

Benefits of High Frequency Control Gear

Electronic Control Gear (ECG) compared with Magnetic Switch Start control gear has the following effects on Fluorescent lamps:

- a) will extend lamp life of standard Halophosphate (cool white) lamps from an average 9000 hrs to an average 14000 hrs.
- b) will extend lamp life of standard Triphosphor (colour 840) lamps from an average 15000 hrs to an average 20000 hrs.
- c) gives the same light output with approx. 10% less power consumed thereby achieving up to 25% energy saving over Magnetic Switch Start
- d) reduces cathode flicker and has no stroboscopic effect normally associated with Magnetic Switch Start Control Gear
- e) lamps ignite with no flicker or noise normally associated with Magnetic Switch Start Control Gear. Lamps are automatically shutdown if a fault occurs or at the end of lamp life, without re-start flickering and the wasted energy of trying to re-start.
- f) lamp output remains constant regardless of fluctuations in mains voltage between the ranges of 198v – 254v
- g) reduces energy costs (less power consumed); reduces maintenance (no starter switch replacement, no capacitor replacement (maintains maximum power factor >0.96), increases lamp life (longer period of time between lamp replacement).
- h) is more environmentally friendly (reduces CO2 emissions and has a lower Carbon footprint when compared with Magnetic Switch Start).

Benefits of Triphosphor Lamps

Triphosphor lamps have a higher Lumen output for the same wattage compared to standard Halophosphate as follows:

18watt Triphosphor = 1350 Lumens; Halophosphate = 1150 Lumens
30watt Triphosphor = 2400 Lumens; Halophosphate = 2200 Lumens
36watt Triphosphor = 3350 Lumens; Halophosphate = 2850 Lumens
58watt Triphosphor = 5200 Lumens; Halophosphate = 4600 Lumens
70watt Triphosphor = 6000 Lumens; Halophosphate = 5450 Lumens

Triphosphor lamps are more energy efficient than Halophosphate (more Lumens output for the same input power and less power required when used with Electronic Control Gear.

Triphosphor lamps have a longer lamp life compared with Halophosphate lamps (see above)

Triphosphor lamps have a higher efficacy and a lower Lumen depreciation than Halophosphate.

Earthing Requirement of IP67 Housing

The IP67 High Frequency ballast housing is effectively CLASS II as the internal ballast (live parts) is surrounded by 2 non-conductive materials:

- 1) the insulating material
- 2) the plastic housing

The housing being of a non-conducting material **does not** require an Earth connection either to the mounting surface or to ground (mains supply Earth)

The housing is supplied with a 3 core cable which should be connected to the mains incoming supply (L.E.N.) due to an Earth being connected to the ballast to reduce EMF (Electro-Magnetic Flux).