

ELECTRIC GENERATOR PRE-CAST  
CONCRETE PAD

DESIGN CALCULATIONS:

WIND EXPOSURE = Condition C

IMPORTANCE FACTOR = 1

Vult = 170 mph

SHAPE FACTOR = 0.90

EXPOSURE ADJUSTMENT FACTOR (Uplift) = 0.67 (Ht. Above Ground<1 8')       $P_o(\text{wind}) = 26.5 \times 1.21 = 32.06 \text{ psf}$

PAD FOR: GENERAC AIR-COOLED 16KW; 18KW; 20KW; 22KW; 24KW; 26KW GENERATORS

$L = 4.5'$   $W = 2.4'$   $H = 2.4'$  Unit Wt. = 455lbs. Alum Stand Wt. = 60lbs, Pad Wt = 240lbs

$V(\text{vertical reaction}) = 240\text{lbs} + 455\text{lbs} + 60\text{lbs} = 755\text{lbs}$

Overturn Uplift (U) = (L)(H)(Po)(Shape Factor) =  $4.5 \times 2.4 \times 32.06 \times 0.9 = 312\text{lbs}$  Wind Uplift, Ph = 60psf

Wind U = (W)(L)(Ph)(Exp. Adj. Factor)=  $4.5 \times 2.4 \times 60 \times 0.67 = 434\text{lbs}$

Total Uplift = U + Wind U = 312 + 434 = 746lbs

Total V (Vertical Download= Pad Wt. + Unit Wt. + Stand Wt. = 240 + 455 + 60 = 755lbs > 746lbs

