

CON-SMPS-M

Multiple Output DC-DC Converter

Description

The CON-SMPS-M range of switch-mode DC/DC converters provides both multi and single output units (see separate data sheet CON-SMPS) with maximum output powers of 40watts to 350 watts (multi) and 40 watts to 2000watts single output). The range switches at 100 kHz and achieves efficiencies of 88%. This high efficiency translates into a very compact package and a lower level of input energy to power your application. The units incorporate a passive power factor correction circuit and all components are derated to provide long term reliability and trouble free use. All units in the series are fully enclosed and have mounting options on either the base or side of the case. The output characteristics are CC /CV and with over temperature, overload protection elevated operating temperature (70°C) and a conformal protection option these power supplies are suitable for a wide range of applications. The power platforms in this range have formed the base of many customer specific requirements including: Industrial Control Systems, Military systems, submersible vehicles plus many more.



- Overload & over temperature protection
- Other O/P voltages on request
- CC & CV operating modes
- High efficiency, up to 88%
- PFC circuit

Selection Table

Part Number	Power	Output 1		Output 2		Output 3		Output 4	
		V	A	V	A	V	A	V	A
CON-SMPS 40-M1-DCx	40W	5V	6A	12V	2A (3A)	-12V	0.7A	-5V	0.3A
CON-SMPS 40-M2-DCx	40W	5V	6A	12V	2A (3A)	-12V	0.3A	12V	0.3A
CON-SMPS 40-M3-DCx	40W	5V	6A	12V	1A (1.5A)	-12V	0.3A	12V	0.3A
CON-SMPS 75-M1-DCx	75W	5V	10A	12V	3.5A (5A)	-12V	1A	-5V	1A
CON-SMPS 75-M2-DCx	75W	5V	10A	12V	1.5A (5A)	-12V	1A	12V	3.5A (5A)
CON-SMPS 75-M3-DCx	75W	5V	10A	12V	1.5A (5A)	-12V	1A	24V	2A (3A)
CON-SMPS 150-M1-DCx	150W	5V	20A	12V	3A (8A)	-12V	1A		
CON-SMPS 150-M2-DCx	150W	5V	15A	12V	6A (8A)	-12V	1A	5V	0.5A
CON-SMPS 150-M3-DCx	150W	5V	12A	12V	1.5A (8A)	-12V	1A	12V	6A (8A)
CON-SMPS 150-M4-DCx	150W	5V	12A	12V	1.5A (8A)	-12V	1A	24V	3A (4A)
CON-SMPS 250-M1-DCx	250W	5V	25A	12V	8A (10A)	12V	1A	5V	1A
CON-SMPS 250-M2-DCx	250W	5V	25A	12V	4A (6A)	12V	1A	12V	8A (10A)
CON-SMPS 250-M3-DCx	250W	5V	25A	12V	4A (6A)	12V	1A	24V	4A (6A)
CON-SMPS 350-M1-DCx	350W	5V	40A	12V	8A (10A)	12V	1A	5V	1A
CON-SMPS 350-M2-DCx	350W	5V	40A	12V	4A (6A)	12V	1A	12V	8A (10A)
CON-SMPS 350-M3-DCx	350W	5V	40A	12V	4A (6A)	2V	1A	24V	4A (6A)

Different output ranges and application/user specific options are possible. Please contact ET to discuss your requirements.
 Replace Dcx with code for input range required
 () = Max I available to max power



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Technical Data

DC Input.....	See option table
Safety.....	EN 60950
Creeping and clearance.....	8/8
Emission.....	EN 61000-6-4
Immunity.....	EN 61000-6-2
Protection class.....	1
Operating temperature.....	0 - 70°C
Temperature coefficient.....	0.02%/°C
Storage temperature.....	-45 to 85°C
Derating from 55°C.....	-2.5%/°C
MTBF MIL Handbook.....	120.000h

Output 1

Load regulation.....	0.2% (10-90-10% Load)
Input regulation.....	0.1% (±15%)
Response time.....	800µsec (20-100/100-20%)
Ripple & noise.....	0.2% / 1% (rms/pp)
Output adjustable.....	±5%
Remote sense.....	+0.3V (typical)

Output 2

Load regulation (40W, 75W & 150W units).....	±4% (0-90-90% Load)
Load regulation (250W & 350W units).....	1% (10-90-10% Load)
Input regulation (40W, 75W & 150W units).....	0.2% (±15%)
Input regulation (250W & 350W units).....	0.1% (±15%)
Ripple & noise.....	0.2% / 1% (rms/pp)
Cross regulation (40W, 75W & 150W).....	1:10 (Load change on main output)

Outputs 3 & 4

Load regulation (40W, 75W & 150W units).....	0.2% (10-90-10% Load)
Load regulation (250W & 350W units).....	1% (10-90-10% Load)
Input regulation.....	0.1% (±15%)
Ripple & noise.....	0.2% / 1% (rms/pp)
Weight (kgs) / Dimensions (mm)	
(40W).....	1.1kgs 130 x 64 x 28mm
(75W).....	1.2kgs 140 x 100 x 42mm
(150W).....	1.5kgs 200 x 100 x 42mm
(250W/350W).....	2.1kgs/2.4kgs 225 x 127 x 48mm

Options Table

Code	Description
/DC1.....	12Vdc Nominal Voltage (9-18Vdc range) 60% of max power available
/DC2.....	24Vdc Nominal Voltage (18-36Vdc range) 80% of max power available
/DC3.....	48/60Vdc Nominal Voltage (36-72Vdc range) 90% of max power available
/DC4.....	110Vdc Nominal Voltage (88-140Vdc range) 100% of max power available
/DC5.....	220Vdc Nominal Voltage (176-275Vdc range) 100% of max power available
/AI-5CC.....	0-5V = 0-Imax
/AI-5CV.....	0-5V = 5V-Vmax (5V units =2V-Vmax)
/AI-5CC/CV.....	0-5V = 0-Imax, 5V-Vmax (5V units =2V-Vmax)
/AI-10CC.....	0-10V = 0-Imax
/AI-10CV.....	0-10V = 5V-Vmax (5V units =2V-Vmax)
/AI-10CC/CV.....	0-10V = 0-Imax, 5V-Vmax (5V units =2V-Vmax)
/LT.....	-20° to +70° C temperature range
/LT40.....	-40° to +70° C temperature range
/PF.....	AC Power Fail Signal TTL or Open Collector (not available on 40W units)
/L3.....	DC Output Power Fail Signal (not available on 40W units)
/CC.....	Conformal Coating