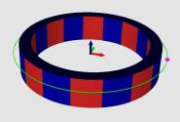

PS-PERMAG: Comparison of Versions 2.7 to 3.3

Remark: All versions are downward compatible. This means that calculations from older versions can be read into version 3.3 and can be used for new calculations and analyses.

Please delete all older versions of PS-PERMAG before installing the newest one. New features v. 3.3 in red.

Feature	Vers. 2.7/2.8	Vers. 3.0	Vers. 3.1	Vers. 3.2	Vers. 3.3	Remarks
D Cylinder diametrical	√	√	√	√	√	
M Cylinder homogeneously multipolar	√	√	√	√	√	
MS cylinder segments, homogeneously multipolar	√	√	√	√ since vers. 3.2	√	Including arbitrary pole patterns and pole gaps
L Cylinder laterally multipolar	√	√	√	√	√	Sinusoidal magnetization, with adjustable shape since version 3.3
A Cylinder axially multipolar	√	√	√	√ magnetic bearings . since vers.3.2	√	Since version 3.2 optional simulation of axial magnetic bearings,
AS Cylinder segments, axially multipolar	√ since vers. 2.7	√	√	√	√	Including arbitrary pole patterns and pole gaps
AL Cylinder axially lateral		√	√	√	√	Sinusoidal magnetization, with adjustable shape since version 3.3
C Cuboid homogeneously multipolar	√	√	√	√	√	Rigid alternating magnetization, with additional sinusoidal magnetization and adjustable shape since version 3.3.
CS cuboid segments, axially multipolar	√ since vers. 2.7	√	√	√	√	Including arbitrary pole patterns and pole gaps
CK Cuboid Kit				since vers. 3.2	√	Assembly of magnetic blocks with arbitrary size, location and magnetization
R Cylinder radially multipolar	√	√	√	√	√	
RS cylinder segments, radially multipolar	√ since vers. 2.8	√	√	√	√	Including arbitrary pole patterns and pole gaps
H Halbach cylinders	√	√	√	√	√	Treats both cases of continuous and segmented magnetization
2D-M 2D electrical machine, homogeneously multipolar	√	√	√	√	√	Includes computation of motor characteristic curves
2D-R 2D electrical machine, radially multipolar	√	√	√	√	√	Includes computation of motor characteristic curves
SD Sensor magnets two pole diametrical			√	√	√	Two pole sensor magnets with enhanced geometric features like depressions and ledges, magnetization diametrical
SA Sensor magnets two pole axial			√	√	√	Two pole sensor magnets with enhanced geometric features like depressions and ledges, magnetization two pole axial
SL Sensor magnets two pole axial-lateral			√	√	√	Two pole sensor magnets with enhanced geometric features like depressions and ledges, magnetization two pole axial-lateral (one sided bow shaped)l

3D models of magnet assembly and calculation path		√	√	√	√	3D models of magnet and path of field calculation to check adequacy of problem input
circular path for arbitrary sorts of magnets	√	√	√	√	√	
linear path for arbitrary sorts of magnets	√	√	√	√	√	
Field components in cylindrical and Cartesian coordinates for all sorts of magnets	√	√	√	√	√	
Rotatable result coordinates				√ since vers. 3.2	√	Amongst others for investigation of misplacements of magnets or sensors
In plane vector sums					√	Bxy, Bxz, Byz and Brt, Brz, Btz according to chosen result coordinate system
Fourier series of fields for periodic configurations	√	√	√	√	√	
Fourier transform of fields for non periodic configurations	√	√	√	√	√	Continuous frequency distribution
Graphical diagrams of frequency distributions	√	√	√	√	√	
Soft magnetic bodies	√	√	√	√	√	For magnetic systems A, C, 2D-M and 2D-R, AS, and CS
Force evaluation	√	√	√	√	√	By soft magnetic plates on magnets A and C
Computation of motor characteristic curves	√	√	√	√	√	For magnetic systems 2D-M and 2D-R for DC motors
Results export field components	√	√	√	√	√	
Results export field angles				√ since vers. 3.2	√	
Results export field angles			√	√	√	
Max. no. of data points circular path	3600	3600	3600	3600	3600	
Max. no. of data points linear path	1000	1000	1000	1000	1000	
Resolution of field angles	< 0.01°	< 0.01°	< 0.01°	< 0.01°	< 0.01°	
Max no. of poles per side of magnet	256	256	256	256	256	Maximum 36 for systems H (Halbach systems)
Extended graphical adjustments	√	√	√	√	√	Sorts of diagram grid, strength of curves, fonts, axes
HTML help system	√	√	√	√	√	
Listings for circular paths	arbitrary angular range	arbitrary angular range	arbitrary angular range	arbitrary angular range	arbitrary angular range	

In case of additional questions please contact us. www.permagsoft.com