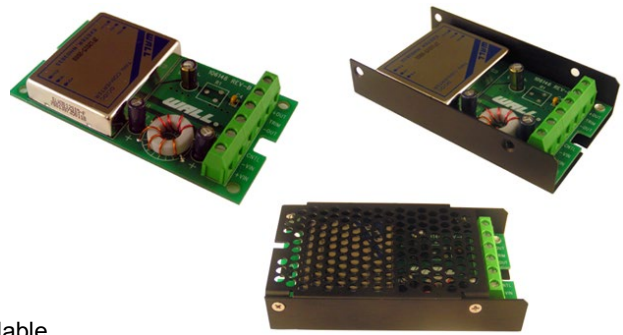


FEATURES

- Output Current up to 5.5A
- Fixed Switching Frequency
- Six-Sided Continuous Shielding
- 20 Watts Maximum Output Power
- 4:1 Ultra Wide Input Voltage Range
- Options: Negative Logic Remote ON/OFF
- **Call Factory for More Output Power Options**
- Compliant to RoHS EU Directive 2002/95/EC
- CE Mark Meets 2006/95/EC, 93/68/EEC, and 89/336 EEC
- Chassis Mount Options: Open Frame, U Channel, and Enclosed Types Available

APPLICATIONS

- Measurement
- Wireless Network
- Telecom/Datacom
- Industry Control System
- Semiconductor Equipment



SPECIFICATIONS: CMMDW Series

All specifications apply @ 25°C ambient unless otherwise noted

INPUT SPECIFICATIONS

Input Voltage Range.....	24V nominal input	9-36VDC
	48V nominal input	18-75VDC
Input Voltage Variation	dv/dt.....	5V/ms max (Complies with ETS300 132 part 4.4)
Input Surge Voltage (100ms max).....	24V input.....	50VDC
	48V input.....	100VDC
Input Reflected Ripple Current (nominal Vin and full load).....		20mA _{p-p}
Start Up Time (nominal Vin and constant resistive load)		
Power Up.....		20ms typ.
Remote ON/OFF		20ms typ.
Start Up Voltage.....	24V input.....	9 VDC
	48V input.....	18 VDC
Shutdown Voltage.....	24V input	7.5 VDC
	48V input	15 VDC
Remote ON/OFF (Note 6)		
(Positive Logic).....	DC-DC ON	Open or 3V < Vr < 12V
	DC-DC OFF	Short or 0V < Vr < 1.2V
(Negative Logic)	DC-DC ON	Short or 0V < Vr < 1.2V
	DC-DC OFF	Open or 3V < Vr < 12V
Input Current of Remote Control Pin (nominal Vin).....		-0.5mA ~ +0.5mA
Remote Off Input Current (nominal Vin)		2.5mA

OUTPUT SPECIFICATIONS

Output Voltage		see table
Voltage Accuracy (nominal Vin and full load).....		±1%
Voltage Adjustability		10%
Output Current		see table
Output Power		20 watts max.
Line Regulation (LL to HL at FL).....		±0.2%
Load Regulation (no load to full load)		±0.5%
Minimum Load.....		0%
Ripple/Noise (20 MHz BW).....		see table (measured with a 0.1uF/50V MLCC)
Transient Response Recovery Time (25% load step).....		250us

PROTECTION SPECIFICATIONS

Over Voltage Protection	3.3V output.....	3.9V
(zener diode clamp)	5V output.....	6.2V
	12V output.....	15V
	15V output.....	18V
Over Load Protection (% of full load at nominal input)		150% typ.
Short Circuit Protection.		Hiccup, automatic recovery

GENERAL SPECIFICATIONS

Efficiency		see table
Switching Frequency.....		400KHz typ.
Isolation Voltage (Input to Output).....		1600VDC min.
Isolation Voltage (Input to case).....		1600VDC min.
Isolation Voltage (Output to Case).....		1600VDC min.
Isolation Resistance		10 ⁹ ohms min.
Isolation Capacitance.....		1500pF max.

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature		-40°C ~ +66°C (w/o derating)
		+66°C ~ +105°C (w/ derating)
Storage Temperature		-55°C ~ +125°C
Maximum Case Temperature		105°C
Relative Humidity		5% to 95% RH
Thermal Impedance (Note 7)		
Natural Convection.....		12°C / Watt
Natural Convection with Heat-Sink		10°C / Watt
Thermal Shock.....		MIL-STD-810F
Temperature Coefficient.....		±0.02% / °C max.
Vibration.....		10~55Hz, 10G, 30 minutes along X, Y, and Z
MTBF (Note 1)	BELLCORE TR-NWT-000332.....	1.691 X 10 ⁶ hrs
	MIL-STD-217F	5.629 x 10 ⁵ hrs

PHYSICAL SPECIFICATIONS

Potting material of the DC/DC Converter.....		Epoxy (UL94-V0)
Shielding of the DC/DC Converter.....		six-sided
Weight		Approximately 6 oz
Dimensions		4.00(L) x 2.25(W) x 0.81(H) inches

SAFETY & EMC

Approvals and Standards.....		IEC60950-1, UL60950-1 (See Note 9), EN60950-1
EMI	EN55022	Class A
ESD	EN61000-4-2	Air ± 8KV Contact ± 6KV
Radiated Immunity.....	EN61000-4-3	10V/m Perf. Criteria A
Fast Transient.....	EN61000-4-4	±2KV Perf. Criteria B
Surge.....	EN61000-4-5	±1KV Perf. Criteria B
Conducted Immunity	EN61000-4-6	10 Vrms Perf. Criteria A

Due to advances in technology, specifications subject to change without notice

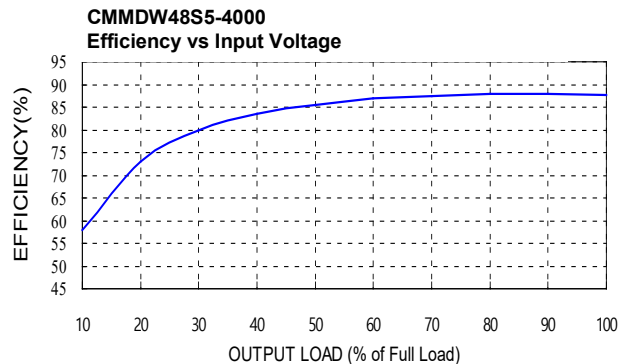
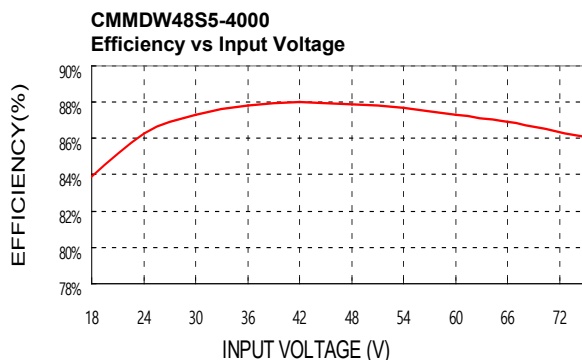
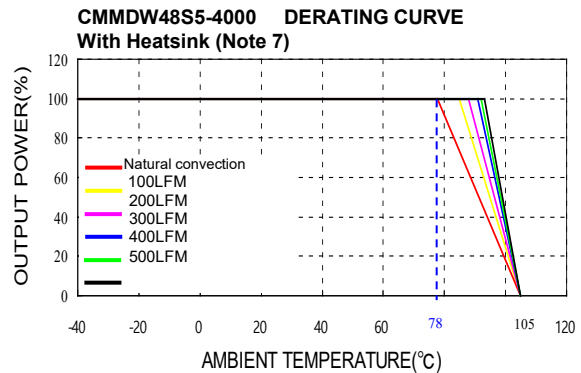
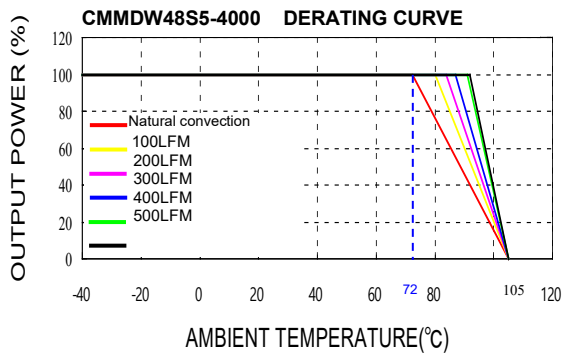
OUTPUT VOLTAGE / CURRENT RATING CHART

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)		
CMMDW24S3.3-5500	24 VDC (9-36 VDC)	3.3 VDC	0mA	5500mA	60mVp-p	50mA	934mA	85%	18000uF
CMMDW24S5-4000		5 VDC	0mA	4000mA	75mVp-p	65mA	992mA	88%	9600uF
CMMDW24S12-1670		12 VDC	0mA	1670mA	75mVp-p	22mA	1018mA	86%	1650uF
CMMDW24S15-1330		15 VDC	0mA	1330mA	75mVp-p	22mA	1014mA	86%	1050uF
CMMDW48S3.3-5500	48 VDC (18-75 VDC)	3.3 VDC	0mA	5500mA	60mVp-p	35mA	467mA	85%	18000uF
CMMDW48S5-4000		5 VDC	0mA	4000mA	75mVp-p	35mA	496mA	88%	9600uF
CMMDW48S12-1670		12 VDC	0mA	1670mA	75mVp-p	15mA	503mA	87%	1650uF
CMMDW48S15-1330		15 VDC	0mA	1330mA	75mVp-p	15mA	501mA	87%	1050uF

NOTES

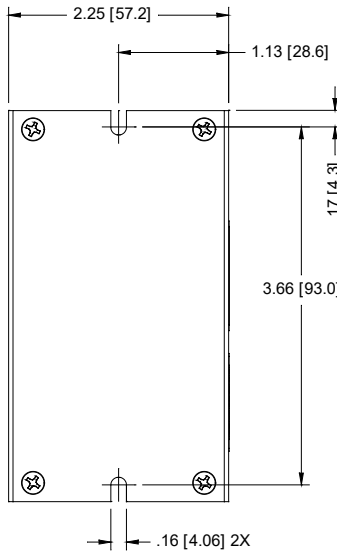
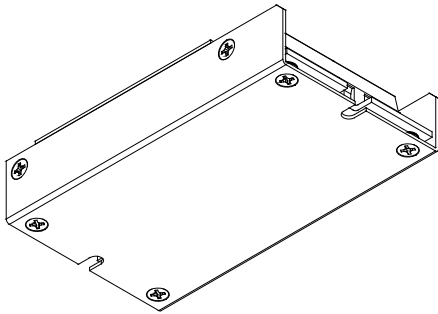
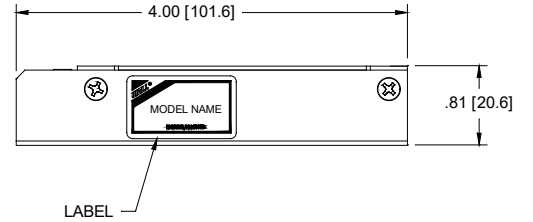
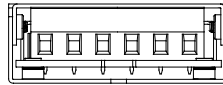
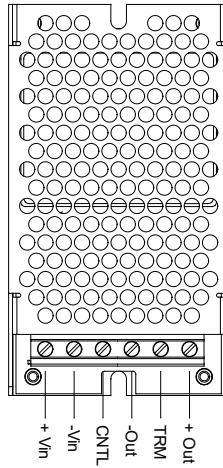
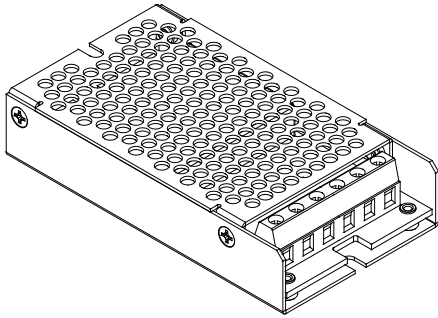
- BELLCORE TR-NWT-000332. Case 1: 50% Stress, Temperature at 40°C (Ground fixed and controlled environment). MIL-STD-217F Notice2 @Ta=25 °C, Full load (Ground, Benign, controlled environment)
- Maximum value at nominal input voltage and full load.
- Typical value at nominal input voltage and no load.
- 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 "R" (Ex: CMMDW48S5-4000R)
- Heat sink is optional, consult factory for ordering details.
- Chassis Mount Options: No suffix for open frame, "U" suffix for U Channel, and "E" suffix for Enclosed type.
- This product is Listed to applicable standards and requirements by UL.

DERATING CURVES & EFFICIENCY GRAPHS



MECHANICAL DRAWING

Unit: inches [mm]





COMPANY INFORMATION

Wall Industries, Inc. has created custom and modified units for over 50 years. Our in-house research and development engineers will provide a solution that exceeds your performance requirements on-time and on budget. Our ISO9001 certification is just one example of our commitment to producing a high quality, well-documented product for our customers.

Our past projects demonstrate our commitment to you, our customer. Wall Industries, Inc. has a reputation for working closely with its customers to ensure each solution meets or exceeds form, fit and function requirements. We will continue to provide ongoing support for your project above and beyond the design and production phases. Give us a call today to discuss your future projects.

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