

# MAGNETIC HID BALLASTS

# HATCH

Precision Power. Perfect Light.



BALLASTS, DRIVERS, TRANSFORMERS & LAMPS FOR ALL LIGHTING APPLICATIONS

# Magnetic HID Ballasts

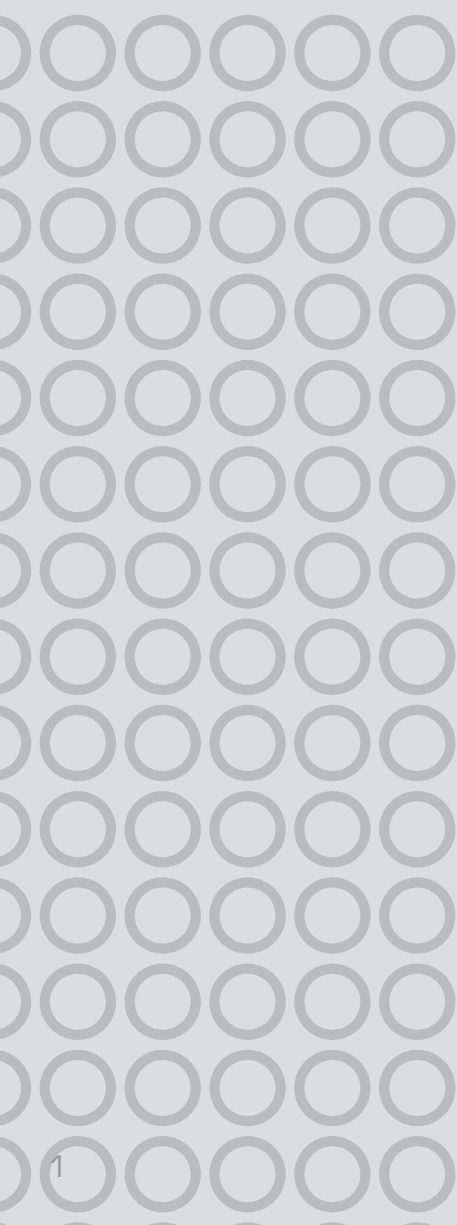
Hatch magnetic G-Series HID ballasts provide unmatched quality and reliability for lighting applications. Available in all popular lamp types, wattages and voltages these products are designed to meet the needs of distributors, fixture manufacturers as well as maintenance and repair businesses. Hard to find & custom configurations are available. To make installation easy all ballasts are available in pre-wired kits. Based on more than 10 years of successful service in the field Hatch's magnetic HID ballasts can be counted on to get the job done.

# HATCH

## All Hatch Magnetic HID Ballasts Feature:

- Smaller, lighter designs for optimum performance in tight spaces
- State of the art vacuum pressure impregnation for superior performance and reliability
- Tightly welded laminations resulting in quiet operation, ideal for applications where noise is a concern
- Color coded lead wires that correspond to product labels allowing easy, error-free installation
- Availability in quad tap and five tap configurations for optimum flexibility
- Class N 200°C insulation ratings providing world class thermal performance
- Availability in pre wired kit forms for easy installation
- Easy to understand part numbers for ease of selection

[www.hatchlighting.com](http://www.hatchlighting.com)



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To view complete online Magnetic HID ballast specifications, scan this barcode with your Smartphone.

Don't have a scanning App? Search the Apple App Store, Android Market or BlackBerry App World for a barcode scanning application





## About Hatch Magnetic HID Ballasts

### Industry Leading Quality. Proven Reliability

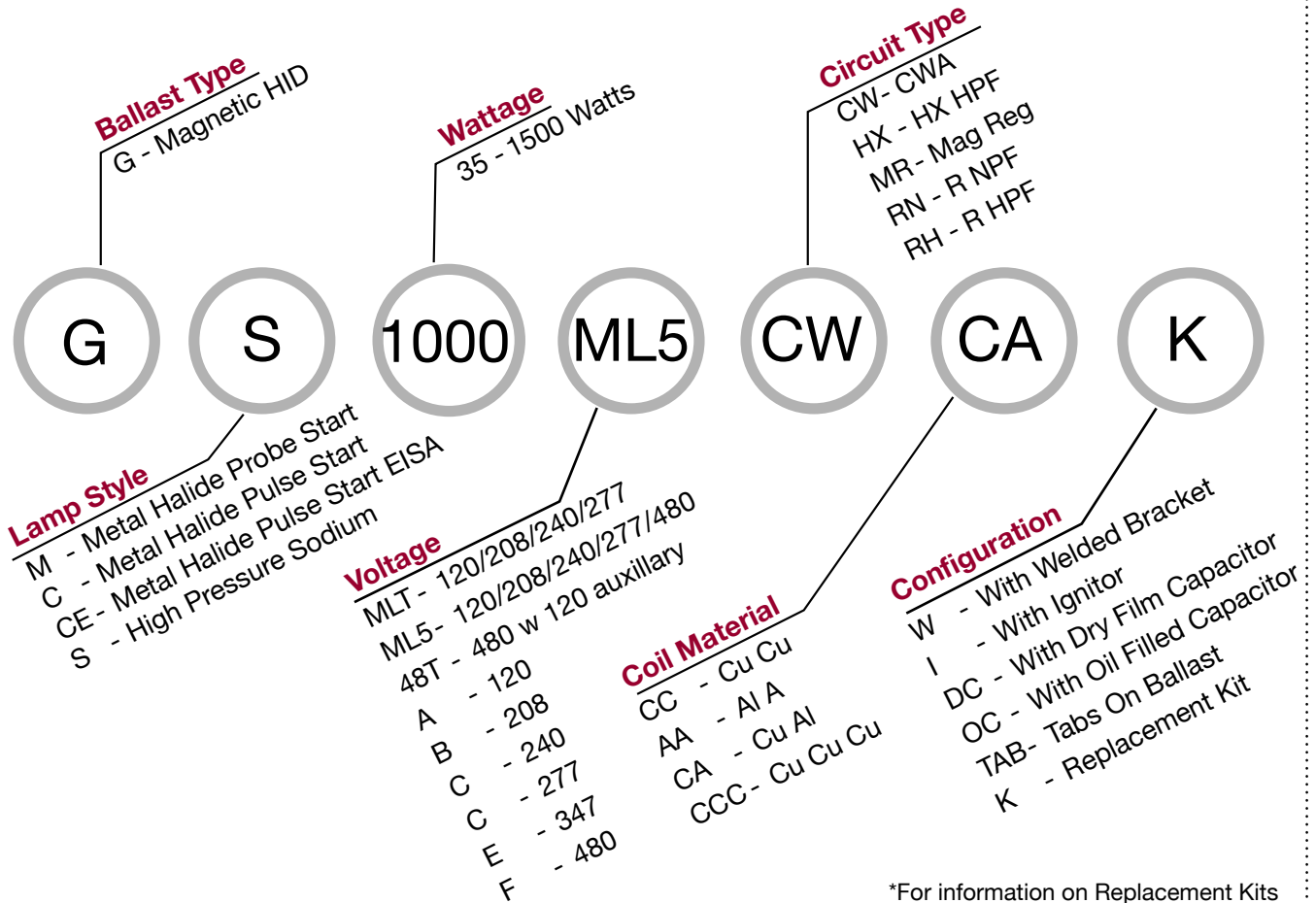
- Broad line: Over 350 UL recognized HID ballast models and 49 standard models in stock - one of the most extensive product lines in the industry
- UL1029 Temp. Rated : Among the coolest running ballasts in the industry (low temp > longer life)
- Comprehensive EISA/CA Title 20 compliant offering
- Vacuum pressure impregnated
- High quality silicon steel
- Comprehensive line using Class N 200°C insulation system
- RoHS compliant
- Tight, precise winding for lower watt losses and cooler operation
- Factory ISO9001/ISO14000 certified
- Automatic Testing Equipment - 100% of production is tested, recorded and labeled with unique ID for quality tracking
- Waveform - Metal Halide & Pulse Start line meets or exceeds stringent ANSI lamp waveform requirements (VSS, OS, OT, Peak Current, Crest Factor, di/dt)

## Certifications



### Understanding Hatch HID Ballast Part Numbers

Example Part Number: **GS1000-ML5-CWCA**



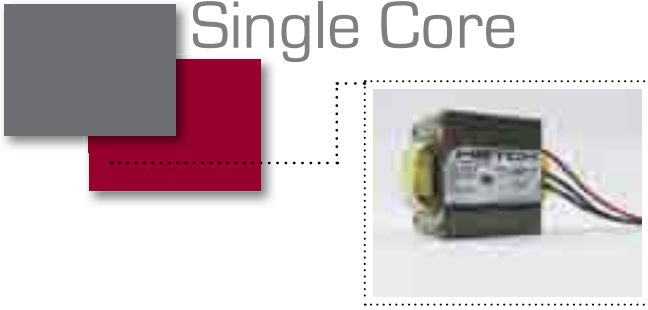
\*For information on Replacement Kits  
Please see Page 9

Over 350 models and configurations of Hatch Magnetic HID Ballasts are available. Only our 49 most popular items are listed in this catalog. For complete specifications please visit our website.



## Dimensional Diagrams All measurements in inches

### Single Core

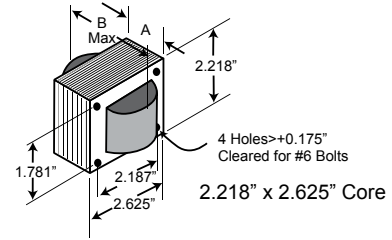


### Single Core

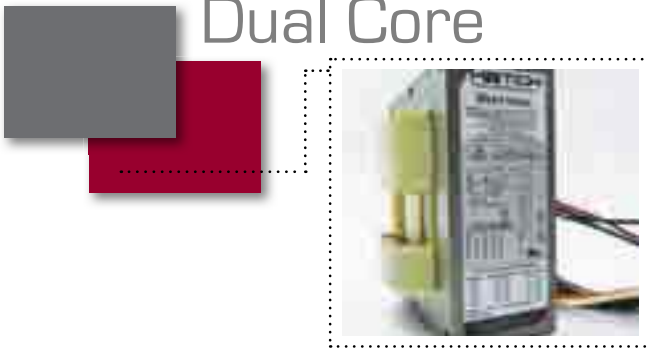
DIAGRAM

A

\* 12" Lead Length



### Dual Core

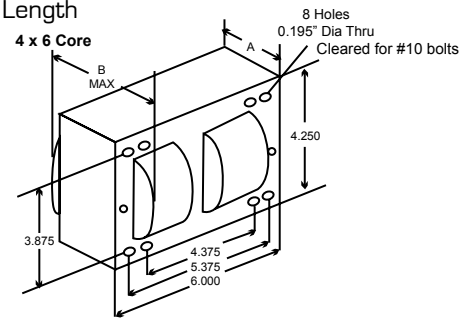


### Dual Core

DIAGRAM

B

\* 12" Lead Length

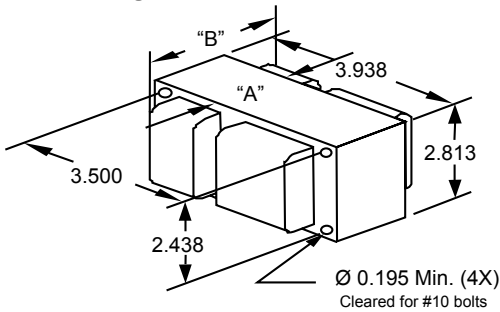


### Dual Core

DIAGRAM

C

\* 12" Lead Length

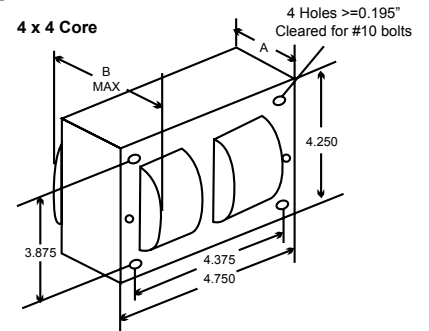


### Dual Core

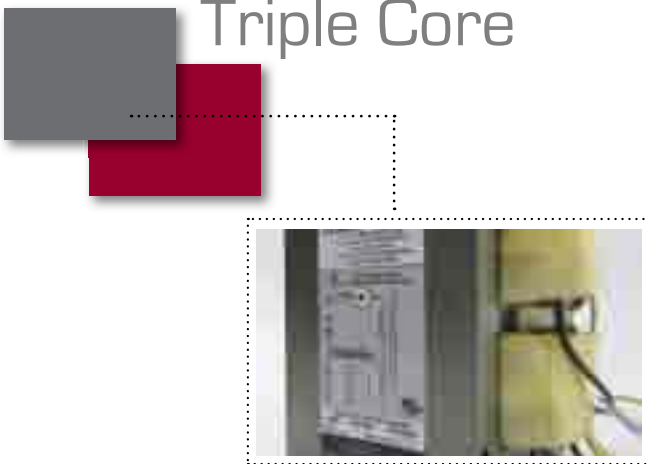
DIAGRAM

D

\* 12" Lead Length



### Triple Core

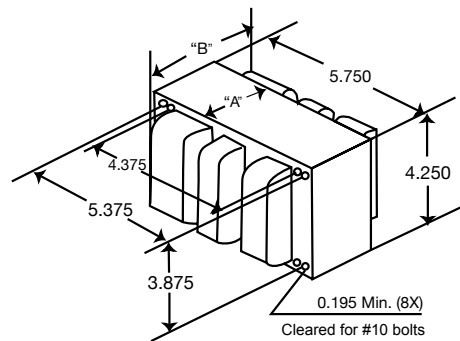


### Triple Core

DIAGRAM

E

\* 12" Lead Length



### Metal Halide

Lamp Type	Lamp Watts	Lamp ANSI Code	Circuit Type	Input Volts				Hatch Part Number	Core Dimensions (in)		Coil Material		Dimensional Diagram
									A	B	Pri.	Sec.	

#### 175/150 Watt

Metal Halide	175/150	M57/H39/M107	CWA	120	208	240	277	480	GM175-ML5-CWCA	2.44	4.10	Cu	Al	B
Metal Halide	175/150	M57/H39/M107	CWA	120	208	240	277		GM175-MLT-CWCA	2.44	3.80	Cu	Al	B

#### 250 Watt

Metal Halide	250	M58/H37	CWA	120	208	240	277	480	GM250-ML5-CWCA	1.85	3.6	Cu	Al	D
Metal Halide	250	M58/H37	CWA	120	208	240	277		GM250-MLT-CWAA	1.61	3.54	Al	Al	D

#### 400 Watt

Metal Halide	400	M59/H33	CWA	120	208	240	277	480	GM400-ML5-CWCA	2.32	4.26	Cu	Al	D
Metal Halide	400	M59/H33	CWA	120	208	240	277		GM400-MLT-CWAA	2.16	4.2	Al	Al	D

#### 1000 Watt

Metal Halide	1000	M47/H36	CWA	120	208	240	277	480	GM1000-ML5-CWCA	3.25	5.19	Cu	Al	C
Metal Halide	1000	M47/H36	CWA	120	208	240	277		GM1000-MLT-CWCA	3.01	4.92	Cu	Al	C

#### 1500 Watt

Metal Halide	1500	M48	CWA	120	208	240	277		GM1500-MLT-CWCC	4.1	6.3	Cu	Cu	C
Metal Halide	1500	M48	CWA					480	GM1500-48T-CWCC	4.11	5.9	Cu	Cu	C

### Pulse Start Metal Halide

Lamp Type	Lamp Watts	Lamp ANSI Code	Circuit Type	Input Volts				Hatch Part Number	Core Dimensions (in)		Coil Material		Dimensional Diagram
									A	B	Pri.	Sec.	

#### 50 Watt

Pulse Start MH	50	M110/M148	HX-HPF	120	208	240	277		GC50-MLT-HXAA	1.04	2.48	Al	Al	B
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#### 70 Watt

Pulse Start MH	70	M98/M143/M139	HX-HPF	120	208	240	277		GC70-MLT-HXCA	1.46	2.9	Cu	Al	B
Pulse Start MH	70	M98/M143/M139	HX-HPF					480	GC70-48T-HXCC	1.46	2.8	Cu	Cu	B

#### 100 Watt

Pulse Start MH	100	M90/M140	HX-HPF	120	208	240	277		GC100-MLT-HXCA	1.57	2.95	Cu	Al	B
Pulse Start MH	100	M90/M140	HX-HPF					480	GC100-48T-HXCC	1.61	2.8	Cu	Cu	B

#### 150 Watt

Pulse Start MH	150	M102/M142	HX-HPF	120	208	240	277		GC150-MLT-HXCA	2.28	3.8	Cu	Al	B
Pulse Start MH	150	M102/M142	HX-HPF					480	GC150-48T-HXCC	2.3	3.9	Cu	Cu	B

#### 175 Watt

Pulse Start MH	175	M137/M152	CWA-Pulse	120	208	240	277	480	GC175-ML5-CWCC	2.42	3.5	Cu	Cu	B
Pulse Start MH	175	M137/M152	CWA-Pulse	120	208	240	277		GC175-MLT-CWCC	2.05	3.5	Cu	Cu	B

Dimensional Diagrams can be found on Pg. 5

## General Specifications

### Pulse Start Metal Halide

Lamp Type	Lamp Watts	Lamp ANSI Code	Circuit Type	Input Volts				Hatch Part Number	Core Dimensions (in)		Coil Material		Dimensional Diagram
									A	B	Pri.	Sec.	

#### 250 Watt

Pulse Start MH	250	M138/M153	CWA-Pulse	120	208	240	277	480	GC250-ML5-CWCA	1.99	3.9	Cu	Al	D
Pulse Start MH	250	M138/M153	CWA-Pulse	120	208	240	277		GC250-MLT-CWCA	1.85	3.78	Cu	Al	D

#### 320 Watt

Pulse Start MH	320	M132/M154	CWA-Pulse	120	208	240	277	480	GC320-ML5-CWCA	2.18	4.4	Cu	Al	D
Pulse Start MH	320	M132/M154	CWA-Pulse	120	208	240	277		GC320-MLT-CWAA	2.18	4.4	Al	Al	D

#### 350 Watt

Pulse Start MH	350	M131	CWA-Pulse	120	208	240	277	480	GCE350-ML5-CWCA	2.32	4.40	Cu	Al	D
Pulse Start MH	350	M131	CWA-Pulse	120	208	240	277		GCE350-MLT-CWCA	2.32	4.4	Cu	Al	D

#### 400 Watt

Pulse Start MH	400	M153/M138	CWA-Pulse	120	208	240	277	480	GCE400-ML5-CWCA	2.32	4.25	Cu	Al	D
Pulse Start MH	400	M135	CWA-Pulse	120	208	240	277		GCE400-MLT-CWAA	2.32	4.2	Al	Al	D

#### 750 Watt

Pulse Start MH	750/775	M149/M181	CWA-Pulse	120	208	240	277	480	GC750-ML5-CWCA	2.83	4.8	Cu	Al	C
Pulse Start MH	750	M149/M181	CWA-Pulse	120	208	240	277		GC750-MLT-CWCA	2.62	4.8	Cu	Al	C

#### 1000 Watt

Pulse Start MH	1000/875	M141/M166/M47	CWA-Pulse	120	208	240	277	480	GC1000-ML5-CWCA	3.25	5.22	Cu	Al	C
Pulse Start MH	1000/875	M141/M166/M47	CWA-Pulse	120	208	240	277		GC1000-MLT-CWCA	3.01	5.05	Cu	Al	C

### High Pressure Sodium

Lamp Type	Lamp Watts	Lamp ANSI Code	Circuit Type	Input Volts				Hatch Part Number	Core Dimensions (in)		Coil Material		Dimensional Diagram
									A	B	Pri.	Sec.	

#### 35 Watt

High Pressure Sodium	35	S76	R-NPF	120					GS35-A-RNC	0.61	1.8	Cu		A
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#### 50 Watt

High Pressure Sodium	50	S68	HX-HPF	120	208	240	277		GS50-MLT-HXCA	1.03	2.52	Cu	Al	B
High Pressure Sodium	50	S68	R-NPF	120					GS50-A-RNC	0.83	2.0	Cu		A

Dimensional Diagrams can be found on Pg. 5

### High Pressure Sodium

Lamp Type	Lamp Watts	Lamp ANSI Code	Circuit Type	Input Volts				Hatch Part Number	Core Dimensions (in)		Coil Material		Dimensional Diagram
									A	B	Pri.	Sec.	

#### 70 Watt

High Pressure Sodium	70	S62	HX-HPF	120	208	240	277		GS70-MLT-HXCA	1.54	2.95	Cu	Al	B
High Pressure Sodium	70	S62	HX-HPF					480	GS70-48T-HXCC	1.85	3.2	Cu	Cu	B
High Pressure Sodium	70	S62	R-NPF	120					GS70-A-RNC	1.3	2.5	Cu		A

#### 100 Watt

High Pressure Sodium	100	S54	HX-HPF	120	208	240	277		GS100-MLT-HXCA	1.97	3.35	Cu	Al	B
High Pressure Sodium	100	S54	HX-HPF					480	GS100-48T-HXCC	1.99	3.4	Cu	Cu	B
High Pressure Sodium	100	S54	R-NPF	120					GS100-A-RNA	1.77	2.95	Al		A

#### 150 Watt

High Pressure Sodium	150	S55	HX-HPF	120	208	240	277		GS150-MLT-HXCA	2.56	4.05	Cu	Al	B
High Pressure Sodium	150	S55	HX-HPF					480	GS150-48T-HXCC	3.0	4.3	Cu	Cu	B
High Pressure Sodium	150	S55	R-NPF	120					GS150-A-RNA	2.36	3.54	Al		A

#### 250 Watt

High Pressure Sodium	250	S50	CWA	120	208	240	277	480	GS250-ML5-CWCA	1.97	3.9	Cu	Al	D
High Pressure Sodium	250	S50	CWA	120	208	240	277		GS250-MLT-CWCA	1.85	3.5	Cu	Al	D

#### 400 Watt

High Pressure Sodium	400	S51	CWA	120	208	240	277	480	GS400-ML5-CWCA	2.56	4.7	Cu	Al	D
High Pressure Sodium	400	S51	CWA	120	208	240	277		GS400-MLT-CWCA	2.32	4.18	Cu	Al	D

#### 1000 Watt

High Pressure Sodium	1000	S52	CWA	120	208	240	277	480	GS1000-ML5-CWCA	4.1	6.1	Cu	Al	C
High Pressure Sodium	1000	S52	CWA	120	208	240	277		GS1000-MLT-CWCA	4.33	6.4	Cu	Al	C

Dimensional Diagrams can be found on Pg. 5



## Replacement Kit Information & Troubleshooting

The Replacement Kit consists of a ballast with input voltage connections rated for 120, 208, 240 or 277 volts and 480 volts on some models, capacitor, mounting brackets and nuts and bolts which permit field replacement of a ballast in a High Intensity Discharge type lamp fixture. The replacement kit includes mounting brackets and bolts which may be reworked to match the old ballast mounting position. Be sure that the brackets secure the components in the fixture so that installation and vibration will not change the location of these components.

### Troubleshooting:

**CAUTION: The following troubleshooting procedures are to be performed only by a qualified electrician. When checking connections or interchanging components, the power must be turned off.**

If a malfunction occurs:

- Be sure all connections to the line, capacitor (if required) and lamp have been properly made.
- Measure voltage to determine whether it is within tolerance specified for the ballast being used.
- Check for blown fuse or tripped circuit breaker. If power interruption has occurred, check each fixture component for possible shorting or grounding.
- Try lamp on another ballast known to be operating properly or try another lamp on the ballast in question. Make sure lamp and ballast are properly matched in terms of wattage and type.
- In the High Pressure Sodium Lamp system, be sure lead marked lamp on starting aid is connected to center eyelet of lamp socket.
- In the High Pressure Sodium Lamp system, to determine if starting aid is faulty, test by substituting another starting aid.

**S**ince 1985, Hatch has been the recognized market leader in the design and manufacture of premium power lighting products and solutions. Hatch offers a complete line of electronic and magnetic ballasts and transformers for virtually all lighting applications and is one of the largest independent, full-line power supply manufacturers in the world.

Current Hatch products include:

- Electronic LED Drivers
- Electronic HID Ballasts
- Linear Fluorescent Ballasts
- Compact Fluorescent Ballasts
- Electronic Low Voltage Transformers
- Remote Transformers
- Magnetic HID Ballasts
- Fluorescent Lamps
- Sign Ballasts



Electrical data and product specifications in this catalog are subject to change without notice

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