



VARIABLE FREQUENCY DRIVE

LOW HARMONIC

PHASE CONVERTING | VOLTAGE DOUBLING, 230/460V OPTIONS
OPEN, & NEMA 1 INDOOR ENCLOSURE | 5-500 HP



Active Front End



Regenerative Power



Voltage Doubling Options



Flexible I/O (Input/Output)



Intuitive User Interface

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 (Indoor)

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

Voltage Doubling Options



Panel Sizes



Enclosure	NEMA 1 Panel Dimensions (Height" x Width" x Depth")	Open Panel Dimensions (Height" x Width" x Depth")
L1	33-1/4" x 6-15/16" x 12-7/8"	27-5/16" x 6-15/16" x 12-7/8"
L2	53-9/16" x 13-5/16" x 17-3/8"	49-7/8" x 13-5/16" x 17-3/8"
L3	59-15/16" x 21-1/2" x 18-1/16"	52-7/16" x 21-1/2" x 18-1/16"
L4	69-3/16" x 25-7/8" x 21-11/16"	58-1/16" x 25-7/8" x 21-11/16"



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.

Product Specifications

1LHX SERIES

Model / Part Number	HP	Rated Current (Input)	Rated Current (Output)	Panel Size
230V				
1LHX005	5	26 A	18 A	L1
1LHX007	7.5	37 A	25 A	L1
1LHX010	10	48 A	31 A	L1
1LHX015	15	72 A	46 A	L1
1LHX020	20	97 A	62 A	L1
Voltage Doubling				
1LHX205	5	26 A	9 A	L1
1LHX207	7	37 A	13 A	L1
1LHX210	10	50 A	18 A	L1
1LHX215	15	67 A	24 A	L1
1LHX220	20	97 A	31 A	L1
1LHX225	25	115 A	38 A	L1
1LHX230	30	139 A	46 A	L2
1LHX240	40	196 A	61 A	L2
1LHX250	50	226 A	77 A	L3
1LHX260	60	282 A	91 A	L3
460V				
1LHX405	5	13 A	9 A	L1
1LHX407	7.5	19 A	13 A	L1
1LHX410	10	26 A	18 A	L1
1LHX415	15	36 A	25 A	L1
1LHX420	20	48 A	31 A	L1
1LHX425	25	60 A	38 A	L1
1LHX430	30	72 A	46 A	L1
1LHX440	40	98 A	61 A	L2
1LHX450	50	121 A	77 A	L2
1LHX460	60	143 A	91 A	L2
1LHX475	75	170 A	107 A	L2
1LHX4100	100	226 A	142 A	L3
1LHX4125	125	273 A	172 A	L3
1LHX4150	150	315 A	198 A	L3

3LHX SERIES

Model / Part Number	HP	Rated Current (Input)	Rated Current (Output)	Panel Size
230V				
3LHX005	5	18 A	18 A	L1
3LHX007	7.5	25 A	25 A	L1
3LHX010	10	31 A	31 A	L1
3LHX015	15	46 A	46 A	L1
3LHX020	20	61 A	61 A	L1
3LHX025	25	75 A	75 A	L1
3LHX030	30	91 A	91 A	L1
Voltage Doubling				
3LHX205	5	18 A	9 A	L1
3LHX207	7	25 A	13 A	L1
3LHX210	10	30 A	18 A	L1
3LHX215	15	46 A	25 A	L1
3LHX220	20	60 A	31 A	L1
3LHX225	25	77 A	38 A	L1
3LHX230	30	91 A	46 A	L2
3LHX240	40	121 A	61 A	L2
3LHX250	50	152 A	77 A	L2
3LHX260	60	182 A	91 A	L3
3LHX275	75	214 A	107 A	L3
3LHX2100	100	284 A	142 A	L3
460V				
3LHX405	5	9 A	9 A	L1
3LHX407	7.5	13 A	13 A	L1
3LHX410	10	18 A	18 A	L1
3LHX415	15	24 A	24 A	L1
3LHX420	20	31 A	31 A	L1
3LHX425	25	38 A	38 A	L1
3LHX430	30	46 A	46 A	L1
3LHX440	40	61 A	61 A	L1
3LHX450	50	77 A	77 A	L1
3LHX460	60	91 A	91 A	L2
3LHX475	75	107 A	107 A	L2
3LHX4100	100	142 A	142 A	L2
3LHX4125	125	172 A	172 A	L2
3LHX4150	150	198 A	198 A	L2
3LHX4200	200	250 A	250 A	L3
3LHX4250	250	304 A	304 A	L3
3LHX4300	300	365 A	365 A	L3
3LHX4350	350	415 A	415 A	-
3LHX4400	400	478 A	478 A	-
3LHX4500	500	590 A	590 A	-



MADE IN THE USA



7-DAY LEAD TIMES

Nomenclature

