PS-PERMAG: Comparison of Versions 2.6 to 3.2

Remark: All versions are downward compatible. This means that calculations from older versions can be read into version 3.2 and can be used for new calculations and analyses.

Please delete all older versions of PS-PERMAG before installing the newest one.

Feature	Vers. 2.6	Vers. 2.7/2.8	Vers. 3.0	Vers. 3.1	Vers. 3.2	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	√	√	√	√	√	
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			√	√	√	Bow shaped magnetization on head faces of cylinders and cylinder rings
C Cuboid homogeneously multipolar	√	√	√	√	√	Version 2.5 or higher: Optional forces and soft magnetic plates
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 sensormagnets with enhanced geometric features like depressions and ledges, magnetization diametrical
SA Sensor magnets two pole axial				√	√	Two pole sensormagnets with enhanced geometric features like depressions and ledges, magnetization two pole axial
SL Sensor magnets two pole axial-lateral				√	√	Two pole sensormagnets 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 <u>arbitrary</u> sorts of magnets	√	√	√	√	√	
linear path for <u>arbitrary</u> sorts of magnets	√	√	√	√	√	
Field components in cylindrical and Cartesian coordinates for <u>all</u> sorts of magnets	√	√	√	√	√	
Rotatable result coordinates					√ since vers. 3.2	Amongst others for investigation of misplacements of magnets or sensors
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, 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	

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