

40-60W Single, Dual & Triple Output DIN Mount DC-DC Converters

Features

- ◆ DIN Rail Mount Version of TDK-Lambda's PX Series
- ◆ 1600VDC Input to Output Isolation
- ◆ Wide Operating Temperature Range
- ◆ Internally Protected
- ◆ All In One Package



Key Market Segments & Applications



Industrial



RoHS

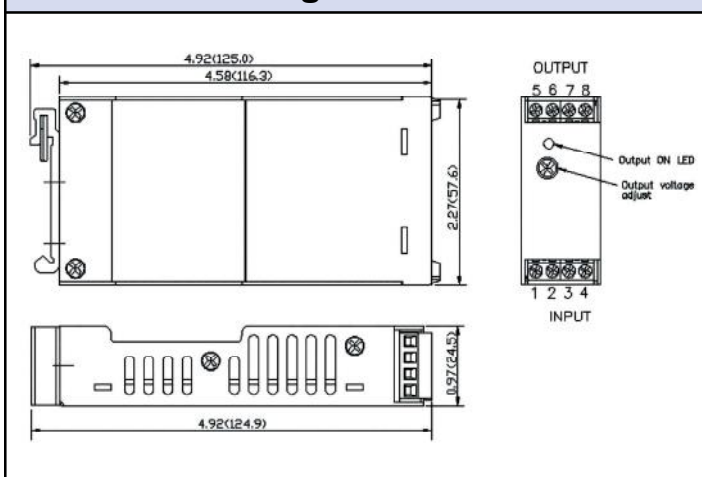
Specifications				
Model		DPX40		DPX60
Max Output Power	W	40W		60W
Efficiency	%	85% typical at nominal input & full load		
Voltage Accuracy	%	Single, Dual & Triple Main $\pm 1\%$, Triple auxiliaries $\pm 5\%$		
Volt. Adjust. (Single Output Only)	%	$\pm 10\%$		
Minimum Load, each output (1)	%	Single output 0%, Dual & Triple outputs 10%		
Line Regulation	%	Single / Dual $\pm 0.5\%$, Triple (main) $\pm 1\%$, (auxiliaries) $\pm 5\%$		
Load Regulation (10% to 100%)	%	Single $\pm 0.5\%$, Dual $\pm 1\%$, Triple (main) $\pm 2\%$, (auxiliaries) $\pm 5\%$		
Cross Regulation (25% to 100%)	%	Triple (main) $\pm 1\%$, Dual / Triple (auxiliaries) $\pm 5\%$		
Start up time	ms	100ms typ.		
Remote on/off (ref. to neg. input)	-	/P option: Positive Logic: ON: Open or 3.5-12V, OFF: Short or $<1.2V$ /N option: Negative Logic: ON: Short or $<1.2V$, OFF Open or 3-12V		
Temperature Coefficient	%/ $^{\circ}C$	$< \pm 0.02\%/^{\circ}C$		
Operating Temperature	$^{\circ}C$	-40 to 85 $^{\circ}C$. Derating at high ambient temperatures is model dependent. Please see the application notes on website for individual values.		
Storage Temperature	$^{\circ}C$	-40 to 85 $^{\circ}C$		
Thermal Shock	-	MIL-STD-810F		
Relative Humidity	%RH	5 to 95%RH (non condensing)		
Trans. Resp.(25% step load chng.)	ms	250 μ s recovery		
Overvolt. Protection (Zener clamp)	-	5V: 6.2V, 12V: 15V, 15V: 18V		
Overcurr. & Short Circuit Protection	-	Typically at 150%, hiccup with self recovery		
Input Surge Volt. (Max. for 100ms)	-	12V input: 36V, 24V input: 50V, 48V input: 100V		
Isolation Voltage	VDC	1600VDC minimum		
Isolation Resistance	Ω	10^9 Ohms minimum		
Typical Switching Frequency (Fixed)	kHz	300kHz (typ)		
Shock & Vibration	-	MIL-STD-810F		
Conducted & Radiated Emissions	-	EN55022 Level B		
Immunity	-	EN61000-4-2, -3, -4, -5, -6 Pref Criteria A		
Safety Agency Approval	-	CE Mark		
Size (W x H x L)	in(mm)	0.96 x 2.27 x 4.92" (24.5 x 57.6 x 125mm)		
Weight	g	182g		
Warranty	yrs	Three Years		

1. No load operation will not damage the unit

Model Selector

Output Voltage (V)	Output Current (A)	Input Voltage (VDC)	Model	Ripple & Noise (Pk to Pk mV)	Max Load Cap (uF)
Single Outputs					
5V	8A	9.5 - 36VDC	DPX4024WS05	50mV	13600uF
12V	3.33A	9.5 - 36VDC	DPX4024WS12	75mV	2360uF
15V	2.67A	9.5 - 36VDC	DPX4024WS15	75mV	1510uF
5V	8A	18 - 75VDC	DPX4048WS05	50mV	13600uF
12V	3.33A	18 - 75VDC	DPX4048WS12	75mV	2360uF
15V	2.67A	18 - 75VDC	DPX4048WS15	75mV	1510uF
5V	12A	18 - 36VDC	DPX6024S05	75mV	20400uF
12V	5A	18 - 36VDC	DPX6024S12	100mV	3550uF
15V	4A	18 - 36VDC	DPX6024S15	100mV	2300uF
5V	12A	36 - 75VDC	DPX6048S05	75mV	20400uF
12V	5A	36 - 75VDC	DPX6048S12	100mV	3550uF
15V	4A	36 - 75VDC	DPX6048S15	100mV	2300uF
Dual Outputs					
±12	1.667A	9.5 - 36VDC	DPX4024WD12	120mV	±1200uF
±15	1.333A	9.5 - 36VDC	DPX4024WD15	150mV	±1510uF
±12	1.667A	18 - 75VDC	DPX4048WD12	120mV	±1200uF
±15	1.333A	18 - 75VDC	DPX4048WD15	150mV	±1510uF
Triple Outputs					
+5V, ±12V	6, ±0.4A	9.5 - 18VDC	DPX4012T0512	50 / 75mV	6800uF, ±330uF
+5V, ±15V	6, ±0.3A	9.5 - 18VDC	DPX4012T0515	50 / 75mV	6800uF, ±110uF
+5V, ±12V	6, ±0.4A	18 - 36VDC	DPX4024T0512	50 / 75mV	6800uF, ±330uF
+5V, ±15V	6, ±0.3A	18 - 36VDC	DPX4024T0515	50 / 75mV	6800uF, ±110uF
+5V, ±12V	6, ±0.4A	36 - 75VDC	DPX4048T0512	50 / 75mV	6800uF, ±330uF
+5V, ±15V	6, ±0.3A	36 - 75VDC	DPX4048T0515	50 / 75mV	6800uF, ±110uF

Outline Drawing



Pin Connection

PIN	SINGLE	DUAL	TRIPLE
1	Ctrl	Ctrl	Ctrl
2	VIN (-)	VIN (-)	VIN (-)
3	VIN (-)	VIN (-)	VIN (-)
4	VIN (+)	VIN (+)	VIN (+)
5	NC	NC	Aux (+)
6	VOUT (-)	VOUT (-)	Common
7	VOUT (+)	Common	Aux (-)
8	NC	VOUT (+)	VOUT (+)

Options

Suffix	Description
Blank	No remote on-off
/P	Positive Logic
/N	Negative Logic

For Additional Information, please visit
<https://product.tdk.com/info/en/products/power/index.html>



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