

# 1LH

## LOW HARMONIC CONFIGURED 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 3,300 ft elevation

## Input Power

Input Phase	Single-phase or 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 - 150 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

	<b>Model / Part Number</b>	<b>HP</b>	<b>Rated Current (Input)</b>	<b>Rated Current (Output)</b>	<b>Enclosure</b>	<b>Enclosure (w/ AuxPower)</b>
230V	1LH005	5	26 A	18 A	ENC3	-
	1LH007	7.5	37 A	25 A	ENC3	-
	1LH010	10	48 A	31 A	ENC3	-
	1LH015	15	72 A	46 A	ENC3	-
	1LH020	20	97 A	62 A	ENC3	-

## Voltage Doubling

	<b>Model / Part Number</b>	<b>HP</b>	<b>Rated Current (Input)</b>	<b>Rated Current (Output)</b>	<b>Enclosure</b>	<b>Enclosure (w/ AuxPower)</b>
Voltage Doubling	1LH205	5	26 A	9 A	ENC3	-
	1LH207	7.5	37 A	13 A	ENC3	-
	1LH210	10	50 A	18 A	ENC3	ENC5
	1LH215	15	67 A	25 A	ENC3	ENC5
	1LH220	20	97 A	31 A	ENC3	ENC5
	1LH230	30	139 A	46 A	ENC5	ENC5
	1LH240	40	196 A	61 A	ENC5	ENC6
	1LH250	50	226 A	77 A	ENC6	-





## 460V

460V

Model / Part Number	HP	Rated Current (Input)	Rated Current (Output)	Enclosure	Enclosure (w/ AuxPower)
1LH405	5	13 A	9 A	ENC3	-
1LH407	7.5	19 A	13 A	ENC3	-
1LH410	10	26 A	18 A	ENC3	ENC5
1LH415	15	36 A	25 A	ENC3	ENC5
1LH420	20	48 A	31 A	ENC3	ENC5
1LH425	25	60 A	38 A	ENC3	ENC5
1LH430	30	72 A	46 A	ENC3	ENC5
1LH440	40	98 A	61 A	ENC5	ENC6
1LH450	50	121 A	77 A	ENC5	ENC6
1LH460	60	143 A	91 A	ENC5	ENC6
1LH475	75	170 A	107 A	ENC5	ENC6
1LH4100	100	226 A	142 A	ENC6	-
1LH4125	125	273 A	172 A	ENC6	-
1LH4150	150	315 A	198 A	ENC6	-
1LH4200	200	360 A	250 A	ENC7A	-



## 230V

	<b>Model / Part Number</b>	<b>HP</b>	<b>Fuse Rating (Recommended)</b>	<b>Circuit Breaker Rating (Recommended)</b>
230V	1LH005	5	40 A, 600 V	40 A
	1LH007	7.5	60 A, 600 V	60 A
	1LH010	10	60 A, 600 V	60 A
	1LH015	15	100 A, 600 V	100 A
	1LH020	20	125 A, 600 V	125 A

## Voltage Doubling

	<b>Model / Part Number</b>	<b>HP</b>	<b>Fuse Rating (Recommended)</b>	<b>Circuit Breaker Rating (Recommended)</b>
Voltage Doubling	1LH205	5	40 A, 600 V	40 A
	1LH207	7.5	60 A, 600 V	60 A
	1LH210	10	70 A, 600 V	70 A
	1LH215	15	100 A, 600 V	100 A
	1LH220	20	125 A, 600 V	125 A
	1LH230	30	175 A, 600 V	175 A
	1LH240	40	200 A, 600 V	225 A
	1LH250	50	300 A, 600 V	300 A



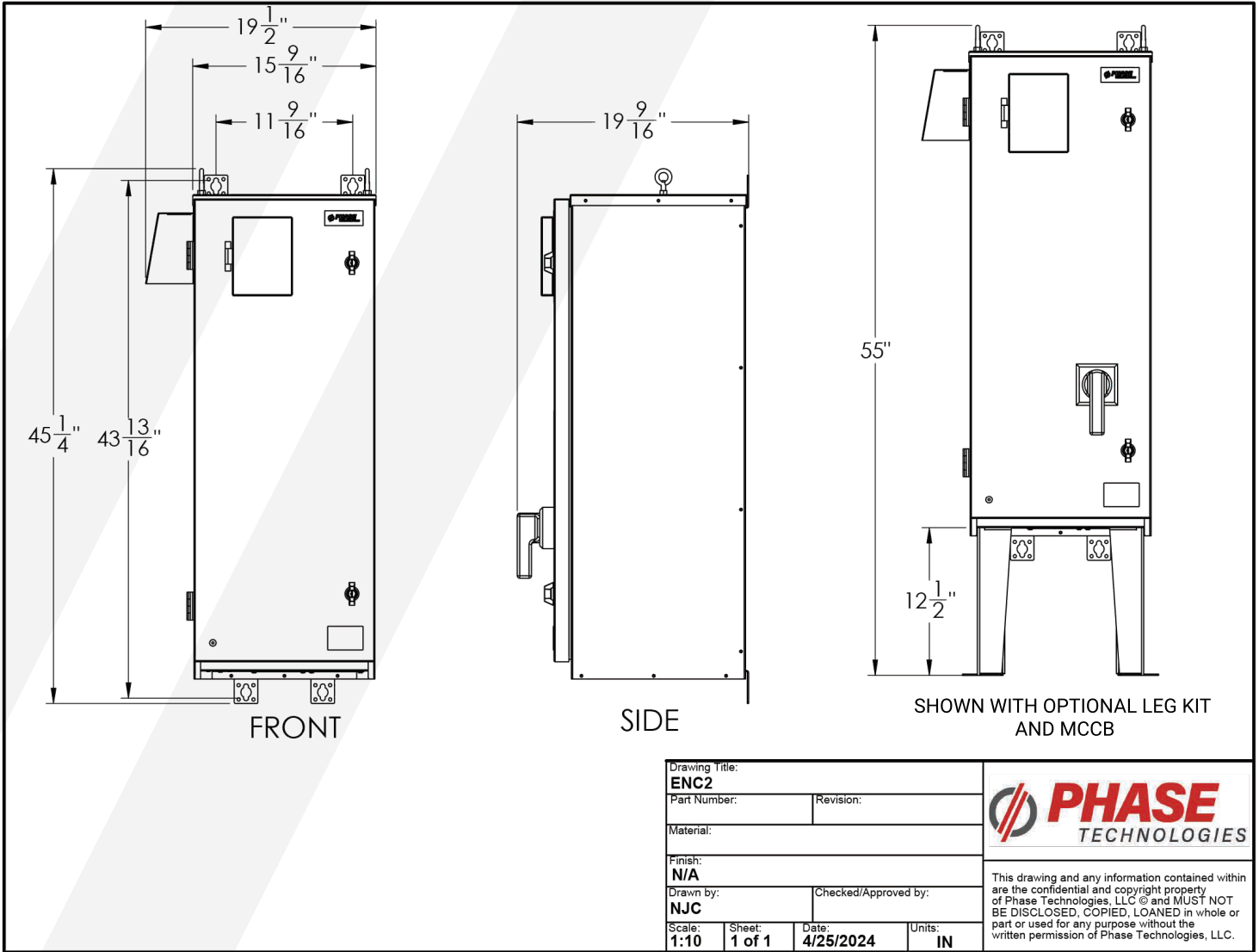
## 460V

460V

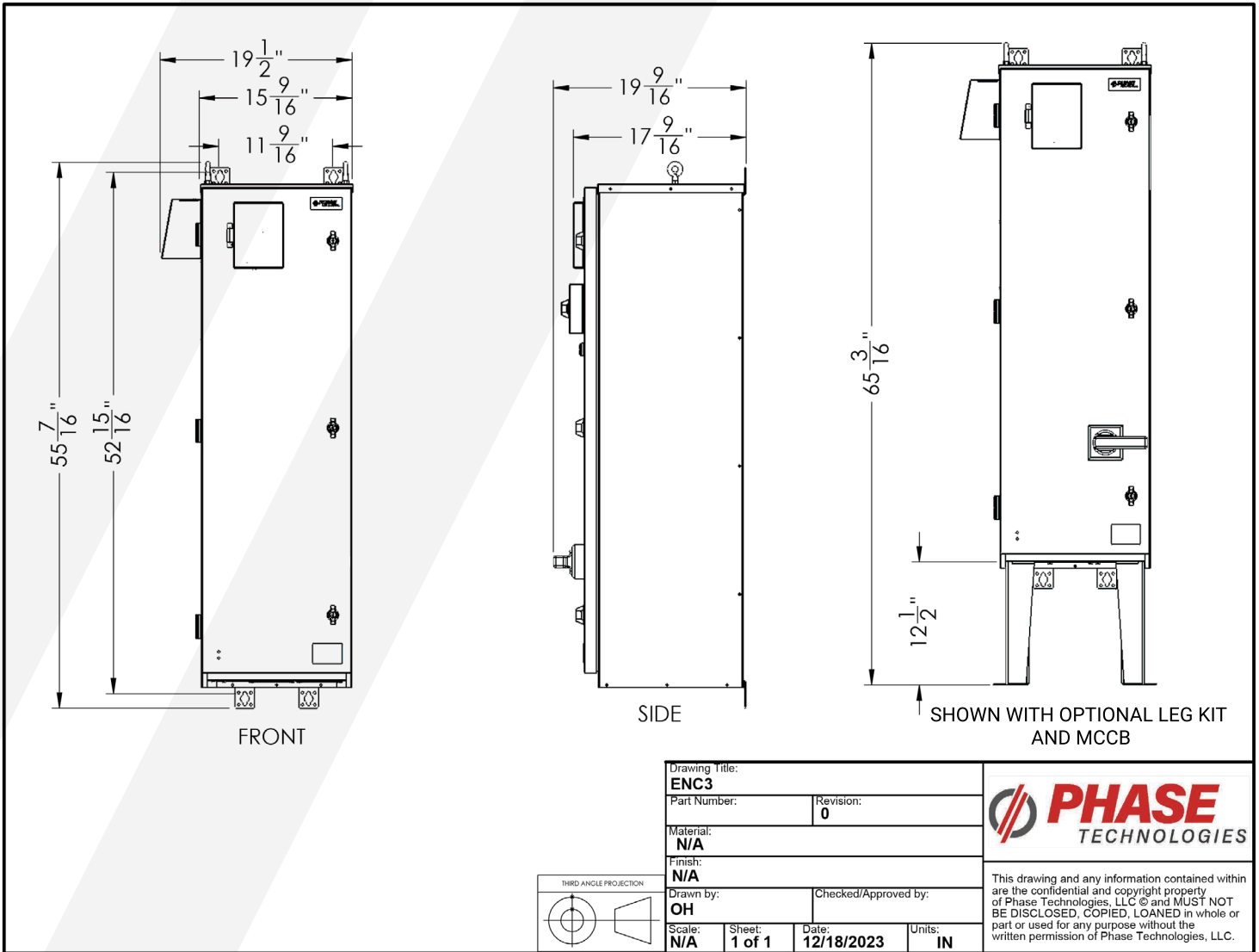
<i>Model / Part Number</i>	<i>HP</i>	<i>Fuse Rating (Recommended)</i>	<i>Circuit Breaker Rating (Recommended)</i>
<b>1LH405</b>	5	20 A, 600 V	20 A
<b>1LH407</b>	7.5	30 A, 600 V	30 A
<b>1LH410</b>	10	40 A, 600 V	40 A
<b>1LH415</b>	15	60 A, 600 V	60 A
<b>1LH420</b>	20	60 A, 600 V	60 A
<b>1LH425</b>	25	80 A, 600 V	80 A
<b>1LH430</b>	30	100 A, 600 V	100 A
<b>1LH440</b>	40	125 A, 600 V	125 A
<b>1LH450</b>	50	175 A, 600 V	175 A
<b>1LH460</b>	60	200 A, 600 V	200 A
<b>1LH475</b>	75	250 A, 600 V	250 A
<b>1LH4100</b>	100	300 A, 600 V	300 A
<b>1LH4125</b>	125	300 A, 600 V	300 A
<b>1LH4150</b>	150	350 A, 600 V	350 A
<b>1LH4200</b>	200	400 A, 600 V	400 A



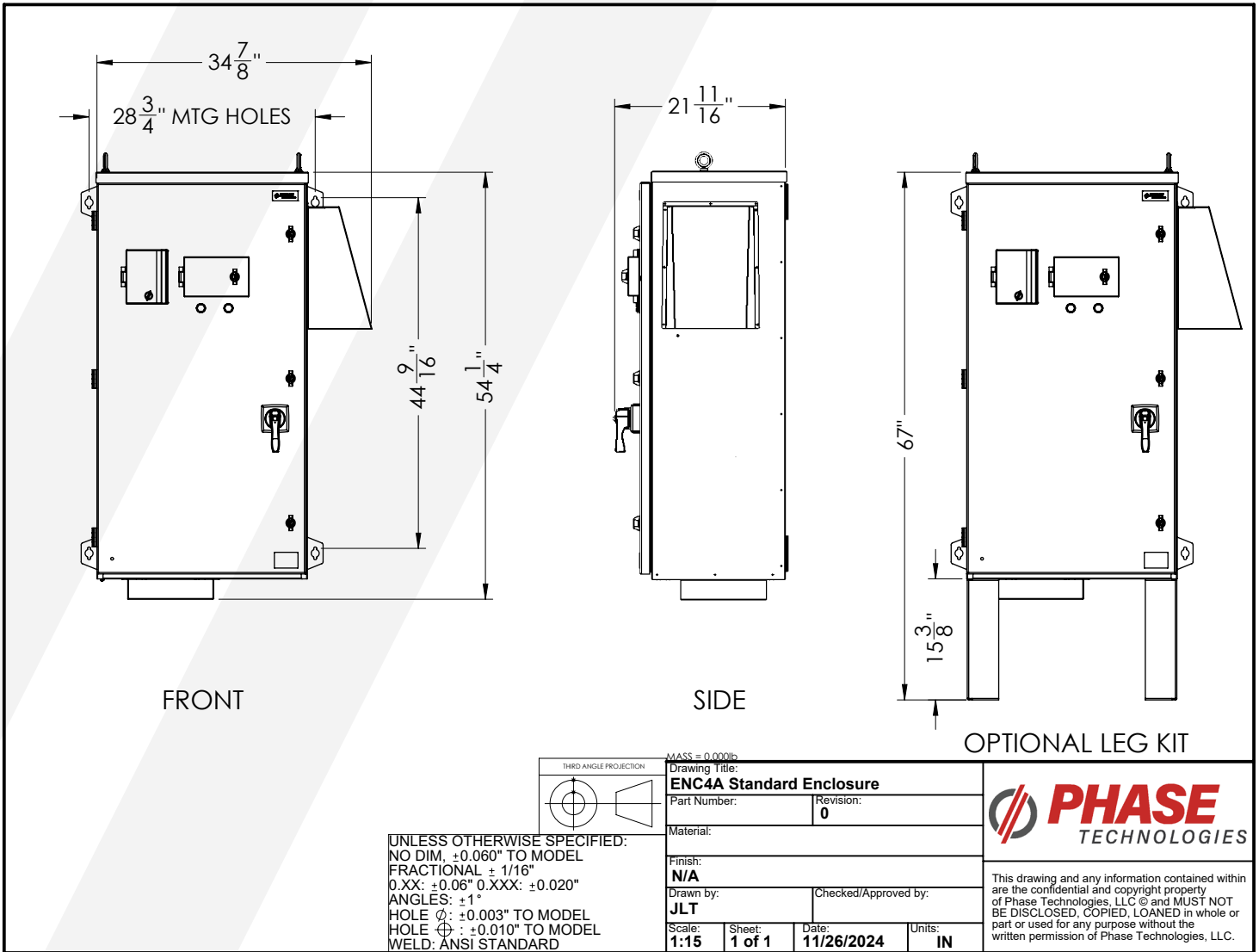
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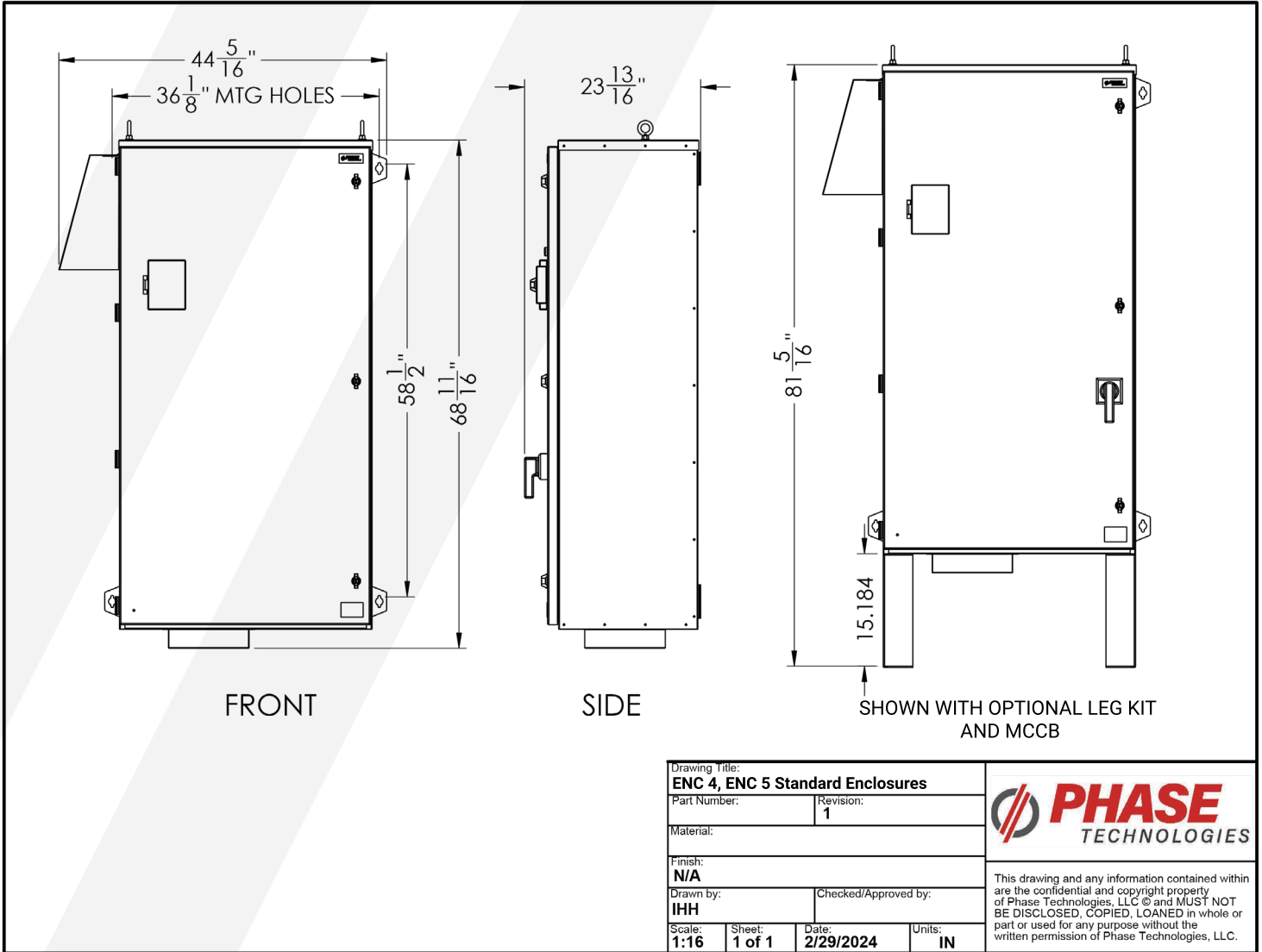


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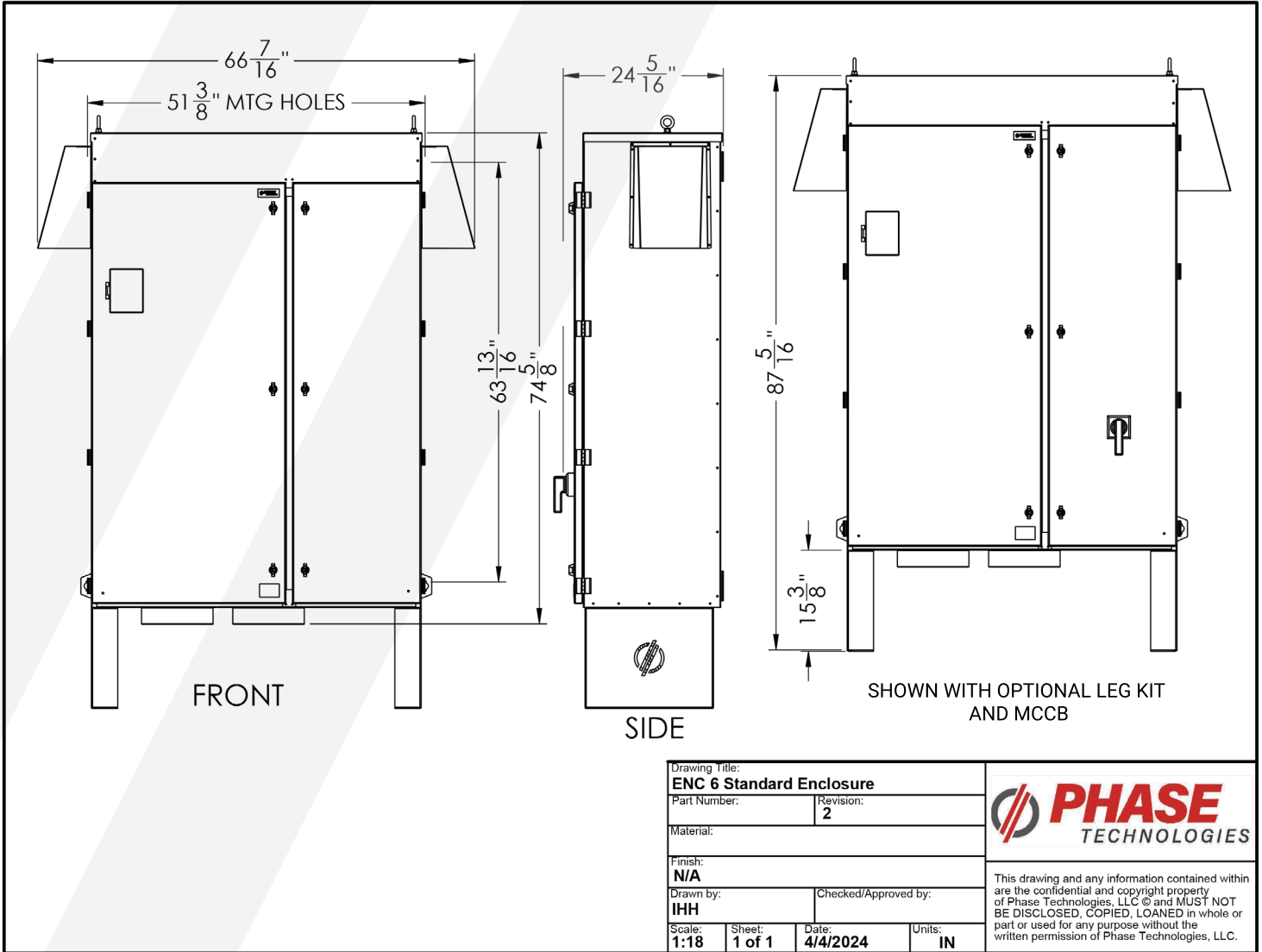




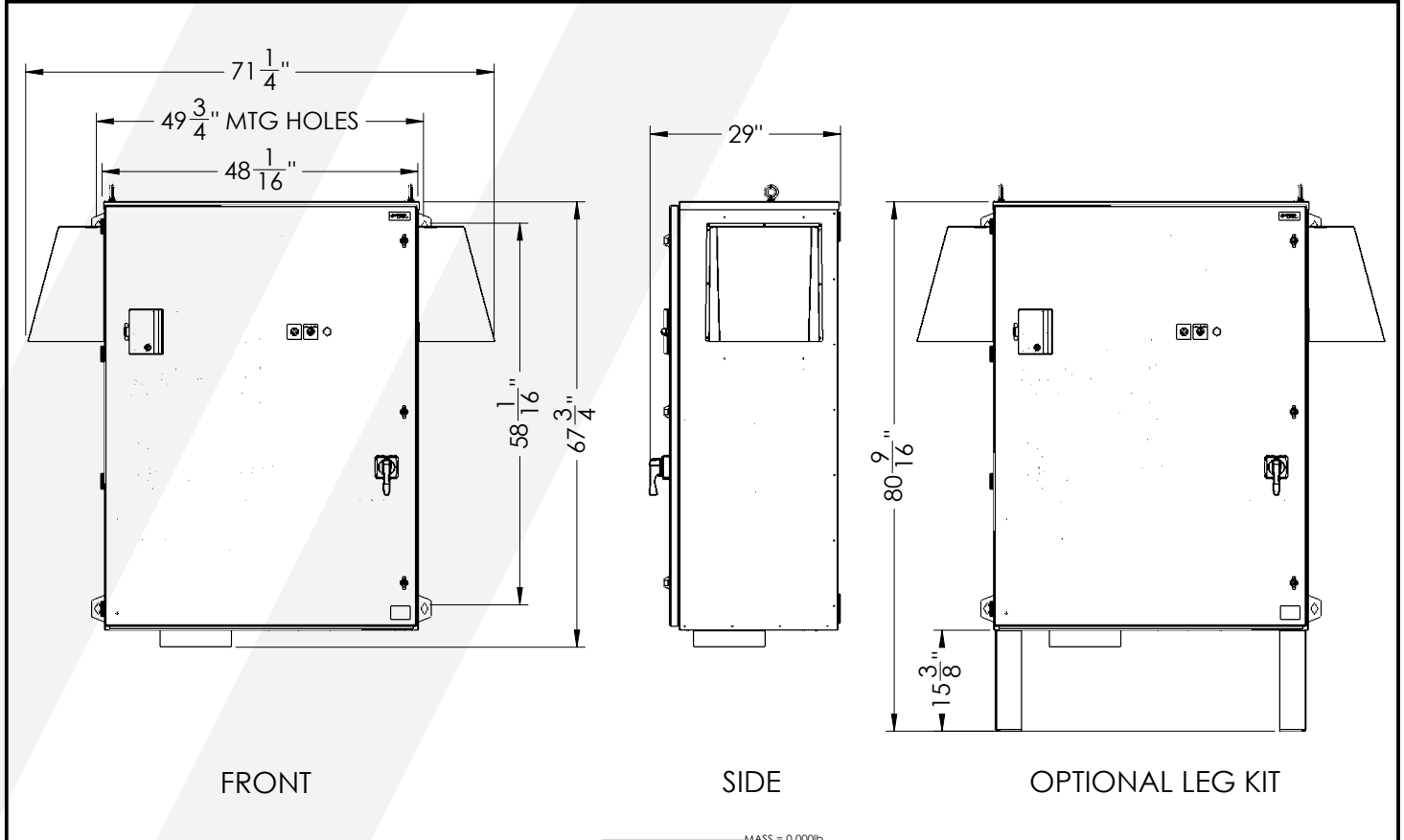
# ENC5



# ENC6



# ENC7A



	UNLESS OTHERWISE SPECIFIED: NO DIM, ±0.060" TO MODEL FRACTIONAL ± 1/16" 0.XX: ±0.06" 0.XXX: ±0.020" ANGLES: ±1° HOLE Ø: ±0.003" TO MODEL HOLE ⌀: ±0.010" TO MODEL WELD: ANSI STANDARD			
	Material:			
Drawing Title: <b>ENC7A Line Drawing</b>		Revision: <b>0</b>		
Part Number: <b>ENC7A</b>		Material:		
Finish: <b>N/A</b>		Drawn by: <b>AHK</b>		
Scale: <b>1:20</b>		Checked/Approved by:		
Sheet: <b>1 of 1</b>	Date: <b>11/25/2024</b>	Units: <b>IN</b>		

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**DIGITAL PHASE  
CONVERTERS**

**VARIABLE  
FREQUENCY  
DRIVES**

**MOTOR  
PROTECTION**

**STARTER  
PANELS**

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