●无励磁动作型电磁制动电动机特性 Power Off Activated Type Electromagnetic Brake Motor Features

1.构造及运行原理

图3是带电磁制动的电机的构造图。本公司生产的电磁制动电动机是无励磁动作型，在线圈上施加电压，则立即吸引被弹簧压着的可动衔铁，在可动衔铁和制动衬垫之间产生间隙，使电机处于运转状态。一旦线圈电压被切断，在弹簧力的作用下，可动衔铁压向制动衬垫，产生制动力，电机停止。

2.电磁制动器的特点

该制动器是交流无励磁动作型电磁制动器，与电机直接连接。在切断电源的同时，即瞬间停止，保持负荷。保持力矩0.05~2.0N.m（参照表2）。由于是电源切断时的保持力动作型，故最适合于作为无意间切断电源时的安全制动器使用。电磁可以进行频繁的瞬间正反转。简单的切换，1分钟内可停止6次。但是时间必须确保3秒以上。

电机和制动器可以使用同一个电源。制动器内设置整流回路，可和电机使用同一个交流电源。

※这个数值是标准的，根据使用条件的不同，以这个频度连续使用不能进行制动器操作的情况也有，实际使用时，必须在电机表面温度为90度以下的条件下使用。

3.起动时间，制动时间的特性

电磁制动电机的起动时间是电机自身的起动时间加上电磁制动器的释放时间，制动时间是从电源切断开始至电机完全停止的时间。电磁制动电机的超程、起动时间、制动时间应用场合而不同。

1.Structure and Operation Principle

Table 3 is the structure for the Electromagnetic Brake Motor. We produce the Power Off Activated Type. Exerting the voltage on the winding, it will magnetize the armature pressed by the spring. The motor will be in a stage of rotating, when there is a backlash between the armature and brake rim. Once the winding voltage is cut down, under the influence of spring, the armature press the brake rim, which will create a brake force. Then the motor gets to a stop.

2.The Characteristics of the Electromagnetic Brake

It is an AC Power Off Activated Type Electromagnetic Brake which is connected directly with the motor. It will get to a blink stop and keep load when the supply is power off. It will keep the torque between 0.05-2.0Nm。It is especially suitable for the safety brake in the circumstance of unconsciously power off. The electromagnetic can change its direction frequently. It can be stopped 6 times in a minute. But be sure that it lasts for 3 seconds or more.

After we set a commutating loop in the brake, it can share the power supply with the motor.

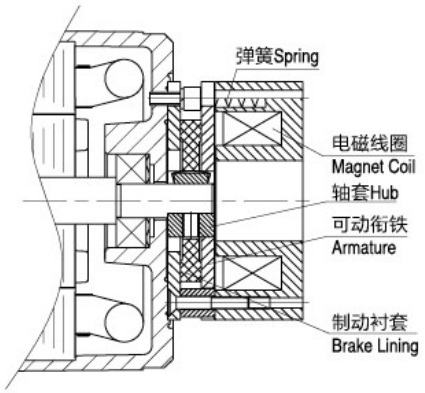
The value is standard. It will be change in different condition. When actually used, be sure to make the surface temperature of the motor less than 90 ℃.

3.The Features for the Starting Time and Brake Time

The starting time means the time for the motor's starting time plus the electromagnetic brake release time. The brake time means the time from power cut off to the time of motor completely stop. The over-run, starting time and brake time will be different according to the different applications.

●表2 电磁制动部分(无励磁动作型) Electromagneic Brake (Power off Actva ted)

相数 Phase	基座尺寸 Size mm	输出功率 Output W	电压 Voltage V	频率 Frequency Hz	电流 Current A	输出功率 Output W	保持力矩 Keep Torque N.m	Kgf.cm	超程 Over-run 圈数Cycles
1 Phase	70	15	110 120 220 230	50/60	0.191	8.2	0.5	5	
	80	25							
	90	40							
		60							
		90			0.111	10.0	1.0	10	
		120							
	100	120							
		140							
		180			0.144	13.0	2.0	20	
3 Phase	60	6	200~230	50/60	0.073	6.6	0.25	2.5	3.5
	70	15	380~415		0.037	6.6	0.25	2.5	
	80	25	200~230 380~415		0.091 0.046	8.2 8.2	5.0 5.0	5 5	
	90	40							
		60							
		90	200~230 380~415		0.111	10.0	1.0	10	
		120							
	100	120			0.056	10.0	1.0	10	
		140							
		180	200~230		0.144	13.0	2.0	20	
			380~415		0.072	13.0	2.0	20	



如图/Fig.3

●调速电机特性 The Features of the Speed Control Motor

1.是控制器和电机组合的单元产品，由于电机和控制品只需一次连接，故不需要单独接线。速度调节由安装在外部的电位器便可简单进行。在控制器上安装了速度控制器回路、电机用的电容，速度设定器等。其中单元式速度控制器无瞬间停止功能。

2.用控制器的速度调节器进行速度调节。可以在50Hz为90~1400的r/min，60Hz为90~1700r/min范围内，调节电机的速度。

3.电机不允许长时间在低转速下运行，以免电机过热。

1.It is a unit of the controller and motor. It only needs to connect one time. The speed can be easily adjusted by the potentiometer. The controller is fixed with speed-control loop, capacitor, speed enactment etc. There is no function of instant stop in the unit.

2.The controller can make the speed variable between 90-1400rpm at 50 Hz and 90-1700rpm at 60Hz.

3.Please don't run motor at low speed for long time avoiding overheat.