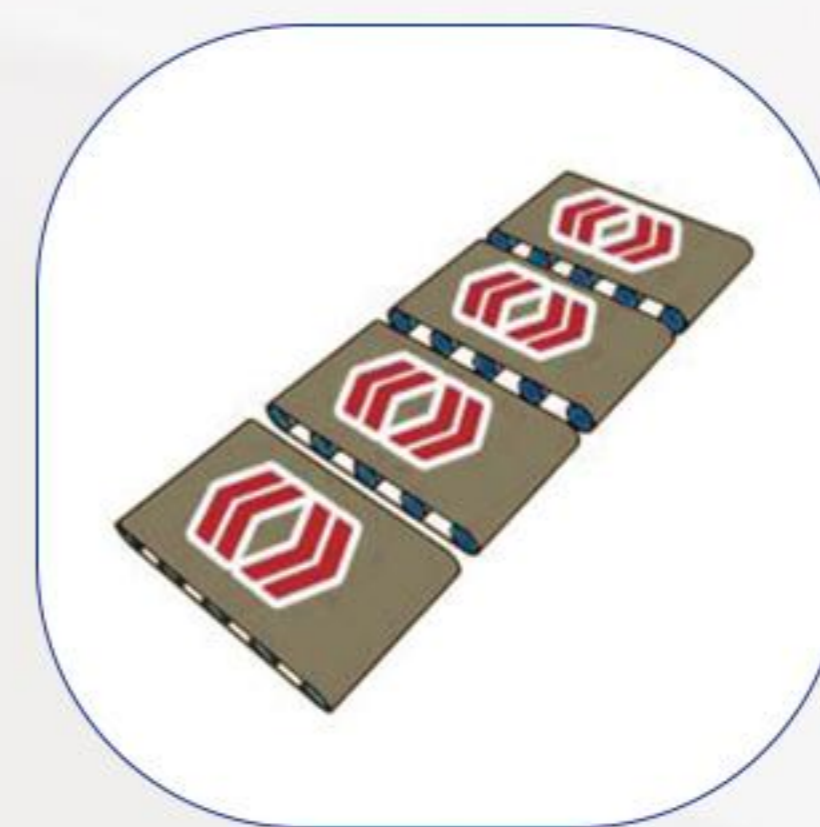




WINROLLER

WIN50 DC DRIVE ROLLER



JIANGSU WINROLLER TECHNOLOGY CO., LTD

ROLLING WORLD, ROLLING WIN

OVERVIEW

WINROLLER WIN50 series roller is a high performance, high torque, high energy saving, low noise motorized roller, it passed the CE certification, ROHS2.0, EMC certification. The products are widely used in the drive of unit handling conveyor systems, automatic transmission systems in various industries, transporting cardboard boxes, material boxes, pressure plates or tires at normal ambient temperatures. At the same time, it is suitable for linear conveyor, small belt conveyor, especially zero pressure accumulation conveyor.

It can also be used in shuttle systems to dock conveyor sections or load shifters to other "conveyor system branches". The diameter is 50 MM, the protection grade is IP54, and the working ambient temperature is -30 °C ~ 60°C.



CERTIFICATE

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PATENT
(CN218920089U)

PATENT
(CN218954006U)

FEATURE



HIGH TORQUE

The combination of new high-efficiency motor and high-precision gear makes the product performance better; Under heavy load, the torque is 8% to 10% larger than the wave.



HIGH OPERATING EFFICIENCY

Motor operation efficiency is maximized, more than 2 times higher than the asynchronous motor.



FAST DYNAMIC RESPONSE

The FOC directly controls the torque to achieve maximum torque output, and can output positive and negative torque, so that the whole system has a fast dynamic response.



ANTI-STATIC

Can prevent static electricity, stable structure.



MORE PRECISE CONTROL

FOC precisely controls the stator magnetic field vector of the motor, so that the stator and rotor magnetic field are always maintained at 90°.



SOUND PROTECTION MECHANISM

Over voltage, under voltage, over current, over temperature, lack of phase, blocked rotation. All kinds of protection are available



MOTOR COMMUTATION IS SMOOTHER

The reversing performance of the FOC driver is extremely excellent, and the forward and reverse switching can be very smooth at the highest RPM.



LOW NOISE

Noise levels are reduced by about 15% compared to conventional products



CONTINUOUSLY VARIABLE

FOC can be applied to the magnitude of the motor current precise control, so the motor speed is general can achieve 5% to 100% stepless adjustable.



CONSTANT SPEED OPERATION

Sine wave can achieve constant speed operation.



WELL-ADAPTED

Wide speed range, flexible and effective response customers have different needs.



LONG LIFE

The sine wave, the input current is controlled accordingly by maximum torque current, the motor iron loss decreases.

BASIC TECHNICAL PARAMETERS

voltage	DC24V				DC48V				AC220V	
	Standard		Enhanced		Standard		Enhanced		Standard	
Motor type	S1	S2	S1	S2	S1	S2	S1	S2	S1	S1
Working system	S1	S2	S1	S2	S1	S2	S1	S2	S1	S1
Rated power	40W	50W	80W	100W	40W	50W	80W	100W	40W	80W
Rated current	3A	3.5A	6A	6.8A	1.5A	1.8A	3.2A	4.0A	0.25A	0.5A
Starting current	6A	7.0A	11.6A	13.6A	3.0A	3.6A	6.6A	8.0A	0.5A	1.00A
Unload running noise	(≤ 55dB)									
Cable length	1000mm									
Max cable length	5000mm									
Working ambient temperature	-30°C ~60°C									
Motor shaft	d12mm									
Anti-Static	yes									
Shell thickness	1.5mm									
Shell material	X:galvanized steel S3:stainless304									
Shell outside coat	P:PU coated JT:sleeve JZ:rubber JP:PVC JG:silicone									

Note: Switch S1/S2 working system through the controller dip switch function.

WIN50-MOTORIZED ROLLER CHARACTERISTIC TABLE

WIN50 Motorized roller characteristic table																	
Nominal speed	Speed adjustable range 8.7%~100%	Standard								Enhanced							
		S1 working system(40W)				S2 working system(50W)				S1 working system(80W)				S2 working system (100W)			
		Torque N.m		Traction N		Torque N.m		Traction N		Torque N.m		Traction N		Torque N.m		Traction N	
		rated	start	rated	start	rated	start	rated	start	rated	start	rated	start	rated	start	rated	start
10	0.87-10	5.5	30.3	220	1210	6.7	33.5	268	1340	9.5	52.5	380	2090	10.6	53	424	2120
13	1.13-13	3.98	21.9	159.2	875.6	4.8	24	192	960	6.8	37.4	272	1496	7.68	38.4	307.2	1536
22	1.91-22	2.8	15.4	112	616	3.37	16.85	134.8	647	4.7	25.8	188	1034	5.36	26.8	214.4	1072
25	2.17-25	2.4	13.2	96	528	2.9	14.5	116	580	4.1	22.6	164	902	4.6	23	184	920
36	3.13-36	1.7	9.4	68	374	2.1	10.5	84	420	2.9	16	116	638	3.3	16.5	132	660
51	4.43-51	1.20	3.6	48	264	1.44	7.2	57.6	288	2.0	11	80	440	2.3	11.5	92	460
60	5.22-60	1.02	5.6	40.8	224.4	1.24	6.2	49.6	248	1.75	9.6	70	385	1.97	9.85	78.8	394
83	7.22-83	0.74	4.1	29.6	162.8	0.9	4.5	36	180	1.3	7.2	52	286	1.42	7.1	56.8	284
120	10.44-120	0.51	2.8	20.4	112.2	0.62	3.1	24.8	124	0.88	4.8	35.2	193.6	0.98	4.9	39.2	196

NOTE: 3-STAGES OF GEAR REDUCTION 2-STAGES OF GEAR REDUCTION

S1 working system--Suitable for continuous material transfer, such as belt conveyor.
S2 working system--Suitable for intermittent material transfer, such as box transfer.
※ 1. $1N=0.1kgf$, $1N \cdot m=0.1kgf \cdot m$;
※ 2. The value of the characteristic table is for reference only;
※ 3. At constant speed closed loop control, no load or rated load, the speed is consistent;
※ 4. The speed adjustable range is 8.7%~100% of the rated speed;
※ 5. Other speeds can be customized:For faster speeds, please refer to DGDD direct

drive motorized roller catalog;
※ 6. Sprocket drive mode conform this table.; Poly-V belt drive mode single modular load 200KG Max.
O belt mode single modular load 35kg Max.

reminder:

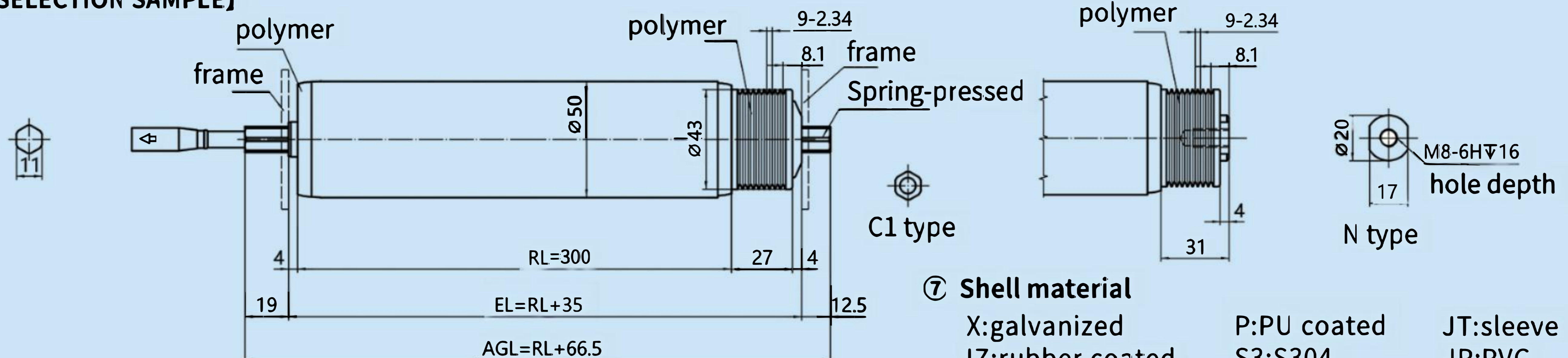
The switch power supply of a single motorized roller should be selected 1.5 times according to the motorized roller power.

APPLICATION SCENARIOS

The motorized roller is mainly used for rolling transmission, such as: (straight line conveyor, transverse conveyor, accumulation conveyor, sorting conveyor and turning conveyor). There are also more and more movement applications, such as AGV or AMR load equipment)

- small loader
- material box
- package
- pallet
- bearer equipment

[SELECTION SAMPLE]



WIN50 - 40W - S - 24V - 10M - 300L - X - Q - C1 - C

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

- ① **Roller type+Roller diameter**
- ② **Motor power**
40W、50W (Standard) ;
80W、100W (Enhanced)
- ③ **Controller type**
S100、P100
- ④ **Power voltage**
DC24V、DC48V、AC220V
- ⑤ **Linear speed**
10、13、22、25、36、51、60、83、120
- ⑥ **Shell length**
Customized according to requirements

⑦ Shell material

X:galvanized P:PU coated JT:sleeve
JZ:rubber coated S3:S304 JP:PVC
JG:silicone

⑧ Drive mode

Q:poly-V E:O wheel L:sprocket U:crowned
V:V wheel I:straight O:O groove ZT:taper sleeve
T:synchronous wheel #:knurl




⑨ Cable outlet shaft end

C1: $\phi 12$ Hex 11 C2: M12 Hex 11

⑩ End shaft

C: $\phi 12$ Hex 11 N: M8 internal thread

VECTOR-S100 / P100/ K100 VARIABLE FREQUENCY MOTORIZED ROLLER CONTROLLER

Comparative item		VECTOR-P100	VECTOR-S100	VECTOR-K100
Controller type				
Electrical specification	Rated power	DC24V	DC24V/48V	DC20V~65V
	Speed adjustable range/rpm	600 ~ 6900	600 ~ 6900	1000~6900
Speed parameter	Acceleration and deceleration range/s	0.2 ~ 2	0.39 ~ 3.9	0.3~4
	Connect with roller	1 drag 1	1 drag 1	1 drag 2
Electrical connection mode	PNP	✓	✓ (internal jumper)	✓ (Customer free choice)
	NPN	✓	✓ (internal jumper)	✓ (Customer free choice)
Open-closed loop	Open loop	×	✓	×
	Closed loop	✓	✓	✓ (Default closed loop)
Control mode	External analog	×	✓ (0-10V)	×
	IO	✓	✓	✓
	Multi-speed	3 speed	3 speed	7speed
	RS485	×	✓	✓
Brake mode	Electronic Brake	✓	✓	✓
	Free brake	×	✓	×
	Servo brake	✓	✓	✓
Fault output	ERROR-N	wrong 0V, true +24V/48V	×	wrong 0V, true +24V/48V
	ERROR-P	wrong +24V/48V, true 0V	×	wrong +24V/48V, true 0V
	ERROR	×	PNP connection,true 13V, wrong 2V NPN connection,true 13V, wrong 2V	×

BRAKE MODE BASIC PRINCIPLE

ELECTRONIC BRAKE

When the brake is started, direct current is passed into the stator coil, and the coil generates a magnetic field. If there is movement between the rotor and the stator, it is equivalent to the conductor cutting the magnetic inductance line, this magnetic field and the existing magnetic field will have a reactor force.

FREE BRAKE

The motorized roller power supply circuit inside the controller card is disconnected, it becomes an open circuit, allowing the rotor to continue rotating until the mechanical load stops it automatically.

SERVO BRAKE

When the running signal disappears, the controller card uses the magnetic sensor of the motorized roller to determine the rotor position code, and at the same time, the current is input into the motor coil to maintain the rotor position.