

# DC-DC Converters

**POWER  
SOLVE**

## TEN40 Series, 40 Watt

[www.powersolve.co.uk](http://www.powersolve.co.uk)

### Features

- Wide 2:1 input range
- High efficiency up to 90%
- I/O isolation 1500VDC
- Operating temperature range -40°C to +75°C
- Short circuit protection
- Adjustable output voltages and Remote On/Off
- High power density in a 50.8 x 50.8 x 10.2 mm Metal package
- Models with 2 isolated outputs (3.3V & 5V) & triple outputs



### Electrical Specification

Output Voltage Adjustment	±10% by external resistor (only for single & symmetric dual output models)
Conducted EMI	EN55022 class A & FCC level A (with external capacitor)
Short Circuit Protection	continuous, automatic recovery
Operating Temperature Range	-40°C to +75°C (with derating)
Thermal protection	Shutdown at 115°C
I/O Isolation test voltage	1500VDC
Safety Approvals	cUL/UL 60950-1, IEC/EN 60950-1
Casing	metal, 6-side shielded with insulated baseplate
Remote On/Off	Shutdown input for low input current (2.5mA) in standby operation

### Output Voltage and Current Ratings

MODEL	INPUT VOLTAGE	OUTPUT 1 Vout/Imax.	OUTPUT 2 Vout/Imax.	OUTPUT 3 Vout/Imax.	RIPPLE & NOISE	LINE REG.	LOAD REG.	EFF.
TEN 40-1210	9 - 18V	3.3VDC/8.0A			50mV pk-pk max.	0.5%	0.5%	86%
TEN 40-1211		5VDC/8.0A			50mV pk-pk max.	0.5%	0.5%	86%
TEN 40-1212		12VDC/3.3A			75mV pk-pk max.	0.5%	0.5%	86%
TEN 40-1220		*3.3VDC/8.0A	*5VDC/8.0A		100mV pk-pk max.	1.0%	1.0%	85%
TEN 40-1222		+12VDC/1.8A	-12VDC/1.8A		150mV pk-pk max.	1.0%	1.0%	85%
TEN 40-1223	18 - 36V	+15VDC/1.4A	-15VDC/1.4A		150mV pk-pk max.	1.0%	1.0%	85%
TEN 40-1233		3.3VDC/6.0A	+12VDC/+0.4A	-12VDC/-0.4A	75mV pk-pk max.	1.0%/5.0%	2.0%/5.0%	84%
TEN 40-1234		3.3VDC/6.0A	+15VDC/+0.3A	-15VDC/-0.3A	75mV pk-pk max.	1.0%/5.0%	2.0%/5.0%	84%
TEN 40-1231		5VDC/6.0A	+12VDC/+0.4A	-12VDC/-0.4A	75mV pk-pk max.	1.0%/5.0%	2.0%/5.0%	86%
TEN 40-1232		5VDC/6.0A	+15VDC/+0.3A	-15VDC/-0.3A	75mV pk-pk max.	1.0%/5.0%	2.0%/5.0%	86%
TEN 40-2410	36 - 75V	3.3VDC/8.0A			50mV pk-pk max.	0.5%	0.5%	87%
TEN 40-2411		5VDC/8.0A			50mV pk-pk max.	0.5%	0.5%	89%
TEN 40-2412		12VDC/3.3A			75mV pk-pk max.	0.5%	0.5%	88%
TEN 40-2420		*3.3VDC/8.0A	*5VDC/8.0A		100mV pk-pk max.	1.0%	1.0%	86%
TEN 40-2422		+12VDC/1.8A	-12VDC/1.8A		150mV pk-pk max.	1.0%	1.0%	87%
TEN 40-2423		+15VDC/1.4A	-15VDC/1.4A		150mV pk-pk max.	1.0%	1.0%	87%
TEN 40-2433		3.3VDC/6.0A	+12VDC/+0.4A	-12VDC/-0.4A	75mV pk-pk max.	1.0%/5.0%	2.0%/5.0%	85%
TEN 40-2434		3.3VDC/6.0A	+15VDC/+0.3A	-15VDC/-0.3A	75mV pk-pk max.	1.0%/5.0%	2.0%/5.0%	85%
TEN 40-2431		5VDC/6.0A	+12VDC/+0.4A	-12VDC/-0.4A	75mV pk-pk max.	1.0%/5.0%	2.0%/5.0%	87%
TEN 40-2432		5VDC/6.0A	+15VDC/+0.3A	-15VDC/-0.3A	75mV pk-pk max.	1.0%/5.0%	2.0%/5.0%	87%
TEN 40-4810		3.3VDC/8.0A			50mV pk-pk max.	0.5%	0.5%	88%
TEN 40-4811		5VDC/8.0A			50mV pk-pk max.	0.5%	0.5%	90%
TEN 40-4812		12VDC/3.3A			75mV pk-pk max.	0.5%	0.5%	89%
TEN 40-4820		*3.3VDC/8.0A	*5VDC/8.0A		100mV pk-pk max.	1.0%	1.0%	88%
TEN 40-4822		+12VDC/1.8A	-12VDC/1.8A		150mV pk-pk max.	1.0%	1.0%	87%
TEN 40-4823		+15VDC/1.4A	-15VDC/1.4A		150mV pk-pk max.	1.0%	1.0%	87%
TEN 40-4833		3.3VDC/6.0A	+12VDC/+0.4A	-12VDC/-0.4A	75mV pk-pk max.	1.0%/5.0%	2.0%/5.0%	86%
TEN 40-4834		3.3VDC/6.0A	+15VDC/+0.3A	-15VDC/-0.3A	75mV pk-pk max.	1.0%/5.0%	2.0%/5.0%	86%
TEN 40-4831		5VDC/6.0A	+12VDC/+0.4A	-12VDC/-0.4A	75mV pk-pk max.	1.0%/5.0%	2.0%/5.0%	88%
TEN 40-4832		5VDC/6.0A	+15VDC/+0.3A	-15VDC/-0.3A	75mV pk-pk max.	1.0%/5.0%	2.0%/5.0%	88%

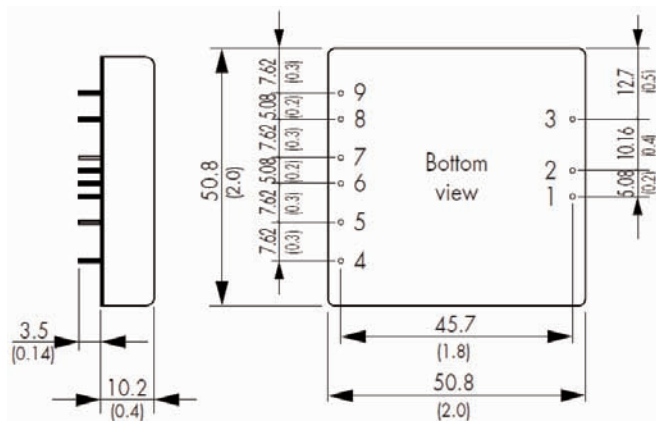
\*dynamic current allocation, max. 8A total output current

# DC-DC Converters



[www.powersolve.co.uk](http://www.powersolve.co.uk)

## Mechanical and Connection Details



Pin	Single Output	Dual Output symmetric	Dual Output asymmetric	Triple Output
1	+Vin (Vcc)	+Vin (Vcc)	+Vin (Vcc)	+Vin (Vcc)
2	-Vin (GND)	-Vin (GND)	-Vin (GND)	-Vin (GND)
3	Remote On/Off			
4	No Conn.	No Pin	Vout 1	+Vout 2
5	-Sense	Vout 1	Common 1	Common 2
6	+Sense	Common 1/2	No Conn.	-Vout 2
7	Vout 1	Common 1/2	No Conn.	Vout 1
8	Common 1	Vout 2	Vout 2	Common 1
9	Trim	Trim	Common 2	No Conn.