



*ISOLATORI PASSANTI A NORME UNEL
UNEL STANDARD COMPLETE BUSHINGS WITH INSULATORS*

Capitolo 3

Chapter 3

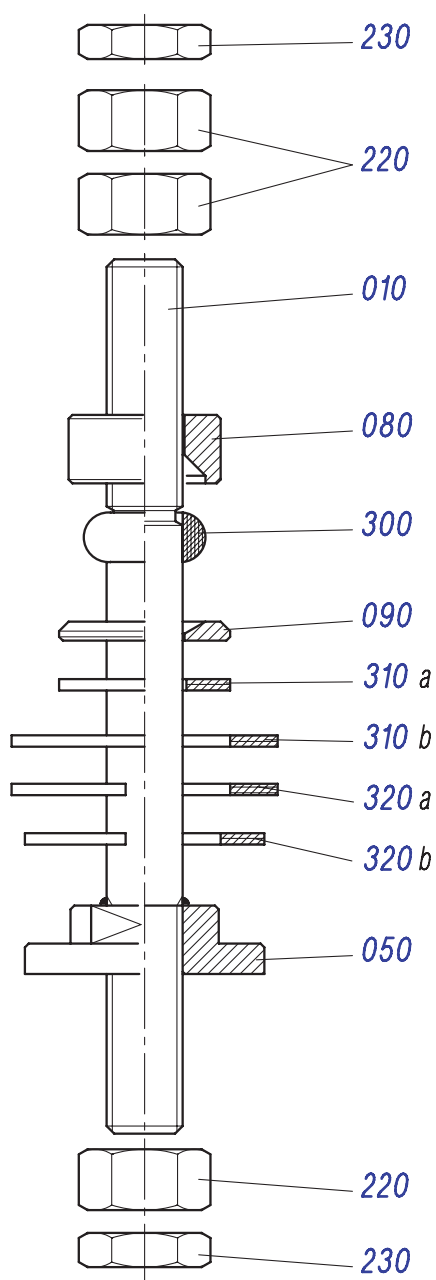


Cod. A01.U

Passanti per isolatori per trasformatori - UNEL 38128-67
Tensione nominale fino a 1 K V - 200 ÷ 630 A

Pass connections for insulators of UNEL 38128-67 transformers
Nominal Voltage until 1 kV - 200 ÷ 630 A

CODICE/CODE	A01012000U	A01020000U
CLASSE/CLASS	1 kV - 200 A	1 kV - 630 A



Rif.Pos.	Q.tà	Descrizione	Codice / Code	
Pos.refer.	Q.ty	Description	1 kV 200 A	1kV 630 A
010	1	Bullone passante Connecting bolt	A01012001U	A01020001U
050	1	Ghiera Ring nut	A01012002	A01020002
080	1	Rosetta a 90° Washer 90°	A01012S03	A01020S03
090	1	Rosetta a 120° Washer 120°	A01012S04	A01020S04
220	3	Dado medio Nut	A01012005	A01020005
230	2	Dado basso Nut	A01012006	A01020006
300	1	Guarnizione semitonda Half-round gasket	A01012008	A01020008
310a	1	Guarnizione piana Flat gasket	A01012009	A01020009
310b	1	Guarnizione piana Flat gasket	A01012010	D01020010
320a	1	Guarnizione con taglio Cutted gasket	A01012011	A01020011
320b	1	Guarnizione con taglio Cutted gasket	A01012012	A01020012

Rif.Pos.: Dettagli nella sezione componenti
Pos. refer.: Details in the components sections

Nota/Note:

Riferimenti degli assemblati :

- 010+050 = 400

Assembling Reference:

- 010+050 = 400



3 - Passanti completi di isolatori
3 - Complete bushings with insulators

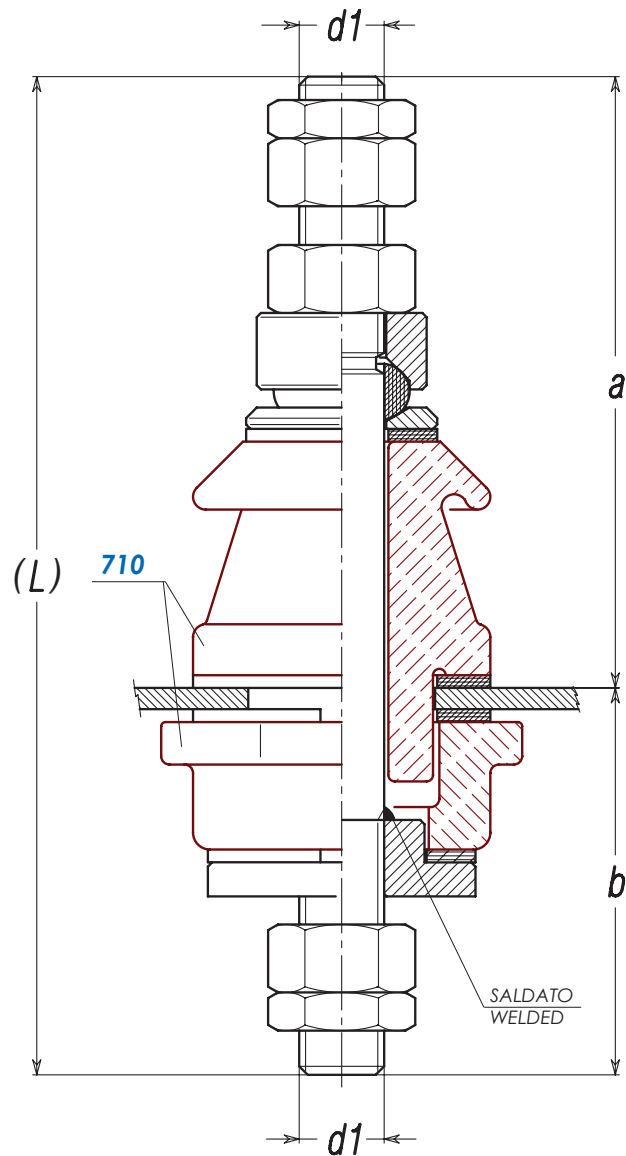
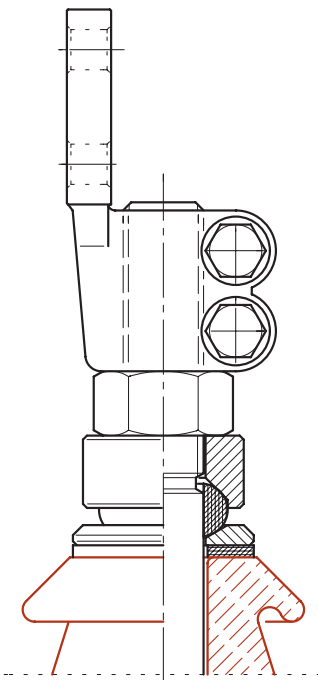
Cod. A80.U

Passanti completi di isolatori per trasformatori UNEL 38128
Tensione nominale fino a 1 kV - 200 ÷ 630 A

Complete bushings with insulators UNEL 38128
Nominal Voltage until 1 kV - 200 ÷ 630 A

CODICE/CODE	A80012000U	A80020000U
CLASSE/CLASS	1 kV - 200 A	1 kV - 630 A
710*	A50012000	A50020000
d1	M12	M20
a	110	145
b	70	90
(L)	180	235
Peso(gr)/Weight (gr.)	670	1870

*vedere capitolo 4 / see chapter 4



A richiesta:
Variante con banderuola da 1kV - 630A
 On request:
 Option with flag for 1kV - 630A

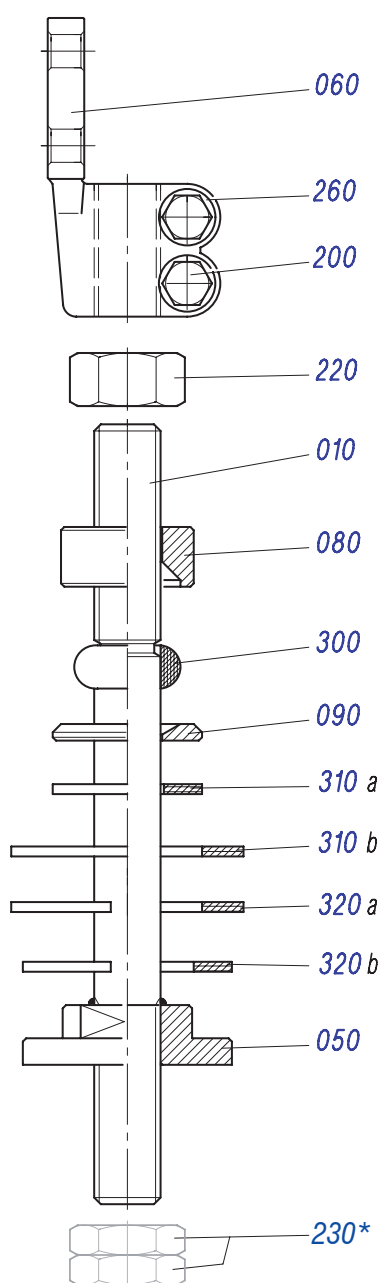


Cod. A02.U

Passanti per isolatori per trasformatori UNEL 38128-67
Tensione nominale fino a 1 kV - 1000 ÷ 3150 A

Pass connections for insulators of UNEL 38128-67 transformers
Nominal Voltage until 1 kV - 1000 ÷ 3150 A

CODICE/CODE	A02030000U	A02042000U	A02048000U
CLASSE/CLASS	1 kV - 1000 A	1 kV - 2000 A	1 kV - 3150 A



Rif.Pos. Pos.refer.	Q.tà Q.ty	Descrizione Description	Codice / Code		
			1 kV 1000A	1kV 2000A	1kV 3150A
010	1	Bullone passante Connecting bolt	A01030001U	A01042001U	A01048001U
050	1	Ghiera Ring nut	A01030002	A01042002	A01048002
060	1	Banderuola d'attacco Connecting flag	A02042007	A02042007	A02048007
080	1	Rosetta a 90° Washer 90°	A01030S03	A01042S03	A01048S03
090	1	Rosetta a 120° Washer 120°	A01030S04	A01042S04	A01048S04
200	2	Vite T.E. Hexagon head cap screw	A02030013	A02042013	A02048013
220	1	Dado medio Nut	A01030005	A01042005	A01048005
260	2	Rosetta piana Flat washer	A02030014	A02042014	A02042014
300	1	Guarnizione semitonda Half-round gasket	A01030008	A01042008	A01048008
310 a	1	Guarnizione piana Flat gasket	A01030009	A01042009	A01048009
310 b	1	Guarnizione piana Flat gasket	A01030010	D01042010	D01048010
320 a	1	Guarnizione con taglio Cutted gasket	A01030011	A01042011	A01048011
320 b	1	Guarnizione con taglio Cutted gasket	A01020012	A01042012	A01048012
▶230*	2	Dado basso Nut	A01030006	A01042006	A01048006

▶ a richiesta / on request

Rif.Pos.: Dettagli nella sezione componenti
Pos. refer.: Details in the components sections

Nota/Note:

Riferimenti degli assemblati :
• 060+260a+200a = 410

Assembling Reference:
• 060+260a+200a = 410



3 - Passanti completi di isolatori

3 - Complete bushings with insulators

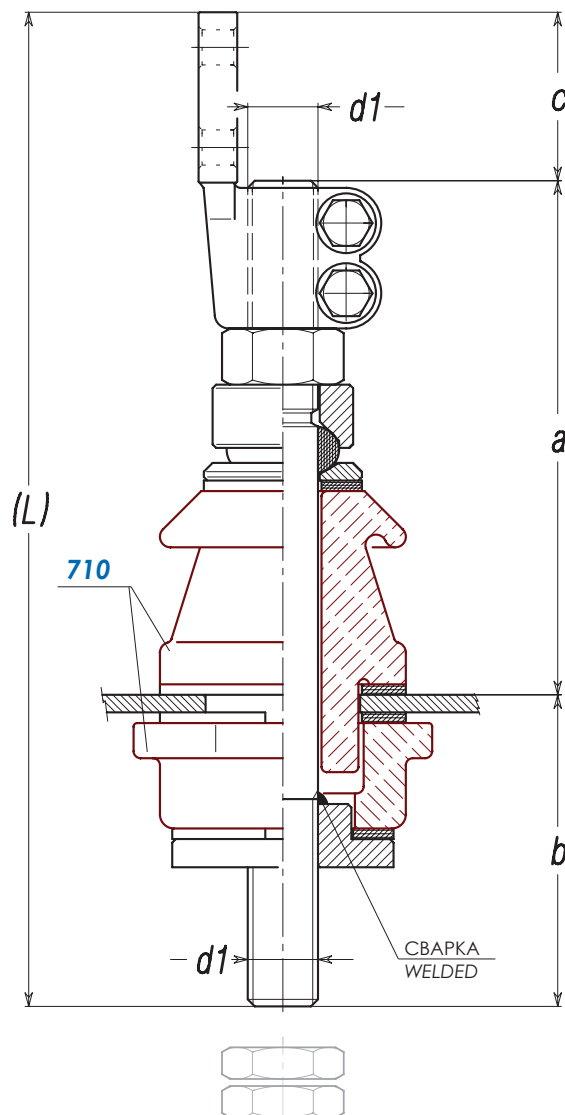
Cod. A84.U

Passanti completi di isolatori per trasformatori UNEL 38128
Tensione nominale fino a 1 kV - 1000 ÷ 3150 A

Complete bushings with insulators UNEL 38128
Nominal Voltage until 1 kV - 1000 ÷ 3150 A

CODICE/CODE	A84030000U	A84042000U	A84048000U
CLASSE/CLASS	1 kV - 1000 A	1 kV - 2000 A	1 kV - 3150 A
710*	A50030000	A50042000	A50048000
d1	M30x2	M42x3	M48x3
a	175	210	215
b	115	150	160
c	60	100	120
(L)	335	460	510
Peso(gr)/Weight (gr.)	5000	11300	15500

*vedere capitolo 4 / see chapter 4





Cod. A04

Passanti per isolatori per trasformatori

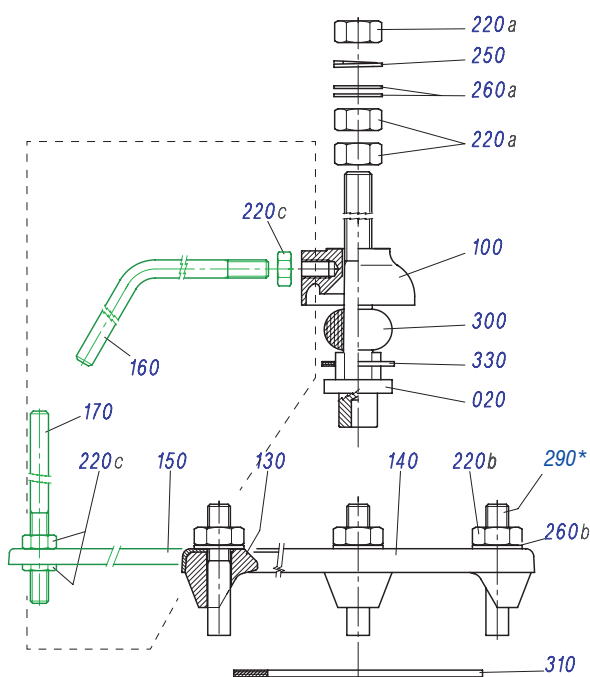
Tensione nominale del sistema da 10 a 30 kV corrente nominale 250 A

Pass connections for insulators of transformers

Nominal Voltage of 10 to 30 kV system nominal current 250 A

CODICE/CODE	A04010000	A04020000
CLASSE/CLASS	10 kV - 250 A	20-30 kV - 250 A

Rif.Pos.	Q.tà	Descrizione	Codice / Code	
Pos.refer.	Q.ty	Description	10 kV 250A	20-30 kV 250A
020	1	Perno filettato Clamping threaded bolt	A04012001	A04012001
100	1	Cappa Cap	A04012003	A04012003
130	4	Blocchetto di fissaggio Jam	A04012009	A04012009
140	1	Anello di fissaggio Fixing ring	A04012Z05	A04012Z05
220 a	3	Dado medio Nut	A01012005	A01012005
220 b	4	Dado medio Nut	A04012011	A04012011
250	1	Rosetta elastica Elastic washer	A04012014	A04012014
260 a	2	Rosetta piana Flat washer	A04012013	A04012013
260 b	4	Rosetta piana Flat washer	A04012018	A04012018
300	1	Guarnizione semitonda Half-round gasket	A04012015	A04012015
310	1	Guarnizione piana Flat gasket	D04012017	D04012017
330	1	Guarnizione sagomata Shaped gasket	A04012016	A04012016
150	1	Sostegno asta inferiore Lower stem support	A04012Z06	A04012Z06
160	1	Asta superiore Upper stem	A04012Z08	A04012Z08
170	1	Asta inferiore Lower stem	A04010Z07	A04020Z07
220 c	3	Dado medio Nut	A04012012	A04012012
▶ 290*	4	Vite prigioniera Stud bolt	A04012010	A04012010



A richiesta: è possibile escludere i particolari N° 150 - 160 - 170 - 220C

On request: It can be possible to avoid the components N° 150 - 160 - 170 - 220C

▶ a richiesta / on request

Rif.Pos.: Dettagli nella sezione componenti
Pos. refer.: Details in the components sections



3 - Passanti completi di isolatori
3 - Complete bushings with insulators

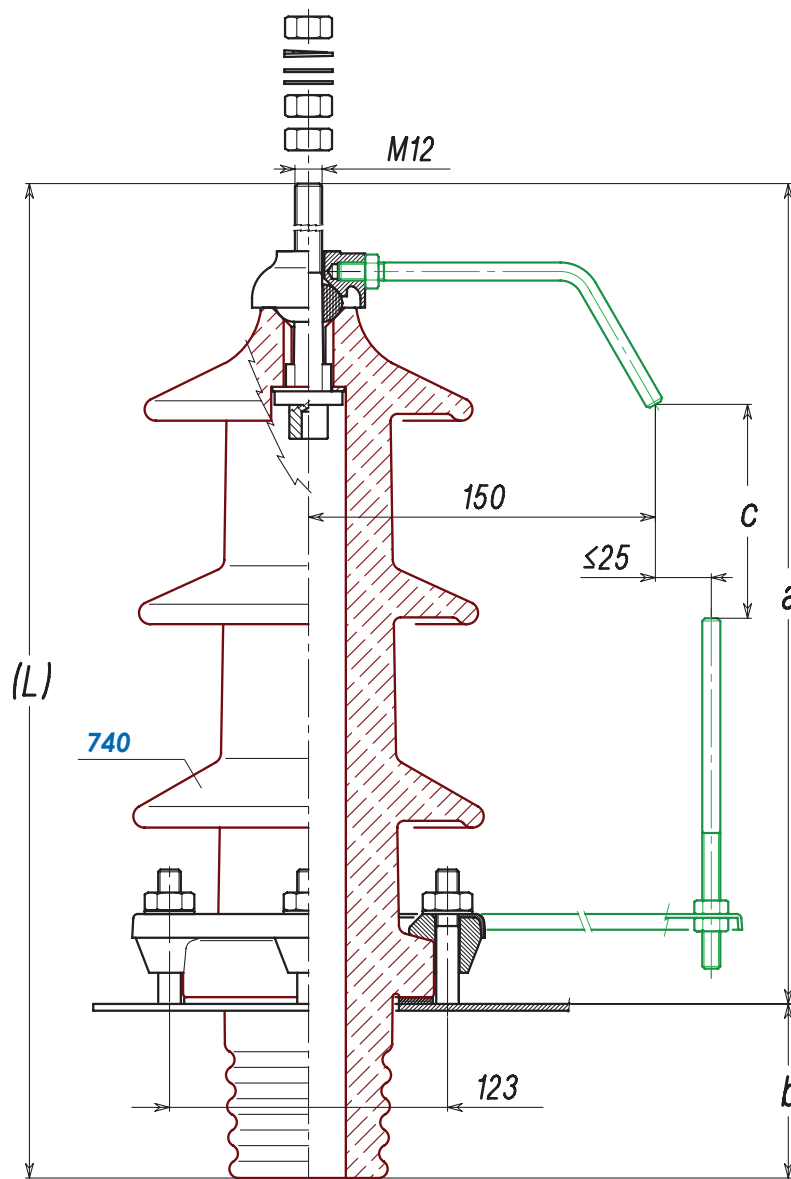
Cod. A92

Passanti completi di isolatori per trasformatori
Tensione nominale del sistema da 10 a 30 kV - Corrente nominale 250 A

Complete bushings with insulators for transformers
Nominal Voltage of 10 to 30 kV system - Nominal current 250 A

CODICE/CODE	A92010000	A92020000	A92030000
CLASSE/CLASS	10 kV - 250 A	20 kV - 250 A	30 kV - 250 A
740*	A51010000	A51020000	A51030000
a	310	386	485
b	61	76	76
c	70	100	200
(L)	371	461	561
Peso(gr)/Weight (gr.)	4100	5700	7100

*vedere capitolo 4 / see chapter 4





Cod. U04.U

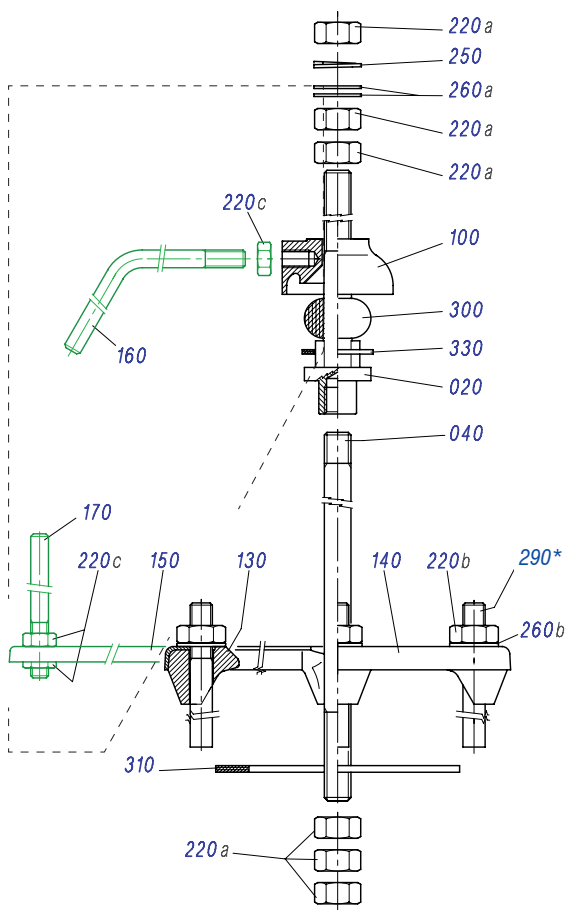
Passanti per isolatori per trasformatori UNEL 38144

Tensione nominale del sistema da 10 a 30 kV corrente nominale 250 A

Pass connections for insulators of UNEL 38144 transformers

Nominal Voltage of 10 to 30 kV system nominal current 250 A

CODICE/CODE	U04010000U	U04020000U	U04030000U
CLASSE/CLASS	10 kV - 250 A	20 kV - 250 A	30 kV - 250 A



Rif.Pos.	Q.tà	Descrizione	Codice / Code		
Pos.refer.	Q.ty	Description	10 kV 250A	20 kV 250A	30 kV 250A
020	1	Perno filettato Clamping threaded bolt	U04012001	U04012001	U04012001
040	1	Perno filettato inferiore Lower threaded bolt	U04010002	U04020002	U04030002
100	1	Cappa Cap	A04012003	A04012003	A04012003
130	4	Blocchetto di fissaggio Jam	A04012009	A04012009	A04012009
140	1	Anello di fissaggio Fixing ring	A04012Z05	A04012Z05	A04012Z05
220 a	6	Dado medio Nut	A01012005	A01012005	A01012005
220 b	4	Dado medio Nut	A04012011	A04012011	A04012011
250	1	Rosetta elastica Elastic washer	A04012014	A04012014	A04012014
260 a	2	Rosetta piana Flat washer	A04012013	A04012013	A04012013
260 b	4	Rosetta piana Flat washer	A04012018	A04012018	A04012018
300	1	Guarnizione semitonda Half-round gasket	A04012015	A04012015	A04012015
310	1	Guarnizione piana Flat gasket	A04012017	A04012017	A04012017
330	1	Guarnizione sagomata Shaped gasket	A04012016	A04012016	A04012016
150	1	Sostegno asta inferiore Lower stem support	A04012Z06	A04012Z06	A04012Z06
160	1	Asta superiore Upper stem	A04012Z08	A04012Z08	A04012Z08
170	1	Asta inferiore Lower stem	A04010Z07	A04020Z07	A04020Z07
220 c	3	Dado medio Nut	A04012012	A04012012	A04012012
▶290*	4	Vite prigioniera Stud bolt	A04012010	A04012010	A04012010

A richiesta: è possibile escludere i particolari N° 150 - 160 - 170 - 220C

On request: It can be possible to avoid the components N° 150 - 160 - 170 - 220C

▶ a richiesta / on request

Rif.Pos.: Dettagli nella sezione componenti
Pos. refer.: Details in the components sections



3 - Passanti completi di isolatori
3 - Complete bushings with insulators

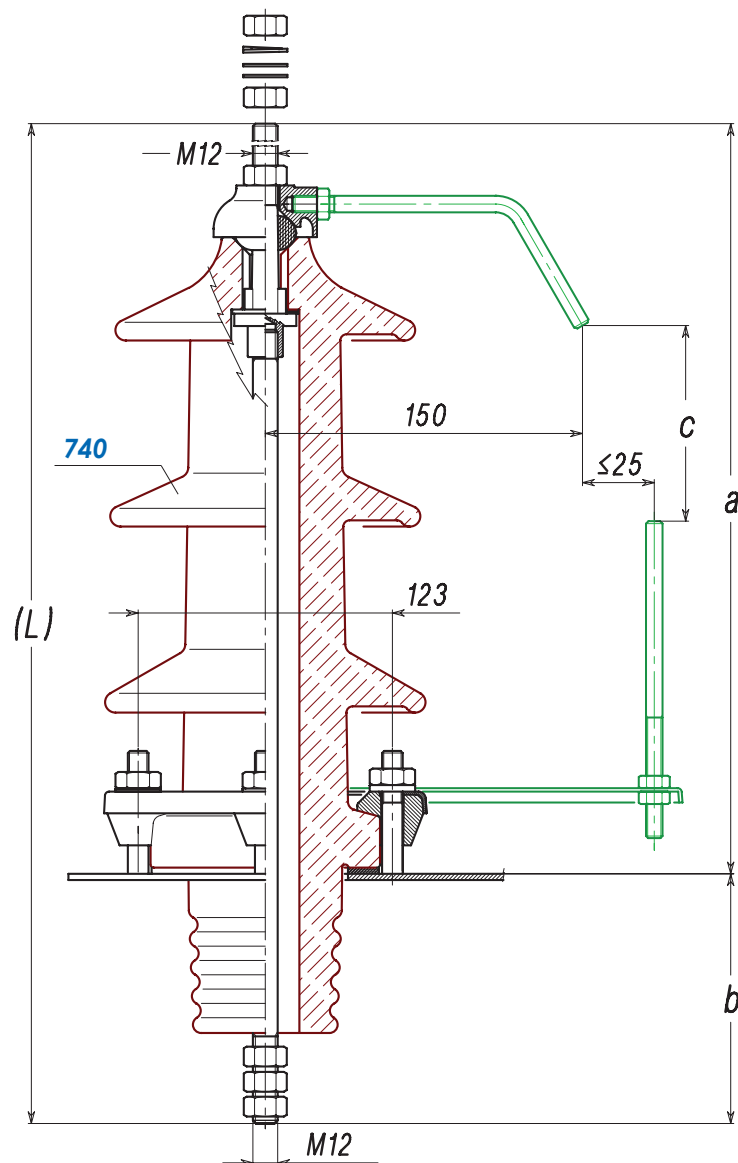
Cod. U92.U

Passanti completi di isolatori per trasformatori UNEL 38144
Tensione nominale del sistema da 10 a 30 kV - Corrente nominale 250 A

Complete bushings with insulators for transformers UNEL 38144
Nominal Voltage of 10 to 30 kV system - Nominal current 250 A

CODICE/CODE	U92010000U	U92020000U	U92030000U
CLASSE/CLASS	10 kV - 250 A	20 kV - 250 A	30 kV - 250 A
740*	A51010000	A51020000	A51030000
a	310	385	485
b	117	132	132
c	70	100	200
(L)	427	517	617
Peso(gr)/Weight (gr.)	4530	6150	7650

*vedere capitolo 4 / see chapter 4



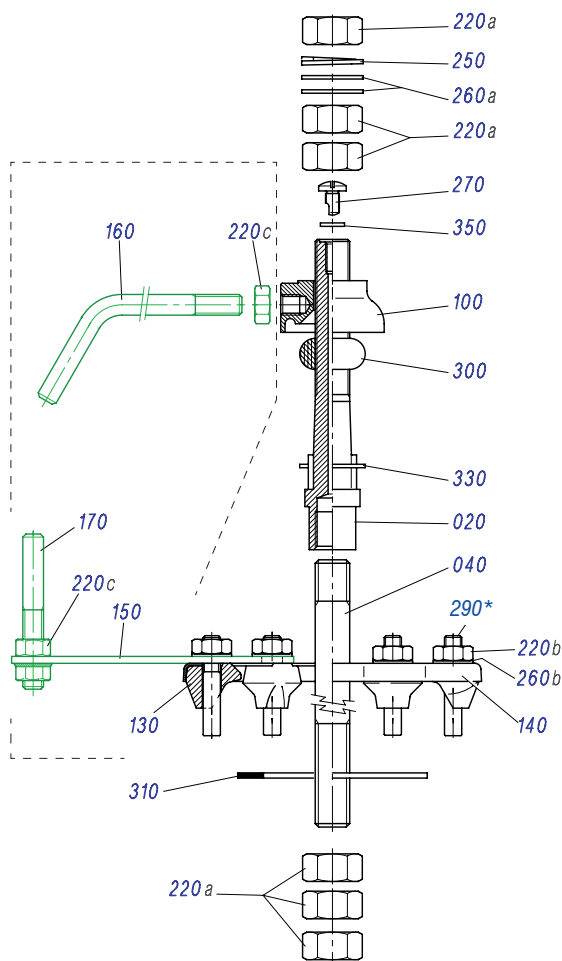


Cod. U06.U

Passanti per isolatori per trasformatori UNEL 38159
Tensione nominale del sistema da 10 a 30 kV corrente nominale 630 A

Pass connections for insulators of UNEL 38159 transformers
Nominal Voltage of 10 to 30 kV system nominal current 630 A

CODICE/CODE	U06010000U	U06020000U	U06030000U
CLASSE/CLASS	10 kV - 630 A	20 kV - 630 A	30 kV - 630 A



На заказ: на заказ можно исключить детали No N° 150 - 160 - 170 - 220C

On request: It can be possible to avoid the components N° 150 - 160 - 170 - 220C

Rif.Pos.	Q.tà	Descrizione	Codice / Code		
Pos.refer.	Q.ty	Description	10 kV 630A	20 kV 630A	30 kV 630A
020	1	Perno filettato Clamping threaded bolt	U06020001	U06020001	U06020001
040	1	Perno filettato inferiore Lower threaded bolt	U06010002	U06020002	U06030002
100	1	Cappa Cap	U06020003	U06020003	U06020003
130	6	Blocchetto di fissaggio Jam	A04012009	A04012009	A04012009
140	1	Anello di fissaggio Fixing ring	U06020005	U06020005	U06020005
220 a	6	Dado medio Nut	A01020005	A01020005	A01020005
220 b	6	Dado medio Nut	A04012011	A04012011	A04012011
250	1	Rosetta elastica Elastic washer	U06020014	U06020014	U06020014
260 a	2	Rosetta piana Flat washer	U06020013	U06020013	U06020013
260 b	6	Rosetta piana Flat washer	A04012018	A04012018	A04012018
270	1	Vite di sfriato Exhaust screw	U06020020	U06020020	U06020020
300	1	Guarnizione semitonda Half-round gasket	U06020015	U06020015	U06020015
310	1	Guarnizione piana Flat gasket	D01048010	D01048010	D01048010
330	1	Guarnizione sagomata Shaped gasket	U06020016	U06020016	U06020016
350	1	Guarnizione PTFE PTFE gasket	U06020024	U06020024	U06020024
150	1	Sostegno asta inferiore Lower stem support	U06020Z06	U06020Z06	U06020Z06
160	1	Asta superiore Upper stem	U06020Z08	U06020Z08	U06020Z08
170	1	Asta inferiore Lower stem	U06010Z07	U06020Z07	U06020Z07
220 c	2	Dado medio Nut	U07030011	U07030011	U07030011
▶290*	6	Vite prigioniera Stud bolt	A04012010	A04012010	A04012010

▶ a richiesta / on request

Rif.Pos.: Dettagli nella sezione componenti
Pos. refer.: Details in the components sections



UNEL

3 - Passanti completi di isolatori 3 - Complete bushings with insulators

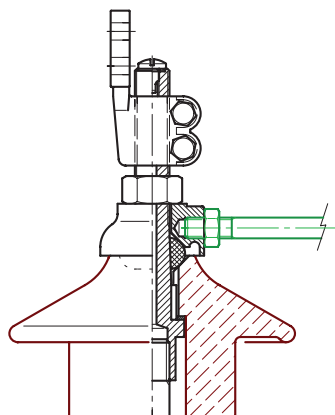
Cod. U94.U

Passanti completi di isolatori per trasformatori UNEL 38159
Tensione nominale del sistema da 10 a 30 kV - Corrente nominale 630 A

Complete bushings with insulators for transformers UNEL 38159
Nominal Voltage of 10 to 30 kV system - Nominal current 630 A

CODICE/CODE	U94010000U	U94020000U	U94030000U
CLASSE/CLASS	10 kV - 630 A	20 kV - 630 A	30 kV - 630 A
745*	A60010000	A60020000	A60030000
a	342	417	522
c	70	100	200
g	180	180	200
(L)	403	493	618
Peso(gr)/Weight (gr.)	7170	9850	14600

*vedere capitolo 4 / see chapter 4

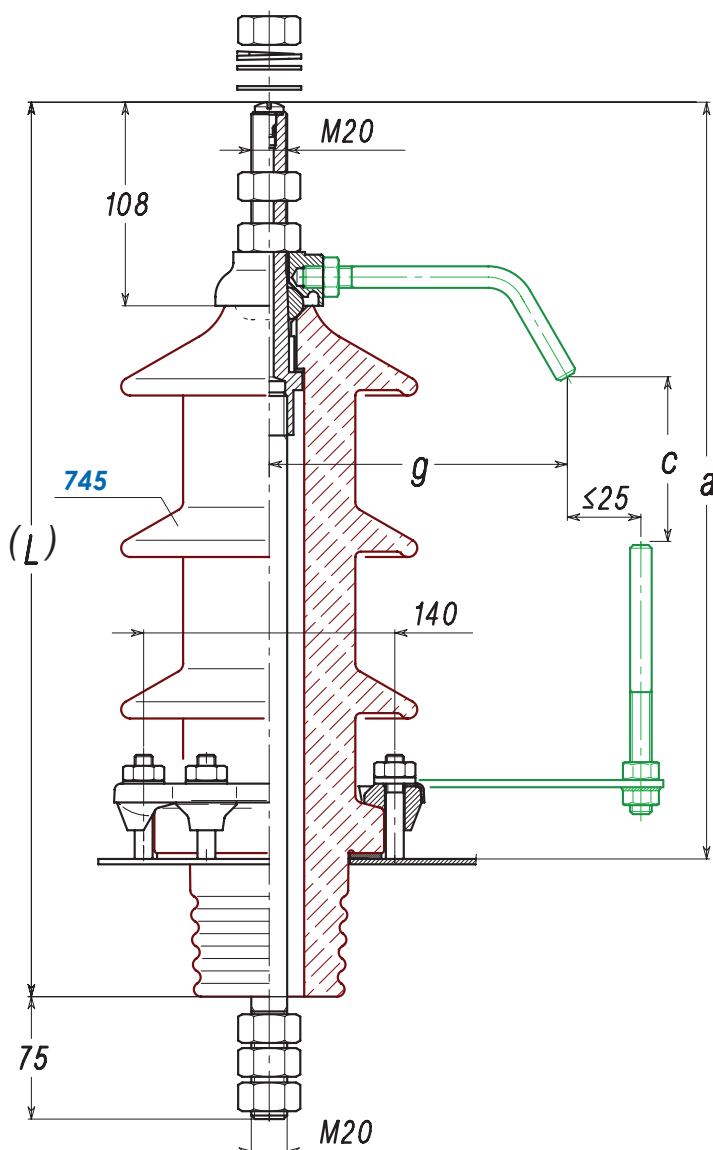


A richiesta:

Variante con banderuola per 630A

On request:

Option with flag for 630A





Cod. U07.U

Passanti per isolatori per trasformatori UNEL 38174

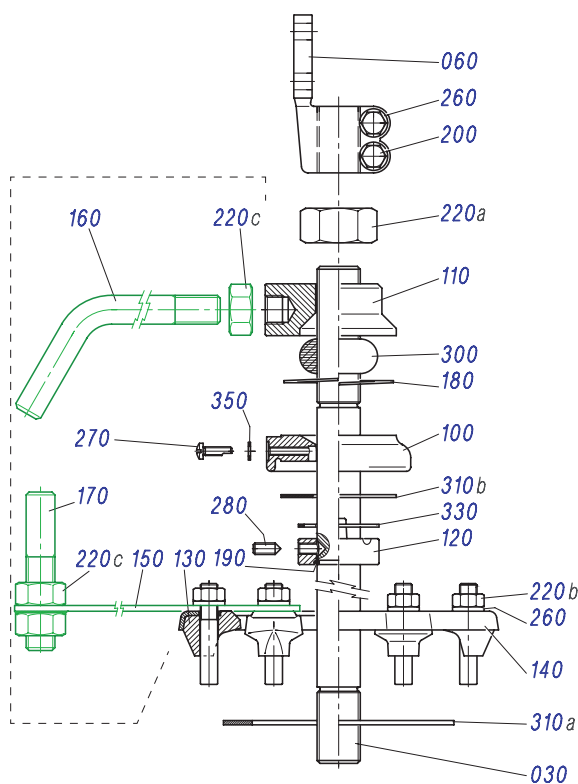
Tensione nominale del sistema da 10 a 30 kV corrente nominale 1000 A

Pass connections for insulators of UNEL 38174 transformers

Nominal Voltage of 10 to 30 kV system nominal current 1000 A

CODICE/CODE	U07010000U	U07020000U	U07030000U
CLASSE/CLASS	10 kV - 1000 A	20 kV - 1000 A	30 kV - 1000 A

Rif.Pos.	Q.fà	Descrizione	Codice / Code		
Pos.refer.	Q.ty	Description	10 kV 1000A	20 kV 1000A	30 kV 1000A
030	1	Bullone passante Connecting bolt	U07010001	U07020001	U07030001
060	1	Banderuola d'attacco Connecting flag	A02030007	A02030007	A02030007
100	1	Cappa Cap	U07030003	U07030003	U07030003
110	1	Disco Disc	U07030002	U07030002	U07030002
120	1	Anello di pressione Pressure ring	U07030004	U07030004	U07030004
130	6	Blocchetto di fissaggio Jam	U07030009	U07030009	U07030009
140	1	Anello di fissaggio Fixing ring	U07030020	U07030020	U07030020
180	1	Anello elastico Snap ring	U07030021	U07030021	U07030021
190	1	Anello d'arresto Stop ring	U07030023	U07030023	U07030023
200	2	Vite T.E. Hexagon head cap screw	A02030013	A02030013	A02030013
220 a	1	Dado medio Nut	A01030005	A01030005	A01030005
220 b	6	Dado medio Nut	U07030011	U07030011	U07030011
260	8	Rosetta piana Flat washer	A02030014	A02030014	A02030014
270	1	Vite di sfato Exhaust screw	U07030025	U07030025	U07030025
280	2	Grano Grub screw	U07030024	U07030024	U07030024
300	1	Guarnizione semitonda Half-round gasket	U07030015	U07030015	U07030015
310 a	1	Guarnizione piana Shaped gasket	U07030017	U07030017	U07030017
310 b	1	Guarnizione piana Flat gasket	U07030018	U07030018	U07030018
330	1	Guarnizione sagomata Shaped gasket	U07030016	U07030016	U07030016
350	1	Guarnizione PTFE PTFE gasket	U07030029	U07030029	U07030029
150	1	Sostegno asta inferiore Lower stem support	U07010Z21	U07010Z21	U07010Z21
160	1	Asta superiore Upper stem	U07010Z08	U07010Z08	U07010Z08
170	1	Asta inferiore Lower stem	U07010Z22	U07020Z22	U07020Z22
220 c	2	Dado medio Nut	U07030012	U07030012	U07030012



A richiesta: è possibile escludere i particolari N° 150 - 160 - 170 - 220C

On request: It can be possible to avoid the components N° 150 - 160 - 170 - 220C

Nota/Note:

Riferimenti degli assemblati :

- $060+260a+200a = 410$

Assembling Reference:

- $060+260a+200a = 410$

Rif.Pos.: Dettagli nella sezione componenti
Pos. refer.: Details in the components sections



3 - Passanti completi di isolatori
3 - Complete bushings with insulators

Cod. U95.U

Passanti completi di isolatori per trasformatori UNEL 38174
Tensione nominale del sistema da 10 a 30 kV - Corrente nominale 1000 A

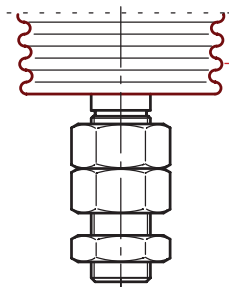
Complete bushings with insulators for transformers UNEL 38174
Nominal Voltage of 10 to 30 kV system - Nominal current 1000 A

CODICE/CODE	U95010000U	U95020000U	U95030000U
CLASSE/CLASS	10 kV - 1000 A	20 kV - 1000 A	30 kV - 1000 A
760*	A61010000	A61020000	A61030000
a	387	462	562
b	158	168	198
c	70	100	200
g	225	225	285
(L)	605	690	820
Peso(gr)/Weight (gr.)	15200	18560	22050

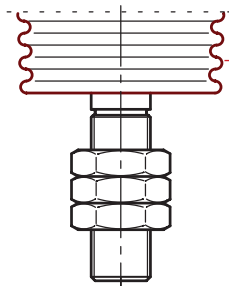
*vedere capitolo 4 / see chapter 4

A richiesta: Attacco inferiore

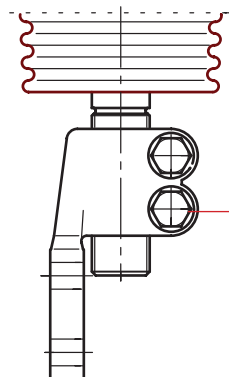
On request: With lower connection



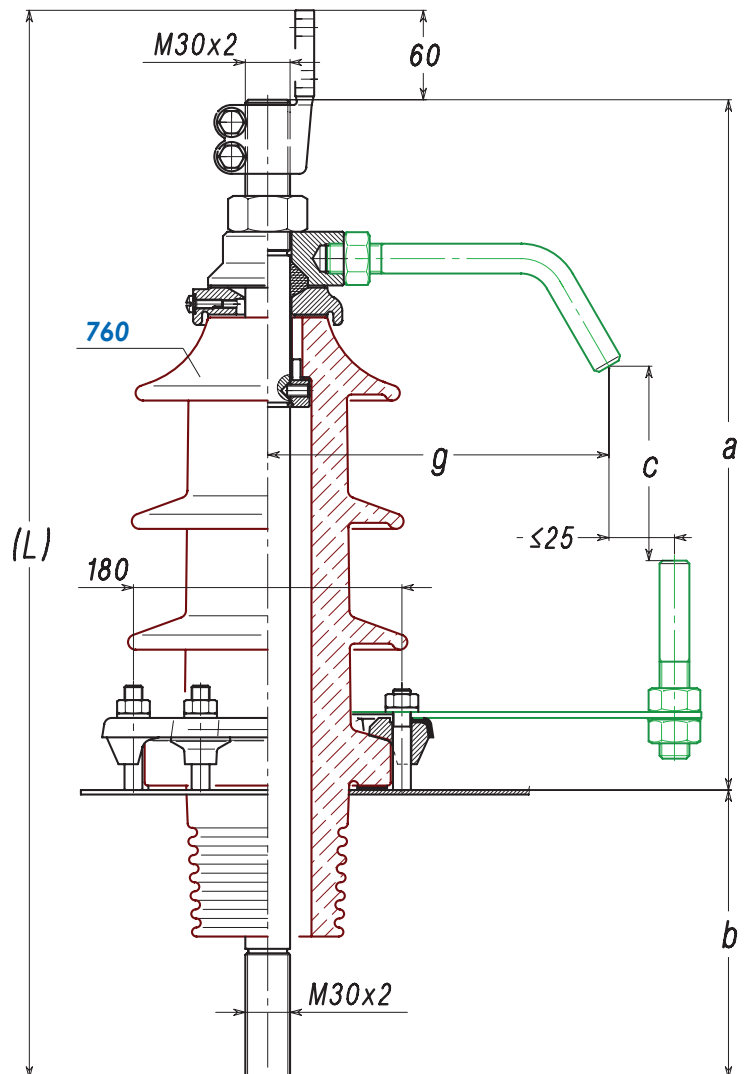
Variante B1
Variant B1



Variante B2
Variant B2



UNEL
Variante B3
Variant B3





Cod. U08.U

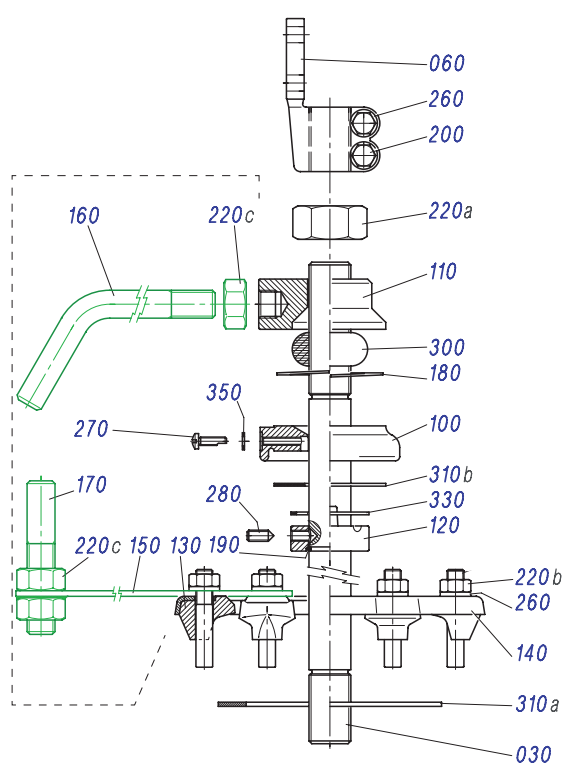
Passanti per isolatori per trasformatori UNEL 38174

Tensione nominale del sistema da 10 a 30 kV corrente nominale 2000 A

Pass connections for insulators of UNEL 38174 transformers

Nominal voltage of 10 to 30 kV system nominal current 2000 A

CODICE/CODE	U08010000U	U08020000U	U08030000U
CLASSE/CLASS	10 kV - 2000 A	20 kV - 2000 A	30 kV - 2000 A



A richiesta: è possibile escludere i particolari N° 150 - 160 - 170 - 220C

On request: It can be possible to avoid the components N° 150 - 160 - 170 - 220C

Nota/Note:

Riferimenti degli assemblati :

- 060+260a+200a = 410

Assembling Reference:

- 060+260a+200a = 410

Rif.Pos. Pos.refer.	Q.fà Q.ty	Descrizione Description	Codice / Code		
			10 kV 2000A	20 kV 2000A	30 kV 2000A
030	1	Bullone passante Connecting bolt	U08010001	U08020001	U08030001
060	1	Banderuola d'attacco Connecting flag	A02042007	A02042007	A02042007
100	1	Cappa Cap	U08042003	U08042003	U08042003
110	1	Disco Disc	U08042002	U08042002	U08042002
120	1	Anello di pressione Pressure ring	U08042004	U08042004	U08042004
130	6	Blocchetto di fissaggio Jam	U07030009	U07030009	U07030009
140	1	Anello di fissaggio Fixing ring	U08042020	U08042020	U08042020
180	1	Anello elastico Snap ring	U08042021	U08042021	U08042021
190	1	Anello d'arresto Stop ring	U08042023	U08042023	U08042023
200	2	Vite T.E. Hexagon head cap screw	A02042013	A02042013	A02042013
220 a	1	Dado medio Nut	A01042005	A01042005	A01042005
220 b	6	Dado medio Nut	U07030011	U07030011	U07030011
260 a	2	Rosetta Flat washer	A02042014	A02042014	A02042014
260 b	6	Rosetta Flat washer	A02030014	A02030014	A02030014
270	1	Vite di sfato Exhaust screw	U07030025	U07030025	U07030025
280	2	Grano Grub screw	U07030024	U07030024	U07030024
300	1	Guarnizione semitonda Half-round gasket	U08042015	U08042015	U08042015
310 a	1	Guarnizione piana Flat gasket	U08042017	U08042017	U08042017
310 b	1	Guarnizione piana Flat gasket	U08042018	U08042018	U08042018
330	1	Guarnizione sagomata Shaped gasket	U08042016	U08042016	U08042016
350	1	Guarnizione PTFE PTFE gasket	U07030029	U07030029	U07030029
150	1	Sostegno asta inferiore Lower stem support	U08010Z21	U08010Z21	U08010Z21
160	1	Asta superiore Upper stem	U07010Z08	U07010Z08	U07010Z08
170	1	Asta inferiore Lower stem	U07010Z22	U07020Z22	U07020Z22
220 c	2	Dado medio Nut	U07030012	U07030012	U07030012

Rif.Pos.: Dettagli nella sezione componenti
Pos. refer.: Details in the components sections



3 - Passanti completi di isolatori
3 - Complete bushings with insulators

Cod. U96.U

Passanti completi di isolatori per trasformatori UNEL 38174
Tensione nominale del sistema to 10 a 30 kV - Corrente nominale 2000 A

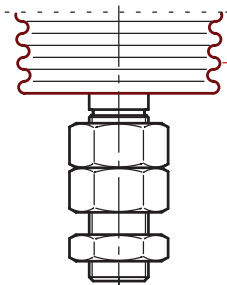
Complete bushings with insulators for transformers UNEL 38174
Nominal Voltage of 10 to 30 kV system - Nominal current 2000 A

CODICE/CODE	U96010000U	U96020000U	U96030000U
CLASSE/CLASS	10 kV - 2000 A	20 kV - 2000 A	30 kV - 2000 A
770*	A62010000	A62020000	A62030000
a	417	492	592
b	158	168	198
c	70	100	200
g	230	230	290
(L)	675	760	890
Peso(gr)/Weight (gr.)	24440	28350	34050

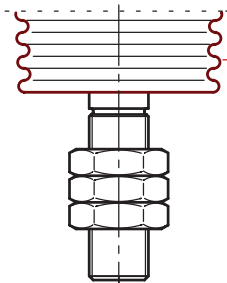
*vedere capitolo 4 / see chapter 4

A richiesta: Attacco inferiore

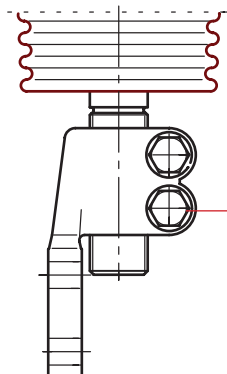
On request: With lower connection



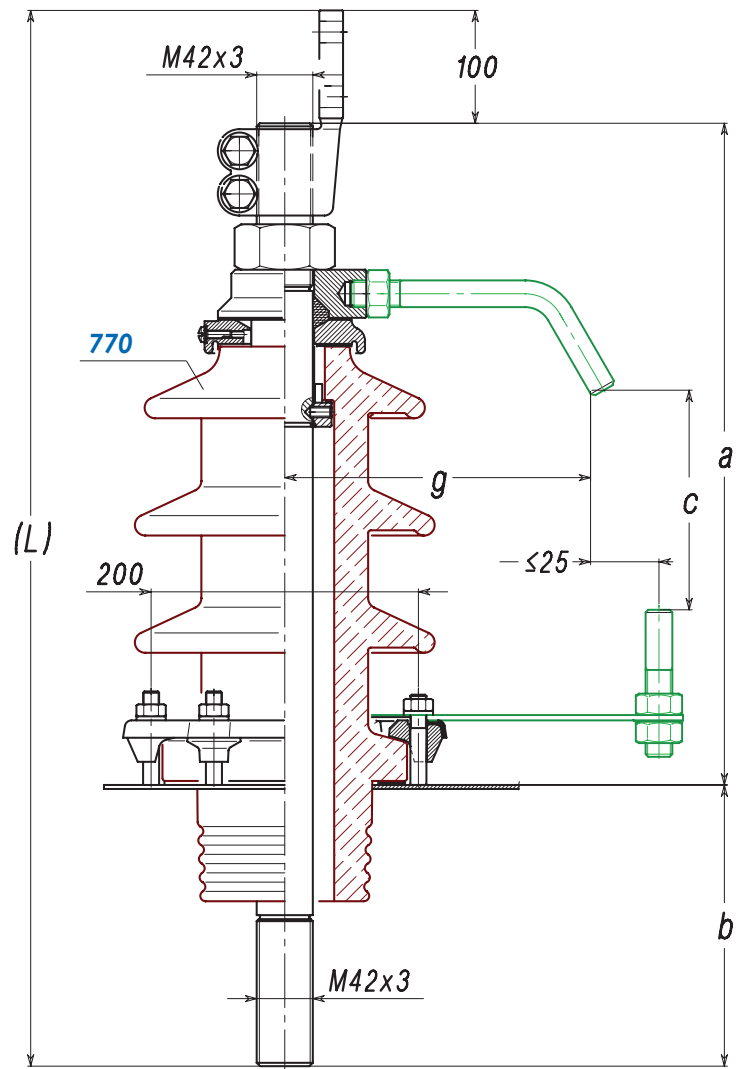
Variante B1
Variant B1



Variante B2
Variant B2



UNEL
Variante B3
Variant B3





Cod. U09.U

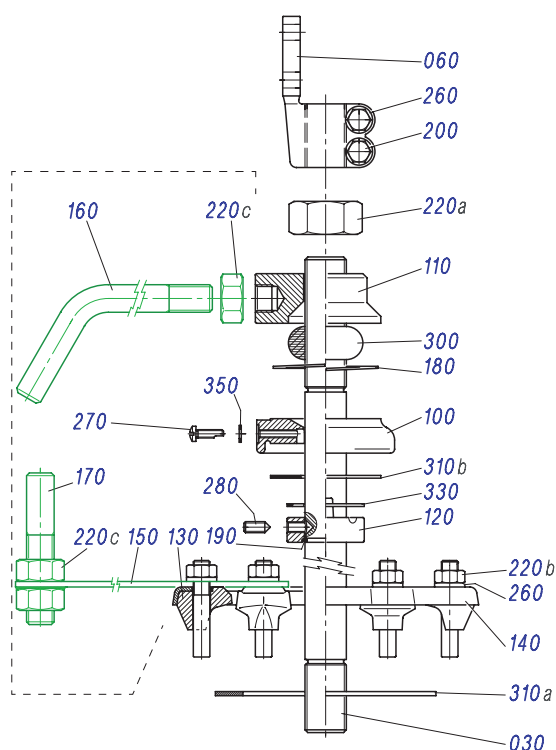
Passanti per isolatori per trasformatori UNEL 38174

Tensione nominale del sistema da 10 a 30 kV corrente nominale 3150 A

Pass connections for insulators of UNEL 38174 transformers

Nominal voltage of 10 to 30 kV system nominal current 3150 A

CODICE/CODE	U09010000U	U09020000U	U09030000U
CLASSE/CLASS	10 kV - 3150 A	20 kV - 3150 A	30 kV - 3150 A



A richiesta: è possibile escludere i particolari N° 150 - 160 - 170 - 220C

On request: It can be possible to avoid the components N° 150 - 160 - 170 - 220C

Nota/Note:

Riferimenti degli assemblati :

- $060+260a+200a = 410$

Assembling Reference:

- $060+260a+200a = 410$

Rif.Pos.	Q.tà	Descrizione	Codice / Code		
Pos.refer.	Q.ty	Description	10 kV 3150A	20 kV 3150A	30 kV 3150A
030	1	Bullone passante Connecting bolt	U09010001	U09020001	U09030001
060	1	Bandierola d'attacco Connecting flag	A02048007	A02048007	A02048007
100	1	Cappa Cap	U09048003	U09048003	U09048003
110	1	Disco Disc	U09048002	U09048002	U09048002
120	1	Anello di pressione Pressure ring	U09048004	U09048004	U09048004
130	6	Blocchetto di fissaggio Jam	U07030009	U07030009	U07030009
140	1	Anello di fissaggio Fixing ring	U08042020	U08042020	U08042020
180	1	Anello elastico Snap ring	U09048021	U09048021	U09048021
190	1	Anello d'arresto Stop ring	U09048023	U09048023	U09048023
200	2	Vite T.E. Hexagon head cap screw	A02048013	A02048013	A02048013
220 a	1	Dado medio Nut	A01048005	A01048005	A01048005
220 b	6	Dado medio Nut	U07030011	U07030011	U07030011
260 a	2	Rosetta piana Flat washer	A02042014	A02042014	A02042014
260 b	6	Rosetta piana Flat washer	A02030014	A02030014	A02030014
270	1	Vite di sfianto Exhaust screw	U07030025	U07030025	U07030025
280	2	Grano Grub screw	U07030024	U07030024	U07030024
300	1	Guarnizione semitonda Half-round gasket	U09048015	U09048015	U09048015
310 a	1	Guarnizione piana Flat gasket	U08042017	U08042017	U08042017
310 b	1	Guarnizione piana Flat gasket	U08042018	U08042018	U08042018
330	1	Guarnizione sagomata Shaped gasket	U08042016	U08042016	U08042016
350	1	Guarnizione PTFE PTFE gasket	U07030029	U07030029	U07030029
150	1	Sostegno asta inferiore Lower stem support	U08010Z21	U08010Z21	U08010Z21
160	1	Asta superiore Upper stem	U07010Z08	U07010Z08	U07010Z08
170	1	Asta inferiore Lower stem	U07010Z22	U07020Z22	U07020Z22
220 c	2	Dado medio Nut	U07030012	U07030012	U07030012

Rif.Pos.: Dettagli nella sezione componenti
Pos. refer.: Details in the components sections



UNEL

3 - Passanti completi di isolatori 3 - Complete bushings with insulators

Cod. U97.U

Passanti completi di isolatori per trasformatori UNEL 38174
Tensione nominale del sistema to 10 a 30 kV - Corrente nominale 3150 A

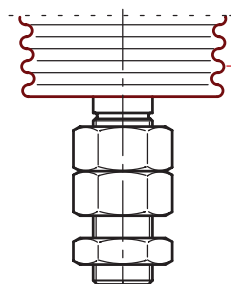
Complete bushings with insulators for transformers UNEL 38174
Nominal Voltage of 10 to 30 kV system - Nominal current 3150 A

CODICE/CODE	U97010000U	U97020000U	U97030000U
CLASSE/CLASS	10 kV - 3150 A	20 kV - 3150 A	30 kV - 3150 A
770*	A62010000	A62020000	A62030000
a	422	497	597
b	158	168	198
c	85	155	220
g	235	235	295
(L)	700	785	915
Peso(gr)/Weight (gr.)	28150	32470	38770

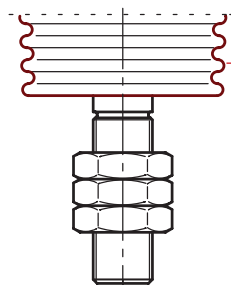
*vedere capitolo 4 / see chapter 4

A richiesta: Attacco inferiore

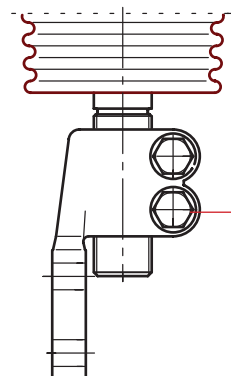
On request: With lower connection



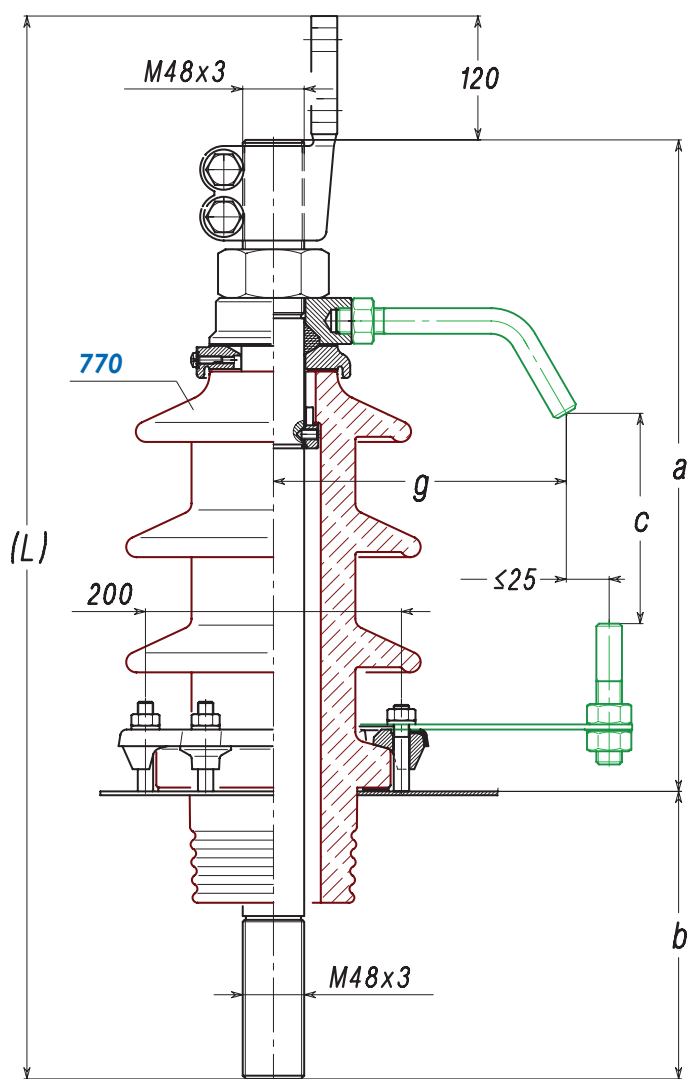
Variante B1
Variant B1



Variante B2
Variant B2



UNEL
Variante B3
Variant B3



3 - Componenti

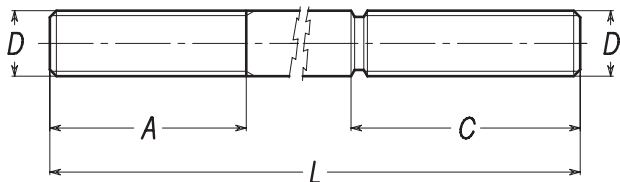
3 - Components



Pos.refer.
010

Bullone passante
Boulon traversant
Connecting bolt
Anschlußbolzen

Codice Code	Classe Class	D	A	C	L
A01012001U	1/200	M12	40	50	180
A01020001U	1/630	M20	60	70	235
A01030001U	1/1000	M30x2	80	100	290
A01042001U	1/2000	M42x3	115	135	360
A01048001U	1/3150	M48x3	125	140	375



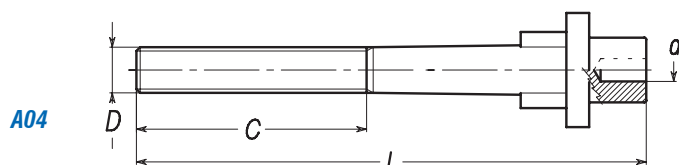
Materiale/Material:

Rame Cu ETP per classi >250 / Copper Cu ETP class>250
Ottone UNI EN 12165 per classi ≤ 250 / Brass UNI EN 12165 class ≤ 250

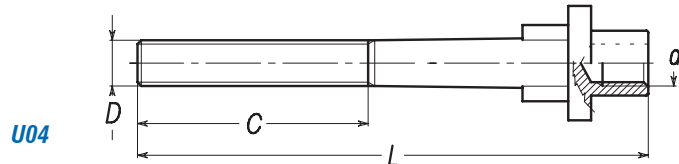
Pos.refer.
020

Perno filettato di chiusura
Goujon fileté de fermeture
Clamping threaded bolt
Anschlußbolzen C

Codice Code	Classe Class	D	d	C	L
A04012001	10-30/250	M12	5.5	60.5	134
U04012001	10-30/250	M12	M12	60.5	134
U06020001	10-30/630	M20	M20	90	180

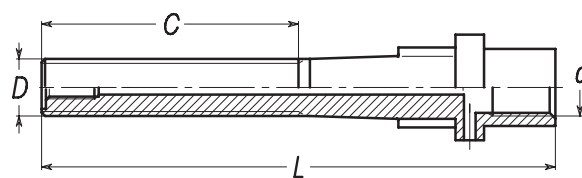


Materiale/Material: Ottone UNI EN 12165/Brass UNI EN 12165



Materiale/Material: Ottone UNI EN 12165/Brass UNI EN 12165

U06

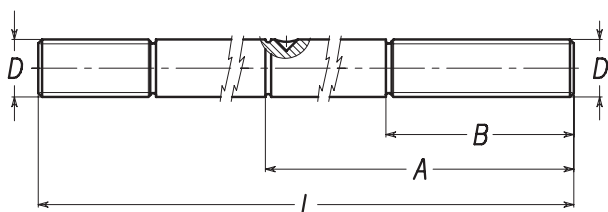


Materiale/Material: Ottone UNI EN 12165/Brass UNI EN 12165

Pos.refer.
030

Bullone passante
Boulon traversant
Connecting bolt
Anschlußbolzen

Codice Code	Classe Class	D	L	A	B
U07010001	10/1000	M30x2	560	206	98
U07020001	20/1000	M30x2	645	206	98
U07030001	30/1000	M30x2	775	206	98
U08010001	10/2000	M42x3	590	236	128
U08020001	20/2000	M42x3	675	236	128
U08030001	30/2000	M42x3	805	236	128
U09010001	10/3150	M48x3	600	241	133
U09020001	20/3150	M48x3	685	241	133
U09030001	30/3150	M48x3	810	241	133

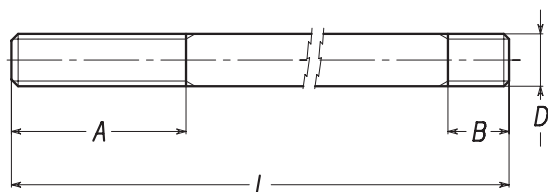


Materiale/Material: Rame / Copper UNI EN 13601 Cu ETP CW004A

Pos.refer.
040

Perno filettato inferiore
Goujon fileté inférieur
Lower threaded bolt
Schraubenbolzen

Codice Code	Classe Class	D	A	B	L
*U04010002	10/250	M12	40	14	305
U04020002	20/250	M12	40	14	395
U04030002	30/250	M12	40	14	495
U06010002	10/630	M20	60	24	315
U06020002	20/630	M20	60	24	405
U06030002	30/630	M20	60	24	530



Materiale/Material: Ottone UNI EN 12165/Brass UNI EN 12165
*Ottone UNI EN 12164/Brass UNI EN 12164



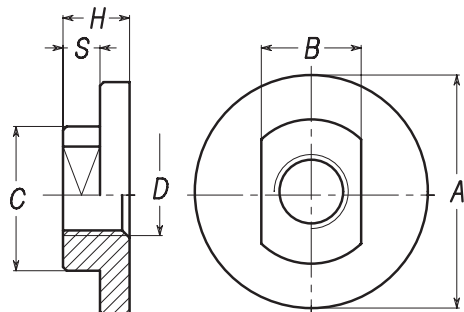


3 - Componenti 3 - Components

Pos.refer.

050

Ghiera
Bague
Ring nut
Mutter-an schlußstück



Codice Code	Classe Class	D	A	B	C	H	S
A01012002	1/200	M12	45	19	24	15	10
A01020002	1/630	M20	63	27	39	18	10
A01030002	1/1000	M30x2	70	36	44	22	12
A01042002	1/2000	M42x3	90	50	62	28	12
A01048002	1/3150	M48x3	110	60	78	32	12

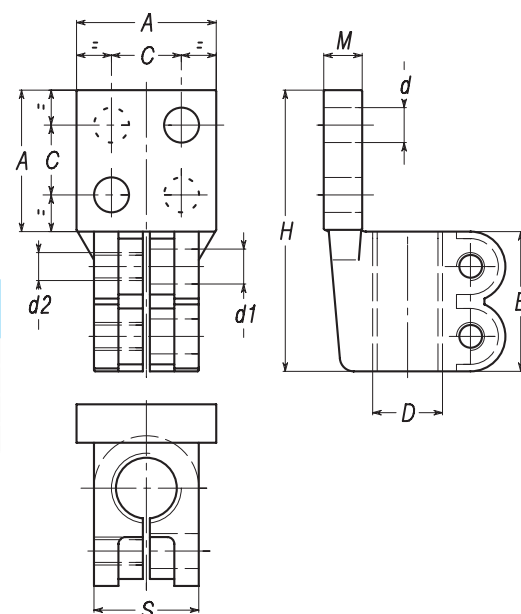
Materiale/Material: Ottone UNI EN 12165/Brass UNI EN 12165

Pos.refer.

060

Banderuola d'attacco
Banderole de jonction
Connecting flag
Flachanschluß

Codice Code	Classe Class	D	d	d1	d2	A	B	C	H	S	M	N°fori Holes N°
A02020007	1/630	M20	10	10	M8	40	40	20	85	30	11	2
A02030007	1/1000	M30x2	14	14	M12	60	60	32	130	45	12	2
A02042007	1/2000	M42x3	18	18	M16	100	80	50	195	58	20	4
A02048007	1/3150	M48x3	18	18	M16	120	80	60	220	68	20	4

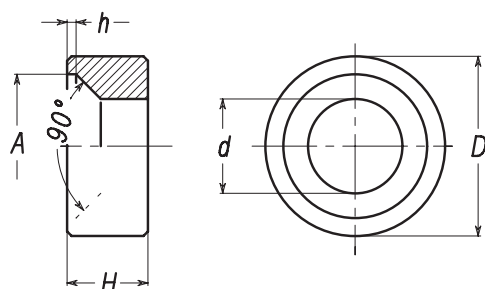


Materiale/Material: Ottone UNI EN 12165/Brass UNI EN 12165

Pos.refer.

080

Rosetta a 90°
Rondelle 90°
Washer 90°
Scheibe 90°



Codice Code	Classe Class	D	d	A	H	h
A01012S03	1/200	28	13	22	14	1.5
AO1020S03	1/630	40	21	32	18	2
A01030S03	1/1000	56	31	45	20	3
*A01042S03	1/2000	70	43	59	21	3
A01048S03	1/3150	80	50	65	21	3

Materiale/Material: *Ottone UNI EN 12164/Brass UNI EN 12164
Ottone UNI EN 12165/Brass UNI EN 12165

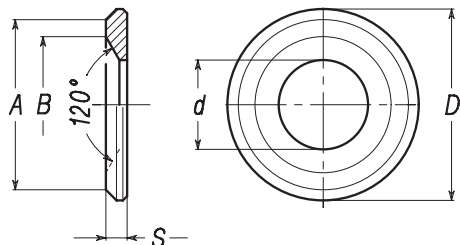
3 - Componenti

3 - Components



Pos.refer.
090

Rosetta a 120°
Rondelle 120°
Washer 120°
Scheibe 120°



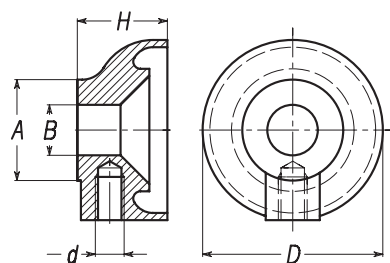
Codice Code	Classe Class	D	d	A	B	S
*A01012S04	1/200	32	13	28	22	4
AO1020S04	1/630	45	21	40	32	5
A01030S04	1/1000	63	31	56	45	6
A01042S04	1/2000	80	43	70	59	7
A01048S04	1/3150	90	50	80	65	8

Materiale/Material: *Ottone UNI EN 12164/Brass UNI EN 12164
Ottone UNI EN 12165/Brass UNI EN 12165

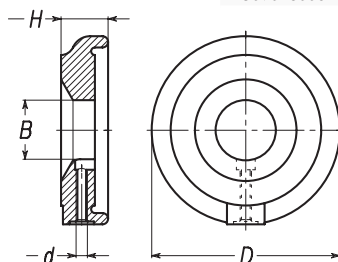
Pos.refer.
100

Cappa
Capot
Cap
Kappe

A04/U06



U07/8/9

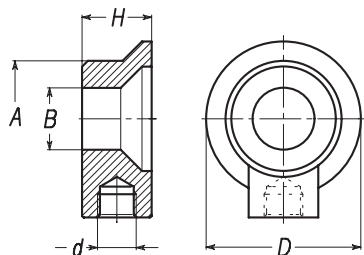


Codice Code	Classe Class	D	H	A	B	d
A04012003	10-30/250	50	25	28	14	M8
U06020003	10-30/630	60	30	40	22	M12
U07030003	10-30/1000	100	25	80	32	M6
U08042003	10-30/2000	120	25	100	44	M6
U09048003	10-30/3150	120	25	100	50	M6

Materiale/Material: Ottone UNI EN 12165/Brass UNI EN 12165

Pos.refer.
110

Disco
Disque
Disc
Scheibe

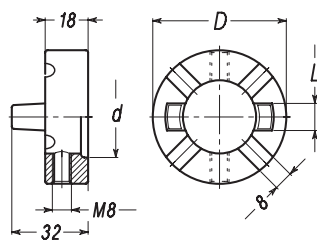


Codice Code	Classe Class	D	H	A	B	d
U07030002	10-30/1000	80	36	60	32	M20
U08042002	10-30/2000	100	36	80	44	M20
U09048002	10-30/3150	100	36	90	50	M20

Materiale/Material: Ottone UNI EN 12165/Brass UNI EN 12165

Pos.refer.
120

Anello di pressione
Bague de pression
Pressure ring
PreBring



Codice Code	Classe Class	D	d	L
U07030004	10-30/1000	56	34	10
U08042004	10-30/2000	70	46	15
U09048004	10-30/3150	70	52	15

Materiale/Material: Ottone UNI EN 12165/Brass UNI EN 12165



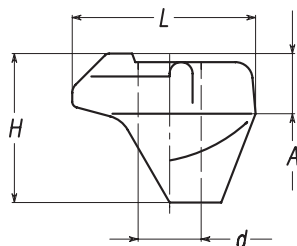


Pos.refer.
130

Blocchetto di fissaggio

Bloc
Jam
Stockung

Codice Code	Classe Class	d	H	L	A
A04012009	10-30/250/630	11	26	32	10,5
U07030009	10-30/2000	12,5	31	40	16



Materiale/Material: Ottone UNI EN 12165/Brass UNI EN 12165

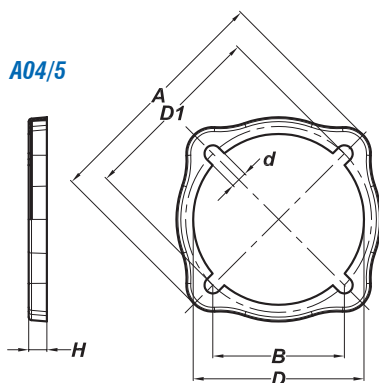
Pos.refer.
140

Anello di fissaggio

Bague de fixation
Fixing ring
Abschlußring

Codice Code	Classe Class	D	D1	A	B	d	H
● A04012Z05	10-30/250	113	123	156	87	11	10,5
● A05012005	20/250	113	123	156	87	11	10,5
● U06020005	10-30/630	130	140	173	70	11	10,5
● U07030020	10-30/1000	166	180	222	90	14	13
● U08042020	10-30/2000-3150	186	200	242	100	14	13

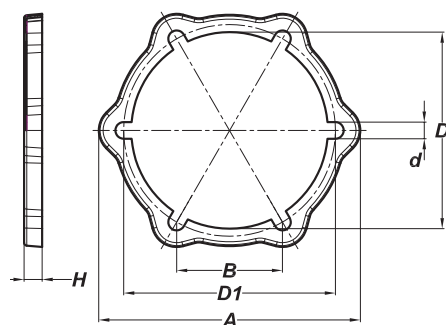
A04/5



Materiale/Material:

- Alluminio/Aluminum
- Acciaio zincato/ galvanized steel

U06/7/8



Materiale/Material:

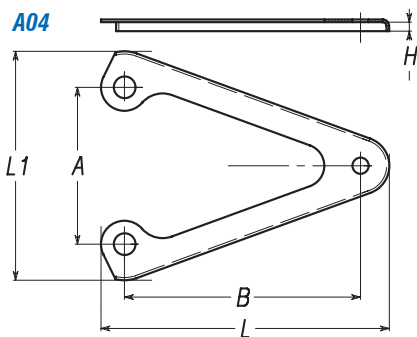
- Alluminio/Aluminum



Pos.refer.
150

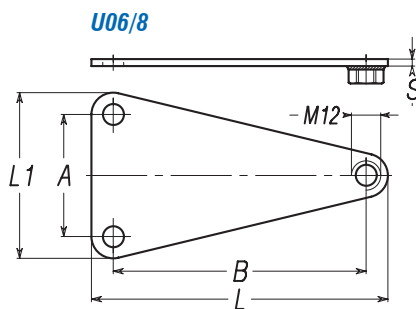
Sostegno asta inferiore
Support tige inférieure
Lower stem support
Halter funkenhorn unten

Codice Code	Classe Class	L	L1	A	B	S	H
● A04012Z06	10-30/250	160	127	87	131	-	6.5
● A04012006A	10-30/250	160	127	87	131	-	6.5
● U06020Z06	10-30/630	170	95	70	145	4	-
● U07010Z21	10-30/1000	195	125	90	161	4	-
● U08010Z21	10-30/2000-3150	188	143	100	157	4	-



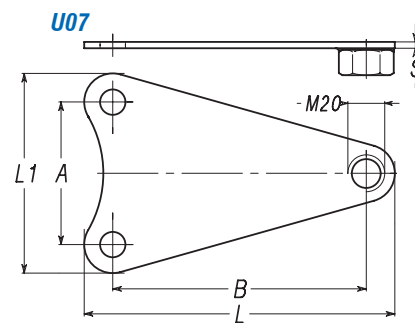
Materiale/Material:

- Alluminio/Aluminum
- Acciaio zincato/galvanized steel



Materiale/Material:

- Acciaio zincato/galvanized steel

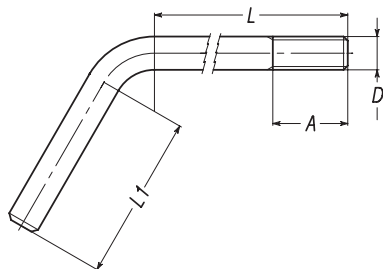


Materiale/Material:

- Acciaio zincato/galvanized steel

Pos.refer.
160

Asta superiore
Tige superiore
Upper stem
Funkenhorn oben



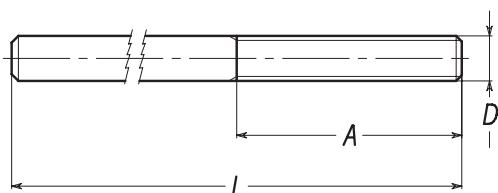
Codice Code	Classe Class	D	A	L	L1
● A04012Z08	10-30/250	M8	18	98	60
● U06020Z08	10-30/630	M12	25	115	52
● U07010Z08	10-30/1000-3150	M20	35	130	66
● A04012008X	10/250	M8	18	98	60

Materiale/Material:

- Acciaio zincato/Galvanized steel
- Acciaio inox/Stainless steel

Pos.refer.
170

Asta inferiore
Tige inférieure
Lower stem
Funkenhorn unten



Codice Code	Classe Class	D	L	A
● A04010Z07	10/250	M8	95	40
● A04020Z07	20-30/250	M8	155	60
● U06010Z07	10/630	M12	90	48
● U06020Z07	20-30/630	M12	150	68
● U07010Z22	10/1000-3150	M20	110	65
● U07020Z22	20-30/1000-3150	M20	162	75
● A04010007X	10/250	M8	95	40
● A04020007X	20-30/250	M8	155	60

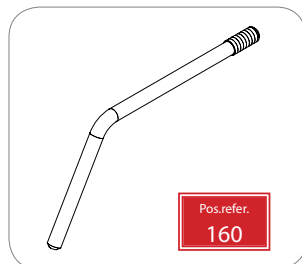
Materiale/Material:

- Acciaio zincato/Galvanized steel
- Acciaio inox/Stainless steel

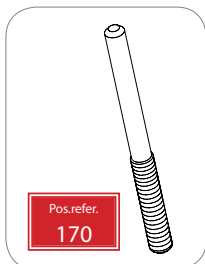


3 - Componenti
3 - Components

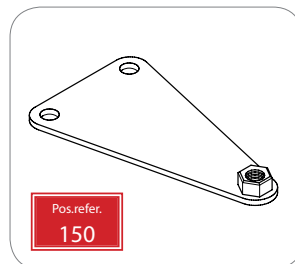
Kit di scaricatori 10-30kV, 250-3150A / Arcing horn kits 10-30kV, 250-3150A



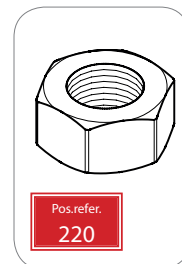
Pos.refer.
160



Pos.refer.
170



Pos.refer.
150



Pos.refer.
220

Codice Kit Kit Code	Classe Class	Rif.Pos. Pos.refer.	Codice Code	Q.tà Q.ty
A04010250	10/250	160	● A04012Z08	1
		170	● A04010Z07	1
		150	● A04012Z06	1
		220	● A04012012	3

Codice Kit Kit Code	Classe Class	Rif.Pos. Pos.refer.	Codice Code	Q.tà Q.ty
A04010250X	10/250	160	● A04012008X	1
		170	● A04010007X	1
		150	● A04012006A	1
		220	● A04012012X	3

Codice Kit Kit Code	Classe Class	Rif.Pos. Pos.refer.	Codice Code	Q.tà Q.ty
A04020250	20-30/250	160	● A04012Z08	1
		170	● A04020Z07	1
		150	● A04012Z06	1
		220	● A04012012	3

Codice Kit Kit Code	Classe Class	Rif.Pos. Pos.refer.	Codice Code	Q.tà Q.ty
A04020250X	20-30/250	160	● A04012008X	1
		170	● A04020007X	1
		150	● A04012006A	1
		220	● A04012012X	3

Codice Kit Kit Code	Classe Class	Rif.Pos. Pos.refer.	Codice Code	Q.tà Q.ty
U06010630	10/630	160	● U06020Z08	1
		170	● U06010Z07	1
		150	● U06020Z06	1
		220	● U07030011	2

Codice Kit Kit Code	Classe Class	Rif.Pos. Pos.refer.	Codice Code	Q.tà Q.ty
U06020630	20-30/630	160	● U06020Z08	1
		170	● U06020Z07	1
		150	● U06020Z06	1
		220	● U07030011	2

Codice Kit Kit Code	Classe Class	Rif.Pos. Pos.refer.	Codice Code	Q.tà Q.ty
U070101000	10/1000	160	● U07010Z08	1
		170	● U07010Z22	1
		150	● U07010Z21	1
		220	● U07030012	2

Codice Kit Kit Code	Classe Class	Rif.Pos. Pos.refer.	Codice Code	Q.tà Q.ty
U070201000	20-30/1000	160	● U07010Z08	1
		170	● U07020Z22	1
		150	● U07010Z21	1
		220	● U07030012	2

Codice Kit Kit Code	Classe Class	Rif.Pos. Pos.refer.	Codice Code	Q.tà Q.ty
U090103150	10/2000-3150	160	● U07010Z08	1
		170	● U07010Z22	1
		150	● U08010Z21	1
		220	● U07030012	2

Codice Kit Kit Code	Classe Class	Rif.Pos. Pos.refer.	Codice Code	Q.tà Q.ty
U090203150	20-30/2000-3150	160	● U07010Z08	1
		170	● U07020Z22	1
		150	● U08010Z21	1
		220	● U07030012	2

Materiale/Material:

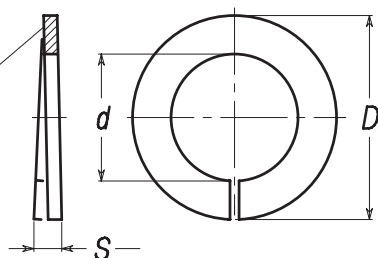
- Alluminio/Aluminum
- Acciaio zincato/ Galvanized steel
- Acciaio inox/Stainless steel

Pos.refer.

180

Anello elastico
Anneau élastique
Snap ring
Anlenkring

Spessore 1 mm
Thickness 1 mm



Codice Code	Classe Class	D	d	S
U07030021	10-30/1000	76	58	4
U08042021	10-30/2000	96	70	4
U09048021	10-30/3150	96	76	4

Materiale/Material: Bronzo fosforoso / phosphor bronze



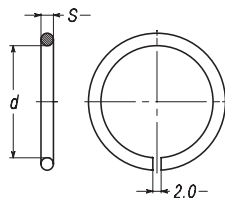
3 - Componenti

3 - Components



Pos.refer.
190

Anello d'arresto
Bague de serrage
Stop ring
Haltering

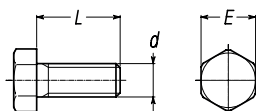


Codice Code	Classe Class	D	S
U07030023	10-30/1000	27	3
U08042023	10-30/2000	39	3
U09048023	10-30/3150	45	3

Materiale/Material: Rame Cu ETP/Copper Cu ETP

Pos.refer.
200

Vite T.E.
Vis hexagonal
Hexagon head cap screw
Sechskantschraube

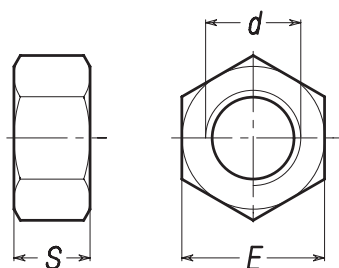


Codice Code	Classe Class	d	L	E
A02020013	630	M8	30	13
A02030013	1000	M12	45	19
A02042013	2000	M16	60	24
A02048013	3150	M16	70	24

Materiale/Material: Acciaio zincato/ galvanized steel

Pos.refer.
220

Dado medio
Ecrou
Nut
Sechskantmutter



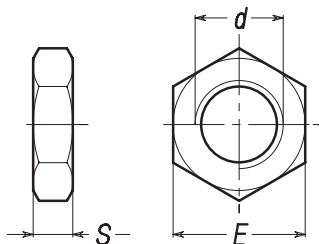
Codice Code	d	E	S
● *A01012005	M12	19	10
● *A01020005	M20	30	16
● A01030005	M30x2	46	24
● A01042005	M42x3	65	34
● A01048005	M48x3	75	38
● A05012011X	M10	17	8
● A04012012X	M8x1,25	13	6,5
● A04012011	M10	17	8
● A04012012	M8	13	6,5
● U07030011	M12	19	12
● U07030012	M20	30	16

Materiale/Material:

- Ottone UNI EN 12165/Brass UNI EN 12165
- *Ottone UNI EN 12164/Brass UNI EN 12164
- Acciaio inox/Stainless steel
- Acciaio zincato/ galvanized steel

Pos.refer.
230

Dado basso
Ecrou
Nut
Sechskantmutter



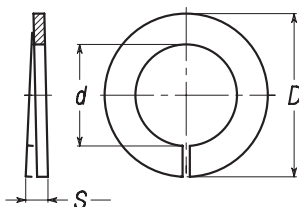
Codice Code	d	E	S
A01012006	M12	19	7
A01020006	M20	30	9
A01030006	M30x2	46	12
A01042006	M42x3	65	16
A01048006	M48x3	75	18

Materiale/Material:

Ottone UNI EN 12165/Brass UNI EN 12165

Pos.refer.
250

Rosetta elastica
Rondelle élastique
Elastic washer
Federring



Codice Code	D	d	S
A04012014	21	13	5
U06020014	33	21	8

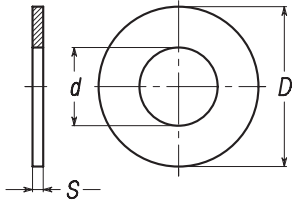
Materiale/Material:

Acciaio zincato C70/ C70 galvanized steel



Pos.refer.
260

Rosetta piana
Rondelle platte
Flat washer
Spannscheibe



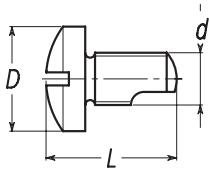
Codice Code	D	d	S
● A04012013	21	13	1.5
● U06020013	34	21	2.5
● A05012018X	23	10.5	2.5
● A04012018	23	10.5	2.5
● A02020014	17	8.4	1.6
● A02030014	24	13	2.5
● A02042014	30	17	3

Materiale/Material:

- Ottone UNI EN 12164/Brass UNI EN 12164
- Acciaio inox/Stainless steel
- Acciaio zincato/ galvanized steel

Pos.refer.
270

Vite di sfato
Vis d'échappement
Exhaust screw
Entlüftungsschraube

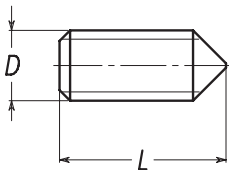


Codice Code	D	d	L
U06020020	15	M8	20
U07030025	13	M6	15

Materiale/Material: Ottone UNI EN 12164/Brass UNI EN 12164

Pos.refer.
280

Grano
Grain
Grub screw
Gewindestift



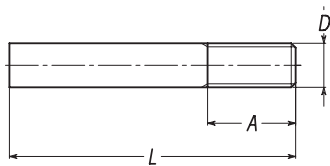
Codice Code	D	L
U07030024	M8	15

Materiale/Material:

Acciaio AISI 302/ Steel AISI 302

Pos.refer.
290

Vite prigioniera
Vis de serrage
Stud bolt
Halterung Schraube



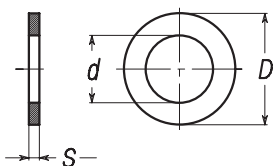
Codice Code	Classe Class	D	A	L
A04012010	250-630	M10	20	58
U07030010	1000-3150	M12	25	7

Materiale/Material:

Acciaio zincato/ galvanized steel

Pos.refer.
350

Guarnizione
Joint
Packing
Dichtung



Codice Code	Classe Class	D	d	S
U06020024	630	13	8	1.5
U07030029	1000-3150	10	6	1.5

Materiale/Material:

PTFE / PTFE

3 - Componenti

3 - Components

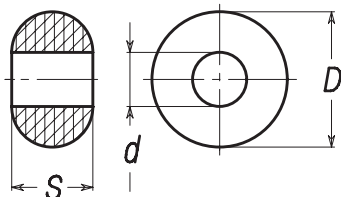


Pos.refer.

300

Guarnizione semironda

Joint demi-ron
Half-round gasket
Dichtring



Materiale/Material:

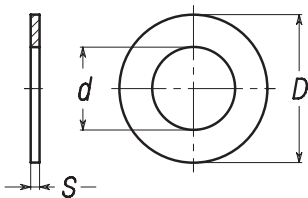
● Gomma nitrilica/nitrile rubber

Pos.refer.

310

Guarnizione piana

Joint plat
Flat gasket
Flachdichtung



Materiale/Material:

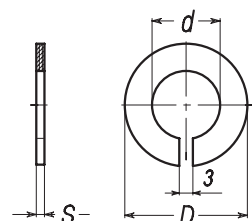
● Gomma nitrilica/nitrile rubber

Pos.refer.

320

Guarnizione con taglio

Joint avec coupe
Cutted gasket
Dichtung



Materiale/Material:

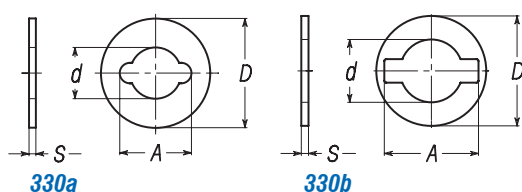
● Fibra(tipo prespan) /Fiber(prespan type)

Pos.refer.

330

Guarnizione sagomata

Joint façonné
Shaped gasket
Zwischenlage



Materiale/Material:

● Fibra(tipo prespan) /Fiber(prespan type)

Kit di guarnizioni 10-30kV, 200-3150A / Gaskets kits 10-30kV, 200-3150A

Codice Kit Kit Code	Classe Class	Rif.Pos. Pos.refer.	Codice Code	D	d	S	A
A50012250	1/250	300	● A01012008	22	12	11	-
		310	● A01012009	32	14	3	-
		310	● A01012010	50	28	3	-
		320	● A01012011	50	28	3	-
		320	● A01012012	45	25	3	-
A50020630	1/630	300	● A01020008	32	20	13	-
		310	● A01020009	45	22	3	-
		310	● D01020010	70	45	4	-
		320	● A01020011	70	45	3	-
		320	● A01020012	63	40	3	-
A500301000	1/1000	300	● A01030008	45	30	16	-
		310	● A01030009	63	32	3	-
		310	● A01030010	90	56	3	-
		320	● A01030011	90	56	3	-
		320	● A01020011	70	45	3	-
A500422000	1/2000	300	● A01042008	59	42	18	-
		310	● A01042009	80	45	3	-
		310	● D01042010	104	70	4	-
		320	● A01042011	104	70	3	-
		320	● A01042012	90	63	3	-
A500483150	1/3150	300	● A01048008	65	48	18	-
		310	● A01048009	90	50	3	-
		310	● D01048010	125	90	4	-
		320	● A01048011	125	90	3	-
		320	● A01048012	110	80	3	-
A51020250	10/250 20/250 30/250	300	● A04012015	30	12	18	-
		310	● A04012017	110	80	4	-
		330 a	● A04012016	32	15	2	21
A60020630	10/630 20/630 30/630	300	● U06020015	38	20	18	-
		310	● D01048010	125	90	4	-
		330 a	● U06020016	38	24	2	29
A610201000	10/1000 20/1000 30/1000	300	● U07030015	54	30	24	-
		310	● U07030018	80	36	3	-
		310	● U07030017	160	110	4	-
		330 b	● U07030016	56	32	2	48
A620202000	10/2000 20/2000 30/2000	300	● U08042015	66	42	24	-
		310	● U08042018	100	50	3	-
		310	● U08042017	180	135	4	-
		330 b	● U08042016	70	50	2	62
A620203150	10/3150 20/3150 30/3150	300	● U09048015	72	48	24	-
		310	● U08042018	100	50	3	-
		310	● U08042017	180	135	4	-
		330 b	● U08042016	70	50	2	62

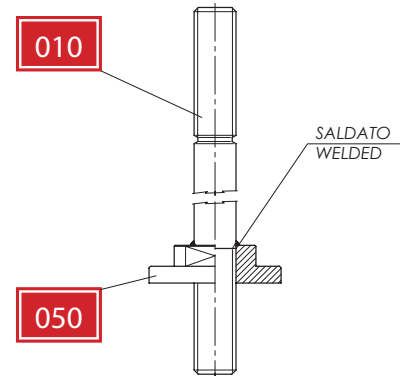


3 - Componenti
3 - Components

Pos.refer.
400

Bullone passante con ghiera saldata
Boulon traversant avec bague soudée
Connecting bolt with soldered ring nut
Anschlußbolzen C mit Mutter-anschlußstück

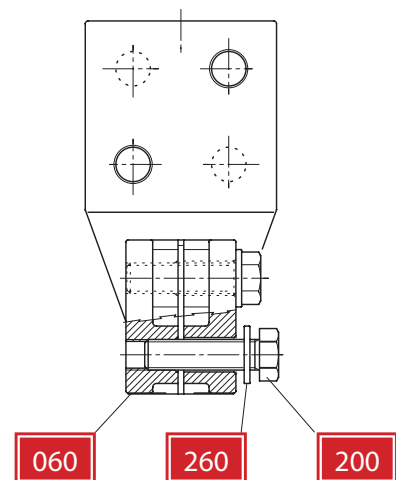
Codice Kit Kit Code	Classe Class	Rif.Pos. / Pos.refer.		
		010	050	
A01012001UB	1/200	A01012001U	A01012002	-
A01020001UB	1/630	A01020001U	A01020002	-
A01030001UB	1/1000	A01030001U	A01030002	-
A01042001UB	1/2000	A01042001U	A01042002	-
A01048001UB	1/3150	A01048001U	A01048002	-



Pos.refer.
410

Banderuola completa di bulloneria
Banderole complète de vis de jonction
Flag complete with screw an washers
Flanchenschluß mit schraube und schiebe

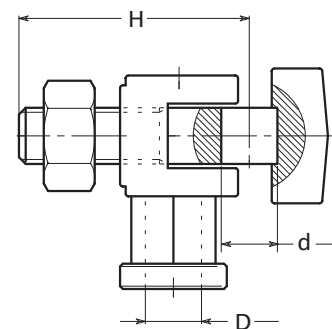
Codice Kit Kit Code	Classe Class	Rif.Pos. / Pos.refer.		
		060	200	260
A02030007A	1000	A02030007	A02030013	A02030014
A02042007A	2000	A02042007	A02042013	A02042014
A02048007A	3150	A02048007	A02048013	A02042014



Cod. S10

Morsetto stringicavo
Borne serre-câble
Connecting terminal
Flachanschluß

Codice Code	Classe Class	D	H	d
S10012000	-	M12	41	11



Materiale/Material:
Ottone UNI EN 12165 / Brass UNI EN 12165

