



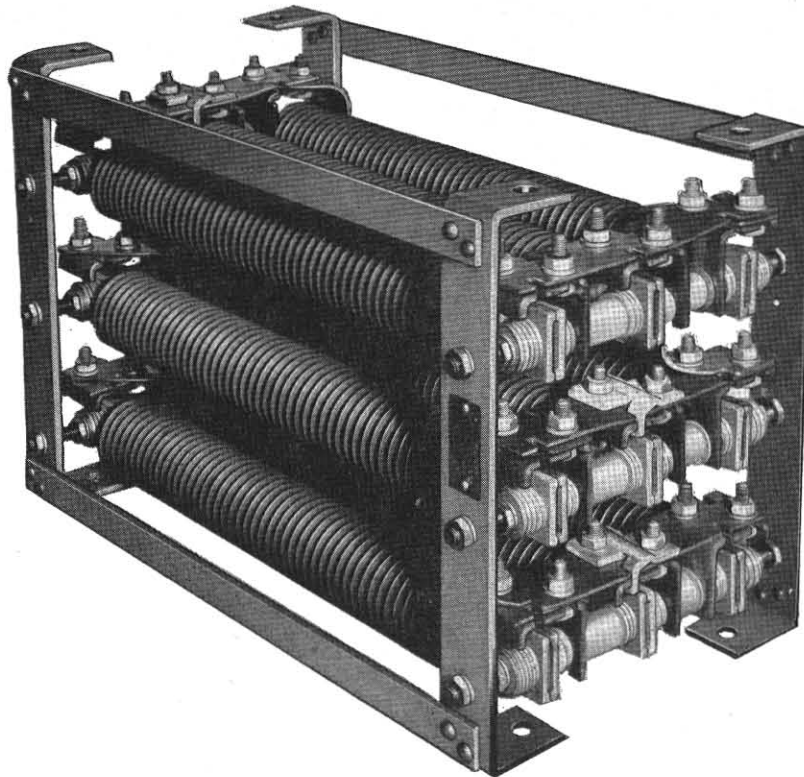
edgewound resistors type WM

with single $\frac{1}{2}$ " bolt welded terminals

renewal
parts data
14-990A3

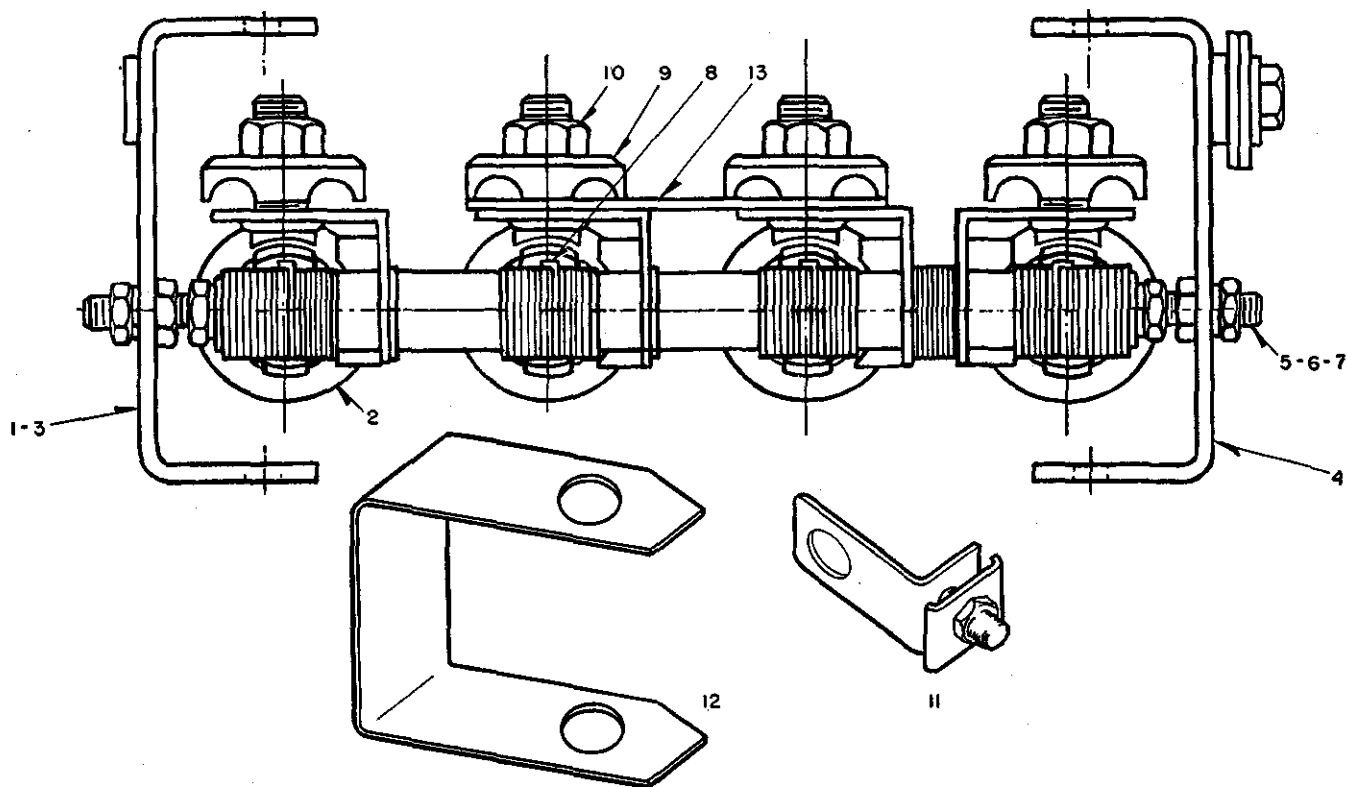
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control accessories



ordering information

- Name the part and give its style number.
- Give the complete nameplate reading.
- State shipping method desired.
- Send all orders or correspondence to nearest sales office of the company.
- Small orders should be combined so as to amount to at least five dollars as this is the minimum billing amount.



reference number	description of part	number used	style number of part or reference table		
			14" frame	17 1/4" frame	17 1/4" unit frame
1	resistor assembly.....	1	.....	.....	see table a
2	resistor unit.....	□	see table c	see table c	see table a
Δ	refractory insulator—3 turns/inch.....	8 per 14", 10 per 17 1/4" unit	943 566	943 566	943 566
Δ	refractory insulator—4 turns/inch, 1/16" slot.....	8 per 14", 10 per 17 1/4" unit	943 564	943 564	943 564
Δ	refractory insulator—4 turns/inch, 1/8" slot.....	8 per 14", 10 per 17 1/4" unit	943 565	943 565	943 565
Δ	refractory insulator—6 turns/inch.....	8 per 14", 10 per 17 1/4" unit	567 321	567 321	567 321
Δ	refractory insulator—8 turns/inch.....	8 per 14", 10 per 17 1/4" unit	461 634	461 634	461 634
3	end frame.....	2	see table b	see table b	.....
3	end frame—left.....	1	.....	.....	1448 103
4	end frame—right.....	1	.....	.....	1448 104
5	tie rod complete—with slip joint.....	1 per row of resistor units	see table d	see table d	1427 109
5	tie rod complete—with locking plates.....	1 per row of resistor units	see table d	see table d	1427 110
6	mica washer.....	□	459 798	459 798	459 798
7	steel spacer.....	□	see table e	see table e	.....
7	steel spacer for tie rod with slip joint.....	16	.....	.....	970 144
7	steel spacer for tie rod with locking plate.....	2	.....	.....	79 372
8	locking plate.....	2	.....	.....	822 594
Δ	slip joint.....	1 per resistor unit	459 785	459 785	459 785
		1 per resistor unit	845 593	845 593	845 593
9	terminal cap.....	2 per resistor unit	1301 782	1301 792	1301 792
10	terminal cap nut (1/2-20 hex.).....	2 per resistor unit	583 715	583 715	583 715
11	tie rod supported terminals.....	□	1303 593	1303 593	.....
12	row to row connector.....	□	1620 319	1620 319	.....
12	row to alternate row connector.....	□	1620 320	1620 320	.....
13	unit connector.....	□	see table f	see table f	.....
13	two unit connector.....	3	.....	.....	1305 792
13	four unit connector.....	2	.....	.....	1305 794

parts indented are included in the part under which they are indented
□ the number used varies in each assembly
Δ not illustrated

table a—unit frame resistors

resistor assembly		style number of resistor unit * (four units used)
style number	frame number	
1427 128	0	1427 015
1370 034	1	1427 004
1370 035	2	1302 387
1370 036	3	1302 382
1370 037	4	1302 379
1370 038	5	1302 378
1370 039	6	1302 377

table b—end frames

number of rows	style number of end frame	
	14" long	17 1/4" long
1	1620 307	1620 301
2	1620 308	1620 302
3	1620 309	1620 303
4	1620 310	1620 304
5	1620 311	1620 305
6	1620 312	1620 306

* for rating see table c

table c—resistor units

14" long unit		17 1/4" long unit		continuous amperes (375°C rise)	
ohms resistance	style number	ohms resistance	style number	six units	one unit
units with single winding					
.069	1302 346	.085	1302 371	88	104
.084	1302 347	.108	1302 372	82	95
.105	1302 348	.130	1302 373	75	87
.13	1302 349	.165	1302 374	67	80
.16	1302 350	.200	1302 375	64	69
.19	1302 351	.240	1302 376	61	65
.22	1302 352	.277	1302 377	56	60
.28	1302 353	.36	1302 378	51	54
.36	1302 354	.45	1302 379	44	47
.43	1302 355	.55	1302 380	42	44
.46	1302 356	.57	1302 381	40	42
.53	1302 357	.69	1302 382	37	39
.67	1302 358	.72	1302 383	36	38
...	...	.87	1302 384	33	35
...	...	.90	1302 385	32	34
.84	1302 359	1.09	1302 386	29	31
1.05	1302 360	1.38	1302 387	26	28
1.30	1302 361	1.60	1302 388	24	26
1.55	1302 362	2.05	1302 389	21	23
2.00	1302 363	2.5	1302 390	17	18
2.40	1302 364	3.0	1302 391	15	16
2.80	1302 365	3.6	1302 392	14	15
3.00	1302 366	3.8	1302 393	14	15
...	...	3.8	*1427 004	14	15
3.80	1302 367	4.8	1302 394	12	13.5
4.30	1302 368	5.4	1302 395	11	12.7
5.10	1302 369	6.4	1302 396	10	12
5.70	1302 370	7.1	1302 397	9.2	11
...	...	7.1	*1427 015	9.2	11
units with multiple windings					
.017	1514 068	.021	1298 885	176	214
.021	1514 069	.026	1298 886	164	190
.026	1514 070	.032	1298 887	150	180
.032	1514 071	.040	1298 888	134	164
.040	1514 072	.050	1298 889	128	142
.052	1514 073	.069	1298 890	118	126
.067	1514 074	.090	1298 891	108	112
.085	1514 075	.110	1298 892	96	104
.105	1514 076	.137	1298 893	86	92
.105	1514 077	.140	1298 894	84	90
.130	1514 078	.170	1298 895	72	82
...	...	.180	1298 896	74	78
.167	1514 079	.217	1298 897	68	72

* these units have a center tap terminal

table d—tie rods and insulating tubes

number of units	style number of tie rod						style number of insulating tube	
	tie rod only	tie rod with slip joint		tie rod with locking plate			used with slip joint	used with locking plate
		mica washer	steel spacer	mica washer	steel spacer			
2	508 248	1305 752	1305 762	1305 772	1305 782	558 332	558 332	358 332
3	388 995	1305 753	1305 763	1305 773	1305 783	292 640	292 640	292 640
4	292 627	1305 754	1305 764	1305 774	1305 784	292 646	292 646	292 645
4	461 442	♦1427 109		♦1427 110		292 646	292 646	292 645
5	461 445	1305 755	1305 765	1305 775	1305 785	292 652	292 652	292 651
6	461 447	1305 756	1305 766	1305 776	1305 786	292 657	292 657	292 657
7	292 635	1305 757	1305 767	1305 777	1305 787	292 663	292 663	292 663
8	461 454	1305 758	1305 768	1305 778	1305 788	292 669	292 669	292 668
9	461 458	1305 759	1305 769	1305 779	1305 789	292 675	292 675	292 674

♦ used only in unit frame resistor assembly

table e—steel spacers

length in inches	style number
1/4	970 149
1/2	452 604
5/8	526 848
1	79 372
1 1/8	822 554
1 1/4	404 015
1 3/4	452 605

table f—standard connectors

number of units	style number
2	1305 792
3	1305 793
4	1305 794
5	1305 795
6	1305 796
7	1305 797
8	1305 798