Data Sheet

DP-34044-3-000

xtremeDB® ENHANCED

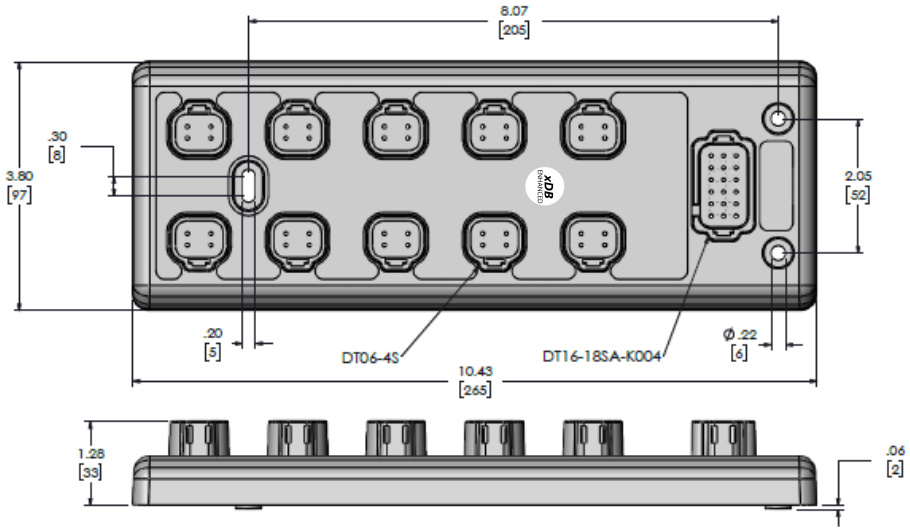
xDB16-PWM

Molded Plastic

Output Module Digital, PWM, and PWM(i)

J1939

8…32 V DC



Technical Data	
Housing	*Molded glass filled nylon*
Dimensions (l x w x h)	*3.80 x 10.43 x 1.34 in (97 x 265 x 34 mm)*
Weight	*1.5 lbs (0.68 kg)*
Installation (mounting hardware not included)	*Screw: 3 x #10 (3 x M5)* *Torque: 21 in-lbs (2.4 Nm) max.*
Mating Connectors and Accessories *Operating Voltage, Ground, and Configuration* *I/O-Ports* *DEUTSCH® size 16 Socket* *DEUTSCH® Seal Plug*	 *18 Pole Plug DT16-18SA or equivalent* *4 Pole Plug 10 x DT06-4S or equivalent* *0462-201-16141 (16 – 20 AWG)* *1062-16-0122 (14 – 18 AWG)* *114017*
Operating Voltage	*8…32 V DC protected against reverse polarity*
Operating Current	*13 Amps continuous per pin max.* *52 Amps node current max.*
Communication Interface and Baud Rate	*2 parallel J1939 ports 250kb (default) & 500kb*
Source Address	*Base Address 224d (0xE0h)* *Offset 0…15 (J0: CNFGx-A/B)*
Total Outputs	*16 (14 PWM/PWM(i) 4 Amps and 2 Digital x 10 Amps)*
Output Port Parallelling Capability	*Supported up to 20 Amps on ports 1,3 (all others 8A)*
Output Port H-Bridge Capability	*Supported up to 10 Amps on ports 1,3 (all others 4A)*
Outputs Diagnostics	*Short circuit and Overcurrent*
Operating Temperature	*-40…80 °C*
Storage Temperature	*-40…85 °C*
Protection Class	*IP67: Connector seal plugs required for unused pins.* *Sealing plugs required for unused ports* *IP68/IP69K: Using Murrelektronik MDC xtreme cables.*

Rev.	Description	Date	Name
f	DCN XXXX	10.04.24	DR
e	DCN 6022	08.28.23	AH
d	DCN F750	09.09.21	FSa
d	DCN F715	07.14.21	FSa
c	DCN F257	04.07.20	FSa
a	Initial release	02.10.17	JNa

	Date	Name
Originator	10.04.24	DR
Approved		

DATA PANEL
A Murrelektronik Company

DP-34044-3-000_db_e_ff

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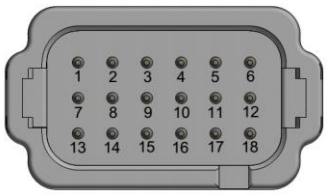
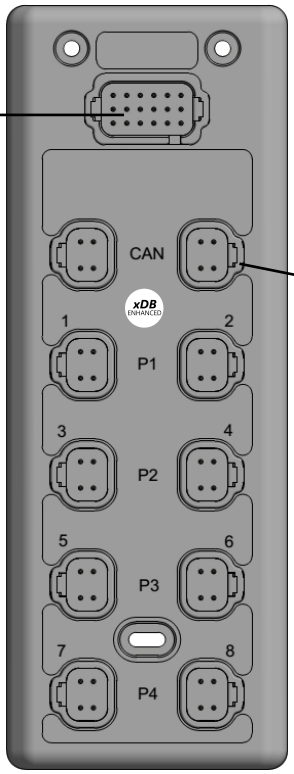
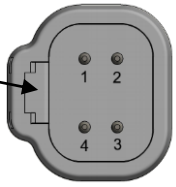
Characteristics of the Output Ports	
Outputs	*Digital Output* *Output voltage* *8…32 V DC* *Switching current* *4 Amps* *10 Amps (Port1A Pin-4)* *10 Amps (Port3A Pin-4)* ---------- *PWM & PWM(i) Current Controlled Output* *PWM frequency* *40-1100 Hz* *PWM(i) frequency* *100-700 Hz* *Switching current* *4 Amps* *Default configuration* *Digital 4 Amps*

Operating States (LEDs)	*Color*	*Status*
PWR	*Blue*	*Module and Ports power are connected*
COM & STAT	*Green*	*Module and Communication status*
FLT	*Red*	*Fault Status*
P1 – P4	*Blue*	*Bus Power (Port Output Power)*
OUT	*Yellow*	*Left LED – Output A* *Right LED – Output B*

Connector Interface







Connections J0:

1. BAUD1-A
2. CNFG1-A
3. CNFG2-A
4. CNFG3-A
5. CNFG4-A
6. BATTERY P4
7. BAUD1-B
8. CNFG1-B
9. CNFG2-B
10. CNFG3-B
11. CNFG4-B
12. GROUND B
13. BATTERY P1
14. BATTERY P2
15. BATTERY P3
16. GROUND B
17. GROUND B
18. GROUND B

Connections:

CAN Port 1 & 2
Pin 1 = POWER
Pin 2 = CAN HIGH
Pin 3 = GROUND A
Pin 4 = CAN LOW

OUTPUT Ports 1 to 8
Pin 1 = GROUND B
Pin 2 = OUTPUT B
Pin 3 = GROUND B
Pin 4 = OUTPUT A

Proper installation and operation of the xtremeDB blocks requires the use of all ground connections. This includes Ground (A) for module power and Ground (B) for port power on the 18 pin configuration and power plug.

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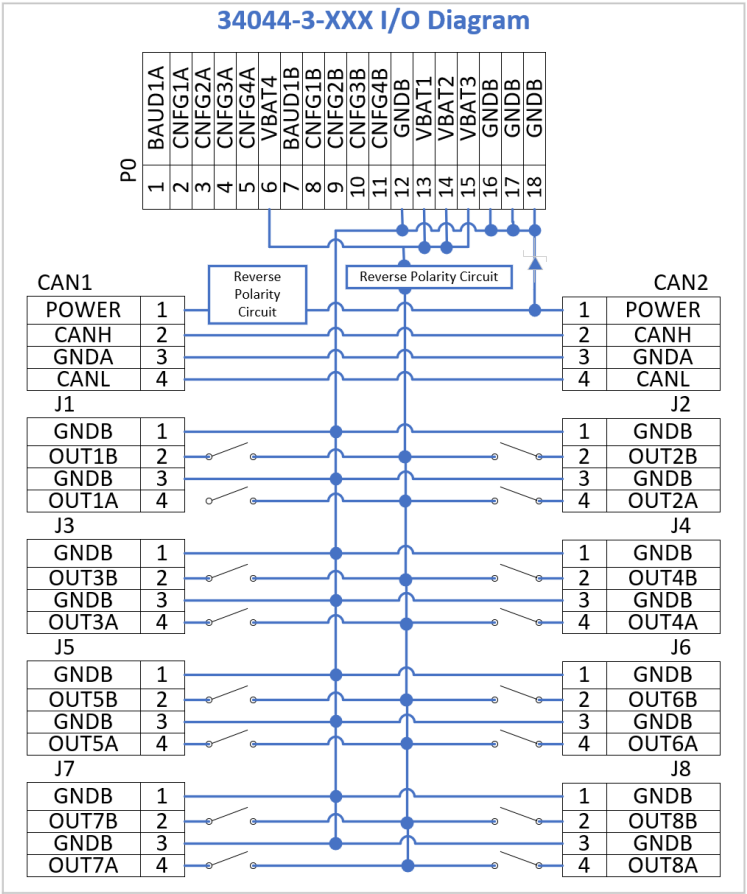
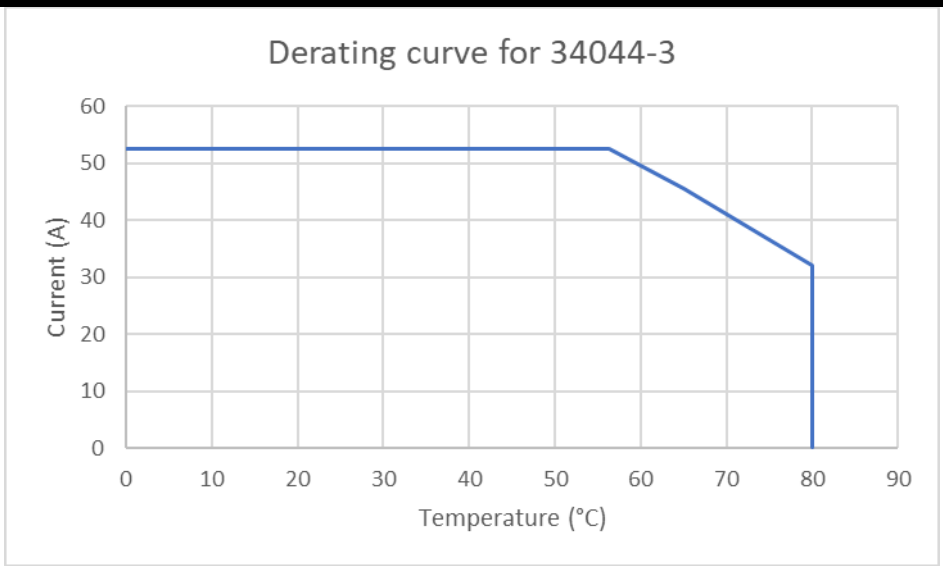
34044-3-XXX I/O Diagram



Derating Curve Max Total Current



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Test Standards and Regulation	
Climatic test	*Cold Temperature to IEC 60068-2-1:2007, test Ad* *Dry Heat to IEC 60068-2-2:2007, test Bb* *Temperature Durability to IEC 60068-2-14:2000-08, test Nb* *Temperature Shock to IEC 60068-2-14:2000-08, test Na* *Humidity Soak to IEC 60068-2-78:2001, test Cab* *Humidity Cycle to IEC 60068-2-30:2005, test Db*
Mechanical test	*Swept Sine Vibration to IEC 60068-2-6:2007, test Fc* *Random Vibration to IEC 60068-2-64:2008, test Fh* *Resonance Vibration to IEC 60068-2-6:2007, Section 8.1* *Mechanical Shock to EN 60068-2-27:2008, test Ea* *Mechanical Bump to EN 60068-2-27:2008, test Ec* *IP protection to EN 60529:2000-09, test IP67, IP68, IP69K* *Chemical Loads to ISO 16750-5:2010 Part 5: AA, BA, BC, BD, BE, CC, DB, DD*
Electrical test	*Electrical Tests to ISO 16750-2:2012* *EMC Immunity to ISO 13766-1:2018, ISO 13766-2:2018, ISO 13309:2010* *EMC Emissions to ISO 13766-1:2018, ISO 13766-2:2018, ISO 13309:2010* *Conducted Transients to ISO 13766-1:2018, ISO 13766-2:2018, ISO7637-2:2011, Annex A*
CE	*RoHS: Directive 2011/65/EU* *EMI/EMC: Directive 2014/30/EU*

Article Numbers	
DP-34044-3-000	J1939 Slave Module
DP-34044-3-200	CANopen Slave module

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