

Open Frame (Suffix "O")



Size: 5.00 x 3.00 x 1.36 inches

U-Chassis (Suffix "U")



Size: 5.00 x 3.17 x 1.57 inches

FEATURES

- RoHS Compliant
- Dual to Quad Outputs
- High Efficiency up to 80%
- 120 Watts with Convection Cooling
- 150 Watts with Forced Air Cooling
- 90~264 VAC Input Voltage Range
- Built-in Active PFC Function, PF > 0.9 at 230VAC
- Short Circuit, Over Load, and Over Temperature Protection
- MTBF > 100,000 Hours
- UL60950-1, CSA 22.2 No.60950-1, Nemko EN60950-1, & CB IEC60950-1 Safety Approvals
- Open Frame and U-Chassis Mechanical Options Available

DESCRIPTION

The PSPWX150 series of AC/DC switching power supplies provides 120 Watts of output power with convection cooling and 150 Watts with 30CFM forced air. This series consists of dual, triple, and quad output models with a 90-264VAC input voltage range. These supplies also feature a high efficiency up to 80% and a power factor > 0.9 at 230VAC. These supplies are also protected against short circuit, over load, and over temperature conditions. The PSPWX150 series has UL60950-1, CSA 22.2 No.60950-1, Nemko EN60950-1, and CB IEC60950-1 safety approvals. This series is also CE marked and meets EN55022 Class B, CISPR22 Class B, and FCC Part 15 Class B EMC standards. Both open frame and U-chassis mechanical options are available for this series.

SPECIFICATIONS: PSPWX150 SERIES

All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted.
We reserve the right to change specifications based on technological advances.

SPECIFICATION	TEST CONDITIONS	Min	Typ	Max	Unit
INPUT SPECIFICATIONS					
Input Voltage Range		90		264	VAC
Input Frequency		47		63	Hz
Input Current (rms)	115VAC and full load 230VAC and full load			2.5 1.25	A
Inrush Current	115VAC, cold start, 25°C 115VAC, cold start, 25°C			40 80	A
Power Factor Correction	115VAC and full load 230VAC and full load	0.95 0.90			
OUTPUT SPECIFICATIONS					
Output Voltage			See Table		
Total Regulation			See Table		
Output Power	Convection cooling With 30CFM forced air			120 150	W
Output Current			See Table		
Minimum Load			See Table		
Ripple & Noise	Measured at 20MHz limited bandwidth and with 0.1µF ceramic and 10µF electrolytic capacitors in parallel across the output		See Table		
Hold-up Time	115VAC and full load	16			ms
PROTECTION					
Short Circuit Protection			Automatic recovery		
Over Load Protection	Auto-recovery	110		160	%
Over Temperature Protection	Auto-recover; the temperature sensing point is located at HS1	84	88	92	°C
GENERAL SPECIFICATIONS					
Efficiency	115VAC and full load		80		
ENVIRONMENTAL SPECIFICATIONS					
Operating Temperature	Derating linearly 2.5% per °C from +41°C to +60°C	0		+60	°C
Storage Temperature Range		-40		+85	°C
Humidity	Non-condensing	5		95	%
MTBF	Full load, 25°C ambient temperature	100,000			hours
PHYSICAL SPECIFICATIONS					
Weight	Open Frame Models (Suffix "O") U-Chassis Models (Suffix "U")		0.86 lbs (390g) 1.11 lbs (500g)		
Dimensions (L x W x H)	Open Frame Models (Suffix "O") U-Chassis Models (Suffix "U")	5.00 x 3.00 x 1.36 in (127 x 76.2 x 34.5 mm) 5.00 x 3.17 x 1.57 in (127 x 80.5 x 40.0 mm)			
SAFETY & EMC					
Safety Approvals		UL60950-1, CSA 22.2 No.60950-1, Nemko EN60950-1, CB IEC60950-1			
EMC Standards		EN55022 Class B, CISPR22 Class B, FCC Part 15 Class B, CE			

MODEL SELECTION TABLE

DUAL OUTPUT MODELS												
Model Number ⁽¹⁾	Input Voltage	Output Voltage	Minimum Load	Convection ⁽³⁾			30CFM Forced Air ⁽³⁾			Total Regulation	Ripple & Noise ⁽²⁾	
				Max Load	Combined Load Max.	Max Power	Max Load	Combined Load Max.	Max Power			
PSPW150B-2Y01- X	V2	90~264 VAC	+12 VDC	0.15A	6A	-	120W	7.5A	-	150W	±5%	120mVp-p
	V1		+24 VDC	0.15A	3.5A			4.5A			±5%	240mVp-p
PSPW150B-2Y02- X	V2	90~264 VAC	+5 VDC	0A	10A	-	120W	12A	-	150W	±5%	50mVp-p
	V1		+24 VDC	0.15A	3.5A			4.5A			±5%	240mVp-p
PSPW150B-2Y03- X	V2	90~264 VAC	+5 VDC	0A	10A	-	120W	12A	-	150W	±5%	50mVp-p
	V1		+12 VDC	0.15A	6A			7.5A			±5%	120mVp-p
TRIPLE OUTPUT MODELS												
Model Number ⁽¹⁾	Input Voltage	Output Voltage	Minimum Load	Convection ⁽³⁾			30CFM Forced Air ⁽³⁾			Total Regulation	Ripple & Noise ⁽²⁾	
				Max Load	Combined Load Max.	Max Power	Max Load	Combined Load Max.	Max Power			
PSPW150B-3Y01- X	V3	90~264 VAC	+5 VDC	0A	10A	75W	120W	12A	90W	150W	±5%	50mVp-p
	V2		+12 VDC	0.15A	6A			7.5A			±5%	120mVp-p
	V1		+24 VDC	0.15A	3.5A			4.5A			±5%	240mVp-p
PSPW150B-3Y02- X	V3	90~264 VAC	+3.3 VDC	0A	10A	75W	120W	12A	90W	150W	±5%	50mVp-p
	V2		+5 VDC	0A	10A			12A			±5%	50mVp-p
	V1		+12 VDC	0.15A	6A			7.5A			±5%	120mVp-p
PSPW150B-3Y03- X	V3	90~264 VAC	+3.3 VDC	0A	10A	75W	120W	12A	90W	150W	±5%	50mVp-p
	V2		+5 VDC	0A	10A			12A			±5%	50mVp-p
	V1		+24 VDC	0.15A	3.5A			4.5A			±5%	240mVp-p
QUAD OUTPUT MODELS												
Model Number ⁽¹⁾	Input Voltage	Output Voltage	Minimum Load	Convection ⁽³⁾			30CFM Forced Air ⁽³⁾			Total Regulation	Ripple & Noise ⁽²⁾	
				Max Load	Combined Load Max.	Max Power	Max Load	Combined Load Max.	Max Power			
PSPW150B-4Y01- X	V4	90~264 VAC	+3.3 VDC	0A	10A	75W	120W	12A	90W	150W	±5%	50mVp-p
	V3		+5 VDC	0A	10A			12A			±5%	50mVp-p
	V2		+12 VDC	0.15A	6A			7.5A			±5%	120mVp-p
	V1		+24 VDC	0.15A	3.5A			4.5A			±5%	240mVp-p
PSPW150B-4Y02- X	V4	90~264 VAC	+3.3 VDC	0A	10A	105W	120W	12A	125W	150W	±5%	50mVp-p
	V3		+5 VDC	0A	10A			12A			±5%	50mVp-p
	V2		+12 VDC	0.15A	6A			7.5A			±5%	120mVp-p
	V1		-12 VDC	0.15A	1.5A			2.5A			±5%	120mVp-p
PSPW150B-4Y03- X	V4	90~264 VAC	+3.3 VDC	0A	10A	105W	120W	12A	125W	150W	±5%	50mVp-p
	V3		+5 VDC	0A	10A			12A			±5%	50mVp-p
	V2		+15 VDC	0.15A	2.5A			3.5A			±5%	150mVp-p
	V1		-15 VDC	0.15A	1.25A			1.75A			±5%	150mVp-p
PSPW150B-4Y04- X	V4	90~264 VAC	+3.3 VDC	0A	10A	105W	120W	12A	125W	150W	±5%	50mVp-p
	V3		+5 VDC	0A	10A			12A			±5%	50mVp-p
	V2		+12 VDC	0.15A	6A			7.5A			±5%	120mVp-p
	V1		+48 VDC	0.15A	0.5A			1.0A			±5%	480mVp-p
PSPW150B-4Y05- X	V4	90~264 VAC	+5 VDC	0A	10A	75W	120W	12A	90W	150W	±5%	50mVp-p
	V3		+12 VDC	0.15A	6A			7.5A			±5%	120mVp-p
	V2		+24 VDC	0.15A	3.5A			4.5A			±5%	240mVp-p
	V1		-12 VDC	0.15A	1.5A			1.5A			±5%	120mVp-p
PSPW150B-4Y06- X	V4	90~264 VAC	+5 VDC	0A	10A	75W	120W	12A	90W	150W	±5%	50mVp-p
	V3		+12 VDC	0.15A	6A			7.5A			±5%	120mVp-p
	V2		+24 VDC	0.15A	3.5A			4.5A			±5%	240mVp-p
	V1		-15 VDC	0.15A	1.5A			1.0A			±5%	150mVp-p
PSPW150B-4Y07- X	V4	90~264 VAC	+3.3 VDC	0A	10A	75W	120W	12A	90W	150W	±5%	50mVp-p
	V3		+5 VDC	0A	10A			12A			±5%	50mVp-p
	V2		+12 VDC	0.15A	6A			7.5A			±5%	120mVp-p
	V1		+28 VDC	0.15A	3A			4.0A			±5%	280mVp-p

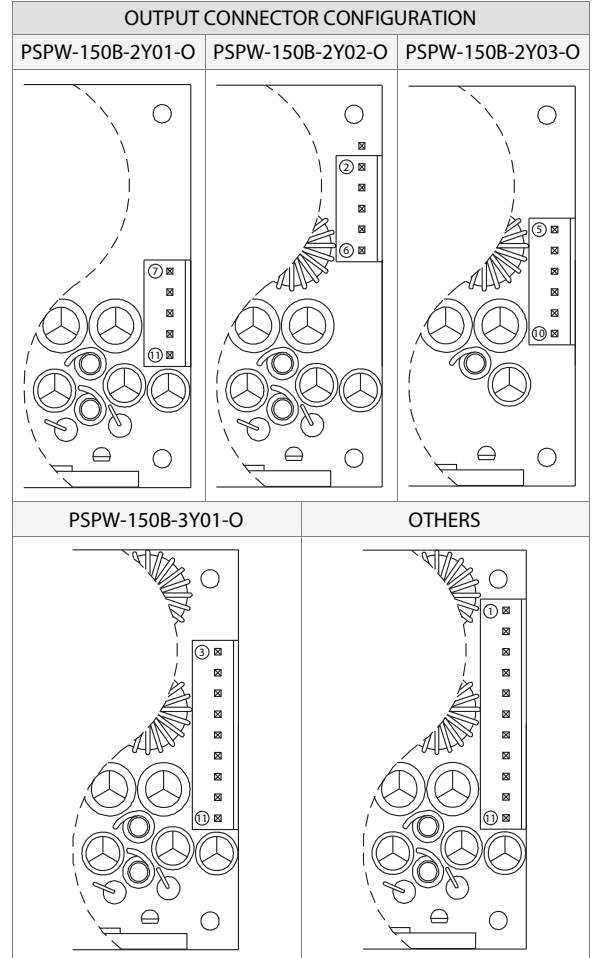
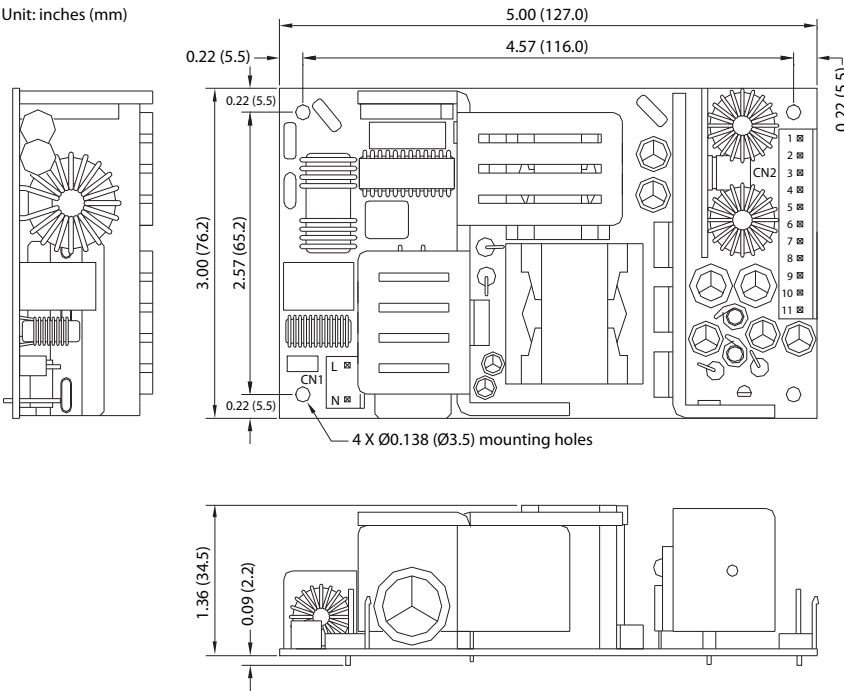
NOTES

1. The "**X**" in the model number can be "**O**" for open frame type or "**U**" for U-chassis type.
2. Measured at 20MHz limited bandwidth and with 0.1µF ceramic and 10µF electrolytic capacitors in parallel across the output.
3. 120W max. with convection cooling and 150W max. with 30CFM minimum forced airflow.
4. These supplies require a minimum load on the output to maintain specified regulations. Operation under no-load conditions will not damage these devices; however, they may not meet all listed specifications.

MECHANICAL DRAWING

OPEN FRAME MODELS (SUFFIX "O")

Unit: inches (mm)



CN1: INPUT CONNECTOR

JST B3P-VH-B pitch: 7.92mm or equivalent, mates with JST VHR-3N or equivalent

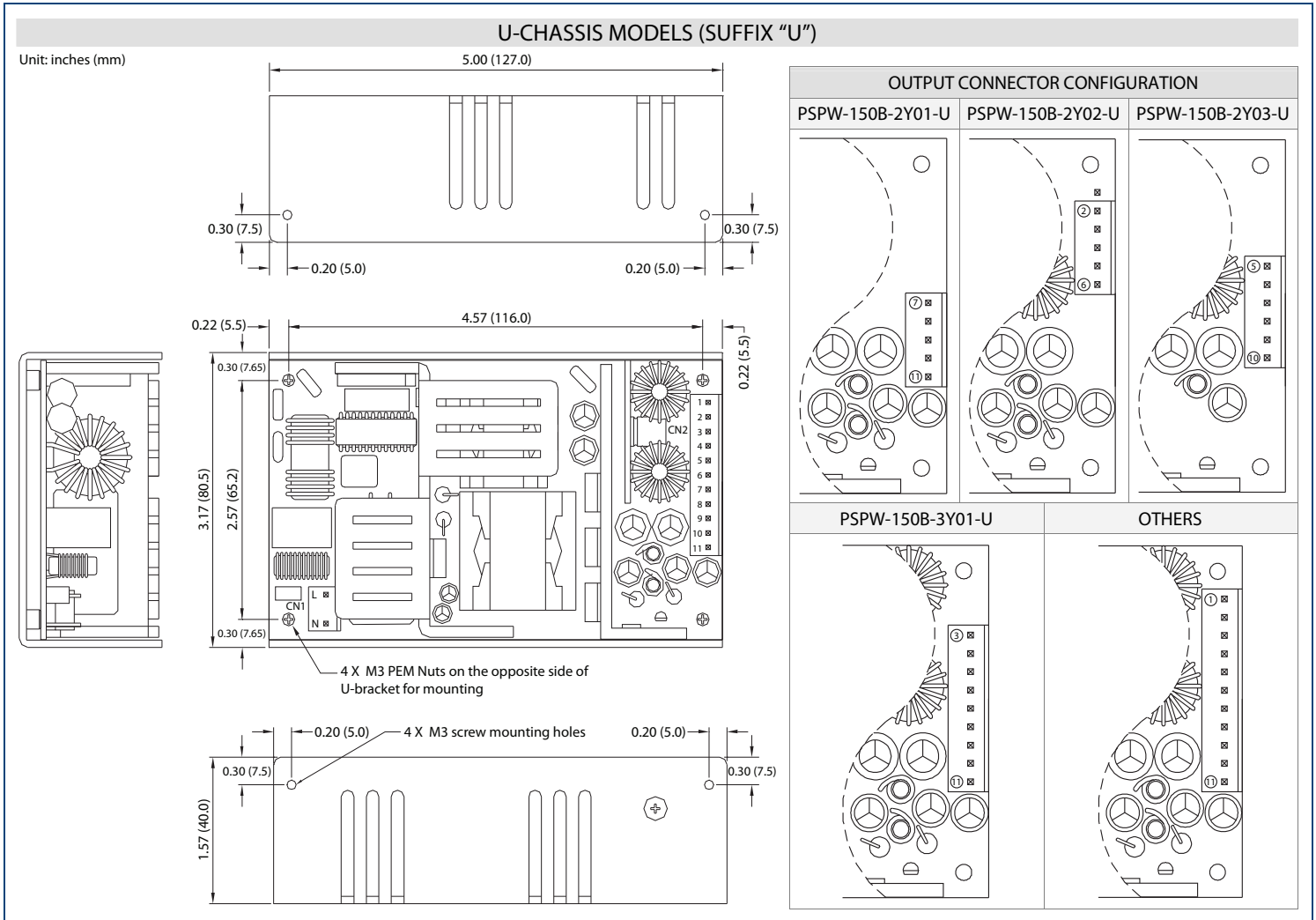
CN1: INPUT CONNECTOR	
PIN	FUNCTION
1	AC (L)
2	AC (N)

CN2: OUTPUT CONNECTOR

JST B11P-VH-B pitch: 3.96mm or equivalent, mates with JST VHR-11N or equivalent

CN2: OUTPUT CONNECTOR												
MODEL \ PIN	1	2	3	4	5	6	7	8	9	10	11	
PSPW-150B-2Y01-O	-	-	-	-	-	-	GND	GND	+12V	+12V	+24V	
PSPW-150B-2Y02-O	-	+24V	GND	GND	+5V	+5V	-	-	-	-	-	
PSPW-150B-2Y03-O	-	-	-	-	+5V	+5V	GND	GND	+12V	+12V	-	
PSPW-150B-3Y01-O	-	-	GND	GND	+5V	+5V	GND	GND	+12V	+12V	+24V	
PSPW-150B-3Y02-O	+3.3V	+3.3V	GND	GND	+5V	+5V	GND	GND	+12V	+12V	-	
PSPW-150B-3Y03-O	+3.3V	+3.3V	GND	GND	+5V	+5V	GND	GND	-	-	+24V	
PSPW-150B-4Y01-O	+3.3V	+3.3V	GND	GND	+5V	+5V	GND	GND	+12V	+12V	+24V	
PSPW-150B-4Y02-O	+3.3V	+3.3V	GND	GND	+5V	+5V	GND	GND	+12V	+12V	-12V	
PSPW-150B-4Y03-O	+3.3V	+3.3V	GND	GND	+5V	+5V	GND	GND	+15V	+15V	-15V	
PSPW-150B-4Y04-O	+3.3V	+3.3V	GND	GND	+5V	+5V	GND	GND	+12V	+12V	+48V	
PSPW-150B-4Y05-O	-12V	-12V	GND	GND	+5V	+5V	GND	GND	+12V	+12V	+24V	
PSPW-150B-4Y06-O	-15V	-15V	GND	GND	+5V	+5V	GND	GND	+12V	+12V	+24V	
PSPW-150B-4Y07-O	+3.3V	+3.3V	GND	GND	+5V	+5V	GND	GND	+12V	+12V	+28V	

MECHANICAL DRAWING



CN1: INPUT CONNECTOR

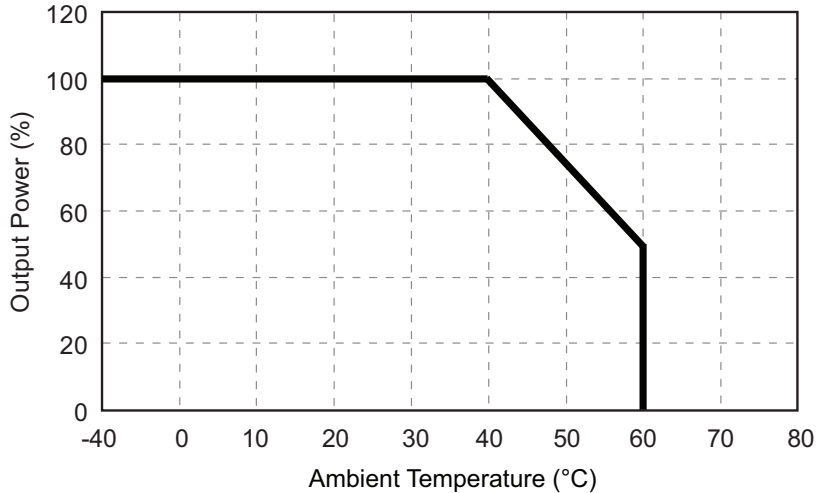
JST B3P-VH-B pitch: 7.92mm or equivalent, mates with JST VHR-3N or equivalent

CN1: INPUT CONNECTOR	
PIN	FUNCTION
1	AC (L)
2	AC (N)

CN2: OUTPUT CONNECTOR

JST B11P-VH-B pitch: 3.96mm or equivalent, mates with JST VHR-11N or equivalent

		CN2: OUTPUT CONNECTOR										
MODEL	PIN	1	2	3	4	5	6	7	8	9	10	11
PSPW-150B-2Y01-U		-	-	-	-	-	-	GND	GND	+12V	+12V	+24V
PSPW-150B-2Y02-U		-	+24V	GND	GND	+5V	+5V	-	-	-	-	-
PSPW-150B-2Y03-U		-	-	-	-	+5V	+5V	GND	GND	+12V	+12V	-
PSPW-150B-3Y01-U		-	-	GND	GND	+5V	+5V	GND	GND	+12V	+12V	+24V
PSPW-150B-3Y02-U		+3.3V	+3.3V	GND	GND	+5V	+5V	GND	GND	+12V	+12V	-
PSPW-150B-3Y03-U		+3.3V	+3.3V	GND	GND	+5V	+5V	GND	GND	-	-	+24V
PSPW-150B-4Y01-U		+3.3V	+3.3V	GND	GND	+5V	+5V	GND	GND	+12V	+12V	+24V
PSPW-150B-4Y02-U		+3.3V	+3.3V	GND	GND	+5V	+5V	GND	GND	+12V	+12V	-12V
PSPW-150B-4Y03-U		+3.3V	+3.3V	GND	GND	+5V	+5V	GND	GND	+15V	+15V	-15V
PSPW-150B-4Y04-U		+3.3V	+3.3V	GND	GND	+5V	+5V	GND	GND	+12V	+12V	+48V
PSPW-150B-4Y05-U		-12V	-12V	GND	GND	+5V	+5V	GND	GND	+12V	+12V	+24V
PSPW-150B-4Y06-U		-15V	-15V	GND	GND	+5V	+5V	GND	GND	+12V	+12V	+24V
PSPW-150B-4Y07-U		+3.3V	+3.3V	GND	GND	+5V	+5V	GND	GND	+12V	+12V	+28V

DERATING CURVE**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 ISO9001-2008 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.

Contact **Wall Industries** for further information:

Phone: ☎ (603)778-2300
Toll Free: ☎ (888)597-9255
Fax: ☎ (603)778-9797
E-mail: sales@wallindustries.com
Web: www.wallindustries.com
Address: 37 Industrial Drive
Exeter, NH 03833