



- 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

## DPX60 Series

Single Output 60W Din Rail Mount  
DC-DC Converters

### Key Market Segments & Applications

Communication Systems, Industry Control Systems  
Factory Automation, Semiconductor Equipment

### DPX60 Features and Benefits

#### Features

- CE Approvals

#### Benefits

- Easier System Approvals
- Less Parts to Inventory

#### Specifications

ITEMS	DPX60	
	24V nominal input 18-36VDC	48V nominal input 36-75VDC
Rated Input voltage range	24V nominal input 18-36VDC	48V nominal input 36-75VDC
Switching Frequency	300kHz, typ	
Maximum Input Current	See Table	
Max Output Power (W)	See Table	
Voltage Accuracy	Single/Dual $\pm 1.0\%$ / Single (3.3V) $\pm 1.5\%$	
Voltage Adjustment (Note 7)	Single output $\pm 10\%$	
Minimum Load	N/A	
Line Regulation (LL to HL at full load)	Single at $\pm 0.5\%$	
Ripple and Noise	20MHz bandwidth See table	
Start up time (Nominal Vin and constant resistive load)	Power up 100mS, typ (remote 20mS, 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	3.7 VDC - 5.4VDC 5.6VDC - 7.0VDC 13.5VDC - 20.5VDC 16.8VDC - 20.5VDC
Operating Temperature	-40°C ~ 60°C (without derating) 60°C ~ 85°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 <sup>9</sup> Ω	
Isolation Capacitance (Max)	4000 pF	
MTBF BELLCORE TR-NWT-000332 (Note 1)	957,600 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	182g	
Connector	Screw Terminal	
Cooling	Convection	
Front Panel LED	Output DC good	
Warranty yrs	3	

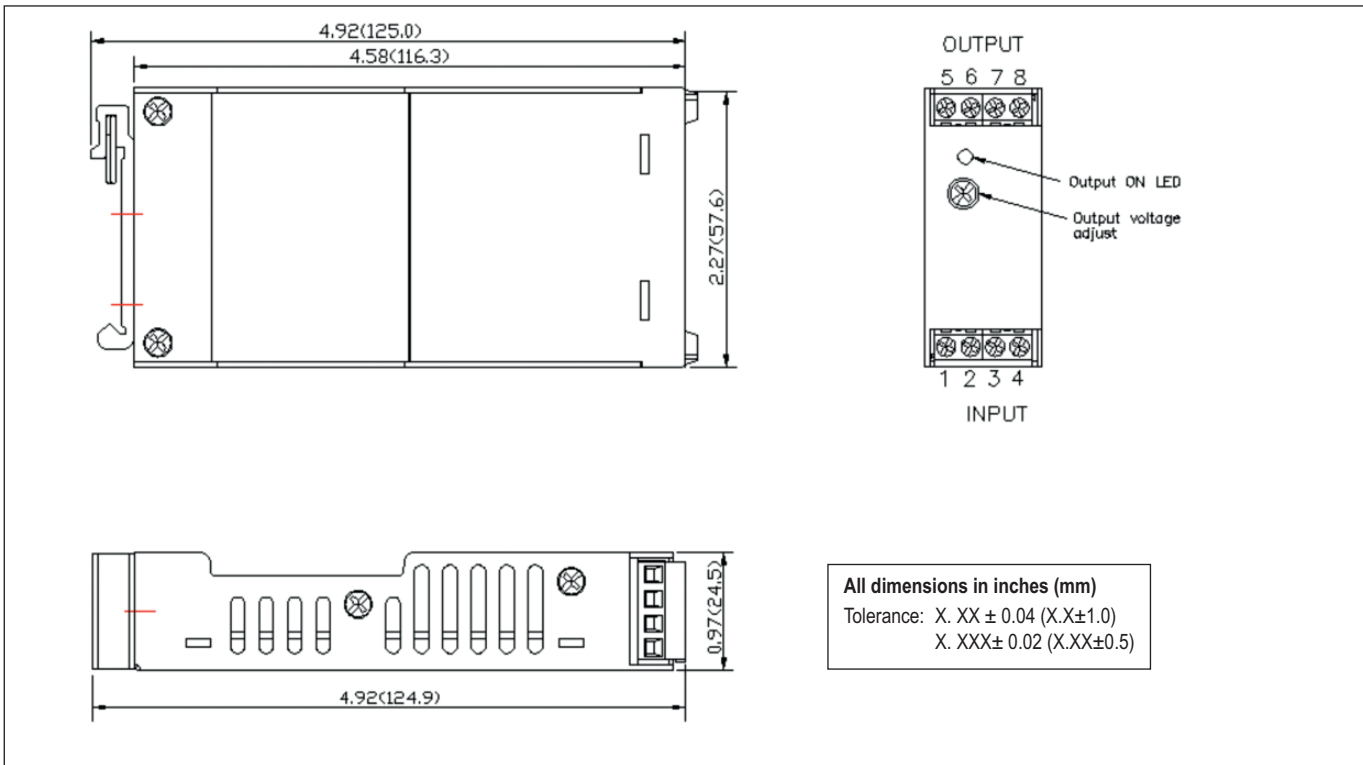
Notes: See page 2

**Notes**

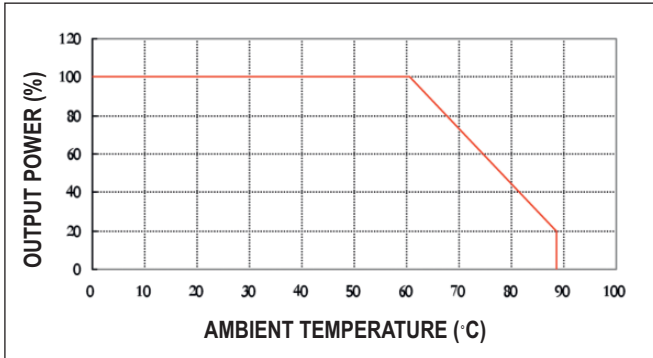
1. BELLCORE TR-NWT-000332. Case I: 50% Stress, Temperature at 40°C. MIL-HDBK-217F Notice2 @Ta=25°C, Full load(Ground, Benign, controlled environment).
2. The ON/OFF control pin voltage is referenced to -Vin. Positive logic standard. To order Negative logic ON/OFF control add the suffix-N (Ex:DPX60-48S05-N)
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.
7. Single outputs have a potentiometer to adjust the output voltage.

Model Selector									
Model	Input Range	Output Voltage	Output Current		Output (3) Ripple & Noise	Input Current		Eff. % (3)	Capacitor Load Max (6)
			Min Load	Full Load		No Load (4)	Full Load (5)		
DPX60-24S3P3	18 - 36 VDC	3.3 VDC	0mA	14000mA	75mVp-p	103mA	2376mA	85	36000µF
DPX60-24S05	18 - 36 VDC	5 VDC	0mA	12000mA	75mVp-p	155mA	3049mA	86	20400µF
DPX60-24S12	18 - 36 VDC	12 VDC	0mA	5000mA	100mVp-p	155mA	3049mA	86	3550µF
DPX60-24S15	18 - 36 VDC	15 VDC	0mA	4000mA	100mVp-p	155mA	3049mA	86	2300µF
DPX60-48S3P3	36 -75 VDC	3.3 VDC	0mA	14000mA	75mVp-p	83mA	1188mA	85	36000µF
DPX60-48S05	36 -75 VDC	5 VDC	0mA	12000mA	75mVp-p	104mA	1524mA	86	20400µF
DPX60-48S12	36 -75 VDC	12 VDC	0mA	5000mA	100mVp-p	104mA	1524mA	86	3550µF
DPX60-48S15	36 -75 VDC	15 VDC	0mA	4000mA	100mVp-p	104mA	1524mA	86	2300µF

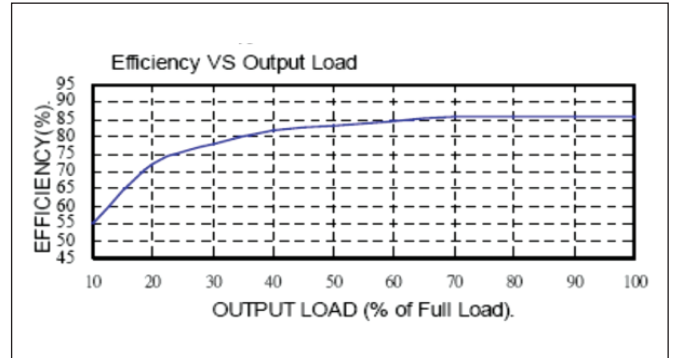
**Outline Drawing DPX60 Series**



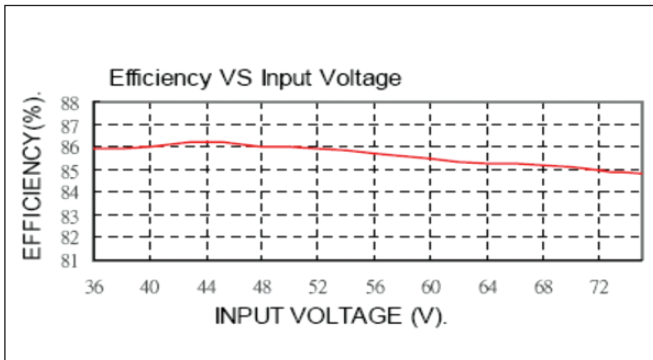
## Derating Curve DPX60-48S05



## Efficiency / Load Curve DPX60-48S05



## Efficiency / Input Curve DPX60-48S05



Pinout	
PIN	Single
1	CTRL
2	- Input
3	- Input
4	+ Input
5	NC
6	- Output
7	+ Output
8	NC

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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