



## PRODUCT SPECIFICATIONS

### **1LH** SERIES

VARIABLE FREQUENCY DRIVE

Low Harmonic | Phase Converting

5 HP to 125 HP

PHASE



**1LH** SERIES  
VARIABLE FREQUENCY DRIVE

Phase Converting | Low Harmonic  
Voltage Doubling | Single-Phase



**1LH**  
SERIES

**Phase Converting, Voltage Doubling,  
Low Harmonic VFDs**

- Quick & easy installation and setup

**PERFECT PRESSURE™**

- Setup constant pressure in minutes
- Large backlit graphic display with intuitive menus
- Messages in clear English

**Industry Best Lead Times**

- 3-10 Business Days

**AUXPOWER™**

- Control motor and center pivot in one panel

**Sinewave Filter Integration**

- Minimize excessive voltage spikes
- In-house manufacturing / installation

**Superior Heat Rejection**

- Maximizing component life and uptime

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Enclosure Overview

**ENTERPRISE**

See Page 5



**5 HP to 30 HP**

Phase Technologies' most value driven product to date.

- Compact Design
- Best Value
- Shortest Lead Times (3-5 business days)

**SIGNATURE**

See Page 13



**20 HP to 100 HP**

Signature enclosures offer rugged performance & superior quality.

- Slim & Light Design
- Lower Cost
- Shorter Lead Times (3-7 business days)

**PERFORMANCE**

See Page 21



**20 HP to 125 HP**

The Performance enclosures offer a large sub-panel with ample space for a multitude of integrated options.

- Rugged
- Spacious
- Simple Equipment Integration
- Lead Times (5-10 business days)

Feature Set

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***Power Behind The Pump***

AQUAPHASE™ feature set provides complete control capability for all pumping applications

**1LHE**  
SERIES



**ENTERPRISE** Enclosure

- 5 HP to 30 HP
- Input 240 V & 480 V | Output 240 V & 480 V
- Phase Converting
- Voltage Doubling
- Low Harmonic - IEEE519 Compliance Guaranteed 
- NEMA 3R Rated Outdoor Enclosure

**Our Guarantee**

IEEE 519 Compliance

Phase Technologies guarantees that the **LH** SERIES product line will meet the IEEE 519-2014 standard as long as a minimum load of 80% is maintained as related to the max current rating of the system. If a system does not comply, Phase Technologies will either offer a suitable fix to the bring the panel into compliance or offer a full refund for the purchase price of the panel upon return.

**Nomenclature**

Model Series	Input / Output Voltage	Rated HP	Enclosure Rating	Branch Circuit Protection	Add. User Controls	Output Filter	Surge Protection
<b>1LHE</b> SERIES	<b>0</b> 240 V   240 V Phase Converting	05 - 5 HP 07 - 7.5 HP 10 - 10 HP 15 - 15 HP 20* - 20 HP					
	<b>2</b> 240 V   480 V Phase Converting Voltage Doubling	05 - 5 HP 07 - 7.5 HP 10 - 10 HP 15 - 15 HP 20 - 20 HP 25* - 25 HP	<b>R</b> 3R Rated Outdoor Type Rain / Bug Proof	<b>B</b> MCCB Service Disconnect	Choose Option   <b>H</b> - HOA Switch & Speed Pot <b>H1</b> - HOA Switch Only <b>H2</b> - Speed Pot Only	<b>O</b> Sinewave Filter  <small>*Not available for: 1LHE020 or 1LHE225</small>	Choose Option   <b>S</b> - Strikesorb® Surge Protection <b>S1</b> - Protec® Surge Protection
	<b>4</b> 480 V   480 V Phase Converting	05 - 5 HP 07 - 7.5 HP 10 - 10 HP 15 - 15 HP 20 - 20 HP 25 - 25 HP 30 - 30 HP					

Technical Specifications

Physical / Environmental	
Operating Temperature Range	-40 °C – 50 °C (-40 °F – 122 °F) <i>*Heater in enclosure may be required below -40 °C, de-rating required above 50 °C.</i>
Storage Temperature Range	-40 °C – 57 °C (-40 °F – 135 °F)
Enclosure	NEMA Type 3R: Outdoor   Rainproof
Altitude	Derate by 5 °C every 2000 ft over 5500 ft of elevation
Input Power	
Input Phase	1 phase
Input Voltage	240 V   480 V
Input Voltage Range	190 V – 264 V   440 V – 520 V
Input Frequency	60 Hz
Output Power	
Output Phase	3 phase
Nominal Output Voltage	240 V   480 V
Output Voltage Range	190 V – 264 V   440 V – 520 V
Output Frequency	5 Hz – 300 Hz
Horsepower	5 HP – 30 HP
Output Power	4 – 22 kW
Switching Frequency	2 kHz – 5 kHz
Output	V/f Control or Torque Control (Optional)
Integrated Output Filter	Optional Sinewave Filter
Electrical	
Short Circuit Withstand Rating	25 kA RMS symmetrical amps (65 kA available upon request)
Efficiency	95%
Startup Ramp Time	1 – 120 s
Shutdown Ramp Time	1 – 120 s or Coast to Stop
Overload Capacity	120% for 60 s
Analog Inputs	
Quantity	(3) Programmable
Current Reference	4 – 20 mA, (2) Inputs
Voltage Reference	0 – 5 VDC, (1) Input
Terminal Block Size	26 – 12 AWG
Digital Inputs	
Quantity	(2) Programmable
Ratings	< 5 V, galvanically isolated
Terminal Block Size	26 – 12 AWG
Relay Outputs	
Quantity	(2) Programmable
Rating	Relay 1: 28 VDC, 10 A or 250 VAC, 10 A Relay 2: 30 VDC, 2 A or 125 VAC, 0.5 A
Terminal Block Size	26 – 12 AWG
Features	
Low Harmonic Compliance	IEEE-519 Guaranteed – (See page 4 for guarantee statement)
Certification	ETL listed to UL 61800-5-1 and CSA C22.2 No. 274-17
User Interface	Push button membrane keypad with backlit graphic display
Available Feature Sets	AquaPhase™ (pump control)

Models

Part Number	HP	Rated Input Current	Rated Output Current	Dimensions (H x W x D)	Weight
<b>1LHE - ENTERPRISE - 240 V Input Single-Phase   240 V Output Three-Phase</b>					
1LHE005R	5 HP	26 A	18 A	31 x 19 x 19 in.	100 lbs
1LHE007R	7.5 HP	37 A	24 A	36 x 21 x 18 in.	110 lbs
1LHE010R	10 HP	48 A	31 A	36 x 21 x 18 in.	130 lbs
1LHE015R	15 HP	72 A	46 A	36 x 21 x 18 in.	130 lbs
1LHE020R	20 HP	97 A	61 A	36 x 21 x 18 in.	130 lbs
<b>1LHE - ENTERPRISE - 240 V Input Single-Phase   480 V Output Three-Phase</b>					
1LHE205R	5 HP	26 A	9 A	31 x 19 x 19 in.	100 lbs
1LHE207R	7.5 HP	37 A	13 A	31 x 19 x 19 in.	100 lbs
1LHE210R	10 HP	50 A	18 A	31 x 19 x 19 in.	100 lbs
1LHE215R	15 HP	67 A	24 A	31 x 19 x 19 in.	120 lbs
1LHE220R	20 HP	97 A	31 A	36 x 21 x 18 in.	150 lbs
1LHE225R	25 HP	115 A	40 A	36 x 21 x 18 in.	130 lbs

Part Number	HP	Rated Input Current	Rated Output Current	Dimensions (H x W x D)	Weight
<b>1LHE - ENTERPRISE - 480 V Input Single-Phase   480 V Output Three-Phase</b>					
1LHE405R	5 HP	13 A	9 A	31 x 19 x 19 in.	100 lbs
1LHE407R	7.5 HP	19 A	13 A	31 x 19 x 19 in.	100 lbs
1LHE410R	10 HP	26 A	18 A	31 x 19 x 19 in.	100 lbs
1LHE415R	15 HP	36 A	24 A	36 x 21 x 18 in.	130 lbs
1LHE420R	20 HP	48 A	31 A	36 x 21 x 18 in.	130 lbs
1LHE425R	25 HP	60 A	40 A	36 x 21 x 18 in.	130 lbs
1LHE430R	30 HP	72 A	46 A	36 x 21 x 18 in.	130 lbs

**Optional Integrations & Accessories**

Part Number	Description	Standard User Installation	Optional UL508A Panel Shop Installation (Additional Fee Applies)
<b>Kits</b>			
KIT E H	HOA Switch & Speed Potentiometer	Yes	Yes
KIT E H1	HOA Switch Only	Yes	Yes
KIT E H2	Speed Potentiometer Only	Yes	Yes
KIT E S 240V 1P	Strikesorb Surge Protection, 240 V, Single-Phase	Yes	Yes
KIT E S 480V 1P	Strikesorb Surge Protection, 480 V, Single-Phase	Yes	Yes
KIT E S1 240V 1P	Protec Surge Protection	Yes	Yes
KIT E S1 480V 1P	Protec Surge Protection	Yes	Yes
<b>Transducer</b>			
S00150	0-150 psi Transducer with 15ft lead	Yes	No
S00150-25	0-150 psi Transducer with 25ft lead	Yes	No
S00150-50	0-150 psi Transducer with 50ft lead	Yes	No
S00150-100	0-150 psi Transducer with 100ft lead	Yes	No
<b>Other Parts</b>			
PSI SNUB	Pressure Snubber for Transducers	Yes	No
CVR0002	Keypad Locking Security Cover <b>ENTERPRISE</b> Enclosures	Yes	No
CVR0001	HOA Switch and Speed Pot Security Cover	Yes	No
LF0018	GPS Output Filter	Yes	No
<b>Miscellaneous</b>			
[Custom]	Run or Fault Indicator Light and 150VA Power Supply	No	Yes
[Custom]	Additional Run or Fault Indicator Light	No	Yes





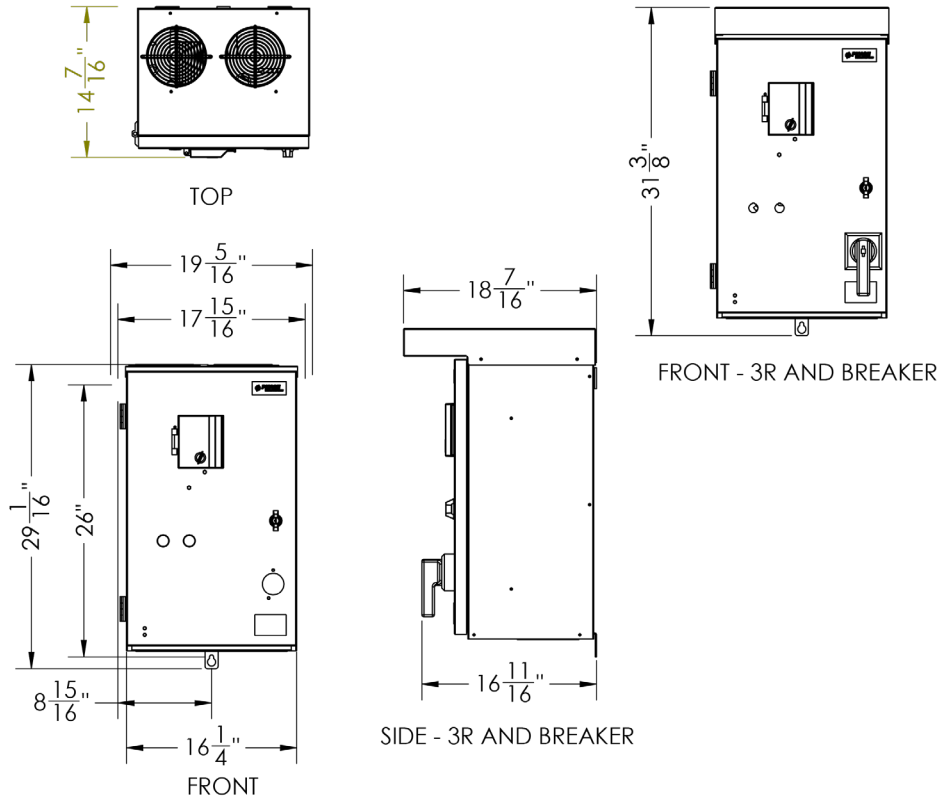
**Recommended Fuse & Breaker Ratings**

Model Number	Horsepower	VFD	
		Recommended Fuse Rating Class J	Recommended Circuit Breaker Rating
<b>1LHE - ENTERPRISE - 240 V Input Single-Phase   240 V Output Three-Phase</b>			
1LHE005R	5 HP	40 A, 600 V	40 A
1LHE007R	7.5 HP	60 A, 600 V	60 A
1LHE010R	10 HP	60 A, 600 V	60 A
1LHE015R	15 HP	100 A, 600 V	100 A
1LHE020R	20 HP	125 A, 600 V	125 A
<b>1LHE - ENTERPRISE - 240 V Input Single-Phase   480 V Output Three-Phase</b>			
1LHE205R	5 HP	40 A, 600 V	40 A
1LHE207R	7.5 HP	60 A, 600 V	60 A
1LHE210R	10 HP	70 A, 600 V	70 A
1LHE215R	15 HP	100 A, 600 V	100 A
1LHE220R	20 HP	125 A, 600 V	125 A
1LHE225R	25 HP	150 A, 600 V	150 A
<b>1LHE - ENTERPRISE - 480 V Input Single-Phase   480 V Output Three-Phase</b>			
1LHE405R	5 HP	20 A, 600 V	20 A
1LHE407R	7.5 HP	30 A, 600 V	30 A
1LHE410R	10 HP	40 A, 600 V	40 A
1LHE415R	15 HP	60 A, 600 V	60 A
1LHE420R	20 HP	60 A, 600 V	60 A
1LHE425R	25 HP	80 A, 600 V	80 A
1LHE430R	30 HP	100 A, 600 V	100 A

Line Drawings

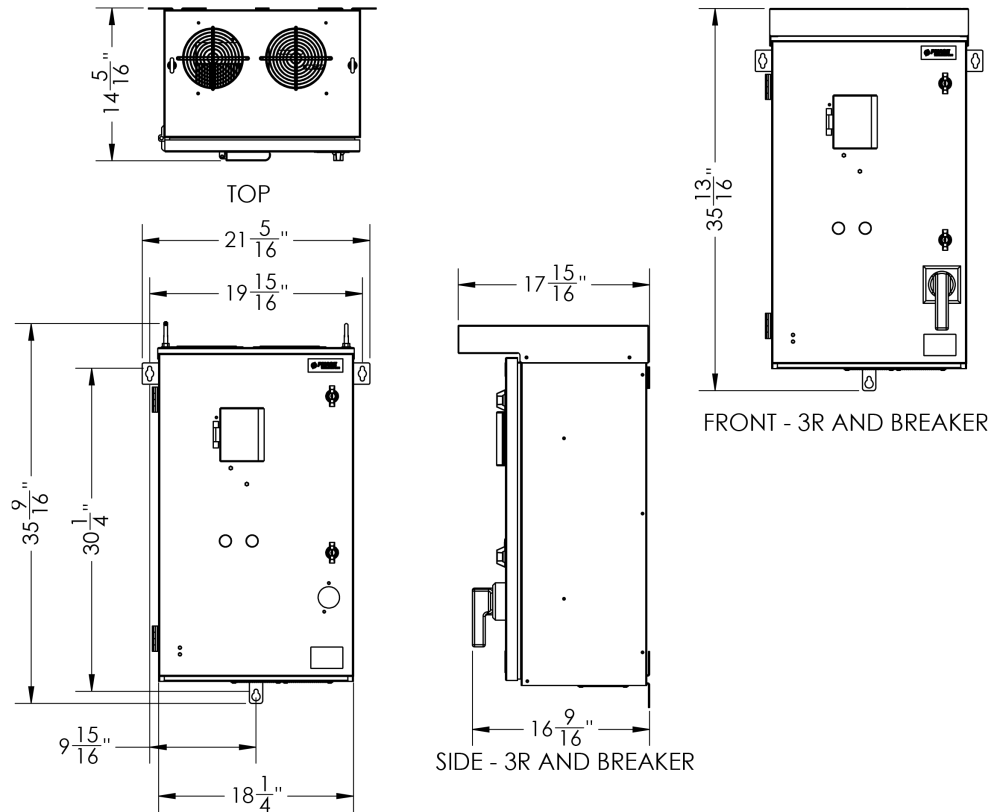
**1LHE**  
SERIES

Model Number
1LHE005R
1LHE205R
1LHE207R
1LHE210R
1LHE215R
1LHE405R
1LHE407R
1LHE410R



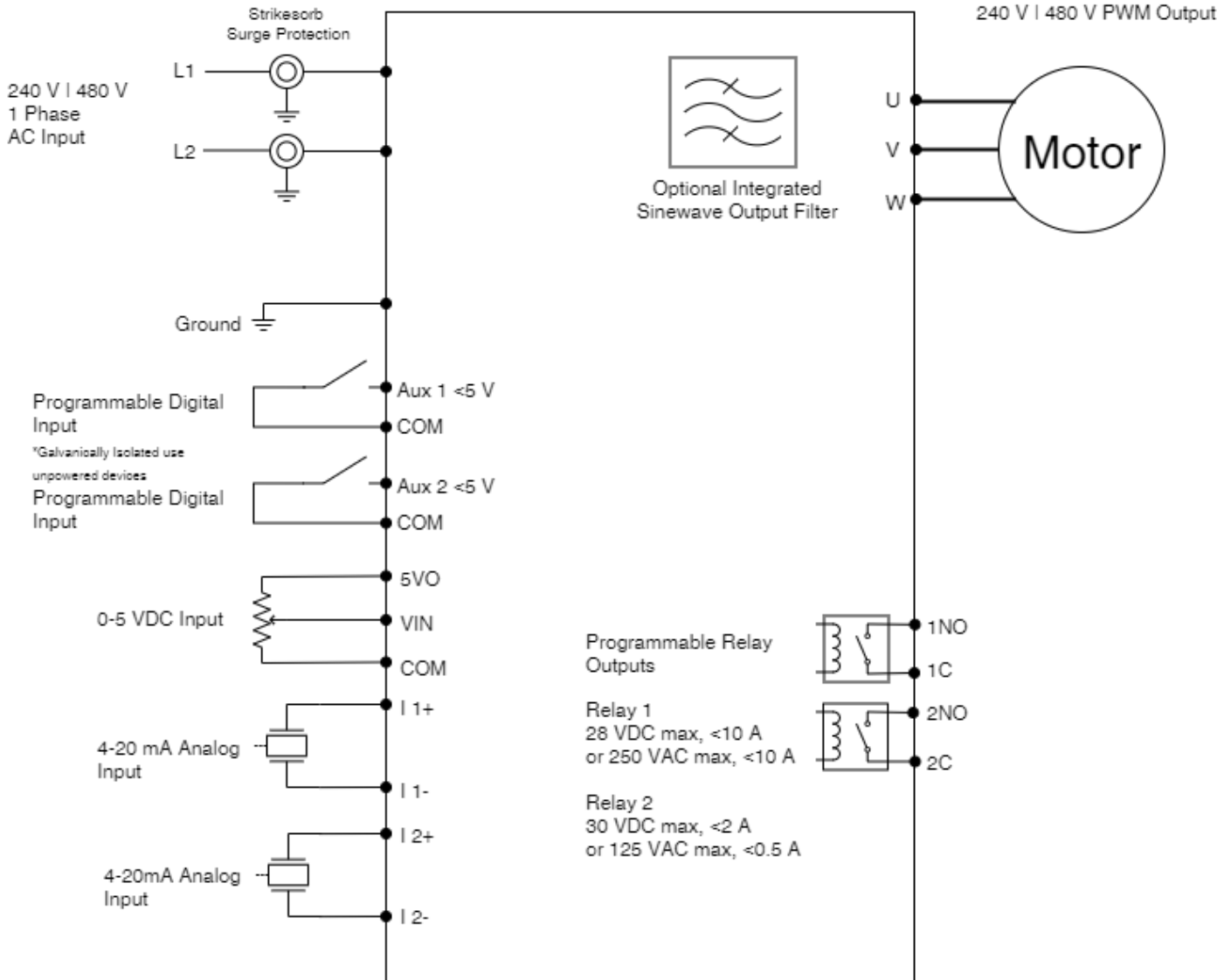
**1LHE**  
SERIES

Model Number
1LHE007R
1LHE010R
1LHE015R
1LHE020R
1LHE220R
1LHE225R
1LHE415R
1LHE420R
1LHE425R
1LHE430R



Wiring Diagram

**1LHE**  
SERIES Wiring Diagram



Notes


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**1LHS**  
SERIES



**SIGNATURE**

Enclosure

- 20 HP to 100 HP
- Input 240 V & 480 V | Output 480 V
- Phase Converting
- Voltage Doubling
- Low Harmonic - IEEE519 Compliance Guaranteed 
- NEMA 3R Rated Outdoor Enclosure

**Our Guarantee**

IEEE 519 Compliance

Phase Technologies guarantees that the **LH** SERIES product line will meet the IEEE 519-2014 standard as long as a minimum load of 80% is maintained as related to the max current rating of the system. If a system does not comply, Phase Technologies will either offer a suitable fix to the bring the panel into compliance or offer a full refund for the purchase price of the panel upon return.

**Nomenclature**

**SIGNATURE**

**1LHS Signature Series**

Example Part Number  
1LHS220R-BHOS | 1LHS420R-BHOS

OPTIONAL UL508A Panel Shop Integration



Model Series	Input / Output Voltage	Rated HP	Enclosure Rating	Branch Circuit Protection	Addl. User Controls	Output Filter	Surge Protection
<b>1LHS</b> SERIES	<b>2</b> 240 V   480 V Phase Converting Voltage Doubling	20 - 20 HP 30 - 30 HP 40 - 40 HP	<b>R</b> 3R Rated Outdoor Type Rain / Bug Proof	<b>B</b> MCCB Service Disconnect	Choose Option <b>H</b> - HOA Switch & Speed Pot <b>H1</b> - HOA Switch Only <b>H2</b> - Speed Pot Only	Choose Option <b>O</b> - Sinewave Filter <b>OF</b> - dV/dt Filter	<b>S</b> Strikesorb® Surge Protection
	<b>4</b> 480 V   480 V Phase Converting	20 - 20 HP 30 - 30 HP 40 - 40 HP 50 - 50 HP 60 - 60 HP 75 - 75 HP 100 - 100 HP					

Technical Specifications



Physical / Environmental	
Operating Temperature Range	-40 °C – 50 °C (-40 °F – 122 °F) <i>*Heater in enclosure may be required below -40 °C, de-rating required above 50 °C.</i>
Storage Temperature Range	-40 °C – 57 °C (-40 °F – 135 °F)
Enclosure	NEMA Type 3R: Outdoor   Rainproof
Altitude	Derate by 5 °C every 2000 ft over 5500 ft of elevation
Input Power	
Input Phase	1 phase
Input Voltage	240 V   480 V
Input Voltage Range	190 V – 264 V   440 V – 520 V
Input Frequency	60 Hz
Output Power	
Output Phase	3 phase
Nominal Output Voltage	480 V
Output Voltage Range	440 V – 520 V
Output Frequency	5 Hz – 300 Hz
Horsepower	20 HP – 100 HP
Output Power	15 – 75 kW
Switching Frequency	2 kHz – 5 kHz
Output	V/f Control or Torque Control (Optional)
Integrated Output Filter	Optional Sinewave or dV/dt Filter (20 HP – 100 HP models)
Electrical	
Short Circuit Withstand Rating	25 kA RMS symmetrical amps (65 kA available upon request)
Efficiency	95%
Startup Ramp Time	1 – 120 s
Shutdown Ramp Time	1 – 120 s or Coast to Stop
Overload Capacity	120% for 60 s
Analog Inputs	
Quantity	(3) Programmable
Current Reference	4 – 20 mA, (2) Inputs
Voltage Reference	0 – 5 VDC, (1) Input
Terminal Block Size	26 – 12 AWG
Digital Inputs	
Quantity	(4) Programmable
Ratings	< 5 V, galvanically isolated
Terminal Block Size	26 – 12 AWG
Relay Outputs	
Quantity	(4) Programmable
Rating	Relays 1 and 2: 28 VDC, 10 A or 250 VAC, 10 A Relays 3 and 4: 30 VDC, 2 A or 125 VAC, 0.5 A
Terminal Block Size	26 – 12 AWG
Features	
Low Harmonic Compliance	IEEE-519 Guaranteed - (See page 11 for guarantee statement)
Certification	ETL listed to UL 61800-5-1 and CSA C22.2 No. 274-17
User Interface	Push button membrane keypad with backlit graphic display
Available Feature Sets	AquaPhase™ (pump control)

**Models**

Part Number	HP	Rated Input Current	Rated Output Current	Dimensions (H x W x D)	Weight
<b>1LHS - SIGNATURE - 240 V Input</b> Single-Phase   <b>480 V Output</b> Three-Phase					
1LHS220R	20 HP	97 A	31 A	54 x 23 x 18 in	205 lbs
1LHS230R	30 HP	139 A	46 A	54 x 23 x 18 in	220 lbs
1LHS240R	40 HP	196 A	61 A	71 x 34 x 24 in	465 lbs

Part Number	HP	Rated Input Current	Rated Output Current	Dimensions (H x W x D)	Weight
<b>1LHS - SIGNATURE - 480 V Input</b> Single-Phase   <b>480 V Output</b> Three-Phase					
1LHS420R	20 HP	48 A	31 A	54 x 23 x 18 in	205 lbs
1LHS430R	30 HP	72 A	46 A	54 x 23 x 18 in	215 lbs
1LHS440R	40 HP	98 A	61 A	54 x 23 x 18 in	235 lbs
1LHS450R	50 HP	121 A	77 A	54 x 23 x 18 in	250 lbs
1LHS460R	60 HP	143 A	91 A	71 x 34 x 24 in	410 lbs
1LHS475R	75 HP	170 A	107 A	71 x 34 x 24 in	415 lbs
1LHS4100R	100 HP	226 A	142 A	71 x 34 x 24 in	465 lbs



**Optional Integrations & Accessories**

Part Number	Description	Standard User Installation	Optional UL508A Panel Shop Installation
<b>Kits</b>			
ASPD014	Single-Phase Strikesorb Surge Protection Kit	n/a	n/a
SVK7000	Service Kit for All LH & DX Systems with RJ45 Connectors (2018, 2019, 2020 models only)	n/a	n/a
LEGS07 or LEGS08	Pad Mount Kit (Legs)	Yes	No
<b>Transducer</b>			
S00150	0-150 psi Transducer with 15ft lead	Yes	No
S00150-25	0-150 psi Transducer with 25ft lead	Yes	No
S00150-50	0-150 psi Transducer with 50ft lead	Yes	No
S00150-100	0-150 psi Transducer with 100ft lead	Yes	No
<b>Other Parts</b>			
PSI SNUB	Pressure Snubber for Transducers	Yes	No
CVR0001	HOA Switch and Speed Pot Security Cover	Yes	No
LF0018	GPS Output Filter	Yes	No
<b>Miscellaneous</b>			
[Custom]	Run or Fault Indicator Light and 150VA Power Supply	No	Yes
[Custom]	Additional Run or Fault Indicator Light	No	Yes



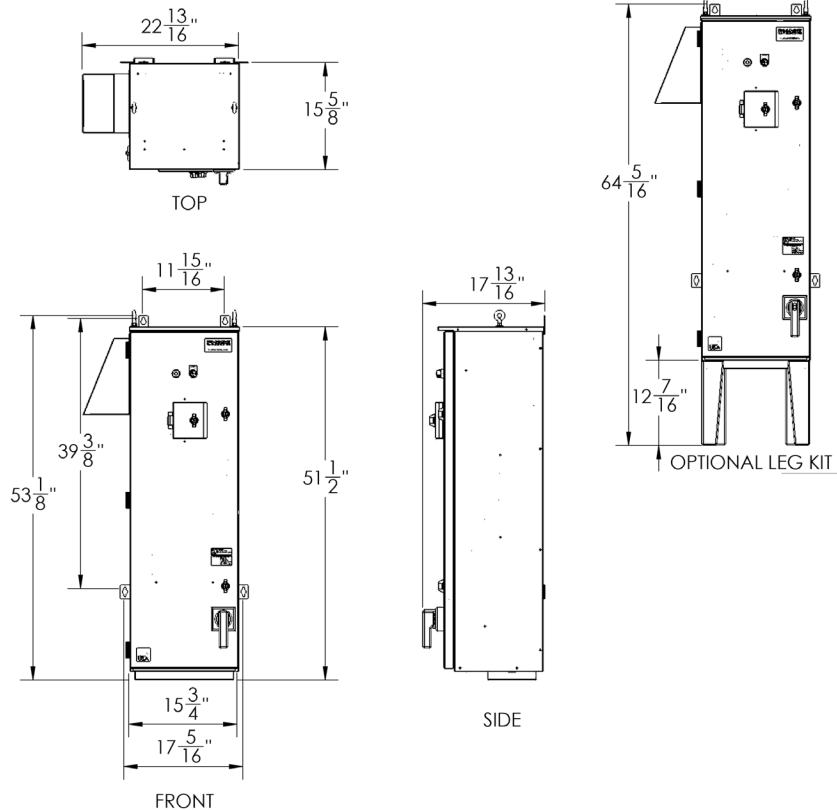
Recommended Fuse & Breaker Ratings

Model Number	Horsepower	VFD	
		Recommended Fuse Rating Class J	Recommended Circuit Breaker Rating
<b>1LHS - SIGNATURE - 240 V Input Single-Phase   480 V Output Three-Phase</b>			
1LHS220R	20 HP	125 A, 600 V	125 A
1LHS230R	30 HP	200 A, 600 V	200 A
1LHS240R	40 HP	250 A, 600 V	250 A
<b>1LHS - SIGNATURE - 480 V Input Single-Phase   480 V Output Three-Phase</b>			
1LHS420R	20 HP	60 A, 600 V	60 A
1LHS430R	30 HP	100 A, 600 V	100 A
1LHS440R	40 HP	125 A, 600 V	125 A
1LHS450R	50 HP	175 A, 600 V	175 A
1LHS460R	60 HP	200 A, 600 V	200 A
1LHS475R	75 HP	250 A, 600 V	250 A
1LHS4100R	100 HP	300 A, 600 V	300 A

Line Drawings

**1LHS**  
SERIES

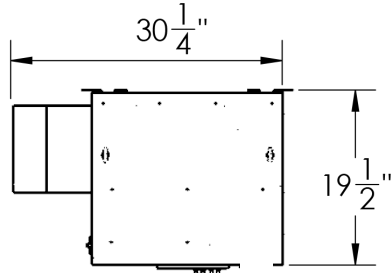
Model Number
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1LHS230R
1LHS420R
1LHS430R
1LHS440R
1LHS450R



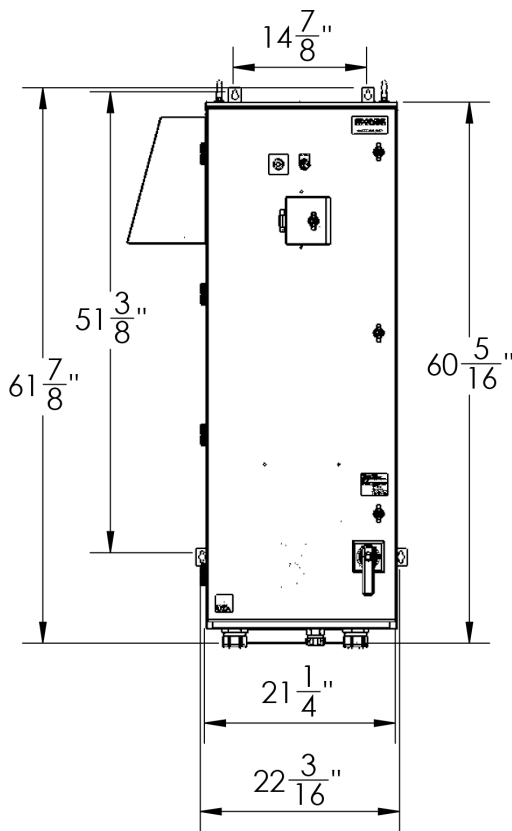
Line Drawings

**1LHS**  
SERIES

Model Number
1LHS240R
1LHS460R
1LHS475R
1LHS4100R



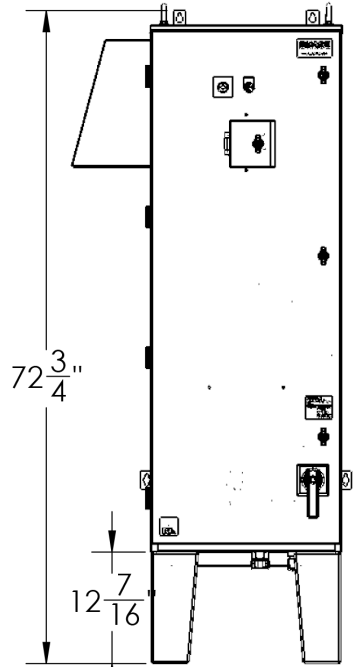
TOP



FRONT



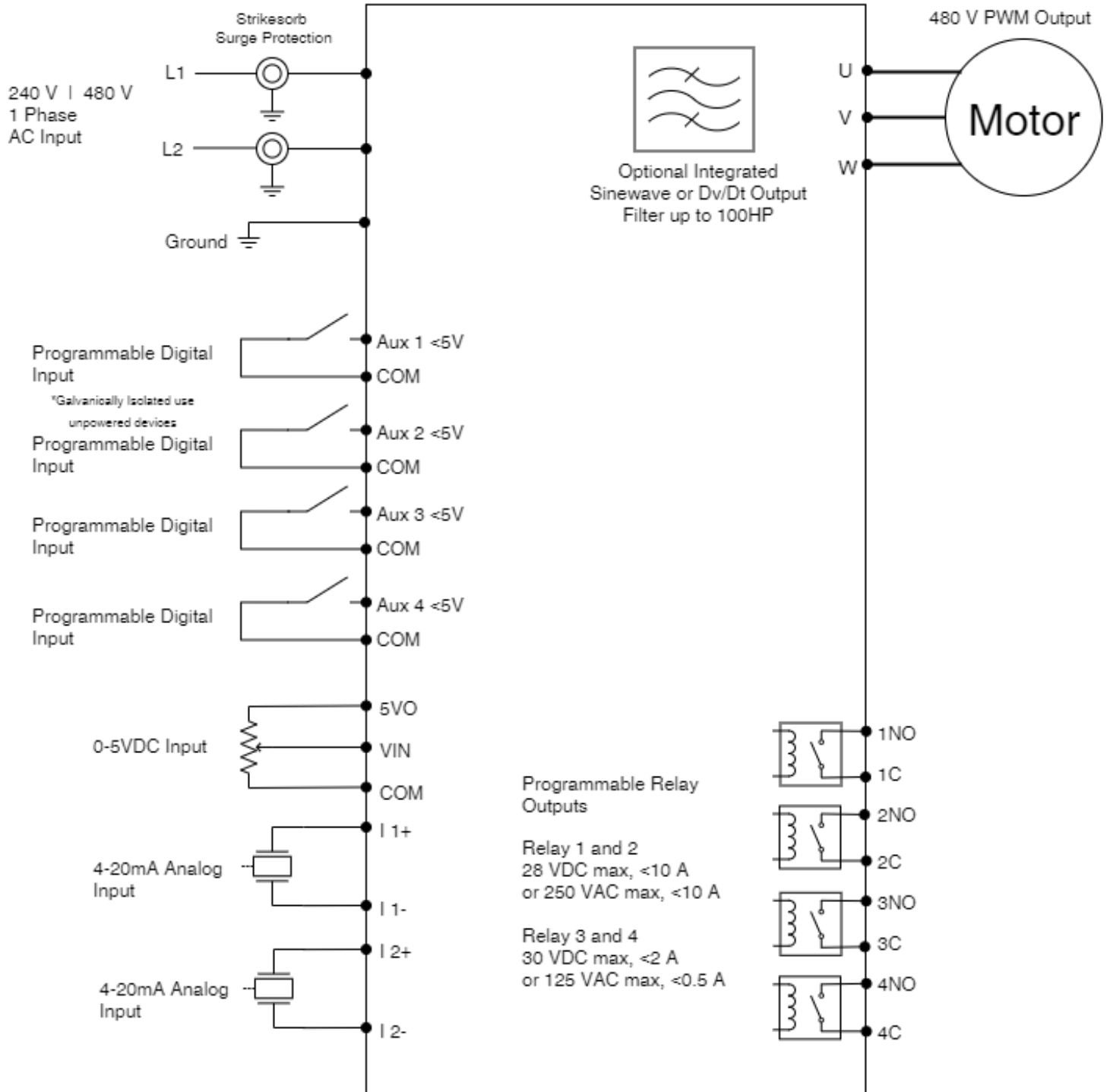
SIDE



OPTIONAL  
LEG KIT

Wiring Diagram

**1LHS**  
SERIES Wiring Diagram



SIGNATURE


Notes

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**1LH**  
SERIES



PERFORMANCE Enclosure

- 20 HP to 125 HP
- Input 240 V & 480 V | Output 480 V
- Phase Converting
- Voltage Doubling
- Optional **AUXPOWER™**
- Low Harmonic - IEEE519 Compliance Guaranteed 
- NEMA 3R Rated Outdoor Enclosure

**Our Guarantee**

IEEE 519 Compliance

Phase Technologies guarantees that the **1LH** SERIES product line will meet the IEEE 519-2014 standard as long as a minimum load of 80% is maintained as related to the max current rating of the system. If a system does not comply, Phase Technologies will either offer a suitable fix to bring the panel into compliance or offer a full refund for the purchase price of the panel upon return.

**Nomenclature**

PERFORMANCE									
1LH Performance Series									
Example Part Number									
1LH220RX-BH0FS   1LH420RC-BH0S									
OPTIONAL UL508A Panel Shop Integration									
Model Series	Input / Output Voltage	Rated HP	Enclosure Rating	AUXPOWER™ Pivot Converter	Branch Circuit Protection	Addl. User Controls	Output Filter	Surge Protection	
<b>1LH</b> SERIES	<b>2</b> 240 V   480 V Phase Converting Voltage Doubling	20 - 20 HP 30 - 30 HP 40 - 40 HP 50 - 50 HP	<b>R</b>	Choose Option	<b>B</b>	Choose Option	Choose Option	<b>S</b>	
	<b>4</b> 480 V   480 V Phase Converting	20 - 20 HP 30 - 30 HP 40 - 40 HP 50 - 50 HP 60 - 60 HP 75 - 75 HP 100 - 100 HP 125 - 125 HP	3R Rated Outdoor Type Rain / Bug Proof	<b>C</b> - 18A Not available on: 1LH4125R  <b>X</b> - 32A Not available on: 1LH240R, 1LH250R 1LH4100R & 1LH4125R	MCCB Service Disconnect	<b>H</b> - HOA Switch & Speed Pot <b>H1</b> - HOA Switch Only <b>H2</b> - Speed Pot Only	<b>O</b> - Sinewave Filter <b>OF</b> - dV/dt Filter	Strikesorb® Surge Protection	

Technical Specifications

PERFORMANCE

Physical / Environmental	
Operating Temperature Range	-40 °C – 50 °C (-40 °F – 122 °F) <i>*Heater in enclosure may be required below -40 °C, de-rating required above 50 °C.</i>
Storage Temperature Range	-40 °C – 57 °C (-40 °F – 135 °F)
Enclosure	NEMA Type 3R: Outdoor   Rainproof
Altitude	Derate by 5 °C every 2000 ft over 5500 ft of elevation
Input Power	
Input Phase	1 phase
Input Voltage	240 V   480 V
Input Voltage Range	190 V – 264 V   440 V – 520 V
Input Frequency	60 Hz
Output Power	
Output Phase	3 phase
Nominal Output Voltage	480 V
Output Voltage Range	440 V – 520 V
Output Frequency	5 Hz – 300 Hz
Horsepower	20 HP – 125 HP
Output Power	15 – 336 kW
Switching Frequency	2 kHz – 5 kHz
Output	V/f Control or Torque Control (Optional)
Integrated Output Filter	Optional Sinewave or dV/dt Filter (20 HP – 125 HP models)
Electrical	
Short Circuit Withstand Rating	25 kA RMS symmetrical amps (65 kA available upon request)
Efficiency	95%
Startup Ramp Time	1 – 120 s
Shutdown Ramp Time	1 – 120 s or Coast to Stop
Overload Capacity	120% for 60 s
Analog Inputs	
Quantity	(3) Programmable
Current Reference	4 – 20 mA, (2) Inputs
Voltage Reference	0 – 5 VDC, (1) Input
Terminal Block Size	26 – 12 AWG
Digital Inputs	
Quantity	(4) Programmable
Ratings	< 5 V, galvanically isolated
Terminal Block Size	26 – 12 AWG
Relay Outputs	
Quantity	(4) Programmable
Rating	Relays 1 and 2: 28 VDC, 10 A or 250 VAC, 10 A Relays 3 and 4: 30 VDC, 2 A or 125 VAC, 0.5 A
Terminal Block Size	26 – 12 AWG
Features	
Low Harmonic Compliance	IEEE-519 Guaranteed – (See page 18 for guarantee statement)
Certification	ETL listed to UL 61800-5-1 and CSA C22.2 No. 274-17
User Interface	Push button membrane keypad with backlit graphic display
Available Feature Sets	AquaPhase™ (pump control)

Models

Part Number	HP	Rated Input Current	Rated Output Current	Rated Current Input - <b>AUXPOWER™</b>	Dimensions (H x W x D)	Weight without <b>AUXPOWER™</b>
<b>1LH - PERFORMANCE - 240 V Input Single-Phase   480 V Output Three-Phase</b>						
1LH220R	20 HP	97 A	31 A	C = 149 A X = 191 A	62 x 49 x 35 in. 66 x 62 x 23 in. [X]	490 lbs
1LH230R	30 HP	139 A	46 A	C = 191 A X = 252 A	62 x 49 x 35 in. 66 x 62 x 23 in. [C] & [X]	540 lbs
1LH240R	40 HP	196 A	61 A	C = 248 A X = n/a	62 x 49 x 35 in. 66 x 62 x 23 in. [X]	810 lbs
1LH250R	50 HP	226 A	77 A	<b>AUXPOWER™</b> Not Available	62 x 49 x 35 in. 66 x 62 x 23 in. [X]	910 lbs

Part Number	HP	Rated Input Current	Rated Output Current	Rated Current Input - <b>AUXPOWER™</b>	Dimensions (H x W x D)	Weight without <b>AUXPOWER™</b>
<b>1LH - PERFORMANCE - 480 V Input Single-Phase   480 V Output Three-Phase</b>						
1LH420R	20 HP	48 A	31 A	C = 74 A X = 98 A	62 x 49 x 35 in.	570 lbs
1LH430R	30 HP	72 A	46 A	C = 98 A X = 124 A	62 x 49 x 35 in.	570 lbs
1LH440R	40 HP	98 A	61 A	C = 124 A X = 147 A	62 x 49 x 35 in.	580 lbs
1LH450R	50 HP	121 A	77 A	C = 147 A X = 169 A	62 x 49 x 35 in. 66 x 62 x 23 in. [X]	590 lbs
1LH460R	60 HP	143 A	91 A	C = 169 A X = 196 A	66 x 62 x 23 in.	610 lbs
1LH475R	75 HP	170 A	107 A	C = 196 A X = 252 A	66 x 62 x 23 in.	820 lbs
1LH4100R	100 HP	226 A	142 A	C = 252 A X = n/a	66 x 62 x 23 in.	910 lbs
1LH4125R	125 HP	273 A	172 A	<b>AUXPOWER™</b> Not Available	66 x 62 x 23 in.	925 lbs

Optional Integrations & Accessories

Part Number	Description	Standard User Installation	Optional UL508A Panel Shop Installation (Additional Fee Applies)
<b>Kits</b>			
ASPD014	Single-Phase Strikesorb Surge Protection Kit	n/a	n/a
SVK7000	Service Kit for All <b>LH</b> & <b>DX</b> Systems with RJ45 Connectors (2018, 2019, 2020 models only)	n/a	n/a
LEGS02 or LEGS03	Pad Mount Kit (Legs)	Yes	No
<b>Transducer</b>			
S00150	0-150 psi Transducer with 15ft lead	Yes	No
S00150-25	0-150 psi Transducer with 25ft lead	Yes	No
S00150-50	0-150 psi Transducer with 50ft lead	Yes	No
S00150-100	0-150 psi Transducer with 100ft lead	Yes	No
<b>Other Parts</b>			
PSI SNUB	Pressure Snubber for Transducers	Yes	No
CVR0001	HOA Switch and Speed Pot Security Cover	Yes	No
LF0018	GPS Output Filter	Yes	No
<b>Miscellaneous</b>			
[Custom]	Run or Fault Indicator Light and 150VA Power Supply	No	Yes
[Custom]	Additional Run or Fault Indicator Light	No	Yes



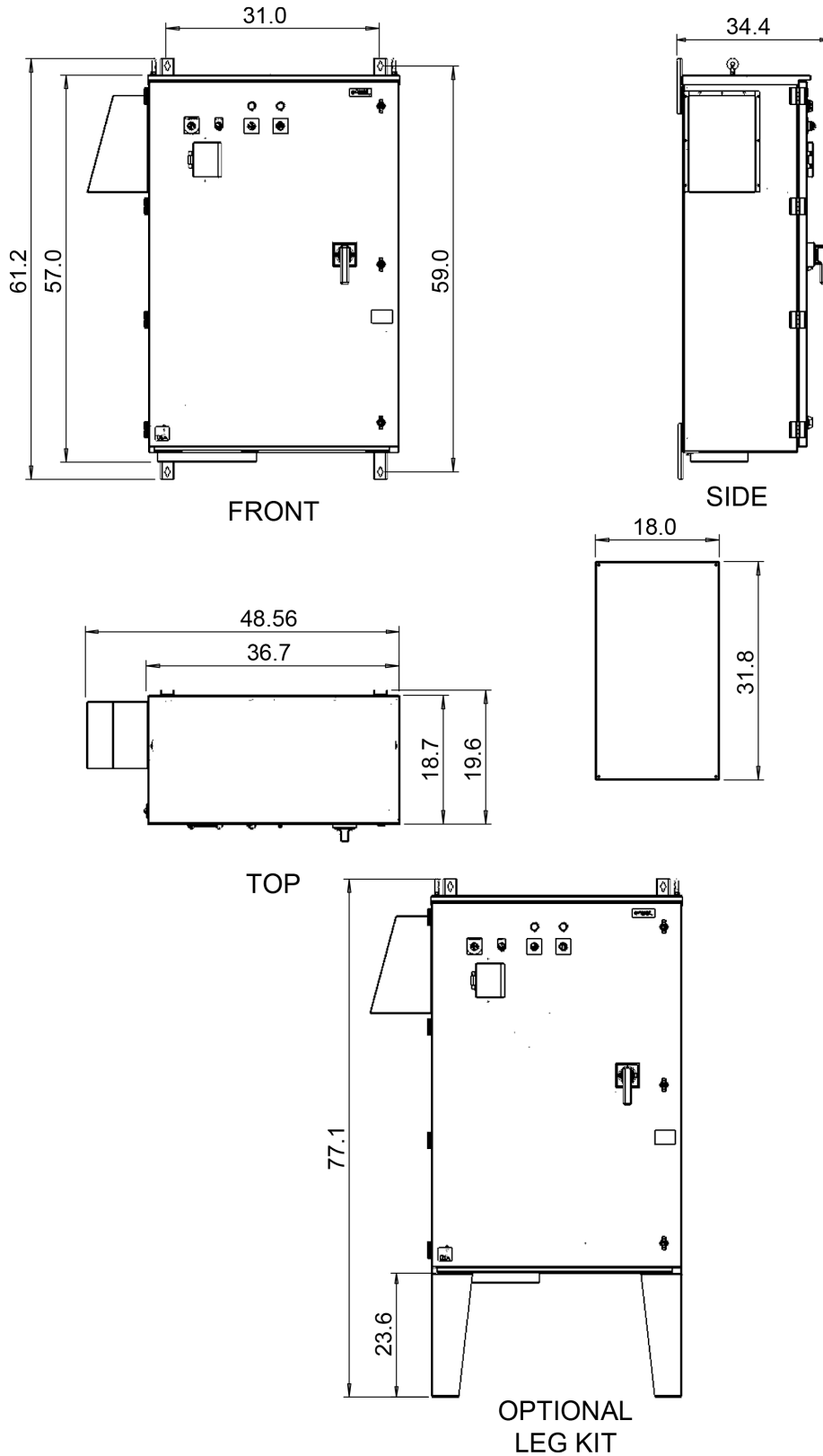
Recommended Fuse & Breaker Ratings

VFD or AUXPOWER™	Model Number	Horsepower	VFD	
			Recommended Fuse Rating Class J	Recommended Circuit Breaker Rating
<b>1LH - PERFORMANCE - 240 V Input Single-Phase   480 V Output Three-Phase</b>				
VFD	1LH220R	20 HP	125 A, 600 V	125 A
AUXPOWER™	1LH220RC	20 HP	200 A, 600 V	200 A
AUXPOWER™	1LH220RX	20 HP	250 A, 600 V	250 A
VFD	1LH230R	30 HP	175 A, 600 V	175 A
AUXPOWER™	1LH230RC	30 HP	250 A, 600 V	250 A
AUXPOWER™	1LH230RX	30 HP	350 A, 600 V	350 A
VFD	1LH240R	40 HP	250 A, 600 V	250 A
AUXPOWER™	1LH240RC	40 HP	350 A, 600 V	350 A
VFD	1LH250R	50 HP	300 A, 600 V	300 A
<b>1LH - PERFORMANCE - 480 V Input Single-Phase   480 V Output Three-Phase</b>				
VFD	1LH420R	20 HP	60 A, 600 V	60 A
AUXPOWER™	1LH420RC	20 HP	100 A, 600 V	100 A
AUXPOWER™	1LH420RX	20 HP	125 A, 600 V	125 A
VFD	1LH430R	30 HP	100 A, 600 V	100 A
AUXPOWER™	1LH430RC	30 HP	125 A, 600 V	125 A
AUXPOWER™	1LH430RX	30 HP	175 A, 600 V	175 A
VFD	1LH440R	40 HP	125 A, 600 V	125 A
AUXPOWER™	1LH440RC	40 HP	175 A, 600 V	175 A
AUXPOWER™	1LH440RX	40 HP	200 A, 600 V	200 A
VFD	1LH450R	50 HP	175 A, 600 V	175 A
AUXPOWER™	1LH450RC	50 HP	200 A, 600 V	200 A
AUXPOWER™	1LH450RX	50 HP	250 A, 600 V	250 A
VFD	1LH460R	60 HP	200 A, 600 V	200 A
AUXPOWER™	1LH460RC	60 HP	250 A, 600 V	250 A
AUXPOWER™	1LH460RX	60 HP	250 A, 600 V	250 A
VFD	1LH475R	75 HP	250 A, 600 V	250 A
AUXPOWER™	1LH475RC	75 HP	250 A, 600 V	250 A
AUXPOWER™	1LH475RX	75 HP	350 A, 600 V	350 A
VFD	1LH4100R	100 HP	300 A, 600 V	300 A
AUXPOWER™	1LH4100RC	100 HP	350 A, 600 V	350 A
VFD	1LH4125R	125 HP	350 A, 600 V	350 A

Line Drawings

**1LH**  
SERIES

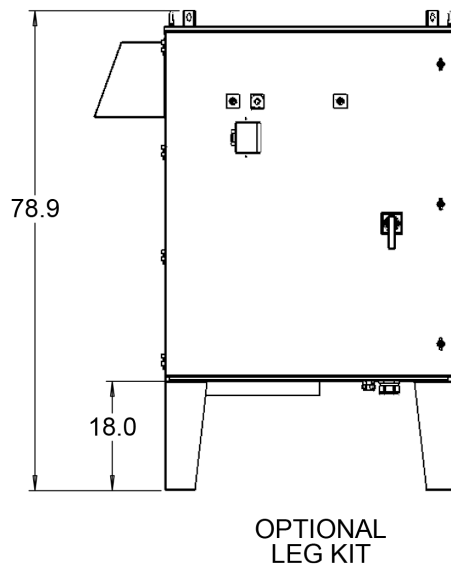
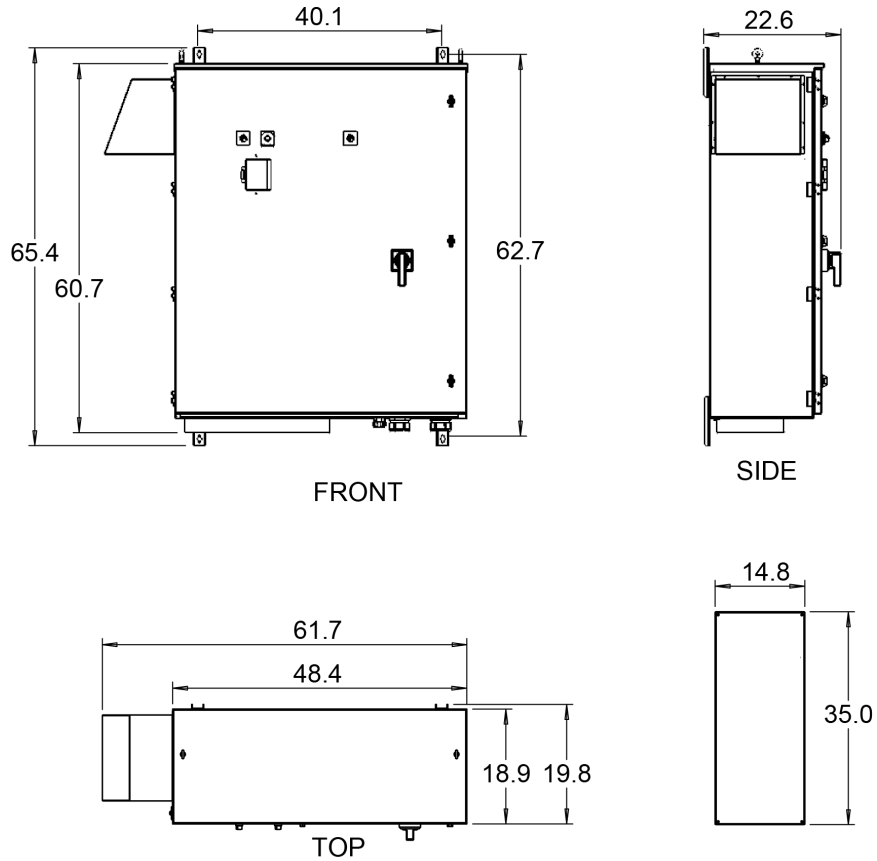
Model Number
1LH220R
1LH220RC
1LH230R
1LH420R
1LH420RC
1LH420RX
1LH430R
1LH430RC
1LH430RX
1LH440R
1LH440RC
1LH440RX
1LH450R
1LH450RC



Line Drawings

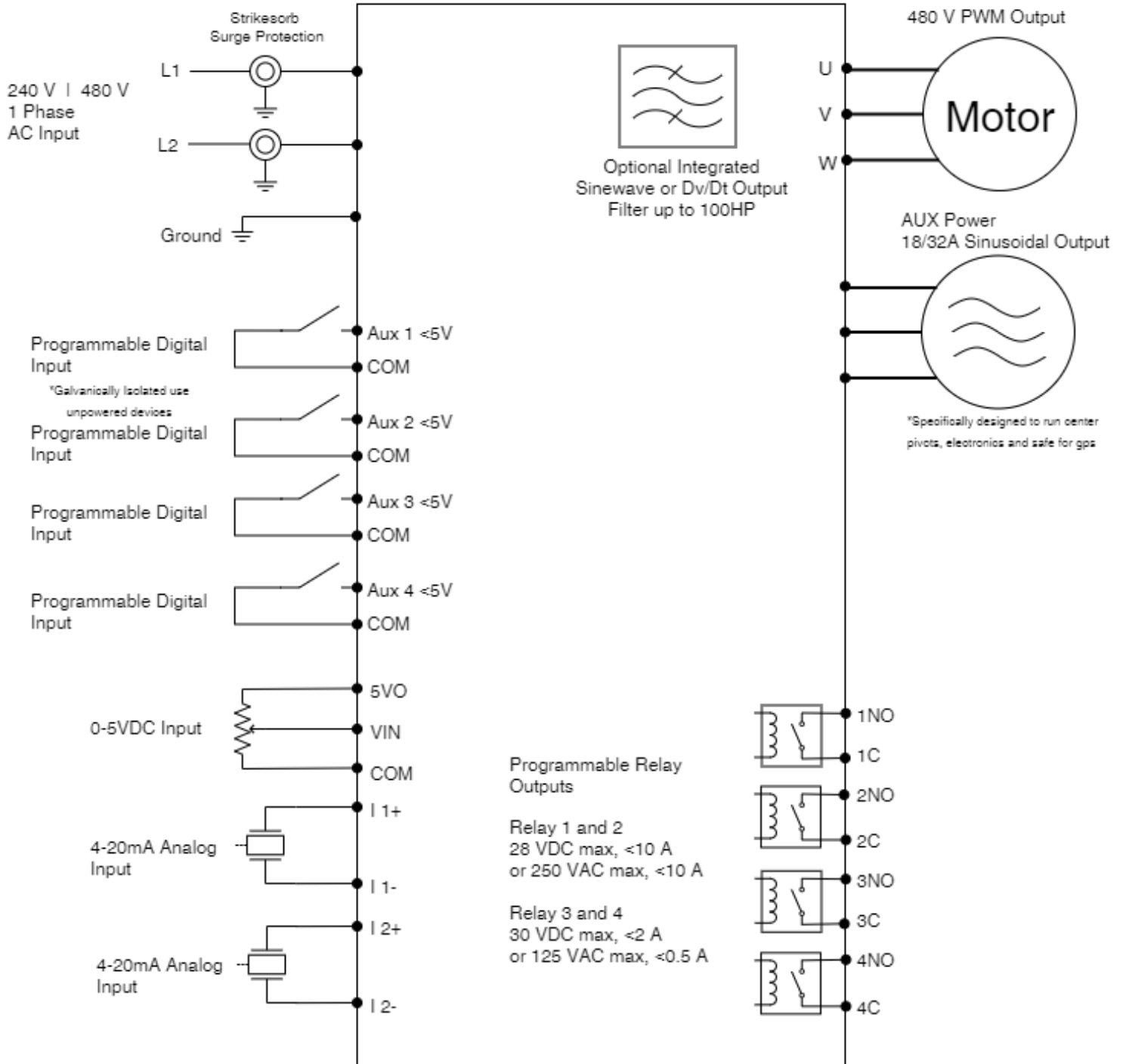
**1LH**  
SERIES

Model Number
1LH220RX
1LH230RC
1LH230RX
1LH240R
1LH240RC
1LH250R
1LH450RX
1LH460R
1LH460RC
1LH460RX
1LH475R
1LH475RC
1LH475RX
1LH4100R
1LH4100RC
1LH4125R



Wiring Diagram

**1LH**  
SERIES Wiring Diagram



Notes

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