

14. ELECTRICAL MACHINE DESIGN SOFTWARE

Table below lists all Finite Element Magnetic field software used to design electric machines worldwide. Table (A) Free Software and (B) Commercial FEM Software list those that use mostly 2D or 3D FEM models. Other tables list software specific to the Design of Motors and Inductors – they use 1D (discrete) models.

The capabilities of all these software are limited. For example, some have only couple of B(H) curves, and few have no core loss curves. So it is possible that purchasing a software without careful review may lead to disappointment. If you need assistance in choosing a software that matches your specific needs, please contact: rao@magweb.us

(A) FREE SOFTWARE			
No.	Software	Firm	Website
1	FEMM	FEMM, USA	femm.info/wiki/Download
2	EMETOR	Emetor, USA	emetor.com
3	MotorAnalysis	VepcoTech, Russia	motoranalysis.com
4	KOIL	Free Univ, Italy	Koil.sourceforge.net
5	MAXFEM	Univ. Santiago	usc.es/en/proyectos/maxfem/download.html
6	FEMAG	ETH, Switzerland	elmocad.de_profemag.ch
7	POISSON	LANL, USA	laacg.lanl.gov/laacg/services/download_sf.shtml
8	VIZIMAG	VIZIMAG, USA	vizimag.software.informer.com/3.1
9	ELMER	CSC, Finland	https://sourceforge.net/projects/elmerfem/
10	GETDP	GETDP, Finland	http://onelab.info/wiki/GetDP

(B) COMMERCIAL FEM SOFTWARE			
No.	Software	Firm	Website
1	BIOT	Ripplon, Canada	ripplon.com/software.html
2	COMSOL	COMSOL, Sweden	comsol.com
3	CST	CST, Germany	cst.com
4	EMWORKS	EM Works, Canada	emworks.com
5	FEKO	Elec.Mag., South Africa	feko.info
6	FLUX	Altair, France	cedrat.com/software/flux/
7	Motor Rewind	EASA, USA	http://www.easa.com/resources/software
8	JMAG	Jmag Intl, Japan	jmag-international.com/products
9	MAGNET	Infolytica, Canada	infolytica.com
10	MAGNETO	Integ. Engg , Canada	integratedsoft.com

11	MAGNUM	Field Precision, USA	fieldp.com
12	MAXWELL	Ansys Inc, USA	ansys.com/products/electronics/ansys-maxwell
13	OPERA	Cobham Tech., UK	operafea.com
14	QUICKFIELD	Tera Anal., Denmark	quickfield.com
15	SAMARIUM	Vitatech, India	vitatechindia.com/welcome.php

(C) MOTOR DESIGN SOFTWARE			
1	BLDC 3.0	Magneforce, USA	magneforcess.com
2	BLDC	Yeadon Energy, USA	yeadoninc.com
3	FLUX	Altair, France	cedrat.com/software/flux/flux-rotating-machines-package/
4	MANATEE	EoMYS, France	eomys.com
5	MotorCAD	Motor Design Ltd, UK	motor-design.com/motor-cad-software
6	Motorsolve	Infolytica, Canada	infolytica.com
7	RMXPRT	ANSYS, USA	ansys.com/products/electronics/ansys-rmxprt
8	SPEED	Siemens/CD-Adapco	speed-emachine-design.com

(D) INDUCTOR DESIGN SOFTWARE			
1	(FREE)	Micrometals	micrometals.com/software.html
2	(FREE)	Magnetics	mag-inc.com/design/software
3	INTUSOFT	Intusoft	www.intusoft.com/mag.htm
4	PEXPRT	ANSYS	ansys.com/products/electronics/ansys-pexpert
5	Choke	Rale	rale.ch/
6	Power	Ridley Engg	ridleyengineering.com/software.html