# Amperex®

A NORTH AMERICAN PHILIPS COMPANY













### HICKSVILLE DIVISION AMPEREX ELECTRONIC CORPORATION HICKSVILLE, NEW YORK 11802

### VACUUM CAPACITORS

### INTRODUCTION

Creative engineering and precision manufacturing are key components to the high quality that is "built into" in every Amperex vacuum capacitor. The utilization of superior equipment, coupled with skilled operators and experienced supervision assures the buyer that he is purchasing the finest in capacitors.

Amperex research, development and manufacturing facilities are outstanding. At the Hicksville, N.Y. plant the company maintains a precision machine shop, super-clean assembly area, chemical laboratory, primary standards laboratory, and a variety of special-purpose processing and

Quality control is evident throughout the manufacturing cycle. Starting with vendor surveillance, quality control personnel check basic materials upon arrival at the plant, constantly supervise fabrication and assembly activities, and conduct a final inspection and test of all capacitors before they are shipped.

Founded in 1932, Amperex markets a variety of electronic components electron tubes, microcircuits, semiconductors, electro-optical devices and passive electronic components for commercial and military applications. Amperex is a wholly owned subsidiary of the North American Philips Company, an affiliation that gives it ready access to the basic research facilities and know-how of the world-renowned Philips Laboratories.

### **CODING SYSTEM**

Amperex manufactures vacuum capacitors to suit many applications. The following simplified coding system has been developed to make ordering and customer stocking as easy as possible:
1.—The first two letters, "CV", indicate capacitor, vacuum.

2.—The third letter indicates the material in the envelope—"G" for glass or "C" for ceramic.

Thus, the first three letters describe physical characteristics:

CVC - capacitor, vacuum, ceramic

CVG - capacitor, vacuum, glass

3.—The next letters indicate capacitance values—"C" for hundred and "K" for thousands. They are preceded by numerals to show multiples. Variable capacitors separate minimum and maximum capacitance by a slash.

Thus, capacitance is shown as follows:

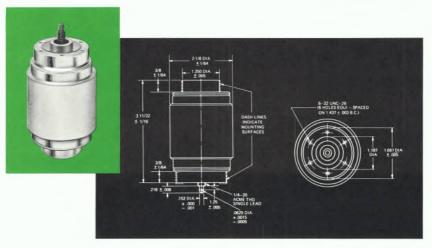
CVC-05/5C — capacitor, vacuum, ceramic, 5 to 500 pF CVG-10/1K — capacitor, vacuum, glass, 10 to 1,000 pF

The final designation is voltage, shown after capacitance, and separated by a dash and using a "V" after the number.



## Type CVC-08/2C-3kV

HICKSVILLE DIVISION AMPEREX ELECTRONIC CORPORATION HICKSVILLE, NEW YORK 11802



#### TECHNICAL SPECIFICATIONS

Capacitance Range: 8-200 pF Peak Voltage: 3 kV

Continuous rms Current\*: 35 amps Cycle Life: 10,000 min. Weight (nom): 1 lb., 2 oz. Flange Mount: Variable end has tapped flange

Fixed end uses Amperex No. S-334761

Storage Temperature: -55°C to +125°C

Operating Temperature

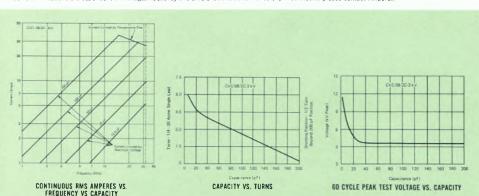
(measured at seals): +120°C

Rotation: C.W. Rotation decreases capacitance

Torque (in. oz.): 22 max.

Direct Pull (pounds): 30 max.

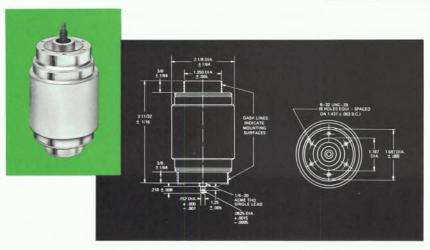
<sup>\*</sup>Current limitations are dependent on voltage, frequency and ambient conditions. For further information please contact Amperex



Amperex<sup>®</sup>... Tomorrow's Thinking in Today's Products<sup>®</sup>

### Type CVC-08/2C-5kV

HICKSVILLE DIVISION AMPEREX ELECTRONIC CORPORATION HICKSVILLE, NEW YORK 11802



#### TECHNICAL SPECIFICATIONS

Capacitance Range: 8 200 pF
Peak Voltage: 5 kV
Continuous rms Current\*: 35 amps

Cycle Life: 10,000 min Weight (nom): 1 lb., 2 oz.

Flange Mount: Variable end has tapped flange Fixed end uses Amperex No. S. 334761

Storage Temperature: -55°C to +125°C

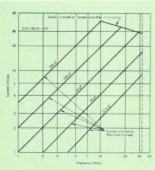
Operating Temperature

(measured at seals): +120°C

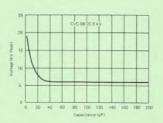
Rotation: C.W. Rotation decreases capacitance
Torque (in.-oz.): 22 max.

Torque (in.-oz.): 22 max. Direct Pull (pounds): 30 max.

<sup>\*</sup>Current limitations are dependent on voltage, frequency and ambient conditions. For further information please contact Amperex.







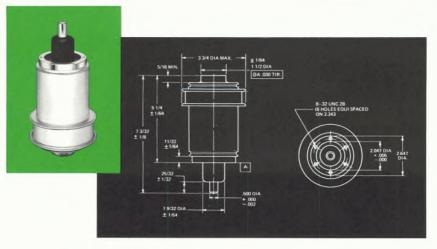
CONTINUOUS RMS AMPERES VS. CAPACITY VS. TURNS FREQUENCY VS. CAPACITY

60 CYCLE PEAK TEST VOLTAGE VS. CAPACITY

# Type CVC-10/1K-3kV

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#### TECHNICAL SPECIFICATIONS

Capacitance Range! 10-1000 pF
Peak Voltage: 3 kV
Continuous rms Current\*: 80 amps
Cycle Life: 10,000 min

Cycle Life: 10,000 min Weight (nom): 3 lbs., 10 oz

Flange Mount: Variable end has tapped flange Fixed end uses Amperex No. S-334760

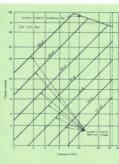
-55°C to +125°C

Storage Temperature: Operating Temperature (measured at seals):

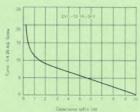
ed at seals): 120°C Rotation: C.W. Rotation decreases capacitance

Torque (in.-oz ): 30 max. Direct Pull (pounds): 40 max.

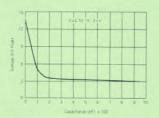
\*Current limitations are dependent on voltage, frequency and ambient conditions. For further information please contact Amperex



CONTINUOUS RMS AMPERES VS FREQUENCY VS CAPACITY

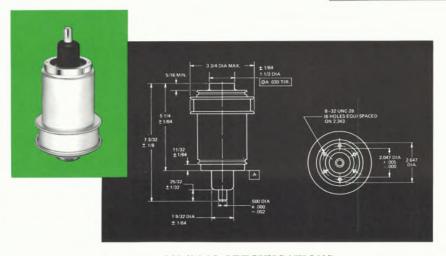


CAPACITY VS. TURNS



# Type CVC-10/1K-5kV

HICKSVILLE DIVISION AMPEREX ELECTRONIC CORPORATION HICKSVILLE, NEW YORK 11802



#### TECHNICAL SPECIFICATIONS

Capacitance Range: 10-1000 pF Peak Voltage: 5 kV Continuous rms Current\*: 80 amps Cycle Life: 10,000 min

Weight (nom): 3 lbs., 10 oz

Flange Mount: Variable end has tapped flange Fixed end uses Amperex No. S-334760

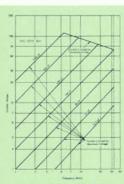
-55°C to +125°C Storage Temperature:

Operating Temperature (measured at seals): 120°C

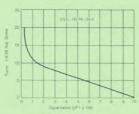
Rotation: C.W. Rotation decreases capacitance

Torque: 30 max. Direct Pull (pounds): 40 max

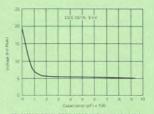
<sup>\*</sup>Current limitations are dependent on voltage, frequency and ambient conditions. For further information please contact Amperex



CONTINUOUS RMS AMPERES VS. FREQUENCY VS CAPACITY

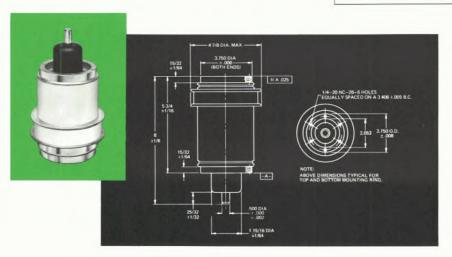


CAPACITY VS. TURNS



### **Type CVC-25/1K-7.5kV**

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#### TECHNICAL SPECIFICATIONS

Capacitance Range: 25-1000 pF Peak Voltage: 7.5 kV Continuous rms Current\*: 125 amps Cycle Life: 10,000 min Weight (nom): 6 lbs., 13 oz.

Flange Mount: Both ends have tapped flanges

Storage Temperature: -55°C to +125°C

Operating Temperature

(measured at seals): 120°C

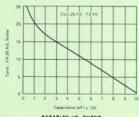
Rotation: C.W. Rotation decreases capacitance

Torque (in.-oz.): 50 max. Direct Pull (pounds): 68 max.

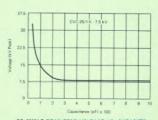
<sup>\*</sup>Current limitations are dependent on voltage, frequency and ambient conditions. For further information please contact Amperex



CONTINUOUS RMS AMPERES VS. FREQUENCY VS CAPACITY



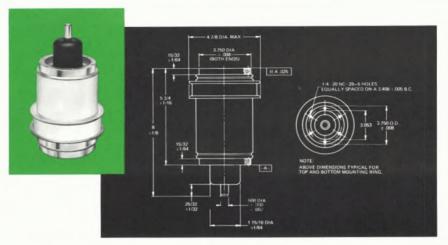
CAPACITY VS. TURNS



**60 CYCLE PEAK TEST VOLTAGE VS. CAPACITY** 

## **Type CVC-25/1K-10kV**

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#### TECHNICAL SPECIFICATIONS

Capacitance Range: 25-1000 pF Peak Voltage: 10 kV Continuous rms Current\*: 125 amps

Cycle Life: 10,000 min Weight (nom): 6 lbs., 13 oz

Flange Mount: Both ends have tapped flanges

Storage Temperature: -55°C to +125°C

Operating Temperature (measured at seals):

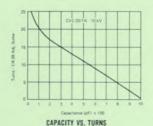
120°C Rotation: C.W. Rotation decreases capacitance

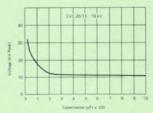
Torque (in.-oz.): 50 max. Direct Pull (pounds): 68 max

<sup>\*</sup>Current limitations are dependent on voltage, frequency and ambient conditions. For further information please contact Amperex.



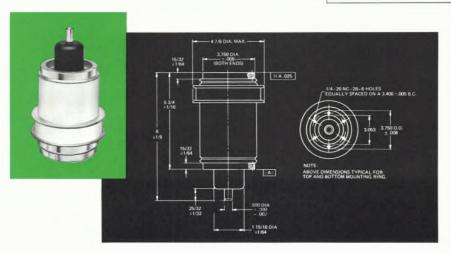
CONTINUOUS RMS AMPERES VS. FREQUENCY VS CAPACITY





### **Type CVC-25/1K-15kV**

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#### TECHNICAL SPECIFICATIONS

Capacitance Range: 25-1000 pF Peak Voltage: 15 kV Continuous rms Current\*: 125 amps Cycle Life: 10,000 min

Weight (nom): 6 lbs., 13 oz.

Flange Mount: Both ends have tapped flanges Storage Temperature: -55°C to +125°C

Operating Temperature

(measured at seals): 120°C

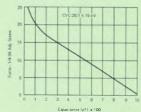
Rotation: C.W. Rotation decreases capacitance

Torque (in.-oz.): 50 max Direct Pull (pounds): 68 max

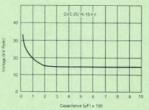
<sup>\*</sup>Current limitations are dependent on voltage, frequency and ambient conditions. For further information please contact Amperex.



CONTINUOUS RMS AMPERES VS FREQUENCY VS CAPACITY

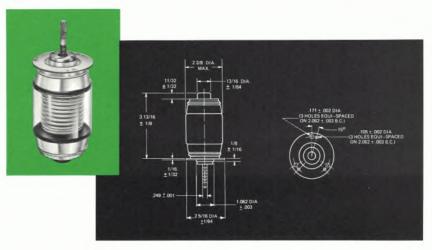


CAPACITY VS. TURNS



# Type CVG-05/5C-3kV

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#### TECHNICAL SPECIFICATIONS

Capacitance Range: 5-500 pF Peak Voltage: 3 kV

Continuous rms Current\*: 20 amps Cycle Life: 10,000 cycles min.

Weight (nom): 1 lb., 4 oz.

Flange Mount: Variable end has tapped flange Fixed end uses Amperex No. S-334759

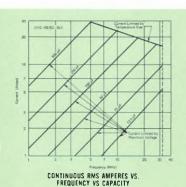
Storage Temperature: -65°C to +125°C

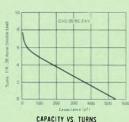
Operating Temperature (measured at seals):

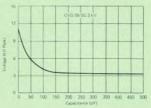
asured at seals): +85°C max.
Rotation: C W. Rotation decreases capacitance
Torque (in.-oz.): 48 max.

Direct Pull (pounds): 44 max

<sup>\*</sup>Current limitations are dependent on voltage, frequency and ambient conditions. For further information please contact Amperex.



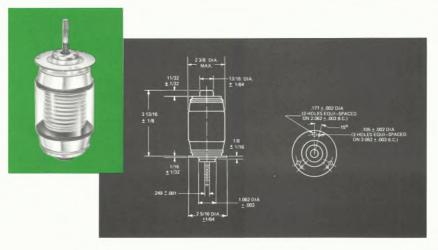




60 CYCLE PEAK TEST VOLTAGE VS. CAPACITY

# Type CVG-05/5C-5kV

HICKSVILLE DIVISION AMPEREX ELECTRONIC CORPORATION HICKSVILLE, NEW YORK 11802



#### TECHNICAL SPECIFICATIONS

Capacitance Range: 5-500 pF Peak Voltage: 5 kV

20 amps Continuous rms Current®:

Cycle Life: 10,000 cycles min. Weight (nom): 1 lb., 4 oz.

Flange Mount: Variable end has tapped flange

Fixed end uses Amperex No. S-334759

Storage Temperature: -65°C to +125°C

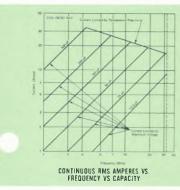
Operating Temperature (measured at seals):

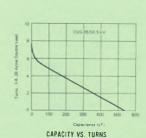
+85°C max.

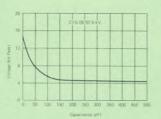
C.W. Rotation decreases capacitance Rotation:

Torque (in.-oz.): 48 max Direct Pull (pounds): 44 max

<sup>\*</sup>Current limitations are dependent on voltage, frequency and ambient conditions. For further information please contact Amperex



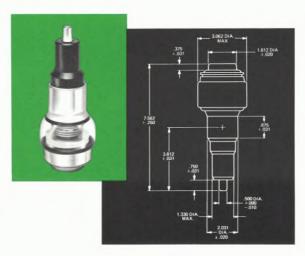




60 CYCLE PEAK TEST VOLTAGE VS. CAPACITY

### Type CVG-07/1K-3kV

HICKSVILLE DIVISION AMPEREX ELECTRONIC CORPORATION HICKSVILLE, NEW YORK 11802



#### TECHNICAL SPECIFICATIONS

Capacitance Range: 7-1000 pF Peak Voltage:

Continuous rms Current®: 42 amps Cycle Life: 12,500 min.

Weight (nom): 2 lbs

Flange Mount: Fixed end uses Amperex No. S-335403 Variable end uses Amperex No. S-335404

Storage Temperature: -55°C to +125°C 85°C

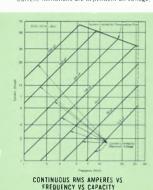
Operating Temperature (measured at seals):

Rotation: C.W. Rotation decreases capacitance

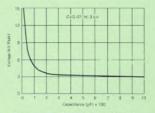
Torque: 24 max.

Direct Pull (pounds): 43 max

<sup>\*</sup>Current limitations are dependent on voltage, frequency and ambient conditions. For further information please contact Amperex.





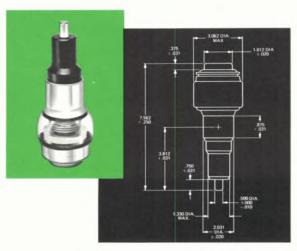


CAPACITY VS. TURNS

60 CYCLE PEAK TEST VOLTAGE VS. CAPACITY

# Type CVG-07/1K-5kV

HICKSVILLE DIVISION
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HICKSVILLE, NEW YORK 11802



#### TECHNICAL SPECIFICATIONS

Capacitance Range: 7-1000 pF Peak Voltage: 5 kV

Continuous rms Current\*: 42 amps

Cycle Life: 12.500 min

Weight (nom): 2 lbs.

Flange Mount: Fixed end uses Amperex No. S-335403
Variable end uses Amperex No. S-335404
e Temperature: -55°C to +125°C

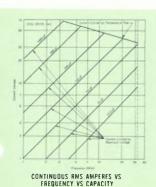
Storage Temperature:
Operating Temperature

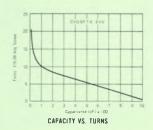
(measured at seals): 85°C

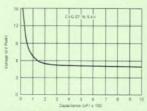
Rotation: C.W Rotation decreases capacitance

Torque: 24 max Direct Pull (pounds): 43 max

<sup>\*</sup>Current limitations are dependent on voltage, frequency and ambient conditions. For further information please contact Amperex.

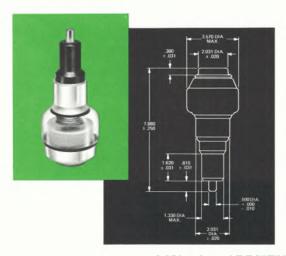






# Type CVG-12/5C-7.5kV

HICKSVILLE DIVISION AMPEREX ELECTRONIC CORPORATION HICKSVILLE, NEW YORK 11802



#### TECHNICAL SPECIFICATIONS

Capacitance Range: 12-500 pF Peak Voltage: 7.5 kV Continuous rms Current\*: 42 amps 12,500 min Cycle Life:

Weight (nom): 2 lbs., 2 oz

Flange Mount: Fixed end uses Amperex No. S-335807 Variable end uses Amperex No. S-335806

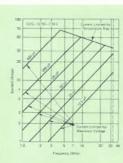
Storage Temperature: -55°C to +125°C 85°C

Operating Temperature (measured at seals):

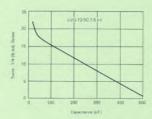
> Rotation: C.W. Rotation decreases capacitance

Torque (in.-oz.): 40 max Direct Pull (pounds): 46 max.

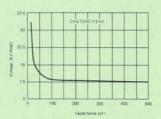
<sup>\*</sup>Current limitations are dependent on voltage, frequency and ambient conditions. For further information please contact Amperex.



CONTINUOUS RMS AMPERES VS FREQUENCY VS CAPACITY



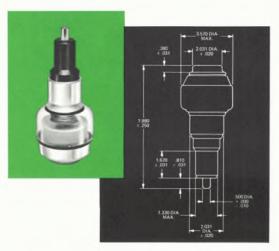
CAPACITY VS. TURNS



60 CYCLE PEAK TEST VOLTAGE VS. CAPACITY

# Type CVG-12/5C-10kV

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#### TECHNICAL SPECIFICATIONS

Capacitance Range: 12-500 pF Peak Voltage: 10 kV Continuous rms Current\*: 42 amps

Cycle Life: 12,500 min. Weight (nom): 2 lbs., 2 oz.

Flange Mount: Fixed end uses Amperex No. S-335807 Variable end uses Amperex No. S-335806

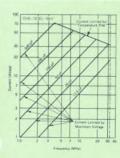
Storage Temperature: -55°C to +125°C

Operating Temperature (measured at seals): 85°C

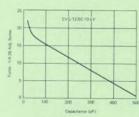
Rotation: C.W. Rotation decreases capacitance

Torque (in.-oz.): 40 max Direct Pull (pounds): 46 max.

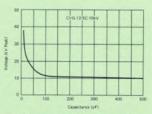
<sup>\*</sup>Current limitations are dependent on voltage, frequency and ambient conditions. For further information please contact Amperex.



CONTINUOUS RMS AMPERES VS. FREQUENCY VS CAPACITY

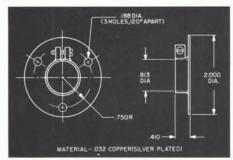


CAPACITY VS. TURNS

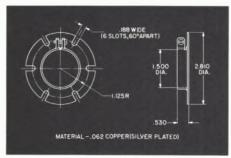


60 CYCLE PEAK TEST VOLTAGE VS. CAPACITY

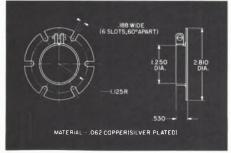
# Accessories Flange Mounts



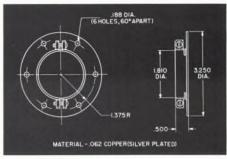
S-334759



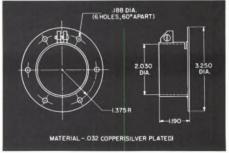
S-334760



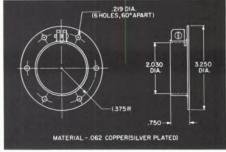
S-334761



S-335403



S-335404



S-335807

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HICKSVILLE, NEW YORK 11802



# Information on Amperex VACUUM CAPACITORS is available from Field Sales Offices

#### **NEW ENGLAND**

GERBER SALES COMPANY, INC. 176 Second Avenue Waltham, Massachusetts 02154 Tel: 617-891-8040

TWX: 710-324-1937 29 Whalley Avenue

New Haven, Connecticut 06511 Tel: 203-777-6279

24 Maple Court, P.O. Box 447 E. Longmeadow, Massachusetts 01028 Tel: 413-525-3059

### MIDDLE ATLANTIC

AMPEREX ELECTRONIC CORPORATION 4498 Main Street

Buffalo, N. Y. 14226 Tel: 716-839-2243 Tel: 716-839-2345

Medical Science Center Bldg. 5700 Old Richmond Avenue Richmond, Virginia 23226 Tel: 703-282-6515-16

BEIL & WHITAKER, INC. 3623 Jacksonwald Avenue Reading, Pennsylvania 19606 Tel: 215-779-2610

1303 N. Troxell Street Allentown, Pennsylvania 18103

Tel: 215-434-5220 5610 Akron Drive

Harrisburg, Pennsylvania 17109 Tel: 717-652-0184

849 W. Foxcroft Drive Camp Hill, Pennsylvania 17011 Tel: 717-233-1254

KAHGAN SALES CORPORATION 556 Peninsula Boulevard Hempstead, New York 11550 Tel: 516-538-2300

PARAGON SALES COMPANY 111 South 22nd Street Philadelphia, Pennsylvania 19103 Tel: 215-563-7060

### SOUTH

BROTHERS & CONNEEN ASSOCIATES

6302 Lincoln Avenue Baltimore, Maryland 21209 Tel: 301-764-7189

4391 Crest Heights Road Baltimore, Maryland 21215 Tel: 304-HU 6-6127 1620 Myamby Road Towson, Maryland 21204 Tel: 301-823-5063

12 S. Newtown St. Road Newtown Square, Pennsylvania 19073 Tel: 215-353-2241

CARTWRIGHT & BEAN, INC.
OF TENNESSEE
560 South Cooper Street
P.O. Box 4760
Memphis, Tennessee 38104
Tel: 901-276-4442

7010 Magnolia Court, P.O. Box 73336 Metairie, Louisiana 70003 Tel: 504-887-5225

DUNBAR ASSOCIATES, INC. P.O. Box 30511, Dallas, Texas 75230 Tel: 214-239-7151 TWX: 910-860-5006

HAWKINS-HUTTO, INC. P.O. Box 1509 501 Park Ave. N, Rm. 10 Winter Park, Florida 32789 Tel: 305-647-7407

P.O. Box 1059 2159 S.E. 9th Street Pompano Beach, Florida 33062 Tel: 305-943-9593 or 305-946-1402

10416 Butia Place Tampa, Florida 33618

MILLAR ELECTRONICS, INC. P.O. Box 12137, Northside Station 3110 Maple Drive, N.E. Room 110 Atlanta, Georgia 30305 Tel: 404-261-6060-61

P.O. Box 17173 North Hills Office Mall, Rm. 134 Raleigh, North Carolina 27609 Tel: 919-787-9564

### MIDDLE WEST

AMPEREX ELECTRONIC CORPORATION

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6700 France Avenue, South Minneapolis, Minnesota 55435 Tel: 612-920-7955 TWX: 910-576-3463 THOMAS MULLIGAN & ASSOCIATES 2025 Riverside Drive Columbus, Ohio 43221 Tel: 614-486-2976 TWX: 810-482-1893

PALATINE ENGINEERING SALES, INC. 8622 St. Charles Rock Road St. Louis, Missouri 63114 Tel: 314-426-7055 TWX: 910-765-0940

7520 W. 63rd Street—Suite 10 Overland Park, Kansas 66202 Tel: 913-262-5643 TWX: 910-743-6862

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