

**Waterproof · Corrosion Proof · Vibration Proof**  
The Leader in Performance and Durability

### DCX: Performance Controllers for Shunt Wound DC Motors

- \*Programmable
- \*All MOSFET design
- \*Throttles:
  - ~0-5K ohms
  - ~5K-0 ohms
  - ~ITS



Sizes for 1204 & 1205 footprint

DCX MODEL #	DCX300	DCX400	DCX500	DCX600
Battery Voltage	24-48V	24-48V	24-48V	24-48V
Current Limit	300A	400A	500A	600A
2 Minute Rating	300A	400A	500A	600A
5 Minute Rating	150A	210A	300A	350A
60 Minute Rating	135A	160A	250A	250A
Voltage Drop @100Amp	<0.30V	<0.10V	<0.09V	<0.08V

### DCX Features:

- Reverse does not require changeover relay
- 30 Amp Field Coil
- Configurations Available in DCS, PDS, PD+, G-19, IQ
- 2Amp Contactor Drive
- Reverse Horn Output

### AXE: Performance Controllers for Series Wound + Perm-Mag DC Motors

- \*Programmable
- \*ALL MOSFET design
- \*Throttles:
  - ~0-5K ohms
  - ~5K-0 ohms
  - ~0-1K ohms
  - ~ITS



Sizes for 1204 & 1205 footprint

AXE MODEL #	2434	2444	4834	4844	4845	4855	4865	7234	7245
Battery Voltage	12-24V	12-24V	24-48V	24-48V	24-48V	24-48V	24-48V	24-72V	24-72V
Current Limit	300A	400A	300A	400A	400A	500A	650A	300A	450A
2 Minute Rating	300A	400A	300A	400A	400A	500A	650A	300A	450A
5 Minute Rating	200A	350A	200A	300A	300A	350A	400A	200A	350A
60 Minute Rating	135A	200A	135A	150A	175A	250A	250A	125A	200A
Voltage Drop @100Amp	<0.30V	<0.10V	<0.30V	<0.13V	<0.18V	<0.09V	<0.08V	<0.16V	<0.11V

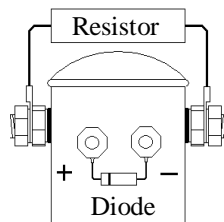
\* Plug Brake versions available for most all models

## To properly install your Alltrax controller

### Battery / Motor Cable Sizes

Controller	Min wire AWG Standard Duty	Min Wire AWG Heavy Duty
300 Amp	OEM – 6 AWG	4 AWG
400 Amp	4 AWG	4 AWG
450 Amp	4 AWG	2 AWG
500 Amp	2 AWG	2 AWG
600 Amp	2 AWG	1/0 AWG
650 Amp	2 AWG	1/0 to 2/0 AWG

### Resistor & Diode Mounting



White Band( Positive)

### Pre-Charge Resistor Values

Battery Pack Voltage	Resistor Value
12V-36V	250 Ohm 10W
48V	470 Ohm 10W
72V	1000 Ohm 10W

### Protection Diodes across coils

Contacting Size	Diode	Diode Current
70-200Amp Solenoid	1N4004	1A
400Amp Solenoid	1N5408	3A

### Forward/Reverse Switch Sizing

Controller Amperage	F/R Size
400A or less	Stock/HD
450A or more	Heavy Duty



### Fuse Values ANN or ANL type



Controller Amperage	Fuse Rating
400A or less	250A
450A or more	400A

## Contactors (Solenoids)

**Standard Duty**— Flat lands with speed and torque moderate performance expectations



Stock 70 AMP  
Used with OEM Stock Controllers.  
**DO NOT Use with Alltrax Controller**



Stock 100 AMP  
Use with Stock Controllers 300 AMPS and below  
[ Stock F&R Switch ]

**Heavy Duty**— Maximum performance, high speed, maximum torque, pulling loads, hilly terrain or Hunting Buggies.



Performance 200 AMP (600amp Inrush) Use with 300 and 400 AMP Controllers  
[ HD F&R Switch ]



Heavy Duty 200 AMP (800A surge) Use with 300 to 500 AMP Controllers  
[ HD F&R Switch ]



Heavy Duty 400 AMP (1000A surge) Use with 500 and 600 AMP Controllers  
[ HD F&R Switch ]

**Note: Incorrect contactor can cause controller failure.**