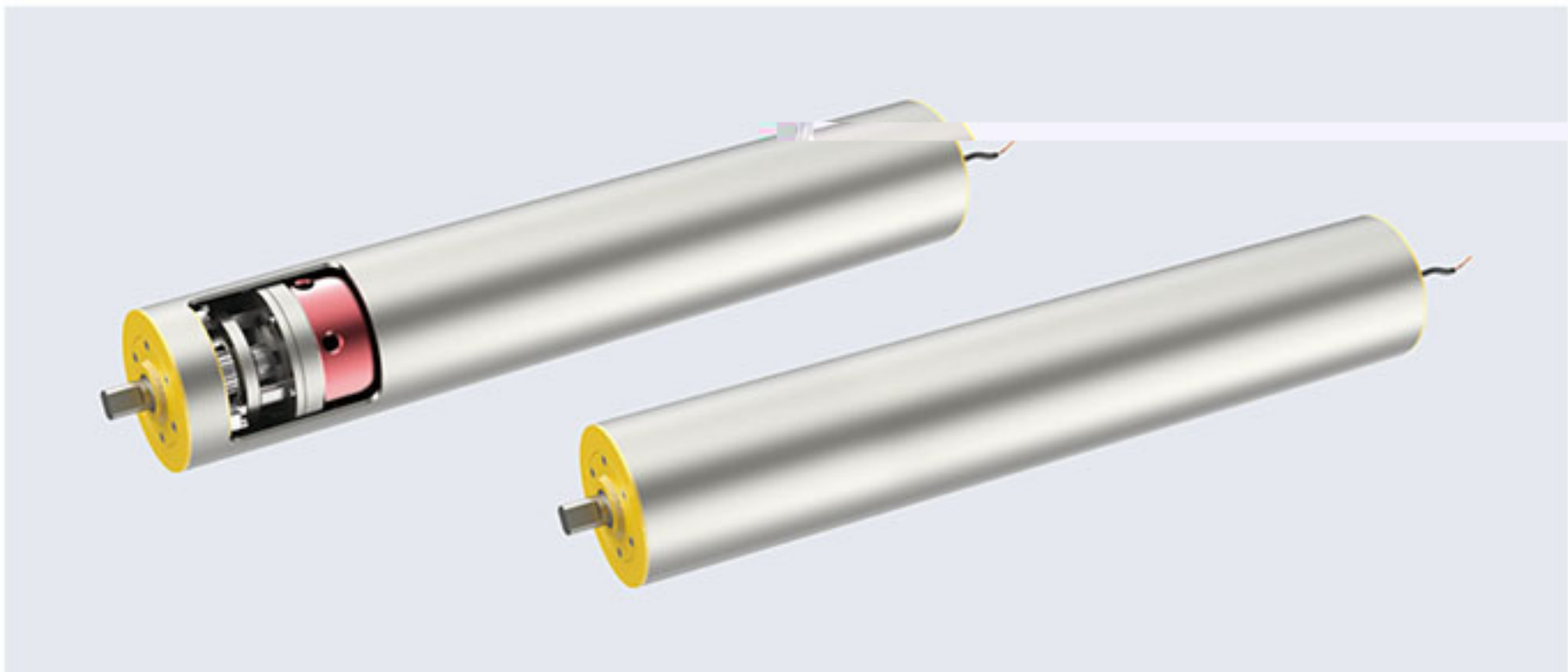
交流电动滚筒电机 AC Drum Motor



产品型号说明 Ordering Code

TMX	113	-	2350	-	S	-	2P	-	350	-	0.56	-	A	-	T	-	□□
(1)	(2)		(3)		(4)		(5)		(6)		(7)		(8)		(9)		(10)

(1)	产品代号 Product code	TMX: 油冷重载式、DG: 自然冷却式 TMX: oil cold overload type, DG: natural cooling type
(2)	筒体代号 Drum code	以滚筒筒体直径表示，如 80、113、138、165、216、320 等。 The diameter of drum body is indicated, such as 80, 113, 138, 165, 216, 320, etc.
(3)	电机功率 Rated power	电动机的额定功率，如 100W~5500W，型号中省略单位 W，使用数字表示。如 1100W 用 1100 表示 The rated power of the motor, such as 100W~5500W, is omitted in model W, and the digital representation is used. For example, 1100W with 1100
(4)	相数及电压 Phase number and voltage	A 表示单相 110V，C 表示单相 220V，S 表示三相交流 220V，S3 表示三相 380V，S4 表示三相 440V，V 表示非标电压（当出现 V 时必须注明电压值）； A stands for single phase 110V, C stands for single-phase 220V, S stands for three-phase ac 220V, S3 represents three-phase 380V, S4 represents three-phase 440V, and V represents non-standard voltage (voltage must be indicated when V is present);
(5)	极数（变流） Pole number (AC)	2P 表示二极，4P 表示四极，6P 表示六极，8P 表示八极 2P is the second pole, 4P is the fourth pole, 6P is the six pole, 8P is the eight pole
(6)	筒体长度 Drum length	按筒体的实际长度进行编号，单位 mm 省略。如 350mm 用 350 表示 The actual length of the cylinder is numbered and the unit mm is omitted. For example, 350mm with 350
(7)	线速度 Linear speed	按实际线速度直接进行编号，单位 m/s 省略。如 0.56m/s 用 0.56 表示 According to the actual linear velocity, the number of unit m/s is omitted. For example, 0.56m/s is expressed as 0.56
(8)	筒体型式 Drum shape	A: 圆柱型滚筒筒体 B: 鼓形滚筒筒体 A: cylindrical drum body B: drum drum body
(9)	筒体材料 Drum material	默认 T 为碳钢，可不标，其它：B3: 不锈钢 304、 X: 表面镀锌、G: 表面镀硬铬、L: 包胶包耐磨橡胶 The default T is carbon steel, not standard, other: B3: stainless steel 304, X: surface galvanizing, G: surface hard chrome, L: rubber package wear resistant rubber
(10)	其他要求 Other requirements	待定 Pending

举例：TMX138-1100S3-4P-350-0.56-A-X

一般技术信息——交流电动滚筒 General Technical Information——AC Drum Motor

■ 产品说明 Product Description

- 电动滚筒是一种将电机和减速器共同置于滚筒内部的新型驱动装置。它主要应用于固定式和移动式带式输送机，替代传统的电动机、减速器在驱动滚筒之外的分离式驱动装置。
- 电动滚筒可在大尘、颗粒负荷严重的环境中运行，可抵御水流和水雾，可抵御大多数侵蚀性环境条件。由于防护等级达到IP66及其不锈钢材质（按需提供），电动滚筒也适用于食品加工、制药等行业。
- 电动滚筒由交流异步感应电机驱动，适用大多数国际通用电压，也可根据客户要求进行定制。
- 电动滚筒筒内包含作为润滑剂和冷却剂的油，散热方式为通过滚筒外壳和传送带来散热。当使用不含传送带的电动滚筒时，可以进行特殊设计，以便确保冷却。
- Electric roller is a new type of drive device which is placed in the roller body together with the motor and the reducer. It is mainly used in fixed and movable type belt conveyor, to replace traditional type, which motor, gearbox are separated with drum.
- Electric drum can run under severe particulates environment; can withstand the ingress of water and spray, can resist most of the erosion environment. Due to the protection level IP66 and stainless steel material (as required), electric roller also applied to food processing, pharmaceutical and other industries
- Electric drum driven by AC asynchranous induction motor, suitable for most of the international common voltage, also can be customized according to customer requirements.
- The electric roller contains oil as a lubricant and coolant, heat dissipation through the roller shell and the transfer of heat. When using an electric drum without a conveyor belt, a special design can be carried out to ensure that the cooling.

■ 选项 Option

- 集成过热保护：在电机绕组端部集成恒温保护开关。当电机过热时，开关启动。不过，开关必须连接到一个合适的外部控制器。该控制器在过热的情况下可以中断电流输送到电机。
- 集成电磁制动器：集成的电磁制动器可以延缓和停止给定的传送带的所具有的重量。它将直接对电机轴的转动施加影响，并由直流电整流器驱动。
- 机械防倒转装置：安装于转轴上的机械防倒转装置可用于垂直升输送机，在电流中断的情况下，它可以抑制传送带向后运行。
- 旋转编码器：旋转编码器的脉冲可以用于定位和控制速度以及旋转方向。

- Integrated thermal protection: integrated constant temperature protection switch in the motor winding end. When the motor is over heat, the switch is switched on. However, the switch must be connected to a suitable external controller, the controller can interrupt the current conveyor to the motor in case of overheating.
- Integrated electromagnetic brakes: the integrated electromagnetic brake can delay and stop the weight of the given conveyor belt. It will directly affect the axis of the electric roller, driven by DC electric rectifier.
- Mechanical anti reversing device: a mechanical anti reversing device mounted on a rotating shaft can be used to increase the conveyer. In the case of current interruption, it can inhibit the transfer of the backward running.
- Rotary encoder: the pulse can be used to position and control the speed and direction of rotation.

■ 技术参数 Technical Parameters

保护等级 Protection Level	IP66
普通应用情况的环境温度范围 Ambient temperature range for general application	+5°C 至 +40°C
低温应用情况的环境温度范围 Environmental temperature range of low temperature application	-20°C 至 +15°C
节拍时间 Cycle time	每分钟最多 3 次启 使用变频器或采用特殊结构时，节拍时间可能更高 Start / stop at most 3 times per minute. Using frequency converter or the use of special structure, the time may be higher
安装高度 Mounting height	最大海拔 1000m Maximum elevation 1000m

根据环境温度的不同，必须采用不同型号的润滑油。当环境温度低于 +5°C 时，建议采用静止加热。当温度低于 -20°C 时，必须使用特殊的轴封和电缆。

According to the different environmental temperature, different types of lubrication oil must be used. When the ambient temperature is lower than +5°C, it is recommended to use static heating. When the temperature is lower than -20°C, must use special seal and cable.

一般技术信息——交流电动滚筒 General Technical Information——AC Drum Motor

■ 恒温保护 Constant Temperature Protection

在正常运行条件下，定子绕组中集成的热电断路器已经闭合。当电机达到边缘温度（过热）时，转换开关以预定的温度打开（取决于绕组的绝缘等级），用于防止损坏电机。

Under normal operating conditions, the stator winding in the integrated thermoelectric circuit breaker has been closed. When the motor reaches a refuge temperature (over temperature), the switch is opened at a predetermined temperature (depending on the insulation level of the winding), which is used to prevent damage to the motor.

警告 Warming

当电机冷却后，热电断路器将自动复位。

- 热电断路器必须通过适合的继电器或一系列电流接触器进行转换连接。
- 开关触发后，请等待至电机冷却下来。再次接通前，确保人员及设备的安全。

When the motor cooling, the thermal power circuit breaker will automatically reset.

- Thermoelectric breakers must be converted to a series of current contacts for a relay or a series of electric current.
- After the switch is triggered, wait until the motor cools down. To ensure the safety of personnel and equipment before the connection.

■ 在 60Hz 线路中使用 50Hz 电机 50Hz Motor Used In 60Hz Line

- 电机额定电压：220/380V -3 相 - 50Hz　　Motor rated voltage: 220/380V - 3 phase - 50Hz
- 线路电压：220/380V -3 相 - 60Hz　　Line voltage: 220/380V - 3 phase - 60Hz

如果一个 50Hz 电机连接到 60Hz 线路中，频率将增大且速度增加 20%。为了保持电机额定参数恒定，输入电压需增加 20%。如果输入增大 20% 的电压，根据下表，与电压相关的参数将发生变化：

If a 50Hz motor is connected to the 60Hz line, the frequency will be increased and the speed of the motor is increased by 20%. In order to keep the motor constant, the input voltage should be increased by 20%. If the input is increased by 20%, the parameters will be changed according to the following table:

线路电压 = 电机额定电压 Line Voltage=Motor Rated Voltage			
功率 Power	P	kW	100%
额定转速 Rated speed	Nn	U/min	120%
额定扭矩 Rated torque	Mn	Nm	100%
启动扭矩 Starting torque	MA	Nm	64%
牵引转矩 Traction torque	Ms	Nm	64%
停转转矩 Stop torque	MK	Nm	64%
额定电流 Rated current	IN	A	95%
峰值电流 Peak current	IA	A	80%
功率因数 Power factor	cosΦ	-	106%
效率 Efficiency	η	-	99.5%

- 电机额定电压：220/380V -3 相 - 50Hz　　Motor rated voltage: 220/380V - 3 phase - 50Hz
- 线路电压：264/456V -3 相 - 60Hz - 2&4 极（电机电压 +20%）　　Line voltage: 264/456V - 3 phase - 60Hz - 2&4 poles (motor voltage +20%)

如果电压增加 20% 在一个 60Hz 线路中运行 50Hz 电机，频率将增大且转速增加 20%。电机额定参数只产生较小偏差。如果输入电压相对于电机电压而言增加 15%，实际电机功率将减小到原电机功率的 92%。

If the voltage is increased by 20% in a 60Hz line running 50Hz motor, the frequency will be increased and the speed is increased by 20%. Motor ratings are only small deviations. If the input voltage is 15% to the motor voltage, the actual motor power will be reduced to 92% of the original motor power.

线路电压 = 1.2x 电机额定电压（适用于极数 2 和 4） Line Voltage=1.2 x Motor Rated Voltage (Applicable To 2 And 4)			
功率 Power	P	kW	100%
额定转速 Rated speed	Nn	U/min	120%
额定扭矩 Rated torque	Mn	Nm	100%
启动扭矩 Starting torque	MA	Nm	100%
牵引转矩 Traction torque	Ms	Nm	100%
停转转矩 Stop torque	MK	Nm	100%
额定电流 Rated current	IN	A	120%
峰值电流 Peak current	IA	A	100%
功率因数 Power factor	cosΦ	-	100%
效率 Efficiency	η	-	98%