TEBA UNITED

SPECIAL CABLES

www.tu-egy.com

ABOUT
TEBA UNITED GROUP

Since **TEBA UNITED GROUP** started as a manufacturer of electrical panels in Egypt almost 34 years ago, It has evolved to an intergraded energy solutions. We operate in three key business sectors: TEBA UNITED integrated industries, Energy products and solutions and Engineering & contracting services. Our experience has enabled us to deliver even the most complex products and services on time and granted quality. We are pioneers in the locally manufactured and assembled electrical distribution equipment's (Low and medium voltage panels, generators, LED lighting, earthing and lighting) aside of the EPC solutions and services we provide, we are success partner with SCHNEIDER ELECTRIC for Low voltage panels, ITALCOND for Special Cables, AVENGER for Fire Alarm and (HARGER, AMPER) for Earthing & lightning system.

+600 HAPPY CUSTOMERS

+4 PRODUCTION FACILITIES

+34 YEAR OF EXPERIENCES

+1000 EMPLOYEES

+7000 PROJECTS

+650 PRODUCT APPROVALS

+680 OPERATIONS AND MAINTENANCE

BUSINESS SECTORS

TU

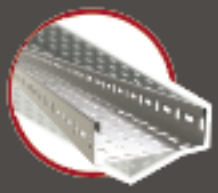
TEAB UNITED INTEGRATED INDUSTRIES

LOW VOLTAGE PANELS

MEDIUM VOLTAGE SOLUTIONS

TU EARTHING & LIGHTNING

GENERATORS



CABLE TRAY

LIGHTING

ENERGY PRODUCTS & SOLUTIONS

EARTHING & LIGHTNING

FIRE ALARM

SPECIAL CABLES

ENGINEERING & CONTRACTING

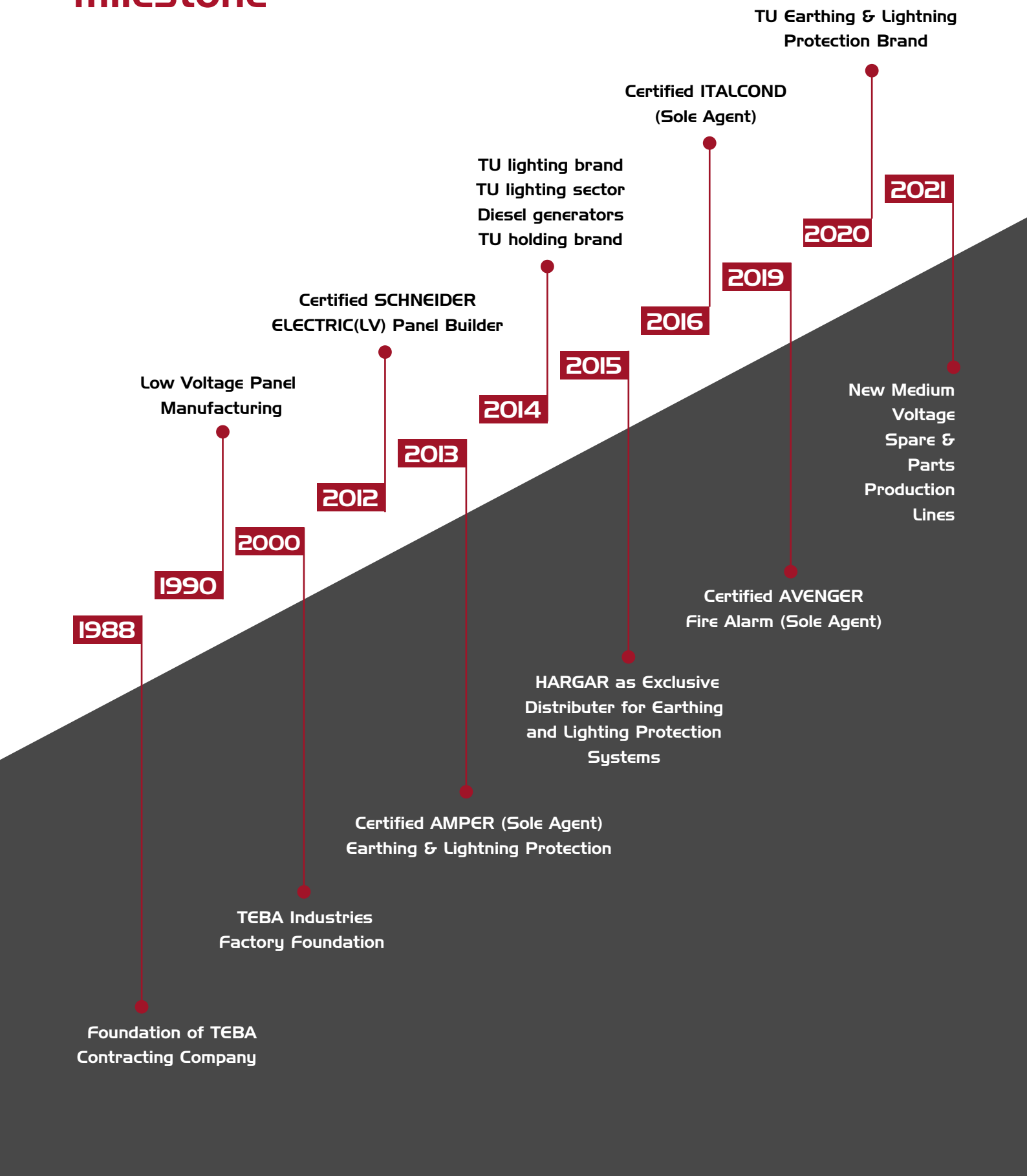
ELECTRICAL

MECHANICAL

ENGINEERING SERVICES

CIVIL

key milestone



COMPANY:

ITALCOND SRL is a manufacturer of jigh quality special applications cables, with headquarters in Recanati Italy. The technical expertise, commercial and logistics knowledge enables ITALCOND SRI to satisfy client demand on both domestic and international markets ability and know how is the result of a more than thirty years' experience in the field of special application cables and thermoplastic insulation materials ITALCOND SRI has a very diversified product range that includes single and multicore electrical cables for various applications. The technical knowledge, experience, attention to customer services are the key asset of the companies' organization that ensure the constant quality of the products supplied.

In view to meet the evolving market demands on particular special products, ITALCOND SRI mange a flexible structure , which turns its attention to the processing of materials with high technological content , allowing it to provide products for different fields of applications to special cable requirements , A complete operational laboratory equipped with all essential apparatus for testing mechanical , electrical , essential apparatus for testing mechanical , electrical temperature and fire resistance is at the service of production and commercial necessities to guarantee full compliance to the required regulations

PRODUCTS:

ITALCOND SRI welcomes all opportunities to asset in the sampling of special products. if your requirements include materials or products not listed un our catalogue, then please don't hesitate to contact us to review your requirements further

ITALCOND SRI offers customers team of skilled experts ready to provide their support to your requests for single and multicore data, signal and control cables.

SERVICES:

Our range of cables and accessories for special applications covers various fields such as automation and robotics , construction , lighting , welding , military , high temperature and many other customized experience , reliability and attention to customer service is at the top of our priorities , that permits us to establish and strength the growing working relationship with our customers worldwide.

Factory instrumentation Protocol BUS CABLES

PROFIBUS L2/FIP 150 Ohm

TECHNICAL FEATURES

Conductor	Solid wire bare copper
insulation	Foam PE Polyethylene, with hard skin
Bedding	Synthetic PVC bedding
Shield	Overall Aluminum polyester tape, 100% coverage
Braid shield	Tinned copper, optical coverage 60%
Sheath material	Polyvinyl Chloride (PVC) Color Violet RAL4001
Color coding	Red - Green
Standards	EN 50170 / VDE 0482-332-1-2/1EC 60332-1-2

APPLICATION

This cable is usually referred as Siemens profibus.
Low capacitance cables with twisted pairs, double shield for industrial use.
PROFIBUS-L2/FIP are field bus cables designed for use in FIP (Factory Instrumentation Protocol), SINEC-L2 field bus systems and other high performance field bus networks.

SPECIAL FEATURES

lead Free CEI 20-52
Conform to RoHS

REMARKS

CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC
Standard put up: 305 meters drums

Physical characteristics

ITALCOND part number		**ITAL357**
(No. of cores (twisted pairs	Pairs/cond	1P
Conductor size	AWG	22
Nom. Diameter of copper conductor	mm	0.64
Conductor stranding	n.xmm	1x0,64
Conductor stranding	n.awg	1x22
Conductor material	type	Cu Bare copper
Insulation material	type	Foam PE
Nom. Radial Thickness insulation	mm	0,80
Overall shield	Yes/No	Yes
Screen	Yes/No	Yes
Colour coding	type	Red - Green
Sheath material	type	PVC
Nom. Overall diameter of conductor	mm	2.55
Nom. Radial shetah thickness	mm	0.95
Nom. overall outer diameter	mm	0,40 ± 8,0
Electrical Characteristics		
Max. DC Resistance conductor at 20°C	Ω/km	55.0>
Nom. Impedance	Ω	10 ± 150
Mutual Capacitance @ 1khz	nF/km	35,0>
Max. operating voltage	Volts	350
Miscellaneous		
Operating temperature	C°	80°C / -40
Min bending radius	mm	48
Nominal cable weight	kg/km	57

Factory instrumentation Protocol BUS CABLES

PROFIBUS L2/FIP 150 Ohm

TECHNICAL FEATURES

Operating temperature	-10 °C ÷ +70 °C
Conductor material	Solid tinned copper diam. 0.60mm
Core insulation	Thermoplastic material based PVC (quality TI2)
Core identification	According to color code table CEI 46-5
Outer sheath material	According to color code table CEI 46-5
Printing	To be defined
Min. insulation resistance	500 Mohm/km
Test voltage in AC	1kV at 50Hz
Test voltage in DC	1,5kV
Max. mutual cap. at 800Hz	120 nF/km
Capacity range	400 pF/500mt

APPLICATION

Telephone cables for internal systems, insulated with a special PVC compound in accordance with flame propagation test CEI 20-22 that guarantees a reduced emission of toxic and corrosive gases.

SPECIAL FEATURES

CEI 20-35 / EN 60332-1 Flame retard / self-extinguish.
CEI 20-22 Flame retardant low smoke
CEI 20-52 Lead freeAccording to CEI 46-5 and IEC 60189-2

REMARKS

Conform to RoHS
Conform to 2006/95/EC - Guideline EC

Physical characteristics

0.60 mm n° pairs	min. sheath thickness	TR/R unshielded Max. Outer diameter mm
2	0.6	4.8

SOUND, CONTROL
OVERALL SHIELDED

TECHNICAL FEATURES

Conductor	Flexible bare copper wire
Insulation	PP Polypropylene
Drain wire	Tinned copper
Shield	(Aluminum/Polyester 100% (reversed
Sheath material	Thermoplastic material based PVC (quality TM2) Grey
Standard	IEC 60332-1 - IEC 60332-3-24
Core colors identification	table (1): black - red - white – green table (2): black - white - red - green

APPLICATION
Multiconductor overall shielded, suitable for sound, control, instrumentation and Building Management Systems (BMS)

SPECIAL FEATURES
Flame retardant CEI 20-35 / EN 60332-1
lead Free CEI 20-52

REMARKS
Conform to RoHS
CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC and 73/23/EEC and 93/68/EEC
Standard put up: 305 meters drums

Physical characteristics

ITALCOND part number		ITAL001	ITAL017	ITAL018	ITAL019	ITAL302	ITAL304
No. of cores	num	2c	3c	4c	2c	3c	4c
Conductor size	AWG	16	16	16	14	14	14
Conductor stranding	n.xmm	19x0.28	19x0.28	19x0.28	19x0.36	19x0.36	19x0.36
Conductor stranding	n.awg	19x29	19x29	19x29	19x27	19x27	19x27
Drain wire size	AWG	24	24	24	22	22	22
Drain wire stranding	n.xmm	7x0.20	7x0.20	7x0.20	7x0.25	7x0.25	7x0.25
Drain wire stranding	n.awg	7x32	7x32	7x32	7x30	7x30	7x30
Nom. Diameter of copper conductor	mm	1.4	1.4	1.4	1.81	1.81	1.81
Insulation material	type	PP	PP	PP	PP	PP	PP
Nom. Radial Thickness insulation	mm	0.2	0.2	0.2	0.27	0.27	0.27
Shield	Yes/No	Yes	Yes	Yes	Yes	Yes	Yes
Individual shield	Yes/No	No	No	No	No	No	No
(Screen (braid	Yes/No	No	No	No	No	No	No
Sheath material	type	TM2 PVC	TM2 PVC	TM2 PVC	TM2 PVC	TM2 PVC	TM2 PVC
Overall diameter of conductor	mm	1.80	1.80	1.80	2.40	2.40	2.40
Nom. Radial sheath thickness	mm	0.43	0.43	0.43	0.43	0.43	0.43
Nom. overall outer diameter	mm	4.80	5.00	5.80	6.00	6.30	8.00
Colour coding	table	1	1	1	2	2	2

Electrical Characteristics

Nom. DC Resistance conductor at 20°C	Ω/km	14.70	14.70	14.70	8.40	8.40	8.40
Nom. DC Resistance shield	Ω/km	47.3	49.9	47.25	32.81	37.08	32.81
Capacitance conductor to conductor	pF/m	181	181	101	158	273	98
Capacitance cond. to other cond. +shield	pF/m	354	343	181	300	491	178
Nominal inductance	pH/m	0.5	0.5	0.5	0.5	0.5	0.5
Max. recommended Current at 25°C	Amps	6.25	6.25	5.0	8.0	8.0	6.4
Max. operating voltage	Vrms	300	300	300	300	300	300

Miscellaneous

Operating temperature	C°	+75 / -20	+75 / -20	+75 / -20	+75 / -20	+75 / -20	+75 / -20
Max. recommended pulling tension	N	381	516	651	558	770	845
(Min. bending radius (install	mm	45	49	53	58	64	70
Nominal cable weight	kg/km	42	55	67	57	80	100

SOUND, CONTROL
OVERALL SHIELDED

TECHNICAL FEATURES

Conductor	Flexible bare copper wire
Insulation	PP Polypropylene
Drain wire	Tinned copper
Shield	(Aluminum/Polyester 100% (reversed
Sheath material	Thermoplastic material based PVC (quality TM2) Grey
Standard	IEC 60332-1 - IEC 60332-3-24
Core colors identification	black - red - white - green

APPLICATION
Multiconductor overall shielded, suitable for sound, control, instrumentation and Building Management Systems (BMS)

SPECIAL FEATURES
Flame retardant CEI 20-35 / EN 60332-1
lead Free CEI 20-52

REMARKS
Conform to RoHS
CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC and 73/23/EEC and 93/68/EEC
Standard put up: 305 meters drums

Physical characteristics

ITALCOND part number		ITAL003	ITAL321	ITAL005	ITAL324	ITAL326	ITAL328
No. of cores	num	2c	3c	4c	2c	3c	4c
Conductor size	AWG	18	18	18	20	20	20
Conductor stranding	n.xmm	7x0.40	7x0.40	7x0.40	7x0.32	7x0.32	7x0.32
Conductor stranding	n.awg	7x0.26	7x0.26	7x0.26	7x0.28	7x0.28	7x0.28
Drain wire size	AWG	24	24	24	24	24	24
Drain wire stranding	n.xmm	7x0.20	1x0.50	7x0.20	1x0.50	1x0.50	1x0.50
Drain wire stranding	n.awg	7x32	1x24	7x32	1x24	1x24	1x24
Nom. Diameter of copper conductor	mm	1.2	1.2	1.2	1.0	1.0	1.0
Insulation material	type	PP	PP	PP	PP	PP	PP
Nom. Radial Thickness insulation	mm	0.20	0.20	0.20	0.20	0.20	0.20
Shield	Yes/No	Yes	Yes	Yes	Yes	Yes	Yes
Individual shield	Yes/No	No	No	No	No	No	No
(Screen (braid	Yes/No	No	No	No	No	No	No
Sheath material	type	PVC TM2	PVC TM2	PVC TM2	PVC TM2	PVC TM2	PVC TM2
Overall diameter of conductor	mm	1.60	1.60	1.60	1.40	1.40	1.40
Nom. Radial sheath thickness	mm	0.43	0.43	0.43	0.43	0.43	0.43
Nom. overall outer diameter	mm	4.60	4.60	5.20	4.00	4.30	4.50

Electrical Characteristics

Nom. DC Resistance conductor at 20°C	Ω/km	21.4	21.4	21.4	33.8	33.8	33.8
Nom. DC Resistance shield	Ω/km	53.3	55.5	23.7	55	53	25
Capacitance conductor to conductor	pF/m	154	119	89	132	164	95
Capacitance cond. to other cond. +shield	pF/m	256	213	159	237	296	224
Nominal inductance	pH/m	0.5	0.5	0.5	0.5	0.5	0.5
Max. recommended Current at 25°C	Amps	5.0	5.0	4.0	5.0	5.0	4.0
Max. operating voltage	Vrms	300	300	300	300	300	300

Miscellaneous

Operating temperature	C°	+75 / -20	+75 / -20	+75 / -20	+75 / -20	+75 / -20	+75 / -20
Max. recommended pulling tension	N	259	362	230	83	104	224
(Min. bending radius (install	mm	40	42	46	83	39	41
Nominal cable weight	kg/km	38	47	59	32	39	48

RG6 75 Ohm CATV
Coaxial Cable

TECHNICAL FEATURES

Insulation	Foam PE polyethylene color natural
Tape shield	Pet Aluminum tape
Braid	Aluminum
Sheath material	PVC or PE
Temperature range	-30 / +70°C
Standards	EN 50117-2-4 , EN 50117-2-5

APPLICATION
These cables are ideal for residential and commercial antenna, cable television and satellite installations

SPECIAL FEATURES
Lead free CEI 20-52
Conform to RoHS

REMARKS
CE acc. To EC Low-voltage directive 73/23/ECC and 93/68/EEC Standers put up: 305, 500 or 1000 meter drums

CONSTRUCTION DATA

CODE		ITAL1428C	ITAL1506C
Inner conductor dimension		Ø= 1.0 ± 0.02mm	Ø= 1.0 ± 0.02mm
Inner conductor material	type	Ccs	Cu
Dielectric dimension	mm	Ø= 4.8 ± 0.1mm	Ø= 4.8 ± 0.1mm
Dielectric material	type	PEE	PEE
Screen	mm	Al/Pet tape	Al/Pet/Al Tape
Braid	type	Al coverage 43%	Al coverage 43%
Outer sheath dimension	mm	Ø= 6.6 ± 0.2mm	Ø= 6.8 ± 0.2mm
Outer sheath material	type	PVC	PE black

MECHANICAL DATA

Copper content	kg/km	-	7
Cable weight	kg/km	35.3	34
(Min. bending radius(single/multiple	Mm	35/70	35/70
Max. tensile strength	N	300	140
Operating temperature range	°C	-20 ÷ +70	-20 ÷ +70

ELECTRICAL DATA

Impedance	Ω	75±3	75±3
Capacitance	pF/m	53±2	53±2
Velocity ratio	%	84	84
(DC resistance(inner/outer	Ω/km	100/52	22.5/38
Voltage insulation sheath	kV	4.5	4.5

ATTENUATION

(Frequency (MHz			
5	dB/100m	1.8	1.7
50	dB/100m	4.8	4.6
200	dB/100m	9.0	8.6
470	dB/100m	13.9	13.6
862	dB/100m	18.8	18.8
1000	dB/100m	20.3	20.3
1750	dB/100m	27.2	27.2
2150	dB/100m	30.6	30.6
2400	dB/100m	32.8	32.8
3000	dB/100m	37.5	37.5

SCREENING EFFICIENCY

Frequency MHz	ITAL1428C	ITAL1506C
30-1000	>75dB	>75dB
1000-2000	>80dB	>80dB
2000-3000	>70dB	>70dB

STRUCTURAL RETURN LOSS (SRL)

Frequency MHz	ITAL1428C	ITAL1506C
5-470	>30dB	>30dB
470-1000	>26dB	>26dB
1000-2000	>20dB	>20dB
2000-3000	>18dB	>18dB

CAT 6A UTP
NETWORK CABLES UN-SHIELDED

TECHNICAL FEATURES

Conductor	Solid bare copper wire
Insulation	LDPE Polyethylene
Filler	Cross member PE
Ripcord	Nylon
Sheath material	Polyvinyl Chloride (PVC) , Color Grey
Standards	TIA/EIA-568B & ISO/TEC 11801 & IEC 61156-5:2009
Core colors identification	blue, white / blue - orange, white / orange - green, white / green - brown, white / brown

APPLICATION
Local area Cat. 6A LAN cable, un-shielded, twisted pair, suitable for Networks and video applications.

SPECIAL FEATURES
Halogen-Free sheath
Conform to RoHS, FLUKE TEST passed

REMARKS
Conform to RoHS, FLUKE TEST passed
CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC
Standard put up: 305 meters drums or boxes

Physical characteristics

ITALCOND part number		**ITAL032A**
No. of pairs	num	4
Conductor size	AWG	23
Nom. Diameter of copper strand	mm	0.585
Nom. Radial Thickness insulation	mm	0.26
Nom, diameter over insulation	mm	1.13X2c twist
Nom. Radial sheath Thickness	mm	0.60
Nom. Overall outer diameter	mm	0.2 ± 6.8

Electrical characteristics

(Impedance (1 - 100 MHz	**Ω**	**100±15**
(Impedance (100 - 250 MHz	Ω	100±20
Mutual Capacitance	pF/m	50±5
Velocity Ratio	%	70
Maximum Delay	ns/100m	45>
Max. conductor Resistance at 20°C	Ω/km	91.3>
Max. operating voltage	Vrms	300

Miscellaneous

Operating temperature	**C°**	**+60 / -25**
Max. recommended pulling tension	N	156
(Min. bending radius (install	mm	12.7
Nominal cable weight	kg/km	43

Electrical Characteristics

Frequency	Attenuation	NEXT	PSNEXT	Return Loss
MHz	dB/100m	dB	dB	dB
	max			
1.00	1.90	74.30	72.30	20.00
4.00	3.70	65.30	63.30	23.00
10.00	5.90	59.30	57.30	25.00
16.00	7.50	56.30	54.30	25.00
31.25	10.60	51.90	49.90	23.60
62.00	15.40	47.40	45.40	21.50
100.00	19.80	44.30	42.30	20.10
250.00	32.80	38.30	36.30	17.30
300.00	34.30	37.10	35.10	16.80
400.00	40.10	35.30	33.30	15.90
500.00	45.30	33.80	31.80	15.20

Frequency	ELFEXT	PSELFEXT
MHz	dB	dB
1.00	67.80	64.80
4.00	55.80	57.70
10.00	47.80	44.80
16.00	43.70	40.70
31.25	37.90	34.90
62.00	31.90	28.80
100.00	27.80	24.80
250.00	19.80	16.80
300.00	18.30	15.30
400.00	15.80	12.80
500.00	13.80	10.80

CAT 6 UTP
NETWORK CABLES UN-SHIELDED

TECHNICAL FEATURES

Conductor	Solid bare copper wire
Insulation	LDPE Polyethylene
Filler	Cross member PE
Ripcord	Nylon
Sheath material	Polyvinyl Chloride (PVC), Color Grey
Standards	TIE/EIA-568B & ISO/TEC 11801 & IEC 61156-5:2009
Core colors identification	Blue, white / blue - orange, white / orange - green, white / green - brown, white / brown

APPLICATION
Local area Cat. 6 LAN cable, un-shielded, twisted pair, suitable for Networks and video applications.

SPECIAL FEATURES
Halogen-Free sheath
Conform to RoHS

REMARKS
Conform to RoHS
CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC
Standard put up: 305 meters drums or boxes

Physical characteristics

ITALCOND part number		**ITAL032**
No. of pairs	num	4
Conductor size	AWG	23
Nom. Diameter of copper strand	mm	0.565
Nom. Radial Thickness insulation	mm	0.21
Nom. diameter over insulation	mm	0.96x2c twist
Nom. Radial sheath Thickness	mm	0.60
Nom. Overall outer diameter	mm	0.2 ± 5.80

Electrical characteristics

(Impedance (1 - 100 MHz	**Ω**	**100±15**
(Impedance (100 - 250 MHz	Ω	100±15
Mutual Capacitance	pF/m	50±5
Velocity Ratio	%	70
Maximum Delay	ns/100m	45>
Max. conductor Resistance at 20°C	Ω/km	91.3>
Max. operating voltage	Vrms	300

Miscellaneous

Operating temperature	**C°**	**+60 / -25**
Max. recommended pulling tension	N	156
(Min. bending radius (install	mm	12.7
Nominal cable weight	kg/km	40

Electrical Characteristics

Frequency MHz	Attenuation MHz max	NEXT dB	PSNEXT dB	PSNEXT dB
1.00	1.90	74.30	72.30	72.30
4.00	3,70	65.30	63.30	23.00
10,00	5.90	59.30	57.30	25.00
16.00	7.50	56.30	54.30	25.00
31.25	10.60	51.90	49.90	23.60
62.00	15.40	47.40	45.40	21.50
100.00	19.80	44.30	42.30	20.10
250.00	32.80	38.30	36.30	17.30

Frequency MHz	ELFEXT dB	PSELFEXT dB
1	67.80	64.80
4	55.80	57.70
10	47.80	44.80
16	43.70	40.70
31.25	37.90	34.90
62.5	31.90	28.80
100	27.80	24.80
250	19.80	16.80

FIRE ALARM
SYSTEM CABLES 105°C, OVERALL SHIELDED

TECHNICAL FEATURES

Conductor	Flexible bare copper class 5
insulation	Polyvinyl Chloride (PVC) 105°C
Sheath material	Thermoplastic material based PVC (quality TM2) Red
Drain wire	Tinned copper
Shield	Aluminium/Polyester 100% coverage
Standards	IEC 60332-1 - IEC 60332-3-24
Core colors identification	black, red

APPLICATION
Fire detection alarm cable, shielded, suitable for fire alarm systems, smoke alarms, voice communications and berglar alarms.
Manufactured with flame retardant insulation and up to 105°C working temperature.

SPECIAL FEATURES
Flame retardant CEI 20-35 / EN 60332-1
lead Free CEI 20-52

REMARKS
Conform to RoHS
CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC
Standard put up: 305 mt, 500 mt, 1000 mt.

Physical characteristics

ITALCOND part number		ITAL054TB	ITAL055TB	ITAL057TB	ITAL058TB
No. of cores	num	2c	2c	2c	2c
Conductor size	mm2	1.00	1.50	2.00	2.50
Conductor stranding	n.xmm	31x0.20	25x0.26	36x0.26	42x0,26
Drain wire stranding	n.xmm	7x0.20	7x0.25	7x0.25	7x0.25
Nom. Diameter of copper conductor	mm	1.23	1.49	1.86	1.94
Insulation material	type	PVC 105	PVC 105	PVC 105	PVC 105
Nom. Radial Thickness insulation	mm	0.60	0.60	0.60	0.60
Shield	Yes/No	Yes	Yes	Yes	Yes
Sheath material	type	PVC TM2	PVC TM2	PVC TM2	PVC TM2
Overall diameter of conductor	mm	2.40	2.80	3.10	3.20
Nom. Radial sheath thickness	mm	0.70	0.80	0.80	1.00
Nom. overall outer diameter	mm	6.50	8.00	8.50	8.80

Electrical Characteristics

Max. DC Resistance conductor at 20°C	Ω/km	19.5	14.5	9.10	7.98
Max. DC Resistance shield	Ω/km	52.7	52.7	52.7	56.0
Capacitance conductor to conductor	pF/m	165	189	192	205
Capacitance cond. to other cond. Shield	pF/m	312	358	358	375
Nominal inductance	μH/m	0.40	0.50	0.60	0.70
Max. recommended Current at 25°C	Amps	10.00	11.00	18.00	22.00
Max. operating voltage	Vrms	300	300	300	300
Miscellaneous					
Operating temperature	C°	+105 / -40	+105 / -40	+105 / -40	+105 / -40
Max. recommended pulling tension	N	200	222	286	358
(Min. bending radius (install	mm	64	64	77	77
Nominal cable weight	kg/km	53	80	100	110

Cable marking example:
ITALCOND ITAL055TB FIRE ALARM 105degC SHIELDED 2x1.50SQMM 300/500V MADE IN ITALY (Lot no. WK/YEAR) (metric marking every meter

FIRE RESISTANT CABLES

To BS 7629-1 - BS 6387 CWZ-EN 50200

TECHNICAL FEATURES

Conductor	Stranded or Solid bare copper wire
Insulation	High performance ceramifiable Silicone Rubber
Drain wire	Tinned copper
Shield	Aluminum/Polyester 115% coverage
Sheath material	Halogen-free, flame retardant LSOH, Color Red
Standards	IEC 60332-1 - IEC 60332-3-24 / EN50200 / BS 6387
Core colors identification	blue, brown

APPLICATION

Fire performance power cable, suitable for fire alarm systems and emergency lighting, designed to maintain circuit integrity under fire conditions according to BS6387 Categories C, W & Z: up to 950°C for 3 hours

SPECIAL FEATURES

Compliant to IEC-EN-BS standards:
IEC 60332-1: Flame retardant; IEC 60332-3-24:
Circuit integrity vertically mounted-bunched; IEC 60331-11-21: Circuit integrity; EN 50200, BS 6387 CWZ: Circuit integrity and EN 50267-2-3:
Determination of degree of acidity of gases; EN 61034-2: Measurement of smoke density.

FIRE TEST to BS 6387	test applied	BS 6387 D 2
fire test category C= 950°C for 3 hours	C	BS 6387 D 3
resistance to Fire with Water	30 min	BS 6387 D 3
category W at 650°C for 30 mins, 15 min of water	W	BS 6387 D 4
(resistance to fire with mechanical shock (one shock every 30 sec	15 min	BS 6387 D 4
category X at 650°C; Y=750°C; Z=950°C	Z	EN 50200
RESISTANCE TO FIRE CEI EN 50200	OK	EN 50200
(resistance to fire with mechanical shock (one shock every 5 min	PH60	EN 50200-E
category (PH60) temperature 842°C	30 min	EN 50200-E
(resistance to fire with water and shock (one shock every 5 min	OK	
(category (temperature 842°C for 30 min, 15 min water		

REMARKS

Conform to RoHS
CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC
Standard put up: 305/500/1000 meters drums

Physical characteristics

ITALCOND part number		ITAL080	ITAL081	ITAL082	ITAL083	ITAL084
No. of cores	num	2c	2c	2c	2c	2c
Conductor size	mm2	0.75	1.00	1.50	2.50	4.00
Conductor stranding	n.xmm	1x0.98	1x1.13	1x1.38	1x1.78	7x0.83
Drain wire size	mm2	0.75	1.00	1.50	2.50	4.00
Drain wire stranding	n.xmm	1x0.98	1x1.13	1x1.38	1x1.75	7x0.83
Nom. Diameter of copper conductor	mm	0.98	1.13	1.38	1.75	2.60
Insulation material	type	Silicone	Silicone	Silicone	Silicone	Silicone
Nom. Radial Thickness insulation	mm	0.70	0.60	0.70	0.80	0.80
Shield	Yes/No	Yes	Yes	Yes	Yes	Yes
Individual shield	Yes/No	No	No	No	No	No
(Screen (braid	Yes/No	No	No	No	No	No
Sheath material	type	LSOH	LSOH	LSOH	LSOH	LSOH
Overall diameter of conductor	mm	1.90	2.50	3.00	3.50	4.50
Nom. Radial shetah thickness	mm	0.90	0.90	0.90	1.00	1.10
Nom. overall outer diameter	mm	7.50	8.00	8.50	10.50	12.50

Electrical Characteristics

Max. DC Resistance conductor at 20°C	Ω/km	24.5	18.1	12.10	7.41	4.61
Min. insulation resistance	Ω/km	200	200	200	200	200
Max. recommended Current at 25°C	Amps	12	18	21	30	40
Max. operating voltage	Vrms	300/500	300/500	300/500	300/500	300/500

Miscellaneous

(Operating temperature (3h 950°C	°C	+105 / -40	+105 / -40	+105 / -40	+105 / -40	+105 / -40
(Operating temperature (3h 950°C	N	205	265	405	670	1250
(Min. bending radius (install	mm	75	78	87	99	120
Nominal cable weight	kg/km	67	75	100	143	201

BUS CABLES

Bus KNX/EIB IHSTH LSZH

TECHNICAL FEATURES

Conductor	Solid bare copper wire
Insulation	LSOH, flame retardant
Shield	Aluminum/Polyester 100% coverage
Drain wire	Tinned copper
Sheath material	LSOH, flame retardant, Green (RAL 6018)
Standards	IEC 60332-1 - IEC 60332-3-24
	EN 50363-0:2011 - EN 61034-2:2006
	EN 60754-1:2005 - EN 60754-2:2015
	EN 50090-2-2:2008
	CPR UNI EN 13501-6 class Cca
Core colors identification	black, red / yellow, white

APPLICATION

BUS cable, shielded, suitable for KNX/EIB
(European Installation Bus) Building Management Systems (BMS)
KNX systems, formerly known as EIB, allow the operation and control of heating, lighting and air condition among others, based on a twisted pair cable design and available in 1 or 2 pair.

SPECIAL FEATURES

Flame retardant CEI 20-35 / EN 60332-1
lead Free CEI 20-52

REMARKS

Conform to RoHS
CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC
Standard put up: 305 meters drums

Physical characteristics

ITALCOND part number		**ITAL355**	**ITAL356**
No. of pairs	num	1p	2p
Conductor size	mm2	0.5	0.5
Conductor	n.xmm	1x0.8	1x0.8
Drain wire size	mm	0.40	0.40
Drain wire	n.xmm	1x0.40	1x0.40
Nom. Diameter of copper conductor	mm	0.8	0.8
Insulation material	type	LSOH	LSOH
Nom. Radial Thickness insulation	mm	0.35	0.30
Shield	Yes/No	Yes	Yes
Individual shield	Yes/No	No	No
(Screen (braid	Yes/No	No	No
Sheath material	type	LSOH	LSOH
Overall diameter of conductor	mm	1.50	1.40
Nom. Radial sheath thickness	mm	1.00	1.20
Nom. overall outer diameter	mm	5.2	7.10

Electrical characteristics

Max. DC Resistance conductor at 20°C	**Ω/km**	**36.40**	**36.17**
Max. DC Resistance shield	Ω/km	78.5	78.5
(Max. Capacitance conductor to conductor (10kHz	pF/m	100	100
Max. Capacitance cond. to other cond. shield	pF/m	180	180
Nominal inductance	μH/m	0.7	0.7
Max. recommended Current at 25°C	Amps	4.0	4.0
Max. operating voltage	Vrms	300	300

Miscellaneous

Operating temperature	**°C**	**-25 / +70**	**-25 / +70**
Max. recommended pulling tension	N	262	391
(Min. bending radius (install	mm	51	60
Nominal cable weight	kg/km	35	52

HEADQUARTERS:
98 Hassan El Maamoun ST.,
Nasr City, Cairo, Egypt

FACTORY:
Plot No. 1 – Industrial Zone (7A)
10th of Ramadan, Egypt

Fax +202 2677 4254 / 56 / 59

marketing@tu-egy.com
info@tu-egy.com

FOLLOW US
@tebaunitedgroup

HOTLINE
17129