



40 WATT SINGLE/DUAL/TRIPLE OUTPUT

High Density, Wide Input DC/DC Converters



FEATURES

- **2:1 Wide Input Voltage Range**
- **Efficiency to 90% @ FL**
- **Low Profile Case (2.56" x 3.0" x 0.375")**
- **3.3/5.0 Vdc Output**
- **Over-Voltage & Over-Current Protection**
- **Inhibit/Sync Input**
- **6-Sided Shielding**
- **Internal π Filter**

MWA40 Series

Specifications

All specifications are typical at nominal input, full load, and 25°C , unless otherwise noted.

INPUT

Voltage Range.....See Chart
Input Filter.....Pi Network

OUTPUT

Voltage Accuracy.....±1.0%
Triple (Aux.) Output: ±5.0%

Line Regulation: Single Output.....±0.5%, max.
 Dual Output.....±1.0%, max.
 Triple Output.....Primary: ±0.2%, Aux. ±5.0% max.

Load Regulation: Single Output.....±0.5%, max.
 Dual Output.....±1.0%, max.
 Triple Output.....Primary: ±0.5%, Aux. ±2.0% max.

Ripple Noise (20 MHz BW).....1.0% p-p max.
 Temperature Coefficient (at FL).....±0.02%/°C max.
 Transient Response, 25% load step.....<250µs

REMOTE ON/OFF CONTROL

Control Voltage Reference to Negative (-) Input
 Comatability.....CMOS, TTL
 On Control.....4.8V min. or Open
 Off Control.....0.4V max. or Short

GENERAL

Efficiency.....77-84% max.
 Isolation Voltage.....1600 Vdc min.
 Isolation Resistance.....100MOhms
 Switching Frequency.....300KHz typ.
 Protection.....Over Current Protection
Continuous Short Circuit Protection

ENVIRONMENTAL

Operating Temperature Range.....-25 to +71°C
 Storage Temperature Range.....-55 to +125°C
 Cooling.....Free Air Convection
 EMI/RFI.....Six-Sided Continuous Shield

PHYSICAL

Case Material.....Nickel-coated Copper w/
 Non-Conductive Base
 Dimensions.....2.56" x 3.00" x 0.375"
 (65.02 x 76.2 x 9.525mm)

Selection Guide

(Continued)

	Input Voltage Nominal (Range) (Vdc)	Output Voltage (Vdc)	Output Current (mA)	Efficiency %	Model Number	Case	
SINGLE OUTPUT VOLTAGE	12 (9-18)	3.3	10000	77	MWA40-12S33	Q	
		5	8000	80	MWA40-12S5	Q	
		12	3400	81	MWA40-12S12	Q	
		15	2700	82	MWA40-12S15	Q	
	24 (18-36)	3.3	10000	77	MWA40-24S33	Q	
		5	8000	81	MWA40-24S5	Q	
		12	3400	82	MWA40-24S12	Q	
		15	2700	83	MWA40-24S15	Q	
	48 (36-72)	3.3	10000	77	MWA40-48S33	Q	
		5	8000	82	MWA40-48S5	Q	
		12	3400	83	MWA40-48S12	Q	
		15	2700	84	MWA40-48S15	Q	
DUAL OUTPUTS	12 (9-18)	±5	+7000 / -1000	80	MWA40-12-5	Q	
		±12	±1800	81	MWA40-12-12	Q	
		±15	±1400	82	MWA40-12-15	Q	
		3.3 / 5.0	4000 / 4000	77	MWA40-12D33/5	Q	
	24 (18-36)	±5	+7000 / -1000	81	MWA40-24-5	Q	
		±12	±1800	82	MWA40-24-12	Q	
		±15	±1400	83	MWA40-24-15	Q	
		3.3 / 5.0	4000 / 4000	77	MWA40-24D33/5	Q	
	48 (36-72)	±5	+7000 / -1000	82	MWA40-48-5	Q	
		±12	±1800	83	MWA40-48-12	Q	
		±15	±1400	84	MWA40-48-15	Q	
		3.3 / 5.0	4000 / 4000	77	MWA40-48D33/5	Q	
TRIPLE OUTPUTS	12 (9-18)	5 / ±12	4000 / ±850	80	MWA40-12S5-12	Q	
		5 / ±15 / 12	4000 / ±680	80	MWA40-12S5-15	Q	
	24 (18-36)	5 / ±12	4000 / ±850	81	MWA40-24S5-12	Q	
		5 / ±15 / 12	4000 / ±680	81	MWA40-24S5-15	Q	
	48 (36-72)	5 / ±12	4000 / ±850	82	MWA40-48S5-12	Q	
		5 / ±15 / 12	4000 / ±680	82	MWA40-48S5-15	Q	

(See Next page for Diagram)



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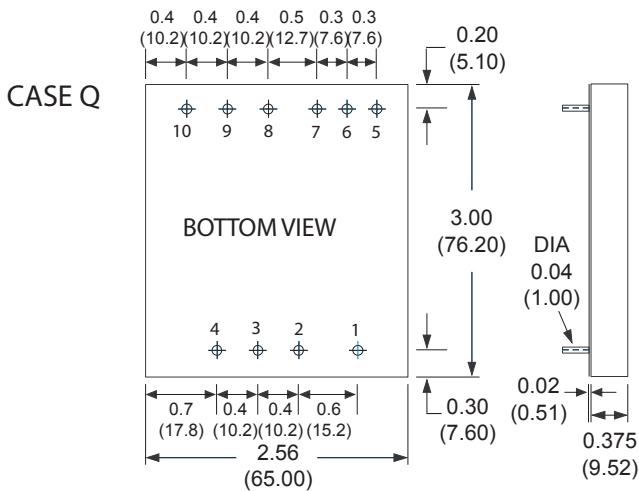
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Mechanical Specifications

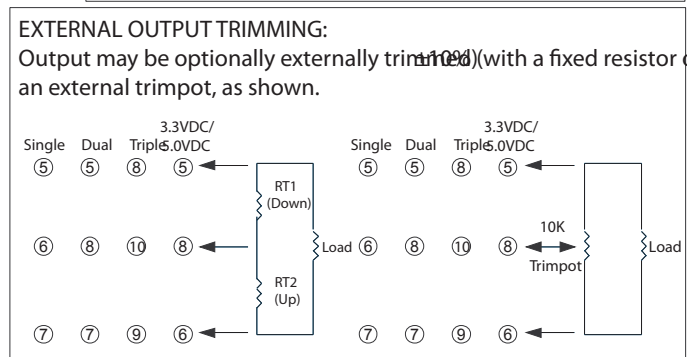
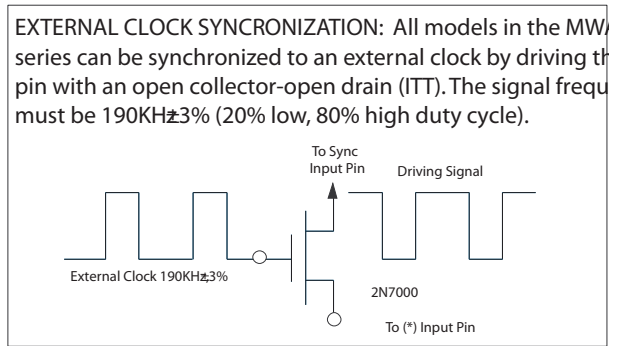
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PIN CONNECTIONS				
Pin#	Single	Dual	Triple Output	3.3VDC/5VDC
1	Remote On/Off	Remote On/Off	Remote On/Off	Remote On/Off
2	+Vin	+Vin	+Vin	+Vin
3	-Vin	-Vin	-Vin	-Vin
4	SYNC.	SYNC.	SYNC.	SYNC.
5	+Output Sense/Trim(Down)	+Vout	+Vout (Aux)	+3.3VDC
6	Output Trim	Common	Common (Aux)	Common
7	-Output Sense/Trim(Up)	-Vout	-Vout (Aux)	+5VDC
8	+Vout	Output Trim	+Vout (Primary)	Trim
9	-Vout	NC	-Vout (Primary)	NC
10	No Pin	NC	Output Trim (Primary)	NC

Connections for single output models without sensing or external trimming:
 For proper operation, externally connect Pin 5(+Output Sense) to Pin 8 (+Output) and Pin 7 (-Output Sense) to Pin 9(-Output).



All Dimensions are in inches (mm)



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