

A yacht's PCR rating is computed from the Northern California PHRF rating with a modification for length, and displacement/length ratio as follows:

Effective Length L

$$L = LWL + (0.35 \times (LOA - LWL))$$

Displacement/Length Ratio DLR

$$DLR = \frac{\left(\frac{\text{Displacement}(lbs)}{2240} \right)}{\left(\frac{L}{100} \right)^3}$$

Displacement/Length Factor DLF

If DLR less than 75, $DLF = 0$

If DLR from 75 to 150 $DLF = \frac{(DLR - 75)}{3}$

If DLR from 150 to 200 $DLF = 25 + \frac{(DLR - 150)}{10}$

If DLR greater than 200 $DLF = 30$

DLF is rounded up to the next larger integer.

Length Factor LF

$$LF = \frac{345 - \left(\frac{3600}{1.34 \times \sqrt{L}} \right) + PHRF}{2}$$

If $LF < 0$ then $LF = 0$

LF is rounded up to the next greater integer.

Rating: $PCR = PHRF + DLF - LF$

In the equations above, "LOA" represents overall length, without any overhanging spars (such as a bowsprit); "LWL" is the specified waterline length.