CBK frequency conversion car washing machine

The car washing machine adopts frequency conversion technology. At this stage, there are two kinds of frequency conversion applications on the car washing machine;

1.Heavy-load frequency conversion technology to control water pump motors and fan motors.

Fixed-frequency car washing machines are universal used in the market. The instantaneous current when starting is 6-7 times the total power of the motor. At the same time, it consumes electricity and is easy to cause danger to the circuit;

CBK adopts 18.5kw heavy-load, (22kw light-load) frequency conversion drive, stable, efficient, energy-saving, and denoise; it can save equipment power consumption by 15%, at the same time, it can achieve section control, Car washing machine washing and air-drying pressure Can switch between high pressure and low pressure with One-button;

CBK 4 car wash processes

CBK heavy-load frequency converter

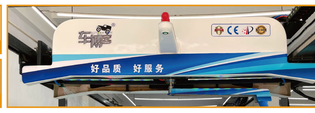
2. Small frequency conversion control walking motor.

The frequency conversion function universal promoted in the market basically uses a 0.4kw small frequency converter to drive an ordinary motor to adjust the speed of the moving body.

CBK car washing machine uses a closed-loop stepper motor for walking. The closed-loop stepper motor is basically used in high-precision industries such as robots and precision machine tools. The accuracy, speed, and stability of walking are unmatched by traditional ordinary motors.

Closed-loop Stepper motor

Traditional ordinary motor



To produce frequency conversion car washing machine, CBK is more energy saving!

CBK Energy-saving Car Washing Machine (Double Pipeline of Car Washing Arm)

CBK car washing machine adopts water foam separation technology, the car washing arm is composed of a water pipe and a foam pipe, and the path of water and foam are completely separated;

Advantage 1

Water from the water pump to each nozzle, there is no shunting in the process, which can make sure the water pressure to be the maximum. CBK can ensure that the pressure of each nozzle is 9-10Mpa (can be measured by a pressure gauge).

Advantage 2

The foam flows in a separate small dia. Pipeline. For CBK machine, 120ml chemical liquid is mixed with 8L water for a spraying lap, while for the traditional car washing machine, 120ml chemical liquid is mixed with 36L of water for a lap. CBK is more water-saving, and the foam concentration is higher, and the cleaning effect is better.

CBK machine has self-cleaning technology. After each foam spraying, the program will automatically clean the pipeline. There will be no mixing of two kinds of foam, which will reduce the risk of car washing machine being damaged and corroding by pipeline residual, and the work life will be prolonged.

To produce energy-saving Car Wash Machine, CBK is more professional!

CBK water and electricity separation technology

CBK uses water and electricity separation technology to completely separate the car washing room from the power distribution box.

The frame of the CBK car washing machine is double-layer anti-rust treated. The motor in the moving body is waterproof, and the junction box is fully glued to be waterproof, and the distribution box is put in the control room. The control room is in a dry environment. So the electronic control accessories in the distribution box are free from damage, which also make sure the equipment is durable , stable in operation.

Ordinary junction box in moving body

CBK waterproofed junction box

To produce safe car wash machine, CBK is more professional.

CBK direct drive technology

CBK car wash machine uses the German Pinfl PW60 high-pressure plunger pump, which is exclusively customized by Pinfl manufacturing for CBK. It is matched with a 15KW 6-Pole motor and directly driven by a coupling method, which keeps the motor and pump are stable, safe and efficient, and maintenance-free;

If the traditional belt pulley transmission connection method is adopted, it is prone to dangers during the operation of the belt. At the same time, the belt is aging and needs to be replaced regularly, which is prone to loss of rotation, and the running speed is unstable.

CBK direct drive

Traditional belt pulley transmission

Popularization of science industry knowledge

4-Pole motor/6-Pole motor Power comparison

18.5KW 4-Pole motor--117N/M

Motor Speed: N=60f/p f=frequency p=pairs of the poles
N2=60*50/(4/2)=1500r/min
Small output torque（Motor output torque: T=9550*P/N P=power, N=motor speed
T=9550*P/N=9550*18.5kw/1500r/min=117N/m）

15KW 6-Pole motor--143N/M

Motor Speed: N=60f/p f=frequency; p=pairs of the poles
CBK motor speed N1=60*50/(6/2)=1000r/min),
Large output torque
Motor output torque: T=9550*P/N P=power, N=motor speed
T=9550*P/N=9550*15kw/1000r/min=143N/m

To produce direct drive car washing machine, CBK is more professional.