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DC MOTOR CONTROLLER

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Jinan Keya Electronic Science and Technology Co., Ltd, founded in 2001, has been trading in the research & development, manufacturing and sales of DC motor and control system for years. The company owns technology, talent, management and other advantages, carry on effectively integrate, it keeps a stable, rapid development. The company has adopted ISO9001:2008 quality management system certification, products through the CE certification. And sold to America, Europe, Southeast Asia and other regions.

The company based on controller product's research and development manufacturing, we are dedicated to supply a set of the perfect solution. Pay attention to environmental protection quality and technology research and development. All kinds of products have high performance. Low voltage high power dc controller and low voltage 4Q reversible controller is leading in our country. We have the technical patents of these products. Companies adhering to the 'Quality to survive, technology for future' as guiding ideology, we take "serving for customers" as Service concept. Pursues excellence and brave in innovation. We are ready to share mutual benefit and a bright future with our users and friends, make 'KEYA' to drive industry's first brand.

Main product: intelligent double brush-less dc servo controller, high power 4Q reversible dc controller, high power dc motor controller, brush-less dc motor controller and so on, these products widely used in AGV automatic cruise system, logistic storage system, intelligent control system, welding equipment, packing equipment, electric forklift, rail flat car and so on.





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220V PWM DC MOTOR CONTROLLER

Model	Input Volt	Output Volt	Rated Amp	Max Amp	Control Mode	Weight kg	Dimension mm
220DP04BL	220VAC	220VDC	2A	4A	Potentiometer	0.6	132*100*50
220DP06BL	220VAC	220VDC	3A	6A	Potentiometer	0.8	150*115*68
220DP08BL	220VAC	220VDC	4A	8A	Potentiometer	0.8	150*115*68
220DP10BL	220VAC	220VDC	5A	10A	Potentiometer	0.8	150*115*68
220DP13BL	220VAC	220VDC	7A	13A	Potentiometer	0.86	150*115*68

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Product performance

1. The mechanical characteristics of hardness, static error rate of 1%.
2. Wide speed-regulating range (0 - max).
3. Rapid dynamic response process.
4. Automatic smooth transition process during acceleration or deceleration.
5. Better excavator characteristics, can limit overload current to set value current.
6. High reliability and compact structure, high performance-price ratio.

Characteristics of products

1. Speed regulation ratio 1:80 (Open loop)
2. Large moment at low speed operation
3. PWM pulse width modulation technology, low noise
4. Double closed loop PI regulation
5. Current settings, current limiting protection, over-current warning.
6. Setting function of soft starting and soft stop.
7. With fast response and good following.
8. Function of enabling block control.
9. Standard signal interface (After fitting signal isolator, the device can adapt to various D \ A signal, 0-5 V or 0-10 V or 4-20 mA)
10. Short current function.

Main Parameters:

1. Input Voltage: AC 110/220±10%
2. Output Voltage: DC 0~110/220V or other voltage can be set.
3. Output Current: DC 4A/6A/8A/10A/13A



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4. Rated Exciting Voltage/Current: DC 220V (110V) / 3A
5. Given signal model: potentiometer
6. The environment temperature: -10°C~+60°C
7. The environment Humidity: ≤ 80 RH relative humidity (Non-condensing)

SCR DC MOTOR CONTROLLER

Model	Input Volt	Output Volt	Rated Amp	Max Amp	Control Mode	Reversing	Weight Dimension
115/230DR10BL-01	115/230V AC	115/230V DC	5A	10A	Potentiometer	NO	0.5KG 116*103*48
115/230RT10BL	115/230V AC	115/230V DC	5A	10A	Potentiometer 0-10V	YES	1.05KG 134.5*123*83
220DR15BL	220VAC	220VDC	7A	15A	Potentiometer	NO	1.25KG 152 *120 * 63
220DR20BL	220VAC	220VDC	10A	20A	Potentiometer	NO	1.25KG 152 *120 * 63
220DR20AL	220VAC	220VDC	10A	20A	Potentiometer 0-10V	YES	1.3kg 154 *135 * 85
220DR35AL	220VAC	220VDC	20A	35A	Potentiometer 0-10V	YES	1.3kg 154 *135 * 85

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Performance index:

- Main power (VAC) ----- 110/220±10%
Frequency (Hz) ----- 50/60
Voltage range of output armature (VDC) ----- 0-90/110/180/220
Voltage range of output magnetic field (VDC) ----- 100/200
Current range of output armature (A) ----- 10 20 35
Current range of output magnetic field (A) ----- 5
Given signalling mode (VDC) ----- 0-5 0-10 Potentiometer
Enabling control mode ----- Switch Signal
Adjustment range of speed acceleration time (s) ----- 0-10
Adjustment range of commutation range (s) ----- 0-10
Speed regulation ratio (open loop)----- 70: 1
Precision of rotational speed feedback of armature (%) ----- ±1
IR moment compensation range (VDC@ full load) ----- 0-80



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Change of voltage with linearity (% basic speed)-----±1

Temperature range of application environment (°C) ----- -10+50

Protection range from overcurrent-----0-set value

Protection mode from overcurrent -----limiting

Product Features:

Selection of expansive force model and speed model

SCR chopping control

SMT technology Small volume

Standard signal interface

Double closed loop PI regulation

Large moment at low speed operation

High speed ratio of open loop 100: 1

Fine excavator properties

Automatic limiting of overcurrent

Setting of higher and lower speed limit

Powerful anti-disturbing capability

Automatic and smooth transition between speed acceleration and lowering

Fine following performance; immediate dynamic response

Enabling control

4Q BRAKING DC MOTOR CONTROLLER

Model	Input Volt	Output Volt	Rated Amp	Max Amp	Control Mode	Reversing	Weight Dimension
DC24RT10BL	24VDC	24VDC	5A	10A	Potentiometer 0-10V	YES	0.38KG 127*34*75
DC24RT15BL	24VDC	24VDC	8A	15A	Potentiometer 0-10V	YES	0.38KG 127*34*75
DC24RT30BL	24VDC	24VDC	15A	30A	Potentiometer 0-10V	YES	0.9KG 127*97*48
DC24RT50BL	24VDC	24VDC	30A	50A	Potentiometer 0-10V	YES	0.9KG 135*135*70
DC48RT50BL-PC1	48VDC	48VDC	50A	100A	Potentiometer 0-10V/PWM	YES	0.5KG 115*150*35
DC24RT100BL	24VDC	24VDC	70A	100A	Potentiometer 0-10V	YES	1.5KG 210*115*50





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DC-4Q Braking-Reversible, PWM series DC Drive, has quickly dynamic response, smooth operating, works well and perfect functions.

PULSE WIDTH MODULATION

Motor runs quieter, with greater efficiency and less maintenance, longer life.

FOUR QUADRANT REGENERATIVE OPERATION

REGENERATIVE BRAKING

No contactors required. No electromechanical components to overheat or wear out. ENABLE / BRAKE / DIRECTION TERMINALS

Choose a function by simply opening or closing a dry contact or through an open collector transistor.

STATUS LEDs

Power and Fault LEDs provide a visual status of the drive.

Forward and reverse can be set separately

Output current can be set

Braking current can be set

Torque compensation function

Standard analog control mode:

Analog:0-5V or potentiometer

OVER TEMPERATURE PROTECTION

Drive will fold the output power back to prevent from overheating. Drive will fault if it still remains too hot.

Technical parameters:

- * Soft start time: 0.2—20S
- * Soft stop time: 0.2—20S
- * Analog control signal: 0—5V (wired to earth ground)
- * Signal input impedance $\geq 200K$
- * Speed accuracy: 1%
- * Speed adjustable range : 100:1
- * Speed Ratio: 1:80
- * Ambient temperature: 0°C- 50°C
- * Relative Humidity: Below dew point

24V PWM DC MOTOR CONTROLLER

Model	Input Volt	Output Volt	Rated Amp	Max Amp	Control Mode	Reversing	Weight Dimension
DC24/48RT10BL	24VDC	24VDC	5A	10A	Potentiometer	YES	0.1KG 75*75*15
DC24/20BL-4Q02	24VDC	24VDC	10A	20A	Potentiometer 0-10V	YES	0.25KG 112*76*33
DC12/48RT50BL-XW	24VDC	24VDC	20A	40A	Potentiometer	YES	0.3KG 123* 85* 42
DC24DP50BL	24VDC	24VDC	25A	50A	Potentiometer	NO	1.7KG 150*115*60



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DC24DP75BL	24VDC	24VDC	40A	75A	Potentiometer	NO	1.7KG 150*115*60
DC12/48RT100BL -XW	24VDC	24VDC	70A	100A	Potentiometer	YES	0.9KG 210 * 115 * 63
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Small size.

Wide voltage input.

Multiple control modes: Potentiometer, analog control, pulse-width control

Independent forward & backward control.

Independent forward &backward limit

Brake control.

Maximum current limit.

Protections started under abnormal conditions: Over-current, over-heat, over-voltage, under-voltage, short circuit, etc.

LED fault alarm status indicator, fault alarm output.

IV. Performance index:

1. Supply voltage: 10—55VDC.
2. Continue working current:25A
3. High instant current: 50A-5S.
4. Working frequency: 2KHZ.
5. Out+5VDC Power supply (can be supplied to potentiometer): 5V DC 20mA
6. Input range of analog quantity: 0-- 5VDC
7. Soft starting time: 0-5S
8. Soft stopping time: 0-5S
9. Pulse input frequency: 250Hz
10. Input range of duty ratio: 20%-- 100%
11. Digital quantity output interface: Maximum load capacity is 50v 1A.
12. Temperature protection status: stops output at 80°C
13. Operating temperature:-40°C-- +60°C
14. Environment humidity: relative humidity≤80RH.

24V BRUSHLESS DC MOTOR CONTROLLER

Model	Input Volt	Output Volt	Rated Amp	Max Amp	Control Mode	Reversing	Weight Dimension
24/48DPW05BL	24VDC	24VDC	3A	5A	Potentiometer 0-5V	YES	0.2KG 112*24*73
10/50DPW15BL	24VDC	24VDC	7A	15A	Potentiometer 0-5V	YES	0.3KG 122* 72* 35
10/50DPW30BL	24VDC	24VDC	15A	30A	Potentiometer	YES	0.6KG



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					0-5V		127*48*92
DC24DPW50BL -PC1	24VDC	24VDC	30A	50A	Potentiometer 0-5V/CAN/RS232	YES	0.6KG 148*117*40
DC48DPW50BL -PC2	48VDC	48VDC	30A	50A	Dual Channel Potentiometer 0-5V/CAN/RS232	YES	0.6KG 148*117*40

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I: Features:

This product has three manners of working: speed control, current control and open-loop control. Control functions of braking, direction, enable, first-magnification, dual speed setting, etc. can be realized.

Maximum current limit can be adjusted.

0-5V signal control mode for external potentiometer, interior potentiometer and external analog quantity and soft start function.

Time setting function for soft start.

Overcurrent protection function and locked-rotor protection.

High-speed control, which has a full speed of one pole pair motor can reach 120000RPM.

Details refer to relevant contents.

II: Performance Indexes:

Power supply voltage VCC: 10—50VDC (error <5% is better).

Maximum output voltage: $V_{out}=0.95 \text{ VCC}$.

Maximum output current: 5A15A30A.

Switching frequency: 39KHz.

Maximum speed (one pole pair motor): 120, 000rpm.

Hall power supply voltage range: 7—12VDC Maximum output current is 30mA.

Locked-rotor protection time: 1.5 seconds.

Ambient temperature: -10-- +60°C.

Ambient humidity: relative humidity $\leq 80\text{RH}$.

Analog quantity output: 0-- +5VDC.

Soft start time: 20ms—10S.

Regulation voltage of external potentiometer: 0--+5V potentiometer (10KΩ/2W).



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220V BRUSHLESS DC MOTOR CONTROLLER

Model	Input Volt	Output Volt	Rated Amp	Max Amp	Control Mode	Reversing	Weight Dimension
220DPW10BL	220VAC	220VDC	5A	10A	Potentiometer	yes	0.8kg 165*125*50
220DPW10AL-S X	220VAC	220VDC	5A	10A	Potentiometer 0-10V,speed Display	yes	0.8kg 170*130*65
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II. Product feature

Suitable for AC110 or AC220 power supply with the wide input range and is user-friendly.

Meet all types of high voltage brushless electric machine and all power below 750w.

Adopting open loop or close loop control mode can realize low speed high torque operation by Hall speed measurement.

Three control mode: internal potentiometer given signal, external potentiometer and external frequency control signal.

Have enabled, reversing, braking function.

Providing soft braking, soft starting function to improve reliability

Giving alarm indication in case of wrong connection of brushless motor phase sequence and Hall signal

Overload, blocking and over-current protection function

Input signal gain can be adjusted to meet brushless electric machine of different revolving speed requirements.

2 group output frequency (ENC+,ENC-) can connect controller to count speed measurement.

Plug type terminal is convenient to maintain system.

III. Performance parameter

Input power range: AC90V-AC240V

External potentiometer control: adjustable range 0-5v

External impulse frequency: 760HZ~200kHz

Soft starting time: 0S---230S

Soft stopping time: 0S---220S(note: if signal brakes, it's valid.)

Environment temperature: -10°C -+60°C

Environment humidity: relative humidity≤65RH(no condensation)

Insulation and voltage resistance: 1500V AC

Insulation resistance: >500MΩ



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Leakage current: ≤0.2mA

HIGH CURRENT PWM DC CONTROLLER

Model	Rated Volt	Current 1 Hour	Max Amp	Min Volt	Max Volt	Weight Dimension
DC24DP200BL-R01	24VDC	70A	200A	19V	36V	2.3KG 152*160*78
DC24DP360BL-R01	24VDC	120A	360A	19V	36V	3KG 152*210*78
DC24DP600BL-R01	24VDC	200A	600A	19V	36V	4.2KG 152*290*78
DC24DP800BL-R01	24VDC	250A	800A	19V	36V	4.2KG 152*290*78
DC48DP200BL-R01	48VDC	70A	200A	28V	44V	2.3KG 152*160*78
DC48DP360BL-R01	48VDC	120A	360A	28V	44V	3KG 152*210*78
DC48DP600BL-R01	48VDC	200A	600A	36V	60V	4.2KG 152*290*78
DC48DP800BL-R01	48VDC	250A	800A	36V	60V	4.2KG 152*290*78
DC60DP200BL-R01	60VDC	70A	200A	45V	75V	2.3KG 152*160*78
DC60DP360BL-R01	60VDC	120A	360A	45V	75V	3KG 152*210*78
DC60DP600BL-R01	60VDC	200A	600A	36V	90V	4.2KG 152*290*78
DC60DP800BL-R01	60VDC	250A	800A	36V	90V	4.2KG 152*290*78
DC72DP200BL-R01	72VDC	70A	200A	36V	90V	2.3KG 152*160*78
DC72DP360BL-R01	72VDC	120A	360A	36V	90V	3KG 152*210*78
DC72DP600BL-R01	72VDC	200A	600A	36V	90V	4.2KG 152*290*78
DC72DP800BL-R01	72VDC	250A	800A	36V	90V	4.2KG 152*290*78



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1. PWM pulse width modulation

2. Speed regulation ratio: 1:60

3. Speed regulation mode:

Model suffix with R01 means speed regulation mode of:

Potentiometer (10KΩ/2W)/signal isolator (0-5V,0-10V,4-20mA)

Model suffix with B01 means speed regulation mode of:

Foot accelerator/the Hall handle

4. Input impedance: $\geq 10K\Omega$

5. Working voltage range: $\pm 25\%$ of nominal voltage

6. Soft start time: 1-5 S

7. Ambient temperature: -10°C~+60°C

8. Ambient humidity: relative humidity $\leq 80\text{RH}$.(non condensing)

9. Current restriction protection

10. Remote start-stop can be realized

11. Applied for permanent magnet, separate excitation and series-excited motor

12. Thermal protection for controller cutting off output in case of overheating for controller to effectively protect controller and traveling crane safety.

13. Able to directly judge source of fault through luminous diode under working condition.

14. Stepless speed regulating and anti-phase braking control

15. Built-in precharging resistor and polarity protection diode provide convenience for installation and use

16. Under voltage and over voltage protection effectively protects storage battery and all components of controller assembly

17. 90 seconds no acceleration signal input can automatically cut off the power of contactor magnet coil to save the energy of storage battery.

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