

KKR & KSR INSTITUTE OF TECHNOLOGY & SCIENCES



(AUTONOMOUS)

Department of Electrical and Electronics Engineering

USE OF LED BULBS

BLOCK – A					
FLOOR	LED CAPACITY (IN WATTS)				
	12W	18W	24W	30W	100W
GROUND	42				
1 ST	70		22		
2 ND	143		36		
3 RD	65				
TOTAL	320		58		
BLOCK – B (NEW)					
GROUND	74	47			
1 ST	66				
2 ND	131				
3 RD	109		4		
TOTAL	380	47	4		
STREET LIGHTING					
STREETLIGHT				18	15
TOTAL LED USAGE					
TOTAL	700	47	62	18	15
TOTAL IN WATTS	8400 W	846 W	1488 W	540 W	1500 W
GRAND TOTAL OF LED USAGE IN WATTS 12,774 W					

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PLANT CAPACITY I & II: 200KW (EACH 100 KW)

INVERTERS (4): 50 KW

DAILY GENERATED AVERAGE SOLAR UNITS: 650 - 850

SOLAR PANEL DB: 400 Amps

PLANT - 1 SPECIFICATIONS:

YEAR OF ESTABLISHMENT: 2017

NORMAL PEAK POWER EACH SOLAR PANEL P_{mpp} - 310W

NUMBER OF SOLAR PANELS: 323

INVERTERS (2): 50 KW * 2 = 100 KW

CAPACITY OF PLANT I ($310 * 323$) = 100 KW

PLANT - II SPECIFICATIONS:

YEAR OF ESTABLISHMENT: 2019

NORMAL PEAK POWER EACH SOLAR PANEL P_{mpp} - 325W

NUMBER OF SOLAR PANELS: 318

INVERTERS (2): 50 KW * 2 = 100 KW

CAPACITY OF PLANT I ($325 * 313$) = 100 KW

DETAILS OF POWER GENERATED AND EXPORT

Average power generated per month = 20000 units

Average power export to grid per month = 5000 units

Average power used in college per month = 15000 units