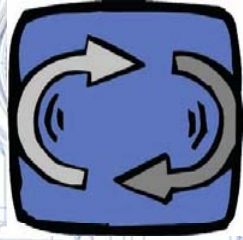
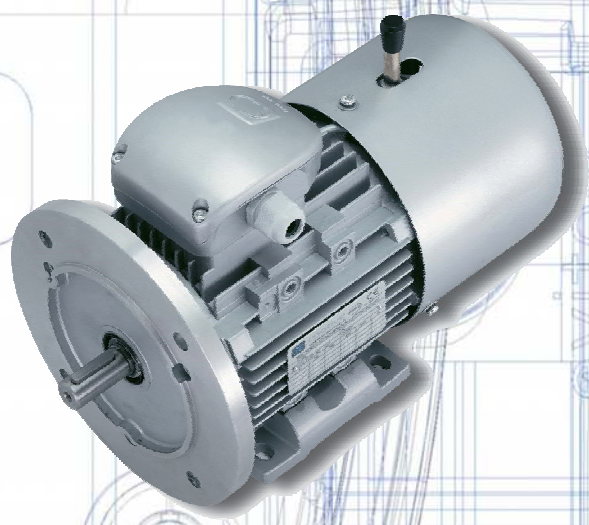


# three-phase self-braking motors series ATDC delphi



**motive**

*power transmission*





main characteristics

- release lever
  - bimetallic PTO thermal protector (1 from type 63 to 100, 3 from 112 to 160)
  - reinforced winding suitable for inverter supply
  - tropicalized winding
  - protection IP55
  - protection IP56-IP66
  - F Class insulation
  - H class insulation
  - second terminal for separate power supply motor/brake
  - three-phase forced ventilation
  - ATEX version, category II 3 D
- 
- standard
  - optional

Delphi ATDC series self-braking motors use spring-pressure brakes, firmly spliced onto a cast iron shield at the back of the motor.

These motors include a series of characteristics normally considered options by other brands, like:

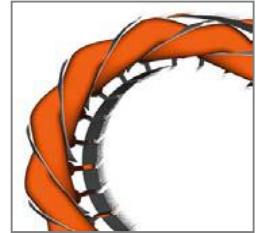
**The hand release lever** permits to release the brake, making it possible to move the shaft.

**The separate brake power supply** is achieved, whenever needed, by connecting directly to the brake terminal board located inside the motor terminal box.

**The PTO thermal protectors** in the winding

Delphi ATDC series maintain also the peculiarities described in the Delphi series catalogue:

- Dimensionally built according to the international norms IEC72-1 e IEC 34-7
- Aluminum frame up to the size 132, cast-iron frame from type 160
- Feet and connection box can be moved to the right or left
- Multivoltage and multifrequency
- insulation class F, S1 continuous duty service, protection IP55
- efficiency 1 or 2
- the copper is impregnated with a double layer of H class insulating enamel to ensure high resistance to electrical thermal and mechanical stress
- the phases are further isolated by another layer of Nomex film to protect the motors from the voltage peaks that usually occur when the motor is controlled by an inverter
- the cage rotor is dynamically balanced according to IEC 34-14 e ISO 8821
- from type 90, a steel insert is provided in the bearing slot of the aluminum flanges, to resist to radial mechanical forces with a fair degree of security
- painted
- equipped with cable glands
- magnetic laminations sheets FeV are adopted







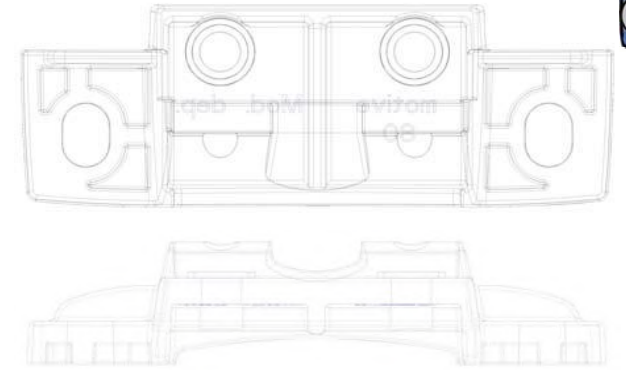
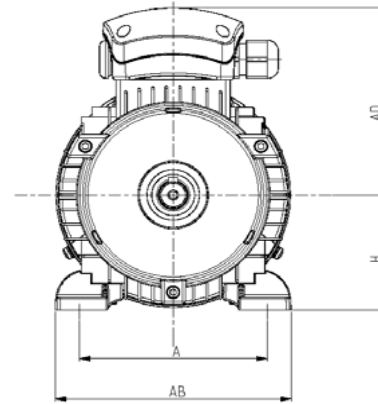
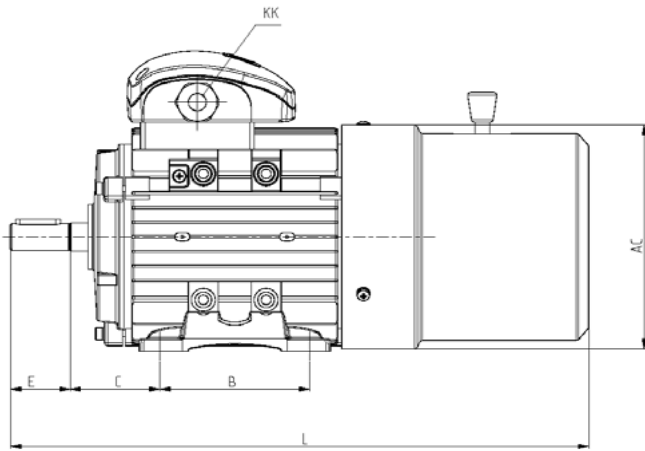
KW	HP	type	rpm	In (A)	Is In	Cn (Nm)	Cs Cn	Cmax Cn	η %	cos φ	LwA (dB)	J Kgm <sup>2</sup>	braking torque full-load Nm	braking time no-load sec	brake input power W	Kg
0,18	0,25	ATDC 63A-2	2800	0,5	5,5	0,61	2,2	2,3	66,0	0,80	61	0,00055	4,0	0,15	25	7,8
0,25	0,35	ATDC 63B-2	2800	0,7	5,5	0,96	2,2	2,3	69,0	0,81	61	0,00060	4,0	0,15	25	8,1
0,37	0,5	ATDC 71A-2	2800	1,0	6,1	1,26	2,2	2,3	71,0	0,81	64	0,00075	4,0	0,15	25	9,0
0,55	0,75	ATDC 71B-2	2800	1,4	6,1	1,88	2,2	2,3	74,0	0,82	64	0,00090	4,0	0,15	25	9,5
0,75	1	ATDC 80A-2	2825	1,8	6,1	2,54	2,2	2,3	76,2	0,83	67	0,00120	7,5	0,20	50	12,7
1,1	1,5	ATDC 80B-2	2825	2,5	7,0	3,72	2,2	2,3	79,3	0,84	67	0,00120	7,5	0,20	50	13,5
1,5	2	ATDC 90S-2	2840	3,4	7,0	0,21	2,2	2,3	80,4	0,84	72	0,00140	15,0	0,25	60	16,3
2,2	3	ATDC 90L-2	2840	4,8	7,0	7,40	2,2	2,3	81,6	0,85	72	0,00290	15,0	0,25	60	18,0
3	4	ATDC 100L-2	2880	6,2	7,5	9,95	2,2	2,3	83,5	0,88	76	0,00550	30,0	0,30	80	27,0
4	5,5	ATDC 112M-2	2890	8,1	7,5	13,22	2,2	2,3	85,5	0,88	77	0,01090	40,0	0,35	110	37,0
5,5	7,5	ATDC 132SA-2	2900	10,8	7,5	18,11	2,2	2,3	86,5	0,89	80	0,01260	75,0	0,40	130	49,1
7,5	10	ATDC 132SB-2	2900	14,7	7,5	24,70	2,2	2,3	87,1	0,89	80	0,03770	75,0	0,40	130	54,5
11	15	ATDC 160MA-2	2930	20,9	7,5	35,85	2,2	2,3	88,4	0,89	86	0,05500	150,0	0,50	150	84,2
15	20	ATDC 160MB-2	2930	28,3	7,5	48,89	2,2	2,3	89,4	0,89	86	0,07500	150,0	0,50	150	93,0
18,5	25	ATDC 160L-2	2930	34,1	7,5	60,30	2,2	2,3	90,5	0,91	86	0,12400	150,0	0,50	150	103,5
0,12	0,18	ATDC 63A-4	1360	0,4	4,4	0,84	2,1	2,2	59,0	0,72	48	0,00040	4,0	0,15	25	7,8
0,18	0,25	ATDC 63B-4	1360	0,6	4,4	1,26	2,1	2,2	62,0	0,73	48	0,00055	4,0	0,15	25	8,1
0,25	0,35	ATDC 71A-4	1380	0,8	5,2	1,73	2,1	2,2	67,3	0,74	53	0,00060	4,0	0,15	25	9,0
0,37	0,5	ATDC 71B-4	1380	1,1	5,2	2,54	2,1	2,2	70,0	0,75	53	0,00075	4,0	0,15	25	9,5
0,55	0,75	ATDC 80A-4	1400	1,5	5,2	3,78	2,3	2,3	71,8	0,75	58	0,00090	7,5	0,20	50	13,4
0,75	1	ATDC 80B-4	1400	2,0	6,0	5,15	2,3	2,3	73,5	0,77	58	0,00120	7,5	0,20	50	14,8
1,1	1,5	ATDC 90S-4	1400	2,8	6,0	7,50	2,3	2,3	76,5	0,78	59	0,00140	15,0	0,25	60	16,5
1,5	2	ATDC 90L-4	1400	3,7	6,0	10,23	2,3	2,3	78,6	0,79	59	0,00290	15,0	0,25	60	18,3
2,2	3	ATDC 100LA-4	1420	5,0	7,0	14,80	2,3	2,3	82,0	0,82	61	0,00550	30,0	0,30	80	26,8
3	4	ATDC 100LB-4	1420	6,6	7,0	20,18	2,3	2,3	83,0	0,83	61	0,01090	30,0	0,30	80	29,5
4	5,5	ATDC 112M-4	1440	8,6	7,0	26,53	2,3	2,3	85,1	0,83	62	0,01260	40,0	0,35	110	37,5
5,5	7,5	ATDC 132S-4	1440	11,5	7,0	36,48	2,3	2,3	86,6	0,84	69	0,03770	75,0	0,40	130	51,5
7,5	10	ATDC 132M-4	1440	15,3	7,0	49,74	2,3	2,3	87,6	0,85	69	0,04990	75,0	0,40	130	57,5
11	15	ATDC 160M-4	1460	22,2	7,0	71,59	2,3	2,3	88,5	0,85	72	0,05500	150,0	0,50	150	87,5
15	20	ATDC 160L-4	1460	29,8	7,0	98,12	2,3	2,3	89,9	0,85	73	0,07500	150,0	0,50	150	100,6
0,37	0,5	ATDC 80A-6	900	1,3	4,7	3,93	1,9	0	66,5	0,70	54	0,00060	7,5	0,20	50	12,9
0,55	0,75	ATDC 80B-6	900	1,8	4,7	5,84	1,9	2,1	68,2	0,66	54	0,00075	7,5	0,20	50	14,4
0,75	1	ATDC 90S-6	910	2,3	5,5	7,87	2,0	2,1	74,4	0,74	57	0,00090	15,0	0,25	60	16,6
1,1	1,5	ATDC 90L-6	910	3,1	5,5	11,54	2,0	2,1	75,2	0,75	57	0,00120	15,0	0,25	60	18,2
1,5	2	ATDC 100L-6	940	3,9	5,5	15,24	2,0	2,1	77,6	0,73	61	0,00140	30,0	0,30	80	29,0
2,2	3	ATDC 112M-6	940	5,5	6,5	22,35	2,1	2,1	79,9	0,75	65	0,00290	40,0	0,35	110	36,2
3	4	ATDC 132S-6	960	7,2	6,5	29,84	2,1	2,1	84,5	0,77	69	0,00550	75,0	0,40	130	50,2
4	5,5	ATDC 132MA-6	960	9,5	6,5	39,79	2,1	2,1	84,6	0,77	69	0,01090	75,0	0,40	130	53,0
5,5	7,5	ATDC 132MB-6	960	12,5	6,5	54,71	2,1	2,1	85,7	0,81	69	0,01260	75,0	0,40	150	57,2
7,5	10	ATDC 160M-6	970	16,8	6,5	73,84	2,1	2,1	87,0	0,76	73	0,03770	150,0	0,50	150	85,6
11	15	ATDC 160L-6	970	23,7	6,5	108,30	2,1	2,1	89,0	0,78	73	0,04990	150,0	0,50	150	90,0

## DIMENSIONAL TABLES

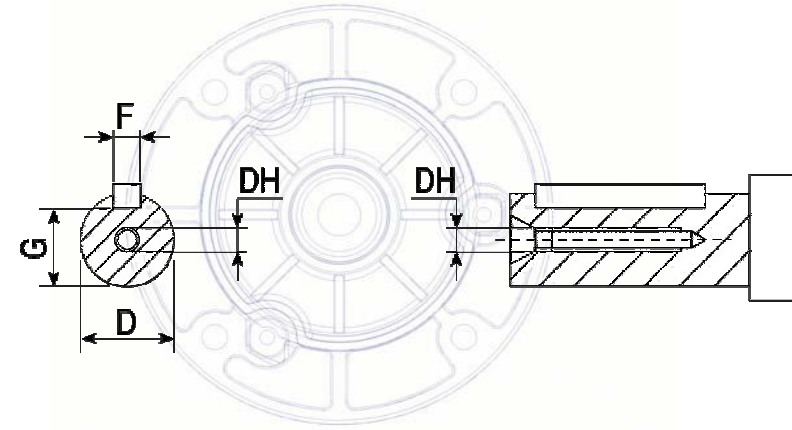
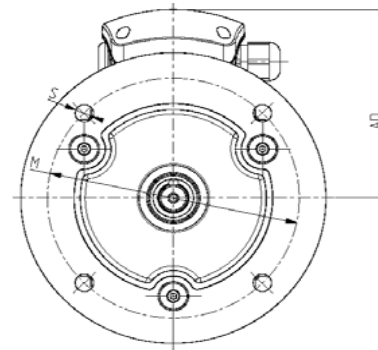
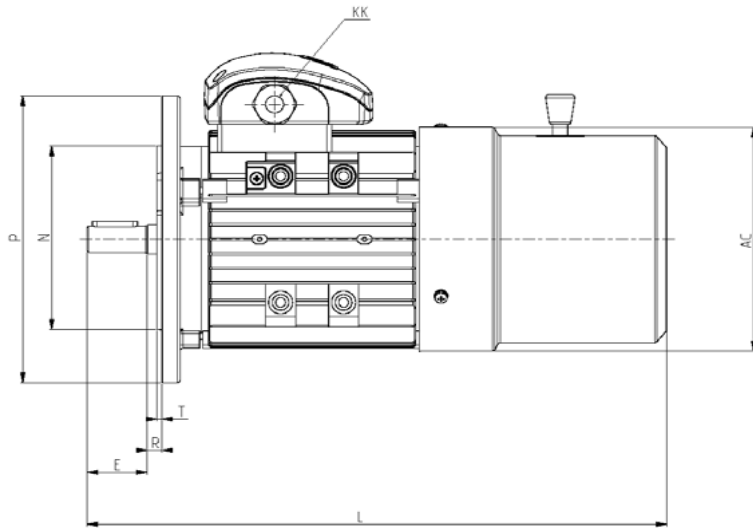
<b>tipo</b>	<b>AC</b>	<b>AD</b>	<b>H</b>	<b>KK</b>	<b>L</b>	<b>D</b>	<b>DH</b>	<b>E</b>	<b>F</b>	<b>G</b>
ATDC 63	130	114	63	M20	240	11	M4x12	23	4	8,5
ATDC 71	145	119	71	M20	270	14	M5X12	30	5	11,0
ATDC 80	175	130	80	M20	375	19	M6X16	40	6	15,5
ATDC 90S	195	145	90	M20	400	24	M8X19	50	8	20,0
ATDC 90L	195	145	90	M20	426	24	M8X19	50	8	20,0
ATDC 100L	215	170	100	M20	465	28	M10X22	60	8	24,0
ATDC 112M	240	177	112	M25	495	28	M10X22	60	8	24,0
ATDC 132S	275	197	132	2xM32	570	38	M12X28	80	10	33,0
ATDC 132M	275	197	132	2xM32	610	38	M12X28	80	10	33,0
ATDC 160M	330	255	160	2xM40	715	42	M16X36	110	12	37,0
ATDC 160L	330	255	160	2xM40	760	42	M16X36	110	12	37,0

<b>tipo</b>	<b>B3</b>					<b>B5</b>						<b>B14</b>					
	<b>A</b>	<b>AB</b>	<b>B</b>	<b>C</b>	<b>K</b>	<b>M</b>	<b>N</b>	<b>P</b>	<b>R</b>	<b>S</b>	<b>T</b>	<b>M</b>	<b>N</b>	<b>P</b>	<b>R</b>	<b>S</b>	<b>T</b>
ATDC 63	100	135	80	40	7	115	95	140	0	10	3	75	60	90	0	M5	2,5
ATDC 71	112	150	90	45	7	130	110	160	0	10	3,5	85	70	105	0	M6	2,5
ATDC 80	125	165	100	50	10	165	130	200	0	12	3,5	100	80	120	0	M6	3,0
ATDC 90S	140	180	100	56	10	165	130	200	0	12	3,5	115	95	140	0	M8	3,0
ATDC 90L	140	180	125	56	10	165	130	200	0	12	3,5	115	95	140	0	M8	3,0
ATDC 100L	160	205	140	63	12	215	180	250	0	15	4	130	110	160	0	M8	3,5
ATDC 112M	190	230	140	70	12	215	180	250	0	15	4	130	110	160	0	M8	3,5
ATDC 132S	216	270	140	89	12	265	230	300	0	15	4	165	130	200	0	M10	3,5
ATDC 132M	216	270	178	89	12	265	230	300	0	15	4	165	130	200	0	M10	3,5
ATDC 160M	254	320	210	108	15	300	250	350	0	19	5	215	180	250	0	M12	4
ATDC 160L	254	320	254	108	15	300	250	350	0	19	5	215	180	250	0	M12	4

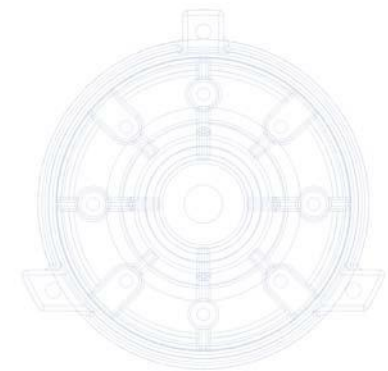
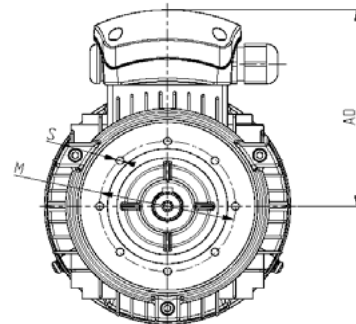
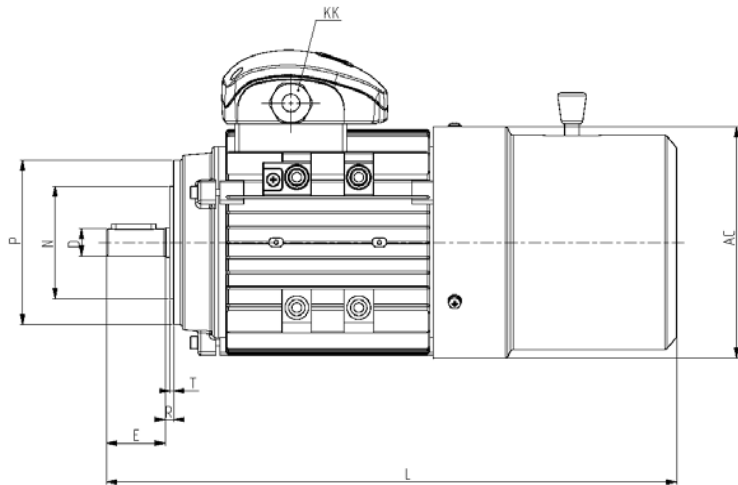
**B3**



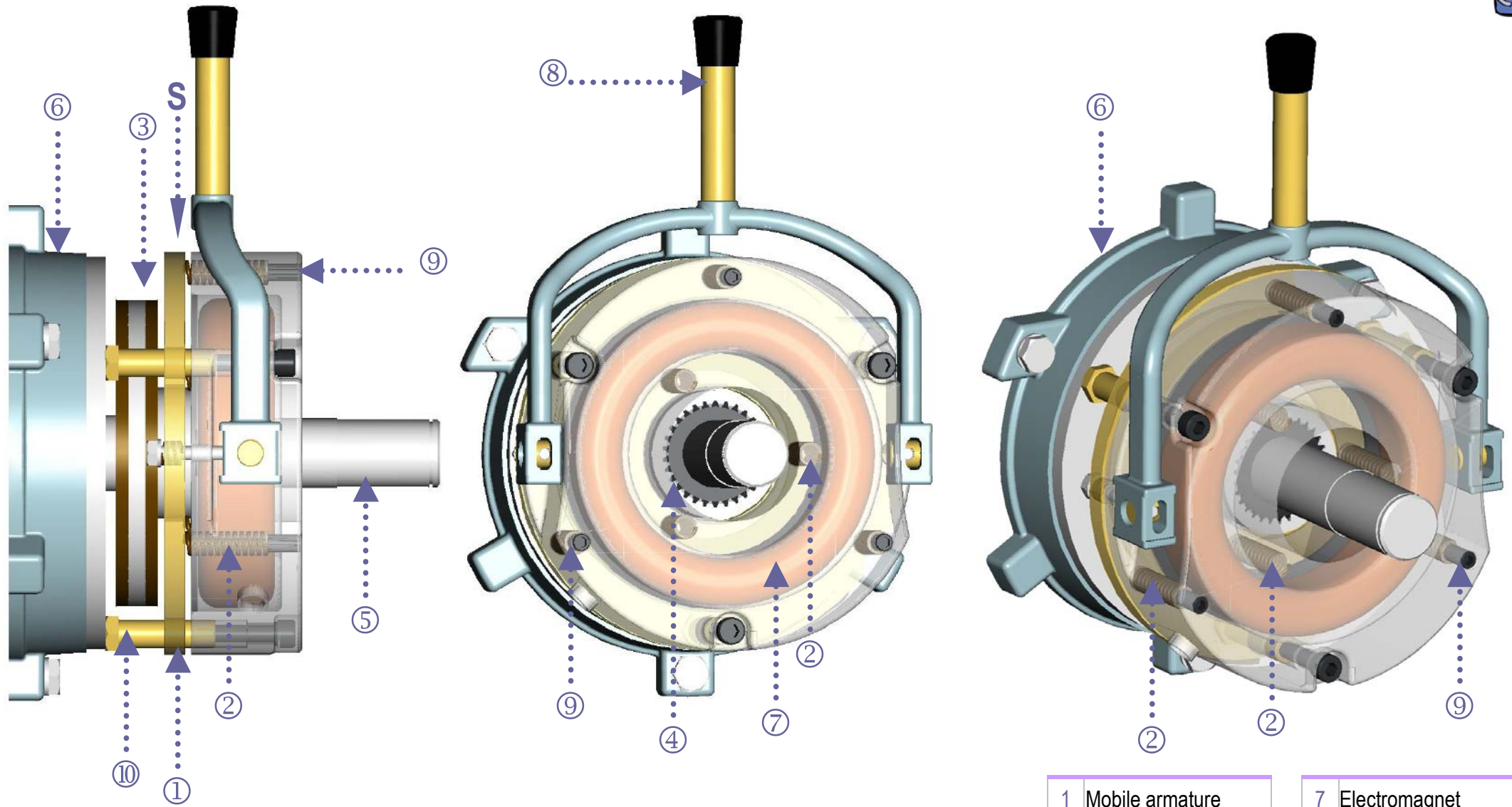
**B5**



**B14**







1	Mobile armature
2	springs
3	Brake disc
4	Driver
5	Motor shaft
6	Motor flange

7	Electromagnet
8	Release lever
9	Adjuster screws
10	Threaded bush
S	Air gap

## Brake description

The Delphi ATDC series brake is an electromagnetic brake with negative operation, whose braking action is exercised in the absence of power supply.

The brake insulation class is F.

The brake lining is asbestos-free, as per most recent EEC Directives in terms of Workplace Hygiene and Safety.

All brake assemblies are protected against corrosion by painting and/or heat galvanizing.

The parts most subject to wear are treated in special atmospheres that provide considerable wear resistance to the parts.

The standard supply voltage of the brake is 230V  $\pm 10\%$  50/60Hz on the AC of the brake power pack

## Brake operation

When the power supply is interrupted, the excitation coil ⑦ is no longer powered and therefore doesn't exert the magnetic force necessary to restrain the mobile armature ①, which, pushed by the pressure springs ②, compresses the brake disk ③ against the motor flange ⑥ on one side and the armature itself on the other, thereby creating a braking action.

## Adjustment

Two different types of adjustment are possible

### S air gap adjustment

For proper operation, the air gap S between electromagnet ⑦ and the mobile armature ① must be between the following indicated limits:

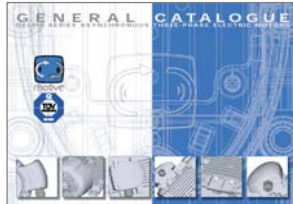
Motor type	S air gap (mm)
63~71	0.40~0.50
80~160	0.50~0.60

The adjustment is made by using the threaded bushes ⑩, using a thickness gauge to make sure that the wished air gap is reached..

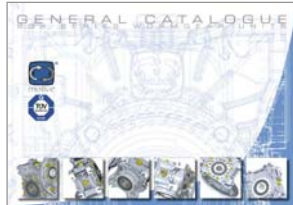
### Braking torque adjustment

The braking torque can be increased by tightening the adjuster screws ⑨. The setting has already been made by motive at the max value, and therefore we suggest to not to intervene on it

**other catalogues available:**

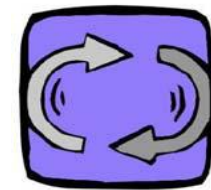


Delphi series  
Three-phase motors



BOX series  
Wormgear units

Area distributor



motive

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