

# 3.0 WATT 4:1 WIDE INPUT RANGE DC/DC POWER MODULES

(Rectangle Package)

## FEATURES

- ❶ 3.0 Watt Isolated Output
- ❷ 4:1 Wide Input Range
- ❸ High Conversion Efficiency
- ❹ Continuous Short Circuit Protection
- ❺ Regulate Output

## GENERAL SPECIFICATIONS

- Efficiency ..... Per Table
- Switching Frequency ..... 100KHz Min.
- Isolation Voltage: ..... 500 Vdc Min.
- Operating Temperature ..... -25 to +71°C  
Derate Linearly to no load @ 100°C max.
- Case Material:  
500Vdc.....Non-Conductive Black Plastic  
1.5kVdc & 3kVdc.....Black coated copper  
with non-conductive base

## INPUT SPECIFICATIONS

- Voltage ..... 24,48 Vdc
- Voltage Range ..... 9-36,18-72Vdc
- Input Filter ..... Pi Type

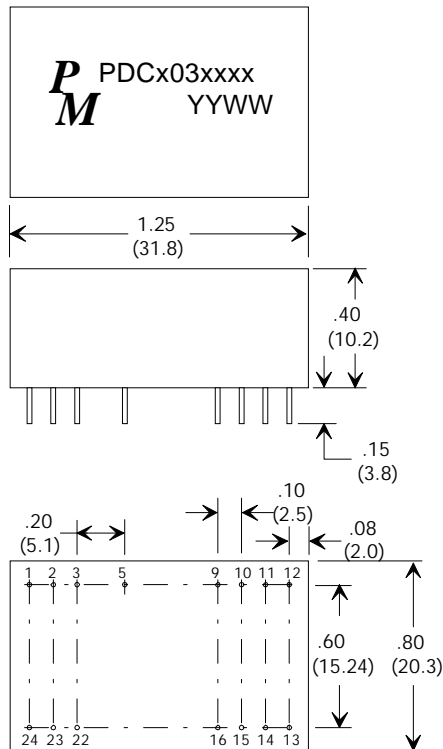
## OUTPUT SPECIFICATIONS

- Voltage ..... Per Table
- Initial Voltage Accuracy ..... ±2% Max
- Voltage Stability ..... ±0.05% max
- Ripple & Noise ..... 100/150mV p-p
- Load Regulation (10 to 100% Load)  
Single Output Units: ±0.5%  
Dual Output Units: ±1.0%
- Line Regulation ..... ±0.5% typ.
- Temp Coefficient ..... ±0.05% /°C
- Short Circuit Protection ..... Continuous

## PACKAGE

## PIN ASSIGNMENTS

### PHYSICAL DIMENSIONS DIMENSIONS IN inches (mm)



500VDC			1500VDC & 3000VDC		
PIN #	SINGLE OUTPUT	DUAL OUTPUTS	PIN #	SINGLE OUTPUT	DUAL OUTPUTS
1	+ INPUT	+INPUT	1	NP	NP
2	NC	- OUTPUT	2	- INPUT	- INPUT
3	NC	COMMON	3	- INPUT	- INPUT
5	NP	NP	5	NP	NP
9	NP	NP	9	NC	COMMON
10	- OUTPUT	COMMON	10	NC	NC
11	+ OUTPUT	+ OUTPUT	11	NC	- OUTPUT
12	- INPUT	- INPUT	12	NP	NP
13	- INPUT	- INPUT	13	NP	NP
14	+ OUTPUT	+ OUTPUT	14	+ OUTPUT	+ OUTPUT
15	- OUTPUT	COMMON	15	NC	NC
16	NP	NP	16	- OUTPUT	COMMON
22	NC	COMMON	22	+ INPUT	+ INPUT
23	NC	- OUTPUT	23	+ INPUT	+ INPUT
24	+ INPUT	+ INPUT	24	NP	NP

NP\* - NO PIN  
NC\* - NO CONNECTION WITH PIN



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**ELECTRICAL SPECIFICATIONS AT 25°C - OPERATING TEMPERATURE RANGE -25°C TO +75°C**

PART NUMBER	INPUT VOLTAGE		OUTPUT VOLTAGE (Vdc)	OUTPUT CURRENT (mAdc)	INPUT CURRENT		TYPICAL EFFICIENCY
	NOMINAL	RANGE			NO LOAD mA	FULL LOAD mA	
PDCS03041	24	9-36	3.3	600	15	117	70 %
PDCS03042	24	9-36	5	600	15	174	72 %
PDCS03043	24	9-36	12	250	15	165	76 %
PDCS03044	24	9-36	15	200	15	165	76 %
PDCD03042	24	9-36	±5	±300	25	179	70 %
PDCD03043	24	9-36	±12	±125	25	174	72 %
PDCD03044	24	9-36	±15	±100	25	174	72 %
PDCS03045	48	18-72	3.3	600	7.5	58	70 %
PDCS03046	48	18-72	5	600	7.5	87	72 %
PDCS03047	48	18-72	12	250	7.5	78	80 %
PDCS03048	48	18-72	15	200	7.5	78	80 %
PDCD03046	48	18-72	±5	±300	12	88	71 %
PDCD03047	48	18-72	±12	±125	12	87	72 %
PDCD03048	48	18-72	±15	±100	12	87	72 %

**NOTE:**

**PDCx030xx\_ : BLANK FOR STANDARD PART WITH ISOLATION = 500VDC**

**PDCx030xxK : ADD "K" FOR PART WITH ISOLATION = 1500VDC**

**PDCx030xxQ : ADD "Q" FOR PART WITH ISOLATION = 3000VDC**