

## FEATURES

- Microsoft ® Windows™ based program
- Analysis tool used in design of Shaded Pole Motors
- Computes all relevant motor parameters
- Allows printing of inputs, outputs & graphs
- Multi-window tasking
- Important constants built into program
- Variable definitions instantly available on screen
- Reduces development cycle time and cost
- Instantly check effects of design change
- Maximizes material usage
- On-line design tips
- Reduce number of prototype iterations

## Actual Customer Comments

- “Your software is very intuitive.”
- “It is so easy to use!”
- “You can tell that this software was written by someone who had to design motors for a living.”

## FEATURES con't

- Inputs:
  - Dimensions, material properties and winding information
- Outputs:
  - Magnetic circuit information including flux densities and MMF drops
  - Mechanical information, weights and inertias
  - Winding information including copper weight and slot fill
  - Performance; speed-torque, current, losses and efficiency, graph

Call or email us for a demo, additional information, or to place an order.

**YEADON ENERGY SYSTEMS, INC.**

**514 W. MAPLE STREET**

**IRON RIVER, MI. 49935**

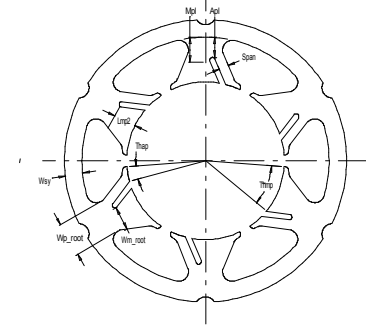
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## SHADED POLE MOTOR DESIGN ANALYSIS SOFTWARE



## BENEFITS

- **Design it yourself, faster.**
- **Can pay for itself in one design project.**
- **Saves time and money.**
- **Fast, accurate results.**
- **Optimize motor costs.**

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# SAMPLES OF SHADED POLE INPUT AND OUTPUT WINDOWS

Yeadon Energy Systems, Inc. \* 514 West Maple Street \* Iron River, MI 49935

### Shaded Pole Motor Design 0.16 - DEMO3.YH1

File Edit Input Output Calculate Graph Materials Window Help

Designer  Description

Stat SS RC Rot RS Elect LS FYI No L Lock Spd 1 Spd 2 M&M Wdg MC BD

Lgmech = Mechanical Length of Air Gap

#### Stator Dim's

Lamination Steel Type:

Th\_Lam:  inch

ODs	3.4960	inch	Apl	0.0930	inch
Wsy	0.2730	inch	Mpl	0.3500	inch
IDs	1.8500	inch	Dsbs	0.4050	inch
Lstk	1.0000	inch	Wsbs	0.0630	inch
FstkS	0.9348		Tssi	0.0100	inch
P	4	Poles	Span	0.1875	inch
Thmp1	49.68	deg	Use Reluctance Gap? <input type="radio"/> Yes <input checked="" type="radio"/> No		
Thap	22.46	deg	Thmp2	0.00	deg
Wp_root	0.8000	inch	Delta	0.0000	inch
Wm_root	0.5000	inch			
Lmp2	0.2235	inch			

#### Stator Slot Dim's

Hss	0.3500	inch
Wsst	0.4000	inch
Wssb	0.2500	inch
Rssb	0.1500	inch
WsttM	0.2000	inch
WsttA	0.1800	inch
Wsg	0.2228	inch
Tstt	0.0556	inch

#### Speed 1 Load Parameters

SLoad1	0.0	RPM
TLoad1	8.28	oz-in

#### Mechanical Data and Motor Constants

Lg. mech	0.0250	inch	X2a
Wrt	0.1179	inch	Xslt2m
Wrmin	0.1179	inch	Xslt2a
Xmm	83.00	Ohms	Xzzm
Xma	48.18	Ohms	Xzza
X1	37.71	Ohms	Xslt1
Xa1	57.44	Ohms	Xskmp
Xa	3.24	Ohms	Xskap
Xp	18.61	Ohms	

### Speed-Torque-Current Curve

### Cross-Section of Motor

R2Cld	11.33	Ohms	Fill	61.26	%
RaCld	73.20	Ohms	Wtcu	0.3629	lbs.
R1Cld	33.04	Ohms	Wtcu1	5.8068	oz.
R1Hot	38.23	Ohms	Abar	0.0192	sq. in.
Acoil	0.0716	sq. in.	Abtot	0.3643	sq. in.
ASlotS	0.1169	sq. in.			