

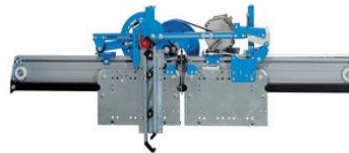
ELEVATORI NEL MONDO – ELEVATORS IN THE WORLD
COMPONENTI PER ASCENSORI - LIFT COMPONENTS

Dal 1985 – Since 1985

Specializzati nella fornitura di componenti per ascensori
Specialized suppliers of lift components



Argani per Elevatori
Gears for Elevators



Porte Automatiche
Automatic doors

Guide per Elevatori
Guide rails for Lifts



Funi metalliche
Metall ropes



Cavi piatti
Flat cables



Pistoni e Centraline
Jacks and power units



Cabina
Car



Quadro di manovra



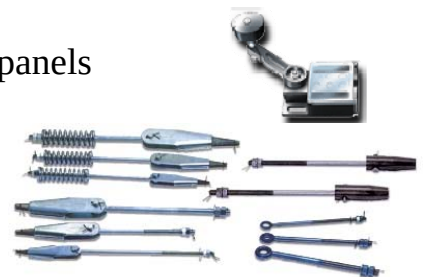
Limitatore di
Over speed



Velocità
governor



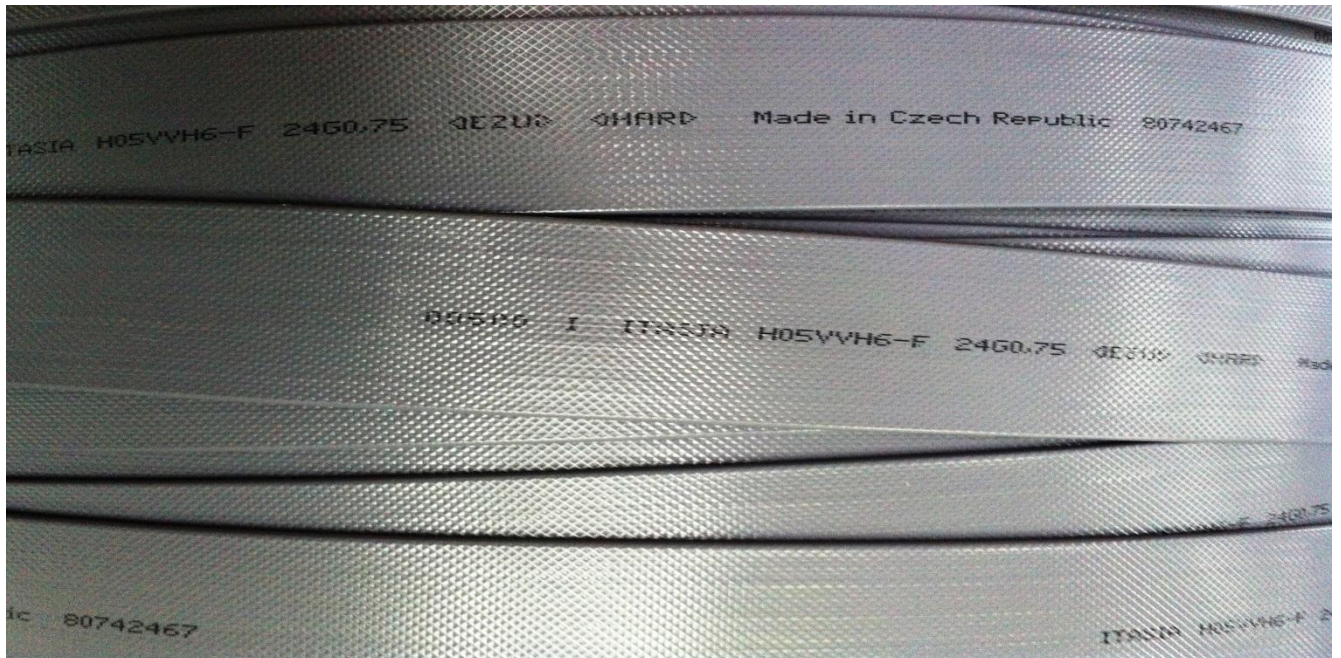
Control panels



ITASIA SRL.

VIA EMILIA 35 ROVELETO 29010 CADEO PIACENZA ITALY

TEL. + 39 0523 509927 – FAX + 39 0523 500218 – E.MAIL itasia@itasia.it www.itasia.it



HIGH QUALITY FLAT CABLE MADE IN CZECH
REPUBLIC EU





ASCENSORI, MONTACARICHI E COMPONENTI

Ascensori Elevators

H05VVH6-F

Cavo piatto per ascensore / Flat elevator cable
300/500 V

Norma di riferimento
EN 50214

Descrizione del cavo

Anima

Conduttore flessibile di rame rosso elettrolitico, classe 5, in accordo alla normativa EN 60228

Isolante

Isolamento con speciale PVC secondo HD 21.1

Colori delle anime

Le anime sono disposte in parallelo e ricoperte dalla guaina esterna.

La guaina non deve aderire alle anime.

- Anime bianche numerate + 1 giallo/verde, secondo la norma EN 50334.

- 6 anime: giallo/verde tra i numeri 2 e 3

- > 6 anime: giallo/verde tra i numeri 7 e 8

Guaina

Speciale PVC secondo HD 21.1, colore grigio, RAL 7000

Marcatura

ITASIA 07 H05VVH6-F (N*xS or NGS) mm²,
<EZU><HAR> Made in Czech Republic**

N*: Numero di conduttori

S:** Sezione nominale

Marcatura metrica progressiva

Conforme ai requisiti essenziali delle direttive

BT 2006/95/CE

Applicazioni

Cavi piatti per ascensori. Non idonei per installazioni all'aperto. Idonei per installazioni in cui la lunghezza massima di sospensione non superiori 35 metri

e la velocità di spostamento 1,6 m/s.

Temperatura di utilizzo -10 °C; +70 °C

Standard
EN 50214

Cable design

Core

Flexible electrolytic bare copper conductor, class 5 according to EN 60228

Insulation

Special PVC insulation according to HD 21.1

Core identification

The cores are laid in parallel and covered with the outer sheath.

The sheath shall not stick the cores.

- White cores numbered + 1 yellow/green, according to EN 50334.

- 6 cores: yellow/green between numbers 2 and 3

- >6 cores: yellow/green between numbers 7 and 8

Sheath

Outer sheath of special PVC according to HD 21.1, colour: grey RAL 7000

Marking

ITASIA 07 H05VVH6-F (N*xS or NGS) mm²,
<EZU><HAR> Made in Czech Republic**

N*: Number of conductors

S:** Cross-section

Progressive metric marking

Compliant with the requirements of the BT 2006/95/CE directives

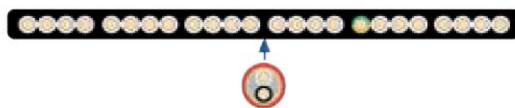
Applications

Cables for elevators. Not recommended for use outdoors. Recommended for installations where the freely suspended

length does not exceed 35 meters and the speed of travel does not exceed 1.6 m/s. Operating temperature -10 °C; +70 °C



ASCENSORI, MONTACARICHI E COMPONENTI



Ascensori Elevators

H05VVH6-F Cavo piatto per ascensore / Flat elevator cable 300/500 V

*number of cores cable dimensions
(n x mm2) (mm)*

	4,1 x 18,0 height x width
6 G 0,75 x nominal cross-section	
9 G 0,75	4,1 x 23,0
12 G 0,75	4,1 x 33,0
16 G 0,75	4,1 x 44,0
18 G 0,75 20 G 0,75	4,1 x 48,0 4,1 x 53,5
24 G 0,75	4,1 x 65,0
28 G 0,75	4,1 x 74,0
6 G 1 12 G 1	4,3 x 19,0 4,3 x 35,0
16 G 1	4,3 x 46,0
18 G 1	4,3 x 51,0
20 G 1	4,3 x 57,0
24 G 1	4,3 x 68,0

*maximum conductor approx. weight
("/km) (kg/km)*

26,0 resistance	140 of cable
26,0	205
26,0	265
26,0	350
26,0 26,0	390 430
26,0	515
26,0	590
19,5 19,5	160 300
19,5	395
19,5	440
19,5	495
19,5	590

I cavi piatti possono includere

Conduttori di potenza e segnale
Doppini schermati (Canbus)

Installazione dei componenti

Disponibili anche sistemi di sospensione per cavi piatti
con supporto e senza supporto

Sicurezza e performance certificate

I cavi per ascensore sono stati certificati secondo
la normativa EN 50214 e hanno ricevuto l'approvazione HAR

Flat cables can include

Power and signal conductors
Shielded pairs (Canbus)

Component installation

Suspension systems for flat cables are also
available both
with and without support

Certified Safety and Performance Systems

Cables for elevators have been certified according
to EN 50214 and they have been approved by HAR

OPTIONS AND COMPONENTS



ITASIA flat travelling cables are available in custom configurations. These can include:

- Steel-supported or high tensile non-metallic supporting members
- Specially formulated compounds for shielded data pairs meeting CANBUS impedance requirements
- Coaxial cable (75Ω) for CCT V monitoring or high resolution video
- Special color-coding and on-line marking for insulation and

jacketing

Unitized subgroups for configurations above 28 components

Optical multimode fiber components (OM2/OM3)

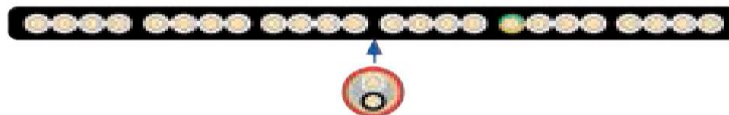
Multiple shielding types of aluminum and copper foil/braid/spiral

For any travelling speeds and heights including mining or panoramic elevators

Other international standards (UL/CSA /GBT)

0,75 or 1,0 mm² ? Data pairs or coax ? Steel support ?

PVC or HF? standard or high-impedance? Travelling speed... Hang length?



Connectorization

ITASIA can perform this to your specifications. Call for details.

Safety and performance are certified

ITASIA's flat cables have been certified EN 50214 compliant and have been earned their HAR approval. And manufacturing facility in the Czech Republic has earned both ISO 9001 and 14001 quality certification.

Installation components

ITASIA has in-stock hangers for both supported and unsupported flat cables



ASCENSORI, MONTACARICHI E COMPONENTI

Ascensori Elevators

05ZZH6-F Cavi piatti per ascensore, LSOH
(costruzione FRLSHF) / Flat elevator cables, halogen free
(FRLSHF design)
300/500 V

Standard
EN 50214 and PN

Cable design

Core

Flexible bare copper conductor, class 5
according to IEC 60228

Insulation

Polyolefin compound FRLSHF (halogen free)

Core identification

The cores are laid in parallel and covered with the outer sheath.

The sheath shall not stick the cores.

- White cores numbered + 1 yellow/green, according to EN 50334.
- 6 cores: yellow/green between numbers 2 and 3
- > 6 cores: yellow/green between numbers 7 and 8

Sheath

Polyolefin compound FRLSHF (halogen free), colour:
Grey RAL 7000

Marking

ITASIA 07 05ZZH6-F (N*xS or NGS) mm²**

N*: Number of conductors

S*: Cross-section

Progressive metric marking

Compliant with the requirements of the BT 2006/95/CE Directives

Applications

Cables for elevators. Not recommended for use outdoors. Recommended for installations where the freely suspended length does not exceed 35 meters and the speed of travel does not exceed 1.6 m/s.

Operating temperature -10 °C; +70 °C

Norma di riferimento
EN 50214 e PN

Descrizione del cavo

Anima

Conduttore flessibile di rame rosso, classe 5, in accordo alla normativa IEC 60228.

Isolante

Poliiolefina, miscela FRLSHF (senza alogeni)

Colori delle anime

Le anime sono disposte in parallelo e ricoperte dalla guaina esterna.

La guaina non deve aderire alle anime.

- Anime bianche numerate + 1 giallo/verde, secondo la norma EN 50334.
- 6 anime: giallo/verde tra i numeri 2 e 3
- > 6 anime: giallo/verde tra i numeri 7 e 8

Guaina

Poliiolefina, miscela FRLSHF (senza alogeni), colore grigio RAL 7000

Marcatura

ITASIA 07 05ZZH6-F (N*xS or NGS) mm²**

N*: Numero di conduttori

S*: Sezione nominale

Marcatura metrica progressiva

Conforme ai requisiti essenziali delle direttive BT 2006/95/CE

Applicazioni

Cavi piatti per ascensori. Non idonei per installazioni all'aperto. Idonei per installazioni in cui la lunghezza massima di sospensione non superiori 35 metri e la velocità di spostamento 1,6 m/s.

Temperatura di utilizzo -10 °C; +70 °C

PROVEN TO MEET THE PERFORMANCE STANDARDS

EN 50214 tests and standards

EN 50214 is a European standard maintained by CEN (European Committee for Standardization) and CENELEC. It specifies minimum parameters in nine categories (electrical performance, dimensional characteristics, mechanical properties, bending and impact resistance, etc.). To be used commercially, a flat travelling cable must meet EN 50214 standards.

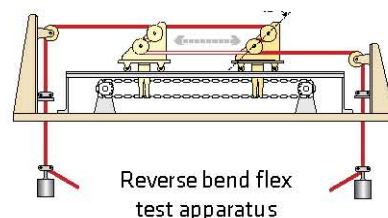
Complete EN 50214 Testing Results

Test	Requirement	Observed
Cable		
Cable Designation	H05VVH6-F	
Rated voltage	300/500volts	
Construction	24 conductors 0.75 mm ² stranded CU	
Electrical test		
1.1 Max resistance of conductors (ohms/km)	26	25.6
1.2 Voltage test of complete cable at 2000VAC	Pass	Pass
1.3 Voltage test on cores at 1500VAC	Pass	Pass
1.4 Minimum insulation resistance @70°C	0.011	1.05
1.6 Absence of faults	Pass	Pass
Constructional and dimensional characteristics		
2.1 EN 50214 compliance with constructional provisions		24 x 1.0 mm ²
2.2 Measurement of insulation thickness (mm) (min)	0.6	0.67
2.3 Measurement of web thickness (mm) (min)	0.5	0.85
Measurement of top thickness (mm) (min)	0.8	0.89
Measurement of bottom thickness (mm) (min)	0.8	0.94
Measurement of ends (mm) (min)	1.2	1.55
Mechanical properties of insulation		
3.1 Tensile before aging (N/mm ²) (min)	10	11.5
Tensile after aging (N/mm ²) (min)	10	11.4
Maximum variance	20%	0.80%
Elongation before aging (min)	150%	180
Elongation after aging (min)	150%	200
Maximum variance	20%	11.10%
3.2 Loss of mass (mg/cm ²) (max)	2 mg/cm ²	.25 mg/cm ²
Mechanical properties of sheath		
4.1 Tensile before aging (N/mm ²) (min)	10	12.5
Tensile after aging (N/mm ²) (min)	10	11.3
Maximum variance	20%	9.6%
Elongation before aging (min)	150%	250
Elongation after aging (min)	150%	210
Maximum variance	20%	16%
4.2 Loss of mass (mg/cm ²) (max)	2 mg/cm ²	.33 mg/cm ²
Pressure test at high temperatures		
5.1 Insulation (max)	50%	18%
5.2 Sheath (max)	50%	34%
Bending and impact test at low temperatures		
6.1 Bending test for insulation	No cracks	No cracks
6.2 Bending test for sheath	No cracks	No cracks
6.3 Elongation test for insulation @15°C (min)	30%	130%
6.4 Elongation test for sheath @15°C (min)	30%	87%
6.5 Impact for insulation	No cracks	No cracks
6.6 Impact for sheath	No cracks	No cracks
6.7 Unrolling at low temperature @ -20°C	1 minute	1 minute
Heat shock test		
7.1 Insulation	No cracks	No cracks
7.2 Sheath	No cracks	No cracks
Mechanical properties of complete cable		
8.1 Static flexibility (mm) (max)	700	304
8.2 Flexing test @400VAC	30,000	30,000
1500VAC after flexing	Pass	Pass
8.3 Adherence test between sheath and conductors (min)	3	18



EN 50214 Reverse Bend Flex Test

EN 50214 specifies a severe mechanical test for flat PVC sheathed flexible cables - the reverse bend flex test. In this test, the cable ends are weighted with 10 times the weight of a one meter sample. A pulley rig traverses a specified distance forcing the cable sample into a moving reverse bend. Current is applied to each conductor so that if a conductor opens, the flexing operation will stop.





All of our cables are compliant with EN 50214 standards

N° Conductors	Max Travel [Mt]	Conductor's Resistance Ω /Km	Cable Nom. Dim. AxL [mm]	Cable Weight
6x0.75 mm ²	46	26.0	4.1 x 18.0	140
9x0.75 mm ²	46	26.0	4.1 x 23.0	205
12x0,75 mm ²	46	26.0	4.1 x 33.0	265
16x0,75 mm ²	46	26.0	4.1 x 44.0	350
18x0,75 mm ²	46	26.0	4.1 x 48.0	390
20x0,75 mm ²	46	26.0	4.1 x 53.5	430
24x0,75 mm ²	46	26.0	4.1 x 65.0	515
28x0,75 mm ²	46	26.0	4.1 x 74.0	590
6x 1.0 mm ²	46	19.5	4.3 x 19.0	160
9x 1.0 mm ²	46	19.5	4.3 x 35.0	300
12x 1.0 mm ²	46	19.5	4.3 x 46.0	395
16x 1.0 mm ²	46	19.5	4.3 x 46.0	440
18x 1.0 mm ²	46	19.5	4.3 x 57.0	495
20x 1.0 mm ²	46	19.5	4.3 x 68.0	590



H05VVH6-F 20G0,75

flat elevator travelling cable

material code

20122829



Construction

C07	Conductor 0,75 mm²	flexible stranded copper class 5
I07	Insulation	special PVC compound according to EN 50363-3 TI 2
	Groups	elements lying closely side by side
RIC	Ripcord	for removing sheath material
	Separation	talcum for elements - sheath separation
STH	Sheath	special PVC compound according to EN 50363-4-1 TM 2 grey sim. to RAL7000 surface without knurling

Cores identification

	without green-yellow (x)	with green-yellow (G)
4	BU-BN-BK-GY	BK-GY-GN-YE-BN
5	BU-BN-BK-GY-BK	BK-GY-GN-YE-BU-BN
6	white insulation with black numbers	white insulation with black numbers + green/yellow between numbers 2 and 3
>6	white insulation with black numbers	white insulation with black numbers + green/yellow between numbers 7 and 8

Standards

According to EN 50214

Cable marking

meter mark ITASIA H05VVH6-F 20G0,75 <EZU> <HAR> *order number* Made in Czech Republic (EU)

Application

Flat, flexible travelling cable for use in passenger and goods lifts (elevators).

Electrical data

Element	Rated Voltage U0/U V	Test voltage Core-Core V	Test voltage Core-Screen V	Resistance Ω /km	Char. Impedance (@100kHz) Ohm $\pm 15\%$
Power cores 0,75 mm ²	300/500	2000	-	26,00	-

Technical specification

Maximum Suspension Length m	Free Cable Net Weight (approx.) kg/km	Maximum Travelling Speed m/s	Cable Dimensions W H (approx.) mm		Operating temp. min. max. °C		Standard Length m
35	430	1,6	53,5	4,1	-15,0	70,0	500

Notes

H05VVH6-F

flat elevator travelling cable



Construction

Conductor Insulation

flexible stranded bare copper class 5 acc. to EN 60228
special PVC compound according to EN 50363-3 TI 2
PE or PP for signal pairs

Layout

cores lay in parallel groups
twisted signal pairs lay in the middle

Shield

copper braid screen (C) or aluminium laminated pet foil (ST)
over signal pairs

Separation Sheath

talcum for elements - sheath separation
special PVC compound according to EN 50363-4-1 TM 2
grey similar to RAL7000
surface with knurling

Cores identification

cores	without green-yellow (x)	with green-yellow (G)
4	BU-BN-BK-GY	BK-GY-GNYE-BN
5	BU-BN-BK-GY-BK	BK-GY-GNYE-BU-BN
6	white insulation with black numbers	white insulation with black numbers + green/yellow between numbers 2 and 3
>6	white insulation with black numbers	white insulation with black numbers + green/yellow between numbers 7 and 8

Cable marking example

meter mark ITASIA H05VVH6-F 24G1 vEZUw vHARw *order number*

Made in Czech Republic (EU)

Repeated without meter mark in half of meter

Application

Flat, flexible travelling cable for use in passenger and goods lifts (elevators).
Recommended to use indoors.

Electrical data

Element	Rated Voltage U0/U V	Test voltage Core-Core V	Resistance single conductor Ω/km
Power cores 0,75 mm ²	300/500	2000	26,0

Technical specification

Maximum Free Suspension Length m	Maximum Travelling Speed m/s	Natural loop (Static Flexibility) mm	Operating temp. min. max. °C	Minimum bending radius	Standards
45	4,0	< 700	-15,0 70,0	25 x cable height	EN 50214

Part Number	Cable Construction number of cores x nominal cross-section	Cable Dimensions height x width	Cable Net Weight (approx.) kg/km	Impedance signal pair Ω	Standard Length m
20161415	12 G 0,75	4,1 x 33,0	265	-	1000
20134874	20 G 0,75	4,1 x 53,5	430	-	500
20122829	24 G 0,75	4,1 x 65,0	515	-	500
20166641	24 G 0,75 + 2x (2x0,5)C	5,4 x 74,0	715	80	500

Notes

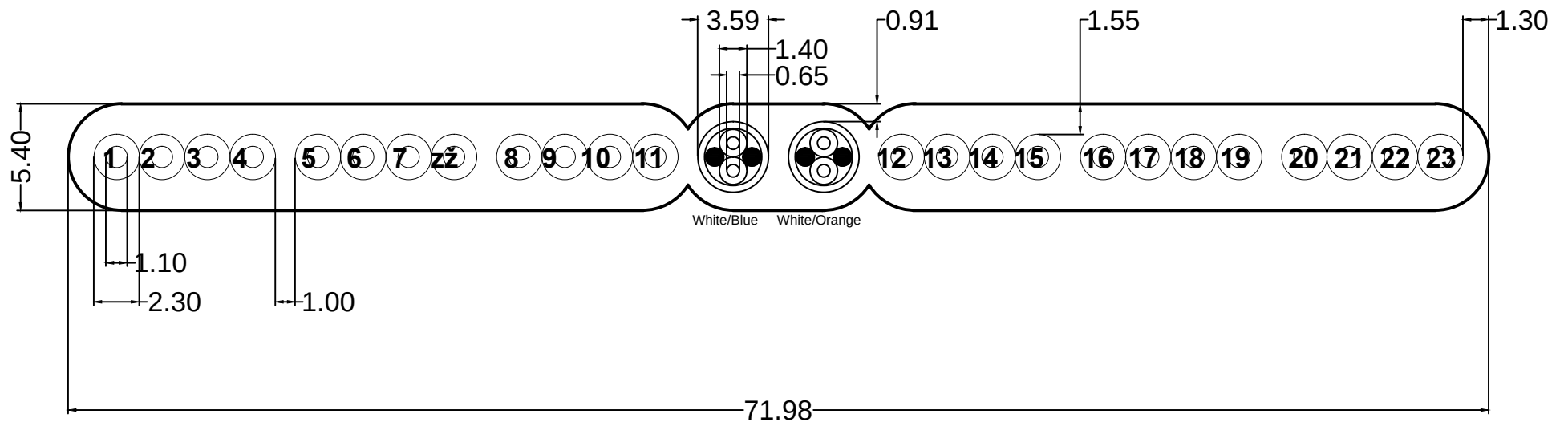
REV

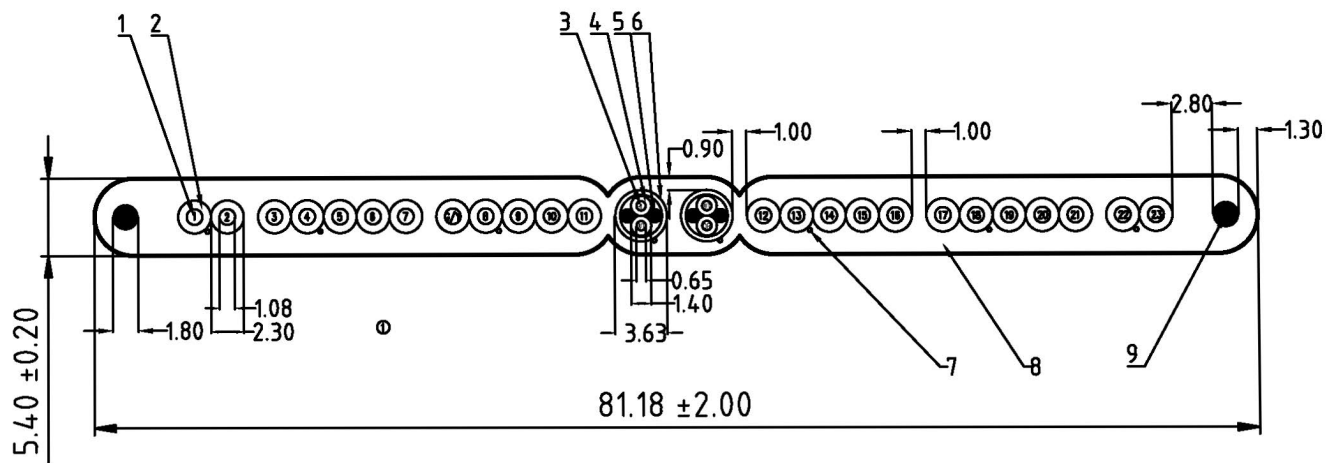
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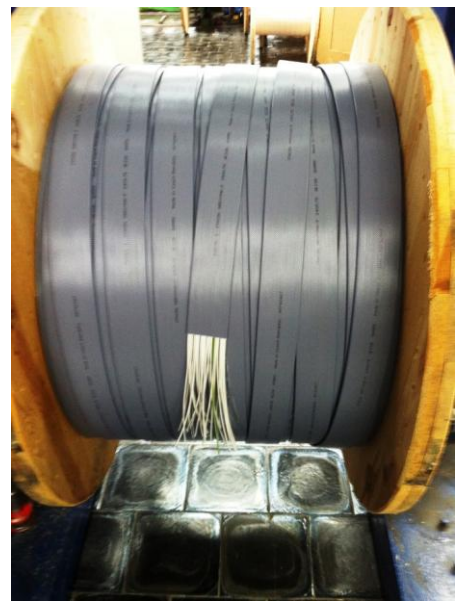


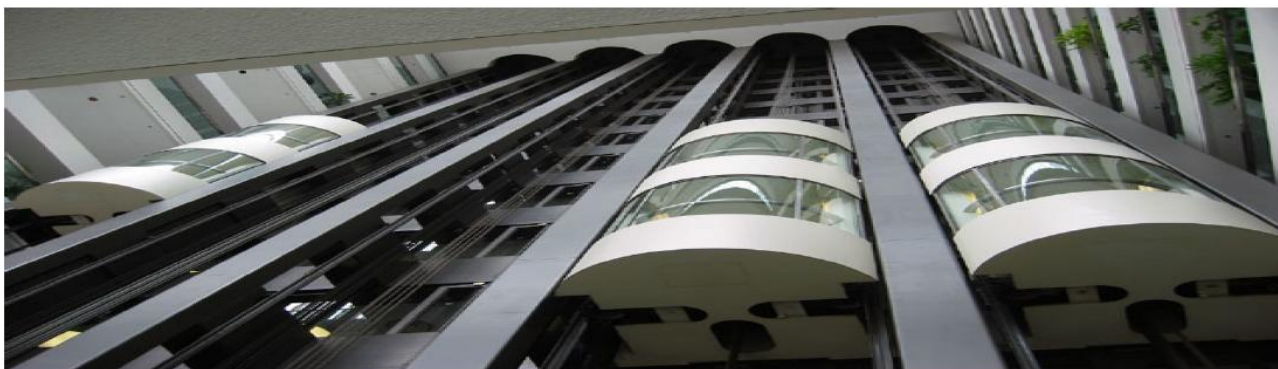


24x0,75+2(2x0,5)









ITASIA CO. was established in 1985 .

*IT S OBJECTIVE IS TO SUPPLY ELEVATOR PART AND FULL ELEVATORS IN
DIFFERENT CAPACITIES AND SPEEDS IN COMPLANCE WITH EUROPEAN
STANDARDS.*

*OUR EXPERIENCE FOR THE PAST 29 YEARS ENABLE US TO PLAY AN EFFECTIVE
ROLE IN THE EXPORT OF VERTICAL TRANSPORT SYSTEMS.*

We use the must advanced algorithm in our state- of- the - art design technology

*COMFORT, **SAFE**, RELIABILITY*

ITASIA elevators has developed a compact desing and very smooth speed elevators.



ASCENSORI, MONTACARICHI E COMPONENTI

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