

UFEC40W SERIES

DC / DC Single & Dual Output: 40 Watts



Option- Heatsink

Features

- 4:1 wide Input range: 9~36V & 18~75V
- High quality Panel mount assembly
- Single & Dual outputs, High efficiency up to 87%
- Regulated output & Short circuit protection
- 1600V isolation
- High operating temperature up to +85°C
- Designed to EN60950, UL1950
- EMC Compliant
- In-rush current limit circuit & Transient protection
- LED Indicator, Voltage Trim
- Optional DIN Rail mounting - "DR" to model
- Optional Heatsink - "H" to model

Specifications:

Input Voltage	24VDC (9.5 ~ 36) 48VDC (18 ~ 75)	Overload Protection	Typically 150% of load
Input Filter	Pi type	Short Circuit protection	Continuous hiccup mode
Input Surge Voltage.	24V: 50VDC. 48V: 100VDC (100ms)	Efficiency	Model dependant 86 ~ 87%
Input Fuse	24V 8A , 48V 4A (fast acting)	Isolation	1600VDC
Input Reflected Ripple	15mA p-p	Isolation Cap.	4500pF
Start Up time	100ms typ, constant resistive load	Case Grounding	Connect case to -Vin with decoupling Y cap.
Start-up Voltage	24V 9.5vdc 48V: 18vdc	Switching Freq.	Standard 300KHz
Shutdown Voltage	24V 8vdc 48V: 16vdc	Safety	Designed to meet EN60950-1, UL60950-1
Remote ON/OFF	DC-DC ON Open or $3.0V < V_r < 12V$ DC-DC OFF Short or $0V < V_r < 1.2V$	Case Material	Aluminium
Positive logic standard		Dimensions	102 x 58 x 19mm
Negative logic-Option	DC-DC ON Short or $0V < V_r < 1.2V$ DC-DC OFF Open or $3.0V < V_r < 12V$ Input current of remote control pin: 0.5mA Remote off state input current: 10mA	Weight	122g
Output power	40 watts	MTBF	1.511 x 10 ⁵ Hrs
Voltage Accuracy	±1.0% (±1.5% 3.3Vo)	Operating Temp	-40°C to +50°C (without derating) -40°C to +85°C (with derating)
Minim Load	See table	Case Temp	+100°C maximum case temperature
Output voltage trim	±10% single outputs	Thermal shock	MIL-STD-810F
Line Regulation	Single ±0.5% Dual ±0.5%	Vibration	10-55Hz, 10G, 30min along X, Y,Z
Load Regulation	Single ±1% , Dual ±1% (0% -100% load)	Humidity	5-95% RH
Cross Regulation	±5% Asymmetrical load: 25-100% load)	EMC	EN55022 Class B
Ripple & noise	See table. 20MHZ bandwidth	ESD	EN61000-4-2 ±8KV
Temp. Coefficient	±0.02% / °C	Radiated Immunity	EN61000-4-3
Transient Response	250uS (25% load step change)	Fast Transients	EN61000-4-4 ±2KV
Over Voltage Protection	3.3V: 3.9V 5.0V: 6.2V 12V: 15V 15V: 18V	Surge	EN61000-4-5 ±0.5KV
		Conducted Immunity	EN61000-4-6 10V r.m.s.

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Model Number	Input Range	Output Voltage	Output Current		Output ⁽⁴⁾ Ripple & Noise	Input Current		Eff ⁽⁴⁾ (%)	Capacitor ⁽⁵⁾ Load max
			Min. load	Full load		No load ⁽³⁾	Full load ⁽²⁾		
UFEC40-24S3P3W	9.5 – 36 VDC	3.3 VDC	0mA	10000mA	50mVp-p	81mA	1719mA	84	25750μF
UFEC40-24S05W	9.5 – 36 VDC	5 VDC	0mA	8000mA	50mVp-p	101mA	2058mA	85	13600μF
UFEC40-24S12W	9.5 – 36 VDC	12 VDC	50mA	3333mA	75mVp-p	53mA	2058mA	85	2360μF
UFEC40-24S15W	9.5 – 36 VDC	15 VDC	50mA	2666mA	75mVp-p	54mA	2058mA	85	1510μF
UFEC40-24D12W	9.5 – 36 VDC	± 12 VDC	±65 mA	± 1667mA	120mVp-p	63mA	2084mA	84	± 1200μF
UFEC40-24D15W	9.5 – 36 VDC	± 15 VDC	±50 mA	± 1333mA	150mVp-p	74mA	2084mA	84	± 750μF
UFEC40-48S3P3W	18 – 75 VDC	3.3 VDC	0mA	10000mA	50mVp-p	61mA	848mA	85	25750μF
UFEC40-48S05W	18 – 75 VDC	5 VDC	0mA	8000mA	50mVp-p	66mA	1004mA	87	13600μF
UFEC40-48S12W	18 – 75 VDC	12 VDC	50mA	3333mA	75mVp-p	32mA	1016mA	86	2360μF
UFEC40-48S15W	18 – 75 VDC	15 VDC	50mA	2666mA	75mVp-p	32mA	1016mA	86	1510μF
UFEC40-48D12W	18 – 75 VDC	± 12 VDC	±65 mA	± 1667mA	120mVp-p	32mA	1029mA	85	± 1200μF
UFEC40-48D15W	18 – 75 VDC	± 15 VDC	±60 mA	± 1333mA	150mVp-p	32mA	1029mA	85	± 750μF

Notes:

- BELLCORE TR-NWT-000332. Case I: 50% Stress, Temperature at 40°C. MIL-HDBK-217F Notice2 @Ta=25 °C, Full load(Ground, Benign, controlled environment).
- Maximum value at nominal input voltage and full load.
- Typical value at nominal input voltage and no load.
- Typical value at nominal input voltage and full load.
- Test by minimum Vin and constant resistive load.
- The ON/OFF control pin voltage is referenced to -Vin
To order negative logic ON/OFF control add the suffix-N (Ex:UFEC40-48S05W-N)
- The output requires minimum loading on the output to maintain specified regulation. Operation in no-load condition will not damage these devices, however they may not meet all listed specification.
- Single output installs a potentiometer to adjust the output voltage.
- Load regulation for dual output: Min load to 100% load balanced on all outputs
- Screw terminals – wire range from 14 AWG to 18 AWG



