

Technical Specifications

Input:	
Normal operating input voltage range:	7V to 33V DC (12V or 24V Battery System)
Peak input voltage range:	6.5V to 36V DC (less than 10sec at 50% duty cycle repetition)
Idle state power consumption:	< 3.5mA (when system and Standby power are off condition, JU1-6 not installed))
Input Protection:	LC Pi filter, transient protection, Active OV, UV and OI protection
Input Fuse:	25A mini Blade (Automotive mini blade fuse)
Input Power Mating connector:	Plug: Molex: 39-01-2065; 2 x 3 Mini Foot Jr.

Output:	12V - 250W	24V - 210W		Line + load
	Max current	Max current	Ripple	Regulation
+3.3V:	12A max, 15A pk	8A max, 11A pk	50mv p-p max	1%
+5 V:	12A max, 15A pk	8A max, 11A pk	50mv p-p max	1%
+12 V:	12A max, 14A pk	7A max, 11A pk	100mv p-p max	1%
-12 V:	0.35A max, 0.5Apk	0.3A max, 0.5A pk	200mv p-p max	3%
5 V standby:	1.6A max, 2.5A pk	1.6A max, 2.5Apk	50mv p-p max	1%

Power supplies overall efficiency: > 93% for 12V system and 87% for 24V system

Note: Maximum output power must be de-rated to 85% to 88% for 24V system operation

Transient Response:	5uS to stead-state output voltage (with in 0.2% of Vout) for 10- 90% load change
Output Stability:	0.1% of Vout after 10 minute warm-up
Output Power Mating connector:	
Main Power output:	Mating Plug: Molex: 39-01-2245; 2 x 12 Mini ftt Jr.
Drive Power output:	Mating Plug: Molex: 39-01-2085; 2 x 4 Mini ft Jr
Power switch connector:	Mating Plug: JST: PHR-2 ; 2 pin polarized locking conn.
5V stby, PS-ON mating connector:	Mating Plug: JST: PHR-3; 3 pin polarized locking conn.

General

Shut Down Delay Time:	10 sec., 5min, 10 min, 15min, 30 min, 45min, 60min or 120min (Jumper set JU1-1,2,3)
Power-up Delay:	1.5 sec Max applies to DCX2.180.SFX.04
Start-up Voltage:	10.5V, 11.0V, 12.5V or 13.5V $\pm$ 0.25V (Jumper set JU1-4,5)
Low battery shutdown voltage:	7.5V, 9.0V, 10.5V or 12V $\pm$ 0.25V (Jumper set JU1-4,5)
Low battery detection duration:	10 Sec.
Ignition or ON/OFF input current:	<5 mA
Remote1 output source current:	0.3A OC output, Rmt ON delay 1S , 10S, or 20Sec (set by JU2-7,8)
MTBF :	400,000 hrs min.
Cooling:	Conduction on bottom surface or Forced air.
Operating Temperature Range:	-25°C to 65°C
Shock & Vibration:	Meets Mil-810 Land Vehicle specifications.

External Dimensions

DC-DC PCB Module dimensions:	180mm (D) x 96mm (w) x 20mm (H)
Weight: (PCB module only)	190 Grams, 0.4 lb

RoHS compliance: yes, Available in non-RoHS version also. Consult factory.

Note: Specifications subject to change without notice

Ordering Information

Part Number	Description
DCX1. 250-H	250W intelligent Vehicle DC-DC power supply
DCX1. 250-CH	250W intelligent Vehicle DC-DC power supply with Conformal Coating

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