

DATA SHEET

DP-40003

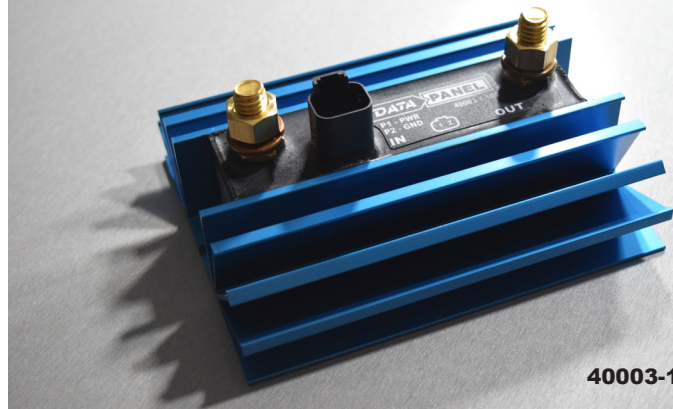
High Current Switch

Solid State Relay Battery Disconnect

100 Amp • 200 Amp

12V DC • 24V DC Systems (8...32V DC)

The High Current Switch (HCS) is a continuous duty high current device isolating vehicle loads from the battery to eliminate continuous electrical drain while in the off state. It comes in two different switching and current-carrying ratings as well as three different control connections for ease of use. Rugged and outfitted with a diagnostic power LED, the HCS simplifies cab wiring with remote mounting and light gauge wires for control. Applications include module disconnects for rescue vehicles, battery disconnects for rental fleets, and solid state relays for high current switching. This device's versatility lends well to adding electrical circuits.

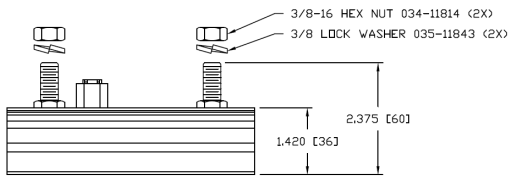
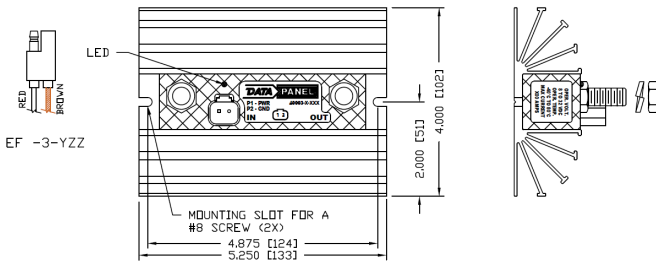


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Electrical Characteristics

PWR	OFF: OPEN ON: 8...32V DC @ 125 mA Max Reverse Battery Protected
IN to OUT	Max voltage drop: 0.350V DC @ 150 Amps Switching Time T(on): 50 mSec typical Switching Time T(off): 150 mSec typical

Operating States (LEDs)	Color	Status
Power and I/O	Green	Switch is CLOSED



40003-X-YZZ

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FORM FACTOR	AMPS	SPARE
0= NOT USED	0= NOT USED	00= NOT USED
1= DEUTSCH 2 PIN	1= 100	
2= BLUNT CUT WIRE	2= 200	
3= 2 PIN MOLDED FEMALE		
4= CUSTOM		

Mechanical Data

Housing	Blue Anodized Aluminium
Dimensions (l x w x h)	5.25 x 4.00 x 2.38 in. (133.35 x 101.60 x 60.45 mm)
Installation	Mounting Slots for #8 or M4 Screw
Weight	1.5 lbs (680 g)

Technical Data

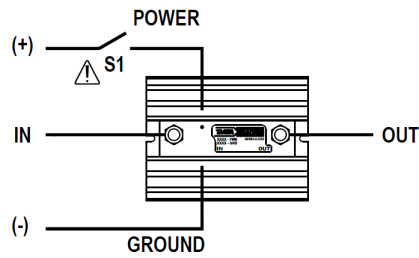
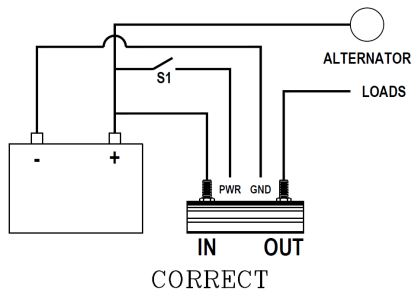
Connections: Connectors	MFG PN (Data Panel PN): DEUTSCH DT04-2P (134-1100-00602) SAE Power Connector, Molded 2 Wire (010-015) DEUTSCH DT06-2S or equivalent (134-1000-00602) Waytek PN 37120 (010-016)	
Mating Connectors	Waytek PN 37120 (010-016)	
Studs Torque	3/8-16 hex nut and lock washer 12 ft/lbs (16.3 Nm) max.	
Operating Voltage	8...32V DC	
Total I/O	Pin 1: PWR (8...32V DC) Pin 2: GND (Ground, Battery Negative)	
Total Module Current	100 Amps @ 25 °C 200 Amps @ 25 °C	Inrush: 165% at 1.0 sec.
Operating Temperature	-40...80 °C	
Storage Temperature	-40...85 °C	
Ingress Protection	IP67	User to protect PWR and GND

Test Standards and Regulation

Climatic test	Storage Temperature to IEC 60068-2-1, test Ad and to IEC 60068-2-2, test Bb Temperature Durability to IEC 60068-2-14, test Nb Humidity Soak to IEC 60068-2-27, test Cab Humidity Cycle to IEC 60068-2-30, test Db	
Mechanical test	Swept Sine Vibration to IEC 60068-2-6, test Fc Random Vibration to IEC 60068-2-64, test Fh Resonance Vibration to IEC 60068-2-6, Section 8.1 Mechanical Shock to EN 60068-2-27, test Ea Mechanical Bump to EN 60068-2-29, test Eb	
Electrical test	Electrical Tests to ISO 16750-2:2003 Vehicle Start Cycle—Brown Out to DP DSGN-3012 Power Cycle Tests Power Decay—Battery Drain to DP DSGN-3012 Power Cycle Tests Max Temperature—Max Current to JDQ 53.3, section 9	

Rev	Description	Date	Name	12 Month Warranty	Page	1 of 2	
c	DCN F568 - Correction of electrical test references	02.24.21	FSa	 A Murrelektronik Company	Date	Name	
b	DCN F568 - Addition of derating curve	02.10.21	FSa		Originator	06.12.20	TMc
Rev	Description	Date	Name		Approved	01.21.21	FSa
a	DCN F541 - Initial release	01.25.21	FSa	DP-40003_db_e_a.docx	The trademark DEUTSCH is owned by the TE Connectivity Ltd. family of companies.		

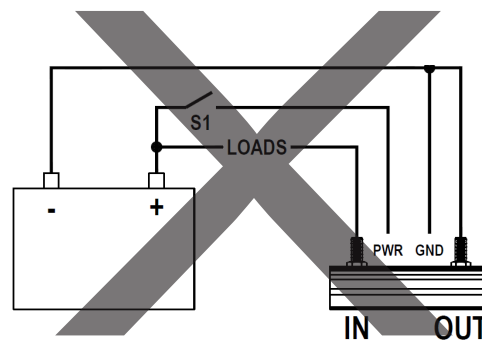
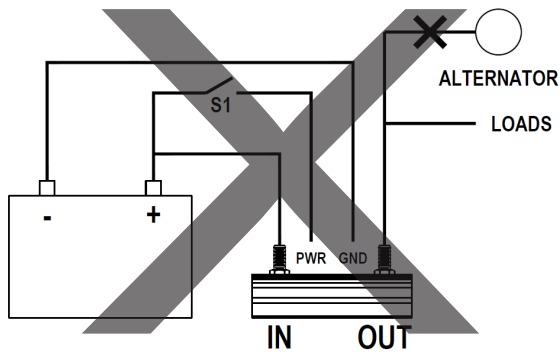
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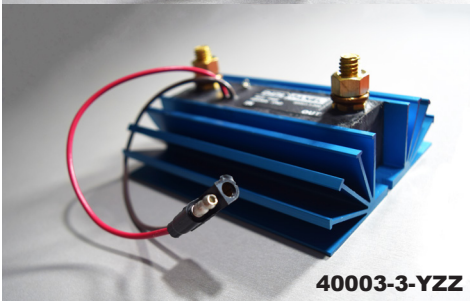
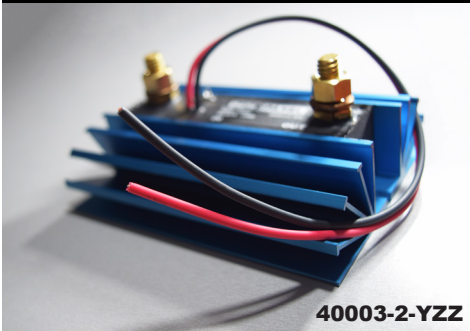
ACCEPTABLE ALTERNATIVE
S1 may be placed on the GND signal

CAUTIONS

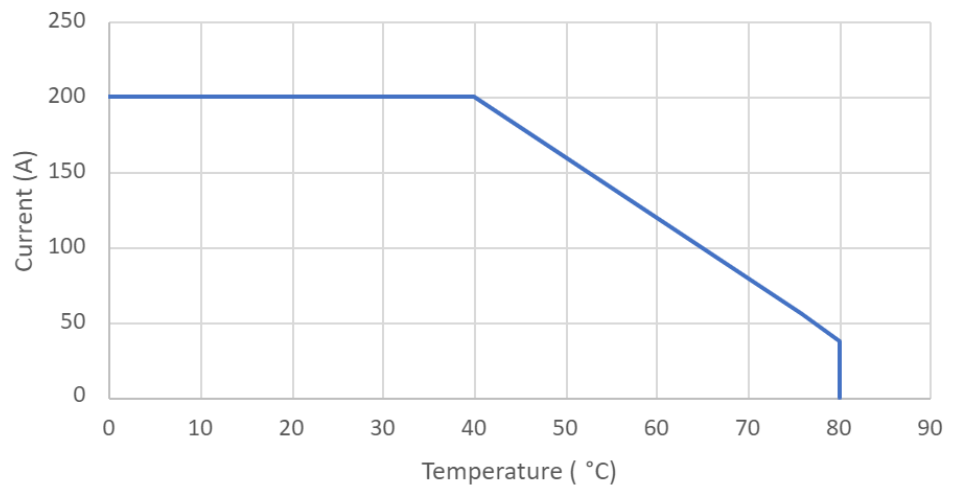
Installation	Make GROUND connection first during installation.
IN to OUT	Not Reverse Battery or Reverse Current Protected. Current must NOT flow from OUT to IN!



Connection Options



40003 HCS Derating Curve



				12 Month Warranty		Page	2 of 2
c	DCN F568 - Correction of electrical test references	02.24.21	FSa	DATA PANEL		Date	Name
b	DCN F568 - Addition of derating curve	02.10.21	FSa		A Murrelektronik Company	Originator	06.12.20
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