

*Euclid Type SSR—1.3 to 101 Amperes*

## Features

*The Type SSR Industrial Power Resistor series consists of two different types of units: a hexwound unit and an edgewound unit. Both types feature continuous resistive elements supported on porcelain insulated core strips.*

- Rugged shock-resisting, non-breakable construction.
- Resistor assembly floats in slotted insulators.
- Corrosion resistant materials.
- Negligible temperature coefficient of resistance.
- Assembled resistor banks provide double insulation to ground.
- Individual resistor units in an assembled bank can be replaced without disrupting adjacent units.
- A variety of standard mounting frames, brackets, and enclosures.
- Assembled frames have identical mounting dimensions to old style assemblies. (Rod bolt mount)

## Description

### Hexwound Resistors

For relatively light current applications, the Hexwound resistors provide 13 different current ratings in the range of 1.3 to 7.2 amperes. For each rating the resistor units are available in five different coil lengths, enabling the resistors to be selected to precisely meet the application requirements.

The Hexwound resistors consist of four basic parts, each engineered to perform a specific function. The core strip provides convenience in mounting while providing rugged support for the resistive element.

The porcelain insulators are grooved to uniformly support each turn of the wirewound resistor element. Thus, each turn is insulated from each other and from the core strip.

The terminals of the Hexwound resistor are engineered to assure sound electrical as well as mechanical connections. The terminal securely clamps to two turns of the resistor element.

The resistive element of the hexwound resistor, like in all Euclid resistors, is a continuous element.

### Edgewound Resistors

For heavier current requirements, the Edgewound resistors are available in 28 different current ratings, 8.5 amps through 101 amps without paralleling elements. The Edgewound units are available in five different lengths.

Edgewound resistors are constructed of a helical coil supported by patented porcelain insulators on a steel core strip. The porcelain insulators provide the turn-to-turn and turn-to-core strip insulation.

The resistive element is formed by edgewise winding stainless steel to form a continuous helix.

The standard end terminal provided with edgewound resistors is a welded terminal. This welded terminal provides sound electrical connection to the resistive element while providing a good terminal for external connections. Intermediate taps or adjustable terminals are clamp type and can be positioned to practically any turn on the resistor.

## Application

These resistors are ideally suited for use in the secondary of AC wound rotor motors for accelerating, plugging, or speed regulating service. In the primary of the AC squirrel cage motors, these resistors serve as ballast resistors to eliminate the undesirable high torque and starting current associated with this type of motor.

Industrial Power Resistors are also used in conjunction with appropriate control equipment to accelerate, plug, or dynamic brake DC motors.

Other applications for resistors include: neutral grounding resistors, AC and DC dynamic braking, load banks, current limiting, and ballast for mercury vapor lamps. The rating versatility as well as the mounting flexibility, enable the resistors to be applied in other innumerable ways.

## Frames and Enclosures

Euclid power resistors can be supplied factory mounted in a variety of galvanized steel frames and enclosures; standard frames, open frames, or mill frame. Covers consist of cane metal enclosed, ventilated weatherproof enclosed or totally enclosed nonventilated.

Standard frames are supplied with resistor assemblies unless otherwise specified.



## Unassembled Resistors

Order by:

- Part Numbers of Individual Resistor Coils
- Part Numbers of Adjustable Terminals
- Part Number of Mounting Sockets and Clips
- Catalog Numbers of Frame
- Catalog Numbers of Cover (if required)

3 - Part No. 69285-006 Coils . . . . .	\$288 x 3 = \$864
3 - Part No. 17578-001 Adjustable Terminals . . .	\$38 x 3 = \$114
6 - Part No. 69279-001 Mtg. Sockets & Clips . . .	No Charge*
1 - Cat. No. SSRS-35 Frame . . . . .	\$312
1 - Cat. No. 1CM-35 Cover . . . . .	\$500

**Total: \$1,790**

## Assembled Resistors

The following special services are available at a modest price addition:

- Resistor drawing, consisting of a connection diagram and Bill of Materials
- Assembly of Coils into Frames
- Placement of more than one adjustable terminal per resistor coil
- Interwiring between coils in a frame
- Interwiring between stacked frames
- Assembly of cover to standard frame, if cover is required

3 - Part No. 69285-006 Coils . . . . .	\$288 x 3 = \$864
3 - Part No. 17578-001 Adjustable Terminals . . .	\$38 x 3 = \$114
6 - Part No. 69279-001 Mtg. Sockets & Clips . . .	No Charge*
1 - Cat. No. SSRS-35 Frame . . . . .	\$312

**Sub Total: \$1,290**

Interwiring Coils, and Placement of . . . . .	\$256
Adjustable Terminal per drawing (Add 10%)	
1 - Cat. No. 1CM-35 Cover . . . . .	\$1,000

**Total: \$2,546**

For any of the above features add 10% to component price. (Coils + Frames + Adjustable Terminals)

### Engineered Resistor Assemblies

Hubbell Industrial Control's Engineering Staff will design resistor assemblies for your special application. Your inquiry should include (when possible): type of Equipment/Control Involved; Function to be Performed; Motor/Load Data including duty cycle, total ohmic value, tap locations, ampere rating, and special ambient conditions.

**Note:**

\*Mounting Sockets Must Be Specified On Purchase Order. Included in price of coils when coils are furnished with frame.

Add the prefix "HC" before all **Part Numbers**.



# Hexwound Resistor Coils

DISCOUNT CODE EK



AMP	Size 3			Size 4			Size 5			Siz			Size 7		
	Part No.	Ohms	List	Part No.	Ohms	List	Part No.	Ohms	List	Part No.	Ohms	List	Part No.	Ohms	List
1.5	69423-002	64.0	\$224	69424-002	87.0	\$262	69425-002	110.0	\$288	69426-002	133.0	\$324	69427-002	156.0	\$350
1.7	69423-003	51.0	\$224	69424-003	69.0	\$262	69425-003	87.0	\$288	69426-003	105.0	\$324	69427-003	123.0	\$350
2.0	69423-004	40.0	\$224	69424-004	55.0	\$262	69425-004	69.0	\$288	69426-004	83.0	\$324	69427-004	98.0	\$350
2.3	69423-005	32.0	\$224	69424-005	43.0	\$262	69425-005	55.0	\$288	69426-005	66.0	\$324	69427-005	77.0	\$350
2.7	69423-006	25.0	\$224	69424-006	34.0	\$262	69425-006	44.0	\$288	69426-006	53.0	\$324	69427-006	62.0	\$350
3.0	69423-007	20.0	\$250	69424-007	27.0	\$288	69425-007	34.0	\$312	69426-007	42.0	\$362	69427-007	49.0	\$400
4.0	69423-009	13.0	\$250	69424-009	17.0	\$288	69425-009	22.0	\$312	69426-009	26.0	\$362	69427-009	31.0	\$400
4.6	69423-010	10.2	\$250	69424-010	14.0	\$288	69425-010	18.0	\$312	69426-010	21.0	\$362	69427-010	25.0	\$400
5.2	69423-011	8.1	\$300	69424-011	11.0	\$350	69425-011	14.0	\$374	69426-011	17.0	\$424	69427-011	20.0	\$500
6.5	69423-012	6.3	\$300	69424-012	8.6	\$350	69425-012	11.0	\$374	69426-012	13.0	\$424	69427-012	15.0	\$500
7.2	69423-013	5.1	\$300	69424-013	6.9	\$350	69425-013	8.7	\$374	69426-013	10.5	\$424	69427-013	12.3	\$500

# Edgewound Resistor Coils

DISCOUNT CODE EK



AMP	Size 3			Size 4			Size 5			Size 6			Size 7		
	Part No.	Ohms	List	Part No.	Ohms	List	Part No.	Ohms	List	Part No.	Ohms	List	Part No.	Ohms	List
5.5	69283-001	11.50	\$224	69284-001	15.60	\$262	69285-001	19.80	\$288	69286-001	24.00	\$324	69287-001	28.20	\$350
7	69283-002	7.77	\$224	69284-002	10.56	\$262	69285-002	13.40	\$288	69286-002	16.20	\$324	69287-002	19.05	\$350
8.5	69283-003	5.870	\$224	69284-003	7.980	\$262	69285-003	10.100	\$288	69286-003	12.200	\$324	69287-003	14.320	\$350
10	69283-004	4.470	\$224	69284-004	6.070	\$262	69285-004	7.680	\$288	69286-004	9.280	\$324	69287-004	10.900	\$350
11	69283-005	3.760	\$224	69284-005	5.170	\$262	69285-005	6.580	\$288	69286-005	8.000	\$324	69287-005	9.400	\$350
12	69283-006	3.070	\$224	69284-006	4.230	\$262	69285-006	5.380	\$288	69286-006	6.540	\$324	69287-006	7.680	\$350
13	69283-008	2.700	\$224	69284-008	3.720	\$262	69285-008	4.730	\$288	69286-008	5.750	\$324	69287-008	6.760	\$350
16	69283-010	2.080	\$224	69284-010	2.860	\$262	69285-010	3.640	\$288	69286-010	4.420	\$324	69287-010	5.200	\$350
18	69283-011	1.430	\$262	69284-011	1.960	\$300	69285-011	2.500	\$324	69286-011	3.040	\$374	69287-011	3.570	\$412
20	69283-012	1.310	\$262	69284-012	1.810	\$300	69285-012	2.300	\$324	69286-012	2.790	\$374	69287-012	3.290	\$412
22	69283-013	1.140	\$262	69284-013	1.570	\$300	69285-013	2.000	\$324	69286-013	2.430	\$374	69287-013	2.850	\$412
24	69283-014	0.945	\$262	69284-014	1.300	\$300	69285-014	1.650	\$324	69286-014	2.000	\$374	69287-014	2.360	\$412
27	69283-015	0.746	\$262	69284-015	1.020	\$300	69285-015	1.304	\$324	69286-015	1.580	\$374	69287-015	1.860	\$412
30	69283-016	0.571	\$262	69284-016	0.786	\$300	69285-016	1.000	\$324	69286-016	1.210	\$374	69287-016	1.430	\$412
34	69283-017	0.472	\$300	69284-017	0.650	\$350	69285-017	0.826	\$374	69286-017	1.000	\$424	69287-017	1.180	\$500
37	69283-018	0.428	\$300	69284-018	0.589	\$350	69285-018	0.750	\$374	69286-018	0.911	\$424	69287-018	1.070	\$500
40	69283-019	0.371	\$300	69284-019	0.510	\$350	69285-019	0.650	\$374	69286-019	0.789	\$424	69287-019	0.928	\$500
45	69283-020	0.290	\$300	69284-020	0.394	\$350	69285-020	0.499	\$374	69286-020	0.603	\$424	69287-020	0.708	\$500
50	69283-021	0.245	\$300	69284-021	0.334	\$350	69285-021	0.422	\$374	69286-021	0.511	\$424	69287-021	0.599	\$500
52	69283-022	0.226	\$300	69284-022	0.308	\$350	69285-022	0.390	\$374	69286-022	0.471	\$424	69287-022	0.553	\$500
56	69283-023	0.192	\$300	69284-023	0.262	\$350	69285-023	0.331	\$374	69286-023	0.400	\$424	69287-023	0.470	\$500
60	69283-024	0.180	\$350	69284-024	0.245	\$424	69285-024	0.310	\$450	69286-024	0.374	\$524	69287-024	0.440	\$600
64	69283-025	0.156	\$350	69284-025	0.212	\$424	69285-025	0.268	\$450	69286-025	0.324	\$524	69287-025	0.360	\$600
67	69283-026	0.145	\$350	69284-026	0.197	\$424	69285-026	0.249	\$450	69286-026	0.301	\$524	69287-026	0.354	\$600
70	69283-027	0.136	\$350	69284-027	0.186	\$424	69285-027	0.236	\$450	69286-027	0.286	\$524	69287-027	0.335	\$600
76	69283-028	0.110	\$350	69284-028	0.156	\$424	69285-028	0.191	\$450	69286-028	0.232	\$524	69287-028	0.272	\$600
82	69283-029	0.100	\$424	69284-029	0.136	\$500	69285-029	0.173	\$550	69286-029	0.209	\$624	69287-029	0.246	\$698
85	69283-030	0.087	\$424	69284-030	0.118	\$500	69285-030	0.150	\$550	69286-030	0.182	\$624	69287-030	0.214	\$698
94	69283-031	0.071	\$424	69284-031	0.097	\$500	69285-031	0.124	\$550	69286-031	0.150	\$624	69287-031	0.176	\$698
101	69283-032	0.060	\$424	69284-032	0.082	\$500	69285-032	0.105	\$550	69286-032	0.127	\$624	69287-032	0.150	\$698

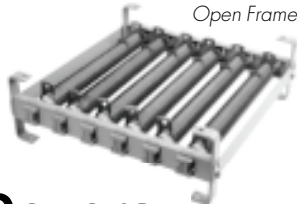
Add the prefix "HC" before all Part Numbers.

Ampere ratings are based on single coils operating in free air at a temperature rise not to exceed 300°C for Hexwound Resistor Coils or 375°C for Edgewound Resistor Coils.

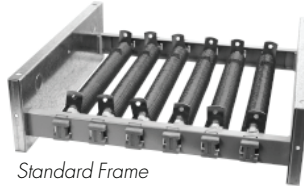
# Frames DISCOUNT CODE EK

2 Coils		3 Coils		4 Coils		5 Coils		6 Coils		7 Coils	
Cat No.*	List Price	Cat No.*	List Price	Cat No.*	List Price	Cat No.*	List Price	Cat No.*	List Price	Cat No.*	List Price
<b>Open Frames</b>											
SSRO-2	\$300	SSRO-3	\$300	SSRO-4	\$350	SSRO-5	\$350	SSRO-6	\$400	SSRO-7	\$400
<b>Standard Frames</b>											
SSRS-2	\$312	SSRS-3	\$312	SSRS-4	\$374	SSRS-5	\$374	SSRS-6	\$436	SSRS-7	\$436
<b>Universal Mill Frames</b>											
Accepts nine (9) Size 3 Coils, Catalog No. SSRM-93, List Price <b>\$624</b>											

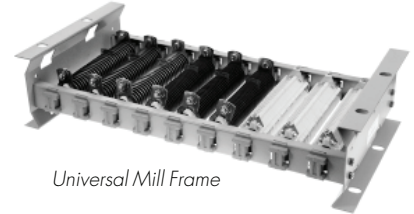
\* — Complete catalog numbers by filling in resistor coil size after the listed catalog number.



Open Frame



Standard Frame

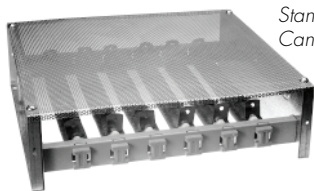


Universal Mill Frame

# Covers DISCOUNT CODE EK

No. of Frames	2 Coils		3 Coils		4 Coils		5 Coils		6 Coils		7 Coils	
	Cat No.*	List Price	Cat No.*	List Price	Cat No.*	List Price	Cat No.*	List Price	Cat No.*	List Price	Cat No.*	List Price
<b>Crane Metal</b>												
1	1CM-2	\$500	1CM-3	\$500	1CM-4	\$562	1CM-5	\$562	1CM-6	\$624	1CM-7	\$624
2	2CM-2	\$624	2CM-3	\$624	2CM-4	\$748	2CM-5	\$748	2CM-6	\$1,498	2CM-7	\$1,498
3	3CM-2	\$748	3CM-3	\$748	3CM-4	\$936	3CM-5	\$936	3CM-6	\$1,124	3CM-7	\$1,124
4	4CM-2	\$946	4CM-3	\$946	4CM-4	\$1,124	4CM-5	\$1,124	4CM-6	\$1,372	4CM-7	\$1,372
5	5CM-2	\$998	5CM-3	\$998	5CM-4	\$1,310	5CM-5	\$1,310	5CM-6	\$1,622	5CM-7	\$1,622
<b>Ventilated Weatherproof</b>												
1	1VW-2	\$748	1VW-3	\$748	1VW-4	\$812	1VW-5	\$812	1VW-6	\$874	1VW-7	\$874
2	2VW-2	\$874	2VW-3	\$874	2VW-4	\$1,060	2VW-5	\$1,060	2VW-6	\$1,248	2VW-7	\$1,248
3	3VW-2	\$998	3VW-3	\$998	3VW-4	\$1,310	3VW-5	\$1,310	3VW-6	\$1,622	3VW-7	\$1,622
4	4VW-2	\$1,124	4VW-3	\$1,124	4VW-4	\$1,560	4VW-5	\$1,560	4VW-6	\$1,996	4VW-7	\$1,996
5	5VW-2	\$1,248	5VW-3	\$1,248	5VW-4	\$1,810	5VW-5	\$1,810	5VW-6	\$2,372	5VW-7	\$2,372
<b>Totally Enclosed Non-Ventilated†</b>												
1	1TE-2	\$624	1TE-3	\$624	1TE-4	\$686	1TE-5	\$686	1TE-6	\$748	1TE-7	\$748
2	2TE-2	\$748	2TE-3	\$748	2TE-4	\$936	2TE-5	\$936	2TE-6	\$1,060	2TE-7	\$1,060

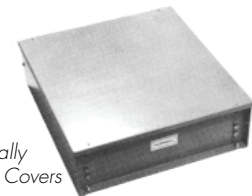
\* — Complete catalog numbers by filling in resistor coil size after the listed catalog number.  
 † — Derate resistor coil amps by 50% when using the Totally Enclosed Non-Ventilated Covers.



Standard Frame with Crane Metal Covers



Standard Frame with Ventilated Weatherproof Covers



Standard Frame with Totally Enclosed Non-Ventilated Covers

# Terminals & Mounting Sockets

(Discount E32)

Part No.	Adjustable Terminals		Coil Type	List Price
	Rating Amps	Coil Type		
69430-001	1.3 – 7.2	Hexwound		\$38
17578-001	8.5 – 34	Edgewound		\$38
17577-001	37 – 101	Edgewound		\$38

## Terminals & Additional Mounting Sockets

Edgewound End Terminal Modification –  
 Code Letter A, Welded, short terminal, \$12 per Coil  
 Mounting Socket & Clip – Part No. 69279-001, \$12 per set



# Stainless Steel Coil Jumpers with Hardware (Discount E39)

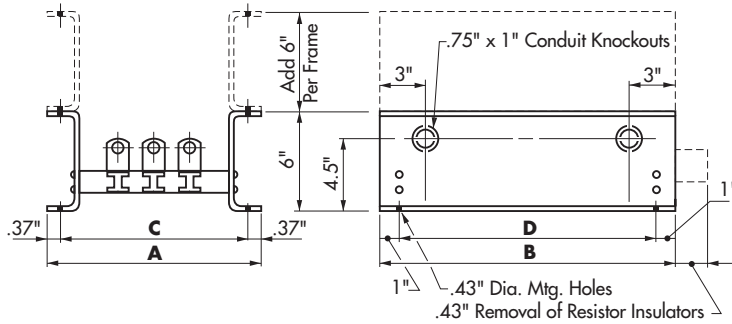
Part No.	Description	List Price
69129-001	2 Coils under 40 amps	\$56
69129-002	2 Coils over 40 amps	\$84
69129-003	3 Coils under 40 amps	\$84
69129-004	3 Coils over 40 amps	\$132
69129-005	4 Coils under 40 amps	\$96
69129-006	4 Coils over 40 amps	\$144

Add the prefix "HC" before all Part Numbers.

Notes — Consult factory for stainless steel or aluminum frame and cover pricing. See page 2 for pricing instructions.

Dimensions

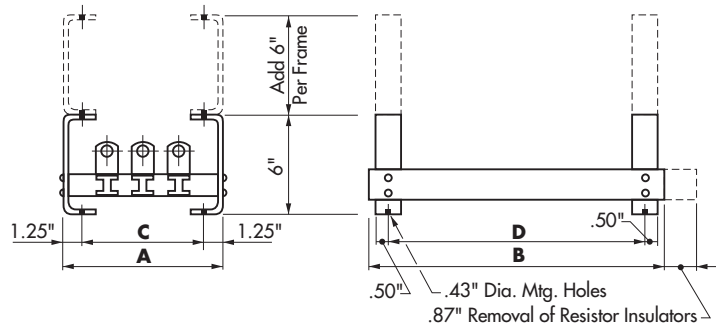
**Standard Frame**



**Standard Frame Dimensions**

No. of Coils	Coil Size	A	B	C	D
2	3	10.00"	13.12"	9.25"	11.12"
3	3	12.75"	13.12"	12.00"	11.12"
4	3	15.50"	13.12"	14.75"	11.12"
5	3	18.25"	13.12"	17.50"	11.12"
6	3	21.00"	13.12"	20.25"	11.12"
7	3	23.75"	13.12"	23.00"	11.12"
2	4	10.00"	16.06"	9.25"	14.06"
3	4	12.75"	16.06"	12.00"	14.06"
4	4	15.50"	16.06"	14.75"	14.06"
5	4	18.25"	16.06"	17.50"	14.06"
6	4	21.00"	16.06"	20.25"	14.06"
7	4	23.75"	16.06"	23.00"	14.06"
2	5	10.00"	19.00"	9.25"	17.00"
3	5	12.75"	19.00"	12.00"	17.00"
4	5	15.50"	19.00"	14.75"	17.00"
5	5	18.25"	19.00"	17.50"	17.00"
6	5	21.00"	19.00"	20.25"	17.00"
7	5	23.75"	19.00"	23.00"	17.00"
2	6	10.00"	21.93"	9.25"	19.93"
3	6	12.75"	21.93"	12.00"	19.93"
4	6	15.50"	21.93"	14.75"	19.93"
5	6	18.25"	21.93"	17.50"	19.93"
6	6	21.00"	21.93"	20.25"	19.93"
7	6	23.75"	21.93"	23.00"	19.93"
2	7	10.00"	24.87"	9.25"	22.87"
3	7	12.75"	24.87"	12.00"	22.87"
4	7	15.50"	24.87"	14.75"	22.87"
5	7	18.25"	24.87"	17.50"	22.87"
6	7	21.00"	24.87"	20.25"	22.87"
7	7	23.75"	24.87"	23.00"	22.87"

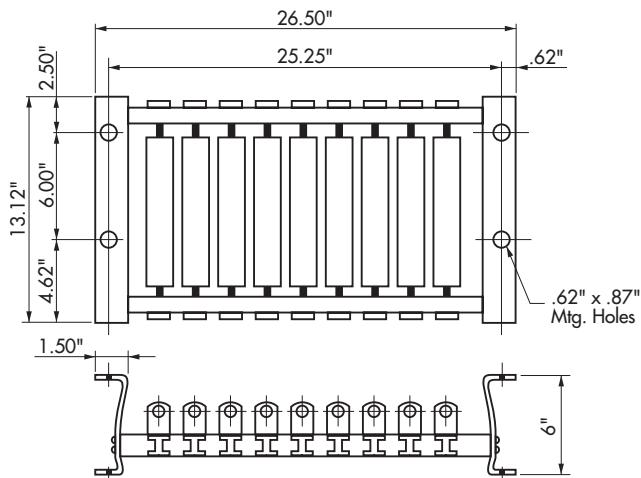
**Open Frame**



**Open Frame Dimensions**

No. of Coils	Coil Size	A	B	C	D
2	3	7.50"	13.18"	4.37"	11.12"
3	3	10.25"	13.18"	7.12"	11.12"
4	3	13.00"	13.18"	9.87"	11.12"
5	3	15.75"	13.18"	12.62"	11.12"
6	3	18.50"	13.18"	15.37"	11.12"
7	3	21.25"	13.18"	18.12"	11.12"
2	4	7.50"	16.12"	4.37"	14.06"
3	4	10.25"	16.12"	7.12"	14.06"
4	4	13.00"	16.12"	9.87"	14.06"
5	4	15.72"	16.12"	12.62"	14.06"
6	4	18.50"	16.12"	15.37"	14.06"
7	4	21.25"	16.12"	18.12"	14.06"
2	5	7.50"	19.06"	4.37"	17.00"
3	5	10.25"	19.06"	7.12"	17.00"
4	5	13.00"	19.06"	9.87"	17.00"
5	5	15.72"	19.06"	12.62"	17.00"
6	5	18.50"	19.06"	15.37"	17.00"
7	5	21.25"	19.06"	18.12"	17.00"
2	6	7.50"	22.00"	4.37"	19.93"
3	6	10.25"	22.00"	7.12"	19.93"
4	6	13.00"	22.00"	9.87"	19.93"
5	6	15.72"	22.00"	12.62"	19.93"
6	6	18.50"	22.00"	15.37"	19.93"
7	6	21.25"	22.00"	18.12"	19.93"
2	7	7.50"	24.93"	4.37"	22.87"
3	7	10.25"	24.93"	7.12"	22.87"
4	7	13.00"	24.93"	9.87"	22.87"
5	7	15.72"	24.93"	12.62"	22.87"
6	7	18.50"	24.93"	15.37"	22.87"
7	7	21.25"	24.93"	18.12"	22.87"

**Universal Mill Frame**



Accepts quantity of 9 - Size 3 Coils



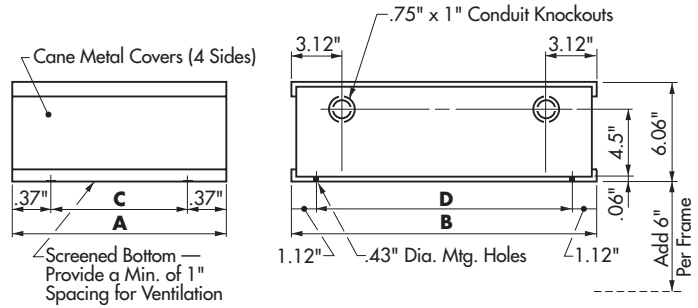
Dimensions

Standard Frame w/ Covers Dimensions

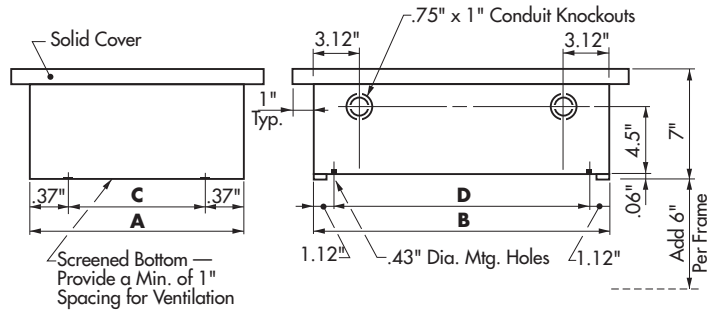
No. of Coils	Coil Size	A	B	C	D
2	3	10.00"	13.37"	9.25"	11.12"
3	3	12.75"	13.37"	12.00"	11.12"
4	3	15.50"	13.37"	14.75"	11.12"
5	3	18.25"	13.37"	17.50"	11.12"
6	3	21.00"	13.37"	20.25"	11.12"
7	3	23.75"	13.37"	23.00"	11.12"
2	4	10.00"	16.31"	9.25"	14.06"
3	4	12.75"	16.31"	12.00"	14.06"
4	4	15.50"	16.31"	14.75"	14.06"
5	4	18.25"	16.31"	17.50"	14.06"
6	4	21.00"	16.31"	20.25"	14.06"
7	4	23.75"	16.31"	23.00"	14.06"
2	5	10.00"	19.25"	9.25"	17.00"
3	5	12.75"	19.25"	12.00"	17.00"
4	5	15.50"	19.25"	14.75"	17.00"
5	5	18.25"	19.25"	17.50"	17.00"
6	5	21.00"	19.25"	20.25"	17.00"
7	5	23.75"	19.25"	23.00"	17.00"
2	6	10.00"	22.18"	9.25"	19.93"
3	6	12.75"	22.18"	12.00"	19.93"
4	6	15.50"	22.18"	14.75"	19.93"
5	6	18.25"	22.18"	17.50"	19.93"
6	6	21.00"	22.18"	20.25"	19.93"
7	6	23.75"	22.18"	23.00"	19.93"
2	7	10.00"	25.12"	9.25"	22.87"
3	7	12.75"	25.12"	12.00"	22.87"
4	7	15.50"	25.12"	14.75"	22.87"
5	7	18.25"	25.12"	17.50"	22.87"
6	7	21.00"	25.12"	20.25"	22.87"
7	7	23.75"	25.12"	23.00"	22.87"

Note: Derate resistor coil amps 50% when using Totally Enclosed Non-Ventilated Covers

Cane Metal Cover

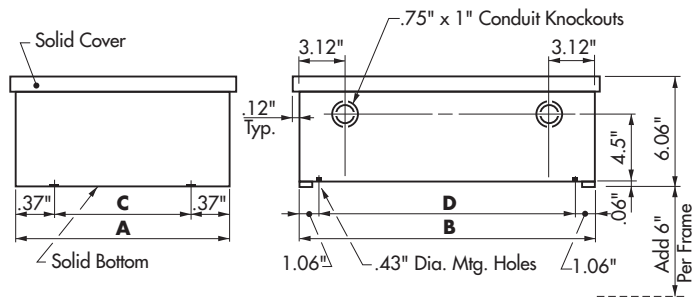


Ventilated Weatherproof Cover



Totally Enclosed Non-Ventilated Cover

Note: Derate resistor coil amps 50% when using Totally Enclosed Non-Ventilated Covers



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