

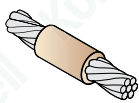
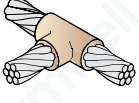
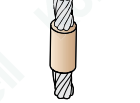
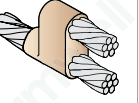
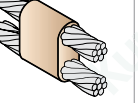
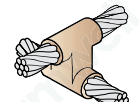
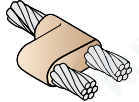
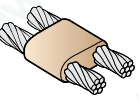
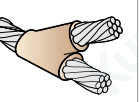
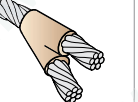
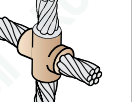
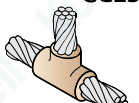
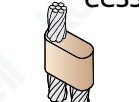
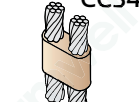
Kumwell



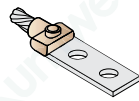
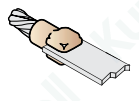
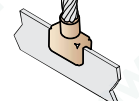
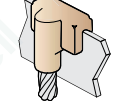
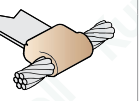
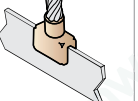
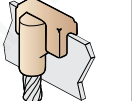
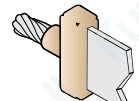
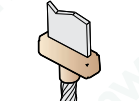
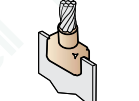
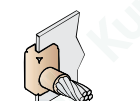
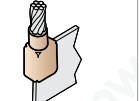
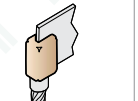
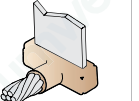
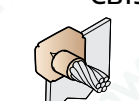
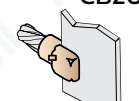
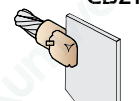
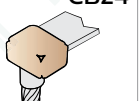
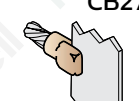
2024
Exothermic Welding
Product Catalog

Selection Chart

Cable to Cable

 Page 5	 Page 6	 See Note	 Page 7	 See Note	 Page 8	 Page 9	 See Note
 Page 10	 Page 11	 Page 12	 See Note	 See Note	 See Note	 See Note	 See Note
 See Note	 See Note	 See Note	 See Note	 See Note	 See Note	 See Note	 See Note
 See Note	 See Note	 Page 13	 See Note	 See Note	 See Note	 See Note	 See Note

Cable to Bus Bar

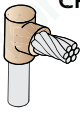
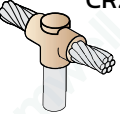
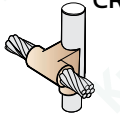
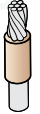
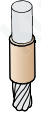
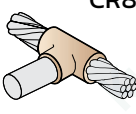
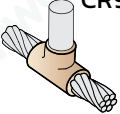
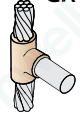
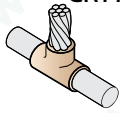
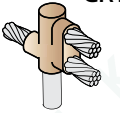
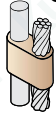
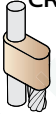
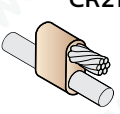
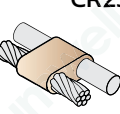
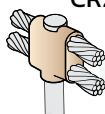
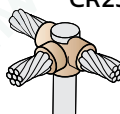
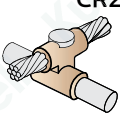
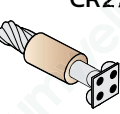
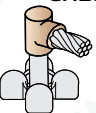
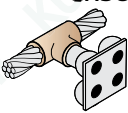
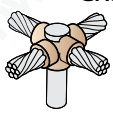
 Page 14	 Page 15	 See Note	 See Note	 Page 16	 Page 17	 See Note	 See Note
 See Note	 See Note	 See Note	 See Note	 See Note	 See Note	 See Note	 See Note
 See Note	 See Note	 See Note	 See Note	 See Note	 See Note	 See Note	 See Note
 See Note	 See Note	 Page 18	 See Note	 See Note	 See Note	 Page 19	 See Note

CB6, CB7 clearance behind bar 3/4" – 5"
CB34 used for signal reference ground grid copper strip ≤ 0.6 mm. thick.

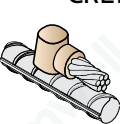
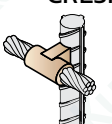
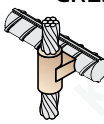
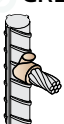
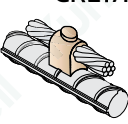
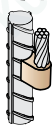
Note: Special requirement can be requested.

Selection Chart

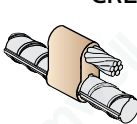
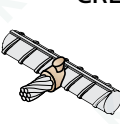
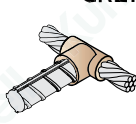
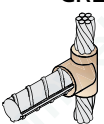
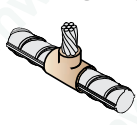
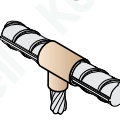
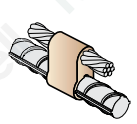
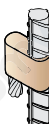
Cable to Ground Rod

 Page 20	 Page 21	 Page 22	 See Note	 See Note	 See Note	 See Note	 See Note
 See Note	 See Note	 See Note	 See Note	 See Note	 Page 23	 See Note	 See Note
 See Note	 See Note	 See Note	 See Note	 Page 24	 Page 25	 See Note	 See Note
 See Note	 See Note	 See Note	 See Note	 Page 26			

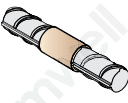
Cable to Rebar (Partially Wrapped)

 Page 27	 Page 28	 Page 29
 See Note	 Page 30	 Page 31
 Page 32	 Page 33	 Page 34

Cable to Rebar (Fully Wrapped)

 Page 35	 Page 36	 Page 37	 See Note
 See Note	 See Note	 See Note	 See Note
 See Note	 See Note	 See Note	 See Note
 Page 38	 Page 39	 Page 40	 Page 41

Rebar to Rebar

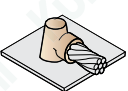
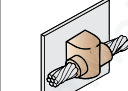
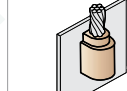
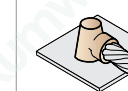
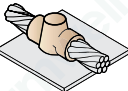
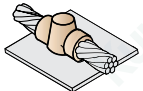
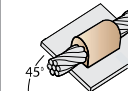
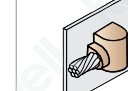
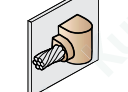
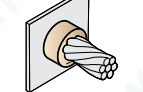
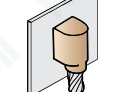
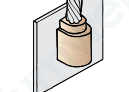
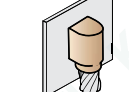
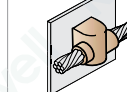
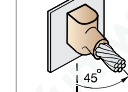
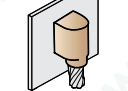
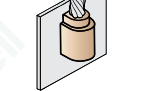
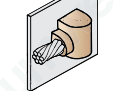
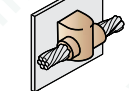
 Page 86	 Page 87
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CR should be used with Kumwell ground rod standard type without threaded.

Note: Special requirement can be requested.

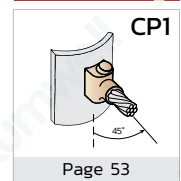
Selection Chart

Cable to Steel

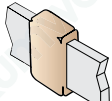
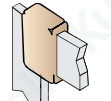
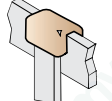
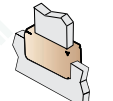
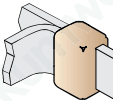
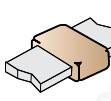
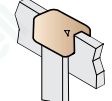
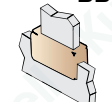
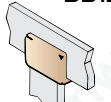
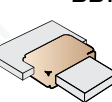
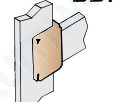
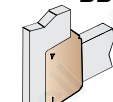
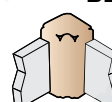
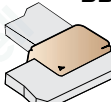
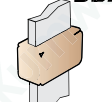
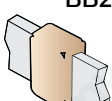
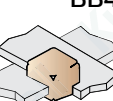
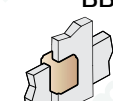
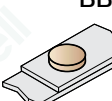
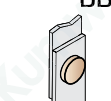
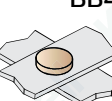
 Page 42	 Page 43	 Page 44	 Page 45	 See Note	 Page 46	 Page 47	 Page 48
 Page 49	 See Note	 See Note	 See Note	 See Note	 See Note	 See Note	 See Note
 See Note	 See Note	 Page 50	 See Note	 Page 51	 See Note	 Page 52	 See Note
 See Note	 See Note	 See Note	 See Note	 See Note			

Note: CSn - None
C Cast iron
N = On surface
F = Off surface

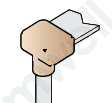
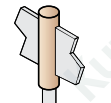
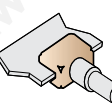
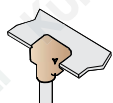
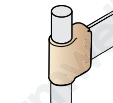
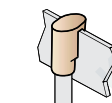
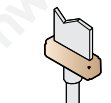
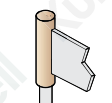
Cable to Pipe



Bus Bar to Bus Bar

 Page 55	 Page 56	 Page 57	 See Note	 See Note	 See Note	 Page 57	 See Note
 See Note	 See Note	 Page 59	 See Note	 See Note	 See Note	 See Note	 See Note
 See Note	 See Note	 Page 60	 Page 61	 See Note	 See Note	 See Note	 See Note

Bus Bar to Ground Rod

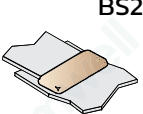
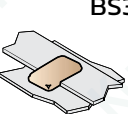
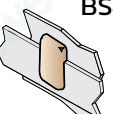
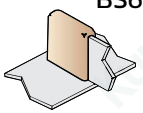
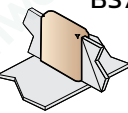
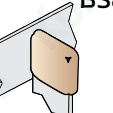
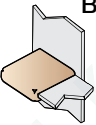
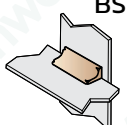
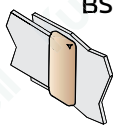
 Page 62	 Page 63	 Page 64	 Page 65	 See Note	 See Note	 See Note	 See Note
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BB8, BB11, BB28, BB29 clearance behind bar 3/4" ~ 5"
BB44, BB45, BB46 used for signal reference ground grid copper strip ≤ 0.6 mm. thick.
BR should be used with Kumwell ground rod standard type without threaded.

Note: Special requirement can be requested.

Selection Chart

Cable to Steel

 Page 66	 Page 67	 Page 68	 Page 69
 See Note	 See Note	 See Note	 See Note
 See Note	 See Note	 See Note	

CGR

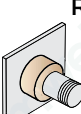
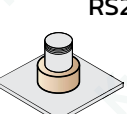
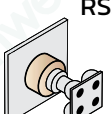
 Page 77	 Page 78
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CGRG

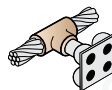
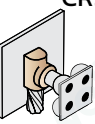
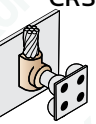
 Page 79	 Page 80
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 Page 81
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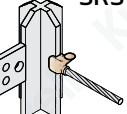
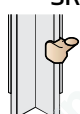
Copper or Steel Stud to Steel

 Page 70	 Page 71	 Page 72
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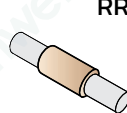
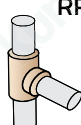
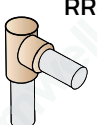
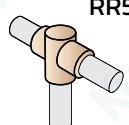
Ground Plates to Cable & Steel

 Page 73	 Page 74
 Page 75	 Page 76

Steel Cable to Steel Rod

 Page 89	 See Note
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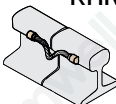
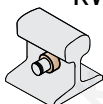
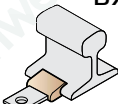
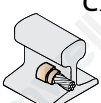
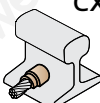
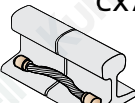
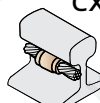
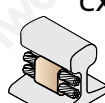
Ground Rod to Ground Rod

 Page 82	 Page 83	 Page 84	 Page 85	 Page 86
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Cathodic Protection

 Page 106	 Page 107
 Page 108	

Railway Application

KWRT (R/L)  Page 92	KHRT  Page 93	KWS  Page 94	BX1  Page 95	BX3  Page 96	BX4  Page 97	
CX1  Page 98	CX2  Page 99	CX5  Page 100	CX7  Page 101	CX8  Page 102	CX10  See Note	CX11  See Note

CGR = Cable to Grounding Receptacle

CGRG = Cable & Grounding Receptacle to Ground Rod

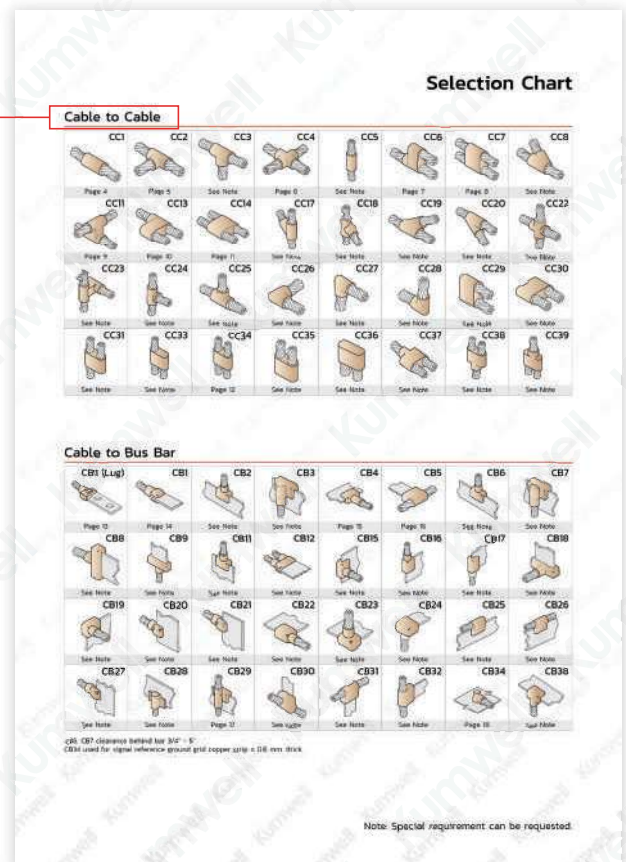
CGR, CGRG and RR should be used with Kumwell ground rod standard type without threaded.

Note: Special requirement can be requested.

How to Order

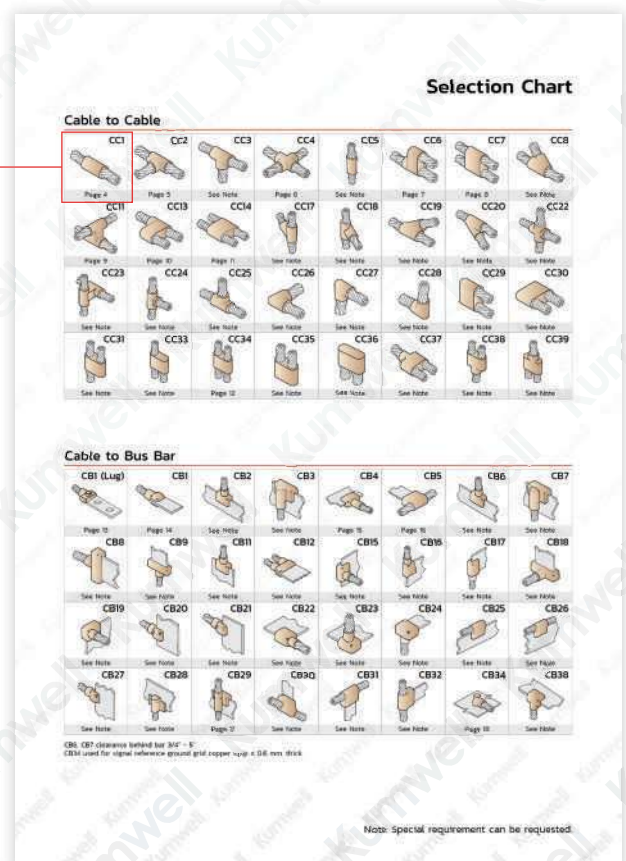
1. Search connection type in selection chart as your design

- Special connection can be requested



2. Search application type and then go to the page number in the corner of picture box

- Special application can be requested



How to Order

3. Search further details in the table which match to your requirement such as

- The cable size, bus bar size, etc.
- The ground rod size, e.g., 5/8", 3/4", etc.
- The rebar size, e.g., 20 mm, 40 mm diameter, etc.

4. Special connection can be requested

- Heavy-duty type
- Cable
 - Special size, e.g., 140 mm², 200 mm², 630 mm², etc.
 - Special size, e.g., AWG, Flexible Braid, etc.
 - Special design for special connection.
- Ground rod
 - Special size, e.g., 14 mm, 20 mm, 40 mm, etc.
 - Special size, e.g., stainless steel rod, copper pipe, stainless steel pipe, etc.
- K-MAX
 - K-MAX System see page
- For special requirement, please contact our technical department

E-mail : info@kumwell.com

Tel : (662)-954-3455

Fax : (662)-591-7891

CC1

Cable to Cable

Horizontal end to end

Equipment

Mold, Metal powder, Zirconium, Steel wire

Necessary Tools

Hand brush, Cable clasp brush, File, Heat sprayer, Scraper, Tool box

Recommended Tools

Butane torch, Butane gas, Gloves

Note

* 100% means Solid Copper
 * 100% means to use 2 tubes of 50 g = metal powder for one connection
 * 100% means to use 2 tubes of 200 g = metal powder for one connection
 * 100% means to use 10 L of steel wire

Conductor Size (mm ²)	Conductor Size (AWG)	Metal Powder	Graphite Mold Type	Handle Clamp Type
10	10	KW10	CC1-C-10	HC000
16	16	KW16	CC1-C-16	HC000
25	25	KW25	CC1-C-25	HC000
35	35	KW35	CC1-C-35	HC000
50	50	KW50	CC1-C-50	HC000
70	70	KW70	CC1-C-70	HC000
95	95	KW95	CC1-C-95	HC000
120	120	KW120	CC1-C-120	HC000
150	150	KW150	CC1-C-150	HC000
185	185	KW185	CC1-C-185	HC000
240	240	KW240	CC1-C-240	HC000
300	300	KW300	CC1-C-300	HC000
400	400	KW400	CC1-C-400	HC000
500	500	KW500	CC1-C-500	HC000
630	630	KW630	CC1-C-630	HC000
800	800	KW800	CC1-C-800	HC000
1000	1000	KW1000	CC1-C-1000	HC000

- A** Type of Connection
- B** Sample Connection
- C** Equipment
- D** Necessary Tools
- E** Recommended Tools
- F** Information
- G** Size of Rod or Rebar
- H** Size of Conductor
- I** Size of Weld Metal Powder
- J** Mould Type
- K** Handle Clamp Type

CRE18

Cable to Rebar Fully Wrapped Connection

Vertical parallel down cable to vertical rebar

Equipment

Mold, Metal powder, Zirconium, Steel wire

Necessary Tools

Hand brush, Cable clasp brush, File, Heat sprayer, Scraper, Tool box

Recommended Tools

Butane torch, Butane gas, Gloves

Note

* For perfect welding, clean and remove oxide and moisture from reinforcement steel and conductor before making connection
 * Kumwell CRE Mold provides ceramic film to prevent leakage

Rebar Size (mm)	Conductor Size (mm ²)	Conductor Size (AWG)	Metal Powder	Graphite Mold Type	Handle Clamp Type
10	16	16	KW16	CRE18-CL-1616	HC000
10	25	25	KW25	CRE18-CL-2516	HC000
10	35	35	KW35	CRE18-CL-3516	HC000
10	50	50	KW50	CRE18-CL-5016	HC000
10	70	70	KW70	CRE18-CL-7016	HC000
10	95	95	KW95	CRE18-CL-9516	HC000
10	120	120	KW120	CRE18-CL-12016	HC000
10	150	150	KW150	CRE18-CL-15016	HC000
10	185	185	KW185	CRE18-CL-18516	HC000
10	240	240	KW240	CRE18-CL-24016	HC000
10	300	300	KW300	CRE18-CL-30016	HC000
10	400	400	KW400	CRE18-CL-40016	HC000
10	500	500	KW500	CRE18-CL-50016	HC000
10	630	630	KW630	CRE18-CL-63016	HC000
10	800	800	KW800	CRE18-CL-80016	HC000
10	1000	1000	KW1000	CRE18-CL-100016	HC000