



WE MAGNETISE THE WORLD



## High Power Line

Direct-Acting Solenoids  
Reversible Solenoids





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Kendrion N.V. is one of the leading manufacturers of solenoids and electro-magnetic components worldwide.

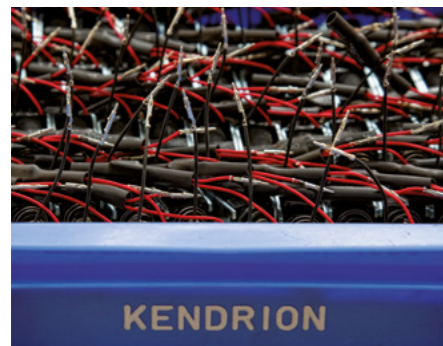
Divided into the Industrial and Automotive division Kendrion guarantees a solution-oriented partnership with our customers. The company excels in innovative capability and maximum productivity.

Over the years Kendrion has integrated the brands Binder, Magnet AG, Neue Hahn Magnet, Thoma Magnettechnik, Linnig Antriebstechnik, Tri Tech LLC, Magneta and FAS Controls and Kuhnke.



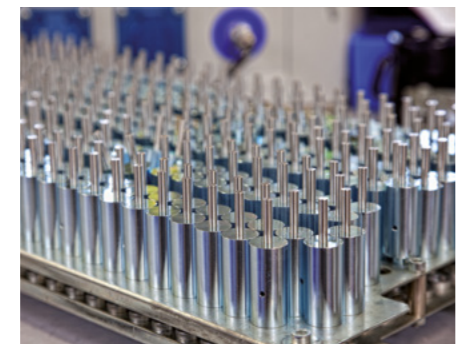
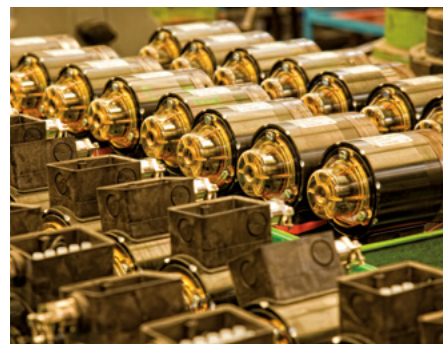
Our business unit Industrial Magnetic Systems belongs to the division Industrial and develops, manufactures and distributes linear-, holding-, locking-, spreading-, control-, rotary- and vibrating solenoids as well as solenoid valves for industrial applications worldwide.

The strengths of Kendrion lies in the area of standard applications and in the area of developing customer-specific solutions.



With our technological know-how we ensure that your application will run smoothly.

All products are tested and developed according to DIN VDE 0580/ 07.2000. Kendrion Magnettechnik GmbH is a company certified according to ISO 9001:2008.



The main locations are in Donaueschingen (D) and Engelswies (D). Further locations are in Hausen am Albis (CH), Linz (A), Bradford (UK), Suzhou (CN), Mishawaka (USA) and Turin (I).

With our global distribution network we are available for our customers at any time and will be pleased to advise you.

Our products are used in almost all industrial areas, for example in the following industries:

- Machine building
- Safety engineering
- Transportation industry
- Medical engineering
- Power engineering
- Environmental technology
- Elevator industry
- Automation

Your industry is not listed? We are sure to have an optimum solution.

Wherever innovations and new approaches are required our staff will be happy to assist you.

Contact us. We're looking forward to assisting you!

Sales Hotline +49 (0) 771 8009 3770

Please find detailed performance data in our product catalogues, with the help of our experts or by our product finder on:

[www.kendrion-ims.com](http://www.kendrion-ims.com)



## Product Line

### Description

## High Power Line

The LHS and LHR lines excel by small dimensions and low power consumption at maximum stroke movement, short switching times and smooth operation.

These reliable components are used in all areas of engineering – in machine tools and packaging machines, in automatic and office machines, in control and regulation systems – wherever demands on functional safety and reliability are high.

In all solenoid models the solenoid stroke is the line s the armature has travelled from stroke starting position to stroke end position. The stroke starting position is the original position of the armature before the stroke movement starts resp. after the reset is finished. The stroke end position is determined by the solenoid design – it is the position the armature takes due to electromagnetic force.

The magnetic forces indicated are reached at 90% of the nominal voltage and in warmed-up condition. The values for the duty cycles are standard values and refer to the state described above at a load with 70% of the magnetic force of the device.

The products are manufactured and tested according to DIN VDE 0580/07.2000.

With rectifier connector: 230 V AC/40-60 Hz

Duty cycle: 100% ED

Protection class acc. IEC 60529

Thermal class: F

Design subject to change

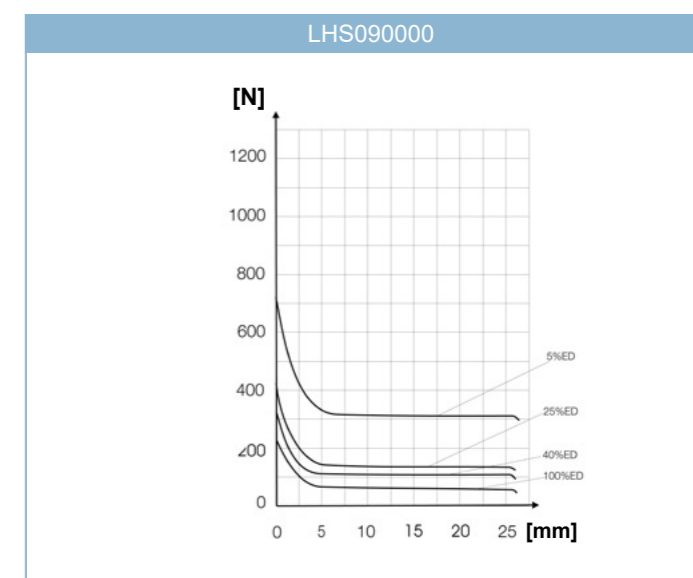
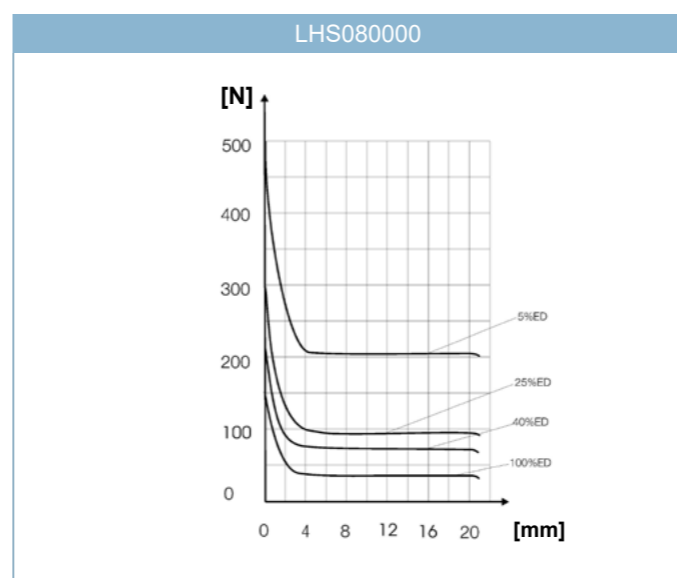
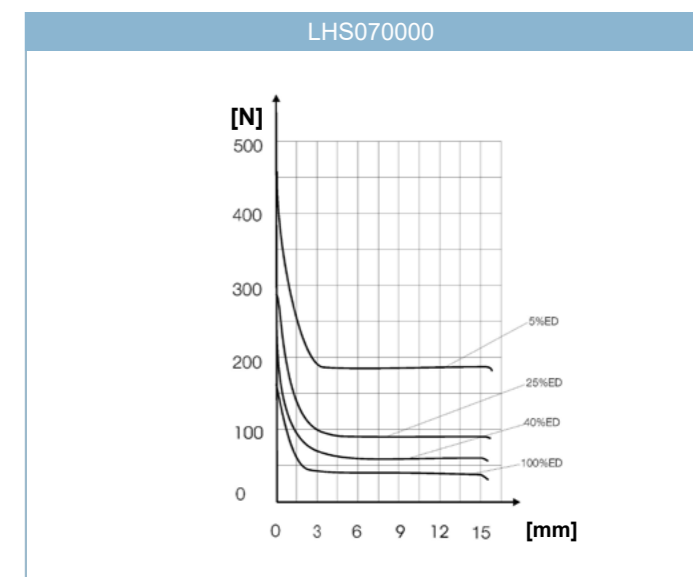
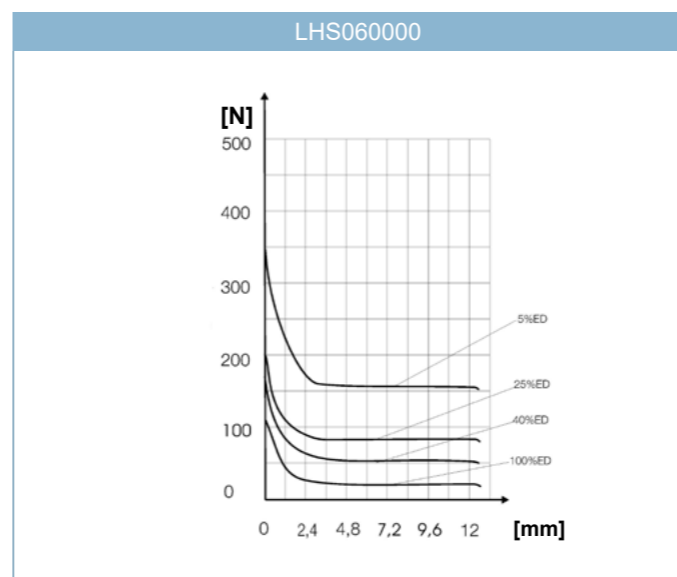
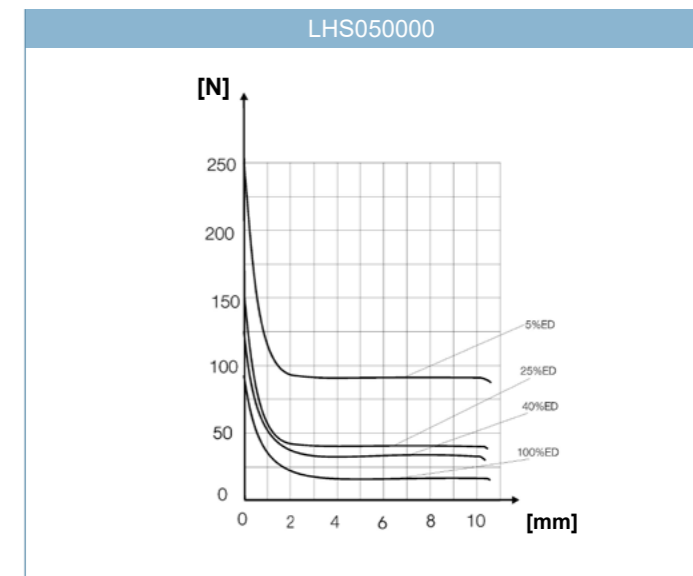
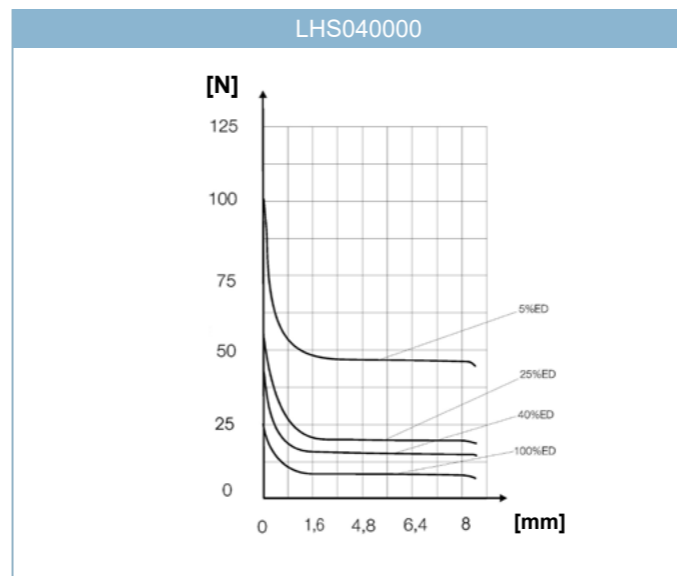


### Direct-Acting Solenoids

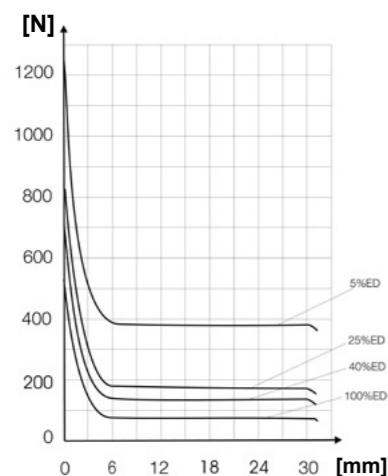
DC high power solenoids of the LHS series are solenoids with high performance. They are delivered with a horizontal characteristic curve.

The armature is led on both sides with maintenance-free precision bearings. This results in a very high resistance to wear, granting consistent solenoid performance throughout a long service life.

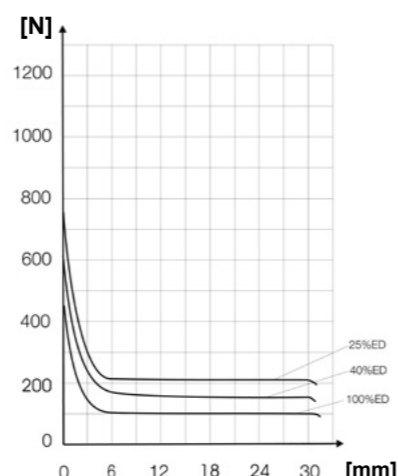
Type	Type diameter x Length [mm]	Stroke [mm]	Duty cycle [%]	Magnetic force [N]	Input power [W]	Response time [ms]	Release time [ms]
LHS040	40 x 45	8	100	8	12.5	135	55
LHS040	40 x 45	8	40	14.5	26.5	105	55
LHS040	40 x 45	8	25	20.5	62	95	50
LHS040	40 x 45	8	5	42	156	80	40
LHS050	50 x 55	10	100	17.5	16.5	160	65
LHS050	50 x 55	10	40	30	38	125	65
LHS050	50 x 55	10	25	37	60	115	62
LHS050	50 x 55	10	5	88	270	95	50
LHS060	60 x 65	12	100	35	26	220	85
LHS060	60 x 65	12	40	53	58	170	80
LHS060	60 x 65	12	25	70	85	155	80
LHS060	60 x 65	12	5	155	370	120	70
LHS070	70 x 74	15	100	45	33	275	100
LHS070	70 x 74	15	40	67	77	205	90
LHS070	70 x 74	15	25	86	115	185	90
LHS070	70 x 74	15	5	187	450	145	75
LHS080	80 x 79	20	100	44	35	315	105
LHS080	80 x 79	20	40	74	82	230	100
LHS080	80 x 79	20	25	95	125	210	95
LHS080	80 x 79	20	5	215	580	160	90
LHS090	90 x 93	25	100	70	52	425	135
LHS090	90 x 93	25	40	110	130	290	120
LHS090	90 x 93	25	25	138	200	260	110
LHS090	90 x 93	25	5	304	840	195	105
LHS100	100 x 110	30	100	70	58	580	225
LHS100	100 x 110	30	40	125	134	420	200
LHS100	100 x 110	30	25	165	207	385	190
LHS100	100 x 110	30	5	380	908	285	170
LHS115	115 x 100	30	100	100	60	550	160
LHS115	115 x 100	30	40	140	130	460	140
LHS115	115 x 100	30	25	210	222	380	125
LHS135	135 x 162	40	100	150	80	590	345
LHS135	135 x 162	40	40	260	192	410	220
LHS135	135 x 162	40	25	370	296	330	195
LHS170	170 x 189	50	100	280	132	780	340
LHS170	170 x 189	50	40	460	310	580	380
LHS170	170 x 189	50	25	600	490	500	360



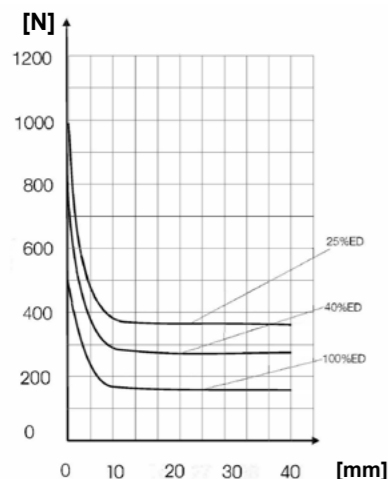
LHS100000



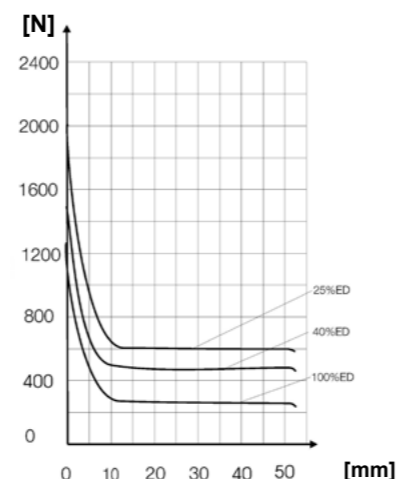
LHS115000



LHS135000



LHS17000



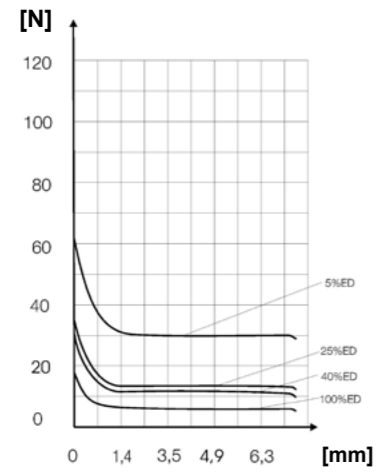
### Reversible Solenoids

DC high power solenoids of the LHR series are solenoids with high performance. They are delivered with a horizontal characteristic curve.

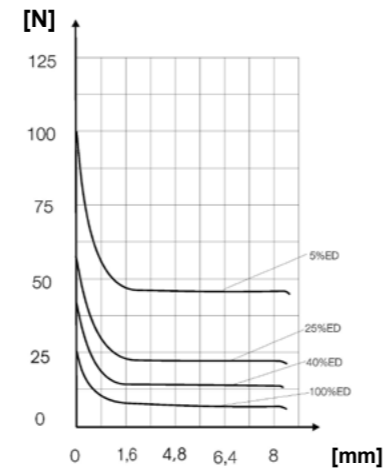
The armature is led on both sides with maintenance-free precision bearings. This results in a very high resistance to wear, granting consistent solenoid performance throughout a long service life

Type	Type diameter x Length [mm]	Stroke [mm]	Duty cycle [%]	Magnetic force [N]	Input power [W]	Response time [ms]	Release time [ms]
LHR035	35 x 58	7	100	6	12	85	50
LHR035	35 x 58	7	40	11	24	85	50
LHR035	35 x 58	7	25	13.5	36	85	45
LHR035	35 x 58	7	5	30	120	85	35
LHR040	40 x 85	8	100	10	15	85	55
LHR040	40 x 85	8	40	16.5	31	85	55
LHR040	40 x 85	8	25	23	44	85	50
LHR040	40 x 85	8	5	46	155	82	40
LHR050	50 x 104	10	100	16	18	135	65
LHR050	50 x 104	10	40	27	39	110	65
LHR050	50 x 104	10	25	36	59	110	60
LHR050	50 x 104	10	5	82	230	95	50
LHR060	60 x 124	12	100	32	28	185	85
LHR060	60 x 124	12	40	58	63	145	80
LHR060	60 x 124	12	25	70	95	140	80
LHR060	60 x 124	12	5	153	395	110	70
LHR070	70 x 142	15	100	37	34	215	100
LHR070	70 x 142	15	40	66	78	165	90
LHR070	70 x 142	15	25	90	120	160	90
LHR070	70 x 142	15	5	210	520	120	75
LHR090	90 x 176	25	100	73	52	320	135
LHR090	90 x 176	25	40	124	132	250	120
LHR090	90 x 176	25	25	145	205	220	110
LHR090	90 x 176	25	5	275	830	160	105
LHR115	115 x 169	30	100	100	60	360	115
LHR115	115 x 169	30	40	160	144	250	110
LHR115	115 x 169	30	25	210	222	230	105
LHR115	115 x 169	30	5	500	1020	170	100
LHR135	135 x 275	40	100	170	80	420	140
LHR135	135 x 275	40	40	290	192	330	120
LHR135	135 x 275	40	25	370	296	270	120
LHR135	135 x 275	40	5	880	1360	205	110

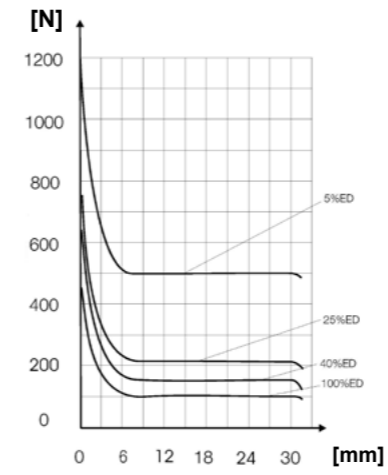
LHR035000



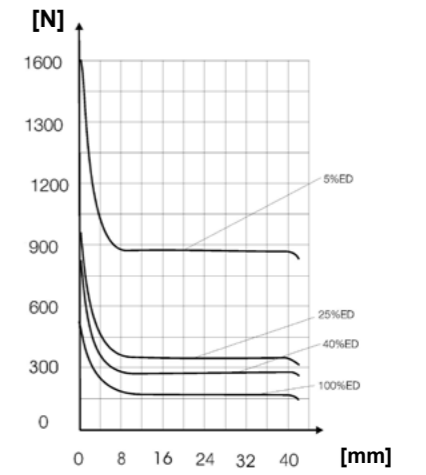
LHR040000



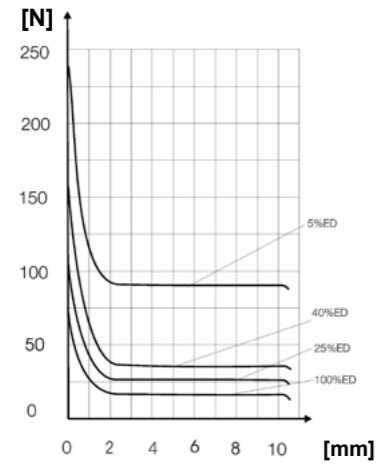
LHR115000



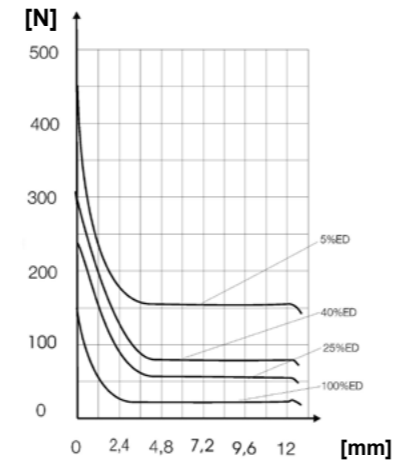
LHR135000



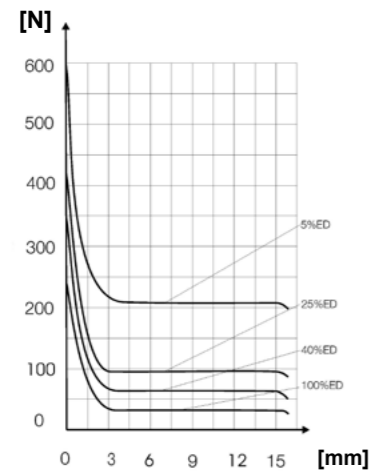
LHR050000



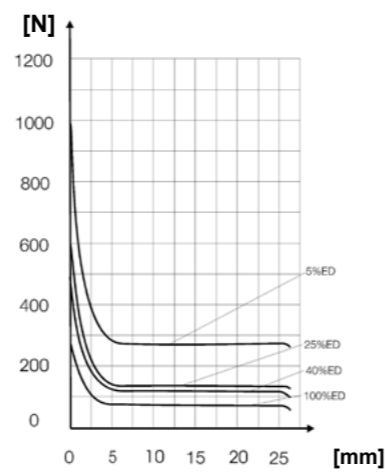
LHR060000



LHR070000



LHR090000





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If you do not find what you are looking for, please feel free to contact us!  
We will find the best solution for you.

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