Formula Sheet

KINETIC ENERGY:

$$KE = \frac{1}{2}\dot{m}v^2$$

POTENTIAL ENERGY:

$$PE = \dot{m}gz$$

EFFICIENCY:

$$n = \frac{Energy\ Output}{Energy\ Input}$$

POWER:

$$P = I * V$$

$$P = A_S * P_{sun}$$

WORK:

$$W = F * d$$

FORCE:

$$F = m * a$$

ACCELERATION:

$$a = \frac{v}{t}$$

VELOCITY:

$$v = \frac{d}{t}$$

COMPONENTS

v= velocity

$\dot{m} = mass\ flow\ rate$

g= gravity

z= height

n=efficiency

I= current

V= voltage

$A_s = solar\ panel\ area$

$P_{sun} = power\ produced\ by\ the\ su$

ρ= density

$\dot{V} = volumetric\ flow\ rate$

$A_c = crossectional\ area$

d= distance

a= acceleration

m= mass