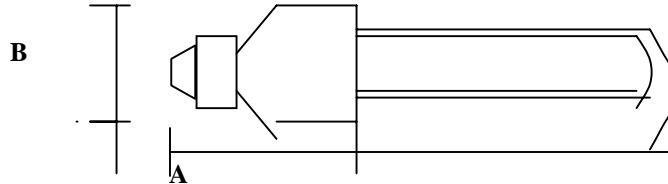


SPECIFICATION

TYPE: THREE BAND COMPACT SELF-BALLASTED FLUORESCENT LAMP

ITEM	FTR 20 EX
RATED LAMP POWER	20 W
INPUT VOLTAGE	120 V
FREQUENCY	60 Hz
LAMP CURRENT	0.140 A
LAMP COLOR TEMPERATURE	6000K
COLOR REND INDEX Ra	81 %
BASE	E 27
DIMENSION A	145mm
DIMENSION B	60mm



OPERATING MANUAL

• LIGHTING PRINCIPLE

BALLAST MAKES INPUT AC POWER CHANGED INTO DC AND PULSE SHAPED DC POWER LIGHT FLUORESCENT LAMP, OPERATING A SWITCHING ELEMENT BY L C RESONANCE FREQUENCY.

BALLAST CIRCUIT MANUAL

1) POWER INPUT

AC. 120V / 60Hz RATED VOLTAGE, FUSE

2) FULL WAVE RECTIFICATION BRIDGE CIRCUIT HAS 4 DIODES (D1 - D4) CHANGES AC 120V INTO DC 155V

3) SMOOTHING CIRCUIT

**2 μ H INDUCTOR 33 μ F CAPACITOR ARE COMPONENTS
REMOVES NOISE AND RIPPLES OF DC POWER.**

4) HYSTERSIS REDUCTION CIRCUIT

**HALPS EXACT ON/OFF Q1 TRANSISTER ACCORDING TO
OSC RESONANCE AND CONTROLS ELECTRIC CURRENT INTO LAMP.
IF Q1 IS ON Q2WILL BE OFF, Q2 ON, CONTINUOUSLY.**

**5) WHEN POWER ON, DIAC ON, Q2 ON, Q1 OFF, PTC ON AND CATHODE
PREHEATED IN SEQUENC.**

**COMPLETION OF CATHODE PREHEATING MAKES PTC OFF
AUTOMATICALLY BY THERMAL SENSING OF PTC, AND THEN LAMP IS
LIGHTED BY Q1, Q2 OPERATION AS SECTION 4).**

SYSTEM MAP

AC VOLTAGE INPUT PART

FULL WAVE RECTIFIER CIRCUIT

SMOOTHING CIRCUIT

HYSTERESIS REDUCTION CIRCUIT

LIGHTING PART