

Cálculo del motor:

$$Kw = \text{Par Motor} * \text{RPM} / 975$$

$$\text{Donde Par Motor} = 0.746 * 975 / 1800 = 0.185 = F. d$$

$$V = W * r$$

$$V = 25 * 7.65 = 0.0319 \text{ m/s}$$

$$a = V^2 / r = 0.0133 \text{ m/s}^2$$

$$T = F * d = m * a * d;$$

$$\text{donde } m = 16.38 \text{ Kg.}$$

entonces:

$$T = 0.435 \text{ N.m}$$

$$P = T * \text{RPM} / 975$$

$$P = 0.803 \text{ Kw}$$

$$P = 1.07 \text{ HP}$$