

D&D Motor Systems, Inc.

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INTERACTIVE
WEBSITE TOOL !

www.ddmotorsystems.com

Choose Motor/Controller

Use our Motor/Controller
Selection Guide to locate a motor
based on your performance needs.

Performance Controllers for Shunt Wound DC Motors

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



Sizes for 1204 & 1205 footprint

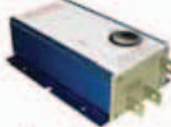
REGEN MODEL #	300	400	500	600
Battery Voltage	24-48V	24-48V	24-48V	24-48V
Current Limit	300A	400A	500A	600A
2 Minute Rating	300A	400A	500A	600A
5 Minute Rating	150A	210A	300A	350A
60 Minute Rating	135A	160A	250A	250A
Voltage Drop @100Amp	<0.30V	<0.10V	<0.09V	<0.08V

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

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

SERIES MODEL #	300	400	400L	500	650	300-72V	450-72V
Battery Voltage	24-48V	24-48V	24-48V	24-48V	24-48V	24-72V	24-72V
Current Limit	300A	400A	400A	500A	650A	300A	450A
2 Minute Rating	300A	400A	400A	500A	650A	300A	450A
5 Minute Rating	200A	300A	300A	350A	400A	200A	350A
60 Minute Rating	135A	150A	175A	250A	250A	125A	200A
Voltage Drop @100Amp	<0.30V	<0.13V	<0.18V	<0.09V	<0.08V	<0.16V	<0.11V

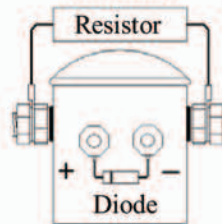
* Plug Brake versions available for most all models

To properly install your D&D 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

Contactors Size	Diode	Diode Current
Stock OEM 70-100Amp	1N4004	1A
200A and up contactors	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 and slight or moderate performance expectations



Stock 70 AMP
Used with Stock
Controllers.
**DO NOT Use with
D&D 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
Use with 300 and 400
AMP Controllers
[HD F&R Switch]



Heavy Duty 400 AMP
Use with 500 and 600
AMP Controllers
[HD F&R Switch]

Note: Incorrect contactor can cause controller failure.