



Size: 1.25in x 0.80in x 0.40 (31.8mm x 20.3mm x 10.2mm)

FEATURES

- 2:1 Wide Input Voltage Range
- RoHS II & REACH Compliant
- Standard 24 Pin DIP Package and SMD Type Package
- CE Marked
- Short Circuit Protection
- 1600VDC I/O Isolation and 3000VDC Optional I/O Isolation
- MTBF 8, 066,000 Hours
- High Efficiency up to 80%
- IEC/UL/EN60950-1, 62368-1 Safety Approvals

APPLICATIONS

- Wireless Network
- Telecom/Datacom
- Industry Control System
- Distributed Power Architectures
- Semiconductor Equipment

DESCRIPTION

The LANK "H" series offers 3 watts of output power from a package in 24 pin DIP and SMT configurations without derating to 71°C ambient temperature. The LANK "H" Series has 2:1 wide input voltage of 4.5-6, 9-18, 18-36 and 36-75VDC; it also offers both single and dual outputs. This series features 1600VDC I/O isolation and 3000VDC optional isolation, as well as short circuit protection. Add suffix "I" for -40°C to +71°C ambient operation. All models are CE marked and has IEC/UL/EN60950-1 and 62368-1 safety approvals.

MODEL SELECTION TABLE

Single Output Models

Model Number ⁽¹⁾	Input Voltage Range	Output Voltage	Output Current		No Load Input Current	Output Power	Maximum Capacitive Load ⁽³⁾	Efficiency
			Min. Load ⁽²⁾	Full Load				
LANK53.3W3H	5 VDC (4.5 – 6 VDC)	3.3 VDC	60mA	600mA	20mA	Up to 3W	2200uF	66%
LANK505W3H		5 VDC	60mA	600mA	20mA		1000uF	70%
LANK512W3H		12 VDC	25mA	250mA	35mA		170uF	76%
LANK515W3H		15 VDC	20mA	200mA	35mA		110uF	75%
LANK123.3W3H	12VDC (9 – 18 VDC)	3.3 VDC	60mA	600mA	10mA	Up to 3W	2200uF	70%
LANK1205W3H		5 VDC	60mA	600mA	10mA		1000uF	75%
LANK1212W3H		12 VDC	25mA	250mA	15mA		170uF	79%
LANK1215W3H		15 VDC	20mA	200mA	15mA		110uF	77%
LANK243.3W3H	24 VDC (18 – 36 VDC)	3.3 VDC	60mA	600mA	10mA	Up to 3W	2200uF	71%
LANK2405W3H		5 VDC	60mA	600mA	10mA		1000uF	76%
LANK2412W3H		12 VDC	25mA	250mA	10mA		170uF	80%
LANK2415W3H		15 VDC	20mA	200mA	10mA		110uF	80%
LANK483.3W3H	48VDC (36 – 75 VDC)	3.3 VDC	60mA	600mA	5mA	Up to 3W	2200uF	72%
LANK4805W3H		5 VDC	60mA	600mA	5mA		1000uF	75%
LANK4812W3H		12 VDC	25mA	250mA	5mA		170uF	79%
LANK4815W3H		15 VDC	20mA	200mA	5mA		110uF	79%

MODEL SELECTION TABLE

Dual Output Models

Model Number ⁽¹⁾	Input Voltage Range	Output Voltage	Output Current		No Load Input Current	Output Power	Maximum Capacitive Load ⁽³⁾	Efficiency
			Min. Load ⁽²⁾	Full Load				
LANK505DW3H	5 VDC (4.5 – 6 VDC)	±5VDC	±30mA	±300mA	20mA	Up to 3W	±500uF	74%
LANK512DW3H		±12VDC	±12mA	±125mA	20mA		±96uF	75%
LANK515DW3H		±15VDC	±10mA	±100mA	55mA		±47uF	73%
LANK1205DW3H	12VDC (9 – 18 VDC)	±5VDC	±30mA	±300mA	15mA	Up to 3W	±500uF	76%
LANK1212DW3H		±12VDC	±12mA	±125mA	20mA		±96uF	78%
LANK1215DW3H		±15VDC	±10mA	±100mA	25mA		±47uF	79%
LANK2405DW3H	24 VDC (18 – 36 VDC)	±5VDC	±30mA	±300mA	10mA	Up to 3W	±500uF	77%
LANK2412DW3H		±12VDC	±12mA	±125mA	10mA		±96uF	79%
LANK2415DW3H		±15VDC	±10mA	±100mA	10mA		±47uF	79%
LANK4805DW3H	48VDC (36 – 75 VDC)	±5VDC	±30mA	±300mA	5mA	Up to 3W	±500uF	77%
LANK4812DW3H		±12VDC	±12mA	±125mA	5mA		±96uF	79%
LANK4815DW3H		±15VDC	±10mA	±100mA	5mA		±47uF	79%

SPECIFICATIONS

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	5Vin (nom)			4.5	5	6	VDC
	12Vin (nom)			9	12	18	
	15Vin (nom)			18	24	36	
	48Vin (nom)			36	48	75	
Input Reflected Ripple Current	Nominal Input and Full Load				120		mAp-p
Input Surge Voltage	100mS, max.	5Vin (nom)				18	VDC
		12Vin (nom)				36	
		15Vin (nom)				50	
		48Vin (nom)				100	
Input Filter					Pi Type		
OUTPUT SPECIFICATIONS							
Output Voltage					See Table		
Voltage Accuracy				-1.0		+1.0	%
Line Regulation	Low Line to High Line at Full Load			-0.2		+0.2	%
Load Regulation	Min. Load to Full Load	Single	3.3Vout	-0.3		+0.3	%
			Others	-0.2		+0.2	
		Dual	-2.0		+2.0		
Cross Regulation	Asymmetrical Load 25%/100% FL	Dual		-5.0		+5.0	%
Output Power					See Table		
Output Current					See Table		
Maximum Capacitive Load					See Table		
Ripple & Noise	Measured by 20MHz bandwidth	3.3Vout., 5Vout			75		mVp-p
		12Vout			120		
		15Vout			150		
Transient Response Recovery Time	25% Load Step Change				500		µs
Start-Up Time	Constant Resistive Load	Power Up				30	ms
Temperature Coefficient				-0.02		+0.02	%/°C
PROTECTION							
Short Circuit Protection					Continuous, Automatic Recovery		
ENVIRONMENTAL SPECIFICATIONS							
Operating Ambient Temperature	Without Derating			-25		+71	°C
	"I" Suffix			-40		+71	
Storage Temperature				-55		+125	°C
Relative Humidity				5		95	%RH
Thermal Shock					MIL-STD-810F		
Vibration					MIL-STD-810F		
MTBF	MIL-HDBK-217F, Full Load				8.066 x 10 ⁶ hrs		
GENERAL SPECIFICATIONS							
Efficiency					See Table		
Switching Frequency				100			kHz
Isolation Voltage	1 minute	Input to Output	Standard	1600			VDC
			Suffix "H"	3000			
Isolation Resistance	500VDC			1			GΩ
Isolation Capacitance						300	pF
PHYSICAL SPECIFICATIONS							
Weight	DIP Type				0.48oz (14g)		
	SMD Type				0.52oz (15g)		
Dimensions (L x W x H)	DIP Type				1.25in x 0.8in x 0.4in (31.8mm x 20.3mm x 10.2mm)		
	SMD Type				1.26in x 1in x 0.47in (32mm x 25.4mm x 12mm)		
Case Material					Non-Conductive Black Plastic		
Base Material					Non-Conductive Black Plastic		
Potting Material					Epoxy (UL94 V-0)		
SAFETY CHARACTERISTICS							
Safety Approvals			IEC/UL ⁽⁴⁾ / EN60950-1, 62368-1				CB: UL (Demko)
EMI			EN55032				Class A
EMS	EN55024						
ESD	EN61000-4-2	Air ± 8kV and Contact ± 6kV					Perf. Criteria A
Radiated Immunity	EN61000-4-3	10 V/m					Perf. Criteria A
Fast Transient ⁽⁵⁾	EN61000-4-4	± 2kV					Perf. Criteria B
Surge ⁽⁵⁾	EN61000-4-5	± 1kV					Perf. Criteria B
Conducted Immunity	EN61000-4-6	10 Vr.m.s					Perf. Criteria A
Power Frequency Magnetic Field	EN61000-4-8	100A/m continuous; 1000A/m 1 second					Perf. Criteria A

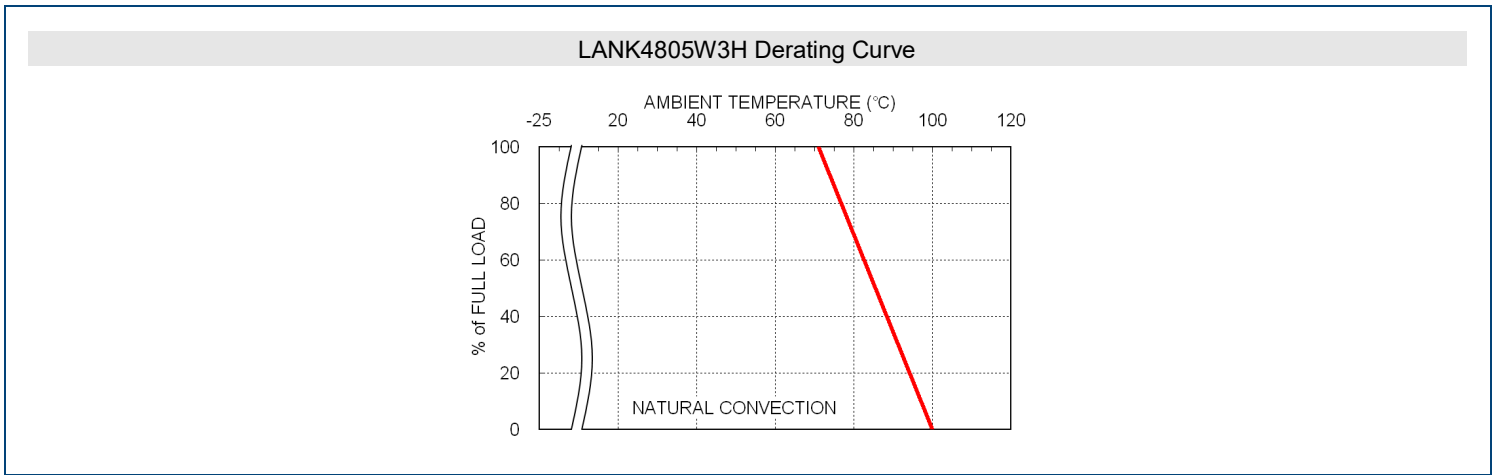
NOTES

1. Add "S" suffix for surface mount type. Add "I" for -40°C to $+71^{\circ}\text{C}$ operation.
2. The output requires a minimum loading on the output to maintain specified regulation. Operation under no-load condition will not damage these devices, however they may not meet all listed specifications.
3. Test by minimum input and constant resistive load.
4. This product is Listed to applicable standards and requirements by UL.
5. An external input filter capacitor is required if the module has to meet EN61000-4-4, EN61000-4-5.
Suggested filter capacitor: Nippon chemi-con KY series, $220\mu\text{F}/100\text{V}$.

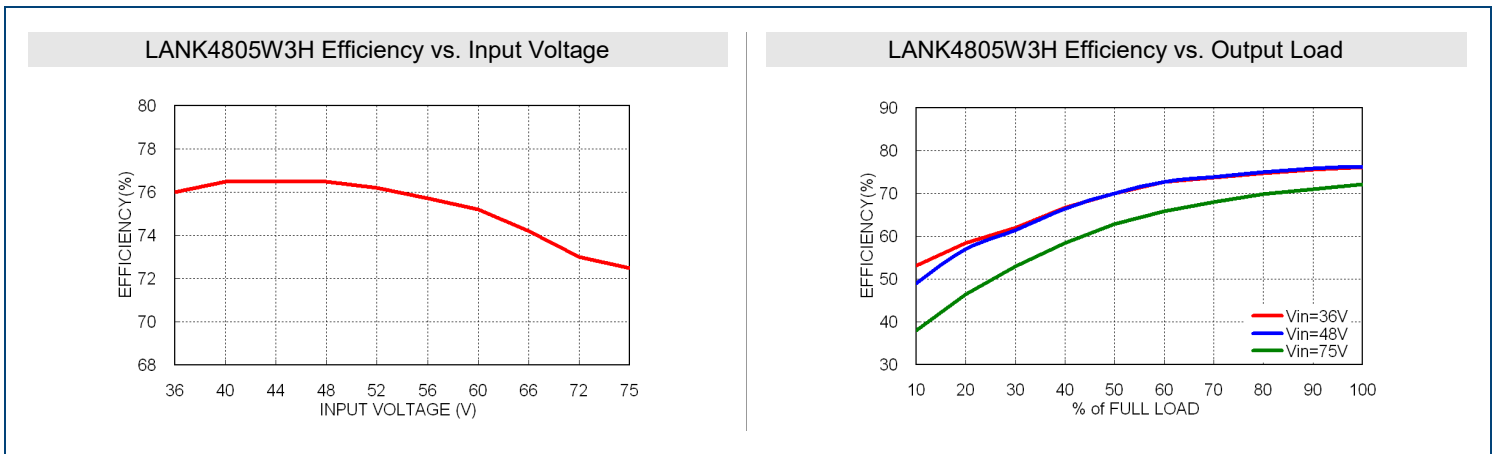
CAUTION: This power module is not internally fused. An input line fuse must always be used.

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

DERATING CURVES

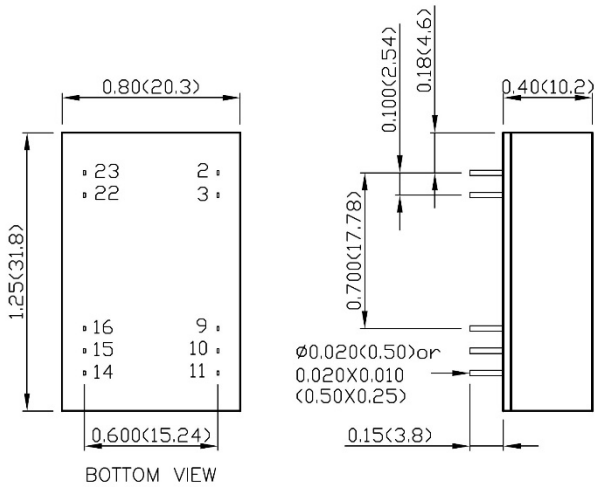


EFFICIENCY GRAPHS



MECHANICAL DRAWINGS

DIP Type

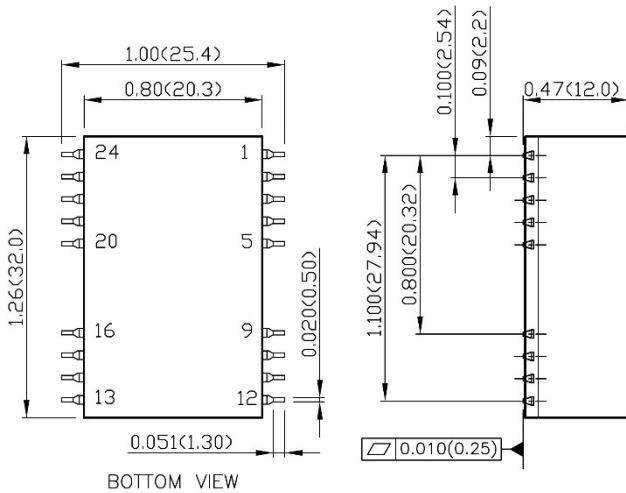


Pin Connection

PIN	SINGLE	DUAL	PIN	SINGLE	DUAL
2	-Vin	-Vin	23	+Vin	+Vin
3	-Vin	-Vin	22	+Vin	+Vin
9	NC	Common	16	-Vout	Common
10	NC	NC	15	NC	NC
11	NC	-Vout	14	+Vout	+Vout

*NC: No Connection

SMD Type ("S" Suffix)



Pin Connection

PIN	SINGLE	DUAL	PIN	SINGLE	DUAL
2	-Vin	-Vin	23	+Vin	+Vin
3	-Vin	-Vin	22	+Vin	+Vin
9	NC	Common	16	-Vout	Common
10	NC	NC	15	NC	NC
11	NC	-Vout	14	+Vout	+Vout
Others	NC	NC			

*NC: No Connection

1. All dimensions in inch (mm)
2. Tolerance :x.xx±0.02 (x.x±0.5)
x.xxx±0.01 (x.xx±0.25)
3. Pin pitch tolerance ±0.01 (0.25)
4. Pin dimension tolerance ±0.004(0.1)

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: 2015 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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