

Understanding Electronic UltraMax® HID Ballasts



GE offers a complete line of electronic ballasts for HID lighting systems. Electronic HID, like *electronic fluorescent systems that preceded it*, significantly improve the performance of HID lighting. Electronic UltraMax® eHID Ballasts use solid-state components to start and operate HID lamps. Electronic eHID ballasts use IC chips to control and give feedback for optimal performance of the lighting system. GE eHID ballasts improve the efficiency, maintain higher lumens, enhance lamp life and color control, and operate more quietly than the magnetic core and coil ballast that they replace.

GE's line of UltraCool™ UltraMax® eHID ballasts can provide up to 70% energy savings and four times the life of standard halogen. End users can meet strict watts per square foot requirements while achieving significant wattage savings and color control with ceramic metal halide lamps and GE eHID ballasts.

GE's UltraMax® eHID ballasts operate only pulse start and ceramic metal halide lamps. GE UltraMax® eHID ballasts operate lamps at a low frequency square wave to maximize lamp performance. Extensive analysis of all brands of lamps suggests that the most compatible driving waveform for an electronic HID electronic ballast is a low-frequency squared wave (L.F.S.W.) with higher order harmonic content. L.F.S.W. has been established as a dependable method of ballasting low-wattage HID lamps with significant industry support. Analysis of lamp data has shown that there are limited operating bands between 1 kHz to 200 kHz in which electronic ballast could operate a lamp wattage family without causing unacceptable arc instability due to acoustic resonance. GE's UltraMax® eHID constantly measures and adjusts the wattage, optimizing the ceramic metal halide lamp performance.

GE high-wattage eHID ballasts will operate 250, 300, 320,350 or 400 watt pulse start or ceramic metal halide lamps with one ballast. The eHID Ballast with a PulseArc lamp will produce 70% more lumens per watt than the obsolete probe start magnetic core and coil system. Variable dimming to 50% power reduction is an option with GE eHID high wattage ballast.

GE Ballast HID Electronic nomenclature 0 М GE Ballast Housing Connector Voltage = Side leads w/ feet 120 = 120 voltGEMH = Electronic MH MA=Metal N = Side leads no feet 277 = 277 volt Housing ML=Mini Slim Lamp Watts J = Bottom leads 347 = 347 volt 480 = 480 volt MS=Mini Square w/studs JN = Bottom leads SL=Slim Line MV = 120-277 volts E=PCB board no studs Pack Type No extension = Standard Distributor Pack B=Bulk pack