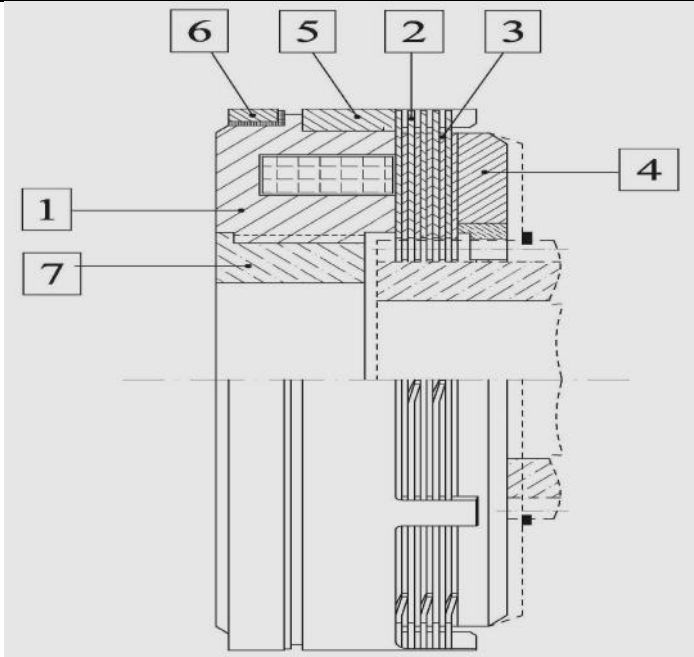


Size		11	12	15	21	22	24	26	28	
Torque	dyn	10	25	60	120	250	480	600	960	
	stat	20	40	100	200	400	800	1100	1600	
Max.Speed		3000	3000	3000	2400	2000	2000	2000	2000	
DC Voltage		24 V DC								
Power Consumption		17	18	30	30	45	66	91	88	
Number of plates	Inner Plates	3	4	5	5	5	6	6	6	
	Outer Plates	3	4	5	5	5	6	6	6	
Weights		1	1.25	2.25	4	6.4	10.5	14	18	
Moment of inertia	Magnet Side	0.9	1.1	3.0	6.8	16.8	39	54	93	
	Armature Side	0.11	0.18	0.5	1.45	4.8	11	26	34	
Bores	min	12	15	20	25	30	35	50	50	
	Ød <sup>H7</sup>									
	max	20	25	32	38	52	62	70	75	
Number of keyways in the hub	DIN 6885/1	1	1	1	2x180°	2x180°	4x90°	4x90°	4x90°	
Multi keyway to DIN 5462	Ød <sub>1</sub>	34H7 (6x1.7)	A8 36x40	A8 46x50	A8 52x58	A10 72x78	A10 82x88	A10 92x98	A10 102x108	
Dimensions (mm)	Ø D	82	95	114	134	166	195	210	240	
	Ød <sub>1</sub> <sup>H7</sup>	34	36	46	52	72	82	92	102	
	Ød <sub>3</sub> <sup>H9</sup>	36	42	52	60	80	90	100	110	
	L	29.5	36	45.5	52	58.5	68.5	73.5	77	
	l <sub>-0.1</sub>	16.5	20	23	26	30	33.5	35	37	
	l <sub>1</sub>	1.5	1.5	2	2	2.5	3	3	3	
	l <sub>3</sub>	5.5	5.5	6	7	7	7	8.5	8.5	
	l <sub>4</sub>	8	8	8	10	10	10	10	10	
l <sub>5</sub>	18.5	23	26	29	33	36.5	38	40		
l <sub>8</sub>	1.0	1.2	1.8	2	2.5	3.5	4.0	5		

\* Special Voltage Clutches available on request.

\* Keyways BS 4235, DIN 6885

\* Technical Alteration reserved.



**CONSTRUCTION**

- |                  |                    |               |          |
|------------------|--------------------|---------------|----------|
| (1) Coil Housing | (3) Inner Plate    | (5) Carrier   | (7) Bush |
| (2) Outer Plate  | (4) Armature Plate | (6) Slip Ring |          |

**OPERATION**

Carrier (5) is mounted on the coil Housing (1) and which supports the outer plate (2).

Armature Plate (4) and Inner Plates (3) are supported on the Gear Bush which must be supplied by the user (Refer page 24 for Gear Bush Tooth Profile). Coil housing (1) is fixed into the Driving shaft and Driven wheel is connected to the gear bush with inner plate and armature plate.

Energization of the coil Housing through the Slip Ring (6) by Telescopic Brush (refer page 37 for brush details) generates a magnetic field which attracts the sliding armature plate (4). The Clutch Plates (3&4) Compressed and driving torque is transmitted. To release the Clutch all that is necessary is to switch off the power supply.

**APPLICATION**

Engagement or disengagement while running or while at rest. Operation in lubrication environment only.

Friction of Steel to Steel Plates.

**EXAMPLE OF INSTALLATION**

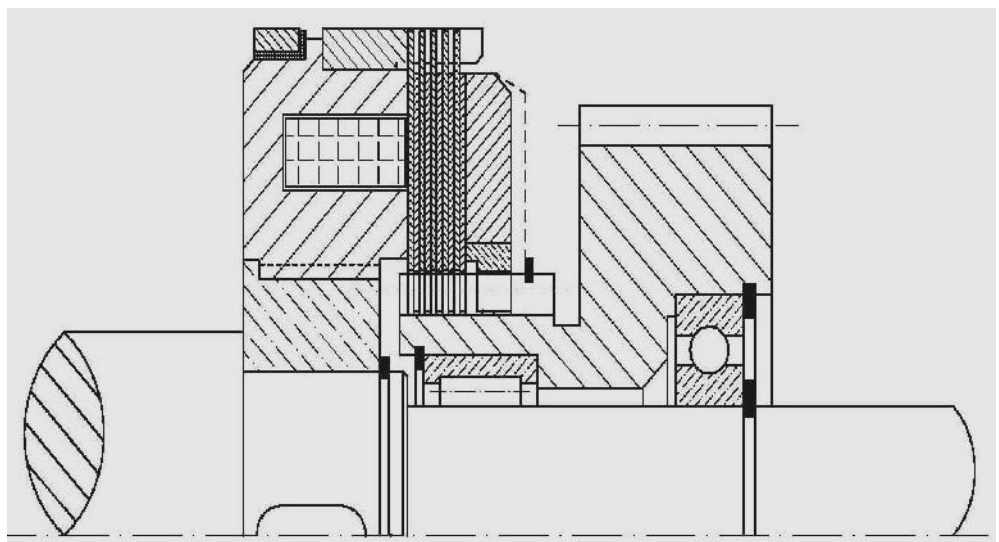
**The Basic Version of Clutch with gear teeth for Torque transmission between shaft and gear wheel.**

The Clutch should be fitted with the Coil Housing Body on the driving side.

Make provision for armature travel 18.

Secure gear bush axially.

For details of toothing for the gear bush “refer page 24 for Toothed profile for driving bush”.

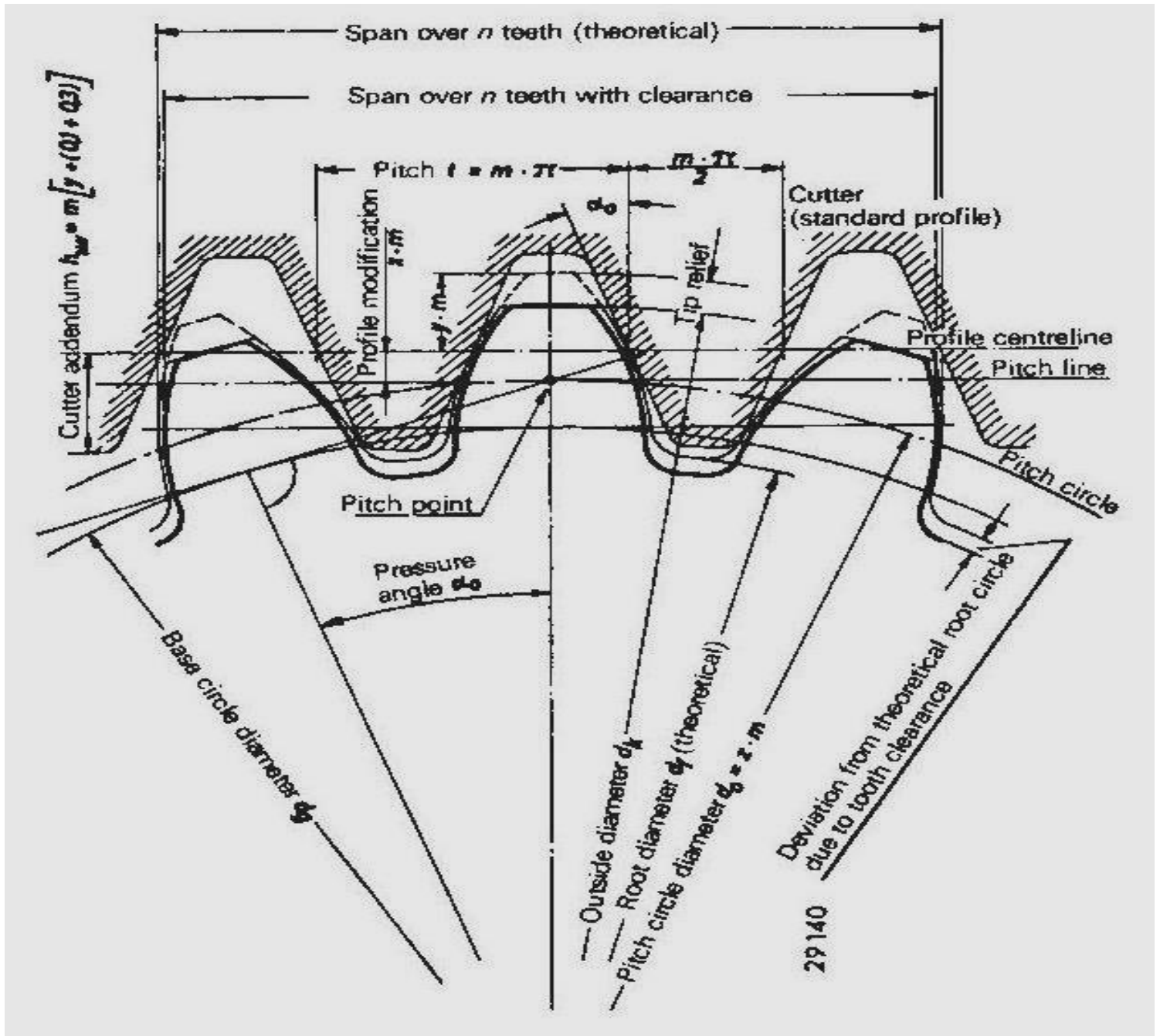


**ORDER EXAMPLE.**

**Electromagnetic Multidisc Slip Ring Wet Run Clutch**

**TYPE : 24.502.15.1 – 24 V.d.c**

**With Bush, Bore d = 30mm / Keyway to DIN 6885**



All necessary data have been given in page No.24 in order to facilitate machining of gear teeth for Driven Gear Bush (customer components), which is applicable to 24.502.\_\_\_\_.1, 24.502.\_\_\_\_.3, & 24.512.\_\_\_\_.3.

- $Z$  = No. of Teeth
- $M$  = Module
- $\alpha_o$  = Pressure Angle (  $20^\circ$  )
- $d_k$  = Outside Diameter
- $d_f$  = Root Diameter
- $x$  = Pitch Error



## TOOTH PROFILE FOR TOOTHED DRIVING BUSH

(Drive Bush for inner Clutch Plates)

Size	No.of teeth	Module	Tip dia	Root dia	Tooth Width	Span	Pitch error	Teeth length
	Z	m	$d_k$	$d_f$	$W_n$	Measurement over n teeth	x	$l_z$
11	20	1.5	32.2	25.95	11.38	3	-0.18	9.5
12	27	1.5	43.5	37.65	16.37	4	+0.3	12
15	27	1.75	50.5	43.96	19.11	4	+0.31	18.5
21	*28	2	60.5	52.64	22.01	4	+0.41	21.5
21	*31	2	66.4	58.68	22.1	4	+0.42	21.5
22	27	2.5	73.2	63.4	27.51	4	+0.43	23.5
24	33	2.5	88.2	78.4	27.72	4	+0.43	30
26	36	2.5	94.8	84.9	34.87	5	+0.23	32.5
28	42	2.5	110	98.15	34.48	5	-0.12	33

Pitch diameter  $d_o = zm$ ; Pressure angle=20°

Outer toothing hardness of bush teeth 59-62HRC;0.2 to 0.6 deep.

**INDEX:**

- (1) 28 teeth only for sizes 1
- (2) 31 teeth only for sizes 3