

Powerline Technician Harmonized Level 3

ACRONYMS AND ABBREVIATIONS

TERM	MEANING
°	degree
A	ampere
ACSR	aluminum conductor steel reinforced
CT	current transformer
DC	direct current
EMF	electromagnetic force
ft.	foot
in.	inch
kg	kilogram
kN	kilonewton
kV	kilovolt
kVA	kilovolt-ampere
lb.	pound
m	metre
SF6	sulfur hexafluoride
VLF	very low frequency
WLL	working load limit

NOTE

Do **not** bring this document to your exam.
These acronyms and abbreviations will be included in the exam reference materials.

FORMULAS

$B.T. = \frac{\text{Conductor tension}}{\text{Measured distance}} \times \text{Bisect line} \times 2$	$G.L. = \sqrt{\text{Anchor distance}^2 + \text{Pole height}^2}$
$B.T. = \text{Conductor tension} \times \frac{\text{Line angle}}{60}$	$G.T. = \frac{\text{Bisect tension}}{\text{Anchor distance}} \times \text{Guy length}$
$\text{Working Load Limit (WLL)} = \left(\frac{1}{8}\right)^2 \times \text{Constant}$	
$C.T. = \frac{\text{Conductor weight per ft. or m} \times (\text{Span length})^2}{8 \times \text{Sag}}$	
$C.W. = \frac{\text{Span A} + \text{Span B}}{2} \times \text{Weight of conductor per ft. or m}$	
$P = \frac{\text{Weight of object} + (10\% \text{ Weight of object} \times \text{No. of sheaves rope passes})}{\text{Mechanical advantage}}$	
$\text{Pythagorean theorem: } a^2 + b^2 = c^2$	

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