

KEI Industries Limited

Registered and Corporate Office

D-90, Okhla Industrial Area Phase-1, New Delhi-110020 Tel: +91-11-26818840/8642/0242 Fax: +91-11-26817225, 26811959
E-mail: info@kei-ind.com, delhi@kei-ind.com, Website: www.kei-ind.com



KEI

Wires and Cables

Manufacturing Units

Unit-1

SP-919/920/922, RIICO Industrial Area, Phase-III, Bhiwadi, Distt. Alwar-301019 Rajasthan
Tel: +91-1493-220106/221731
Fax: +91-1493-221731
E-mail: bhiwadi@kei-ind.com

Unit-2

99/2/7, Madhuban Industrial Estate, Rakholi, Silvassa-396230 Dadra & Nagar Haveli
Tel: +91-260-2644404/2630944
Mr. Nirav Desai nirav.desai@kei-ind.com
Mob +91-9723455316 Fax: +91-260-2645896
E-mail: silvassa@kei-ind.com

Unit-3 (EOU)

A-280/281/282/283/284, RIICO Industrial Area (Chopanki) Distt. Alwar-301019 Rajasthan
Tel: +91-1493-260202/06
Fax: +91-1493-260203
E-mail: chopanki@kei-ind.com

Marketing Offices (India)

Marketing Office (Mumbai)

101-103, Vastu Shilp, Vastu Enclave, Andheri Pump House, Andheri (East), Mumbai-400093
Tel: +91-22-28239673, 28375642
Fax: +91-22-28258277
E-mail: mumbai@kei-ind.com, international@kei-ind.com

Jaipur Office

7 Kailash Path, Suraj Nagar (W) Civil Lines, Jaipur-302006 Rajasthan
Tel: +91-141-5179279, +91-9829036095
Fax: +91-141-2221707 E-mail: jaipur@kei-ind.com

Jodhpur

Mr. Rakesh Mishra
House No 11/668, Chopasani Housing Board, Jodhpur-342008 Rajasthan
Mob: +91-9929093714
E-mail: jaipur@kei-ind.com

Udaipur

Mr. I.S. Rathore
315, Chitrakuta Nagar, (Near Nandi foundation) Bhuwana, Udaipur-313001 Rajasthan
Mob: +91-9929093712 E-mail: jaipur@kei-ind.com

Chandigarh Office

SCO 84, 1st Floor, Swastik Vihar, MDC, Sector-5, Panchkula-134109
Tel: +91-172-4416301
Fax: +91-172-4416300
E-mail: chandigarh@kei-ind.com

Bhopal Office

S-13, Thada Ram Complex, M.P.Nagar Zone-I, Bhopal-462011 MP
Mob: +91-9752531145
E-mail: bhopal@kei-ind.com

Indore

Mr. Vivek Saxena
Res. No. -13 A, Nanda Nagar
Main Road, Above-Gurjar Paridhan, Indore MP
Mob: +91-9425057020

Lucknow

Mr. Manoj Sharma
102 1st Floor, Saran Chamber-2, 5 Park Road, Lucknow-226001 UP

Panipat

Mr. Nariender Gupta
House No. 138/2, Near Param Hans Kutia, Panipat-132103 Haryana
Mob: +91-9255461000

Kanpur Office

8/6, F.M. Colony, Civil Lines, Kanpur-208001
Tel: +91-9839081711
Email: kanpur@kei-ind.com

Kolkata

33, Dr. Sundari Mohan Avenue, 1st Floor, Kolkata-700014
Tel: +91-33-22866696/7224/7288
Fax: +91-33-22866697 E-mail: kolkata@kei-ind.com

Bhubaneswar

C-21, Palaspalli, Near N.C.C. Office, Bhubaneswar-751020
Mob: +91-9238396638
E-mail: bhubaneswar@kei-ind.com

Pune

Vasudha Equinox, Office No. 104, 1st Floor, Mouje Bopodi, Near Khadki Railway Station, Pune-411020
Mob: +91-9823295878 / 9923692411
E-mail: pune@kei-ind.com

Baroda

803, Siddharth Complex, Near Hotel Express, R.C. Dutt Road, Baroda-390007
Tel: +91-265-6539719, 2341831, 9824087943, 9824676443
Fax: +91-265-2334161 E-mail: baroda@kei-ind.com

Hyderabad

Plot No. 76, H.No. 3-14-52/1, Shubodaya Colony, Near Little Chums School, Mansoorabad, Vanasthalipuram, Hyderabad-500070
Tel: +91-40-20064358, +91-9985522558, +91-9985577886 Fax: +91-40-24024260
E-mail: hyderabad@kei-ind.com

Jamshedpur Office

Flat C1/3, Sabitri Tower, 1st floor, Ulyan Kadma, Jamshedpur-831005 Jharkhand
Tel: +91-9470391385

Bangalore

72/2, Ground Floor, Railway Parallel Road, Kumara Park West, Bangalore-560020
Tel: +91-80-23466260
E-mail: bangalore@kei-ind.com

Ahmedabad

403, Sahajanand Complex, Behind Bhagwati Complex, Swastik Cross Road, CG Road, Ahmedabad - 380009
Tel: +91-9374894036 / 9426454646
E-mail: ahmedabad@kei-ind.com

Chennai

Flat No.: 10, 1st Floor, New no: 68 (old no: 141), RAMS Apartment, Eldams Road, Teynampet, Chennai-600018
Tel: +91-44-42009120
Fax: +91-44-42009130 E-mail: chennai@kei-ind.com

Aurangabad

Mob: +91-9673004877
E-mail: aurangabad@kei-ind.com

Chattisgarh

Mob: +91-9630019494
E-mail: chattisgarh@kei-ind.com

Nasik

Mob: +91-8805369705
E-mail: nasik@kei-ind.com

Rajkot

Mob: +91-9978182477
E-mail: rajkot@kei-ind.com

Surat

Mob: +91-9924240483
E-mail: surat@kei-ind.com

Cochin

Mob: +91-9846004702
E-mail: cochin@kei-ind.com

Nagpur

Mob: +91-9822473774
E-mail: nagpur@kei-ind.com

Goa

Mob: +91-9765394685
E-mail: goa@kei-ind.com

Kolhapur

Mob: +91-9561007112
E-mail: kolhapur@kei-ind.com

Coimbatore

Mob: +91-9843399964
E-mail: coimbatore@kei-ind.com

Marketing Office (Overseas)

Dubai

KEI Industries Ltd., P.O. Box 261739, Jebel Ali Free Zone, Dubai, U.A.E.
Tel: +971 4 881 2310, + 971 50 2112013 Fax: +971 4 881 2311
E-mail: keidubai@emirates.net.ae / dubai@kei-ind.com

Korea

KEI Industries Ltd., 459-709 Rm111 Life-sangga, 66, Jisancheon-ro, Pyeongtaek-si, Gyeonggi-do, Korea
Tel: +82-31-689-3770, +82 10 4351 8585 Fax: +82-31-689-3771
Email: th.park@kei-ind.com / ch.han@kei-ind.com

MARINE & OFFSHORE CABLES



KEI - THE WIRES AND CABLES SPECIALIST

KEI is one of the leading players in electrical cable industry that provides one-stop-shop solutions to its domestic and international customers. At KEI, our goal is to create values for our stakeholder by meeting the stated and implied needs of our customers, employees and the communities where we exist and do business.



KEI FACT FILE

Registered Office: New Delhi, India

Organizational Strength: More than 2000

Listed On: NSE, BSE, CSE & Luxembourg Stock Exchange

Through GDR & FCCB

FACTORY AREA

Bhiwadi: 63,943 sq. mtrs

Chopanki: 41,356.26 sq. mtrs

Silvassa: 23,195 sq. mtrs



AWARDS AND ACCREDITATIONS



PROFILE

KEI has been at the forefront of India's wire and cable industry for the last forty years. We manufacture a range of specialized cables and are a crucial player in the domestic and retail segment. Since inception, we have firmly believed in the philosophy of constant growth and innovation. Customer satisfaction has always been our priority. A highly qualified, committed and experienced group of professionals strives to meet international standards and caters to the needs of a changing market. Our unblemished track record has earned us the patronage of leading industrial houses, project consultants and architects. In order to provide reliable and expedient services to our customers, we have created manufacturing facilities at Bhiwadi, Silvassa and Chopanki. We employ state-of-the-art equipment and adhere to international safety and environmental norms.

KEI was established in 1968 as a partnership company in the domestic wire segment. In the early seventies we started manufacturing switchboard cables and control, instrumentation and thermocouple extension cables including special application cables like fire retardant and low halogen cables. In 1993 we added power cables with PVC & XLPE insulation in our product line. During 2010 we added EHV cables up to 220 Kv with technical collaborations with Bugg Kabel AG, Switzerland and diversified into EPC business. Today KEI is a one-stop-shop when it comes to meeting cabling requirements for the domestic, power and industrial sectors.



MARINE & OFFSHORE CABLES

KEI is proud to supply Marine and offshore cables to important projects of Indian defense shipyards and private shipyards in India and abroad. Cables have been supplied to renowned shipyards like Mazagon Docks, Garden Reach Shipyard, Naval Dockyards, Goa Shipyard, Cochin Shipyard, Hindustan Shipyard, Larsen & Toubro, Gunasua, ONGC in India & also exported to Sime-Darby Malaysia, ZADCO UAE, NPCC UAE, etc.

KEI offers Marine Cables complete range in general in categories Power, control instrumentation, Fire Resistant, Mud resistant, High temperature cables.

CONSTRUCTION

Conductor

- Tinned or untinned copper with stranding class 2 or class 5 from 0.5 to 1000 sq mm. or 22-19 AWG to 2000Kcmil
- Solid single strand for communication cables as required.
- Standards IEC 60228, BS 6360 or UL.

For Thermocouple Cables

- KX, JX, EX, TX, KX/VX, SX/RX

Insulations

- EPDM, XLPE, Halogen free EVA based, Silicon rubber glass braided and varnished, PE, PVC
- Dual layer EPDM + HF or PVC + Polyamide(Nylon)
- Fibreglass tape insulation as per NES standard

Fire resistant cable

- Heat barrier of glass mica tape lapped in double layer shall be provided over the conductor, before the insulation

Sheath

- Thermoplastic Halogen free Type SHF1, Cross Linked thermo set Type SHF2 or EVA, Silicon, FR PVC, HDPE, MUD RESISTANT SHF2
- PCP, CPE or CSP sheaths for EPDM or Silicon insulated cables
- TPR sheath
- Oil resistant sheath also available in SHF2 or SW4 grade

Braiding/ Armour

- ATC wire, plain copper, bronze, stainless steel, Aluminium alloy wire
- Copper braid of desired conductivity can be designed as required to meet installation specific requirement or to serve as Earth continuity conductor

Instrumentation Cables

- Cores twisted in pairs, Triads or Quad to form an element

Screen provision:

- Each element can have individual screen or shielding of Aluminium Mylar backed tape or copper Mylar backed tape.

- Each unit has ATC drain wire
- Multi element cable can have overall screen or shielding of Aluminium Mylar backed tape or copper Mylar backed tape, with a ATC drain wire.
- ATC wire braiding can be offered as alternative to tape type screen for an individual element or overall screen.

Special Protection

- Cables can be supplied with special sheath like Lead alloy sheath or Polyamide(Nylon) sheath as a proven moisture barrier in highly contaminated areas

Core Identification & Sheath Color

- Standard color coding as per CENELEC for cores and Black or Grey for the sheath.
- However, we can provide any customized color coding as per project requirement.

Current Ratings

- Cables meet the respective Current rating requirements as specified by the specifications under different installation and operating conditions.
- In general Commercial ships and offshore cables rating are as per IEC 60092-352.
- Ratings of Cables as per Naval Standards are as specified in these standards.

Packing

- On wooden drums or reels as per Indian Standard.
- For overseas supply seaworthy wooden drum treated with fumigation shall be supplied.
- Plastic or Steel reels can be offered on request.
- Packing Lengths: 250/500/1000m.
- Wires in 100m reel

Testing & Inspection

- Our factory provides Routine TC for each drum. Type TC can be provided on prior request.
- Cost of Inspection at our works in India by customer or by any appointed Inspection / certification agency shall be to the buyers account.

Warranty

Cables shall have standard warranty of 12 months from the date of installation or 18 months from the date of shipment whichever is earlier.

Datasheet

For each order KEI shall furnish standard datasheet for each size of cable.

ROHS

Cables not having a lead sheath are ROHS compliant



SPECIFICATION COMPLIANCE

SPECIFICATION	TYPES OFFERED
IEC 60092- 350, 353	POWER & CONTROL Cables 0.6/1.0KV EPDM, HEPR or XLPE or Silicon rubber or PVC insulated
NEK 606	POWER & CONTROL Cables 0.6/1.0KV EPDM insulated RFOU, RFCU, BFOU, BFCU
NEK 606	Instrumentation Cables 250V EPDM insulated RFOU(o), RFOU(i), RFCU(o), RFCU(i), BFOU(o), BFOU(i), BFCU(o), BFCU(i)
IEC 60092- 350, 354	POWER Cables 3, 6, 10, 15KV EPDM or XLPE insulated
IEC 60092- 350, 376	INSTRUMENTATION & CONTROL Cables 250V EPDM or XLPE or PE or Silicon rubber or PVC insulated
BS 6883	POWER, CONTROL & Instrumentation Cables EPDM insulated up to 11KV
IEEE 1580, UL 1309	XLPE/ EPR/ EVA/LSZH/PVC NYLON/ POLYOLEFINE, Types E, X, T, S, T/N, LSE, LSX, LSS, P
NAVAL STANDARDS	
NES 525	SMALL WIRES
NES 526 & DEFSTAN 512 P3	DUAL EXTRUDED INSULATION EPR + LFH, LFH SHEATHED POWER & CONTROL CABLES
NES 527 & DEFSTAN 512 P2	SILICON RUBBER INSUALTED, GLASS FIBRE BRAIDED AND LFH SHEATHED POWER AND CONTROL CABLES
DEFSTAN 61-12	ZHFR INSULATED WIRES, CORES
VG 95218 P 60, 62 & 63	POLYOLEFINE INSULATED SCREENED INSTRUMENTATION. TYPES MGSGO, FMGSGO, FMGSGSGO
VG 95218 P 61	EPR INSULATED, SCREENED INSTRUMENTATION. TYPES LMGSGO
ONGC OFFSHORE	
FS 4011	Power, Control & Instrumentation cables for Offshore installations
FS 3508	Instrumentation cables for Offshore installations
FIRE TESTS REFERENCE	
IEC 60332-1-2 -test	Flame-retardant test for single insulated wire and cable
IEC 60332-3-22 -test	Flame-retardant (FR)-test for bunched wires and cables, category A
IEC 60754 - 1,2	Halogen-evolution from insulation or sheath material
IEC 61034 series	Smoke emission test
IEC 60331-21	Fire-resistant test for the FIRE RESISTANT CABLES
NES 713, 718	Measurement of toxicity of gases evolved, where applicable



APPROVALS

Sl. No.	Certification Authority	Cable Types	Certificate No.	Manufacturing Standard Specifications	Types	Voltage Grade	Conductor Temperature Class
1	DET NORSKE VERITAS (D N V) TYPE APPROVAL	Instrumentation and Communication Cables MUD RESISTANT & FIRE RESISTANT, Flame Retardent Cat. A, Halogen Free, Low Smoke	E - 10486	NEK : 606 (2009-05) (S-Types); IEC : 60092 - 376 (2003-05)	BFOU (i) S3 / S7 250 V; BFOU (c) S4 / S8 250 V; BFCU (i) & (c) 250 V	250 V	90°C
2	DET NORSKE VERITAS (D N V) TYPE APPROVAL	Instrumentation and Communication Cables MUD RESISTANT, Flame Retardent Cat. A, Halogen Free, Low Smoke	E - 10487	NEK : 606 (2009-05) (S-Types); IEC : 60092 - 376 (2003-05)	RFOU (i) S1 / S5 250 V; RFOU (c) S2 / S6 250 V; RFCU (i) & (c) 250 V	250 V	90°C
3	DET NORSKE VERITAS (D N V) TYPE APPROVAL	General Power and Lightining, MUD RESIATANT & FIRE RESISTANT, Flame Retardent Cat. A, Halogen Free, Low Smoke	E - 10488	NEK : 606 (2009-05) (P-Types); IEC : 60092 - 353 (2001-04)	BFOU P5 / P12 0.6/1 KV; BFCU 0.6/1 KV; BFOU VFD 0.6/1 KV	0.6/1 KV	90°C
4	DET NORSKE VERITAS (D N V) TYPE APPROVAL	General Power and Lightining, MUD RESIATANT, Flame Retardent Cat. A, Halogen Free, Low Smoke	E - 10489	NEK : 606 (2009-05) (P-Types); IEC : 60092 - 353 (2001-04)	RFOU P1 / P8 0.6/1K V; RFCU 0.6/1K V; RFOU VFD 0.6/1K V	0.6/1 KV	90°C
5	INDIAN REGISTER OF SHIPING (I R S)	Power, Control and Instrumentation Cables, Fame Retardent Cat A, FIRE RESISTANT, Halogen Free, Low Smoke	2012WAC022	IEC : 60092 - 350, 351, 359, 60092 - 353	XLPE / EPR / PVC / LFH; Power & Control Cables	0.6/1 KV	90°C
				IEC : 60092 - 376	Instrumentation Cables Fire Resistant	250 V	
6	Directorate of Quality Assurance (DQAN), Govt. Of India, Ministry Of Defence		Registration No. : DQAN/464/2008; Control No.: N0803905A	DGS 211 / NES 527	Silicon Rubber Insulated LFH Cables	440 V	105°C
				DGS 212 / NES 526	Cable Electrical LFH type	440 V	85°C
				NES-09,Def Stan 61-12 Part-18, Pt-25 & Pt.-31	Cable Electrical and miniature Type		85°C
				DIN 89158	Power Cables with copper braid MGCG	0.6/ 1.0 KV	85°C
				DIN 89159	Communication cables	250V	90°C
				DIN (VG) 95218	Degaussing Cable	550 V	85°C
				Gost, MIL C017, NES 526, 527, 518, 525, Def Stan 61-12 Part 18, Pt 25, Pt.31 and related specification	LFH Cables	440V / 250 V	90°C
				IS : 7098 Part-I	XLPE Insulated Cables Upto 1.1KV	1.1 KV	90°C
				IS : 7098 Part-II	XLPE Insulated Cables Upto 33KV	33 KV	90°C
				IS : 9968 Part-1 and Part -II	Elastomer Insulated Cables	1.1, 3.3 6.6KV	90°C

*KEI Marine & Offshore cables have been type tested by all above authorities.

SPECIALITY CABLES

- MINING Cables: Rubber flexible trailing cables, Landline cables, PVC and XLPE cables.
- Elastomeric cables: for Material handling, reeling duty, Pump and other applications. H07RNF and H05RRF VDE certified cables available
- High Temperature Cable: Silicon and other special polymer cables .
- Cables for Sub Zero temperature installations offshore or onshore and underground systems suitable up to - 60°C
- Solar Cables: TUV approved
- Control Cables: In various designs and sizes
- Instrumentation cables: As per international standards and industry specific requirements.
- Thermocouple Extension and compensating cables.
- Halogen Free cables, Non toxic cables.
- FIRE SURVIVAL cables meeting C W Z and other international categories
- Cables with Lead Alloy sheath as per IEC and EEMUA
- Field Bus cables
- Composite cables having combinations of different types.
- Motor coil leads, Power and control cables for machines and industry

TESTING FACILITIES

TEST LABORATORY Certified: ISO /IEC 17025 Bhiwadi factory.

Inspection Authorities visiting: ABS, BS, BSI, BVQI, Crown, CSA, DASEIN, DNV, EIL, ERDA, Intertek, IRS, JACOBS, KAVENER, LRS, RITES, SGS, Tata Projects, TOYO, TUV & VDE etc.

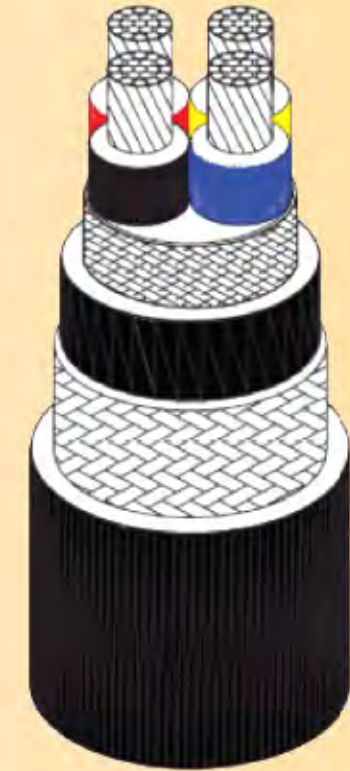
EHV cables tested at CPRI, KEMA, 220KV Type Test at FGH Engineering & Test GmbH Lab (CESI) at the Mannheim Germany



CABLE CONSTRUCTION



SINGLE CORE LT CABLE



MULTI CORE LT CABLE




INDIVIDUAL & OVERALL SCREENED INSTRUMENT CABLE



OVERALL SCREENED INSTRUMENT CABLE

CERTIFICATION



DET NORSKE VERITAS
TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. E-14486

This is to certify that the
Low Voltage Cable

with type designations:
BFOU (U) 230/2 230 V, BFOU (U) 230/2 230 V, BFOU (U) 230/2 230 V, BFOU (U) 230/2 230 V

Manufactured by
KEI INDUSTRIES LTD
New Delhi, India


It is found to comply with
Det Norske Veritas Rules for Classification of Ships, High Voltage & Low Voltage Cables and Det Norske Veritas Offshore Standards
EC 2006/95/EC 2014/53/EC
IEC 60331-2-1 2008-07
IEC 60331-2-2 2008-07
IEC 60334-1 1994-01
IEC 60334-2 2005-04
IEC 60334-3 2005-04
IEC 60334-4 2005-04
IEC 60334-5 2005-04

Applications:
Instrumentation and communication.
Fire resistant, Flame retardant, Cat. A, Halogen free, Low smoke, Mild resistant.

Type	Voltage class (V)	Temp. class (°C)
BFOU (U) 230/2 230 V	230	22
BFOU (U) 230/2 230 V	230	22
BFOU (U) 230/2 230 V	230	22

Valid: 2014-10-23
for Det Norske Veritas AS


North Laurance
Head of Section



DNV local office
Mumbai

Ivan Bull
Lead Surveyor

This Certificate is valid until
2016-10-21



DET NORSKE VERITAS
TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. E-14487

This is to certify that the
Low Voltage Cable

with type designations:
BFOU (U) 230/2 230 V, BFOU (U) 230/2 230 V, BFOU (U) 230/2 230 V, BFOU (U) 230/2 230 V

Manufactured by
KEI INDUSTRIES LTD
New Delhi, India


It is found to comply with
Det Norske Veritas Rules for Classification of Ships, High Voltage & Low Voltage Cables and Det Norske Veritas Offshore Standards
EC 2006/95/EC 2014/53/EC
IEC 60331-2-1 2008-07
IEC 60331-2-2 2008-07
IEC 60334-1 1994-01
IEC 60334-2 2005-04
IEC 60334-3 2005-04
IEC 60334-4 2005-04
IEC 60334-5 2005-04

Applications:
Instrumentation and communication.
Fire resistant, Cat. A, Halogen free, Low smoke, Mild resistant.

Type	Voltage class (V)	Temp. class (°C)
BFOU (U) 230/2 230 V	230	22
BFOU (U) 230/2 230 V	230	22
BFOU (U) 230/2 230 V	230	22

Valid: 2014-10-23
for Det Norske Veritas AS

North Laurance
Head of Section



DNV local office
Mumbai

Ivan Bull
Lead Surveyor

This Certificate is valid until
2016-10-21



Indian Register of Shipping

Place : Mumbai
Date : 27 November 2012
Certificate No : 2423WAL202

**Works Approval Certificate for
Manufacture of Electrical Cables**

This is to certify that having inspected manufacturing facilities and satisfactory compliance of Manufacturer's Quality Control procedures by our Surveyors, the works of

M/s. KEI INDUSTRIES LIMITED
SP-920, Rajoo Industrial Area, Phase-III, Bhiwadi, Alwar,
Rajasthan-301109

is being included in the list of approved manufacturers for Electrical Cables to be used on ships classed or intended to be classed with IRV.

Manufacturing standards: IEC 60331-2-1, IEC 60331-2-2, IEC 60334-1, IEC 60334-2, IEC 60334-3, IEC 60334-4, IEC 60334-5


Conditions of Approval: See schedule - I

This certificate is valid until: November 2015

Annual Inspection Due: November 2013
November 2014

U. S. KALGHAYKA
CHIEF SURVEYOR

Registration No : DQA/44/2008 Control No : N0803005A



GOVERNMENT OF INDIA
MINISTRY OF DEFENCE

DIRECTORATE GENERAL OF QUALITY ASSURANCE
DIRECTORATE OF QUALITY ASSURANCE (NAVAL)

REGISTRATION CERTIFICATE


This is to certify that M/s. KEI Industries Limited, SP-920, Rajoo Industrial Area, Phase-III, Bhiwadi Distt Alwar-301109 Rajasthan after verification of their capacity/capability are registered and found capable of manufacturing of the items for Defence as indicated overleaf

No. of items for which registered	111 (Plans) only
Monthly Limit	- Rs. 200 Crore
Quality of the Vendor	- BMS-2028/Gen-I
This Certificate is valid up to	25 Dec 2015

This Certificate is issued subject to the conditions indicated overleaf.

Dated 29 Dec 2012

(N.K. Mishra)
Ran. Offnd.
Asst. Dir. Q.A. (N)



DET NORSKE VERITAS
TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. E-14488

This is to certify that the
Electric Power Cable

with type designations:
BFOU P180/2 0.6/1 kV, BFOU 0.6/1 kV, BFOU 0.6/1 kV, BFOU 0.6/1 kV

Manufactured by
KEI INDUSTRIES LTD
New Delhi, India


It is found to comply with
Det Norske Veritas Rules for Classification of Ships, High Voltage & Low Voltage Cables and Det Norske Veritas Offshore Standards
EC 2006/95/EC 2014/53/EC
IEC 60331-2-1 2008-07
IEC 60331-2-2 2008-07
IEC 60334-1 1994-01
IEC 60334-2 2005-04
IEC 60334-3 2005-04
IEC 60334-4 2005-04
IEC 60334-5 2005-04

Applications:
General power and lighting.
Fire resistant, Flame retardant, Cat. A, Halogen free, Low smoke, Mild resistant.

Type	Voltage class (kV)	Temp. class (°C)
BFOU P180/2 0.6/1 kV	0.6/1	22
BFOU 0.6/1 kV	0.6/1	22
BFOU 0.6/1 kV	0.6/1	22

Valid: 2014-10-23
for Det Norske Veritas AS


North Laurance
Head of Section



DNV local office
Mumbai

Ivan Bull
Lead Surveyor

This Certificate is valid until
2016-10-21



DET NORSKE VERITAS
TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. E-14489

This is to certify that the
Electric Power Cable

with type designations:
BFOU P180/2 0.6/1 kV, BFOU 0.6/1 kV, BFOU 0.6/1 kV, BFOU 0.6/1 kV

Manufactured by
KEI INDUSTRIES LTD
New Delhi, India


It is found to comply with
Det Norske Veritas Rules for Classification of Ships, High Voltage & Low Voltage Cables and Det Norske Veritas Offshore Standards
EC 2006/95/EC 2014/53/EC
IEC 60331-2-1 2008-07
IEC 60331-2-2 2008-07
IEC 60334-1 1994-01
IEC 60334-2 2005-04
IEC 60334-3 2005-04
IEC 60334-4 2005-04
IEC 60334-5 2005-04

Applications:
General power and lighting.
Fire resistant, Cat. A, Halogen free, Low smoke, Mild resistant.

Type	Voltage class (kV)	Temp. class (°C)
BFOU P180/2 0.6/1 kV	0.6/1	22
BFOU 0.6/1 kV	0.6/1	22
BFOU 0.6/1 kV	0.6/1	22

Valid: 2014-10-23
for Det Norske Veritas AS

North Laurance
Head of Section



DNV local office
Mumbai

Ivan Bull
Lead Surveyor

This Certificate is valid until
2016-10-21



INSTALLATION RECOMMENDATIONS

The minimum recommended installing bending radius shall be in accordance with IEC 60092-352.



Reel-to-Reel Rewinding

