



VARIABLE FREQUENCY DRIVE

LOW HARMONIC

PHASE CONVERTING | VOLTAGE DOUBLING, 230/460V OPTIONS
NEMA 3R OUTDOOR ENCLOSURE | 5-900 HP



508A Panel Shop Customizable



Active Front End



Regenerative Power



Voltage Doubling Options



Easy Perfect Pressure Setup

Full Feature VFD

- ▶ Advanced Motor Protection & PID Control
- ▶ V/f Control and Direct Torque Control
- ▶ Rated Temperature: -40 °C – 40 °C (-40 °F – 104 °F)
- ▶ Nominal Voltage: 230 V | 460 V
- ▶ Overload Capacity: 110% for 60 seconds
- ▶ Certified to UL 61800-5-1

Enclosure

- ▶ Rugged All-Steel-Enclosure
- ▶ Open, NEMA 1, NEMA 3R (E,S,P)
- ▶ Leg Kits Available

Intuitive User Interface

- ▶ Large Backlit Graphic Display
- ▶ Eight Button Keypad
- ▶ Intuitive Menus in Plain English
- ▶ Download and Load Parameters Seamlessly
- ▶ Internal Micro SD Port

Flexible I/O

- ▶ Three Analog Inputs
- ▶ Four Digital Inputs
- ▶ Four Programmable Relays
- ▶ Modbus
- ▶ Ethernet
- ▶ BACnet

Easy Setup Wizards

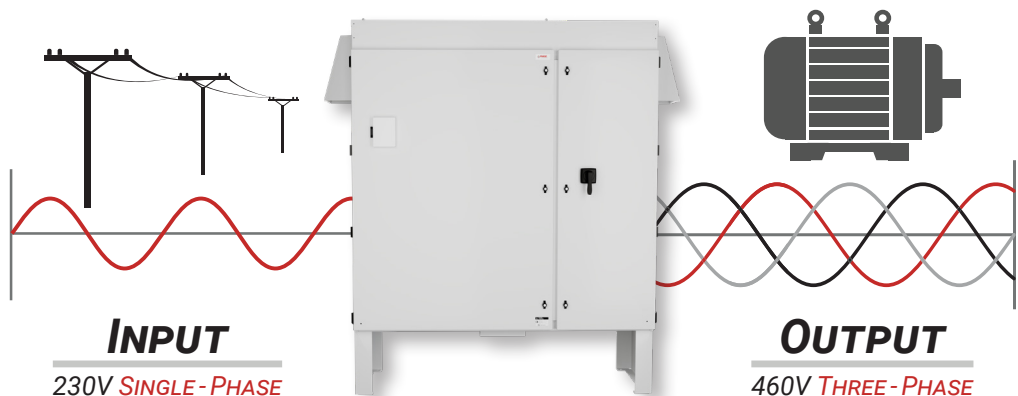
- ▶ Constant Pressure
- ▶ Flow Control
- ▶ Tank Level
- ▶ Pump Down
- ▶ Suction Pump
- ▶ HVAC

UL 508A Panel Shop Options

	Disconnect	Hand Controls			Run Indicators	Output Filters		System Bypass	Power Supply	Surge Protection		Leg Kit
	B	H	H1	H2	L3	O	OF	Q	P11	S	S1	Z
	MCCB	HOA Switch & Speed Pot	HOA Switch Only	Speed Pot Only	Run & Fault Light	Sine Wave	dV/dt	Includes MCCB	120V (150VA)	Strikesorb	Protec	Pad Mount
230V	ENTERPRISE (5-30 HP)											
	✓	✓	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓
	ENTERPRISE (5-25 HP)											
Voltage Doubling	✓	✓	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓
	SIGNATURE (30-100 HP)											
	✓	✓	✓	✓	✓	✓	✗	✓*	✗	✗	✓	✗
PERFORMANCE (10-100 HP)												
✓	✓	✓	✓	✓	✓	✓*	✓*	✗	✓	✓	✗	✓
460V	ENTERPRISE (5-50 HP)											
	✓	✓	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓
	SIGNATURE (60-500 HP)											
✓	✓	✓	✓	✓	✓	✗	✓*	✗	✗	✓	✗	✓
PERFORMANCE (10-900 HP)												
✓	✓	✓	✓	✓	✓	✓*	✓*	✓*	✓*	✓	✗	✓

* Some models in this series have this Panel Shop Option while others do not. Please contact Phase Technologies for more information. Configure your drive with our online product builder by visiting PhaseTechnologies.com or scanning the QR code at the bottom of the page.

Voltage Doubling Options



Voltage Doubling: Cost Savings for Long Lead Applications

Eliminates the need for a transformer while minimizing motor lead wire size on 460 V systems running on a 230 V source. (1LHX, 3LHX, 1LH, 3LH)

Low Harmonic Active-Front-End Technology

Phase Technologies guarantees that the LH SERIES product line will meet the IEEE 519-2014 standard without additional harmonic filters as long as a minimum load of 50% 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.

Power Factor Correcting

Power factor correction (PFC) is the process of improving the power factor of a system and allowing it to run more efficiently.

A low power factor indicates inefficient use of electrical power. More current is required to deliver the same amount of real power, leading to higher losses in the electrical distribution system.

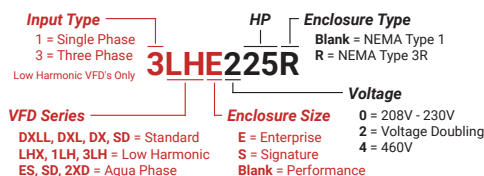
Lowers Electricity Bills: Lowering the demand for reactive power will reduce utility charges.

Regenerative

Any LH Series VFD captures a motor's kinetic energy on deceleration and converts it back into electrical energy, which is then pushed back on to the utility.



Nomenclature



Product Specifications

230V

Model / Part Number	HP	Rated Current (Input)	Rated Current (Output)	Panel Size
ENTERPRISE				
3LHE005	5	18 A	18 A	ENC3
3LHE007	7.5	24 A	24 A	ENC3
3LHE010	10	31 A	31 A	ENC3
3LHE015	15	46 A	46 A	ENC3
3LHE020	20	61 A	61 A	ENC3
3LHE025	25	75 A	75 A	ENC3
3LHE030	30	91 A	91 A	ENC3

Model / Part Number	HP	Rated Current (Input)	Rated Current (Output)	Panel Size
ENTERPRISE				
3LHE205	5	18 A	9 A	ENC3
3LHE207	7.5	24 A	13 A	ENC3
3LHE210	10	30 A	18 A	ENC3
3LHE215	15	46 A	25 A	ENC3
3LHE220	20	61 A	31 A	ENC3
3LHE225	25	77 A	38 A	ENC3

Model / Part Number	HP	Rated Current (Input)	Rated Current (Output)	Panel Size
SIGNATURE				
3LHS230	30	91 A	46 A	ENC5
3LHS240	40	121 A	61 A	ENC5
3LHS250	50	142 A	77 A	ENC5
3LHS260	60	172 A	91 A	ENC6
3LHS275	75	198 A	107 A	ENC6
3LHS2100	100	250 A	142 A	ENC6

Model / Part Number	HP	Rated Current (Input)	Rated Current (Output)	Panel Size
PERFORMANCE				
3LH210	10	31 A	18 A	ENC5
3LH215	15	51 A	25 A	ENC5
3LH220	20	61 A	31 A	ENC5
3LH225	25	77A	38 A	ENC5
3LH230	30	91 A	46 A	ENC6
3LH240	40	121 A	61 A	ENC6
3LH250	50	142 A	77 A	ENC6
3LH260	60	172 A	91 A	ENC7
3LH275	75	198 A	107 A	ENC7
3LH2100	100	304 A	142 A	ENC7

Voltage Doubling

460V

Model / Part Number	HP	Rated Current (Input)	Rated Current (Output)	Panel Size
ENTERPRISE				
3LHE405	5	9 A	9 A	ENC3
3LHE407	7.5	13 A	13 A	ENC3
3LHE410	10	18 A	18 A	ENC3
3LHE415	15	24 A	24 A	ENC3
3LHE420	20	31 A	31 A	ENC3
3LHE425	25	38 A	38 A	ENC3
3LHE430	30	46 A	46 A	ENC3
3LHE440	40	61 A	61 A	ENC3
3LHE450	50	77 A	77 A	ENC3

Model / Part Number	HP	Rated Current (Input)	Rated Current (Output)	Panel Size
SIGNATURE				
3LHS460	60	91 A	91 A	ENC5
3LHS475	75	107 A	107 A	ENC5
3LHS4100	100	142 A	142 A	ENC5
3LHS4125	125	172 A	172 A	ENC5
3LHS4150	150	198 A	198 A	ENC5
3LHS4200	200	250 A	250 A	ENC6
3LHS4250	250	304 A	304 A	ENC6
3LHS4300	300	362 A	362 A	ENC6
3LHS4350	350	415 A	415 A	ENC7
3LHS4400	400	478 A	478 A	ENC7
3LHS4500	500	590 A	590 A	ENC7

Model / Part Number	HP	Rated Current (Input)	Rated Current (Output)	Panel Size
PERFORMANCE				
3LH410	10	18 A	18 A	ENC5
3LH415	15	25 A	25 A	ENC5
3LH420	20	31 A	31 A	ENC5
3LH425	25	38 A	38 A	ENC5
3LH430	30	46 A	46 A	ENC5
3LH440	40	61 A	61 A	ENC5
3LH450	50	77 A	77 A	ENC5
3LH460	60	91 A	91 A	ENC6
3LH475	75	107 A	107 A	ENC6
3LH4100	100	142 A	142 A	ENC6
3LH4125	125	172 A	172 A	ENC6
3LH4150	150	198 A	198 A	ENC6
3LH4200	200	250 A	250 A	ENC7
3LH4250	250	304 A	304 A	ENC7
3LH4300	300	362 A	362 A	ENC7
3LH4350	350	415 A	415 A	-
3LH4400	400	478 A	478 A	-
3LH4500	500	590 A	590 A	-
3LH4600	600	730 A	730 A	-
3LH4700	700	830 A	830 A	-
3LH4900	900	960 A	960 A	-