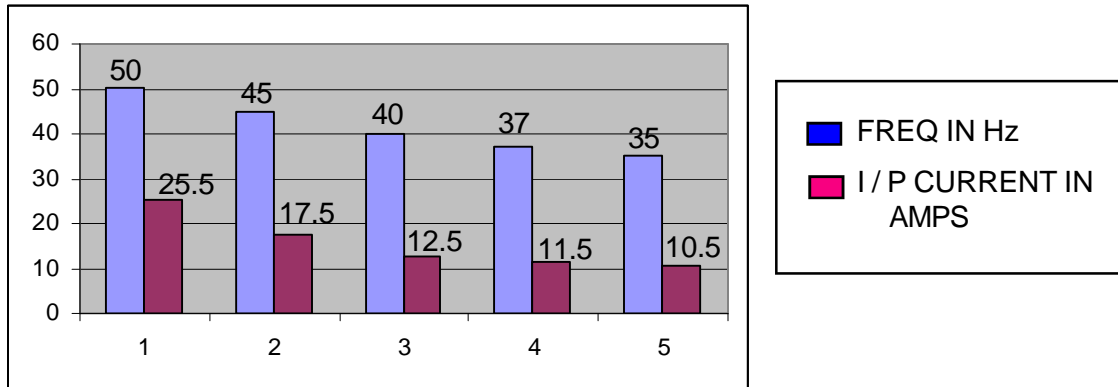


APPLICATION CASE STUDY



DOC.NO. : AMTCS-20

HOST ORGANISATION : RAINBOW PAPER LTD., RAJPUR (KADI).
INDUSTRY : PULP & PAPER
APPLICATION : PUMP



FROM THE ABOVE, SIT WAS OBSERVED :

CURRENT DRAWN W/O INVERTER : 30.1 AMP
CURRENT DRAWN WITH INVERTER AT 35 HZ : 10.5 AMP
CURRENT DRAWN WITH INVERTER AT 40 HZ : 12.5 AMP
SAVINGS AT 35 HZ : 19.6 AMP
SAVINGS AT 40 HZ : 17.6 AMP
POWE SAVINGS AT 36 HZ FREQUENCY = $1.73 \times 415 \times 19.6 \times 0.95$
= 13.50 KW
POWER SAVINGS AT 40 HZ FREQUENCY = $1.73 \times 415 \times 17.6 \times 0.96$
= 12KW

ECONOMIC ANALYSIS :

The total pressure developed in paper manufacturing plant was excessive. by application of ac variable frequency drive, and based upon specific pressure generation figures obtained from monitoring periods, the reduction in electricity consumption by 30 hp pump motor is estimated by 3492 kwh/month.

The plant area is operational all times of the year and thus it's electricity consumption forms apart of the base demand of the infirmary. in considering financial savings, the higher cost components of the electricity tariff are therefore applicable.

Analysys of monitored data showed that average electrical demand of moter was reduced by 40% and the total saving achived by used by inverter are estimated Rs. 1.7 lacs hence payback of the system is less then 6 months.

2171 West Park Court, Suite # G Stone Mountain, GA. 30087
Phone: 770-469-5240 Fax: 678-894-4043

E-Mail : info@amtechdrives.com Website: www.amtechdrives.com