 60502-2 Clause 18.2.8 IEC 60840 Clause 12.4.7

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Annex of the certificate (Page 2/8)

Accreditation Scope

 Test TS EN ISO/IEC 17025 AB-0585-T	HES HACILAR ELEKTRİK SANAYİ VE TİCARET A.Ş. Hes Hacılar Elektrik Sanayi Ve Ticaret A.Ş. Deney Laboratuvarı Accreditation Nr: AB-0585-T Revision Nr: 04 Date: 28.05.2021
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Cables	Voltage Test for 4 h	TS IEC 60502-1 Clause 17.3 TS IEC 60502-2 Clause 18.2.9 IEC 60502-1 Clause 17.3 IEC 60502-2 Clause 18.2.9
Cables	Resistivity of Semi-Conducting Screens	TS IEC 60502-2 Clause 18.2.10 TS IEC 60840 Clause 12.4.9 IEC 60502-2 Clause 18.2.10 IEC 60840 Clause 12.4.9
Cables	Electric and optical fibre cables -Test methods for non-metallic materials -Part 201: General tests Measurement of insulation thickness	TS EN 60811-201 TS IEC 60502-1 Clause 18.1 TS IEC 60502-2 Clause 19.2 TS IEC 60840 Clause 10.6 EN 60811-201 IEC 60502-1 Clause 18.1 IEC 60502-2 Clause 19.2 IEC 60840 Clause 10.6
Cables	Electric and optical fibre cables - Test methods for non-metallic materials - Part 202: General tests - Measurement of thickness of non-metallic sheath	TS EN 60811-202 TS IEC 60502-1 Clause 19.2 TS IEC 60502-2 Clause 19.3 TS IEC 60840 Clause 10.6 EN 60811-202 IEC 60502-1 Clause 19.2 IEC 60502-2 Clause 19.3 IEC 60840 Clause 10.6
Cables	Tests for determining the mechanical properties of insulation before and after ageing	TS EN 60811-401 TS EN 60811-501 TS IEC 60502-1 Clause 18.3 TS IEC 60502-2 Clause 19.5 TS IEC 60840 Clause 12.5.2 EN 60811-401 EN 60811-501 IEC 60502-1 Clause 18.3 IEC 60502-2 Clause 19.5 IEC 60840 Clause 12.5.2

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Annex of the certificate (Page 3/8)

Accreditation Scope

 Test TS EN ISO IEC 17025 AB-0585-T	HES HACILAR ELEKTRİK SANAYİ VE TİCARET A.Ş. Hes Hacılar Elektrik Sanayi Ve Ticaret A.Ş. Deney Laboratuvarı Accreditation Nr: AB-0585-T Revision Nr: 04 Date: 28.05.2021
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Cables	Tests for determining the mechanical properties of non-metal sheaths before and after ageing	TS EN 60811-401 TS EN 60811-501 TS IEC 60502-1 Clause 18.4 TS IEC 60502-2 Clause 19.6 TS IEC 60840 Clause 12.5.3 EN 60811-401 EN 60811-501 IEC 60502-1 Clause 18.4 IEC 60502-2 Clause 19.6 IEC 60840 Clause 12.5.3
Cables	Additional ageing test on pieces of completed cables	TS EN 60811-401 TS EN 60811-501 TS IEC 60502-1 Clause 18.5 TS IEC 60502-2 Clause 19.7 TS IEC 60840 Clause 12.5.4 EN 60811-401 EN 60811-501 IEC 60502-1 Clause 18.5 IEC 60502-2 Clause 19.7 IEC 60840 Clause 12.5.4
Cables	Electric and optical fibre cables - Test methods for non-metallic materials - Part 409: Miscellaneous tests - Loss of mass test for thermoplastic insulations and sheaths	TS EN 60811-409 TS IEC 60502-1 Clause 18.6 TS IEC 60502-2 Clause 19.8 TS IEC 60840 Clause 12.5.5 EN 60811-409 IEC 60502-1 Clause 18.6 IEC 60502-2 Clause 19.8 IEC 60840 Clause 12.5.5

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Annex of the certificate (Page 4/8)

Accreditation Scope

 <p>TÜRKAK Test TS EN ISO/IEC 17025 AB-0585-T</p>	<p>HES HACILAR ELEKTRİK SANAYİ VE TİCARET A.Ş. Hes Hacılar Elektrik Sanayi Ve Ticaret A.Ş. Deney Laboratuvarı</p> <p>Accreditation Nr: AB-0585-T Revision Nr: 04 Date: 28.05.2021</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Cables	Electric and optical fibre cables - Test methods for non-metallic materials -- Part 508: Mechanical tests - Pressure test at high temperature for insulation and sheaths	TS EN 60811-508 TS EN 60502-1 Clause 18.7 TS EN 60502-2 Clause 19.9 TS IEC 60840 Clause 12.5.6 EN 60811-508 IEC 60502-1 Clause 18.7 IEC 60502-2 Clause 19.9 IEC 60840 Clause 12.5.6
Cables	Electric and optical fibre cables - Test methods for non-metallic materials -- Part 504: Mechanical tests - Bending tests at low temperature for insulation and sheaths Test on PVC Insulation and Sheaths at Low Temperatures	TS EN 60811-504 TS IEC 60502-1 Clause 18.8 TS IEC 60502-2 Clause 19.10 TS IEC 60840 Clause 12.5.7 EN 60811-504 IEC 60502-1 Clause 18.8 IEC 60502-2 Clause 19.10 IEC 60840 Clause 12.5.7
Cables	Electric and optical fibre cables - Test methods for non-metallic materials - Part 509: Mechanical tests - Test for resistance of insulations and sheaths to cracking (heat shock test)	TS EN 60811-509 TS IEC 60502-1 Clause 18.9 TS IEC 60502-2 Clause 19.11 TS IEC 60840 Clause 12.5.8 EN 60811-509 IEC 60502-1 Clause 18.9 IEC 60502-2 Clause 19.11 IEC 60840 Clause 12.5.8
Cables	Electric and optical fibre cables - Test methods for non-metallic materials - Part 507: Mechanical tests - Hot set test for cross-linked materials	TS EN 60811-507 TS IEC 60502-1 Clause 16.9 TS IEC 60502-2 Clause 19.13 TS IEC 60840 Clause 12.5.10 EN 60811-507 IEC 60502-1 Clause 16.9 IEC 60502-2 Clause 19.13 IEC 60840 Clause 12.5.10

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Annex of the certificate (Page 5/8)

Accreditation Scope

 <p>Test TS EN ISO IEC 17025 AB-0585-T</p>	<p>HES HACILAR ELEKTRİK SANAYİ VE TİCARET A.Ş. Hes Hacılar Elektrik Sanayi Ve Ticaret A.Ş. Deney Laboratuvarı</p> <p>Accreditation Nr: AB-0585-T Revision Nr: 04 Date: 28.05.2021</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Cables	Electric and optical fibre cables - Test methods for non-metallic materials -Part 402: miscellaneous tests - Water absorption tests	TS EN 60811-402 TS IEC 60502-1 Clause 18.13 and Clause 18.22 TS IEC 60502-2 Clause 19.15 EN 60811-402 IEC 60502-1 Clause 18.13 and Clause 18.22 IEC 60502-2 Clause 19.15
Cables	Tests on electric and optical fibre cables under fire conditions - Part 1-2: Test for vertical flame propagation for a single insulated wire or cable - Procedure for 1 kW pre-mixed flame	TS EN 60332-1-2 TS IEC 60502-1 Clause 18.14 TS IEC 60502-2 Clause 19.16 TS IEC 60840 Clause 12.5.13 EN 60332-1-2 IEC 60502-1 Clause 18.14 IEC 60502-2 Clause 19.16 IEC 60840 Clause 12.5.13
Cables	Electric and optical fibre cables - Test methods for non-metallic materials - Part 605 : Physical tests - Measurement of carbon black and/or mineral filler in polyethylene compounds	TS EN 60811-605 TS IEC 60502-1 Clause 18.15 TS IEC 60502-2 Clause 19.17 TS IEC 60840 Clause 12.5.12 EN 60811-605 IEC 60502-1 Clause 18.15 IEC 60502-2 Clause 19.17 IEC 60840 Clause 12.5.12
Cables	Electric and optical fibre cables - Test methods for non-metallic materials - Part 502: Mechanical tests - Shrinkage test for insulations	TS EN 60811-502 TS IEC 60502-1 Clause 18.16 TS IEC 60502-2 Clause 19.18 TS IEC 60840 Clause 12.5.16 EN 60811-502 IEC 60502-1 Clause 18.16 IEC 60502-2 Clause 19.18 IEC 60840 Clause 12.5.16

OP



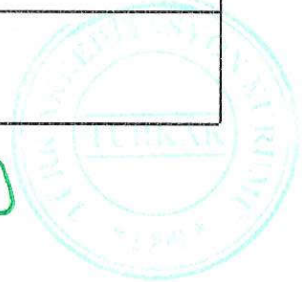
Annex of the certificate (Page 6/8)

Accreditation Scope

 <p>Test TS EN ISO/IEC 17025 AB-0585-T</p>	<p>HES HACILAR ELEKTRİK SANAYİ VE TİCARET A.Ş. Hes Hacılar Elektrik Sanayi Ve Ticaret A.ş. Deney Laboratuvarı</p> <p>Accreditation Nr: AB-0585-T Revision Nr: 04 Date: 28.05.2021</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Cables	Electric and optical fibre cables - Test methods for non-metallic materials -- Part 405: Miscellaneous tests - Thermal stability test for PVC insulations and PVC sheaths	TS EN 60811-405 TS IEC 60502-2 Clause 19.19 EN 60811-405 IEC 60502-2 Clause 19.19
Cables	Electric and optical fibre cables - Test methods for non-metallic materials -- Part 503: Mechanical tests - Shrinkage test for sheaths	TS EN 60811-503 TS IEC 60502-1 Clause 18.20 TS IEC 60502-2 Clause 19.22 TS IEC 60840 Clause 12.5.17 EN 60811-503 IEC 60502-1 Clause 18.20 IEC 60502-2 Clause 19.22 IEC 60840 Clause 12.5.17
Cables	Strippability Test for Insulation Screen	TS IEC 60502-2 Clause 19.23 IEC 60502-2 Clause 19.23
Cables	Water Penetration Test	TS IEC 60502-2 Clause 19.24 TS IEC 60840 Clause 12.5.14 IEC 60502-2 Clause 19.24 IEC 60840 Clause 12.5.14
Cables	Test for Vertical Flame Spread of Vertically-Mounted Bunched Wires or Cables - Category C	TS EN 60332-3-24 EN 60332-3-24
Cables	Measurement of Smoke Density of Cables Burning Under Defined Conditions	TS EN 61034-2 EN 61034-2
Cables	Tests for Electric Cables Under Fire Conditions - Circuit Integrity	TS IEC 60331-21 IEC 60331-21
Cables	Method of Test for Resistance to Fire of Unprotected Small Cables for Use in Emergency Circuits	TS EN 50200 EN 50200

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Accreditation Scope

 Test TS EN ISO/IEC 17025 AB-0585-T	<p>HES HACILAR ELEKTRİK SANAYİ VE TİCARET A.Ş. Hes Hacılar Elektrik Sanayi Ve Ticaret A.ş. Deney Laboratuvarı</p> <p>Accreditation Nr: AB-0585-T Revision Nr: 04 Date: 28.05.2021</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Cables	Test on Gases Evolved During Combustion of Materials From Cables - Part 2: Determination of Acidity (by pH Measurement) and Conductivity	TS EN 60754-2 EN 60754-2
Cables	Common Test Methods for Cables Under Fire Conditions - Heat Release and Smoke Production Measurement on Cables During Flame Spread Test	TS EN 50399 EN 50399
Cables	Tests for electric cables under fire conditions - Circuit integrity - Part 1: Test method for fire with shock at a temperature of at least 830°C for cables of rated voltage up to and including 0,6/1,0 kV and with an overall diameter exceeding 20 mm	TS EN IEC 60331-1 EN IEC 60331-1 IEC 60331-1
Cables	Tests for elektrik cables under fire conditions -Circuit integrity- Part 25:Procedures and requirements- Optical fibre cables	IEC 60331-25
Kablolar	Electric and optical fibre cables - Test methods for non-metallic materials - Part 505: Mechanical tests - Elongation at low temperature for insulations and sheaths	TS EN 60811-505 TS IEC 60502-1 Clause 18.8 TS IEC 60502-2 Clause 19.10 TS IEC 60840 Clause 12.5.7 EN 60811-505 IEC 60502-1 Clause 18.8 IEC 60502-2 Clause 19.10 IEC 60840 Clause 12.5.7

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Annex of the certificate (Page 8/8)

Accreditation Scope

	<p>HES HACILAR ELEKTRİK SANAYİ VE TİCARET A.Ş. Hes Hacılar Elektrik Sanayi Ve Ticaret A.ş. Deney Laboratuvarı</p> <p>Accreditation Nr: AB-0585-T Revision Nr: 04 Date: 28.05.2021</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Kablolar	Electric and optical fibre cables - Test methods for non-metallic materials - Part 506: Mechanical tests - Impact test at low temperature for insulations and sheaths	TS EN 60811-506 TS IEC 60502-1 Clause 18.8 TS IEC 60502-2 Clause 19.10 TS IEC 60840 Clause 12.5.7 EN 60811-506 IEC 60502-1 Clause 18.8 IEC 60502-2 Clause 19.10 IEC 60840 Clause 12.5.7

End of Scope




G. Banu MÜDERRİSOĞLU
Secretary General



EU DECLARATION OF CONFORMITY

HES Hacılar Elektrik San. ve Tic. A.Ş.
Erciyes Mah. Hes Cad. No:22 38210 Kayseri/TURKİYE

Our company named and located in above address is declaring all the following our products have been manufactured with respect to those mentioned standards and documents will meet the necessities of 2011/65/EU of the European Parliament and of the Council of 8 June 2011 directive / we declare that the directives are built to meet the requirements.

PRODUCT NAME, TYPE, MODEL & SERIAL NUMBER

Power cables with extruded insulation for rated voltages from 1 kV (U<(Index)m>:1,2 kV) up to 30 kV (U<(Index)m>:36 kV) – Part 1: Cables for rated voltages of 1 kV (U<(Index)m>:1,2 kV) and 3 kV (U<(Index)m>:3,6 kV)

NY, NYRY, NYFGY, NYCY, NYBY 0,6/1 kV
YXV, YXZ2V, YXZ3V, YXCV, YXZ4V 0,6/1 kV
N2XY, N2XRY, N2XFGY, N2XCY, N2XBY 0,6/1 kV
NAYY, NAYRY, NAYFGY, NAYCY, NAYBY 0,6/1 kV
NA2XY, NA2XRY, NA2XFGY, NA2XCY, NA2XBY 0,6/1 kV
YXZ1, YXZ2Z1, YXZ3Z1, YXCZ1, YXZ4Z1 0,6/1 kV
N2XH, N2XRH, N2XFGH, N2XCH, N2XBH 0,6/1 kV
YXZ1 FE 180, YXZ2Z1 FE 180, YXZ3Z1 FE 180, YXCZ1 FE 180, YXZ4Z1 FE 180 0,6/1 kV
N2XH FE 180, N2XRH FE 180 0,6/1 kV
N2XCH-J FE 180 0,6/1 kV, N2XRH FE 180, N2XFGH FE 180, N2XCH FE 180, N2XBH FE 180 0,6/1 kV
N2X2Y, N2XR2Y, N2XFG2Y, N2XC2Y, N2XB2Y 0,6/1 kV
NA2X2Y, NA2XR2Y, NA2XFG2Y, NA2XC2Y, NA2XB2Y 0,6/1 kV
NA2XH, NA2XRH, NA2XFGH, NA2XCH, NA2XBH 0,6/1 kV
MCMK 0,6/1 kV, 2YSLCY 0,6/1 kV
AAAC, AAC, ACSR
NFA2X 0,6/1 kV

RELATED STANDARDS

IEC 60502-1, HD 604 S1, HD 603, VDE 0271, VDE 0276, VDE 0266, VDE 0276-604, BS 7889, BS 6346, BS 5467, BS 6724, TSE K, EN 50182, NFC 33209

APPLICATIONS

- Aerial Conductors are supports high mechanical strengths, using in substations, electricity transmission lines and electricity distribution lines, install between the overhead lines supports, where there is no risk to mehnanical damage.
- PVC Insulation cables; indoors and outdoors, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.
- These cables have a low dielectric loss XLPE insulation cable, used in indoors and outdoors, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.
- With PVC and XLPE insulation, HFFRLS outer sheath cables, energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire.
- Self-supporting overhead cable bundle, applied for electric power distribution in low voltage metropolitan, suburban and rural networks, for public lighting and house connections. Laid on pillars, consoles and house fronts where there is no risk to mehnanical damage..

CONSTRUCTION OF THE CABLES

- 1- Solid or Stranded or Flexible Copper or Aluminium Conductors,
- 2- PVC or XLPE or HX Insulation
- 3- PVC or PE or HFFRLS Filler
- 4- PVC or PE or HFFRLS Inner Sheath
- 5- Copper Wire Screen or Galvanized Round or Flat Steel Wires or Tape.
- 6- PVC or PE or HFFRLS Outer Jacket



04.02.2021

HES Hacilar Elektrik Sanayi ve Ticaret A.Ş.

İbrahim GÜVEN

Quality Management Manager



KALİTE YÖNETİM SİSTEMİ BELGESİ

QUALITY MANAGEMENT SYSTEM CERTIFICATE



TÜRK STANDARDLARI ENSTİTÜSÜ
bu belge ile

HES HACILAR ELEKTRİK SAN. VE TİC. A.Ş.
MERKEZ:ERCİYES MAH. HES CAD. NO:22
HACILAR - KAYSERİ
ŞUBE:OSB 20. CAD. NO:68 MELİKGAZI -
KAYSERİ / 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 sürece geçerlidir.



TÜRK STANDARDLARI ENSTİTÜSÜ
TURKISH STANDARDS INSTITUTION

Kayseri Belgelendirme Müdürü
Kayseri Certification Manager

Ahmedi Mahmut Ulaş

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

HES HACILAR ELEKTRİK SAN. VE TİC. A.Ş.
MERKEZ:ERCİYES MAH. HES CAD. NO:22
HACILAR - KAYSERİ
ŞUBE:OSB 20. CAD. NO:68 MELİKGAZI -
KAYSERİ / 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-054-03/KG-93/09-R15

Belge Tarihi / Date of Certificate

18.03.2021

Geçerlilik Tarihi / Valid Until

18.03.2024

Revizyon Tarihi / Date of Revision

18.03.2021

İlk Belge Tarihi / Initial Certification Date

15.11.1993

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-054-03/KG-93/09-R15**

Belgeli Kuruluş Adı, Adresi:

Name and Address of the Certified Organization:

Belge Tarihi / Date of Certificate: **18.03.2021**

HES HACILAR ELEKTRİK SAN. VE TİC. A.Ş.
MERKEZ:ERCİYES MAH. HES CAD. NO:22
HACILAR - KAYSERİ
ŞUBE:OSB 20. CAD. NO:68 MELİKGAZİ -
KAYSERİ / TÜRKİYE

Belge Kapsamı:

TS EN ISO 9001:2015

MERKEZ:
- TELEFON KABLOLARI
- ALÇAK, ORTA VE YÜKSEK GERİLİM ENERJİ KABLOLARI
- HAVA HATLARINDA KULLANILAN ÖRGÜLÜ BAKIR İLETKENLER
- EMAYE BOBİN TELİ
- FİBER OPTİK KABLOLAR
- HAVA HATLARINDA KULLANILAN ALÜMİNYUM İLETKENLER
- DATA KABLOLARI
- GRANÜL ÜRETİM
- FİBER OPTİK KABLO AKSESUARLARI
- DATA KABLO AKSESUARLARI
TASARIM VE ÜRETİMİ

- GÜMRÜK, DIŞ TİCARET, ÜRETİM, LOJİSTİK, YÖNETİM VE İDARI ORGANİZASYON FAALİYETLERİ SUNUMU

ŞUBE:
- HAVA HATLARINDA KULLANILAN ALÜMİNYUM İLETKENLİ KABLOLAR
- HAVA HATLARINDA KULLANILAN ÖRGÜLÜ BAKIR İLETKENLER
- BAKIR FILMAŞIN
- ALÜMİNYUM FILMAŞIN
- BAKIR TEL
- ALÜMİNYUM TEL
- ÇELİK ÖZLÜ ALÜMİNYUM İLETKENLER
- OPGW FİBER OPTİK KORUMALI İLETKEN TASARIM VE ÜRETİMİ

**K - Q
TSE-ISO-EN
9000**

Scope of the Certificate:

TS EN ISO 9001:2015

CENTRE:
DESIGN AND PRODUCTION OF
- PHONE CABLES
- LOW, MEDIUM AND HIGH VOLTAGE POWER CABLES
- STRANDED COPPER CONDUCTOR FOR OVERHEAD LINES
- ENAMELLED COPPER WIRE
- FIBER OPTIC CABLES
- ALUMINIUM CONDUCTORS FOR OVERHEAD LINES
- DATA CABLES
- GRANULE PRODUCTION
- FIBER OPTIC CABLE ACCESSORIES
- DATA CABLE ACCESSORIES

DELIVERY OF
- CUSTOMS, FOREIGN TRADE, PRODUCTION, LOGISTICS, MANAGEMENT AND ADMINISTRATIVE ORGANIZATION ACTIVITIES

BRANCH:
DESIGN AND PRODUCTION OF
- CABLES WITH ALUMINIUM CONDUCTORS FOR OVERHEAD LINES
- STRANDED COPPER CONDUCTOR FOR OVERHEAD LINES
- COPPER WIRE ROD
- ALUMINIUM WIRE ROD
- COPPER WIRE
- ALUMINIUM WIRE
- STEEL CORE ALUMINIUM CONDUCTORS
- OPGW FIBER OPTIC GROUNDED WIRE CONDUCTOR





THE INTERNATIONAL CERTIFICATION NETWORK

CERTIFICATE

TSE has issued an IQNet recognized certificate that the organization:
HES HACILAR ELEKTRİK SAN. VE TİC. A.Ş.

MERKEZ:ERCİYES MAH. HES CAD. NO:22 HACILAR - KAYSERİ
ŞUBE:OSB 20. CAD. NO:68 MELİKGAZI -
KAYSERİ / TÜRKİYE

has implemented and maintains a
QUALITY MANAGEMENT SYSTEM

which fulfills the requirements of the following standard:

TS EN ISO 9001:2015

Issued on: 18-03-2021

Expires on: 18-03-2024

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

Registration Number : TR-KY-054-03/KG-93/09-R15



Alex Stoichitoiu
President of IQNet

Ahmedi Mahmut Ulaş
Kayseri Certification Manager



IQNet Partners:*

AENOR Spain AFNOR Certification France APCER Portugal CISQ Italy
CQC China CQM China CQS Czech Republic Cro Cert Croatia DQS Holding GmbH Germany FCAV Brazil
FONDONORMA Venezuela ICONTEC Colombia Inspecta Sertifiointi Oy Finland INTECO Costa Rica
IRAM Argentina JQA Japan KFQ Korea MIRTEC Greece MSZT Hungary Nemko AS Norway NSAI Ireland
NYCE - SIGE México PCBC Poland Quality Austria Austria RR Russia SII Israel SIQ Slovenia
SIRIM QAS International Malaysia SQS Switzerland SRAC Romania TEST St Petersburg Russia TSE Turkey YUQS Serbia
IQNet is represented in the USA by: AFNOR Certification, CISQ, DQS Holding GmbH and NSAI Inc.



THE INTERNATIONAL CERTIFICATION NETWORK

Annex to IQNET Certificate Number :TR-KY-054-03/KG-93/09-R15

Name and Address of the certified organization

HES HACILAR ELEKTRİK SAN. VE TİC. A.Ş.

MERKEZ:ERCIYES MAH. HES CAD. NO:22 HACILAR - KAYSERİ

ŞUBE:OSB 20. CAD. NO:68 MELİKGAZI - KAYSERİ / TÜRKİYE

Scope of the Certificate

CENTRE:

DESIGN AND PRODUCTION OF

- PHONE CABLES

- LOW, MEDIUM AND HIGH VOLTAGE POWER CABLES

- STRANDED COPPER CONDUCTOR FOR OVERHEAD LINES

- ENAMELLED COPPER WIRE

- FIBER OPTIC CABLES

- ALUMINIUM CONDUCTORS FOR OVERHEAD LINES

- DATA CABLES

- GRANULE PRODUCTION

- FIBER OPTIC CABLE ACCESSORIES

- DATA CABLE ACCESSORIES

DELIVERY OF

- CUSTOMS, FOREIGN TRADE, PRODUCTION, LOGISTICS, MANAGEMENT AND ADMINISTRATIVE ORGANIZATION ACTIVITIES

BRANCH:

DESIGN AND PRODUCTION OF

- CABLES WITH ALUMINIUM CONDUCTORS FOR OVERHEAD LINES

- STRANDED COPPER CONDUCTOR FOR OVERHEAD LINES

- COPPER WIRE ROD

- ALUMINIUM WIRE ROD

- COPPER WIRE

- ALUMINIUM WIRE

- STEEL CORE ALUMINIUM CONDUCTORS

- OPGW FIBER OPTIC GROUNDED WIRE CONDUCTOR

This annex is only valid in connection with the above-mentioned certificate

TSE

MÜŞTERİ MEMNUNİYETİ YÖNETİM SİSTEMİ BELGESİ CUSTOMER SATISFACTION MANAGEMENT SYSTEM CERTIFICATE



TÜRK STANDARDLARI ENSTİTÜSÜ
bu belge ile

HES HACILAR ELEKTRİK SAN. VE TİC. A.Ş.
MERKEZ:ERCİYES MAH. HES CAD. NO:22
HACILAR - KAYSERİ
ŞUBE:OSB 20. CAD. NO:68 MELİKGAZİ -
KAYSERİ / TÜRKİYE

kuruluşunun TS ISO 10002:2018 şartlarına uygun bir MÜŞTERİ
MEMNUNİYETİ YÖNETİM SİSTEMİ'ne sahip olduğunu



TURKISH STANDARDS INSTITUTION
hereby certifies that the organization

HES HACILAR ELEKTRİK SAN. VE TİC. A.Ş.
MERKEZ:ERCİYES MAH. HES CAD. NO:22
HACILAR - KAYSERİ
ŞUBE:OSB 20. CAD. NO:68 MELİKGAZİ -
KAYSERİ / TÜRKİYE

has a CUSTOMER SATISFACTION MANAGEMENT
SYSTEM which fulfills the requirements of the TS ISO
10002:2018

Belge kapsamı Ek'te verilmiştir

Scope of the certificate is given in annex

TÜRK STANDARDLARI ENSTİTÜSÜ
TURKISH STANDARDS INSTITUTION

Kayseri Belgeleadirne Müdürü
Kayseri Certification Manager

Ahmed Mahmut Ulaş

Belge No / Certificate No	MY-054/11-R18
Belge Tarihi / Date of Certificate	08.04.2021
Geçerlilik Tarihi / Valid Until	25.03.2023
Revizyon Tarihi / Date of Revision	08.04.2021
İlk Belge Tarihi / Initial Certification Date	27.06.2011

Bu belge, Türk Standartları Enstitüsü'nün kuruluşu hakkındaki 132 sayılı kanun uyarınca verilmiştir.
This certificate is issued in accordance with the Law No. 132 establishing Turkish Standards Institution.

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

Bu belge belgelendirme şartlarına
uygunluk sağlandığı sürece geçerlidir.

TSE

MÜŞTERİ MEMNUNİYETİ YÖNETİM SİSTEMİ BELGESİ CUSTOMER SATISFACTION MANAGEMENT SYSTEM CERTIFICATE

EK / ANNEX



Belge No / Certificate No: **MY-054/11-R18**

Belgeyi Kuruluş Adı, Adresi:

Name and Address of the Certified Organization:

Belge Kapsamı:

TS ISO 10002:2018

- MERKEZ:
- TELEFON KABLOLARI
 - ALÇAK, ORTA VE YÜKSEK GERİLİM ENERJİ KABLOLARI
 - HAVA HATLARINDA KULLANILAN ÖRGÜLÜ BAKIR İLETKENLER
 - EMAYE BOBİN TELİ
 - FİBER OPTİK KABLOLAR
 - HAVA HATLARINDA KULLANILAN ALÜMİNYUM İLETKENLER
 - DATA KABLOLARI
 - GRANÜL ÜRETİM
 - FİBER OPTİK KABLO AKSESUARLARI
 - DATA KABLO AKSESUARLARI
 - TASARIM VE ÜRETİMİ

- ŞUBE:
- HAVA HATLARINDA KULLANILAN ALÜMİNYUM İLETKENLİ KABLOLAR
 - HAVA HATLARINDA KULLANILAN ÖRGÜLÜ BAKIR İLETKENLER
 - BAKIR FILMAŞIN
 - ALÜMİNYUM FILMAŞIN
 - BAKIR TEL
 - ALÜMİNYUM TEL
 - ÇELİK ÖZLÜ ALÜMİNYUM İLETKENLER
 - ÖPĞW FİBER OPTİK KORUMALI İLETKEN
 - TASARIM VE ÜRETİMİ

Belge Tarihi / Date of Certificate: **08.04.2021**

HES HACILAR ELEKTRİK SAN. VE TİC. A.Ş.
MERKEZ:ERCİYES MAH. HES CAD. NO:22
HACILAR - KAYSERİ
ŞUBE:OSB 20. CAD. NO:68 MELİKGAZİ -
KAYSERİ / TÜRKİYE

Scope of the Certificate:

TS ISO 10002:2018

- CENTRE:
DESIGN AND PRODUCTION OF
- PHONE CABLES
 - LOW, MEDIUM AND HIGH VOLTAGE POWER CABLES
 - STRANDED COPPER CONDUCTOR FOR OVERHEAD LINES
 - ENAMELLED COPPER WIRE
 - FIBER OPTIC CABLES
 - ALUMINIUM CONDUCTORS FOR OVERHEAD LINES
 - DATA CABLES
 - GRANULE PRODUCTION
 - FIBER OPTIC CABLE ACCESSORIES
 - DATA CABLE ACCESSORIES
- BRANCH:
DESIGN AND PRODUCTION OF
- CABLES WITH ALUMINIUM CONDUCTORS FOR OVERHEAD LINES
 - STRANDED COPPER CONDUCTOR FOR OVERHEAD LINES
 - COPPER WIRE ROD
 - ALUMINIUM WIRE ROD
 - COPPER WIRE
 - ALUMINIUM WIRE
 - STEEL CORE ALUMINIUM CONDUCTORS
 - ÖPĞW FİBER OPTİK GROUNDED WIRE CONDUCTOR





THE INTERNATIONAL CERTIFICATION NETWORK

CERTIFICATE

TSE has issued an IQNet recognized certificate that the organization:
HES HACILAR ELEKTRİK SAN. VE TİC. A.Ş.

MERKEZ:ERCIYES MAH. HES CAD. NO:22 HACILAR - KAYSERİ
ŞUBE:OSB 20. CAD. NO:68 MELİKGAZI -
KAYSERİ / TÜRKİYE

has implemented and maintains a
CUSTOMER SATISFACTION MANAGEMENT SYSTEM
which fulfills the requirements of the following standard:

TS ISO 10002:2018

Issued on: 08-04-2021
Expires on: 25-03-2023

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

Registration Number : TR-MY-054 / 11-R18



Alex Stoichitoiu
President of IQNet

Ahmedi Mahmut Ulaş
Kayseri Certification Manager



IQNet Partners:*

AENOR Spain AFNOR Certification France APCER Portugal CISQ Italy
CQC China CQM China CQS Czech Republic Cro Cert Croatia DQS Holding GmbH Germany FCAV Brazil
FONDONORMA Venezuela ICONTEC Colombia Inspecta Sertifiointi Oy Finland INTECO Costa Rica
IRAM Argentina JQA Japan KFQ Korea MIRTEC Greece MSZT Hungary Nemko AS Norway NSAI Ireland
NYCE - SIGE México PCBC Poland Quality Austria Austria RR Russia SII Israel SIQ Slovenia
SIRIM QAS International Malaysia SQS Switzerland SRAC Romania TEST St Petersburg Russia TSE Turkey YUQS Serbia
IQNet is represented in the USA by: AFNOR Certification, CISQ, DQS Holding GmbH and NSAI Inc.



THE INTERNATIONAL CERTIFICATION NETWORK

Annex to IQNET Certificate Number :TR-MY-054/11-R18

Name and Address of the certified organization
HES HACILAR ELEKTRİK SAN. VE TİC. A.Ş.

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Scope of the Certificate

CENTRE:

DESIGN AND PRODUCTION OF

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 - ENAMELLED COPPER WIRE
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- ALUMINIUM CONDUCTORS FOR OVERHEAD LINES
 - DATA CABLES
 - GRANULE PRODUCTION
- FIBER OPTIC CABLE ACCESSORIES
- DATA CABLE ACCESSORIES

BRANCH:

DESIGN AND PRODUCTION OF

- CABLES WITH ALUMINIUM CONDUCTORS FOR OVERHEAD LINES
- STRANDED COPPER CONDUCTOR FOR OVERHEAD LINES
 - COPPER WIRE ROD
 - ALUMINIUM WIRE ROD
 - COPPER WIRE
 - ALUMINIUM WIRE
- STELL CORE ALUMINIUM CONDUCTORS
- OPGW FIBER OPTIC GROUNDED WIRE CONDUCTOR

This annex is only valid in connection with the above-mentioned certificate



ÇEVRE YÖNETİM SİSTEMİ BELGESİ

ENVIRONMENTAL MANAGEMENT SYSTEM CERTIFICATE



TÜRK STANDARLARI ENSTİTÜSÜ
bu belge ile

HES HACILAR ELEKTRİK SAN. VE TİC. A.Ş.
MERKEZ:ERCİYES MAH. HES CAD. NO:22
HACILAR - KAYSERİ
ŞUBE:OSB 20. CAD. NO:68 MELİKGAZI -
KAYSERİ / TÜRKİYE

kuruluşunun TS EN ISO 14001:2015 şartlarına uygun bir ÇEVRE
YÖNETİM SİSTEMİNE sahip olduğunu onaylar.

Belge kapsamı Ek'te verilmiştir



Bu belge belgelendirme şartlarına
uygunluk sağlandığı sürece geçerlidir.



TÜRK STANDARLARI ENSTİTÜSÜ
TURKISH STANDARDS INSTITUTION

Kayseri Belgelendirme Müdürü
Kayseri Certification Manager

Ahmedi Mahmut Ulaş

Türk Standartları 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

HES HACILAR ELEKTRİK SAN. VE TİC. A.Ş.
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ŞUBE:OSB 20. CAD. NO:68 MELİKGAZI -
KAYSERİ / TÜRKİYE

has an ENVIRONMENTAL MANAGEMENT SYSTEM
which fulfills the requirements of the TS EN ISO 14001:2015

Scope of the certificate is given in annex

Belge No / Certificate No

ÇY-055-06/00-R15

Belge Tarihi / Date of Certificate

17.03.2021

Geçerlilik Tarihi / Valid Until

17.03.2024

Revizyon Tarihi / Date of Revision

17.03.2021

İlk Belge Tarihi / Initial Certification Date

21.06.2000

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



ÇEVRE YÖNETİM SİSTEMİ BELGESİ

ENVIRONMENTAL MANAGEMENT SYSTEM CERTIFICATE

EK / APPENDIX



Belge No / Certificate No: ÇY-055-06/00-R15

Belgeli Kuruluş Adı, Adresi:

Name and Address of the Certified Organization:

Belge Tarihi / Date of Certificate: 17.03.2021

HES HACILAR ELEKTRİK SAN. VE TİC. A.Ş.
MERKEZ:ERCİYES MAH. HES CAD. NO:22
HACILAR - KAYSERİ
ŞUBE:OSB 20. CAD. NO:68 MELİKGAZI -
KAYSERİ / TÜRKİYE

Belge Kapsamı:

TS EN ISO 14001:2015

MERKEZ:

- TELEFON KABLOLARI
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- HAVA HATLARINDA KULLANILAN ÖRGÜLÜ BAKIR İLETKENLER
- EMAYE BOBİN TELİ
- FİBER OPTİK KABLOLAR
- HAVA HATLARINDA KULLANILAN ALÜMİNYUM İLETKENLER
- DATA KABLOLARI
- GRANÜL ÜRETİM
- FİBER OPTİK KABLO AKSESUARLARI
- DATA KABLO AKSESUARLARI
- TASARIM VE ÜRETİMİ

ŞUBE:

- HAVA HATLARINDA KULLANILAN ALÜMİNYUM İLETKENLİ KABLOLAR
- HAVA HATLARINDA KULLANILAN ÖRGÜLÜ BAKIR İLETKENLER
- BAKIR FİLMAŞIN
- ALÜMİNYUM FİLMAŞIN
- BAKIR TEL
- ALÜMİNYUM TEL
- ÇELİK ÖZLÜ ALÜMİNYUM İLETKENLER
- OPGW FİBER OPTİK KORUMALI İLETKEN
- TASARIM VE ÜRETİMİ



Scope of the Certificate:

TS EN ISO 14001:2015

CENTRE:

- DESIGN AND PRODUCTION OF
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- FIBER OPTIC CABLES
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- OPGW FIBER OPTIC GROUNDED WIRE CONDUCTOR





THE INTERNATIONAL CERTIFICATION NETWORK

CERTIFICATE

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KAYSERİ / TÜRKİYE

has implemented and maintains a

ENVIRONMENTAL MANAGEMENT SYSTEM

which fulfills the requirements of the following standard:

TS EN ISO 14001:2015

Issued on: 17-03-2021

Expires on: 17-03-2024

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

Registration Number : TR-ÇY-055-06/00-R15



Alex Stoichitoiu
President of IQNet

Ahmedi Mahmut Ulaş
Kayseri Certification Manager



IQNet Partners:*

AENOR Spain AFNOR Certification France APCER Portugal CISQ Italy
CQC China CQM China CQS Czech Republic Cro Cert Croatia DQS Holding GmbH Germany FCAV Brazil
FONDONORMA Venezuela ICONTEC Colombia Inspecta Sertifiointi Oy Finland INTECO Costa Rica
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NYCE - SIGE México PCBC Poland Quality Austria Austria RR Russia SII Israel SIQ Slovenia
SIRIM QAS International Malaysia SQS Switzerland SRAC Romania TEST St Petersburg Russia TSE Turkey YUQS Serbia
IQNet is represented in the USA by: AFNOR Certification, CISQ, DQS Holding GmbH and NSAI Inc.



THE INTERNATIONAL CERTIFICATION NETWORK

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- ALUMINIUM CONDUCTORS FOR OVERHEAD LINES
 - DATA CABLES
 - GRANULE PRODUCTION
- FIBER OPTIC CABLE ACCESSORIES
- DATA CABLE ACCESSORIES

BRANCH:

DESIGN AND PRODUCTION OF

- CABLES WITH ALUMINIUM CONDUCTORS FOR OVERHEAD LINES
- STRANDED COPPER CONDUCTOR FOR OVERHEAD LINES
 - COPPER WIRE ROD
 - ALUMINIUM WIRE ROD
 - COPPER WIRE
 - ALUMINIUM WIRE
- STEEL CORE ALUMINIUM CONDUCTORS
- OPGW FIBER OPTIC GROUNDED WIRE CONDUCTOR

This annex is only valid in connection with the above-mentioned certificate



ENERJİ YÖNETİM SİSTEMİ BELGESİ

ENERGY MANAGEMENT SYSTEM CERTIFICATE



TÜRK STANDARLARI ENSTİTÜSÜ
bu belge ile

HES HACILAR ELEKTRİK SAN. VE TİC. A.Ş.
MERKEZ:ERCİYES MAH. HES CAD. NO:22
HACILAR - KAYSERİ
ŞUBE:OSB 20. CAD. NO:68 MELİKGAZİ -
KAYSERİ / TÜRKİYE

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



TURKISH STANDARDS INSTITUTION
hereby certifies that the organization

HES HACILAR ELEKTRİK SAN. VE TİC. A.Ş.
MERKEZ:ERCİYES MAH. HES CAD. NO:22
HACILAR - KAYSERİ
ŞUBE:OSB 20. CAD. NO:68 MELİKGAZİ -
KAYSERİ / TÜRKİYE

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

Belge kapsamı Ek'te verilmiştir



Bu belge belgelendirme şartlarına
uygunluk sağlandığı sürece geçerlidir.

TÜRK STANDARLARI ENSTİTÜSÜ

TURKISH STANDARDS INSTITUTION

Scope of the certificate is given in annex

Belge No / Certificate No

EYB-012-12/EY-020-11-R18

Belge Tarihi / Date of Certificate

31.03.2021

Geçerlilik Tarihi / Valid Until

31.03.2024

Revizyon Tarihi / Date of Revision

31.03.2021

İlk Belge Tarihi / Initial Certification Date

27.06.2011

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

Kayseri Belgelendirme Müdürü
Kayseri Certification Manager

Ahmedî Mahmut Ulaş

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



ENERJİ YÖNETİM SİSTEMİ BELGESİ

ENERGY MANAGEMENT SYSTEM CERTIFICATE

EK / ANNEX



Belge No / Certificate No: EYB-012-12/EY-020-11-R18

Belgeli Kuruluş Adı, Adresi:

Name and Address of the Certified Organization:

Belge Kapsamı:
TS EN ISO 50001:2018

- MERKEZ:
- TELEFON KABLOLARI
 - ALÇAK, ORTA VE YÜKSEK GERİLİM ENERJİ KABLOLARI
 - HAVA HATLARINDA KULLANILAN ÖRGÜLÜ BAKIR İLETKENLER
 - EMAYE BOBİN TELİ
 - FİBER OPTİK KABLOLAR
 - HAVA HATLARINDA KULLANILAN ALÜMİNYUM İLETKENLER
 - DATA KABLOLARI
 - GRANÜL ÜRETİM
 - FİBER OPTİK KABLO AKSESUARLARI
 - DATA KABLO AKSESUARLARI
 - TASARIM VE ÜRETİMİ
- ŞİBİE:
- HAVA HATLARINDA KULLANILAN ALÜMİNYUM İLETKENLİKABLOLAR
 - HAVA HATLARINDA KULLANILAN ÖRGÜLÜ BAKIR İLETKENLER
 - BAKIR FİLMAŞIN
 - ALÜMİNYUM FİLMAŞIN
 - BAKIR TEL
 - ALÜMİNYUM TEL
 - ÇELİK ÖZLÜ ALÜMİNYUM İLETKENLER
 - ÖPGE FİBER OPTİK KORUMALI İLETKEN
 - TASARIM VE ÜRETİMİ



Belge Tarihi / Date of Certificate: 31.03.2021

HES HACILAR ELEKTRİK SAN. VE TİC. A.Ş.
MERKEZ:ERCIYES MAH. HES CAD. NO:22
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ŞUBE:OSB 20. CAD. NO:68 MELİKGAZİ -
KAYSERİ / TÜRKİYE

Scope of the Certificate:
TS EN ISO 50001:2018

- CENTRE:
- DESIGN AND PRODUCTION OF
 - PHONE CABLES
 - LOW, MEDIUM AND HIGH VOLTAGE POWER CABLES
 - STRANDED COPPER CONDUCTOR FOR OVERHEAD LINES
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 - FIBER OPTIC CABLES
 - ALUMINIUM CONDUCTORS FOR OVERHEAD LINES
 - DATA CABLES
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 - DATA CABLE ACCESSORIES
- BRANCH:
- DESIGN AND PRODUCTION OF
 - CABLES WITH ALUMINIUM CONDUCTORS FOR OVERHEAD LINES
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 - COPPER WIRE
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 - ÖPGE FİBER OPTİK GROUNDED WIRE CONDUCTOR





THE INTERNATIONAL CERTIFICATION NETWORK

CERTIFICATE

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KAYSERİ / TÜRKİYE

has implemented and maintains a
ENERGY MANAGEMENT SYSTEM

which fulfills the requirements of the following standard:

TS EN ISO 50001:2018

Issued on: 31-03-2021

Expires on: 31-03-2024

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

Registration Number : TR-EYB-012-12/EY-020-11-R18



Alex Stoichitoiu
President of IQNet

Ahmedi Mahmut Ulaş
Kayseri Certification Manager

IQNet Partners:*

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CQC China CQM China CQS Czech Republic Cro Cert Croatia DQS Holding GmbH Germany FCAV Brazil
FONDONORMA Venezuela ICONTEC Colombia Inspecta Sertifiointi Oy Finland INTECO Costa Rica
IRAM Argentina JQA Japan KFQ Korea MIRTEC Greece MSZT Hungary Nemko AS Norway NSAI Ireland
NYCE - SIGE México PCBC Poland Quality Austria Austria RR Russia SII Israel SIQ Slovenia
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THE INTERNATIONAL CERTIFICATION NETWORK

Annex to IQNET Certificate Number :TR-EYB-012-12/EY-020-11-R18

Name and Address of the certified organization

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MERKEZ:ERCİYES MAH. HES CAD. NO:22 HACILAR - KAYSERİ

ŞUBE:OSB 20. CAD. NO:68 MELİKGAZI - KAYSERİ / TÜRKİYE

Scope of the Certificate

CENTRE:

DESIGN AND PRODUCTION OF

- PHONE CABLES
- LOW, MEDIUM AND HIGH VOLTAGE POWER CABLES
- STRANDED COPPER CONDUCTOR FOR OVERHEAD LINES
 - ENAMELLED COPPER WIRE
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- ALUMINIUM CONDUCTORS FOR OVERHEAD LINES
 - DATA CABLES
- GRANULE PRODUCTION
- FIBER OPTIC CABLE ACCESSORIES
- DATA CABLE ACCESSORIES

BRANCH:

DESIGN AND PRODUCTION OF

- CABLES WITH ALUMINIUM CONDUCTORS FOR OVERHEAD LINES
- STRANDED COPPER CONDUCTOR FOR OVERHEAD LINES
 - COPPER WIRE ROD
 - ALUMINIUM WIRE ROD
 - COPPER WIRE
 - ALUMINIUM WIRE
- STEEL CORE ALUMINIUM CONDUCTORS
- OPGW FIBER OPTIC GROUNDED WIRE CONDUCTOR

This annex is only valid in connection with the above-mentioned certificate

TECHNICAL DATASHEET



NFA2X 2x16 mm² 0,6/1 kV

Design No: Ş0422.119.1.01

General Properties

Cable Code	:	NFA2X
Applied Standard/Standards	:	-
Rated Voltage (U ₀ /U)	(kV) :	0,6/1
Maximum Operating Voltage (U _m)	(kV) :	1,2
Number of Cores and Nominal Cross Section	(mm ²) :	2x16

Construction

Phase Core(s)

Conductor Material	:	Aluminum (Stranded, Compacted)
Direction of Lay	:	Z (Right Hand)
Insulation Material	:	Cross-linked Polyethylene (XLPE)
Insulation Thickness (Nom.)	(mm) :	1,2

Neutral Core

Conductor Material	:	N/A
Insulation Material	:	N/A

Street Light Core(s)

Conductor Material	:	N/A
Insulation Material	:	N/A

Cores

Assembly	:	Cores laid up together
Cores color	:	Black (UV Resistant)
Core identification ^[1]	:	Ridges along the cable
Overall Diameter (Nom.)	(mm) :	15 ±1

Electrical Properties

Maximum Continuous Conductor Temperature	(°C) :	90
Maximum Short-Circuit Conductor Temperature	(°C) :	250

Current Carrying Capacity^[2]

Phase Conductor	(A) :	93
Street Light Conductor	(A) :	N/A

Electricity Resistant at 20°C

Phase Conductor	(Ω/km) :	1,91
Neutral Conductor	(Ω/km) :	N/A
Street Light Conductor	(Ω/km) :	N/A

Drum*

Type	:	Wooden
Flange (Wheel) Diameter	(mm) :	1300
Outside Width	(mm) :	800
Delivery Length	(m) :	2000

Other Properties

Minimum Tensile Strength Of Wires (Phase) (Before Stranding)	(N/mm ²) :	120
Minimum Tensile Strength Of Wires (Neutral) (Before Stranding)	(N/mm ²) :	N/A
Net Weight	(kg/km) :	130 ± %3
Gross Weight	(kg/drum) :	450 ± %3

Cable Marking^[3] : HES KABLO [CABLE TYPE] [NUMBER OF CORES] [CROSS SECTION] [OPERATING VOLTAGE] [APPLIED STANDART] [PRODUCTION YEAR] [METER]

- Notes:**
- [1] Identification as follows: Phase one with one ridge, phase two with two ridge, Phase three with three ridge, Neutral without ridge
 - [2] Load Factor: 1, Ambient Temperature: 30°C
 - [3] As per customer request.
- * For special drum dimensions, please contact HES Kablo

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TECHNICAL DATASHEET



NFA2X 2x25 mm² 0,6/1 kV

Design No: Ş0422.119.1.02

General Properties

Cable Code	:	NFA2X
Applied Standard/Standards	:	-
Rated Voltage (U ₀ /U)	(kV) :	0,6/1
Maximum Operating Voltage (U _m)	(kV) :	1,2
Number of Cores and Nominal Cross Section	(mm ²) :	2x25

Construction

Phase Core(s)

Conductor Material	:	Aluminum (Stranded, Compacted)
Direction of Lay	:	Z (Right Hand)
Insulation Material	:	Cross-linked Polyethylene (XLPE)
Insulation Thickness (Nom.)	(mm) :	1,4

Neutral Core

Conductor Material	:	N/A
Insulation Material	:	N/A

Street Light Core(s)

Conductor Material	:	N/A
Insulation Material	:	N/A

Cores

Assembly	:	Cores laid up together
Cores color	:	Black (UV Resistant)
Core identification ^[1]	:	Ridges along the cable
Overall Diameter (Nom.)	(mm) :	18 ±1

Electrical Properties

Maximum Continuous Conductor Temperature	(°C) :	90
Maximum Short-Circuit Conductor Temperature	(°C) :	250

Current Carrying Capacity^[2]

Phase Conductor	(A) :	122
Street Light Conductor	(A) :	N/A

Electricity Resistant at 20°C

Phase Conductor	(Ω/km) :	1,2
Neutral Conductor	(Ω/km) :	N/A
Street Light Conductor	(Ω/km) :	N/A

Drum*

Type	:	Wooden
Flange (Wheel) Diameter	(mm) :	1400
Outside Width	(mm) :	800
Delivery Length	(m) :	2000

Other Properties

Minimum Tensile Strength Of Wires (Phase) (Before Stranding)	(N/mm ²) :	120
Minimum Tensile Strength Of Wires (Neutral) (Before Stranding)	(N/mm ²) :	N/A
Net Weight	(kg/km) :	190 ± %3
Gross Weight	(kg/drum) :	625 ± %3

Cable Marking^[3] : HES KABLO [CABLE TYPE] [NUMBER OF CORES] [CROSS SECTION] [OPERATING VOLTAGE] [APPLIED STANDART] [PRODUCTION YEAR] [METER]

- Notes:**
- [1] Identification as follows: Phase one with one ridge, phase two with two ridge, Phase three with three ridge, Neutral without ridge
 - [2] Load Factor: 1, Ambient Temperature: 30°C
 - [3] As per customer request.
- * For special drum dimensions, please contact HES Kablo

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TECHNICAL DATASHEET



NFA2X 3x16+25 mm² 0,6/1 kV

Design No: Ş0422.119.1.07

General Properties

Cable Code	:	NFA2X
Applied Standard/Standards	:	-
Rated Voltage (U ₀ /U)	(kV) :	0,6/1
Maximum Operating Voltage (U _m)	(kV) :	1,2
Number of Cores and Nominal Cross Section	(mm ²) :	3x16+25

Construction

Phase Core(s)

Conductor Material	:	Aluminum (Stranded, Compacted)
Direction of Lay	:	Z (Right Hand)
Insulation Material	:	Cross-linked Polyethylene (XLPE)
Insulation Thickness (Nom.)	(mm) :	1,2

Neutral Core

Conductor Material	:	Aluminium Alloy (Stranded, Compacted)
Direction of Lay	:	S (Left Hand)
Insulation Material	:	Cross-linked Polyethylene (XLPE)
Insulation Thickness (Nom.)	(mm) :	1,4

Street Light Core(s)

Conductor Material	:	N/A
Insulation Material	:	N/A

Cores

Assembly	:	Cores laid up together
Cores color	:	Black (UV Resistant)
Core identification ^[1]	:	Ridges along the cable
Overall Diameter (Nom.)	(mm) :	19 ±1

Electrical Properties

Maximum Continuous Conductor Temperature	(°C) :	90
Maximum Short-Circuit Conductor Temperature	(°C) :	250

Current Carrying Capacity^[2]

Phase Conductor	(A) :	80
Street Light Conductor	(A) :	N/A

Electricity Resistant at 20°C

Phase Conductor	(Ω/km) :	1,91
Neutral Conductor	(Ω/km) :	1,38
Street Light Conductor	(Ω/km) :	N/A

Drum*

Type	:	Wooden
Flange (Wheel) Diameter	(mm) :	1200
Outside Width	(mm) :	720
Delivery Length	(m) :	1000

Other Properties

Minimum Tensile Strength Of Wires (Phase) (Before Stranding)	(N/mm ²) :	120
Minimum Tensile Strength Of Wires (Neutral) (Before Stranding)	(N/mm ²) :	294
Net Weight	(kg/km) :	290 ± %3
Gross Weight	(kg/drum) :	450 ± %3

Cable Marking^[3] : HES KABLO [CABLE TYPE] [NUMBER OF CORES] [CROSS SECTION] [OPERATING VOLTAGE] [APPLIED STANDART] [PRODUCTION YEAR] [METER]

- Notes: [1] Identification as follows: Phase one with one ridge, phase two with two ridge, Phase three with three ridge, Neutral without ridge
 [2] Load Factor: 1, Ambient Temperature: 30°C
 [3] As per customer request.
 * For special drum dimensions, please contact HES Kablo

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TECHNICAL DATASHEET



NFA2X 3x25+35 mm² 0,6/1 kV

Design No: Ş0422.119.1.08

General Properties

Cable Code	:	NFA2X
Applied Standard/Standards	:	-
Rated Voltage (U ₀ /U)	(kV) :	0,6/1
Maximum Operating Voltage (U _m)	(kV) :	1,2
Number of Cores and Nominal Cross Section	(mm ²) :	3x25+35

Construction

Phase Core(s)

Conductor Material	:	Aluminum (Stranded, Compacted)
Direction of Lay	:	Z (Right Hand)
Insulation Material	:	Cross-linked Polyethylene (XLPE)
Insulation Thickness (Nom.)	(mm) :	1,4

Neutral Core

Conductor Material	:	Aluminium Alloy (Stranded, Compacted)
Direction of Lay	:	S (Left Hand)
Insulation Material	:	Cross-linked Polyethylene (XLPE)
Insulation Thickness (Nom.)	(mm) :	1,6

Street Light Core(s)

Conductor Material	:	N/A
Insulation Material	:	N/A

Cores

Assembly	:	Cores laid up together
Cores color	:	Black (UV Resistant)
Core identification ^[1]	:	Ridges along the cable
Overall Diameter (Nom.)	(mm) :	23 ±1

Electrical Properties

Maximum Continuous Conductor Temperature	(°C) :	90
Maximum Short-Circuit Conductor Temperature	(°C) :	250

Current Carrying Capacity^[2]

Phase Conductor	(A) :	112
Street Light Conductor	(A) :	N/A

Electricity Resistant at 20°C

Phase Conductor	(Ω/km) :	1,2
Neutral Conductor	(Ω/km) :	0,986
Street Light Conductor	(Ω/km) :	N/A

Drum*

Type	:	Wooden
Flange (Wheel) Diameter	(mm) :	1300
Outside Width	(mm) :	800
Delivery Length	(m) :	1000

Other Properties

Minimum Tensile Strength Of Wires (Phase) (Before Stranding)	(N/mm ²) :	120
Minimum Tensile Strength Of Wires (Neutral) (Before Stranding)	(N/mm ²) :	294
Net Weight	(kg/km) :	430 ± %3
Gross Weight	(kg/drum) :	620 ± %3

Cable Marking^[3] : HES KABLO [CABLE TYPE] [NUMBER OF CORES] [CROSS SECTION] [OPERATING VOLTAGE] [APPLIED STANDART] [PRODUCTION YEAR] [METER]

- Notes:**
- [1] Identification as follows: Phase one with one ridge, phase two with two ridge, Phase three with three ridge, Neutral without ridge
 - [2] Load Factor: 1, Ambient Temperature: 30°C
 - [3] As per customer request.
- * For special drum dimensions, please contact HES Kablo

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TECHNICAL DATASHEET



NFA2X 3x35+1x16+50 mm² 0,6/1 kV

Design No: Ş0422.119.1.10

General Properties

Cable Code	:	NFA2X
Applied Standard/Standards	:	-
Rated Voltage (U ₀ /U)	(kV) :	0,6/1
Maximum Operating Voltage (U _m)	(kV) :	1,2
Number of Cores and Nominal Cross Section	(mm ²) :	3x35+1x16+50

Construction

Phase Core(s)

Conductor Material	:	Aluminum (Stranded, Compacted)
Direction of Lay	:	Z (Right Hand)
Insulation Material	:	Cross-linked Polyethylene (XLPE)
Insulation Thickness (Nom.)	(mm) :	1,6

Neutral Core

Conductor Material	:	Aluminium Alloy (Stranded, Compacted)
Direction of Lay	:	S (Left Hand)
Insulation Material	:	Cross-linked Polyethylene (XLPE)
Insulation Thickness (Nom.)	(mm) :	1,6

Street Light Core(s)

Conductor Material	:	Aluminium (Stranded, Compacted)
Direction of Lay	:	Z (Right Hand)
Insulation Material	:	Cross-linked Polyethylene (XLPE)
Insulation Thickness (Nom.)	(mm) :	1,2

Cores

Assembly	:	Cores laid up together
Cores color	:	Black (UV Resistant)
Core identification ^[1]	:	Ridges along the cable
Overall Diameter (Nom.)	(mm) :	31 ±2

Electrical Properties

Maximum Continuous Conductor Temperature	(°C) :	90
Maximum Short-Circuit Conductor Temperature	(°C) :	250

Current Carrying Capacity^[2]

Phase Conductor	(A) :	138
Street Light Conductor	(A) :	83

Electricity Resistant at 20°C

Phase Conductor	(Ω/km) :	0,868
Neutral Conductor	(Ω/km) :	0,72
Street Light Conductor	(Ω/km) :	1,91

Drum*

Type	:	Wooden
Flange (Wheel) Diameter	(mm) :	1500
Outside Width	(mm) :	1120
Delivery Length	(m) :	1000

Other Properties

Minimum Tensile Strength Of Wires (Phase) (Before Stranding)	(N/mm ²) :	120
Minimum Tensile Strength Of Wires (Neutral) (Before Stranding)	(N/mm ²) :	294
Net Weight	(kg/km) :	630 ± %3
Gross Weight	(kg/drum) :	980 ± %3

Cable Marking^[3] : HES KABLO [CABLE TYPE] [NUMBER OF CORES] [CROSS SECTION] [OPERATING VOLTAGE] [APPLIED STANDART] [PRODUCTION YEAR] [METER]

- Notes:
- [1] Identification as follows: Phase one with one ridge, phase two with two ridge, Phase three with three ridge, Neutral without ridge
 - [2] Load Factor: 1, Ambient Temperature: 30°C
 - [3] As per customer request.
- * For special drum dimensions, please contact HES Kablo

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TECHNICAL DATASHEET



NFA2X 3x35+50 mm² 0,6/1 kV

Design No: Ş0422.119.1.09

General Properties

Cable Code	:	NFA2X
Applied Standard/Standards	:	-
Rated Voltage (U ₀ /U)	(kV) :	0,6/1
Maximum Operating Voltage (U _m)	(kV) :	1,2
Number of Cores and Nominal Cross Section	(mm ²) :	3x35+50

Construction

Phase Core(s)

Conductor Material	:	Aluminum (Stranded, Compacted)
Direction of Lay	:	Z (Right Hand)
Insulation Material	:	Cross-linked Polyethylene (XLPE)
Insulation Thickness (Nom.)	(mm) :	1,6

Neutral Core

Conductor Material	:	Aluminium Alloy (Stranded, Compacted)
Direction of Lay	:	S (Left Hand)
Insulation Material	:	Cross-linked Polyethylene (XLPE)
Insulation Thickness (Nom.)	(mm) :	1,6

Street Light Core(s)

Conductor Material	:	N/A
Insulation Material	:	N/A

Cores

Assembly	:	Cores laid up together
Cores color	:	Black (UV Resistant)
Core identification ^[1]	:	Ridges along the cable
Overall Diameter (Nom.)	(mm) :	26 ±2

Electrical Properties

Maximum Continuous Conductor Temperature	(°C) :	90
Maximum Short-Circuit Conductor Temperature	(°C) :	250

Current Carrying Capacity^[2]

Phase Conductor	(A) :	138
Street Light Conductor	(A) :	N/A

Electricity Resistant at 20°C

Phase Conductor	(Ω/km) :	0,868
Neutral Conductor	(Ω/km) :	0,72
Street Light Conductor	(Ω/km) :	N/A

Drum*

Type	:	Wooden
Flange (Wheel) Diameter	(mm) :	1400
Outside Width	(mm) :	800
Delivery Length	(m) :	1000

Other Properties

Minimum Tensile Strength Of Wires (Phase) (Before Stranding)	(N/mm ²) :	120
Minimum Tensile Strength Of Wires (Neutral) (Before Stranding)	(N/mm ²) :	294
Net Weight	(kg/km) :	570 ± %3
Gross Weight	(kg/drum) :	815 ± %3

Cable Marking^[3] : HES KABLO [CABLE TYPE] [NUMBER OF CORES] [CROSS SECTION] [OPERATING VOLTAGE] [APPLIED STANDART] [PRODUCTION YEAR] [METER]

- Notes: [1] Identification as follows: Phase one with one ridge, phase two with two ridge, Phase three with three ridge, Neutral without ridge
 [2] Load Factor: 1, Ambient Temperature: 30°C
 [3] As per customer request.
 * For special drum dimensions, please contact HES Kablo

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TECHNICAL DATASHEET



NFA2X 4x16+25 mm² 0,6/1 kV

Design No: Ş0422.119.1.05

General Properties

Cable Code	:	NFA2X
Applied Standard/Standards	:	-
Rated Voltage (U ₀ /U)	(kV) :	0,6/1
Maximum Operating Voltage (U _m)	(kV) :	1,2
Number of Cores and Nominal Cross Section	(mm ²) :	4x16+25

Construction

Phase Core(s)

Conductor Material	:	Aluminum (Stranded, Compacted)
Direction of Lay	:	Z (Right Hand)
Insulation Material	:	Cross-linked Polyethylene (XLPE)
Insulation Thickness (Nom.)	(mm) :	1,2

Neutral Core

Conductor Material	:	Aluminium Alloy (Stranded, Compacted)
Direction of Lay	:	S (Left Hand)
Insulation Material	:	Cross-linked Polyethylene (XLPE)
Insulation Thickness (Nom.)	(mm) :	1,4

Street Light Core(s)

Conductor Material	:	N/A
Insulation Material	:	N/A

Cores

Assembly	:	Cores laid up together
Cores color	:	Black (UV Resistant)
Core identification ^[1]	:	Ridges along the cable
Overall Diameter (Nom.)	(mm) :	24 ±1

Electrical Properties

Maximum Continuous Conductor Temperature	(°C) :	90
Maximum Short-Circuit Conductor Temperature	(°C) :	250

Current Carrying Capacity^[2]

Phase Conductor	(A) :	83
Street Light Conductor	(A) :	N/A

Electricity Resistant at 20°C

Phase Conductor	(Ω/km) :	1,91
Neutral Conductor	(Ω/km) :	1,38
Street Light Conductor	(Ω/km) :	N/A

Drum*

Type	:	Wooden
Flange (Wheel) Diameter	(mm) :	1300
Outside Width	(mm) :	800
Delivery Length	(m) :	1000

Other Properties

Minimum Tensile Strength Of Wires (Phase) (Before Stranding)	(N/mm ²) :	120
Minimum Tensile Strength Of Wires (Neutral) (Before Stranding)	(N/mm ²) :	294
Net Weight	(kg/km) :	360 ± %3
Gross Weight	(kg/drum) :	550 ± %3

Cable Marking^[3] : HES KABLO [CABLE TYPE] [NUMBER OF CORES] [CROSS SECTION] [OPERATING VOLTAGE] [APPLIED STANDART] [PRODUCTION YEAR] [METER]

- Notes: [1] Identification as follows: Phase one with one ridge, phase two with two ridge, Phase three with three ridge, Neutral without ridge
 [2] Load Factor: 1, Ambient Temperature: 30°C
 [3] As per customer request.
 * For special drum dimensions, please contact HES Kablo

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TECHNICAL DATASHEET



NFA2X 4x25 mm² 0,6/1 kV

Design No: Ş0422.119.1.03

General Properties

Cable Code	:	NFA2X
Applied Standard/Standards	:	-
Rated Voltage (U ₀ /U)	(kV) :	0,6/1
Maximum Operating Voltage (U _m)	(kV) :	1,2
Number of Cores and Nominal Cross Section	(mm ²) :	4x25

Construction

Phase Core(s)

Conductor Material	:	Aluminum (Stranded, Compacted)
Direction of Lay	:	Z (Right Hand)
Insulation Material	:	Cross-linked Polyethylene (XLPE)
Insulation Thickness (Nom.)	(mm) :	1,4

Neutral Core

Conductor Material	:	N/A
Insulation Material	:	N/A

Street Light Core(s)

Conductor Material	:	N/A
Insulation Material	:	N/A

Cores

Assembly	:	Cores laid up together
Cores color	:	Black (UV Resistant)
Core identification ^[1]	:	Ridges along the cable
Overall Diameter (Nom.)	(mm) :	22 ±1

Electrical Properties

Maximum Continuous Conductor Temperature	(°C) :	90
Maximum Short-Circuit Conductor Temperature	(°C) :	250

Current Carrying Capacity^[2]

Phase Conductor	(A) :	112
Street Light Conductor	(A) :	N/A

Electricity Resistant at 20°C

Phase Conductor	(Ω/km) :	1,2
Neutral Conductor	(Ω/km) :	N/A
Street Light Conductor	(Ω/km) :	N/A

Drum*

Type	:	Wooden
Flange (Wheel) Diameter	(mm) :	1300
Outside Width	(mm) :	800
Delivery Length	(m) :	1000

Other Properties

Minimum Tensile Strength Of Wires (Phase) (Before Stranding)	(N/mm ²) :	120
Minimum Tensile Strength Of Wires (Neutral) (Before Stranding)	(N/mm ²) :	N/A
Net Weight	(kg/km) :	390 ± %3
Gross Weight	(kg/drum) :	580 ± %3

Cable Marking^[3] : HES KABLO [CABLE TYPE] [NUMBER OF CORES] [CROSS SECTION] [OPERATING VOLTAGE] [APPLIED STANDART] [PRODUCTION YEAR] [METER]

- Notes:**
- [1] Identification as follows: Phase one with one ridge, phase two with two ridge, Phase three with three ridge, Neutral without ridge
 - [2] Load Factor: 1, Ambient Temperature: 30°C
 - [3] As per customer request.
- * For special drum dimensions, please contact HES Kablo

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TECHNICAL DATASHEET



NFA2X 4x25+35 mm² 0,6/1 kV

Design No: Ş0422.119.1.06

General Properties

Cable Code	:	NFA2X
Applied Standard/Standards	:	-
Rated Voltage (U ₀ /U)	(kV) :	0,6/1
Maximum Operating Voltage (U _m)	(kV) :	1,2
Number of Cores and Nominal Cross Section	(mm ²) :	4x25+35

Construction

Phase Core(s)

Conductor Material	:	Aluminum (Stranded, Compacted)
Direction of Lay	:	Z (Right Hand)
Insulation Material	:	Cross-linked Polyethylene (XLPE)
Insulation Thickness (Nom.)	(mm) :	1,4

Neutral Core

Conductor Material	:	Aluminium Alloy (Stranded, Compacted)
Direction of Lay	:	S (Left Hand)
Insulation Material	:	Cross-linked Polyethylene (XLPE)
Insulation Thickness (Nom.)	(mm) :	1,6

Street Light Core(s)

Conductor Material	:	N/A
Insulation Material	:	N/A

Cores

Assembly	:	Cores laid up together
Cores color	:	Black (UV Resistant)
Core identification ^[1]	:	Ridges along the cable
Overall Diameter (Nom.)	(mm) :	28 ±2

Electrical Properties

Maximum Continuous Conductor Temperature	(°C) :	90
Maximum Short-Circuit Conductor Temperature	(°C) :	250

Current Carrying Capacity^[2]

Phase Conductor	(A) :	106
Street Light Conductor	(A) :	N/A

Electricity Resistant at 20°C

Phase Conductor	(Ω/km) :	1,2
Neutral Conductor	(Ω/km) :	0,986
Street Light Conductor	(Ω/km) :	N/A

Drum*

Type	:	Wooden
Flange (Wheel) Diameter	(mm) :	1500
Outside Width	(mm) :	1120
Delivery Length	(m) :	1000

Other Properties

Minimum Tensile Strength Of Wires (Phase) (Before Stranding)	(N/mm ²) :	120
Minimum Tensile Strength Of Wires (Neutral) (Before Stranding)	(N/mm ²) :	294
Net Weight	(kg/km) :	520 ± %3
Gross Weight	(kg/drum) :	870 ± %3

Cable Marking^[3] : HES KABLO [CABLE TYPE] [NUMBER OF CORES] [CROSS SECTION] [OPERATING VOLTAGE] [APPLIED STANDART] [PRODUCTION YEAR] [METER]

- Notes: [1] Identification as follows: Phase one with one ridge, phase two with two ridge, Phase three with three ridge, Neutral without ridge
 [2] Load Factor: 1, Ambient Temperature: 30°C
 [3] As per customer request.
 * For special drum dimensions, please contact HES Kablo

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TECHNICAL DATASHEET



NFA2X 5x25 mm² 0,6/1 kV

Design No: Ş0422.119.1.04

General Properties

Cable Code	:	NFA2X
Applied Standard/Standards	:	-
Rated Voltage (U ₀ /U)	(kV) :	0,6/1
Maximum Operating Voltage (U _m)	(kV) :	1,2
Number of Cores and Nominal Cross Section	(mm ²) :	5x25

Construction

Phase Core(s)

Conductor Material	:	Aluminum (Stranded, Compacted)
Direction of Lay	:	Z (Right Hand)
Insulation Material	:	Cross-linked Polyethylene (XLPE)
Insulation Thickness (Nom.)	(mm) :	1,4

Neutral Core

Conductor Material	:	N/A
Insulation Material	:	N/A

Street Light Core(s)

Conductor Material	:	N/A
Insulation Material	:	N/A

Cores

Assembly	:	Cores laid up together
Cores color	:	Black (UV Resistant)
Core identification ^[1]	:	Ridges along the cable
Overall Diameter (Nom.)	(mm) :	25 ±1

Electrical Properties

Maximum Continuous Conductor Temperature	(°C) :	90
Maximum Short-Circuit Conductor Temperature	(°C) :	250

Current Carrying Capacity^[2]

Phase Conductor	(A) :	112
Street Light Conductor	(A) :	N/A

Electricity Resistant at 20°C

Phase Conductor	(Ω/km) :	1,2
Neutral Conductor	(Ω/km) :	N/A
Street Light Conductor	(Ω/km) :	N/A

Drum*

Type	:	Wooden
Flange (Wheel) Diameter	(mm) :	1400
Outside Width	(mm) :	800
Delivery Length	(m) :	1000

Other Properties

Minimum Tensile Strength Of Wires (Phase) (Before Stranding)	(N/mm ²) :	120
Minimum Tensile Strength Of Wires (Neutral) (Before Stranding)	(N/mm ²) :	N/A
Net Weight	(kg/km) :	480 ± %3
Gross Weight	(kg/drum) :	725 ± %3

Cable Marking^[3] : HES KABLO [CABLE TYPE] [NUMBER OF CORES] [CROSS SECTION] [OPERATING VOLTAGE] [APPLIED STANDART] [PRODUCTION YEAR] [METER]

- Notes: [1] Identification as follows: Phase one with one ridge, phase two with two ridge, Phase three with three ridge, Neutral without ridge
 [2] Load Factor: 1, Ambient Temperature: 30°C
 [3] As per customer request.
 * For special drum dimensions, please contact HES Kablo

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