



DPX15W Series

Single and Dual Output 15W Din Rail Mount
DC-DC Converters

- Single and dual output
- Meet EN55022 Class B
- Input fuse protection
- Input reverse polarity protection
- Input in-rush current protection
- Overload and short circuit protection
- Over voltage protection
- Reliable snap-on for DIN rail TS-35/7.5 or TS-35/15
- I/O-isolation 1600 VDC
- Output DC-OK indicator

Key Market Segments & Applications

Communication Systems, Industry Control Systems
Factory Automation, Semiconductor Equipment

DPX15W Features and Benefits

Features

- CE Approvals
- Wide Range Input

Benefits

- Easier System Approvals
- Less Parts to Inventory

Specifications

ITEMS	DPX15W	
Rated Input voltage range	24V nominal input 9.5-36VDC	48V nominal input 18-75VDC
Switching Frequency	400kHz, typ	
Maximum Input Current	See Table	
Input Fuse	24V input, 6A Fuse	48V input, 4A fuse
Max Output Power (W)	See Table	
Voltage Accuracy	Single/Dual $\pm 1.2\%$ / Single (3.3V) $\pm 2.0\%$	
Line Regulation (LL to HL at full load)	Single $\pm 0.2\%$ / Dual 0.5%	
Ripple and Noise	20MHz bandwidth	See table
Start up time (Nominal Vin and constant resistive load)	Power up 100mS, typ	
Remote on/off (option) (Note 2)	POSITIVE logic: ON: Open or 3-12V, OFF Short or <1.2V NEGATIVE logic: ON: Short or <1.2V, OFF Open or 3-12V	
Efficiency	See Table	
Over Current Protection, Factory Set	Maximum, 150% of full load	
Short Circuit Protection (Note 3)	Hiccup, auto recovery	
Overvoltage Protection	3.3V output 5V output 12V output 15 output	3.9V 6.2V 15V 18V
Operating Temperature	-40°C ~ 85°C (without derating) 85°C ~ 95°C (with derating - see curve)	
Storage Temperature	-40°C ~ 105°C	
Thermal Shock	MIL-STD-810F	
Relative Humidity (non condensing)	5% to 95% RH	
Transient Response (25% step load change)	250µS	
Isolation Voltage (Min)	1600Vdc	
Isolation Resistance	10 ⁹ Ω	
Isolation Capacitance (Max)	4000 pF	
MTBF BELLCORE TR-NWT-000332 (Note 1)	147,200 hrs	
Vibration	MIL-STD-810F	
Conducted and Radiated Emissions	EN55022, Class B	
Immunity	EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6 Perf. Criteria A	
Safety	CE	
Size (H x W x D)	57.6 x 24.5 x 125.0 mm	
Weight	147.5g	
Connector	Screw Terminal	
Cooling	Convection	
Front Panel LED	Output DC good	
Warranty yrs	3	

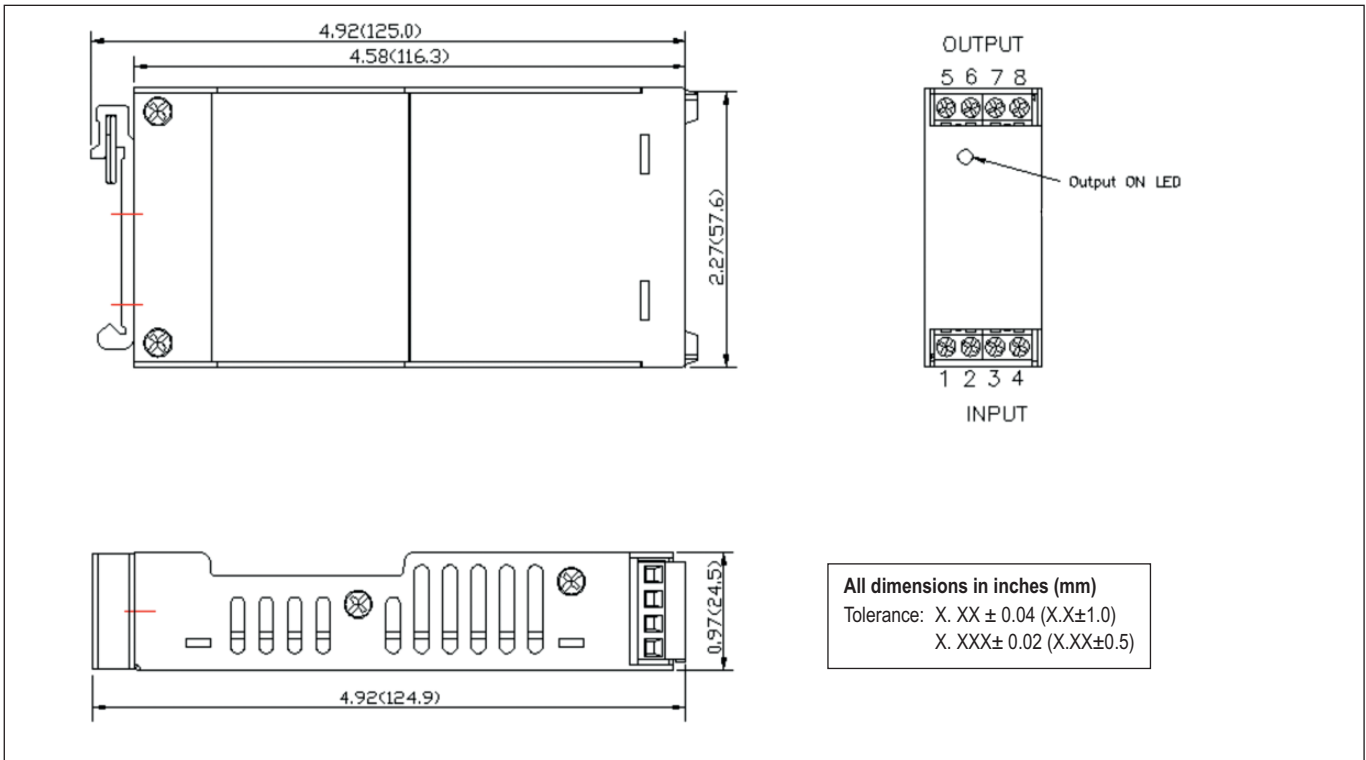
Model Selector

Model	Input Range	Output Voltage	Output Current Min Load	Output Current Full Load	Output (3) Ripple & Noise	Input Current No Load (4)	Input Current Full Load (5)	Eff % (3)	Capacitor Load Max (6)
DPX15-24WS3P3	9.5 - 36 VDC	3.3 VDC	0mA	4500mA	50mVp-p	52mA	773mA	84	147000µF
DPX15-24WS05	9.5 - 36 VDC	5 VDC	0mA	3000mA	50mVp-p	67mA	772mA	85	7200µF
DPX15-24WS5P1	9.5 - 36 VDC	5.1 VDC	0mA	3000mA	50mVp-p	67mA	787mA	85	7200µF
DPX15-24WS12	9.5 - 36 VDC	12 VDC	0mA	1250mA	75mVp-p	26mA	772mA	85	1250µF
DPX15-24WS15	9.5 - 36 VDC	15 VDC	0mA	1000mA	75mVp-p	26mA	772mA	85	800µF
DPX15-24WD05	9.5 - 36 VDC	±5 VDC	0mA	±1500mA	75mVp-p	57mA	772mA	85	±3600µF
DPX15-24WD12	9.5 - 36 VDC	±12 VDC	0mA	±625mA	75mVp-p	35mA	762mA	86	±625µF
DPX15-24WD15	9.5 - 36 VDC	±15 VDC	0mA	±500mA	75mVp-p	35mA	762mA	86	±400µF
DPX15-48WS3P3	18 - 75 VDC	3.3 VDC	0mA	4500mA	50mVp-p	37mA	387mA	84	14700µF
DPX15-48WS05	18 - 75 VDC	5 VDC	0mA	3000mA	50mVp-p	38mA	381mA	86	7200µF
DPX15-48WS5P1	18 - 75 VDC	5.1 VDC	0mA	3000mA	50mVp-p	38mA	389mA	86	7200µF
DPX15-48WS12	18 - 75 VDC	12 VDC	0mA	1250mA	75mVp-p	18mA	386mA	85	1250µF
DPX15-48WS15	18 - 75 VDC	15 VDC	0mA	1000mA	75mVp-p	18mA	386mA	85	800µF
DPX15-48WD05	18 - 75 VDC	± 5 VDC	0mA	± 1500mA	75mVp-p	37mA	381mA	86	±3600µF
DPX15-48WD12	18 - 75 VDC	± 12VDC	0mA	± 625mA	75mVp-p	20mA	381mA	86	±625µF
DPX15-48WD15	18 - 75 VDC	± 15 VDC	0mA	± 500mA	75mVp-p	20mA	381mA	86	±400µF

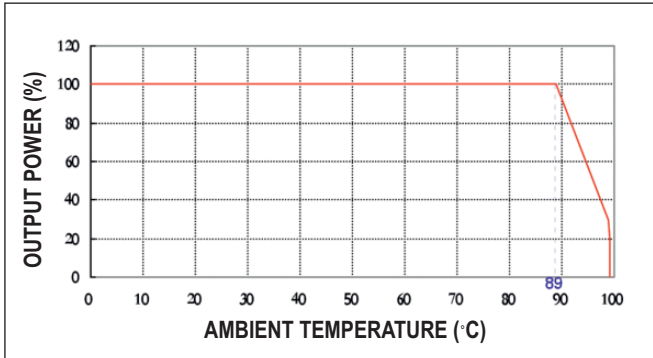
Notes see above

1. BELLCORE TR-NWT-000332. Case I: 50% Stress, Temperature at 40°C. MIL-HDBK-217F Notice2 @Ta=25°C, Full load(Ground, Benign, controlled environment).
2. The ON/OFF control pin voltage is referenced to -Vin. To order Negative logic ON/OFF control add the suffix /N (Ex:DPX15-48WS05/N).
3. Typical value at nominal input voltage and full load.
4. Typical value at nominal input voltage and no load.
5. Maximum value at nominal input voltage and full load.
6. Test by minimum Vin and constant resistive load.

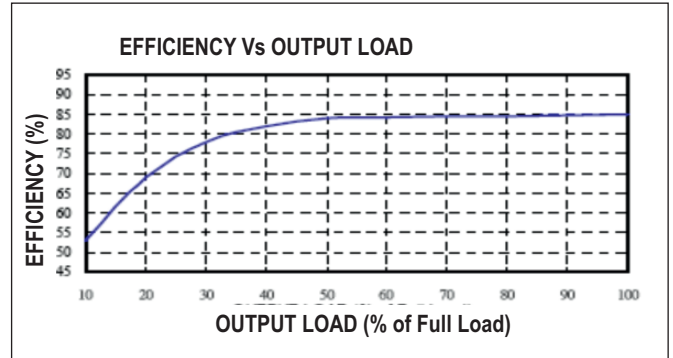
Outline Drawing DPX15W Series



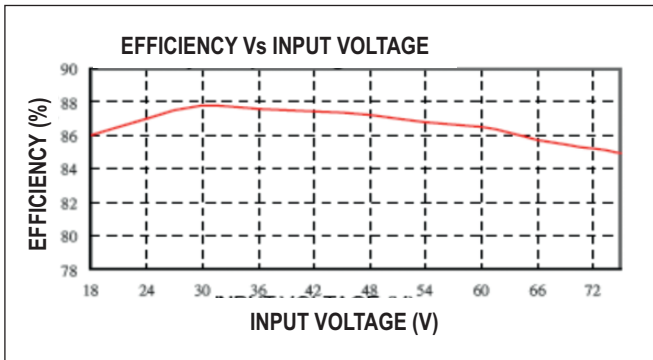
Derating Curve DPX15-48WS05



Efficiency / Load Curve DPX15-48WS05



Efficiency / Input Curve DPX15-48WS05



Pinout		
PIN	Single	Dual
1	CTRL	CTRL
2	- Input	- Input
3	- Input	- Input
4	+ Input	+ Input
5	NC	NC
6	- Output (Com)	- Output
7	+ Output NC	Common
8		+ Output

NC: No connection
Screw terminals - wire range from 14 to 18 AWG

Options	
Option	Suffix
Negative Logic Remote ON/OFF	/N



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