

Data Sheet

TerraVac[™] DH200

High Voltage, Single Pole, Single Throw, Normally Open Contactor

DC Contactor



Performance Data

Part Number	DH200
Contact Type	SPST-NO
Contact Continuous Current	225+ A DC (see Note 1 below)
Make/Break Current at Various Voltages	See Table 1
Contact Rating (operating voltage)	12-900V DC
Maximum switching current	2000A, 5msec (320V DC), 1 cycle
Contact Voltage Drop	Max. 80mV at 100A
Close (includes bouncing time), Max.	Max. 20ms
Contact Bouncing (on close)	Max. 7ms
Release Time (including arcing)	Max. 12ms
Vibration, Sinusoidal (10~2000Hz peak)	≤20g
Shock (11ms, 1/2 sine, peak, operating)	≤20g
Operating Ambient Temp. Range	-40°F to +185°F (-40°C to +85°C)
Storage Ambient Temp. Range	-55°F to +248°F (-55°C to +120°C
Insulation Resistance	Min. 100M Ω @ 500V,DC
Dielectric Strength (between insulated electric parts)	2200V,AC 50/60Hz (1 minute)
Electrical Life	See Table 1 (on next page)
Mechanical Life	300,000 Operations
Optional Aux. Type	1 N/O (Normally Open)
Optional Aux. Contact Load Range	2A at 24V,DC / 3A at 125V,AC
Optional Aux. Contact Min. Load	100mA @ 12V
Mounted Direction	Bottom Mount (any direction)
Weight	1.21 lbs. (0.55kg)

<u>Note 1:</u>

Contact Continuous Current vs. AWG and Temp Rise @ 24 Deg C Ambient 230A,DC - 1 x 4/0 Cable – 66 Deg C 255A,DC – 1 x 250 MCM Cable – 70 Deg C 310A,DC – 1 x 350 MCM Cable – 68 Deg C

Features

- Small, light weight, low cost sealed contactor with a current rating up to 500VDC
- Switch DC loads at both low and high voltage from 12V to 900V DC
- Coil power is very low, built-in coil, economizer is only 1.7W
- Applications include:
 - Electric control systems
 - Communications power supply
 - Solar/Photovoltaic equipment
 - Heavy truck
 - Emergency vehicles
 - Marine charging systems
 - Railroad and Light rail
 - Mining operations
 - Uninterruptible power supplies (UPS)

Standards: UL Approval (File E145623) CCC CE Mark ISO9001:2008



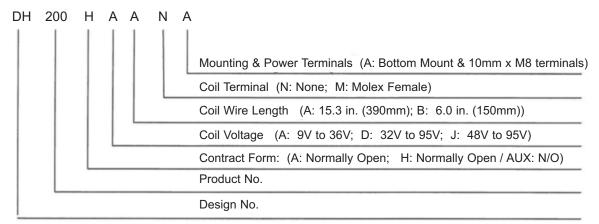


Coil Operating Voltage				
Voltage (will operate)	9-36V DC	32-95V DC		
Voltage (max.)	36V DC	95V DC		
Pickup (close) Voltage Max.	9V DC	32V DC		
Hold Voltage (Min.)	7.5V DC	22V DC		
Dropout (open) Voltage (Min.)	6V DC	18V DC		
Inrush Current (Max.)	3.8A	1.3A		
Holding Current (Avg.)	0.13A@12V, 0.07A@24V	0.03A@48V		
Inrush Time (Max.)	130msec	130msec		

Coil Operating Voltage		
Voltage (will operate)	48-95V DC	
Voltage (max.)	95V DC	
Pickup (close) Voltage Max.	48V DC	
Hold Voltage (Min.)	34V DC	
Dropout (open) Voltage (Min.)	27V DC	
Inrush Current (Max.)	0.7A	
Holding Current (Avg.)	0.02A@72V	
Inrush Time (Max.)	130msec	



PART NUMBER SYSTEM:



RESISTIVE LOAD UNDER DIFFERENT VOLTAGES: Table 1: Current carry vs. Estimated Life (Cycles)

Estimated Make & Break Power Switching Rating Break Only Above 650A Make and Break below 650A 650A 24V DC 400V 270V 120V 900V 600V 100,000 24V D0 70V D 10,000 600V D(DODU DV 1,000 cycles 100 10 1 100 1,000 10,000 10

Load Current (Amps)

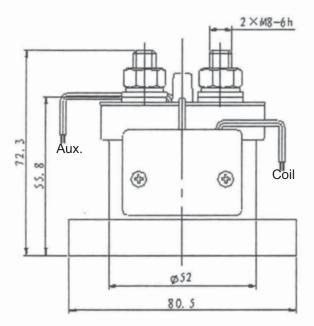
NOTE:

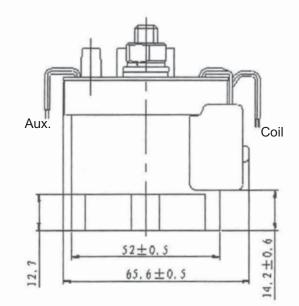
- 1. Electrical life is based on resistive loads, for resistive loads with 300µH maximum inductance.
- 2. The maximum make current is 650A to avoid contact welding.
- 3. End-of-life is defined as when the dielectric, insulation resistance or contact resistance exceeds the specification listed.

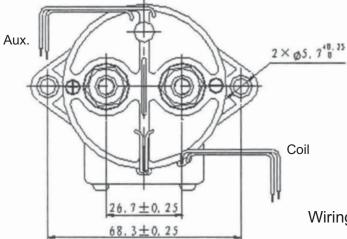


DIMENSIONS AND CIRCUIT DIAGRAM

(shown in mm)







PCB

Wiring:

Coil Conductors: Red = + CoilBlack = - Coil

Aux Contact (optional) White Conductors (N/O)



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