

JENKINS

Rheostats, Resistors, & Other Controls



INDEX

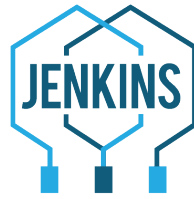
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www.jenkinselectric.com
email: answers@jenkins.com



TERMS & CONDITIONS

Our parts have a 12-month warranty, our systems have an 18- month warranty. Below is what we have in our catalog.

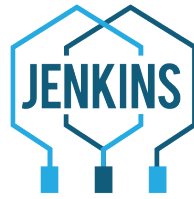
Cooling fans and Motor Parts supplied by Jenkins Electric Company are guaranteed to operate within designed parameters under the specifics of our following limited warranty. Design parameters are as specified in either our written quotation or as specified in this catalog. All assembly and /or related workmanship are guaranteed to be free from defect for a period of 12 months. This warranty does not cover equipment that has been damaged in shipment, current overloads, improper voltage supply, improper frequency, excessive duty cycle, water/dirt damage, and lightening or employee abuse.

Jenkins Electric Company will only accept returns for credit and/or exchange on any standard catalog item if accompanied by applicable invoice copy. A 10% restocking fee applies. Fans custom machined to nonstandard customer specifications, special order or non-stock items specifically purchased and/or manufactured for a customer cannot be returned for credit or exchange. Defective parts or parts requiring corrective machine work can be returned for an expedited repair or exchange. Any related shipping charges incurred are not credited.

Jenkins Electric Company will not be liable for any consequential, special, contingent or incidental damages and/or penalties occurred. We disclaim liability for any losses or damages outside of this equipment, for any transportation charges or for any labor claims. Jenkins Electric Company specifically denies liability for any personal injury produced as a result of improper application, used and/or improper safety procedures during operation.

Jenkins utilizes UPS shipping, which is available for orders with delivery addresses within the United States and U.S. territories, excluding P.O. boxes and rural routes. The UPS shipping method selected is dependent upon customer need. If you prefer shipping via another provider, your collect account information will be needed prior to shipment. Any additional charges or fees from your select carrier will be passed along to you. Please feel free to contact us with any questions at answers@jenkins.com or 800-438-3003. F.O.B. shipping point, freight not allowed. Costs associated with packaging, handling, and shipping of project equipment are not included in this proposal unless otherwise stated. These costs will be prepaid and added to invoice unless otherwise specified or alternate shipping/billing method is requested.

There will be an extra charge involved for Priority Mail, Special Delivery, UPS Red, Blue or 3-Day Service, Air Express, COD or International Shipments, based on the extra cost incurred. An



emergency shipment after 5:00 pm or on weekends will be charged up to \$100.00 extra. On average, machined fans ship in 3 to 5 days. Fans can be machined as a rush order for an extra \$25.00 expedite fee.

Invoices are payable Net 30 days following the invoice date unless otherwise noted. Our normal terms for customers with established credit. All others, credit cards, or COD. All prices F.O.B. Charlotte, in U.S. Dollars. Fan orders and other small part orders are normally shipped by United

Parcel Service. We have standard shipping and handling charge of \$8.00 per order. There is no minimum billing charge.

We accept the following:

Visa, Master Card, American Express



UL, FM, & CSA APPROVAL

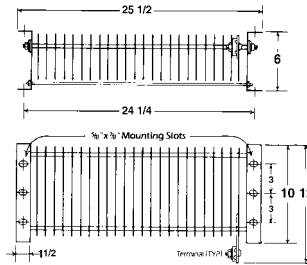


PRODUCT CERTIFICATION is provided on a number of the items we distribute. An Underwriters Laboratory symbol, a Factory Mutual symbol, or a Canadian Standards symbol may be displayed near a product listing. This means that most products in this category have been approved. There may be some specific items which have not been approved. If certification is required on your control order, ask us to check the items on your order.

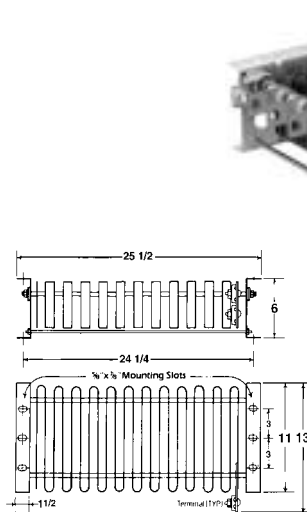
Post Glover Grid Resistors

Stainless Steel Grid Resistors (JE-2)

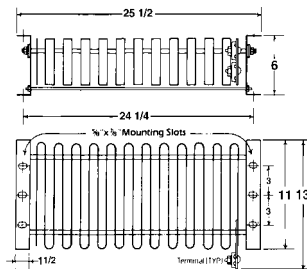
Catalog Number	Type	Ampere Rating	Resistance in Ohms		Number of Tape
			Total	Per Tap	
G116R	T2	9	41.6	2.60	17
G0115	T2	11	28.0	3.11	11
G0114	T2	13	20.0	1.54	15
G0113	T2	16	15.6	1.20	15
G0112R	T2	20	12.0	1.20	11
G111R	T2	25	10.0	1.00	11
G0111	T2	27	7.83	0.824	11
G110	T2	30	5.35	0.618	10
G19	T2	37	4.00	0.308	15
G019	T2	41	3.22	0.248	15
G18	T2	46	2.60	0.200	15
G018	T2	50	2.20	0.200	13
G17	T2	57	1.67	0.152	13
G017	T2	63	1.37	0.152	11
G16R	T2	70	1.12	0.124	11
G16	T2	75	1.00	0.111	11
G016	T2	80	0.900	0.100	11
G15	T2	85	0.756	0.084	11
G015H	T2	91	0.630	0.042	15
G14H	H3	100	0.504	0.056	10
G014H	H3	110	0.430	0.048	10
G13H	H3	120	0.370	0.041	10
G60R	H3	135	0.324	0.036	10
G58R	H3	150	0.250	0.031	9
G55R	H3	165	0.190	0.027	8
G52R	H3	185	0.137	0.023	7
HC180	HC	180	0.174	0.022	8
HC225	HC	225	0.144	0.018	8
HC260	HC	260	0.115	0.0144	8
HC300	HC	300	0.100	0.0125	8
HC350	HC	350	0.074	0.0093	8
HC400	HC	400	0.060	0.0086	7
HC450	HC	450	0.049	0.0070	7
HC525	HC	525	0.035	0.0050	7



Type T2 & H3 Bank



Type H3 Grid Bank



Type HC Bank



Type HC Grid Bank

Enclosures for Grid Resistance Banks

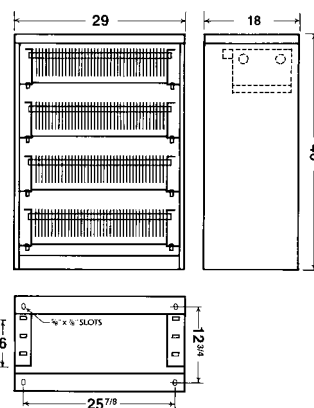
Cat. No.	No. of Banks	Length (Dimensions in Inches)	Depth	Height
EN18-1	1	29	18	13
EN18-2	2			22
EN18-3	3	Add -S to Catalog		31
EN18-4	4	Number to Obtain		40
EN18-5	5	Screened Enclosure		49
EN18-6	6	for Indoor Duty		58
EN18-7	7	Add -O to Catalog		67
EN18-8	8	Number to Obtain		76
EN18-9	9	Louvered Enclosure for Outdoor Duty		85

To order **wound rotor grids**, specify:

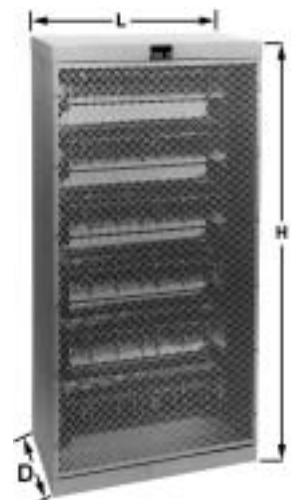
- Motor horsepower or kw rating • Secondary (Rotor) Voltage
- Starting Torque as Percent of Full Load (125% Typical)
- Secondary Rated Current, Amperes
- Number of Steps on controller
- NEMA Class of Grids, if known. Otherwise, tell us what the motor is running, how often it starts, and how long it takes to come up to speed.
- If speed control is needed, specify speed range.

To order **DC crane control resistors**, specify:

- Motor hp • Volts • Torque • Amps. • Class • Steps
- If class is not known, specify duty cycle, and lowering control.

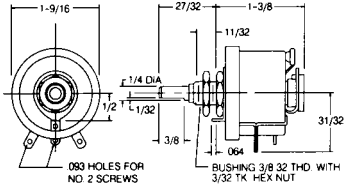


Four Bank Rack

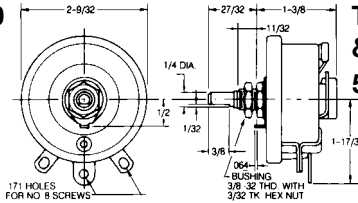


Rack with Screened Cover for Indoor Duty

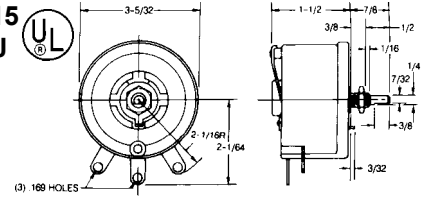
Angstrom & Ohmite Ring-Type Rheostats



**Type MP10
& Model H
25Watt**



**Type MP15
& Model J
50Watt**



**Type MP25 & Model K
100Watt**

Resistance Values (OHMS)	MP10/RHS (25W)	MP15/RJS (50W)	MP25/RKS (100W)	MP30/RLS (150W)
	Max. Amp.	Max. Amp.	Max. Amp.	Max. Amp.
0.5	—	10.00	—	—
1	5.00	7.07	10.000	12.25
2	3.54	5.00	50.	—
3	2.89	—	7.071	—
4	—	3.54	—	—
5	—	—	4.472	—
6	2.04	2.89	—	—
7.5	—	—	3.652	—
8	1.77	2.50	—	—
10	1.58	—	3.162	—
12	—	2.04	—	—
15	1.29	—	2.582	—
16	—	1.76	—	—
22	—	1.50	—	—
25	1.00	—	2.000	—
35	0.85	1.19	—	—
50	0.71	1.00	1.414	—
75	0.58	—	1.155	—
80	—	0.79	50.	—
100	0.50	—	—	1.225
125	0.45	0.63	1.000	—
150	—	0.58	—	1.000
175	0.38	—	—	—
200	—	—	0.707	—
225	—	0.47	—	—
250	0.32	0.45	—	—
300	—	0.41	0.577	80.
350	0.27	—	—	—
500	0.22	0.37	0.447	0.548
750	0.18	—	—	—
800	—	0.28	—	—
1000	0.16	40.	0.316	—
1250	—	0.22	—	0.347
1500	0.13	—	—	—
1600	—	0.18	—	—
2000	—	—	0.224	—
2250	—	—	—	0.259
2500	0.10	0.14	0.200	—
3500	0.08	0.12	—	—
5000	0.07	0.10	0.141	0.173
10,000	—	0.07	0.100	0.122
Tandem Mounting	—	—	—	—

Call for volume pricing.

Technical Specifications for Ring Type Rheostats

Type / Model	MP10/H	MP15/J	MP25/K	MP30/L	MP40/N	RUS
Watts Dissipation	25	50	100	150	300	1000
Rotation (±5°)	300	300	300	300	315	335
Net Weight (lbs.)	0.18	0.33	0.060	1.10	2.63	10
Operating Torque (in.-lb.)	0.5	2	2	3	5	7
Overall Diameter (in.)	1.568	2.31	3.125	4	6	12
Shaft Diameter (in.)	1/4	1/4	1/4	1/4	3/8	3/8
Temperature Rise & Resistance UL & CSA Recognition:	300°C over 40°C ambient. Resistance Tolerance ±10% All except MP30 are recognized.					



**Type MP40
Open Rheostat**



Tandem Mounting

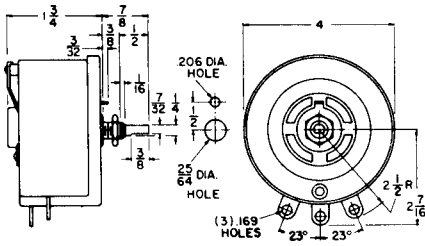


Limit On Open MP40

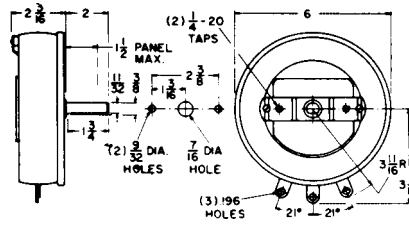


**Type RUS
1000 Watts**

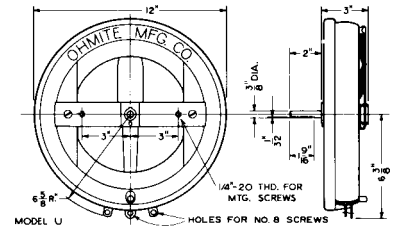
Angstrom & Ohmite Ring-Type Rheostats



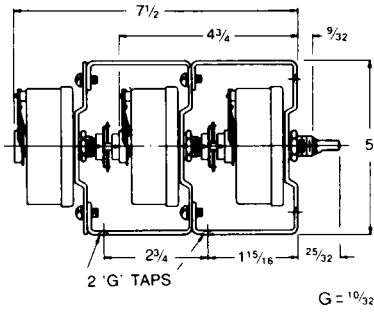
**MP30A, Type 150R & Model L
150 Watt**



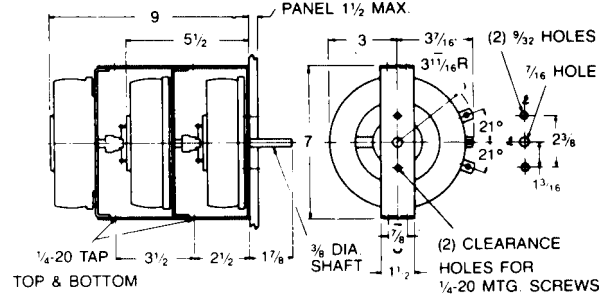
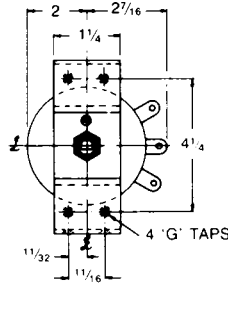
**MP40A, Type 300R & Model N
300 Watt**



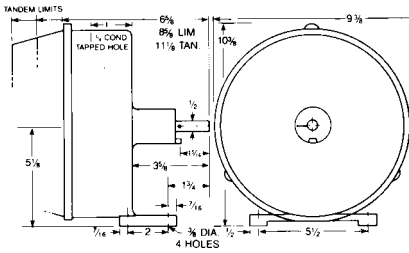
**Type RUS, Model U, 1000W
1000 Watt**



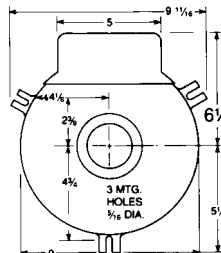
Tandem Mounting, 150 Watt



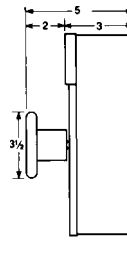
Tandem Mounting, 300 Watt



Floor Mounting (R-1)



Board Mounting (R-8)



**JE 501R Enclosure For
1000 Watt Rheostat**

**Reliance Rheostat
Replacements**
150 Watt
3/8" shaft
and two-hole
mounting bracket
Type 64495
(JE-1)



**Ohmite Solid State
Power Controls**
AC Input
AC or DC Output



Replacement for Reliance No. 64495 Rheostats			
H	150 Ohms	1.1 Amperes
A	500	0.548
B	1,250	0.347
C	2,250	0.259
D	5,000	0.173
3M	5,000	0.173	Tandem Mounted Pair ...
E	10,000	0.122

These are Angstrom Model 150R. 4" Diameter Ring Type Rheostats with a 3/8" Diameter shaft extension and a mounting bracket with two 1/4-20 UNC holes on 2-3/8" centers.

**Welder & Vibrator Rheostats available:
Lincoln, Miller, Hobart, & FMC Series 52X.**

Catalog Number	AC Input Volts	Maximum Amperes	Maximum Watts
PCA1000	120	8.3 AC	1000
PCA1050	120	15.0 AC	1800
PCA1020	240	8.3 AC	2000
PCD1000	120	6 DC	700
SCE12-10	120	10 AC	1200
SCE24-15	200/240	15 AC	3600

Control heaters, clutches, brakes, and motors.
On-Off Switch built in. Minimum load 0.5 A.
Approx 3" x 2" x 1 1/8" - Complete with Knob and Dial Plate.

High Power Ring-Type Rheostats

Angstrom, 300W, 6"
(Type 300R, 600V)
Ohmite 300 & 1000W
(Models N & U)

Catalog Number	Size	Steps	Ohms	Amperes	
				Max/Min.	Linear Rating
MP40A5T	6"	75	5	12/5	—
RUS-05	12"	122	5	20/10	14.1
RUS-10	12"	114	10	14.3/7	10.0
RUS-16	12"	164	16	11.2/5.5	7.9
MP40A25	6"	135	25	3.4/3.4	3.4
RUS-25	12"	181	25	10/4	6.32
RUS-36	12"	278	36	8/3.5	5.26
MP40A50	6"	268	50	2.45/2.45	2.45
RUS-50	12"	299	50	6.3/3.15	4.47
RUS-64	12"	280	64	5.6/2.8	3.95
MP40A75	6"	312	75	2.0/2.0	2.00
RUS-80	12"	279	80	5.0/2.5	3.53
MP40A100	6"	322	100	1.73/1.73	1.73
MP40A100T	6"	350	100	3.12/1.2	—
RUS-100	12"	299	100	4.5/2.2	3.16
RUS-100X	12"	287	100	6.0/1.66	3.16
MP40A125	6"	300	125	1.55/1.55	1.55
MP40A125T	6"	292	125	3.22/0.92	—
RUS-125	12"	447	125	5.3/1.5	2.82
MP40A150	6"	278	150	1.41/1.41	1.41
MP40A160T	6"	357	160	2.46/0.95	—
RUS-160	12"	468	160	4.7/1.3	2.50
MP40A200	6"	370	200	1.22/1.22	1.22
MP40A200T	6"	306	200	2.2/0.85	—
RUS-200	12"	526	200	4.5/1.1	2.23
MP40A250	6"	378	250	1.13/1.13	1.13
MP40A250T	6"	378	250	2.28/0.65	—
RUS-250	12"	472	250	4.0/1.0	2.00
MP40A300	6"	340	300	1.0/1.0	1.00
MP40A320T	6"	394	320	1.74/0.67	—
RUS-320	12"	403	320	3.3/0.94	1.76
MP40A400	6"	370	400	0.87/0.87	0.87
MP40A400T	6"	370	400	1.22/0.67	—
MP40A500	6"	440	500	0.77/0.77	0.77
MP40A500T	6"	425	500	1.87/0.37	—
RUS-500	12"	625	500	3.15/0.63	1.41
MP40A640	6"	450	640	0.73/0.73	0.73
MP40A640T	6"	432	640	1.65/0.33	—
MP40A750	6"	530	750	0.63/0.63	0.63
MP40A800T	6"	600	800	2.57/0.27	—
MP40A1000	6"	570	1,000	0.55/0.55	0.55
RUS-1000	12"	853	1,000	3.0/0.33	1.00
MP40A1250	6"	525	1,250	0.49/0.49	0.49
MP40A1500	6"	675	1,500	0.45/0.45	0.45
MP40A1500T*	6"	675	1,500	0.9/0.16	—
MP40A2500	6"	710	2,500	0.35/0.35	0.35
MP40A5000	6"	870	5,000	0.24/0.24	0.24
MP40A10000	6"	1140	10,000	0.17/0.17	0.17



Front of Board
Available in
Cast Iron



Floor Mounting
R-1CI



Tandem Floor



Floor Mounting
With Limits



JE501R



JE502R

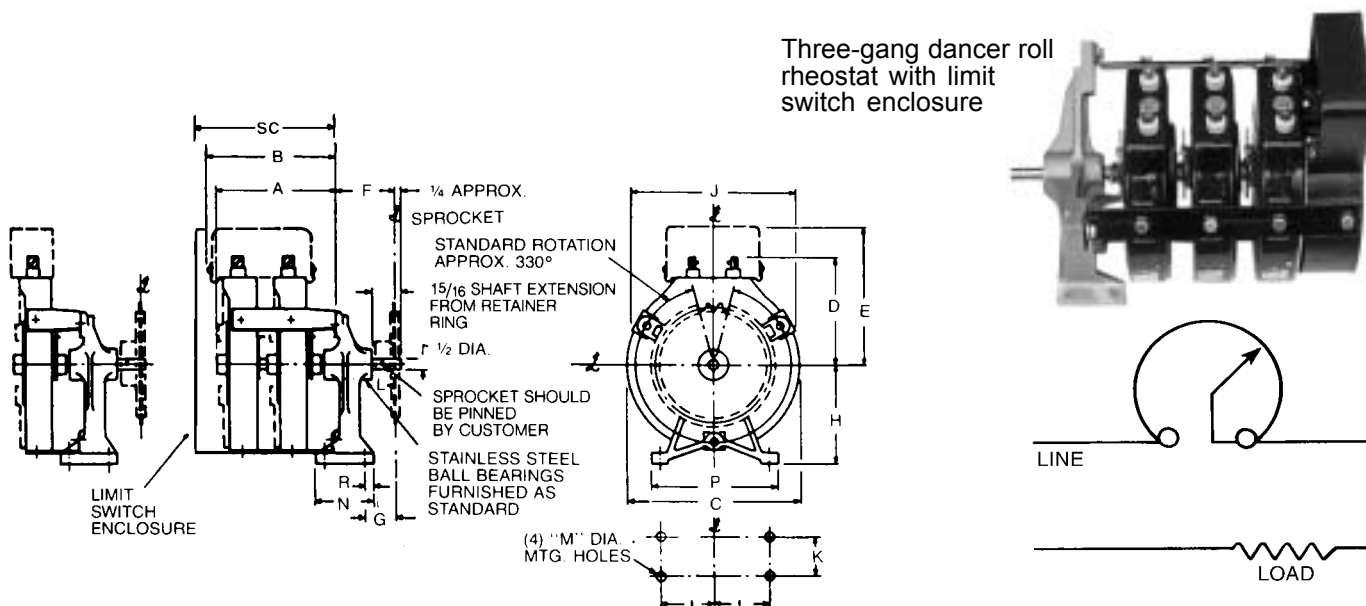
Enclosures for
12" Rheostats

Description of Modifications Available	Catalog No.
Front of board enclosure for 6" rheostat	R-8
Back of board enclosure (NEMA-12 equivalent)	R-8BOB
Floor mounted enclosure for dancer roll service	R-1
Limit switch for above at either end of travel	LIMIT 1
Limit switch for above at both ends of travel	LIMIT 2
Pilot potentiometer (2 watts) mounted in above enclosure	PILOT-POT
Tandem mounting of two open rheostats (6" size)	MP40B2
Tandem mounting in floor mounting (6" size-no limits)	R-4D
Tandem mounting in floor mounting (6" size-for limits)	R-4E
Short out sections of rheostat by soldering surface	SOLDER AP
Dial plate and knob (for 3/8" shaft)	99BC
Dial plate and knob (for 1/4" shaft)	552
Addition of 3/8" shaft and mounting bracket for 150R	3/8 SHAFT
Limit switch mounted on open rheostat	LIMIT O
Motor drive accessory	MOTORDRIVE
Enclosure for one 12" rheostat	JE501R
Enclosure for two or three 12" rheostats	JE502R
Enclosure for four 12" rheostats	JE503R
Tandem mounting of two open rheostats (12" size)	RH100B2
Add keyway in output shaft	KEYWAY
Add output shaft to 12" enclosure	RH100DR

Joslyn Clark Plate Type Rheostats

Size of Plate	Dancer Roll Operated Rheostat Dimensions (in inches)													
	A&B	C	D	E	F	G	H	J	K	L	M	N	P	R
6"	See	6-5/8	4-7/16	5-15/16	3	1-9/16	5-3/8	9-3/4	2	2-3/4	11/32	2-7/8	6-3/8	7/16
8"	Table	8-5/8	5-7/16	6-15/16	3	1-9/16	5-3/8	9-3/4	2	2-3/4	11/32	2-7/8	6-3/8	7/16
13"	Below	13	7-5/8	9-1/8	2-3/4	1-11/16	8	14-1/8	2-3/4	4-1/4	13/32	4	9-1/2	5/8

Dimensions	Tandem Mounting Dimensions (In Inches)							
	Number of 6" or 8" Plates				Number of 13" Plates			
	1	2	3	4	1	2	3	4
A	3-5/16	5-13/16	8-5/16	10-13/16	4-3/4	8-3/4	12-3/4	16-3/4
B	3-25/32	6-9/32	8-25/32	11-9/32	5-7/32	9-7/32	13-7/32	17-7/32
SC	5-3/8	7-7/8	10-3/8	12-7/8	7	11	15	19



Dimensions for Floor Mounting

Two-Terminal Rheostat Connection

Rheostat Sizes and Ratings, Per Plate

Size of Plate (Diameter in Inches)	Summation Watt Ratings**		Standard Contact Type S	Multi-Step Contacts Type M	Standard Rotational Travel†	Net Weight Lbs.	Operating Torque in. lbs.
	1 to 1*	2 to 1					
6	200	330	40	71	330°	5.6	1.0
8	320	450	40	104	330°	7.6	1.5
13	850	1000	66	160	330°	14.2	2.0

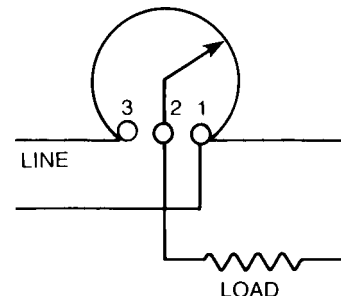
* Equal ohm per step.

† Standard rotation to increase resistance is clockwise. On special order, rotational travel other than standard can be supplied. (LH)

** Contact rating is 25 amps., max. per plate. The summation watt value is the product of the resistance in ohms, the maximum current and minimum current. ($P=R I_{max} I_{min}$)

Temperature Rise 300°C Rise in free air, in ambient not exceeding 40°C.

Note: Commercial plate-type rheostats may have up to 2mA leakage to ground. If leakage current is a problem, insulating washers may be supplied for the feet, and non-metallic conduit can be used for the supply wiring.

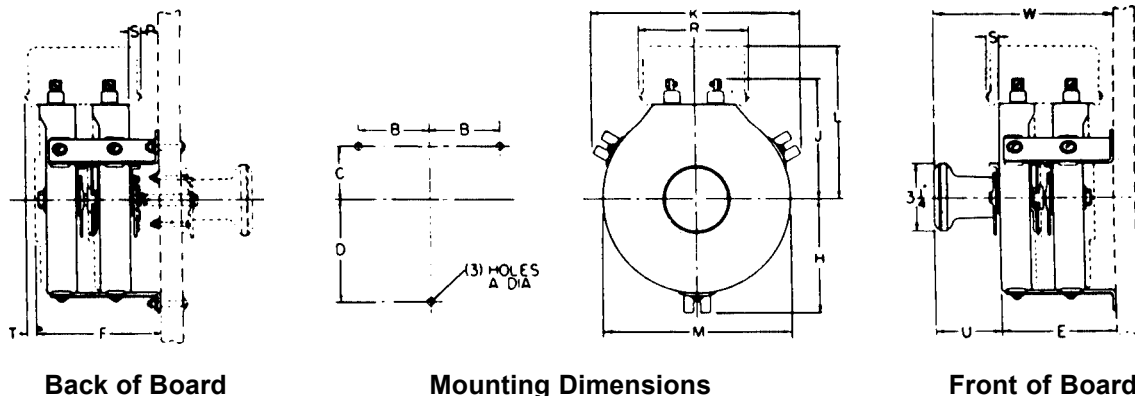


Three-Terminal Rheostat Connection

Tandem Mounting, Spare Parts Special Orders (JC 60)

Joslyn Clark
Types S and M
6", 8", & 13"
Vitrohm Rheostats

If you want a rating or plate size we do not stock, we will be glad to order it for you from the factory. Standard factory delivery on rheostats is 12 weeks. Replacements can also be ordered for **Cutler-Hammer, General Electric, and Westinghouse** rheostats.



Size of Plate	Dimensions (in inches)														
	A	B*	C*	D*	E & F	H	J	K	L	M	P	R	S	T	U
6"	5/16	3-1/4	1-7/8	3-3/4	See Table	4-1/4	4-7/16	7-15/16	5-15/16	6-5/8	7/8	5 1/2	9/16	3	See Table
8"	5/16	4-1/8	2-3/8	4-3/4	Table	5-1/4	5-7/16	9-11/16	6-15/16	8-5/8	7/8	5 1/2	9/16	3	Table
13"	3/8	6-7/32	3-19/32	7-3/16	Below	7-3/4	7-5/8	14-1/4	9-1/8	13	2-5/16	5 1/2	9/16	3	Below

Dimensions	Number of 6" or 8" Plates				Number of 13" Plates				
	1	2	3	4	1	2	3	4	5
E	2-3/4	5-1/4	7-3/4	10-1/4	4-3/16	8-3/16	12-3/16	16-3/16	20-3/16
F	3-1/4	5-3/4	8-1/4	10-3/4	4-11/16	8-11/16	12-11/16	16-11/16	20-11/16
W	5-3/4	8-1/4	10-3/4	13-1/4	7-3/16	11-3/16	15-3/16	19-3/16	23-3/16

*Turned-in mounting feet can be supplied to permit an 8" plate to have same mounting dimensions as a 6" plate.

Spare Parts for 6", 8", 13" Rheostats Type S or M	Reference Number	Description
	60-53	Terminal Assembly for Potentiometer Connection Shaft and Pointer Assembly
	60-54A	Thrust Washer
	60-54B	Shaft Washer
	60-54C	Shaft Nut
	60-55A	Contact Arm-6" & S
	60-55B	Contact Arm-8"-13" M
	60-56	Movable Contact Shoe Holder
	60-57	Contact Shoe Spring
	60-58	Contact Shoe
	60-60	Handwheel (not illustrated)
	60-61A*	Foot for one Plate Rheostat
	60-61B*	Foot for two Plate Rheostat
	60-61C*	Foot for three Plate Rheostat
	60-61D*	Foot for four Plate Rheostat
	60-62A	Coupling for Contact Arm
	60-62B	Coupling for Pointer (Short) 8"
	60-62C	Coupling for Pointer (Long) 13"
	60-63	Coupling for Disc

*Add Plate Diameter to end of part number, eg 60-61A8 as a foot for an 8" plate
When ordering parts, please specify rheostat size (6", 8", or 13") and Type (S or M).

Resistors (Fixed and Adjustable)

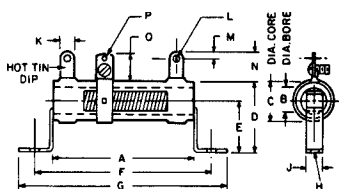
Ohmite & Ward Leonard Vitrohm Post Glover Edgewound (JE-1)

Resistors In Stock

Ohms	225/200AC (Adjustable) Amps	E300K (Adjustable) Amps	420AC (Adjustable) Amps	550AC (Adjustable) Amps	750AC (Adjustable) Amps	1000AC (Adjustable) Amps
1	15.0	—	20.4	23.4	—	—
2	10.6	—	14.5	16.6	—	—
3	—	9.8	—	13.5	—	—
5	6.7	7.7	9.1	10.5	—	—
10	4.7	—	6.4	7.4	—	—
15	3.9	—	5.2	6.1	—	—
16	—	4.3	—	—	—	—
20	—	3.8	—	—	—	—
25	3.0	—	4.1	4.7	5.47	—
30	—	—	—	—	—	—
40	—	—	—	—	—	—
50	2.1	—	2.9	3.3	3.87	4.47
75	—	—	—	—	—	3.65
100	1.5	—	—	—	—	—
150	—	—	—	—	—	—
200	—	—	—	—	—	—
250	0.95	—	—	—	—	—
500	0.67	—	—	—	—	—
1000	0.47	—	—	—	—	—

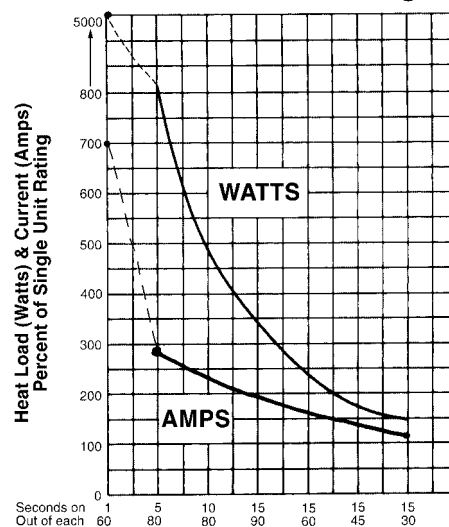
Add For	Cat. No.
Mica Washers only	MW
With Throughbolts	MWT
With Angle Brackets (1)	B1
With Angle Brackets (2)	B2
With Angle Brackets (3)	B3
With Angle Brackets (4)	B4
Extra Tap Band	615D

Vitrohm type 225/200A with 815 Mounting Brackets and 615 Adjustment Band (Rated 225 Watts @ 300 degrees Rise in free air).



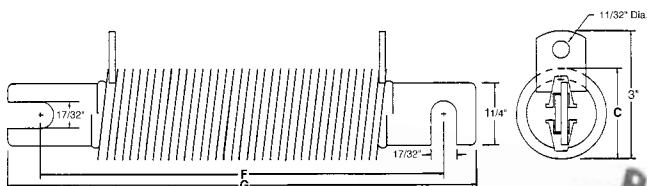
Post Glover Type LC Wirewound Available from .033 to 100 ohms

Short Time Rating



Vitrohm type 420A Resistor price includes 815 Mounting Brackets and 608 Adjustment Band (Rated 420 watts @ 375 degrees Rise in free air).

Vitrohm type 550A Resistor price includes 811 Mounting Brackets and 608 Adjustment Band (Rated 550 watts @ 375 degrees Rise in free air).



Edgewound Resistors 0.064 to 3.57 ohms 82 to 18 amperes



Resistor Dimensions

Type	Rated Watts	Resistor Core			Mounting Centers		Overall Max.	
		Length (A)	ID (B)	OD (C)	(F)	Length (G)	Height (D+N)	
70/50F	70	4 1/2	1/2	3/4	5 1/4	6	2 1/4	
225/200	225	10 1/2	3/4	1 1/8	11 1/4	12	2 5/8	
E300K	300	8 1/2	3/4	1 1/8	9 1/4	10	2 5/8	
420AC	420	11 3/4	3/4	1 3/8	12 1/2	13 1/4	2 3/4	
550AC	550	11 3/4	1 1/8	1 7/8	12 1/2	13 1/4	3 1/4	
750AC	750	12	1 3/4	2 1/2	14 1/8	18 5/8	4 3/4	
1000AC	1000	15	1 3/4	2 1/2	17 1/4	19 3/4	4 3/4	
LC	300	7 1/2	1	2	8 3/4	9 3/4	4	
EW-2	400	5 1/2	1 1/4	2	7 5/16	9 1/2	4	
EW-3	600	8 1/2	1 1/4	2	10 7/8	12 7/16	4	
EW-4	800	11 1/2	1 1/4	2	13 13/16	15 3/8	4	
EW-5	1000	14 1/2	1 1/4	2	16 3/4	18 5/16	4	
EW-6	1200	17 1/2	1 1/4	2	19 11/16	21 1/4	4	
EW-7	1400	20 1/2	1 1/4	2	22 5/8	24 3/16	4	

Through Bolt Mount

Joslyn Clark Plate Type Rheostats & Potentiometers

Rheostats & Potentiometers (JE-2)

Catalog Number *	Electrical Spec. No.	Size & Type	Ohms	Amperes Max./Min.
66-1941S30	ED-70029	13"S	5	20/10
63-1102S30	ED-70448	8"M	10	9.5/4.7
66-3031S30	ED-71621	13"S	10	18.8/5.3
64-1191S30	ED-70748	13"S	16	11.2/5.5
63-3101S30	ED-70276	13"S	25	12/3.3
62-0232P30	ED-70045	8"M	50	2.6/2.6
65-1141S30	ED-71367	13"S	50	6.3/3.15
66-2071S30	ED-71597	13"S	64	6.4/2.4
66-1862S30	ED-70993	8"M	80	3.3/1.65
62-0262P30	ED-70667	8"M	100	1.81/1.81
66-1872S30	ED-70995	8"M	100	3/1.5
65-1111S30	ED-71364	13"S	100	4.5/2.2
64-3081S30	ED-70240	13"S	100	6.0/1.65
62-0272P30	ED-71786	8"M	125	1.62/1.62
65-1102S30	ED-71797	8"M	125	2.7/1.3
66-3091S30	ED-71623	13"S	125	5.3/1.5
62-0282P30	ED-70327	8"M	160	1.43/1.43
65-1092S30	ED-71796	8"M	160	2.3/1.2
66-3101S30	ED-71625	13"S	160	4.7/1.3
62-0292P30	ED-70936	8"M	200	1.28/1.28
65-1082S30	ED-71795	8"M	200	2.1/1.05
62-0302P30	ED-70331	8"M	250	1.14/1.14
66-3682S30	ED-77203	8"M	250	2.5/0.72
66-2091S30	ED-71598	13"S	250	3.2/1.25
62-0312P30	ED-71452	8"M	320	1.01/1.01
65-2052S30	ED-71822	8"M	320	1.9/0.73
65-3051S30	ED-71420	13"S	320	3.3/0.94
62-0322P30	ED-70661	8"M	400	0.9/0.9
65-2042S30	ED-71821	8"M	400	1.7/0.66
62-0332P30	ED-70321	8"M	500	0.8/0.8
65-3032S30	ED-71371	8"M	500	1.8/0.5
65-4061S30	ED-71428	13"S	500	3.15/0.63
62-0342P30	ED-70318	8"M	640	0.71/0.71
64-4032S30	ED-71854	8"M	640	1.85/0.37
61-0361S10	ED-70514	6"S	800	0.5/0.5
62-0352P30	ED-70882	8"M	800	0.64/0.64
65-4042P30	ED-70669	8"M	800	1.65/0.34
65-4032P30	ED-71862	8"M	1,000	1.5/0.3
65-4022P30	ED-71861	8"M	1,250	1.33/0.27
66-1042P30	ED-71801	8"M	1,600	0.75/0.37
62-0402P30	ED-70046	8"M	2,500	0.36/0.36
66-1022P30	ED-71799	8"M	2,500	0.6/0.33
61S8025P30	ED-91712	13"M	2,500	2.0/0.2
62-0432P30	ED-90825	8"M	5,000	0.25/0.25
61S1991P30	ED-90826	8"M	10,000	.025/.025

* The suffix S30 denotes a two-terminal rheostat with conduit fitting, enclosing cover, and front of board mounting.

* The suffix P30 means three terminals are available.

Ward Leonard Design

MAXIMUM AMPERES is the "Resistance Out" current rating, i.e. how much current the rheostat can carry when the wiper is near the zero resistance position and most of the rheostat resistance is OUT of the circuit.

MINIMUM CURRENT is the "Resistance In" rating. The rheostat can handle up to this value of current when the wiper places all of the rheostat resistance IN the circuit.

OHMS can be reduced by installing a stop on the shaft pointer.



Application

Vitrohm pressed steel rheostats furnish a simple, accurate and economical method of field control. They are universally applied for adjusting generator, alternator and exciter field currents to obtain variations in output voltage and for field control of adjustable speed dc and synchronous motors. Other typical applications include control of a heater, furnace, battery charger, or other electrical load. Various mountings are illustrated in the photographs.

Adaptors for Replacement of GE Rheostats (JE-2)



9" G.E. Rheostat



Panel Mount With
GE 6x9 Adapter



Joslyn Clark Rheostat
GE 9x12 Adapter



Floor Mounting on
GE9DR Adapter



Motor Drive Accessory
with Cover Removed
(Not UL or CSA)

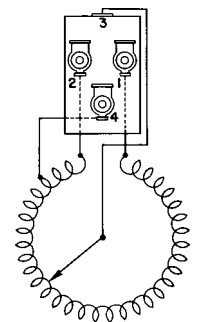
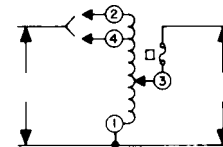
Modifications To Plate Type Rheostats AC Variable Voltage Controls

Modifications to Plate Type Rheostats (JE-2)	Catalog Number	
	8" Plates	13" Plates
Floor mounting support for dancer roll service, 6" and 8" plate	No. 8	—
Floor mounting support for dancer roll service, 13" plate	—	No. 13
Back of board mounting accessories (KI-Kit-8" or 13")	KI-8	KI-13
Graduated dial plate	DIAL WL	DIAL WL
Tandem mounting of 2 plates; 6, 8, or 13"	60-27B308	60-27B313
Tandem mounting of 3 plates	60-27C308	60-27C313
Tandem mounting of 4 plates	60-27D308	60-27D313
Tandem mounting of 5 plates	60-27E308	60-27E313
Limit switch mounted on outside of enclosing cover at either end of travel	LIMIT SWITCH 1	LIMIT SWITCH 1
Limit switches mounted on outside of enclosing cover at both ends of travel	LIMIT SWITCH 2	LIMIT SWITCH 2
Cast aluminum enclosure for limit switches and conduit fitting	R-6	—
Extension shaft for use in floor mounting support, 1/2" diameter (part)	8-T	13-T
Extension shaft as above, with keyway, 5/8" diameter (part)	8-T58K	13-T58K
Add keyway in extension shaft	KEYWAY	KEYWAY
Add keyway and provide 5/8" diameter extension shaft	8-K58	13-K58
Heavy duty conduit fitting instead of standard fitting	LTB-1B	LTB-1B
Solder up sections of rheostat plate to reduce resistance	SOLDER WL	SOLDER WL
Add third terminal to two terminal rheostats for potentiometer connection	60-53	60-53
Provide front mounted stop and set maximum resistance/travel	STOP	STOP
Concentric knobs to control two plates groups	KP	KP
Coat with Dow 200 moisture resistant sealant	1A27	1A27
Space 8" plate to mount in 13" Assembly	SPACE 8	—
Jenkins Motor Drive Accessory	MOTORDRIVE	MOTORDRIVE
Sequence mechanism, for two 13" plate groups	SEQUENCE	SEQUENCE
Adaptors for replacement of 6, 9, & 12" GE Rheostats (Back-of-Board)	GE6X9	GE9x12
Adaptors for replacement of 9 & 12" GE Dancer Roll Rheostats	GE9DR	GE12DR

Superior Powerstat® For AC Load Control

	120 To 140 Volts	240 To 280 Volts	480 To 560 Volts
Maximum Supply Voltage	50/60 Hz	50/60 Hz	50/60 Hz
Load Current	Catalog Number	Catalog Number	Catalog Number
5 Amps	21	21-2	217CU-2
10 Amps	116CU	236BU	236BU-2
15 Amps	126U	246U	246U-2
28 Amps	146U	1256DU	1256DU-2S
50 Amps	1156DU	1156DU-2S	1256DU-4PS

Manufactured by Superior Electric



Terminal Wiring Connections For Type 10C



Type 10C



Type 246U-2



Type 1156D

The Country's Largest Stock of Power Rheostats

Jenkins Electric normally stocks the country's largest selection of power rheostats. We have 25 to 1000 watt, wire-wound, ceramic core rheostats. We also have 400 and 1000 watt plate-type rheostats.

By mounting units in tandem and connecting them in series or parallel, we can provide up to two times the current rating, or four times the resistance of any one unit. In this way, we try to make our stock fit your needs. Our stock is listed on the previous pages. All items listed are normally stocked in quantities of 10 to 100 per size.

Rheostat Selection

If you have a Ward Leonard, Angstrom, FMC, Ohmite, Joslyn Clark, Cutler Hammer, Westinghouse, Memcor or GE catalog number, we may be able to offer you a replacement by consulting our records. For other rheostats, we need to know:

1. Rheostat resistance in ohms
2. Maximum rheostat current
3. Minimum rheostat current
4. Approximate outside diameter
5. How the rheostat is mounted
6. Knob rotation

These items are discussed below.

1. **Rheostat resistance** can be measured on a good rheostat using an ohmmeter. On a bad rheostat, you may be able to measure the good sections, add up the resistance obtained, and guess at the total resistance. Another possibility is the motor or machine control may specify a rheostat resistance to be used.

If you have no old rheostat and wish to choose a rheostat to control a generator or motor, it is useful to know the cold field resistance of the generator or motor (ohms), the rated field voltage (V) and the maximum rated field current (I). If the minimum field current is given, then rheostat resistance can be calculated, by the following formula:

Where

V	is rated field volts
I_{min}	is minimum field current
R_f	is cold field resistance
R_r	is rheostat resistance

$$R_r = \frac{V}{I_{MIN}} - R_f$$

Rheostats control many different loads; therefore, there are no foolproof rules for selecting a specific resistance. The vernier rheostat is often equal to, or a bit greater than, the cold field resistance being controlled. The dancer roll rheostat is often 1.5 times the cold field ohms, but these values depend on the motor speed range desired. Accurate information for field control must come from the machine manufacturer.

2. **Maximum rheostat current** (Resistance Out) is given by the ratio of the field supply voltage to the field resistance.

$$I_{MAX} = \frac{V}{R_f}$$

3. **Minimum rheostat current** (Resistance In) is given by dividing the supply voltage by the sum of the field resistance plus the rheostat resistance.

$$I_{MIN} = \frac{V}{R_f + R_r}$$

4. The **diameter** of the rheostat can be observed, or an estimate made of the clear space available for mounting. Standard Joslyn Clark rheostat plate diameters are 6, 8, 13, 15, and 18 inches. We stock 8 and 13 inch plates. An 8 inch plate can be mounted on the same bolt holes as a 6 inch plate if we supply turned-in feet.
5. **Front-of-board mounting** is typical for Ward Leonard Design Rheostats, the enclosed rheostat can be put on the front of a control panel, wall or column.

Back-of-board mounting allows an open rheostat to be used with just the knob extending in front of a control panel or enclosure. Angstrom rheostat are most often mounted inside a control panel. Joslyn Clark rheostats can be mounted this way if a KI kit is purchased.

Floor mounting (or dancer roll) is used to permit remote control of a rheostat with a sprocket and chain. The floor mounting has a two bearing, load bearing shaft, coupled to the rheostat shaft.

6. Standard, right-hand **rotation** for the rheostat means the knob is turned clockwise (CW) to increase resistance. Three-terminal (potentiometer connected) rheostats with maximum current equal to minimum current (linear taper) can be used in either direction. Dancer roll rheostats often require linear resistance, so they can be used on either side of the roll.

