

## EBU\*\*\*\*M\* series electronic ballast operating principle

This series of electronic ballast has 8 models, power 4W~36W. The circuit of the unit comprises EMC filter & AC/DC transfer circuit, DC/AC high frequency transfer circuit, High frequency booster circuit, Control circuit and Protection circuit for lamp abnormality.

EMC filter & AC/DC transfer circuit: It comprises C1,LT1,D1~D4, C2; The EMC filter remove high frequency noise and interferences which were from network supply and this ballast. In the AC/DC transfer circuit a 120VAC input is rectified by the diode D1~D4 to a DC voltage.

DC/AC high frequency transfer circuit: It comprises Q1,R5, Q2 and R7; It converts the DC voltage into a high frequency AC voltage that is 20-30 kHz.

High frequency booster circuit: It comprises L1 and C5 (L1、L2andC5); It boosts the high frequency AC voltage high enough to start the lamp, it stabilities the lamp current when the lamp is operating.

Control circuit: It comprises T1 (1A、1B、2A)、R4and R6; It supplies high frequency control signal for DC/AC high frequency transfer circuit.

Protection circuit for lamp abnormality: It comprises R3、VS1、C6、R10、Z1、R9、C7、R8、D10, andD11; it supplies signal for control circuit to let the DC/AC high frequency transfer circuit stop working when the lamp become abnormality (end of life, dropout or break ).