Electronic ballast operating principle

This series of electronic ballast has seven models LEB-104~113,LEB-114~118, LEB-119~122, LEB-123~127,LEB-128~132, LEB-133~136, LEB-137~142 Power 1*13W, 1*18W, 1*22W, 1*27W, 1*32W, 1*36W, 1*42W The circuit of the unit comprises AC/DC transfer circuit, transfer circuit, booster circuit and Protection circuit for lamp abnormity.

AC/DC transfer circuit: It comprises D1-D4 and CD1 CD2, the C1 C2, CY1, L1 remove high frequency noise and interferences which were from network supply and this ballst. In the AC/DC transfer circuit a 120VAC input is rectified by the diode D1-D4 CD1 CD2 to a DC voltage.

Transfer circuit: It comprises T1 T2 L2 L3 C5 C6 and Tr, it converts the DC voltage into a high frequency AC voltage.

Booster circuit: It comprises L4 and C9 , it boosts the high frequency AC voltage high enough to start the lamp, it stabilities the lamp current when the lamp is operating.

Protection circuit for lamp abnormity: It comprises D9 D10 SCR DB3-1 CD3 and T3, it supplies signal for transfer cricuit stop working when the lamp become abnormity (end of life, dropout or break).