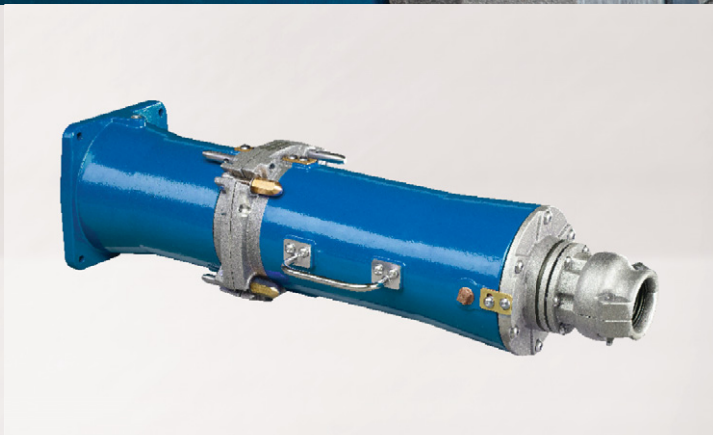


Plugs & receptacles

Macey[®] 25kV coupling system



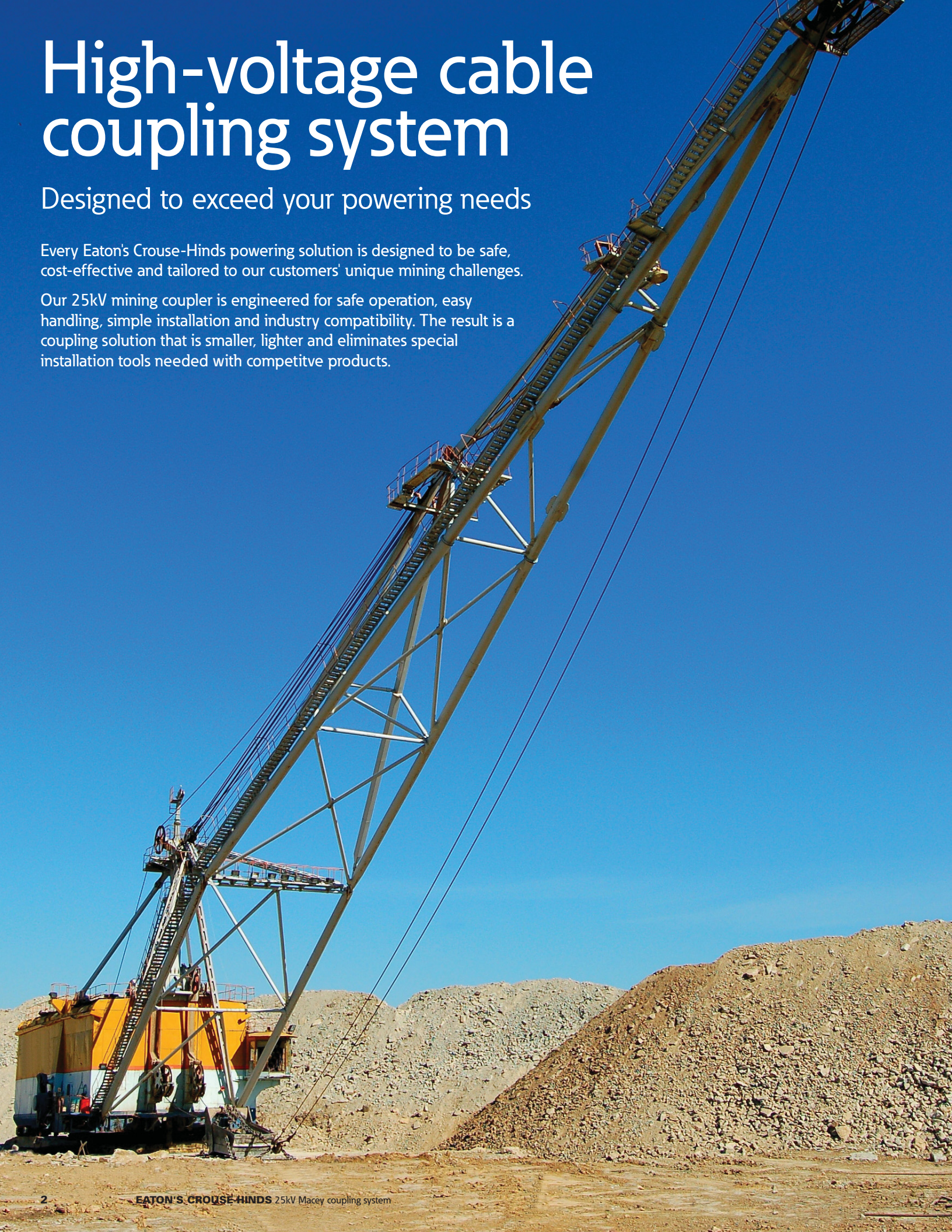
Crouse-Hinds
by **EAT•N**

High-voltage cable coupling system

Designed to exceed your powering needs

Every Eaton's Crouse-Hinds powering solution is designed to be safe, cost-effective and tailored to our customers' unique mining challenges.

Our 25kV mining coupler is engineered for safe operation, easy handling, simple installation and industry compatibility. The result is a coupling solution that is smaller, lighter and eliminates special installation tools needed with competitive products.



Introducing Eaton's Crouse-Hinds

Macey® 25kV coupling system

High-voltage couplers engineered for mining



Macey® 25kV cable mount coupler

Primary application

Macey® 25kV coupling systems are used to supply power to draglines, longwall machines, cranes and other types of equipment.

Industry-best ease of installation

- No special installation tools needed
- Smaller footprint and reduced weight versus the competition
- Interchangeable with other manufacturers' couplers
- Accommodates a wide range of cable types with entrance fittings, including fiber optic
- Retained bolting system
- Low insertion force/high current design
- Total air displacement—no potting of rear body termination point
- Slip-on stress cone termination module with compression type wire stems eliminates heat or cold shrinking (tyco) sleeves

Best-in-class reliability

- Fully shielded phase compartment eliminates phase to phase faults
- Louvered contact banding for: higher current capacity; lower contact pressure; improved short circuit performance

Increased ease of operation

- No altitude de-rating required
- Slip-on stress cone termination module eliminates strain on contact restraining clip
- Lockout/tagout feature

Service and support

- Four week lead time on standard configuration

Specifications & features

Electrical ratings

- 25kV, 700 amp
- Three-phase

Electrical test data

- AC withstand: 50kV for 1 minute; 40kV for 6 hours
- Short circuit: 25kA for 0.3 seconds (3 tests, 2 10 minute intervals)
- Basic impulse level: 125kV B.I.L.
- Earth through fault: 8kA for 0.2 seconds (3 tests, 2 10 minute intervals)
- Heat rise: 700 amps after 100 cycle contact pre-conditions at 45k over ambient and no more than 10k over the conductor

Environmental ratings

- IP66/67 testing to IEC 60529

Standard materials

- Housing: Aluminum
- Adapter: Aluminum
- Insulated end cover: Aluminum
- Cast protection cover: Aluminum
- Contacts and wire stems: Silver-plated copper
- Hardware: 316 stainless steel

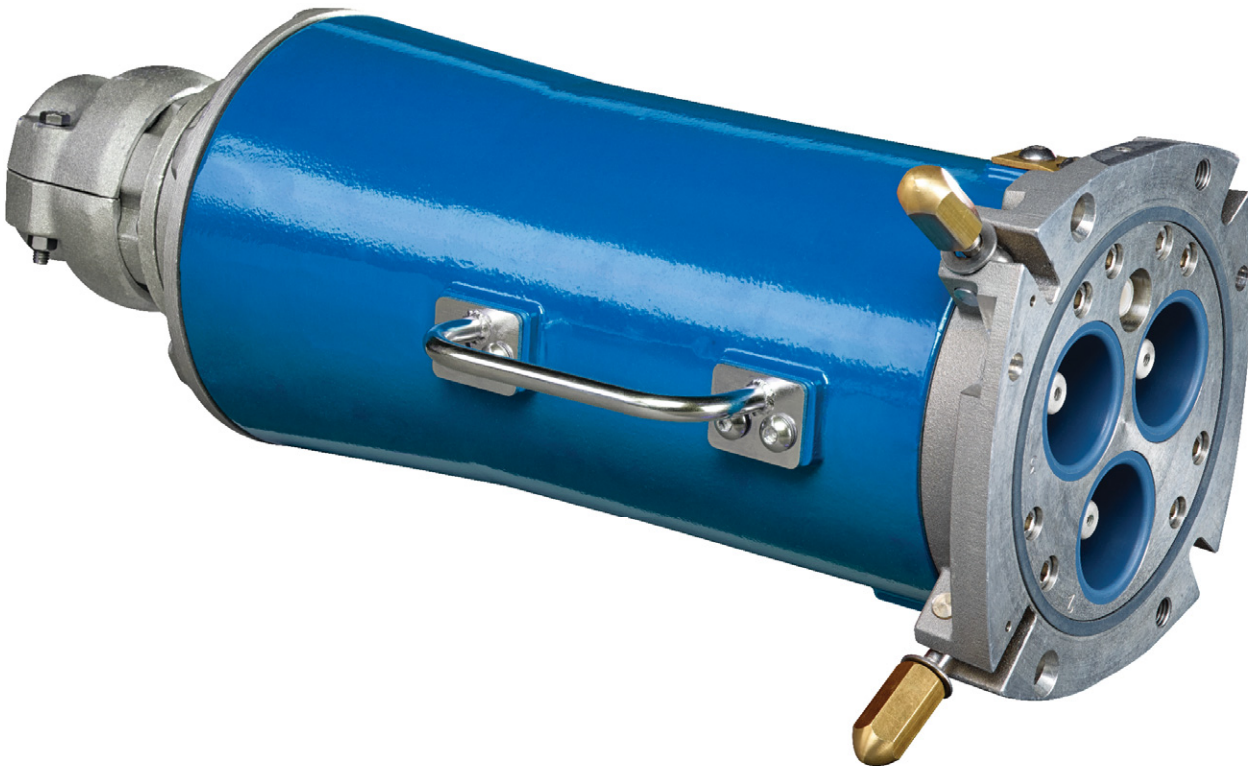
EASE OF INSTALLATION

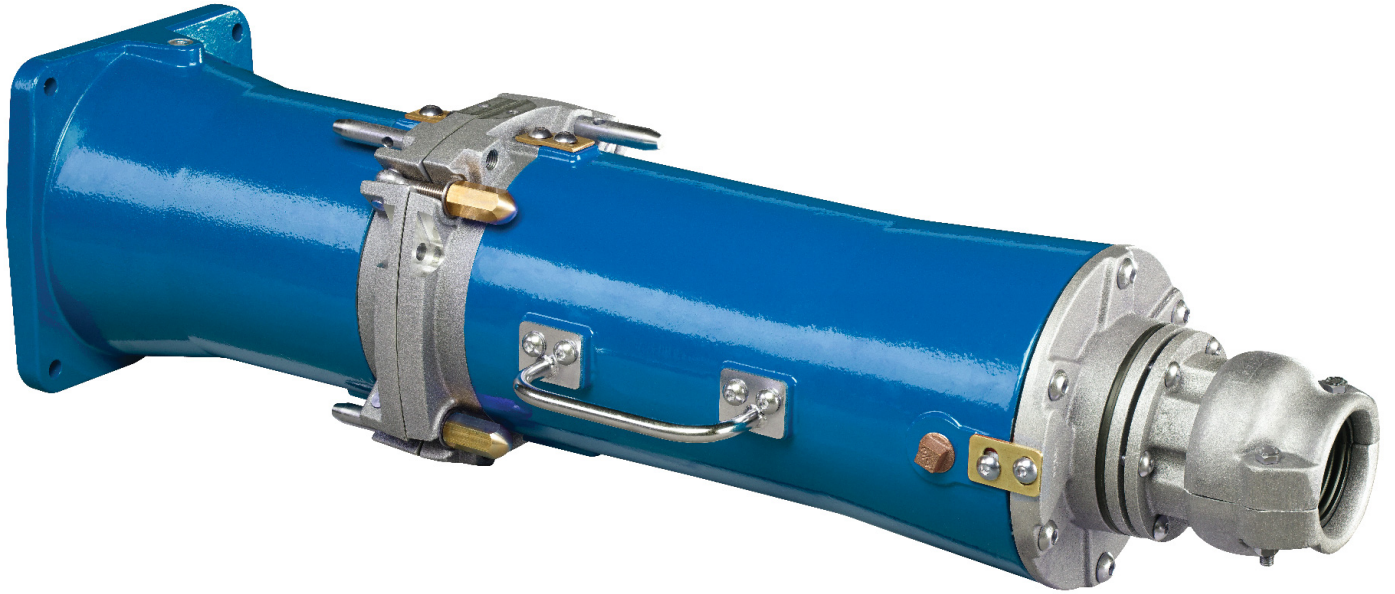
- Intermatable with other manufacturers' couplers
- Accommodates a wide range of cable types with entrance fittings
- Accommodates fiber optic cable (optional, contact factory for more information)
- Retained bolting system - no lost parts
- Total air displacement - no potting of rear body termination point
- Slip-on stress cone termination module with compression type wire stems eliminate heat or cold shrinking

Cable mount coupler

BEST-IN-CLASS RELIABILITY

- Fully shielded phase compartment eliminates phase to phase faults





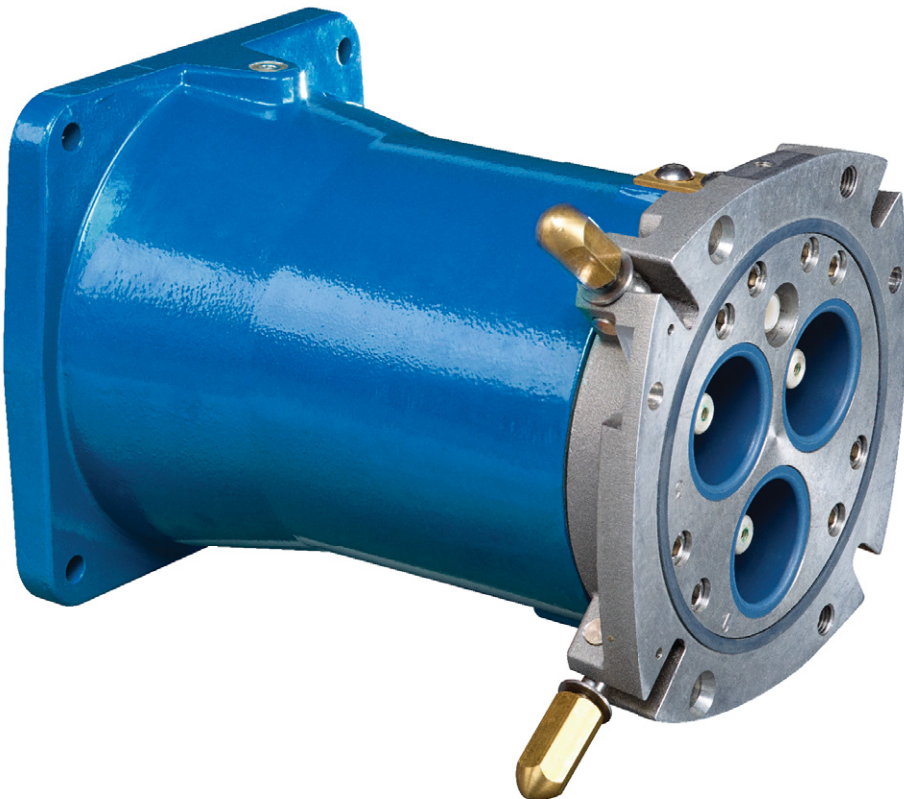
LOUVERED CONTACT BANDING

- Higher current capacity
- Lower contact pressure
- Improved short circuit performance

INCREASED EASE OF OPERATION

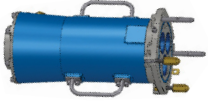
- No altitude de-rating required
- Slip-on stress cone termination module eliminates strain on contact restraining clip
- Lockout/tagout feature for safety

Equipment mount coupler



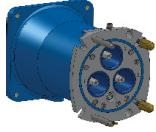
25 kV coupling system – ordering information

Cable mount coupler



Type	Part number	Cable diameter	Dimensions							
			Length		Width		Height		Weight	
			in.	mm.	in.	mm.	in.	mm.	lbs.	kg.s
Cable mount	700-710-25KVAL	0.82 – 3.55" 20.83 – 90.17 mm	25.00	635	9.50	241	10.00	254	39.80	16.1

Equipment mount coupler



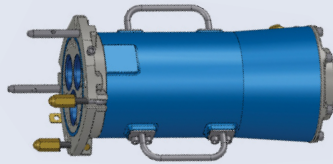
Type	Part number	Cable diameter	Dimensions							
			Length		Width		Height		Weight	
			in.	mm.	in.	mm.	in.	mm.	lbs.	kg.
Equipment mount	700-720-25KVAL	0.82 – 3.55" 20.83 – 90.17 mm	13.54	344	10.00	254	10.00	254	35.5	18.1

How to order

Refer to the ordering guides for required items, including:

- Equipment and cable mount couplers
- Additional required parts (Tables 1-5 on page 7)
- Installation kit (page 8)
- Mating components (page 8)

Cable mount coupler



1. Cable mount coupler and quantity

Part # 700-710-25KVAL Qty.

2. Entrance fitting (Table 1)

- For each coupler: (1) fitting required
- Size based on outside diameter of cable

Part # Qty.

3. Entrance fitting gasket (Table 2)

- For each coupler: (1) fitting required
- Size based on outside diameter of cable

Part # Qty.

4. Cable termination module (Table 3)

- For each coupler: (3) adapters required
- Size based on outside diameter of conductor insulation

Part # Qty.

5. Phase pins (Table 4)

- For each coupler: (3) pins required
- Size based on mm/AWG of conductor

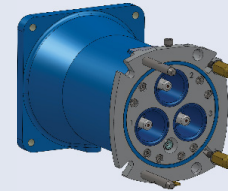
Part # Qty.

6. Ground terminal lugs (Table 5)

- For each coupler: (2) lugs required
- Size based on mm/AWG of conductor

Part # Qty.

Equipment mount coupler



1. Equipment mount coupler and quantity

Part # 700-720-25KVAL Qty.

2. Cable termination module (Table 3)

- For each coupler: (3) adapters required
- Size based on outside diameter of conductor insulation

Part # Qty.

3. Phase pins (Table 4)

- For each coupler: (3) pins required
- Size based on mm/AWG of conductor

Part # Qty.

4. Ground terminal lugs (Table 5)

- For each coupler: (2) lugs required
- Size based on mm/AWG of conductor

Part # Qty.

Mating components

The following are **required for each mated pair** of couplers (either cable or equipment mount). Order (3) phase insulators and (1) earth pilot connector for every 2 couplers.

Phase insulator (see page 8)

- For each mated pair: (3) required

Part # 700-700-0020 QTY. 3

Earth/pilot connector (see page 8)

- For each mated pair: (1) required

Part # 700-25-0000 QTY. 1

Table 1: Entrance fittings


Type	Part number	Range (mm/AWG)
Entrance fittings 	EC150F3029	0.82" – 1.87"
	EC150F3030	1.88" – 2.37"
	EC150F3031	2.38" – 2.75"
	EC150F3032	2.76" – 3.55"

Table 2: Entrance fitting gaskets


Type	Part number	Range (mm/AWG)	Use with entrance fitting	Part number	Range (mm/AWG)	Use with entrance fitting
Entrance fitting gaskets 	EC150F3004	0.82" – 0.87"	EC150F3029	EC150F3016	2.01" – 2.12"	EC150F3030
	EC150F3005	0.88" – 0.94"	EC150F3029	EC150F3017	2.13" – 2.25"	EC150F3030
	EC150F3006	0.95" – 1.01"	EC150F3029	EC150F3018	2.26" – 2.37"	EC150F3030
	EC150F3007	1.01" – 1.05"	EC150F3029	EC150F3019	2.38" – 2.50"	EC150F3031
	EC150F3008	1.06" – 1.12"	EC150F3029	EC150F3020	2.51" – 2.62"	EC150F3031
	EC150F3009	1.13" – 1.25"	EC150F3029	EC150F3021	2.63" – 2.75"	EC150F3031
	EC150F3010	1.26" – 1.37"	EC150F3029	EC150F3022	2.76" – 2.87"	EC150F3032
	EC150F3011	1.38" – 1.50"	EC150F3029	EC150F3023	2.88" – 3.00"	EC150F3032
	EC150F3012	1.51" – 1.62"	EC150F3029	EC150F3024	3.01" – 3.12"	EC150F3032
	EC150F3013	1.63" – 1.75"	EC150F3029	EC150F3025	3.13" – 3.25"	EC150F3032
	EC150F3014	1.76" – 1.87"	EC150F3029	EC150F3026	3.26" – 3.37"	EC150F3032
	EC150F3015	1.88" – 2.00"	EC150F3030	EC150F3027	3.38" – 3.54"	EC150F3032

Table 3: Cable adapters (terminating module) and bushings


Type	Part number	Range	Adapter part number	Bushing part number
Cable adapters (terminating module) & bushings 	EC250J3001-C	0.750" – 0.970"	OS-W-972-CC	A-082-C
	EC250J3001-D	0.971" – 1.09"	OS-W-972-DD	A-082-D
	EC250J3001-E	1.10" – 1.260"	OS-W-972-EE	A-082-E
	EC250J3001-F	1.261" – 1.360"	OS-W-972-FF	Not Required
	EC250J3001-G	1.361" – 1.510"	OS-W-972-GG	Not Required

Table 4: Phase pins



Type	Part number	Range (mm/AWG)
Phase pins 	700-25-0009-S	35 mm ² / #1 AWG
	700-25-0010-S	50 mm ² / 1/0 AWG
	700-25-0012-S	70 mm ² / 2/0 AWG
	700-25-0014-S	95 mm ² / 3/0 AWG
	700-25-0016-S	120 mm ² / 4/0 AWG
	700-25-0018	150 mm ² / 300 MCM AWG
	700-25-0020	185 mm ² / 350 MCM AWG
	700-25-0023	240 mm ² / 500 MCM AWG
	700-25-0026	300 mm ² / 600 MCM AWG

Table 5: Ground terminal lugs

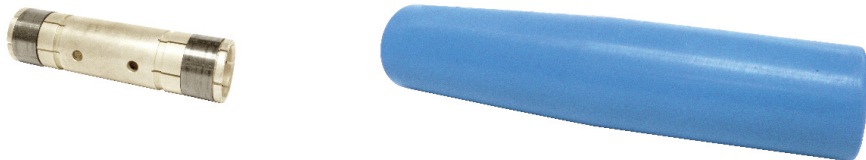
Type	Part number	Range (mm/AWG)
Ground terminal lugs 	700-25-1035	35 mm ² / #1 AWG
	700-25-1050	50 mm ² / 1/0 AWG
	700-25-1070	70 mm ² / 2/0 AWG
	700-25-1095	95 mm ² / 3/0 AWG
	700-25-1120	120 mm ² / 4/0 AWG
	700-25-1121	120 mm ² / 250 MCM AWG
	700-25-1150	150 mm ² / 300 MCM AWG
	700-25-1185	185 mm ² / 350 MCM AWG
	700-25-1240	240 mm ² / 500 MCM AWG
	700-25-1300	300 mm ² / 600 MCM AWG

Installation materials & mating components – ordering information



Installation kit

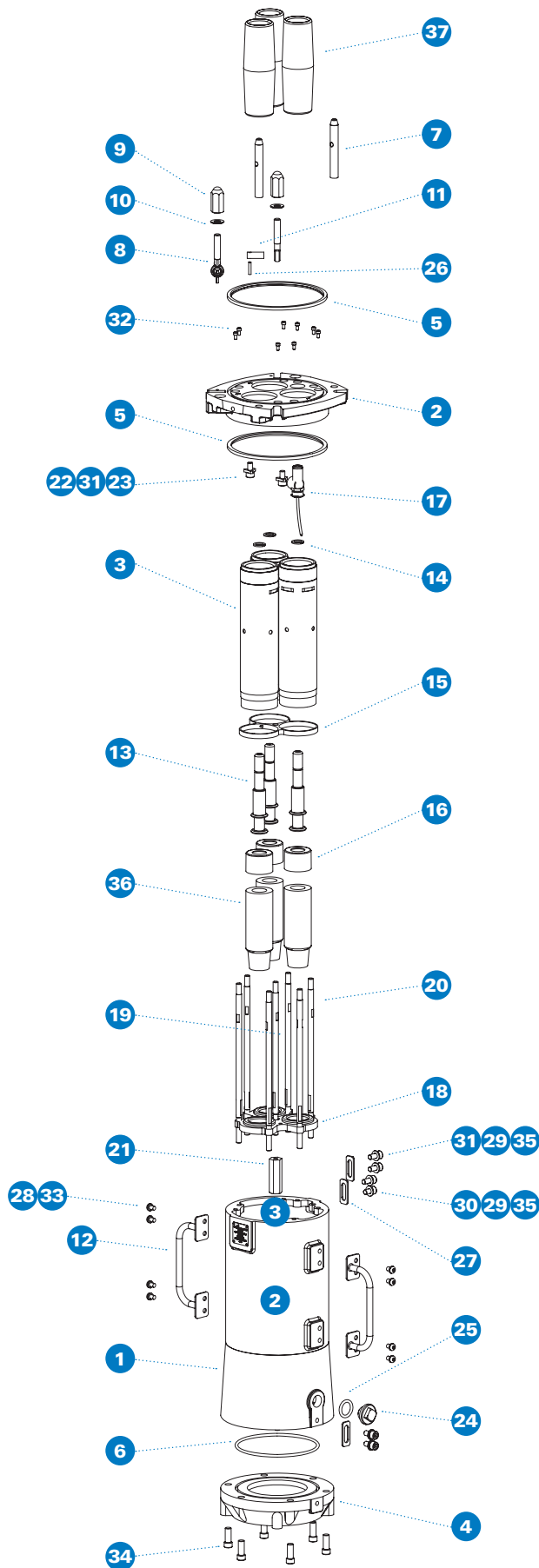
Type	Part number	Description
Complete installation kit	EC250J3002	Complete installation kit includes the following materials and quantities: <ul style="list-style-type: none"> • (3) tubes silicon grease • (1) roll vinyl electrical tape • (1) semiconductor tape • (3) bonding straps • (3) solvent cleaning wipes • (1) emery cloth



Mating components

Type	Part number	Description
Mating components	700-700-0020	Phase insulator
	700-25-0000	Earth/pilot connector

Bill of material



Phase pin

Part number	Cable CSA
700-25-0009	35 mm ²
700-25-0010	50 mm ²
700-25-0012	70 mm ²
700-25-0014	95 mm ²
700-25-0016	120 mm ²
700-25-0018	150 mm ²
700-25-0020	185 mm ²
700-25-0023	240 mm ²
700-25-0026	300 mm ²

Compression plate

Part number	Bushing I.D.
700-25-8001	1-3/8"
700-25-8002	1-17/32"
700-25-8003	1-21/32"

*Note 1:

Contact us for termination kit ordering:
 ph: 866.764.5454
 e: CrouseCustomerCTR@Eaton.com

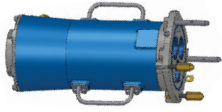
Item #	Part number	Description	Qty.
1	25-11-0001AL	Main housing	1
2	25-10-0002AL	Front housing	1
3	700-25-1000	Interior	3
4	25-30-0020	Gland adapter	1
5	25-30-0002	Interface seal	2
6	25-30-0003	Gland cover o-ring	1
7	25-30-0004	Guiding pin	2
8	25-30-0005	Eye bolt	2
9	25-30-0006	Coupling nut	2
10	25-30-0007	Washer flat 1/2"	2
11	25-30-0008	Coupling bolt pivot pin	2
12	11-30-0027	Carry handle	2
13	SEE TABLE 1	Phase pin	3
14	25-30-0024	Phase pin retainer clip	3
15	25-30-0009	Interior retainer	1
16	25-30-0010	Filler seal	3
17	700-25-1001	Pilot socket	1
18	SEE TABLE 2	Compression plate	1
19	25-30-0011	Earth rod	1
20	25-30-0012	Compression rod	6
21	25-30-0013	Earth thimble	1
22	25-30-0014	Interior bracket	2
23	25-30-0015	Washer, tooth lock, M10	2
24	25-30-0016	Plug	1
25	25-30-0017	Plug o-ring	1
26	25-30-0018	Roll pin	2
27	11-30-0008	Earth link	3
28	11-30-0034	Screw, M8x12 mm	8
29	950-001-0010	Washer, spring, M10	6
30	990-010-0016	Screw, M8x12 mm	1
31	990-010-0020	Screw, M10x20 mm	7
32	990-010-0050	Screw, M10x50 mm	8
33	148-2664	Washer, spring, M8	8
34	148-2883	Screw, M12x30 mm	6
35	148-3146	Washer, flat, M10	6

Optional Parts

36	*SEE NOTE #1	Termination kit	1
37	700-700-0020	700A shrouded main socket	3

Additional cable mount coupler ordering worksheets

Cable mount coupler



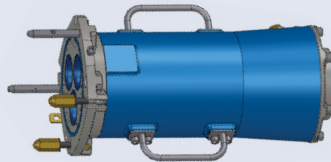
Type	Part number	Cable diameter	Dimensions							
			Length		Width		Height		Weight	
			in.	mm.	in.	mm.	in.	mm.	lbs.	kg.
Cable mount	700-710-25KVAL	0.82 – 3.55" 20.83 – 90.17 mm	25.00	635	9.50	241	10.00	254	39.80	16.1

How to order

Refer to the ordering guides for required items, including:

- Equipment and cable mount couplers
- Additional required parts (Tables 1-5 on page 7)
- Installation kit (page 8)
- Mating components (page 8)

Cable mount coupler



1. Cable mount coupler and quantity

Part # 700-710-25KVAL Qty.

2. Entrance fitting (Table 1)

- For each coupler: (1) fitting required
- Size based on outside diameter of cable

Part # Qty.

3. Entrance fitting gasket (Table 2)

- For each coupler: (1) fitting required
- Size based on outside diameter of cable

Part # Qty.

4. Cable termination module (Table 3)

- For each coupler: (3) adapters required
- Size based on outside diameter of conductor insulation

Part # Qty.

5. Phase pins (Table 4)

- For each coupler: (3) pins required
- Size based on mm/AWG of conductor

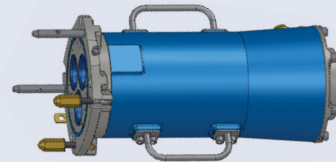
Part # Qty.

6. Ground terminal lugs (Table 5)

- For each coupler: (2) lugs required
- Size based on mm/AWG of conductor

Part # Qty.

Cable mount coupler



1. Cable mount coupler and quantity

Part # 700-710-25KVAL Qty.

2. Entrance fitting (Table 1)

- For each coupler: (1) fitting required
- Size based on outside diameter of cable

Part # Qty.

3. Entrance fitting gasket (Table 2)

- For each coupler: (1) fitting required
- Size based on outside diameter of cable

Part # Qty.

4. Cable termination module (Table 3)

- For each coupler: (3) adapters required
- Size based on outside diameter of conductor insulation

Part # Qty.

5. Phase pins (Table 4)

- For each coupler: (3) pins required
- Size based on mm/AWG of conductor

Part # Qty.

6. Ground terminal lugs (Table 5)

- For each coupler: (2) lugs required
- Size based on mm/AWG of conductor

Part # Qty.

Mating components

The following are **required for each mated pair** of couplers (either cable or equipment mount). Order (3) phase insulators and (1) earth pilot connector for every 2 couplers.

Phase insulator (see page 8)

- For each mated pair: (3) required

Part # 700-700-0020 QTY. 3

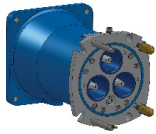
Earth/pilot connector (see page 8)

- For each mated pair: (1) required

Part # 700-25-0000 QTY. 1

Additional equipment mount coupler ordering worksheets

Equipment mount coupler



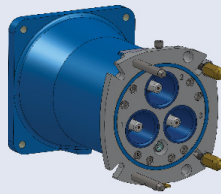
Type	Part number	Cable diameter	Dimensions							
			Length		Width		Height		Weight	
			in.	mm.	in.	mm.	in.	mm.	lbs.	kg.
Equipment mount	700-720-25KVAL	0.82 – 3.55" 20.83 – 90.17 mm	13.54	344	10.00	254	10.00	254	35.50	18.1

How to order

Refer to the ordering guides for required items, including:

- Additional required parts (Tables 1-5 on page 7)
- Installation kit (page 8)
- Mating components (page 8)

Equipment mount coupler



1. Equipment mount coupler and quantity

Part # 700-720-25KVAL Qty.

2. Cable termination module (Table 3)

- For each coupler: (3) adapters required
- Size based on outside diameter of conductor insulation

Part # Qty.

3. Phase pins (Table 4)

- For each coupler: (3) pins required
- Size based on mm/AWG of conductor

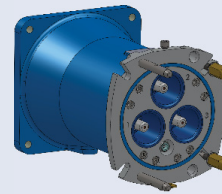
Part # Qty.

4. Ground terminal lugs (Table 5)

- For each coupler: (2) lugs required
- Size based on mm/AWG of conductor

Part # Qty.

Equipment mount coupler



1. Equipment mount coupler and quantity

Part # 700-720-25KVAL Qty.

2. Cable termination module (Table 3)

- For each coupler: (3) adapters required
- Size based on outside diameter of conductor insulation

Part # Qty.

3. Phase pins (Table 4)

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- Size based on mm/AWG of conductor

Part # Qty.

4. Ground terminal lugs (Table 5)

- For each coupler: (2) lugs required
- Size based on mm/AWG of conductor

Part # Qty.

Mating components

The following are **required for each mated pair** of couplers (either cable or equipment mount). Order (3) phase insulators and (1) earth pilot connector for every 2 couplers.

Phase insulator (see page 8)

- For each mated pair: (3) required

Part # 700-700-0020 QTY. 3

Earth/pilot connector (see page 8)

- For each mated pair: (1) required

Part # 700-25-0000 QTY. 1

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CrouseCustomerCTR@eaton.com

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If further assistance is required, please contact an authorized Eaton Distributor, Sales Office, or Customer Service Department.

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FAX: (800) 263-9504
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