

Dyeing and finishing industry dehydrator application solution

In modern society, dehydrating equipment has been widely applied, and it usually can be used in the dehydration process of dyeing and finishing, clothing, chemical, crops etc. The rotary speed varies on the basis of requirements of different industries to come true dehydration process. Some of which can reach their dehydration goal by once, like chemical-industrial items, but there are also other items need to use a dyeing machine for a thorough dehydration to reach the effect of dehydration.



Process requirements

A dehydration system comprises of inverter control cabinet, dehydration bucket, motor, drain pipe etc. A motor is connected to the bottom of dehydration bucket to drive the bucket rotate in the dehydration process. A dehydration machine makes dehydrated articles generate centrifugal force, and water of the articles will be thrown off by dehydration force through holes in the dehydration machine, and then ejected by the drain pipe to reach dehydration goal.

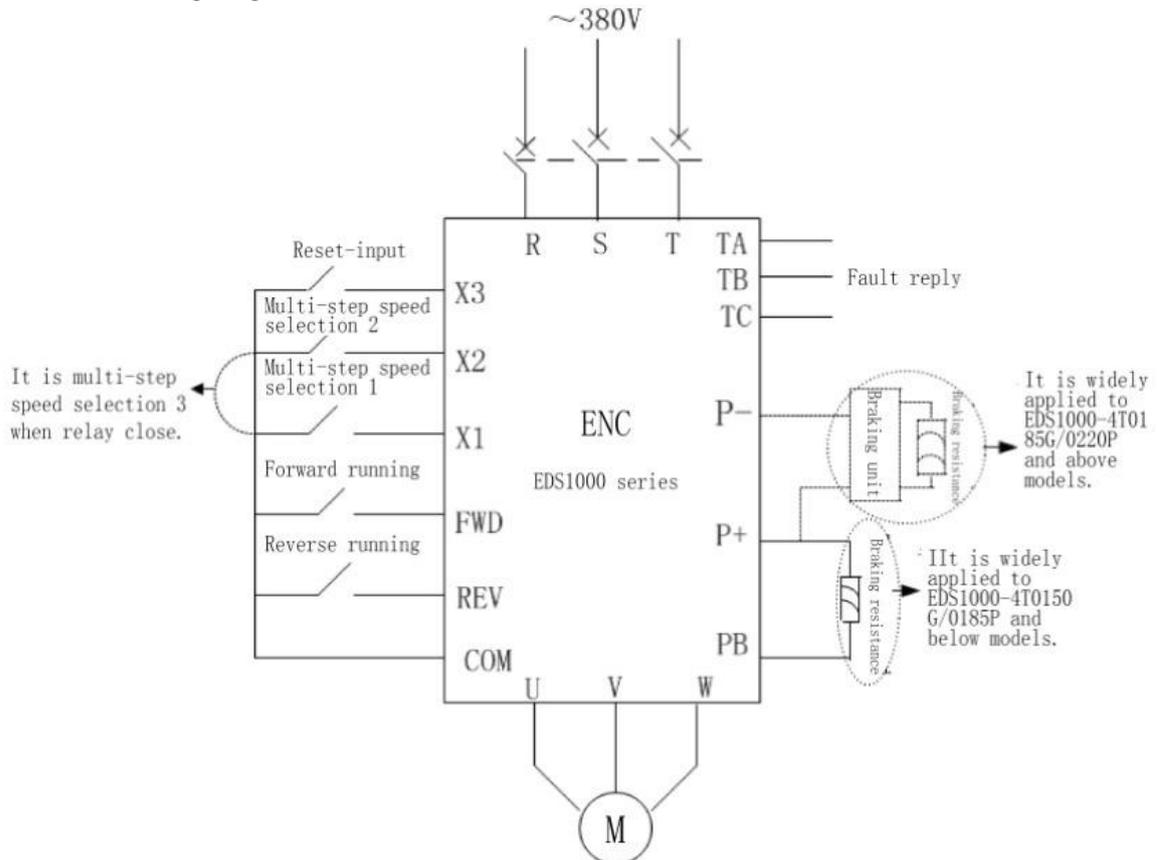
This article mainly introduces ENC EDS1000 series on dyeing and finishing industry dehydrator application solution. Fig.1 & Fig.2 record its work state.

EDS1000 series inverter application

1. A dyeing and finishing dehydrator is a typical low damping large inertia load machine, over-current should be overcome in acceleration and over-voltage in deceleration.
2. It requires large torque at low frequency and start forcefully to avoid frequency over-current and over-voltage errors. Owing to the large instantaneous current and voltage, super over-load and over-voltage ability is required for smooth and steady stop.
3. During high-speed dehydration, the motor shouldn't lose its speed to cause over-voltage error, which may reduce production efficiency.
4. It can work for a long time in wet and pollution controlled environment. Have wide speed adjustable range.
5. Parameters setting:

Setting function code parameter	value	Setting parameter value effect
F0.01	10.00	Digital frequency given, as the speed of taking fabric in or out
F0.02	1	Start-stop of external forward-reverse running terminal
F0.08	045.0	Acceleration time (s)
F0.09	045.0	Deceleration time (s)
F0.10	80	The highest upper limit frequency
F0.14	04.0	Torque boost, increase start torque at low frequency
F1.05	2	Deceleration & DC braking, stop quickly and stably
F1.06	2.50	
F1.07	1.5	
F1.08	8	
F2.04	60	Improve motor speed compensation
F2.30	40.00	Multi-step frequency 1
F2.31	55.00	Multi-step frequency 2
F2.32	68.00	Multi-step frequency 3
F5.00	1	Multi-step frequency control terminal X1 & X2
F5.01	2	
F5.02	11	External fault resetting
F9.05	180	Improve the capacity of overcurrent and overload
F9.09	180	

6. Electric wiring diagram



当继电器同时闭合为多段速选择 3: It is multi-step speed selection 3 when relay close.

复位输入: Reset-input

多段速选择 2: Multi-step speed selection 2

多段速选择 1: Multi-step speed selection 1

正转运行 Forward running 反转运行 Reverse running

EDS1000 系: EDS1000 series

故障继电器: Fault reply

制动单元: Braking unit 刹车电阻: Braking resistance

It is widely applied to EDS1000-4T0185G/0220P and above models.

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