

# 3LH

## LOW HARMONIC

THREE-PHASE VFD PANEL



## Physical / Environmental

Operating Temperature Range	-18 °C – 50 °C (0 °F – 122 °F) *Heater in enclosure is required below -18 °C and 0 °F, de-rating required above 40 °
Storage Temperature Range	-40 °C – 57 °C (-40 °F – 135 °F)
Enclosure	NEMA Type 3R: Outdoor   Rainproof
Altitude	Derate by 1% every 400 ft above 3300 ft elevation

## Input Power

Input Phase	Three-phase
Input Voltage	230V   460V
Input Voltage Range	190V – 264V   440V – 520V
Input Frequency	50/60 Hz

## Output Power

Output Phase	Three-phase
Nominal Output Voltage	230V   460V
Output Voltage Range	100V – 270V   200V – 530V
Output Frequency	5 Hz – 120 Hz
Horsepower	5 HP - 800 HP
Output Power	1.5 - 409 kW
Switching Frequency	2 kHz – 5 kHz
Output	V/f control or torque Control (Optional)

## Electrical

Short Circuit Withstand Rating	65 kA RMS symmetrical Amps
Efficiency	> 98%
Startup Ramp Time	1 – 120 s
Shutdown Ramp Time	1 – 120 s or Coast to Stop
Overload Capacity	110% for 60 s



## Analog Inputs

Quantity	(3) Programmable
Current Reference	4 – 20 mA, (2) Inputs
Voltage Reference	0 – 10 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	Relay 1 : 30 VDC or 277 VAC, 10 A Relay 2 : 30 VDC or 277 VAC, 10 A Relay 3 : 30 VDC, 2 A or 125 VAC, 0.5 A Relay 4 : 30 VDC, 2 A or 125 VAC, 0.5 A
Terminal Block Size	26 - 12 AWG

## Features

Low Harmonic Compliance	IEEE-519 Guaranteed
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



## 230V

230V

Model / Part Number	HP	Rated Current (Input)	Rated Current (Output)	Enclosure	Enclosure (w/ Bypass)
3LH005	5	18 A	18 A	ENC3	-
3LH007	7.5	25 A	25 A	ENC3	-
3LH010	10	31 A	31 A	ENC3	-
3LH015	15	46 A	46 A	ENC3	-
3LH020	20	61 A	61 A	ENC3	-
3LH025	25	75 A	75 A	ENC3	-
3LH030	30	91 A	91 A	ENC3	-

## Voltage Doubling

Voltage Doubling

Model / Part Number	HP	Rated Current (Input)	Rated Current (Output)	Enclosure	Enclosure (w/ Bypass)
3LH205	5	18 A	9 A	ENC3	-
3LH207	7.5	25 A	13 A	ENC3	-
3LH210	10	30 A	18 A	ENC3	-
3LH215	15	46 A	25 A	ENC3	-
3LH220	20	60 A	31 A	ENC3	-
3LH230	30	91 A	46 A	ENC5	-
3LH240	40	121 A	61 A	ENC5	-
3LH250	50	142 A	77 A	ENC5	-
3LH260	60	182 A	91 A	ENC6	-
3LH275	75	214 A	107 A	ENC6	-





## 460V

460V

Model / Part Number	HP	Rated Current (Input)	Rated Current (Output)	Enclosure	Enclosure (w/ Bypass)
3LH405	5	9 A	9 A	ENC3	-
3LH407	7.5	13 A	13 A	ENC3	-
3LH410	10	18 A	18 A	ENC3	-
3LH415	15	25 A	25 A	ENC3	-
3LH420	20	31 A	31 A	ENC3	ENC5
3LH425	25	38 A	38 A	ENC3	ENC5
3LH430	30	46 A	46 A	ENC3	ENC5
3LH440	40	61 A	61 A	ENC3	ENC5
3LH450	50	77 A	77 A	ENC3	ENC5
3LH460	60	91 A	91 A	ENC5	ENC6
3LH475	75	107 A	107 A	ENC5	ENC6
3LH4100	100	142 A	142 A	ENC5	ENC6
3LH4125	125	172 A	172 A	ENC5	ENC6
3LH4150	150	198 A	198 A	ENC5	ENC6
3LH4200	200	250 A	250 A	ENC6	ENC6
3LH4250	250	304 A	304 A	ENC6	ENC6
3LH4300	300	362 A	362 A	ENC6	ENC6
3LH4350	350	415 A	415 A	ENC7A	-
3LH4400	400	515 A	515 A	ENC7A	-
3LH4500	500	608 A	608 A	ENC7A	-
3LH4700	700	800 A	800 A	-	-
3LH4800	800	960 A	960 A	-	-



## 230V

230V

Model / Part Number	HP	Fuse Rating (Recommended)	Circuit Breaker Rating (Recommended)
3LH005	5	30 A, 600 V	30 A
3LH007	7.5	30 A, 600 V	30 A
3LH010	10	40 A, 600 V	40 A
3LH015	15	60 A, 600 V	60 A
3LH020	20	80 A, 600 V	80 A
3LH025	25	100 A, 600 V	100 A
3LH030	30	125 A, 600 V	125 A

## Voltage Doubling

Voltage Doubling

Model / Part Number	HP	Fuse Rating (Recommended)	Circuit Breaker Rating (Recommended)
3LH205	5	30 A, 600 V	30 A
3LH207	7.5	30 A, 600 V	30 A
3LH210	10	40 A, 600 V	40 A
3LH215	15	60 A, 600 V	60 A
3LH220	20	80 A, 600 V	80 A
3LH230	30	125 A, 600 V	125 A
3LH240	40	175 A, 600 V	175 A
3LH250	50	225 A, 600 V	225 A
3LH260	60	275 A, 600 V	275 A
3LH275	75	325 A, 600 V	325 A



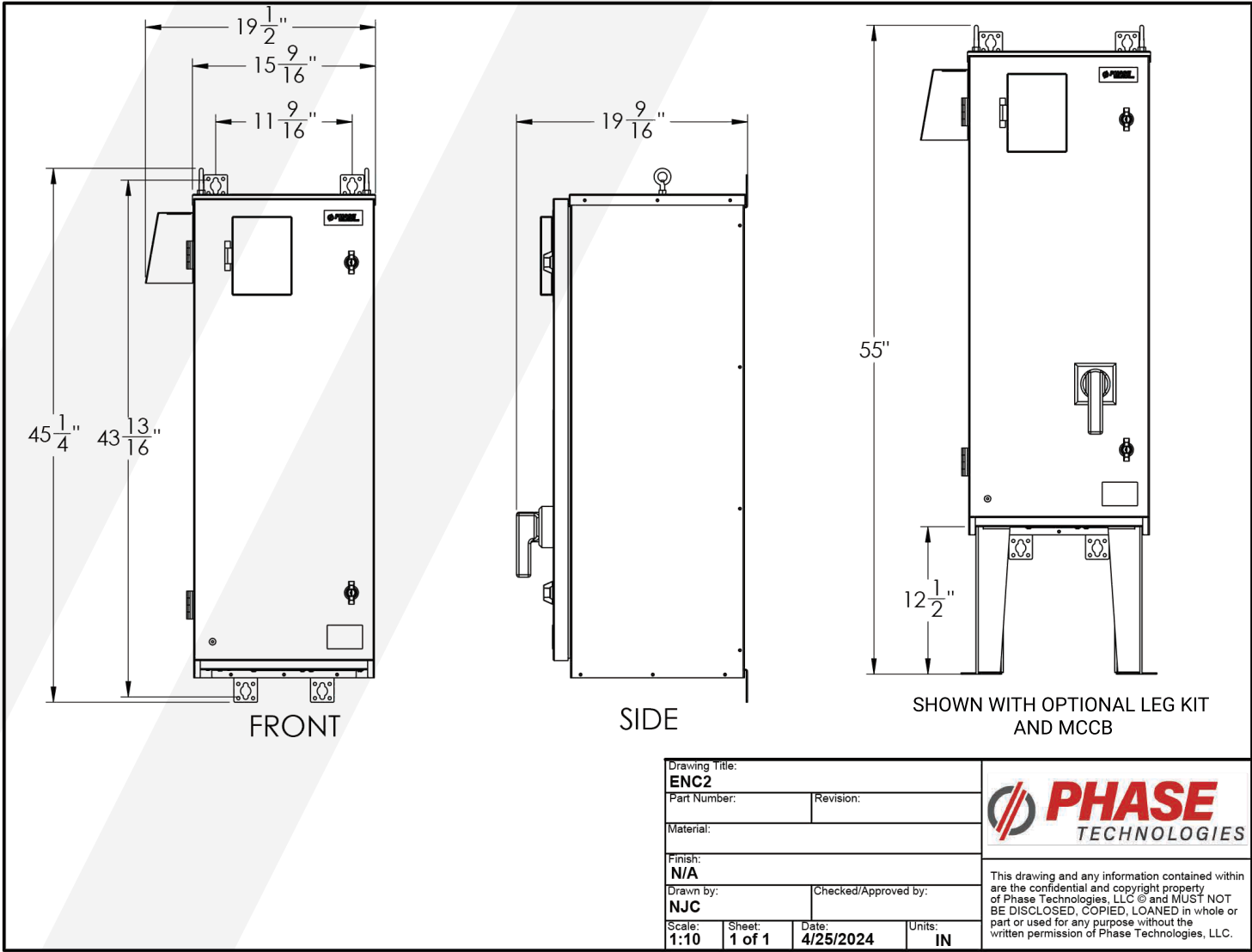
## 460V

460V

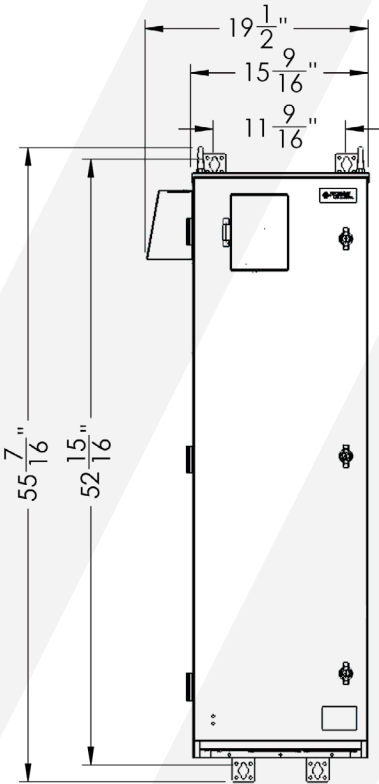
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3LH407	7.5	20 A, 600 V	20 A
3LH410	10	30 A, 600 V	30 A
3LH415	15	30 A, 600 V	30 A
3LH420	20	40 A, 600 V	40 A
3LH425	25	50 A, 600 V	50 A
3LH430	30	60 A, 600 V	60 A
3LH440	40	80 A, 600 V	80 A
3LH450	50	100 A, 600 V	100 A
3LH460	60	125 A, 600 V	125 A
3LH475	75	150 A, 600 V	150 A
3LH4100	100	200 A, 600 V	200 A
3LH4125	125	250 A, 600 V	250 A
3LH4150	150	250 A, 600 V	250 A
3LH4200	200	350 A, 600 V	350 A
3LH4250	250	400 A, 600 V	400 A
3LH4300	300	500 A, 600 V	500 A
3LH4350	350	600 A, 600 V	600 A
3LH4400	400	700 A, 600 V	700A
3LH4500	500	800 A, 600 V	800 A
3LH4700	700	1000 A, 600 V	1000 A
3LH4800	800	1200 A, 600 V	1200 A



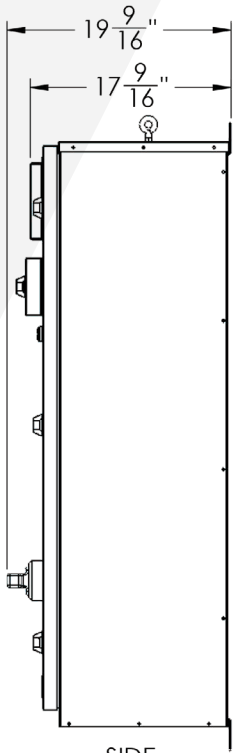
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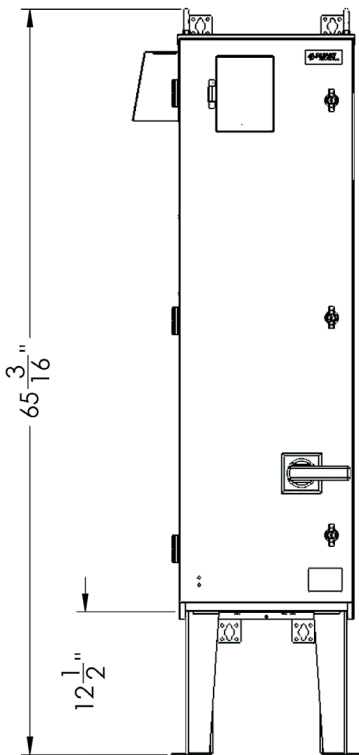
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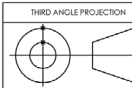
FRONT



SIDE



SHOWN WITH OPTIONAL LEG KIT  
AND MCCB



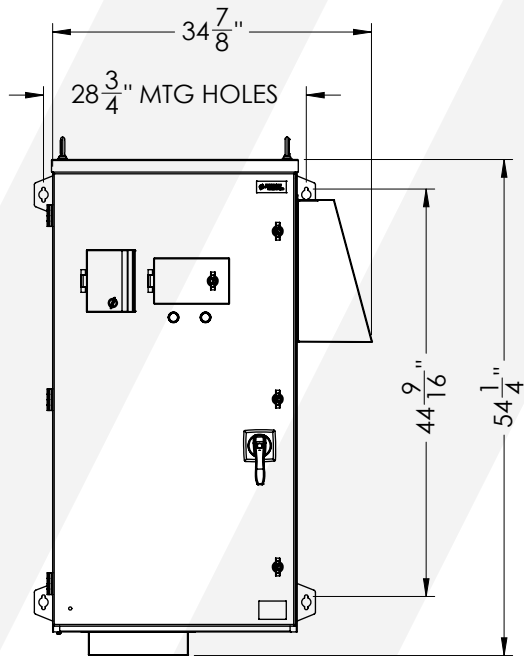
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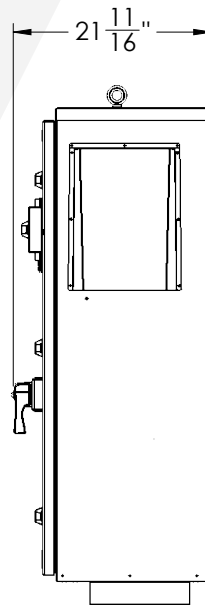
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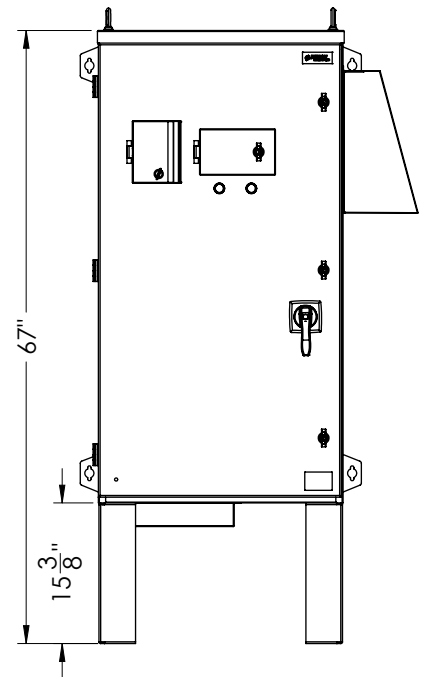
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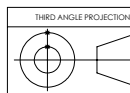
FRONT



SIDE



OPTIONAL LEG KIT



UNLESS OTHERWISE SPECIFIED:  
 NO DIM.  $\pm 0.060$ " TO MODEL  
 FRACTIONAL  $\pm 1/16$ "  
 0.XX:  $\pm 0.06$ " 0.XXX:  $\pm 0.020$ "  
 ANGLES:  $\pm 1^\circ$   
 HOLE  $\phi$ :  $\pm 0.003$ " TO MODEL  
 HOLE  $\phi$ :  $\pm 0.010$ " TO MODEL  
 WELD: ANSI STANDARD

MASS = 0.000lb

Drawing Title:

ENC4A Standard Enclosure

Part Number:

Revision:

0

Material:

Finish:

N/A

Drawn by:

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Checked/Approved by:

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Date:

11/26/2024

Units:

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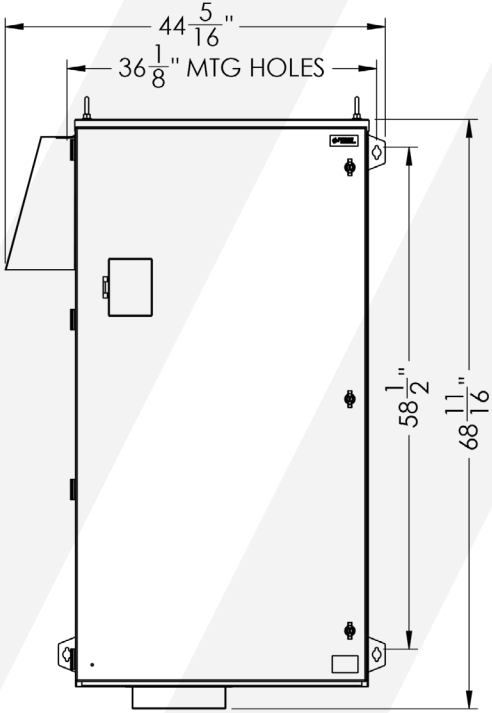


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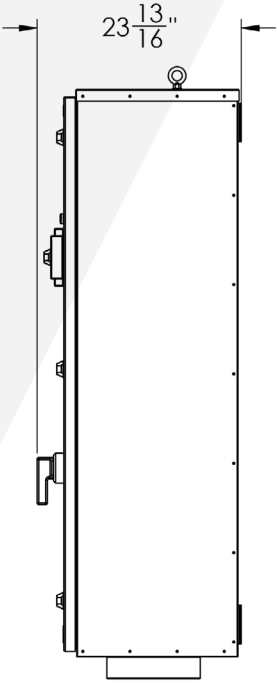




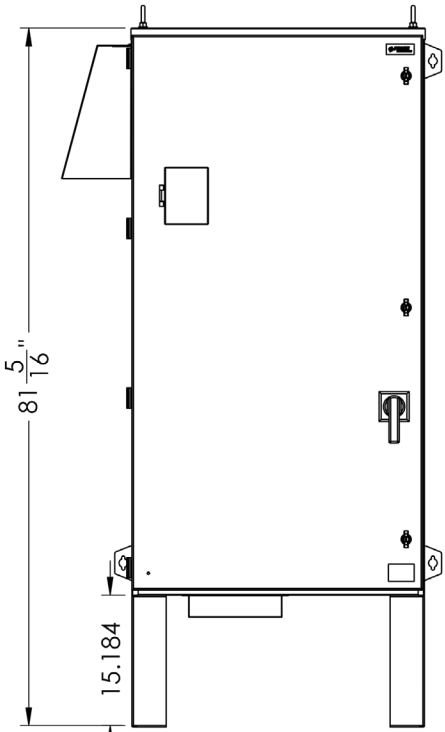
ENC5



FRONT



SIDE



SHOWN WITH OPTIONAL LEG KIT  
AND MCCB

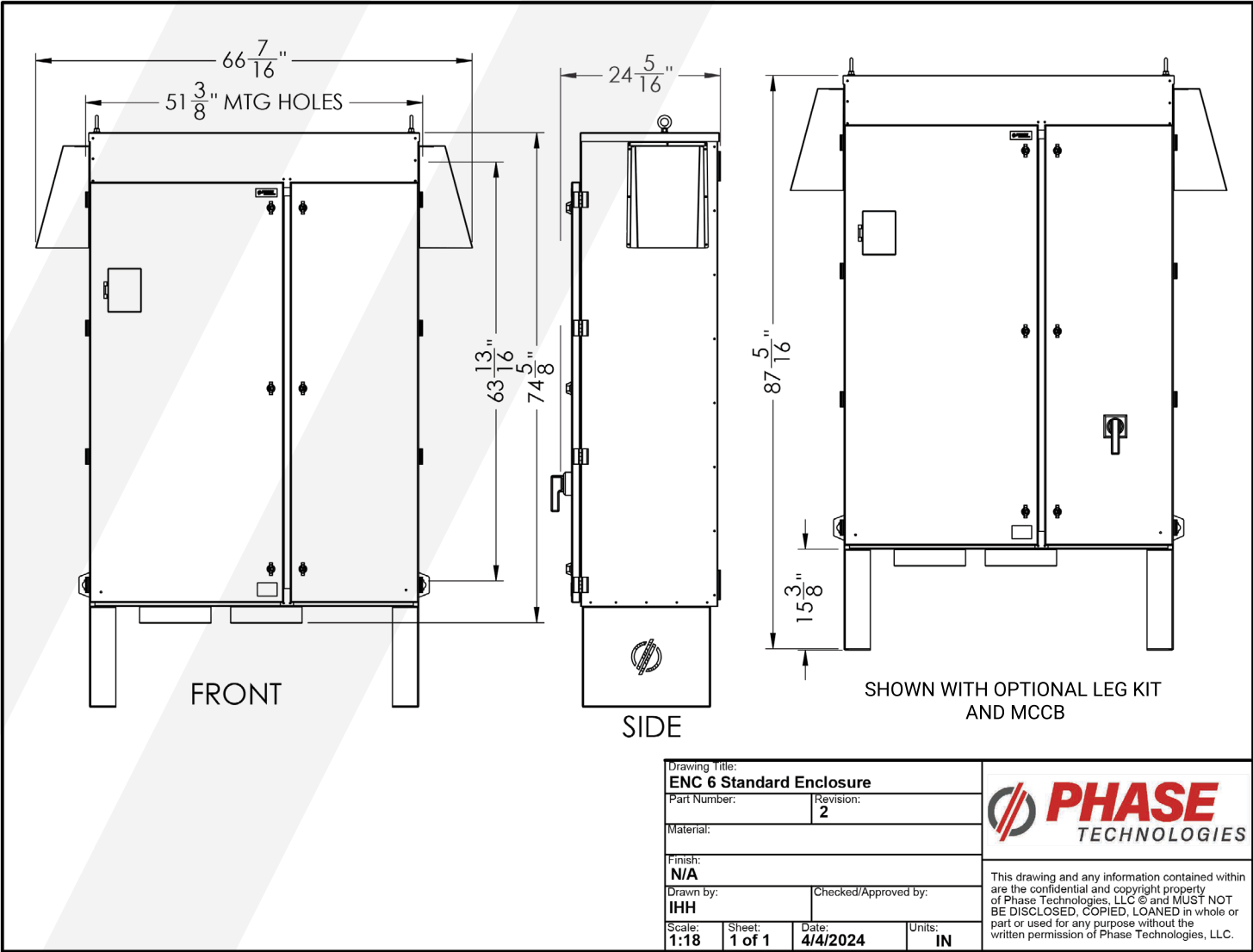
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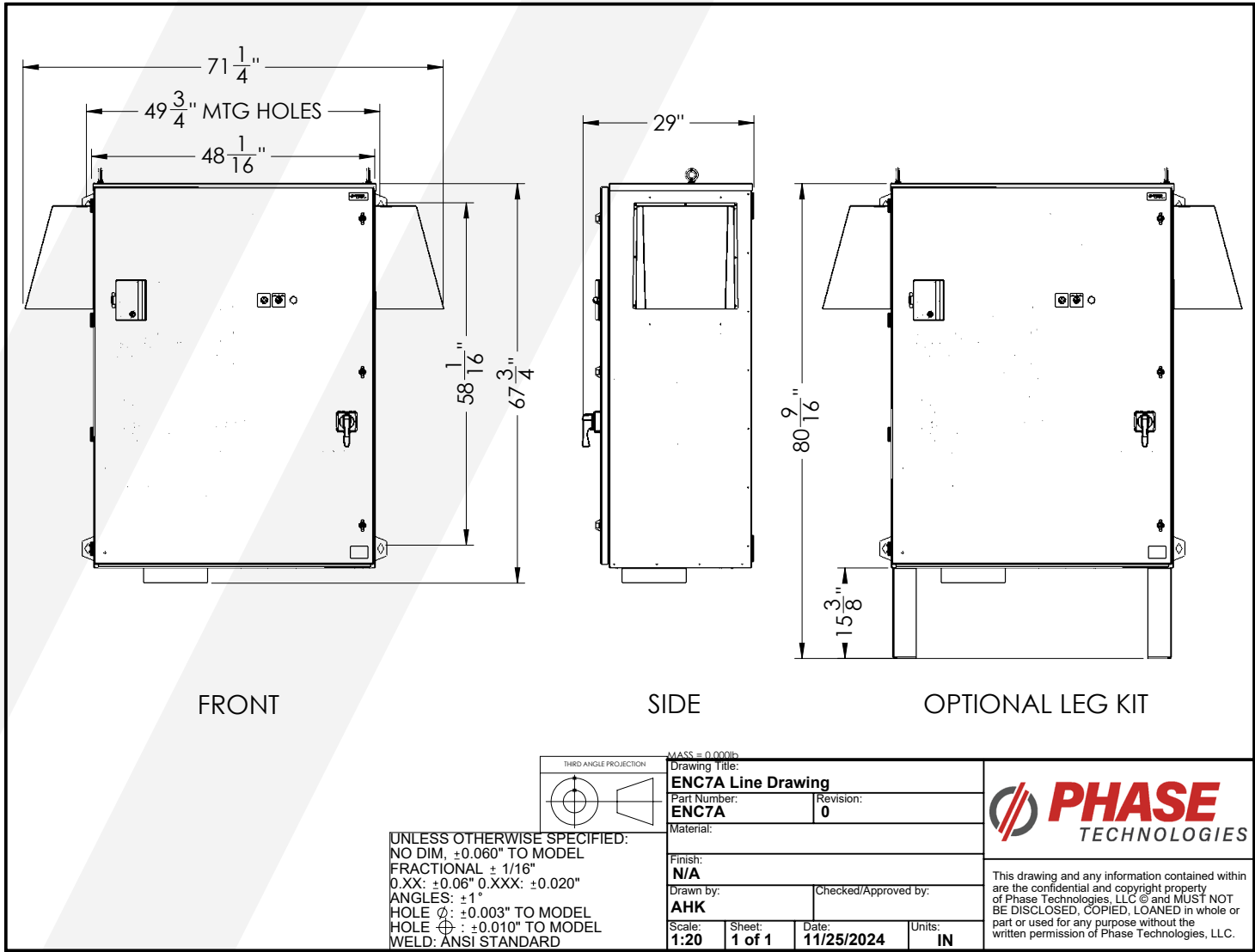
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ENC6



ENC7A



INTUITIVELY ENGINEERED



**DIGITAL PHASE  
CONVERTERS**

**VARIABLE  
FREQUENCY  
DRIVES**

**MOTOR  
PROTECTION**

**STARTER  
PANELS**

## **OUR MISSION**

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