



BUSBAR TRUNKING SINCE 1959

COMPLETE RANGE OF BUSBARS

FROM 25A - 6300A



Graziadio have been making busbar trunking in Italy since 1959, and the business was originally founded by Antonio Graziadio. The company continued to expand its sales and product ranges within the Italian markets up until 1990's

As the new millennium approached, the business expanded further into overseas markets, including the UK. As these markets developed, an additional automated factory was opened in 2005 dedicated to the production of GLS lighting busbar, taking the total facilities up to 84,000 sq ft.



Today, overseas sales account for more than half of the company's turnover, and they supply approximately 55 countries around the world. Graziadio now manufacture a complete range of busbar from 25A for lighting to 6300A for more specialist applications.

The company success has been build on product development, more flexible manufacturing schedules and the more personal service associated with an independent business.

A NOSTRA STORIA OUR HISTORY

1959 Fondazione
Incorporation

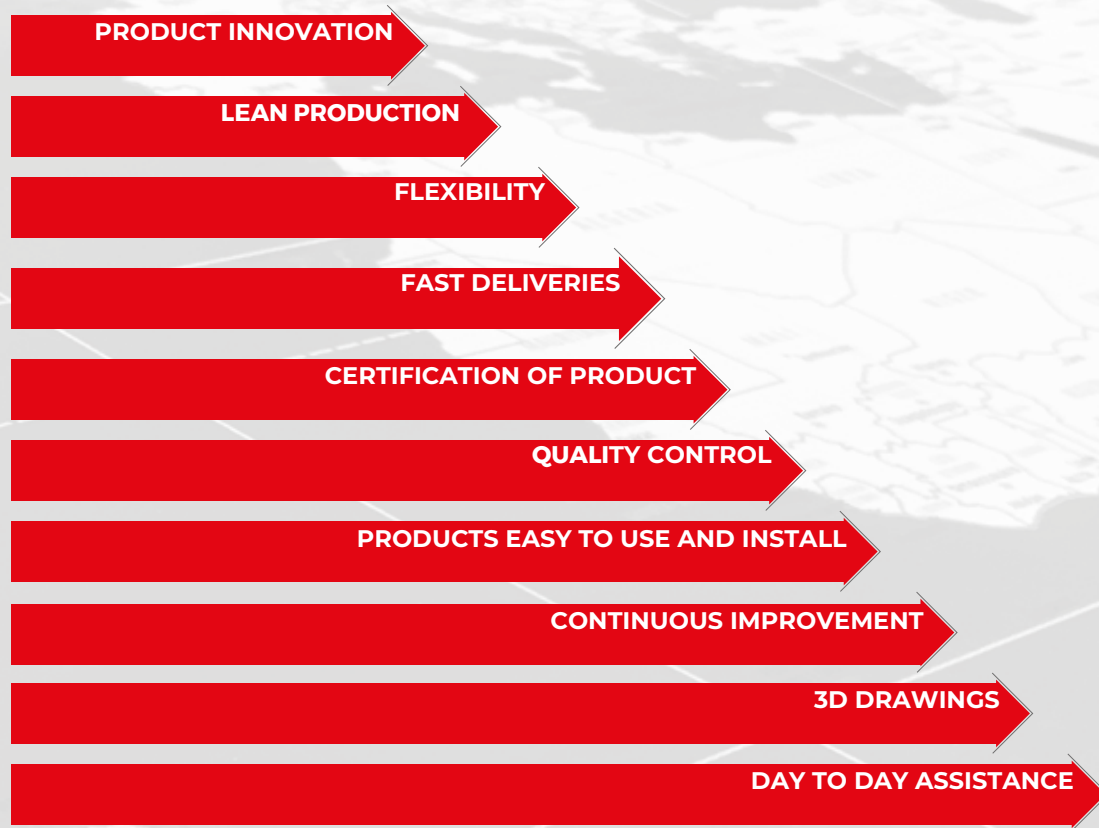
1971 Nuovo stabilimento in Rivoli
New Factory in Rivoli

1999 Produzione GDA
GDA Production

2001 Produzione GLS
GLS Production

2005

AREAS OF STRENGTH



OUR MISSION

Graziadio & C. is an Italian company with decades of experience in the production of busbars.

The simplicity of the approach and the dynamic adaptation to the demands of the market, national and international, allow the creation of products that best provide solutions to installations in terms of distribution and transport of electricity.

The purpose is to create high performance products through continuous improvement utilising the latest best practice and skill. Equally important, is to provide outstanding customer service before, during and after the point of sale.

Nuovo stabilimento in Carrù (CN)
New Factory in Carrù (CN)

2008 Export oltre il 50%
Export more than 50%

2016 Produzione K Series
K Series production

2017 Nuovo stabilimento in Russia
New factory in Russia

2019 Produzione J Series
J Series production

CERTIFICATIONS

OUR FACTS

Capital Stock
775.500 €
 Custom code HS
85369001
 Quality certification
ISO 9001:2015 since 1986
 Metres delivered per year
68.317
 Projects delivered
25.526
 Export
58%



Before any product is introduced to market, we conduct full testing in our laboratory as well as instructing independent tests via third party providers.

At Graziadio, we are constantly reviewing products and company processes to adapt to the technical and quality regulations established to international and national level.

The Quality system is certified and it is also recognised in Europe.

The ISO9001:2015 certification is a source of particular satisfaction for Graziadio because it was the first granted to an Italian busbar manufacturer.



RECYCLE

Made of 98% recyclable, environment-friendly components.



CONFINDUSTRIA
Piemonte



ALUMINIUM VS STEEL

GRAZIADIO USES ALUMINIUM HOUSING FOR ALL BUSBAR SYSTEMS, DUE TO ITS QUALITY AND PERFORMANCE IN COMPARISON TO STEEL

WEIGHT

ALUMINIUM IS 30% LIGHTER. IT ALLOWS PRODUCTION OF STRAIGHT ELEMENTS IN 4 METERS INSTEAD OF THE 3 METER LENGTHS OFFERED BY MOST OF OUR COMPETITORS. THIS MEANS FEWER JOINTS AND FASTER INSTALLATION.

HEAT DISSIPATION

No derating at 43° ambient temperature

CORROSION RESISTANT

Longer life cycle than steel

CONDUCTIVITY

Essential in ensuring electrical applications and safety in case of short circuit.

MODERN ASPECT AND DESIGN

Aluminium is used by Audi, Apple..



4 REASONS TO CHOOSE GRAZIADIO

01 EASY TO DRAW

Blindocad is the software integrated in Autocad to allow for designs to be created for the complete range of Graziadio busbars.

02 QUICK TO INSTALL

The system is installed with only a few components and once mounted puts both cable management system and conductors in place, saving time against traditional methods.

03 FLEXIBLE

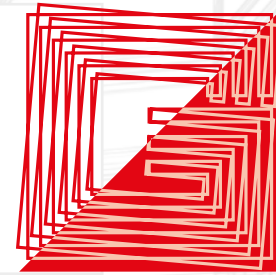
With tap off outlets spaced every 1 metre, it is a product that is adaptable to changes. Need an additional light? Just buy a tap off box, cable to the fitting and plug it in!

04 SAFE AND LEAN

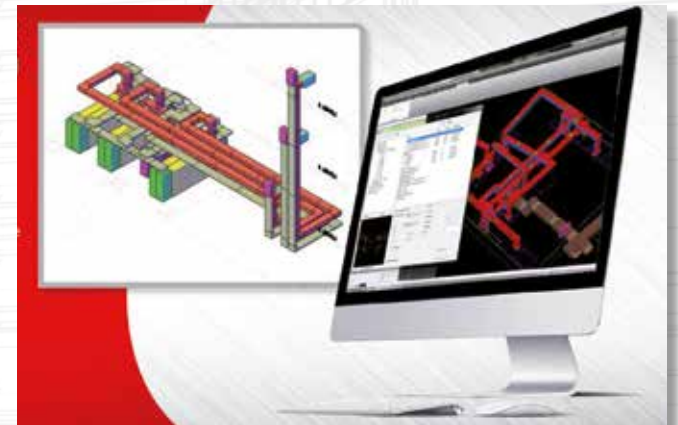
100% of the elements are manufactured in line with the "**Lean Production**" principles.

BUSBARS

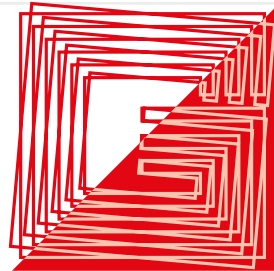
This allows the execution in 2D and 3D, for all products including straight elements, tap off boxes and feed units. Download it for free at www.graziadio.it



Also, the limited number of joints provides 25% time saving in assembly against our competitors products. No special tools are required for installation.



Need to alter the layout of your factory in line with production demands? Just unplug your machinery, move it, plug it in elsewhere!



All components are tested in accordance with international IEC standards. The fire load is reduced and the insulating parts are self-extinguishing.



APPLICATIONS

Our busbars are installed in more than 55 countries worldwide

The complete range of Graziadio busbars have met international requirements since 1959. Due to the technology developed in this time, we have products suitable for installation in any latitude or climatic condition as well as chemically aggressive environments and structurally complex plants. Thanks to the support of our experienced technicians and well structured sales team dedicated to the customer, collaboration between both departments allows Graziadio to offer quick, decisive and competitive solutions.



Steelworks



Food Industry



Automotive



Power station



Shopping Centre



Chemical Factory



Industrial



Oil & Gas



Textile Industry



Data Centre



Hospital



Telecommunication



Hotel



Transport



Public Offices












University



Glass Factory

BUSBAR RANGE

KEY TECHNICAL INFORMATION

	GLS	J SERIES	GDA	ISOLSBARRA	K SERIES	GMT	ISOLFLEX	MULTI CONDUCTOR	PRODUCTOR
									
Nominal Current	25 - 63 A	63 - 160 A	63 - 2500 A	630 - 6300 A	1000 - 5000 A	800 - 5000 A	800 - 6300 A	50 - 300 A	50 - 400 A
Type	Lighting	Distribution	Distribution	Transport	Transport	M.V. transport	Flexibles	Trolley	Trolley
Operational Voltage	400 V	690 V	690 V	1000 V	1000 V	3,6/24 kV	1000 V	500 V	500 V
Insulation Voltage	1000 V	1000 V	1000 V	1000 V	1000 V	3,6/24 kV	1000 V	750 V	750 V
Conductors Material	CU	AL	AL/CU	AL/CU	AL/CU	AL/CU	AL/CU	CU	CU
Number of conductors	2 - 4 - 6 - 8	5	4 - 5	2 - 3 - 4 - 5	4 - 5	3	4 - 5	3 - 4 - 5 - 6 - 7	2 - 10
Neutral cross section	100%	100%	100%	50% 100% 200%	100%	--	50% 100% 200%	50% - 100%	50% - 100%
PE cross section	> 100%	> 100%	> 100%	Up to 100%	> 100%	> 100%	Up to 100%	50% - 100%	50% - 100%
Housing Material	AL	AL	AL	AL/INOX	AL	AL/INOX	--	PVC	PVC
Plug in points?	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes
Maximum tap off	32 A	63 A	1600 A	2000 A	2000 A	--	--	200 A	125 A
Max I _{cw} for 1s	3,2 kA (0,1s)	10 kA	60 kA	240 kA	240 kA	70 kA	240 kA	--	--
Max peak I _{cw}	4,8 kA	20 kA	126 kA	500 kA	500 kA	154 kA	500 kA	--	--
IP protection degree	55	40/55	50/55	42/66/68	42/55	55/66/68	--	23/44	23

GLS 25-40-63 A



Lighting Busbar

ADVANTAGES

- Stocked in UK
- Corrosion resistant
- Easy and fast to install
- Minimal dimensions
- Lightweight
- Tap off outlets every 1m



IP55

Certified with:

CEI EN 61439-1/6

IEC 61439-1/6

CEI EN 60529



Main technical features

- Aluminium external housing
- Copper conductors ETP 99.9
- Standard 3 metre lengths
- Available in 2, 2+2, 4, 6 & 8 pole
- Emergency divisor for 2+2, 6, 8 pole
- Fast jointing system
- Tap offs screw in place securely
- Possible to use with DALI
- No derating up to 41° C
- Frequency: 50/60 Hz
- Insulation voltage: 1000 V

Nominal current	I _n	[A]	25	25	25	25	40	40	40	40	63
Dimensions	D	[mm]	26x46	26x46	26x87	26x87	26x46	26x46	26x87	26x87	26x87
Execution			2P	4P	6P	8P	2P	4P	6P	8P	4P
Cross section of PE	S _{PE}	[mm ²]	144	144	246	246	144	144	246	246	246
Losses for the Joule effect at nominal current	P _i	[W/m]	18,7	18,7	18,7	18,7	30,0	30,0	30,0	30,0	33,2
Rated short circuit time current	I _{cw} (0,1 s)	[kA]	2,5	2,5	2,5	2,5	3,2	3,2	3,2	3,2	3,2
Peak Current	I _{pk}	[kA]	3,75	3,75	3,75	3,75	4,8	4,8	4,8	4,8	4,8
IP Protection Degree	IP		55	55	55	55	55	55	55	55	55
VOLTAGE DROP WITH DISTRIBUTED LOAD [ΔV]											
cosφ = 0,8		[V/100 m/A]	0,6988	0,6988	0,6988	0,6988	0,4393	0,4393	0,4393	0,4393	0,1973

Data sheet for 2+2P available on request



J SERIES 63-100-160 A



Low Power Busbar

ADVANTAGES

- Five conductors with dedicated PE
- Lightweight and compact design
- Quick to install
- IP40/IP55 options



Certified with:
CEI EN 61439-1/6
IEC 61439-1/6
CEI EN 60529



Main technical features

- Aluminium external housing
- Aluminium conductors
- Standard 3 metre lengths
- Tap off boxes 32A and 63A
- Neutral always 100%
- Protection degree up to IP55
- Suitable for horizontal or vertical installation
- Frequency: 50/60 Hz
- Insulation voltage: 1000 V

Nominal Current	I_n	[A]	63	100	160
Dimensions	D	[mm]	100x43	100x43	100x43
Cross section phases	S_f	[mm ²]	23	36	58
Cross section of PE	S_{PE}	[mm ²]	450	450	450
Rated short circuit time current 1s	I_{cw}	[kA]	6	6	6
Peak current	I_{pk}	[kA]	10,2	10,2	10,2
Calorific power		[kcal/m]	893	893	893
Losses for the Joule effect at nominal current	P_i	[W/m]	14,2	22,9	40,4
IP Protection Degree		IP	40/55	40/55	40/55
VOLTAGE DROP WITH DISTRIBUTED LOAD [ΔV]					
cosφ = 0,8		[V/100 m/A]	0,864	0,422	0,202



GDA 63-2500 A



Plug-in Busbar

ADVANTAGES

- Quick assembly without requirement of special tools
- Suitable for horizontal or vertical installation (rising main)
- Low costs to expand production lines later with addition of tap off boxes
- Tap off boxes available from 32A to 1250A
- Designed, manufactured & shipped in as little as 4 weeks



IP55

Certified with:
CEI EN 61439-1/6
IEC 61439-1/6
CEI EN 60529



Main technical features

- Aluminium housing
- Aluminium (GDA) and copper (GDR) conductors
- IP50 / IP55 protection degree available
- 4m standard straight lengths (shorter lengths available)
- 100% neutral
- GDA4 - PE housing with section > phase
- GDA5 - Dedicated PE conductor in aluminium
- Tap off outlets both sides on 250A and above
- Tap off boxes can be plugged in while busbar live
- Frequency: 50/60Hz
- Insulation voltage: 1000 V

Nominal current	I_n	[A]	63	100	160	250	400	500	630	800	1000	1250	1600	2000	2500
Dimensions	D	[mm]	191x45	191x45	191x45	191x65	191x65	191x94	191x94	191x94	191x94	191x145	191x145	191x270	191x270
Cross section of phases	S_f	[mm ²]	25	35	56	116	281	380	500	600	700	1000	1178	1750	2000
Cross section of PE	S_{PE}	[mm ²]	943	943	943	1083	1083	1232	1232	1232	1232	1780	1780	1952	1952
Rated short circuit time current	I_{cw}	[kA]	5	5	8	13	27	29	33	35	40	42	50	50	50
Peak current	I_{pk}	[kA]	10,5	10,5	12	26	57	61	70	77	84	92	110	110	110
IP Protection Degree		IP	50/55	50/55	50/55	50/55	50/55	50/55	50/55	50/55	50/55	50/55	50/55	50/55	50/55
Losses for the Joule effect at nominal current	P_j	[W/m]	15,3	27,5	44	48,9	53,7	54	77,4	99,2	144,0	140,6	199,7	240	338
VOLTAGE DROP WITH DISTRIBUTED LOAD [ΔV]															
cosφ = 0,8		[V/100 m/A]	0,0832	0,0610	0,0403	0,0251	0,0126	0,0080	0,0078	0,0068	0,0064	0,0043	0,0043	0,0025	0,0024

On request, we can provide data sheets for GDR with copper conductors



ISOLSBARRA 630-6300 A



Power busbars

ADVANTAGES

Available in different IP degrees

IP42 Standard solution, ideal for indoor installation

IP66 Outdoor installations in humid or dusty locations

IP68 Suitable up to 5 metres under water



IP66



IP68

Certified with:

CEI EN 61439-1/6

IEC 61439-1/6

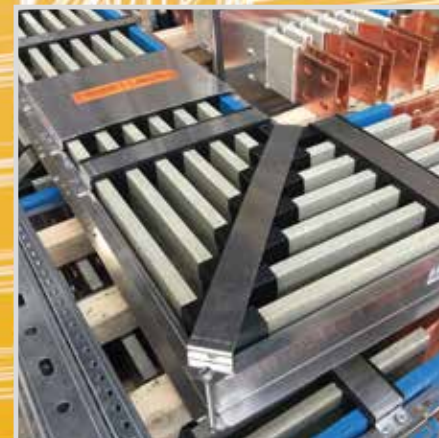
CEI EN 60529

Main technical features

- Fully insulated conductors
- Aluminium or copper conductors
- Protection degree IP42-IP66-IP68
- Suitable for indoor and outdoor installation
- 4 Metres standard straight lengths
- Neutral up to 200%
- Protective conductor up to 200%
- Compact dimensions
- Low impedance system
- Tap off points on request
- Frequency: 50/60Hz
- Insulation voltage: 1000 V

Nominal current	I_n	[A]	630	800	1000	1250	1600	2000	2500	3200	4000	5000
Cross Section Phase	S_f	[mm ²]	450	500	690	800	1000	1380	2000	2400	3000	4000
Cross section neutral (100%)	S_n	[mm ²]	450	500	690	800	1000	1380	2000	2400	3000	4000
Cross section of PE	S_{PE}	[mm ²]	456	456	456	456	456	456	456	456	456	456
Rated short circuit time current	I_{cw}	[kA]	33	33	33	80	80	90	100	140	150	150
Peak current	I_{pk}	[kA]	73	73	73	176	176	198	220	308	330	330
IP protection degree	IP		42/66/68	42/66/68	42/66/68	42/66/68	42/66/68	42/66/68	42/66/68	42/66/68	42/66/68	42/66/68
Losses for the Joule effect at nominal current	P_j	[W/m]	60,0	120,4	121,8	183,8	240,8	272,8	294,0	402,6	500,0	525
VOLTAGE DROP WITH END LOAD [ΔV]												
Co $\sin\varphi$ = 0,8		[V/100 m/A]	0,0127	0,0134	0,0112	0,0104	0,0094	0,0054	0,0044	0,0032	0,0028	0,0025

On request data sheets can be provided for ISOLSBARRA with copper conductors



K SERIES 1000-5000 A



Power and plug-in sandwich type

ADVANTAGES

- Compact Dimensions
- Better heat dissipation
- Risk of raised temperature reduced
- Easy to mount



Certified with:
CEI EN 61439-1/6
IEC 61439-1/6
CEI EN 60529



Main technical features

- "Sandwich type compact aluminium/copper conductors
- Insulated conductors with halogen free double plastic film
- Junction between sections using monoblock joint
- Available from IP42 - IP55
- Can be installed horizontally or vertically
- Aluminium housing used as the PE protective conductor
- Black paint finish increases the dissipation of heat along the line
- Frequency: 50/60 Hz
- Insulation voltage: 1000 V

Nominal current	I_n	[A]	1000 A	1250 A	1600 A	2000 A	2500 A	3200 A	4000 A	5000 A
Dimensions	D	[mm]	129 x 150	129 x 150	129 x 150	129 x 280	129 x 280	129 x 280	129 x 560	129 x 560
Weight		[kg/m]	14	15	19	22	28	31	45	59
Cross section of PE	S_{PE}	[mm ²]	1696	1696	1696	2540	2540	2540	4800	4800
Rated short circuit time current	I_{cw}	[kA]	72	77	77	80	90	90	308	308
Peak current	I_{pk}	[kA]	158	169	169	176	198	198	677	677
Degree of protection IP		IP	IP42/IP55	IP42/IP55	IP42/IP55	IP42/IP55	IP42/IP55	IP42/IP55	IP42/IP55	IP42/IP55
Losses for the Joule effect at nominal current	P_j	[W/m]	183	253	285	362	491	645	629	585
VOLTAGE DROP WITH END LOAD [ΔV]										
$\cos\varphi = 0,8$		[V/100 m/A]	0,0097	0,0089	0,0066	0,0051	0,0044	0,0037	0,0022	0,0014

On request data sheets can be provided for K SERIES with copper conductors



GMT 3,6-24 kV



Medium voltage busbars

ADVANTAGES

- Ideal for use in large Oil & Gas plants
- Corrosion resistant housing
- Outdoor installation
- Easy to install and maintenance free



IP55



IP68

Certified with:

CEI 62271-1/200
CEI EN 60529



Main technical features

- Aluminium external housing
- Copper conductors ETP 99.9
- Aluminium conductors
- Available in IP40 - IP68
- Cast resin insulation (optional)
- Insulation up to 24 kV
- Segregated phases available on request
- Nominal current up to 9000A

Nominal current	I_n	[A]	800	1250	1600	2000	2500	3200	4000	4500	5000
Dimensions		mm x mm	264 182	264 182	264 182	264 356	264 356	264 356	264 400	670 360	670 360
Weight		kg/m	21	27	32	50	61	72	85	248,8	282,2
Insulation voltage		[kV]	12	12	12	12	12	12	12	12	12
Operational voltage		[kV]	12	12	12	12	12	12	12	12	12
Conductors material			CU	CU	CU	CU	CU	CU	CU	CU	CU
Phase resistance (20°C)	R_{t1}	[mΩ/m]	0,0425	0,0283	0,0213	0,0142	0,0106	0,0085	0,0071	0,0047	0,0043
Phase reactance	X	[mΩ/m]	0,063	0,063	0,063	0,066	0,066	0,066	0,061	0,0125	0,0129
Phase impedance (20°)	Z_{20}	[mΩ/m]	0,0760	0,0691	0,0665	0,0675	0,0668	0,0665	0,0614	0,0126	0,0130
Phase section	S_F	[mm²]	400	600	800	1200	1600	2000	2400	3600	4000
Rated short circuit withstand current triphase (1s)	I_{cw}	[kA]	20	25	25	60	65	70	70	70	100
Losses for the Joule effect at nominal current	P_J	[W/m]	91,2	148,3	182,9	190,5	222,2	291,9	368	702,1	704,0

On request data sheets can be provided for 3.6 - 7.2 - 17.5 - 24 kV



MULTICONDUCTOR 50-3



Trolley

ADVANTAGES

- Continuous conductors
- Long life span of carbon brushes
- Control and data transfer
- Unlimited track lengths
- High travel speeds



IP44

Certified with:
CEI EN 61439-1/6
IEC 61439-1/6
CEI EN 60529



00 A

Main Technical features

- Trolley system for cranes, automation, greenhouses, cutting textile, building maintenance units
- Rating 50A, 80A, 100A, 150A, 200A, 300A
- PVC housing with space for up to 7 uninterrupted conductors
- Can be installed at any height
- Low voltage drop
- High transfer speed up to 250 m/min
- Ideal for signal transmission
- Low maintenance

Nominal Current (A)	Conductors	CODE RN7	CODE RNHS7
50	4	RN7-4-50	RNHS7-4-50
50	5	RN7-5-50	RNHS7-5-50
50	6	RN7-6-50	RNHS7-6-50
50	7	RN7-7-50	RNHS7-7-50
80	4	RN7-4-80	RNHS7-4-80
80	5	RN7-5-80	RNHS7-5-80
80	6	RN7-6-80	RNHS7-6-80
80	7	RN7-7-80	RNHS7-7-80
100	4	RN7-4-100	RNHS7-4-100
100	5	RN7-5-100	RNHS7-5-100
100	6	RN7-6-100	RNHS7-6-100
100	7	RN7-7-100	RNHS7-7-100
150	4	RN7-4-150	RNHS7-4-150
150	5	RN7-5-150	RNHS7-5-150
150	6	RN7-6-150	RNHS7-6-150
150	7	RN7-7-150	RNHS7-7-150
200	7 (2X3F+1PE)	RN7-4-200	RNHS7-4-200
300	7 (2x3F+1PE)	RN7-4-300	RNHS7-4-300
DATI TECNICI PROFILO PORTANTE • TECHNICAL DATA HOUSING			
Notch shock strength		5 - 10 kJ/m ²	
Elasticity module		2500/3000 N/mm ²	
Linear expansion		70 · 10 ⁻⁶ m/m/°C	
Volumetric resistance		>4 · 10 ¹⁵ Ω/cm	
Dielectric rigidity		>30 kv/mm	
Self-extinguishing		UL 94 V0	



A wireframe illustration of a city street with tall buildings on both sides, rendered in glowing orange lines against a dark red background. The perspective is from a low angle looking down the street.

FOCUS ON BUSBARS

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