Topic: > Cycloconverter.
1) Basic of cycloconverter.
2) Need of cycloconverter.
3) classification of cycloconverter
4) Step up & Step down cycloconverter.
5) Application of cycloconverter.
1) Basic of cycloconverter >
> It is AC to AC Converter without using
any DC circuit.
> It convert AC signal of Fixed frequency to AC signal with variable frequency.
Ac signal with variable frequency.
Ac :-> Rectifier -> DC -> [inverter] -> AC Signal Signal. Fig:(1).
Signal Signal.
Fig-(i).
AC _> (Cycloconverter) > AC
Signal.
Fig ! 2.
in the state of th
> It is also refferred as frequency changer.

	Page (2)
	> This conversion is done by using switches
	> This conversion is done by using swirtches like thyristor and controlling mechanism of it.
	->
	Ac signed with Ac signed
	fixed frequency and > Cycloconverter = with variable
	AC Signed with fixed frequency and > Cycloconverter > with variable fixed voltage. Frequency and variable voltage.
	* Need of cycloconver's
	> To control the speed of motor.
	-> Frequency can be reduced to drive
	heavy load.
L.	Francis A December 1
1	> Frequency can be increased to drive light
	load.
	> Extensively used for driving large motors
) /	> Extensively used for driving large motors bike rolling mills, cement, water pump. industries etc.
	industries etc.
	* classification of cycloconverter >
	3270017 347011
	=> Based on sutput Frequency.
	1) Step up Cycloconverter.
	=> Based on output Frequency. 1) Step up Cycloconverter. 2) Step down cycloconverter.
4	

	Page (3)
	=> Based on Phase input and Phase output:
	1) 1 Phase to 1 Phase cycloconverter-
	2) 3 Phase to 1 Phase cycloconverter
	3) 3 Phase to 3 Phase Cycloconverter.
	* Basics of step up cycloconverter's
	> In step up converter, output frequency
	is higher than input frequency.
	-> It is not used widely as it does not have
	much Practical application. In India and USA,
	most application are there with less than BoHz.
	Frequency. Contained to land while sould
) step up cycloconverter, require forced commy-
	tation, which increases the complexity of circuit.
	* Basics of Step down Cycloconverter's
_	
_	The state of the s
-	> In step down cycloconverter, output Frequency
-	is lower then input Frequency.
-	A
+	> It is most commonly used cycloconverter as
	it has many Practical Application.
	> Step down cycloconverter, require notyral
	- commutation, which is easy to build and easy
	to appearate.

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	the the said the total and the said
	* Application of cycloconverter's
	astronomical specific of the state of the
	-> Cement mill drivers.
	-> Rolling mills.
. \) water Pumps.
	> washing machine.
ave blo	Lesson by a substitute land the second of the second
A PU	Mine winders
Strait	cally of this and an airpoilate done
	> Many industrial Applications.
· 17	Large in the contract of the c
. 41 1	deline, which were asked the complexition of