

GE HID Ballast Ordering Information

Pulse Start Ballasts for Quartz and Ceramic Metal Halide

PC	Description	Applications	A	B	Frame Size
67335	GEP175MLTAA3-5/2	1-175W PS m137 OR m 152 Quad (120/208/240/277V)	2.6	3.9	3.94 x 2.8
78525	GEP175TRIAC3-5	1-175W PS M137 Tri Tap (120/277/347V)	2.17	3.62	3.94 x 2.8
67334	GEP17548TAA3-5/2	1-175W PS M137 or M152 480V (120/480V)	2.6	3.9	3.94 x 2.8
63419	GEP200MLTAAE4D-5	1-200W PS M136 Quad (120/208/240/277V) EISA	1.97	3.68	4.75 x 4.25
78526	GEP200TRIAC3-5	1-200W PS M136 Tri-Tap (120/277/347V)	2.48	3.94	3.94 x 2.8
63421	GEP250ML5AAE4-5	1-250W PS M138 or M153 5-Tap (120/208/240/277/480V) EISA	2.18	4.3	4.75 x 4.25
67344	GEP250MLTAA4-5/2	1-250W PS M138 or M153 Quad (120/208/240/277V)	1.77	3.5	4.75 x 4.25
63082	GEP250MLTAAE4-5	1-250W PS M138 or M153 Quad (120/208/240/277) EISA	2.18	4.4	4.75 x 4.25
78527	GEPTRIAC4-5	1-250W PS M138 Tri-Tap (120/277/347V)	1.5	3.23	4.75 x 4.25
67336	GEP25048TAA4-5/2	1- 250w PS M138 or M153 480V (480V)	1.77	3.5	4.75 x 4.25
63081	GEP25048TAAE4-5	1-250W PS M138 or M153 480 EISA	2.18	4.3	4.75 x 4.25
63423	GEP320ML5AAE4-5	1-320W PS M132 or M154 5-Tap (120/208/240/277/480V) EISA	2.19	4.3	4.75 x 4.25
67345	GEP320MLTAA4-5/2	1-320W PS M132 or M154 Quad (120/208/240/277V)	1.9	3.6	4.75 x 4.25
63084	GEP320MLTAAE4-5	1-320W PS M132 or 154 Quad (120/208/240/277V) EISA	2.19	4.2	4.75 x 4.25
78528	GEP320TRIAC4-5	1-320W PS M132 Tri Tap (120/277/347V)	1.77	3.5	4.75 x 4.25
67342	GEP32048TAA4-5/2	1-320W PS M132 480V	2.2	3.9	4.75 x 4.25
63083	GEP32048TAAE4-5	1-320W PS M132 or M154 480 EISA	2.19	4.2	4.75 x 4.25
63425	GEP350ML5AAE4-5	1-350W PS M131 5-Tap (120/208/240/277/480V) EISA	2.36	4.45	4.75 x 4.25
67346	GEP350MLTAA4-5/2	1-350W PS M131 Quad (120/208/240/277V)	1.9	3.6	4.75 x 4.25
63085	GEP350MLTAAE4-5	1-350W PS M131 Quad (120/208/240/277V) EISA	2.32	4.4	4.75 x 4.25
78529	GEP350TRIAC4-5	1-350W PS M131 Tri Tap (120/277/347V)	1.77	3.5	4.75 x 4.25
63424	GEP35048TAAE4-5	1-350W PS M131 480 EISA	2.32	4.4	4.75 x 4.25
63426	GEP400ML5AAE4-5	1-400W PS M135 or M155 5-Tap (120/208/240/277/480V) EISA	2.32	4.25	4.75 x 4.25
67347	GEP400MLTAA4-5/2	1-400W PS M131 or M155 Quad (120/208/240/277V)	2.2	3.9	4.75 x 4.25
63088	GEP400MLTAAE4-5	1-400W PS M135 or M155 Quad (120/208/240/277V) EISA	2.32	4.2	4.75 x 4.25
78530	GEP400TRIAC4-5	1-400W PS 135 Tri Tap (120/277/347V)	2.05	3.7	4.75 x 4.25
63087	GEP400TRIAEE4-5	1-400W PS M135 or M155 Tri Tap (120/277/347V) EISA	2.32	4.2	4.75 x 4.25
67341	GEP40048TAA4-5/2	1-400W PS 135 or M155 480V	2.2	3.9	4.75 x 4.25
63086	GEP40048TAAE4-5	1-400W PS M135 or M155 480 EISA	2.32	4.25	4.75 x 4.25
67350	GEP750MLTAA5-5/2	1-750W PS M149 Quad (120/208/240/277V)	3	5.1	6 x 4.25
78531	GEP750TRIAC4-5	1-750W PS M149 Tri-Tap (120/277/347V)	2.8	4.5	6 x 4.25
67343	GEP75048TAA5-5/2	1-750W PS M149 480V	3	5.1	6 x 4.25
72282	GEP1000ML5AA5-5/2	1-1000W PS M141 5 Tap(120/208/240/277/480V)	3.25	5.4	6 x 4.25
72281	GEP1000MLTAA5-5/2	1-1000W PS M141 Quad (120/208/240/277V)	3.05	5.2	6 x 4.25
78532	GEP1000TRIAC5-5	1-1000W PS M141 Tri Tap (120/277/347V)	2.8	4.5	6 x 4.25



Information provided is subject to change without notice. Please verify all details with GE. All values are design or typical values when measured under laboratory conditions, and GE makes no warranty or guarantee, express or implied, that such performance will be obtained under end-use conditions.

For additional product and application information, please consult GE's Website: www.gelighting.com

GE
Lighting



GE HID Ballasts



Versatile options for QMH,
Ceramic Metal Halide®
and HPS Lamps



Transforming
The **POWER** of Light™

GE Lighting’s High Intensity Discharge ballasts

operate a vast array of High Pressure Sodium, Quartz Metal Halide, and Ceramic Metal Halide HID lamps in the market today.

HID lamps are similar to fluorescent lamps in that they are gas discharge lamps. The arc tube, made from Quartz glass or ceramic materials is located within the ‘jacket’ of the lamp and contains electrodes at either end of the tube. The arc tube generates light when the electrodes at either end of the tube initiate an electrical arc. This excites the pressurized sodium or metal halide gasses causing them to emit light. Like fluorescent lamps, HID lamps require a ballast to operate. The primary role of the ballast is to supply the correct starting and operating voltage to initiate the arc, and to regulate current and voltage to sustain the arc once illuminated.



Lamp Operation

Gas discharge lamps have a negative resistance characteristic, which causes them to draw increasing amounts of current and can result in immediate lamp failure if operated directly from the main power line. It is the purpose of the ballast to prevent this by limiting current provided to the lamp for smooth and consistent operation.

The ratio of light output produced by a lamp operating on a ballast vs. the lamp’s rated life output is referred to as the ‘Ballast Factor’. All GE HID ballasts have a ballast factor of 1.0, providing full luminance. When ignited HID lamps take time to warm-up and reach full luminance. Any interruption of input power or a sudden voltage drop may cause the arc to extinguish. Hot HID lamps will not restrike immediately. Prior to restrike, the arc tube must cool enough to reduce the vapor pressure within the tube to a point where the arc will be able to reestablish itself. The typical warm up and restrike times of HID lamps are below.

Light Source	Warm-Up Time	Restrike Time
Metal Halide (Probe Start)	4-5 minutes	10-20 minutes
Metal Halide (Pulse Start)	2 minutes	3-4 minutes
High Pressure Sodium	3-4 minutes	1/2-1 minute
Low Pressure Sodium	7-10 minutes	3-12 seconds

Input Voltages

HID lighting in the United States takes power at one of five voltages; 120,208, 240, 277, or 480V. While 120/277V are the most common in the United States because of the ready availability of power sources at these voltages, 208 and 240V are often utilized because of the heavier loads and longer runs associated with HID lighting (large malls, factories, parking lots).

In order to accommodate all of these different voltage inputs, GE lighting offers ballasts with multiple input voltage taps. Ballasts are available in:

5-Tap	(120/208/240/277/480V)
Quad Tap	(120/208/240/277V)
Tri-Tap	(120/277/347V) (for the Canadian Market)
480V	(480/with 120 Aux Tap)

Not all ballasts wattages are available in all configurations.

GE HID Ballast Ordering Information

eHID

GE Product Code	Description	Description	Watts	L	W	H	Weight (oz.)	Application
63042	GEMH20-MSJ-MV	1- 20W M/C156 (120/277V) eHID Bottom Leads w/Studs	24	3.27	2.99	1.56	18	Recessed Can
63043	GEMH20-MSF-MV	1- 20W M/C156 (120/277V) eHID w/ Side Leads and feet	24	3.35	3.10	1.20	16	Track/Can
87490	GEMH20-MLF-20	1-20W M/C156 (120V) side exit w/ feet	23	3.70	1.60	1.00	6	Track
74115	GEMH20-MC-120	1-20W M/C156 (120V) side exit	23	3.00	1.30	1.10	6	Track
63044	GEMH39-MSJ-MV	1- 39W M/C130 (120/277V) eHID Bottom Leads w/Studs	44	3.35	3.10	1.20	16	Recessed Can
63045	GEMH39-MSF-MV	1- 39W M/C130 (120/277V) eHID Side Leads w/ feet	44	3.35	3.10	1.20	16	Track/Can
87501	GEMH39-MSF-120	1-39W M/C130 (120V) feet side exit.	43	3.70	3.00	1.20	6	Track
74116	GEMH39-MC-120	1-39W M/C130 (120V) side exit	43	3.00	1.30	1.10	6	Track
75378	GEMH39-MCM-120	1-39W M/C130 (120V) side exit Metal Can	43	3.50	1.30	1.20	6	Track
87546	GEMH70-SLJ-MV	1-70W M98, M/C143 (120V) Studs/ Bottom leads	77	7.30	2.60	2.20	4	Recessed Can
87531	GEMH70-MSF-120	1-70W M98, M/C143 (120V) feet side exit	77	3.70	3.00	1.20	4	Recessed Can
87561	GEMH100-SLJ-MV	1-100W M90, M/C140 (120/277V) Studs/Bottom leads	107	7.30	2.60	2.20	4	Recessed Can
87576	GEMH150-SLJ-MV	1-150W M102, M/C142 (120/277V) Studs/Bottom leads	164	7.30	2.60	2.20	4	Recessed Can
29377	GEMH250-400-MA	1- 250 to 400W M155, M135, M154, M132 (208/240/277V) UltraMax ® eHID	343-431	14.90	14.90	9.30	163	High Bay
89646	GEMH250-400M-V5	1-250 to 400W M155, M135, M154, M132 (208/240/277V) UltraMax ® eHID, 50% Dimming	343-431	14.90	14.90	9.30	163	High Bay

Metal Halide

PC	Description	Application	B	A	Framesize
86824	GEM50MLTLC3D-5	1-50w MH M110 or M148 Quad (120/208/240/277V)	1.1	2	3.9 x 2.8
63073	GEM50MLTLA3D-5	1-50w MH M110 or M148 Quad (120/208/240/277V)	2.1	2.48	3.9 x 2.8
86847	GEM70MLTLA3D-5	1-70w MH M98 or M143 Quad (120/208/240/277V)	1.46	2.9	3.9 x 2.8
78517	GEM70TRILC3-5	1-70w MH M143 Tri Tap (120277/347V)	1.5	2.95	3.9 x 2.8
67337	GEM7048TLA3D-5/2	1-70w MH M143 480V	1.5	2.6	3.9 x 2.8
86675	GEM100MLTLA3D-5	1-100w MH M90 or M140 Quad (120/208/240/277V)	1.57	2.95	3.9 x 2.8
78519	GEM100MTRLIC3-5	1-100w MH M140 Tri Tap (120/277/347V)	1.61	3.07	3.9 x 2.8
67333	GEM10048TLA3D-5/2	1-100w MH M140 480V	1.6	2.8	3.9 x 2.8
86718	GEM150MLTLA3D-5	1-150w MH M102 or M142 Quad (120/208/240/277V)	2.28	3.8	3.9 x 2.8
78520	GEM150TRILC3-5	1-150w MH M102 Tri Tap (120/277/347V)	2.17	3.62	3.9 x 2.8
86711	GEM15048TLC3D-5	1-150w MH M102 or M142 480V	2.3	3.9	3.9 x 2.8
87210	GEM175MLSAC3-5	1-175w MH M57 or H39 5-Tap (120/208/240/277/480V)	3	4	3.9 x 2.8
63078	GEM175MLTAA3-5	1-175w MH M57 or H39 5-Tap (120/208/240/277/480V)	2.44	4.1	3.9 x 2.8
86741	GEM175MLTAA3-5	1-175w MH M57 or H39 Quad (120/208/240/277V)	2.44	3.8	3.9 x 2.8
78521	GEM175TRIAC3-5	1-175w MH M57 Tri Tap (120/277/347V)	2.17	3.62	3.9 x 2.8
87212	GEM250ML5AA4-5	1-250w MH M58 or H37 5-Tap (120/208/240/277/480V) Large Frame	1.85	3.6	4.75 x 4.25
86765	GEM250MLTAC3-5	1-250w MH M58 or H37 Quad (120/208/240/277V)	2.4	4	3.9 x 2.8
63077	GEM250MLTAA3-5	1-250w MH M58 or H37 Quad (120/208/240/277V)	3.15	4.5	3.9 x 2.8
78522	GEM250TRIAC4-5	1-250w MH M58 Tri Tap (120/277/347V)	2.17	3.62	4.75 x 4.25
87212	GEM250ML5AA4-5	1-250w MH M58 or H37 5-Tap (120/208/240/277/480V)	1.8	3.6	4.75 x 4.25
72300	GEM400ML5AA4-5/2	1-400w MH M59 or H33 5-Tap (120/208/240/277/480V)	2.2	3.9	4.75 x 4.25
87008	GEM400MLTAA4-5/2	1-400w MH M59 or H33 Quad (120/208/240/277/)	2.2	3.9	4.75 x 4.25
78523	GEM400TRIAC4-5	1-400w MH M59 Tri Tap (120/277/347V)	2.17	4.06	4.75 x 4.25
63070	GEM40048TAA4-5/2	1-400w MH M59 or H33 480	2.2	3.9	4.75 x 4.25
63069	GEM100048TAA5-5	1-1000w MH M47 or H36 480	3.25	5.2	6 x 4.25
87213	GEM1000ML5CA5-5/2	1-1000w MH M47 or H36 5-Tap (120/208/240/277/480V)	3.5	5.6	6 x 4.25
86655	GEM1000MLTAA5-5/2	1-1000W MH M47 or H36 Quad (120/208/240/277V)	3.1	5.3	6 x 4.25
78524	GEM1000TRIAC5-5	1-1000w MH M47 Tri Tap (120/277/347V)	2.96	4.92	6 x 4.25
86693	GEM150048TAC5M5-5	1-1500w MH M48 480V	4	6	6 x 4.25
86698	GEM1500MLTAC5-5	1-1500w MH M48 Quad (120/208/240/277V)	4	6	6 x 4.25

High Pressure Sodium

PC	Description	Application	A	B	Frame Size
87152	GES50MLTLA3D-5	1-50w HPS S68 Quad (120/208/240/277V)	1	3	3.9 x 2.8
78533	GES50TRILC-5	1-50W HPS S68 Tri Tap (120/277/347V)	1.02	2.48	3.9 x 2.8
86587	GES70MLTLA3D-5	1-70w HPS S62 Quad (120/208/240/277V)	2	3	3.9 x 2.8
78534	GES70TRILC3-5	1-70w HPS S62 Tri Tap (120/277/347V)	1.5	2.95	3.9 x 2.8
67340	GES7048TLA3D-5/2	1-70w HPS S62 480V	1.9	3	3.9 x 2.8
87074	GES100MLTLA3D-5	1-100w HPS S54 Quad (120/208/240/277V)	2	4	3.9 x 2.8
78535	GES100TRILC3-5	1-100w HPS S54 Tri-Tap (120/277/347V)	2	3.47	3.9 x 2.8
67338	GES10048TLA3D-5/2	1-100w HPS S54 480V	2	3.1	3.9 x 2.8
87094	GES150MLTLA3D-5	1-150w HPS S55 Quad (120/208/240/277V)	3	4	3.9 x 2.8
78536	GES150TRILC3-5	1-150w HPS S55 Tri Tap (120/277/347V)	2.48	4.94	3.9 x 2.8
67339	GES15048TLA3D-5/2	1-150w HPS S55 480V	2.65	4	3.9 x 2.8
87121	GES250MLTAA4-5	1-250w HPS S50 Quad (120/208/240/277V)	2	4	4.75 x 4.25
87214	GES250ML5AA4-5	1-250w HPS S50 5-Tap (120/208/240/277/480V)	2	4	4.75 x 4.25
78537	GES250TRIAC4-5	1-250w HPS S50 Tri Tap (120/277/347V)	1.62	3.5	4.75 x 4.25
87215	GES400ML5AC4-5	1-400w HPS S51 5-Tap (120/208/240/277/480V)	2.3	4.4	4.75 x 4.25
63066	GES400ML5AA4-5	1-400w HPS S51 5-Tap (120/208/240/277/480V)	2.56	4.7	4.75 x 4.25
87198	GES40048TAA4-5	1-400w HPS S51 480V in smaller frame	3.8	6	4.75 x 4.25
87164	GES400MLTAA4-5	1-400w HPS S51 Quad (120/208/240/277V)	2.3	4.4	4.75 x 4.25
78539	GES400TRIAC4-5	1-400w HPS S51 Tri-Tap (120/277/347V)	2.33	4.21	4.75 x 4.25
87218	GES1000ML5AA5-5	1-1000w HPS S52 5-Tap (120/208/240/277/480V)	4	6	6 x 4.25
67351	GES100048TAA5-5/2	1-1000w HPS S52 480V	4.5	6.6	6 x 4.25
67352	GES1000MLTAA5-5/2	1-1000w HPS S52 Quad (120/208/240/277V)	4.5	6.6	6 x 4.25
78540	GES1000TRIAC5-5	1-1000w HPS S52 Tri Tap (120/277/347V)	3.74	5.71	6 x 4.25

Ballast Limited Warranty for HID Electronic and HID Electromagnetic Ballasts

Learn about our product warranties below and how GE supports you by efficiently addressing warranty issues that may arise



Ballast Limited Warranty

GE Lighting ("GE") is pleased to provide the following limited warranty covering the GE electronic and electromagnetic ballasts listed below purchased directly from GE.

GE warrants that the below-referenced ballasts comply with GE's published specifications and are free from defects in materials and workmanship for the respective periods of time set forth below.

GE Linear Fluorescent, Compact Fluorescent and HID Electronic Ballasts	60 Months
GE Linear Fluorescent, Compact Fluorescent and HID Electromagnetic Ballasts	24 Months

Remedy: If a GE linear fluorescent, compact fluorescent, or HID ballast mentioned above fails due to defects in materials or workmanship within the periods of time indicated above, after the date of manufacture, then GE will, at its option, either (1) provide a credit to Purchaser equal to the current price GE charges Purchaser for the ballast and, in GE's discretion, either retain a service provider to install the warranty replacement ballast or pay a reasonable labor allowance that is pre-approved by GE, or (2) refund the purchase price paid to GE for the ballast. This warranty applies only to GE ballasts that have been properly wired and installed; operated within the electrical values shown on the ballast label; and operated in lighting equipment designed and approved for the application and in environmental conditions (temperature, humidity and air movement) within the normal specified operating range of the system.

Terms & Conditions: The foregoing ballast warranty applies only to direct purchases from GE, but does not apply to failures caused by acts of God or as a result of any abuse, misuse, abnormal use, or use in violation of any applicable standard, code or instructions for use in installations, including, but not limited to, those contained in the National Electrical Code, the Standards for Safety of Underwriters Laboratory, Inc., Standards for the International Electrotechnical Commission, Standards for the American National Standards Institute or, in Canada, the Canadian Standards Association. *GE reserves and has the right to examine failed ballasts to determine the cause of failure and patterns of usage.*

The foregoing warranty constitutes the sole and exclusive remedy of the purchaser and the sole liability of GE for ballast warranties. **NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS MADE OR IS TO BE IMPLIED.** In no event shall GE be liable for any other costs or damages including lost profits, indirect, incidental, special or consequential damages.

To Make a Warranty Claim: To make a warranty claim, retain the failed products and notify your GE sales representative in writing within thirty (30) days of the failure. This warranty extends only to Purchaser. However, GE will honor, under the terms of this Limited Warranty, valid warranty claims made by Purchaser for the remedy set forth above as a result of warranty claims made to Purchaser by its customers and indirect customers.

To Register your GE Products: Register your GE products at www.gelighting.com/warrantyregistration.

GE Lighting

ROB2511

PulseArc® and CMH® Ceramic Metal Halide UltraMax® eHID System Limited Warranty



UltraMax® eHID Metal Halide Electronic Ballast Limited Warranty

GE Lighting ("GE") is pleased to provide the following limited warranty covering GE UltraMax® eHID metal halide electronic ballasts purchased directly from GE.

GE warrants that the above-referenced ballasts comply with GE's published specifications and are free from defects in materials and workmanship for the period of time set forth below.

Remedy: If a GE UltraMax® eHID metal halide electronic ballast fails due to defects in materials or workmanship within five (5) years after the date of manufacture, then GE will, at its option, either (1) provide a credit to Purchaser equal to the current price GE charges Purchaser for the ballast and, in GE's discretion, either retain a service provider to install the warranty replacement ballast or pay a reasonable labor allowance that is pre-approved by GE, or (2) refund the purchase price paid to GE for the ballast. This warranty applies only to GE UltraMax® eHID ballasts that have been properly wired and installed; operated within the electrical values shown on the ballast label; and operated in lighting equipment designed and approved for the application and in environmental conditions (temperature, humidity and air movement) within the normal specified operating range of the system.

Terms & Conditions: The foregoing ballast warranty applies only to direct purchases from GE, but does not apply to failures caused by acts of God or as a result of any abuse, misuse, abnormal use, or use in violation of any applicable standard, code or instructions for use in installations, including, but not limited to, those contained in the National Electrical Code, the Standards for Safety of Underwriters Laboratory, Inc., Standards for the International Electrotechnical Commission, Standards for the American National Standards Institute or, in Canada, the Canadian Standards Association. *GE reserves and has the right to examine failed ballasts to determine the cause of failure and patterns of usage.*

The foregoing warranty constitutes the sole and exclusive remedy of the purchaser and the sole liability of GE for ballast warranties. **NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS MADE OR IS TO BE IMPLIED.** In no event shall GE be liable for any other costs or damages including lost profits, indirect, incidental, special or consequential damages.


To Make a Warranty Claim: To make a warranty claim, retain the failed products and notify your GE sales representative in writing within thirty (30) days of the failure. This warranty extends only to Purchaser. However, GE will honor, under the terms of this Limited Warranty, valid warranty claims made by Purchaser for the remedy set forth above as a result of warranty claims made to Purchaser by its customers and indirect customers.

To Register your GE Products: Register your GE products at www.gelighting.com/warrantyregistration.

GE Lighting

ROB2511

UltraMax® eHID Metal Halide Electronic Ballast Limited Warranty



250-400 watt PulseArc® and ConstantColor® CMH® Metal Halide UltraMax® eHID System Limited Warranty

GE Lighting ("GE") is pleased to provide the following limited warranty covering GE 250-, 320-, 350- and 400-watt ConstantColor® CMH® and PulseArc® Multi-Vapor® metal halide lamps and GE UltraMax® eHID electronic ballasts purchased directly from GE.

GE warrants that the above-referenced lamps and ballasts, when operated as a system, comply with GE's published specifications and are free from defects in materials and workmanship for the respective periods of time set forth below. The GE UltraMax® eHID ballast specification includes a 10-point improvement in mean lumen output when operated with 250W-400W PulseArc® Multi-Vapor® metal halide lamps and a 5-point improvement in mean lumen output when operated with ConstantColor® CMH® metal halide lamps, compared to performance on CWA ballasts.

Lamp Remedy: If a GE lamp mentioned above fails due to defects in materials or workmanship within (1) one (1) year after the date of purchase or (2) within 5,000 hours of operation, whichever comes first, then GE will provide a credit to Purchaser equal to the current price GE charges Purchaser for the lamp. This warranty applies only to lamps that are operated on a burning cycle of 10 hours or more per start, operated on GE UltraMax® eHID electronic ballasts that have been properly wired and installed, operated within the electrical values shown on the ballast label, and operated in lighting equipment designed and approved for the application and in environmental conditions (temperature, humidity and air movement) within the normal specified operating range of the system.

Ballast Remedy: If a GE UltraMax® eHID electronic ballast fails due to defects in materials or workmanship within five (5) years after the date of manufacture, then GE will, at its option, either (1) provide a credit to Purchaser equal to the current price GE charges Purchaser for the ballast and, in GE's discretion, either retain a service provider to install the warranty replacement ballast or pay a reasonable labor allowance that is pre-approved by GE, or (2) refund the purchase price paid to GE for the ballast. This warranty applies only to GE UltraMax® eHID electronic ballasts that are operating GE lamps referenced above, have been properly wired and installed, operated within the electrical values shown on the ballast label, and operated in lighting equipment designed and approved for the application and in environmental conditions (temperature, humidity and air movement) within the normal specified operating range of the system.

Terms & Conditions: The foregoing lamps and ballast warranties apply only to direct purchases from GE, but do not apply to failures caused by acts of God or as a result of any abuse, misuse, abnormal use, or use in violation of any applicable standard, code or instructions for use in installations, including, but not limited to, those contained in the National Electrical Code, the Standards for Safety of Underwriters Laboratory, Inc., Standards for the International Electrotechnical Commission, Standards for the American National Standards Institute or, in Canada, the Canadian Standards Association. *GE reserves and has the right to examine failed lamps and/or ballasts to determine the cause of failure and patterns of usage. The date of purchase and lamp installation date must be verified to validate the elapsed operating hours if a warranty claim is made. If lamp life is not validated, the lamp date code will be used to establish elapsed burning time based on estimated usage.*

The foregoing warranties constitute the sole and exclusive remedy of the purchaser and the sole liability of GE for lamp and ballast warranties. **NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS MADE OR IS TO BE IMPLIED.** In no event shall GE be liable for any other costs or damages including lost profits, indirect, incidental, special or consequential damages.

To Make a Warranty Claim: To make a warranty claim, retain the failed products and notify your GE sales representative in writing within thirty (30) days of the failure. This warranty extends only to Purchaser. However, GE will honor, under the terms of this Limited Warranty, valid warranty claims made by Purchaser for the remedy set forth above as a result of warranty claims made to Purchaser by its customers and indirect customers.

To Register your GE Products: Register your GE products at www.gelighting.com/warrantyregistration.

GE Lighting

ROB2511

HID Ballast Family*

	Core & Coil	eHID	F-Can
Probe Start QMH	GEM-Probe Start Quartz Metal Halide Core & Coil: 175, 200, 250, 320, 350, 400, 750, 1000, 1500 Watts Voltages: 5-Tap, Quad, Tri Tap, 480 V*	N/A	N/A
Pulse Start QMH	GEM-Pulse Start Quartz Metal Halide Core & Coil: 50, 70, 100, 150 Watts Voltages: 5-Tap, Quad, Tri Tap, 480 V*	UltraMax® eHID Ballast Structures available in: Mini Square J- or F-Can: 20, 39 Watts Voltages: 120/277 Micro Square: 20, 39 Watts Voltage: 120 Slim Line: 70, 100, 150 Watts Voltages: 120/277 Multi Watt: 250, 320, 350, 400 Watts Voltages: 208/240/277	GEM F-Can F-Can: 50, 70, 100, 150, 175, 250, 400 Watts Voltages: 120/277
Pulse Start CMH®	GEP-Pulse Start Ceramic Metal Halide Core & Coil: 175, 200, 250, 320, 350, 400, 750, 1000 Watts <175W; same as Pulse Start MH options -GEM prefix Voltages: 5-Tap, Quad, Tri Tap, 480 V*	N/A	N/A
Pulse Start HPS	GES-High Pressure Sodium Core & Coil: 50, 70, 100, 150, 250, 400, 1000 Watts Voltages: 5-Tap, Quad, Tri Tap, 480 V*	N/A	GES F-Can F-Can: 70, 150 Watts Voltages: 120/277
Applications	Industrial/Commercial - Factory, Refinery, Auto Showroom Outdoor Area Lighting - Parking Lot, Roadway, Municipalities, monuments, civic spaces, parks Sports & Stadium Lighting	Educational/Institutional - Libraries, Classrooms, Large Auditoriums, Museums Commercial - Retail, Galleries, Offices, Restaurants Outdoor - Monument Lighting, Building Spot Lighting	Industrial/Commercial - Factory, Refinery Horticultural - Greenhouse, nursery Outdoor Area Lighting - Parking Lot, Roadway, Municipalities, monuments, civic spaces, parks

* Not all configurations available in all wattages

UltraMax® eHID Ballast

CMH® & Pulse Start QMH

Micro	Mini with Feet	Mini Square MSJ	Mini Square MSF	Slim Line	UltraMax Variable Wattage
Track Lighting	Track/accent lighting	Recessed Can	Track Lighting	Track, Recessed Can	Hi-Bay

20W 39W (120V)	20W (120V)	20W 39W (120/277)	20W 39W (120/277)	70W 100W 150W (120/277)	250, 300, 320, 350, or 400W (208/240/277)
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eHID Electronic HID

Electronic HID, like electronic fluorescent systems, significantly improves the performance of HID lighting. Electronic UltraMax® eHID ballasts use solid-state components to start and operate HID pulse start and ceramic metal halide lamps, allowing the following benefits when compared to alternative magnetic core and coil ballasts:

- Improved efficiency vs. magnetic ballast
- Maintain higher lumens
- Enhanced color control
- Operate more quietly
- Variable dimming to 50% power reduction

Features:

- Operates lamps utilizing a low frequency square wave maximizing lamp performance.
- One GE high-wattage eHID ballast will operate either 250, 300, 320, 350, or 400 watt single pulse start CMH® lamp



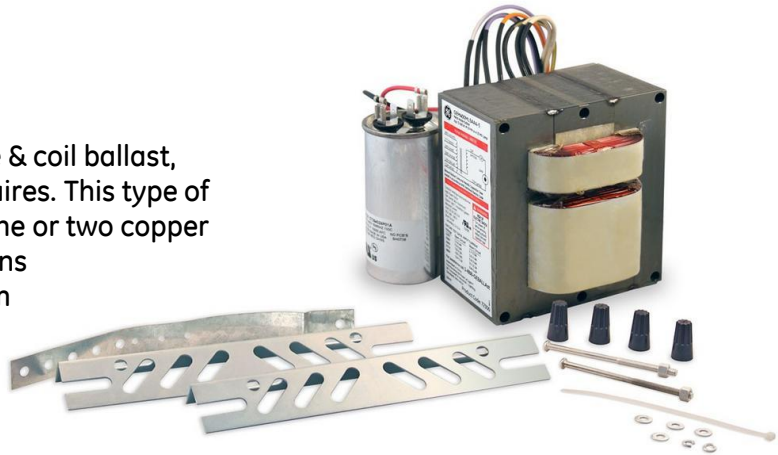
Contact your GE Representative for specific limited warranty details.



Electromagnetic HID Ballast

Core & Coil

The typical electromagnetic ballast is the exposed core & coil ballast, which is commonly used as a component in HID luminaires. This type of ballast is called a core and coil because it consists of one or two copper coils on a 'core' of high-grade electrical steel laminations which are welded together. The ballast is then vacuum impregnated with a specialized varnish chosen for its electrical, thermal, and sound attenuating properties. All GE Core & Coil ballasts have a UL Class H thermal rating (180°C).



Core and Coil Probe Start QMH

Probe Start
Quartz Metal Halide lamps between the wattages of 175W and 1500W utilize an additional electrode, or probe, at one end of the arc tube to facilitate lamp ignition. Probe Start fixtures rely on the Open Circuit voltage to initiate the arc.

Core and Coil Pulse Start QMH or CMH®

Pulse Start
Metal Halide lamps 150W and below utilize Pulse Start technology. Additionally, newer Ceramic Metal Halide Lamps 150W and less also require the use of an igniter to provide a high voltage initial 'pulse' to ignite the lamp. In QMH applications, once the initial arc is established the igniter stops pulsing and the lamps 'warm' up to full lumen output. Metal Halide lamps 150W and below utilize Pulse Start technology.

Core and Coil Pulse Start HPS

Pulse Start
High Pressure Sodium (HPS) lamps utilize Pulse Start technology. HPS lamps have no starting electrodes; rather, they utilize an igniter to induce a high voltage initial starting 'pulse' (3-5kV) across the main electrodes in the lamp. All HPS Lamps require pulse start ignition. In HPS applications, once the initial arc is established the igniter stops pulsing and the lamps 'warm' up to full lumen output.

F-Can

Fluorescent Can or F-Can ballasts are traditional core and coil ballasts enclosed within a can typically utilized for magnetic fluorescent or electronic fluorescent ballasts. The reduced noise levels of F-Can ballasts make them perfect for commercial and institutional applications like; retail stores, grocery stores, offices, schools, and hospitals.

Features:

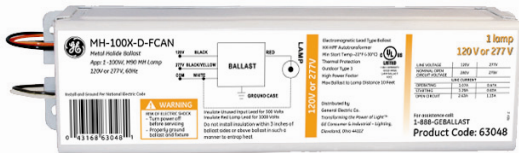
- The fully enclosed and potted core and coil assembly significantly reduces noise
- Simplifies mounting and enhances thermal properties
- Available in pulse and probe start MH and HPS with dual voltage configuration of 120/277V
- Thermal protection which cuts off the power to the ballast in the event of system overheating.

F Can - QMH

Probe Start
F-Cans for QMH house a traditional, probe start metal halide ballast in the convenient format of a fluorescent or F-Can. Providing superior thermal properties and sound attenuation, the enclosed and potted F-Can is ideal for interior environments requiring quiet operation.

F Can - HPS

Pulse Start
High Pressure Sodium F-Cans function the exact same way as a typical core & coil pulse start ballast. All of the necessary components of an HPS Pulse Start ballast like capacitors and ignitors are housed within the fluorescent can.



The Power Behind the Power

All GE HID ballasts are custom-manufactured to our demanding Six Sigma specifications for dependable performance.

GE offers several warranties for our HID product offering, including the UltraMax® Total Performance System Warranty. This warranty guarantees performance when used with GEPulseArc® Multi-Vapor® MH or GE ConstantColor® CMH® lamps.

Contact your GE Representative for specific warranty details.



Transforming
The **POWER** of Light™

Express System Limited Warranty Brochure

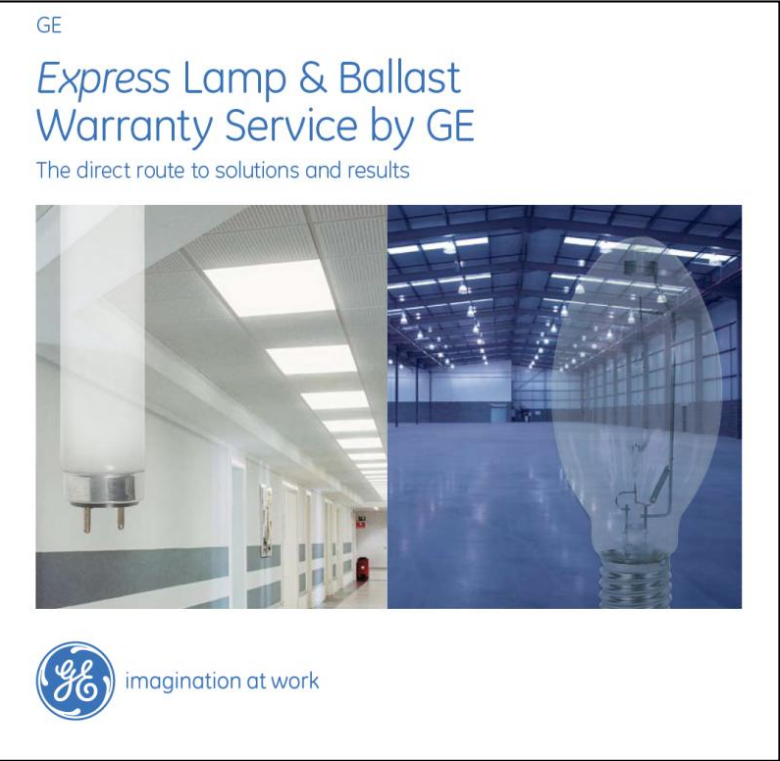
GE Lamps Express Limited Warranty Services

GE lamps operating in our linear and compact fluorescent and HID systems are backed with valuable advantages including*:

- Toll-free dedicated technical support at 1-800-GELAMPS
- High priority shipping status for limited warranty replacement
- Online technical and limited warranty information
- Automatic claim tracking (account holders only)

* Non-account holders: Contact your local distributor for personal attention to warranty and service needs.

www.gelighting.com/warranty



Brochure Order Code: 73333