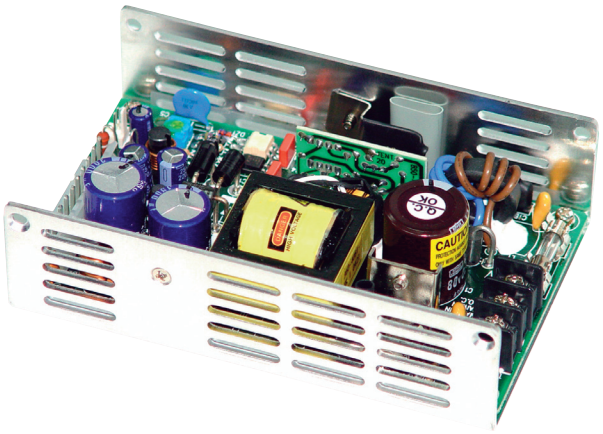
General Purpose (DC to DC)

80W DXX-808 Series



Description:

D36-8081 / D12-8081 is a 80 watts, triple outputs DC to DC switching power supply. It is designed for general purpose and motorcar purpose.

Model available:

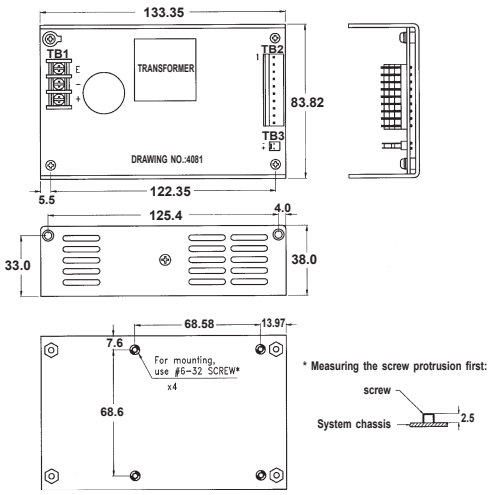
- D36-8081 for 5V/10A, 12V/1.5A, -12V/0.5A
- D12-8081 for 5V/10A, 12V/1.5A, -12V/0.5A

General Specifications:

Input voltage ..... +18VDC to +56VDC for D36-8081
+9VDC to +18VDC for D12-8081
Inrush current ..... less than 15A at nominal input cold start, 25°C
Efficiency ..... higher than 70% at rated load
Short circuit protection ..... hiccup mode
Over voltage protection ..... crowbar
Operating temperature ..... 0°C to +50°C
Cooling ..... forced air 20CFM
Storage temperature..... -20°C to +70°C
Humidity ..... 10% to 90% non-condensing
EMI radiation ..... FCC docket 20780 curve "B"
EN55022"B"
EMS ..... IEC 801-2 Level 3 8KV air discharge
EC 801-3 Level 3 3V/M, IEC 801-4 Level 3 2KV
Safety ..... meet UL 60950
CSA C22.2 No. 950
EN 60950-1

Mechanical Specifications:

For D36-8081/D12-8081



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Notes:

1. Dimensions shown in mm as left. Tolerance specified is ± 0.4mm.
2. Size: 83.82 x 133.35 x 38 (mm)
3. Packing:
   Net weight: 250 g approx. / unit
   Gross weight: 14 kg approx. / carton, 48 units / carton
   Carton size (mm): 397 (L) x 339 (W) x 327 (H)
4. Connector:
   TB1-Input : Terminal Block
   TB2-Output : using Molex 5273-10A or equivalent
   TB3-For 12VDC Fan : using Molex 5045-02 or equivalent
5. Pin Assignment:

DXX-8081			
DC output			
1	+5V	6	GND
2	+5V	7	GND
3	+5V	8	-12V
4	GND	9	+12V
5	GND	10	+12V

Output Specifications:

MODEL NO.	OUTPUT RAIL	LOAD			VOLTAGE ACCURACY	RIPPLE NOISE	LINE REG.	LOAD REG.
		MIN.	RATED	MAX.				
D36-8081	+5V	1A	10A	12A	+4.90~+5.05V	1%	±1%	±1%
	+12V	0A	1.5A	2A	+11.25~+12.75V	1%	±1%	±5%
	-12V	0A	0.5A		-11.25~-12.75V	1%	±1%	±10%
D12-8081	+5V	1A	10A	12A	+4.95~+5.05V	1%	±1%	±1%
	+12V	0A	1.5A	2A	+11.25~+12.75V	1%	±1%	±5%
	-12V	0A	0.5A		-11.25~-12.75V	1%	±1%	±10%

Notes:

1. Each output can provide up to max. load separately. Continuous staying in more than total output power is not allowed.
2. At factory, in 60% rated load condition, each output is checked to be within voltage accuracy.
3. Line regulation is defined by changing ±10% of input voltage from nominal line at rated load.
4. Load regulation is defined by changing ±40% of measured output load from 60% rated load at another output set to 60% rated load.
5. Ripple & noise is measured by using 15MHz bandwidth limited oscilloscope and terminated each output with a 0.47uF capacitor at rated load and nominal line.
6. Hold up time is measured from the end of the last charging pulse to the time which the main output drops down to low limit of main output at rated load and nominal line.
7. Efficiency is measured at rated load and nominal line.

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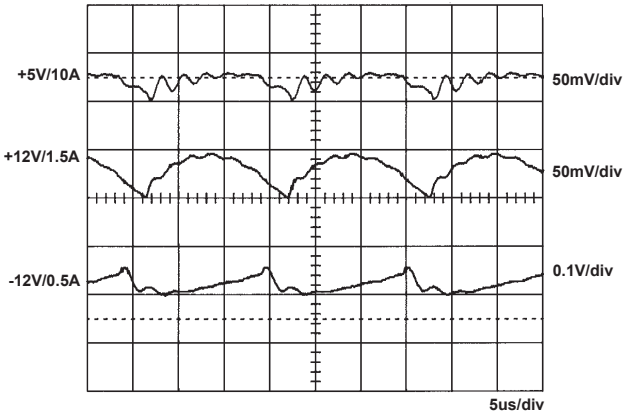
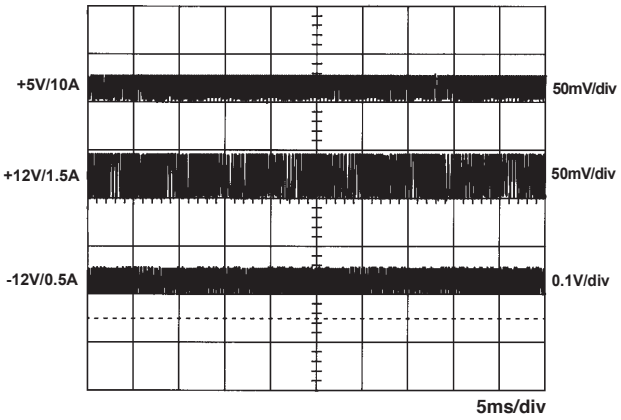
Performance for D36-8081:

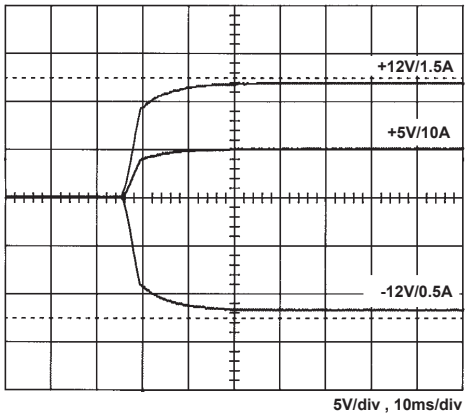
1. Switching frequency ripple



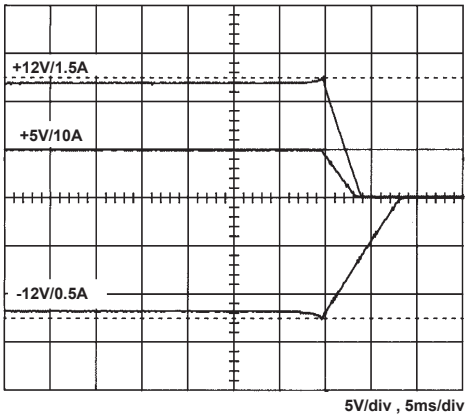
2. Line frequency ripple



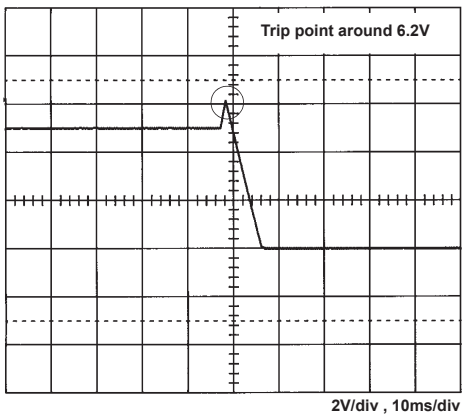
3. Output turn on wave form



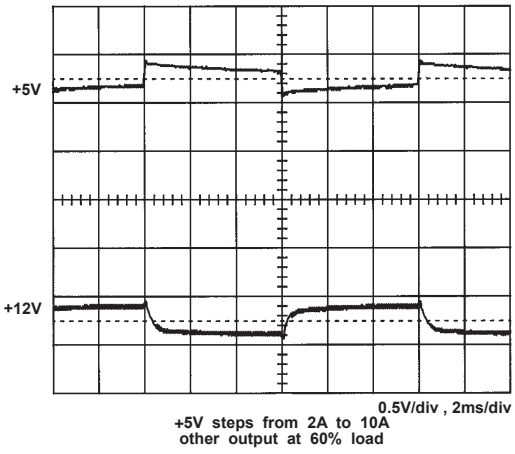
4. Output turn off wave form



5. Over voltage protection



6. +5V step response



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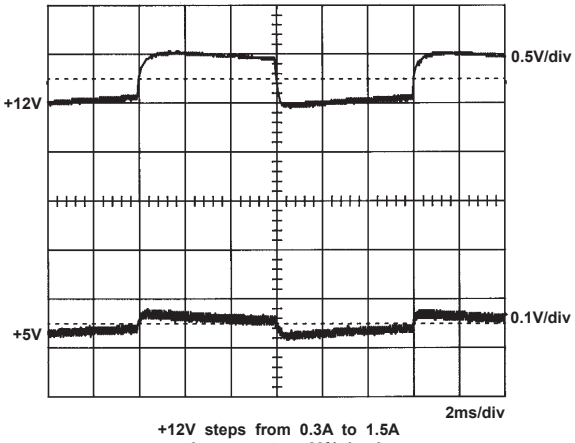
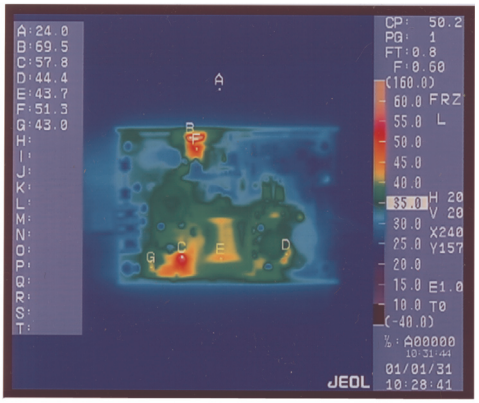
7. +12V step response



+12V steps from 0.3A to 1.5A
other output at 60% load

8. Thermal profile



Test condition :
Input : 48VDC
Output : +5V/10A, +12V/1.5A, -12V/0.5A Ambient : 24.0°C

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