EXPERIMENT:09

AIM OF THE EXPERIMENT:-

Determination of String efficiency.

APPARATUS REQUIRED:-

SL NO.	APPARATUS REQUIRED	RANGE	QUANTITY
1.	High voltage Transformer	230V/50KV	2
2.	Voltmeter	(0-100)KV	1
3.	Voltmeter	(0-230)V	1
4.	Milli Ammeter	(0-50) mA	1
5.	Disc Insulator	11KV	1
6.	Connecting Rods	As required	

SPECIFICATION OF TRANSFORMER:

Input voltage: (0-230) V, 50Hz

Output Voltage: (0-100)KV, 50Hz

Secondary Current: 100mAmp

Type of cooling: Oil cooled

TABULATION:-

SL NO.	No. of Strings.	Voltage (Puncture)(in KV)
1.	1	$V_1 = (15.64 - 3)KV = 12.64KV$
2.	2	$V_2 = (23 - 3)KV = 20KV$
3.	3	$V_3 = (29 - 3)KV = 26KV$

CALCULATION:-

String Efficiency $= \frac{V_1 + V_2 + V_3}{3 \times V_3} = \frac{12.64 + 20 + 26}{3 \times 26} \times 100\%$

$= 75.18\%$.

CONCLUSION:-

Thus we Studied the concept of String efficiency we implemented the study by Calculating the String efficiency of a 3 disc insulator String. Thus, efficiency come up to be 75.18%.

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