

SDX

PHASE CONVERTING

INDUSTRIAL 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 °C
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
Input Voltage	230 V 460 V
Input Voltage Range	190 V – 264 V
Input Frequency	50/60 Hz

Output Power

Output Phase	Three-Phase
Nominal Output Voltage	230 V 460 V
Output Voltage Range	100 V – 270 V 200 V – 530 V
Output Frequency	5 Hz – 120 Hz
Horsepower	5 HP - 100 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

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



230 V

230 V

<i>Model / Part Number</i>	<i>HP</i>	<i>Rated Current (Input)</i>	<i>Rated Current (Output)</i>	<i>Enclosure</i>
SDX005	5	18 A	18 A	ENC2
SDX007	7.5	24 A	24 A	ENC2
SDX010	10	31 A	31 A	ENC2
SDX015	15	46 A	46 A	ENC2

460 V

460 V

<i>Model / Part Number</i>	<i>HP</i>	<i>Rated Current (Input)</i>	<i>Rated Current (Output)</i>	<i>Enclosure</i>
SDX405	5	9 A	9 A	ENC2
SDX407	7.5	13 A	13 A	ENC2
SDX410	10	18 A	18 A	ENC2
SDX415	15	25 A	25 A	ENC2
SDX420	20	31 A	31 A	ENC2
SDX425	25	38 A	38 A	ENC2
SDX430	30	46 A	46 A	ENC2
SDX450	50	77 A	77 A	ENC5
SDX460	60	91 A	91 A	ENC5
SDX475	75	107 A	107 A	ENC5
SDX4100	100	142 A	142 A	ENC5



230 V

230 V

Model / Part Number	HP	Fuse Rating (Recommended)	Circuit Breaker Rating (Recommended)
SDX005	5	25 A, 600 V	25 A
SDX007	7.5	30 A, 600 V	30 A
SDX010	10	40 A, 600 V	40 A
SDX015	15	60 A, 600 V	60 A

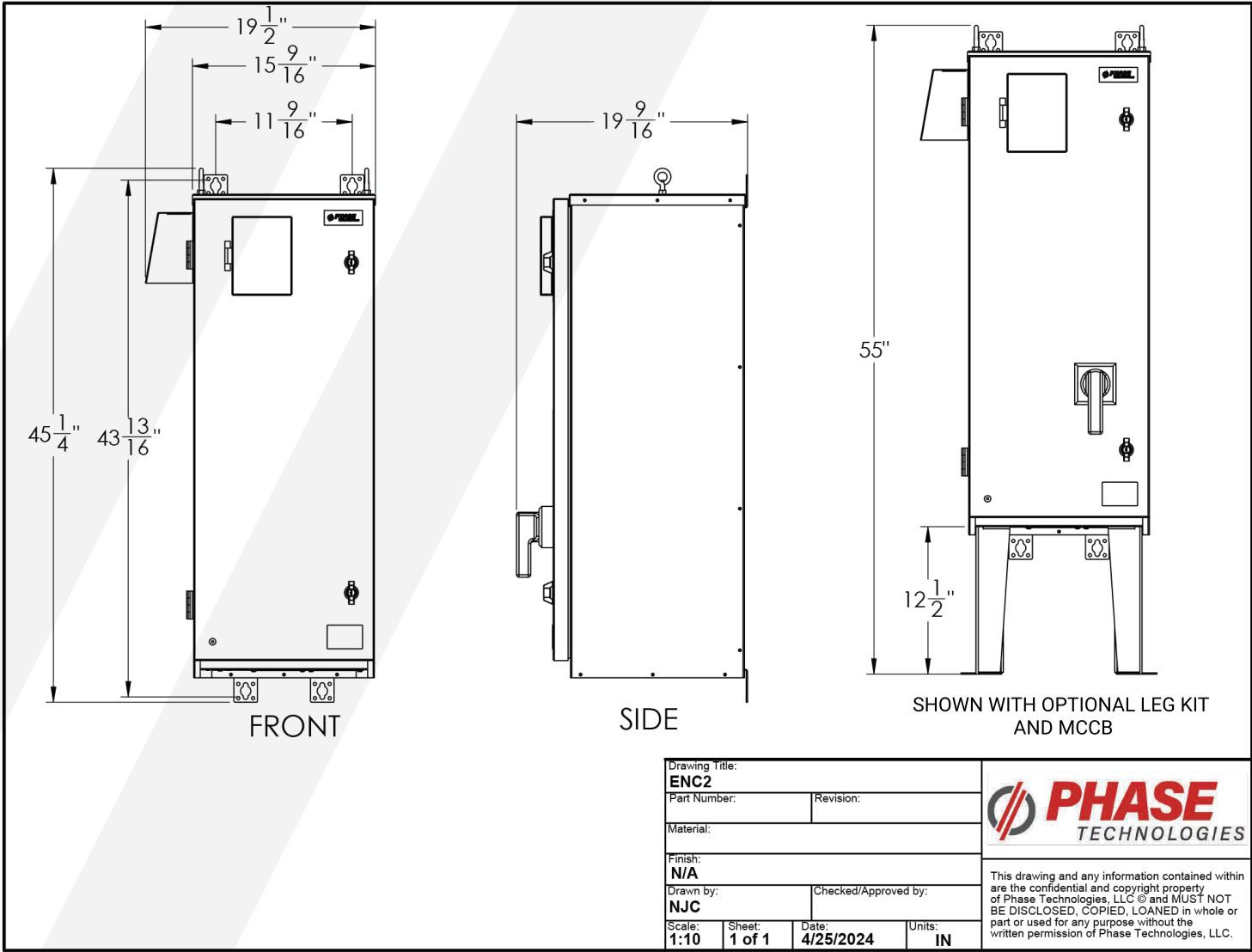
460 V

460 V

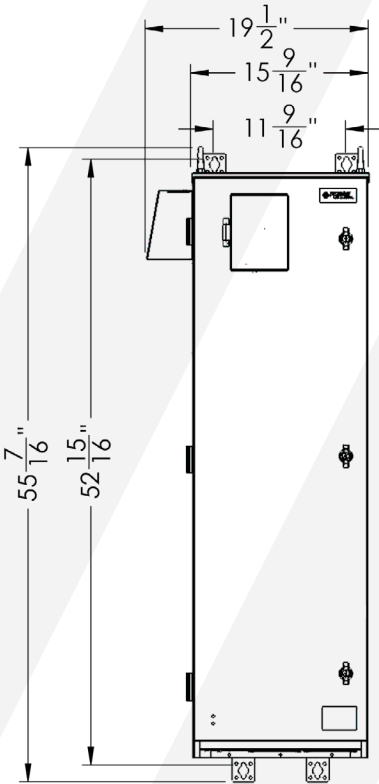
Model / Part Number	HP	Fuse Rating (Recommended)	Circuit Breaker Rating (Recommended)
SDX405	5	20 A, 600 V	20 A
SDX407	7.5	20 A, 600 V	20 A
SDX410	10	30 A, 600 V	30 A
SDX415	15	30 A, 600 V	30 A
SDX420	20	40 A, 600 V	40 A
SDX425	25	50 A, 600 V	50 A
SDX430	30	60 A, 600 V	60 A
SDX440	40	80 A, 600 V	80 A
SDX450	50	100 A, 600 V	100 A
SDX460	60	125 A, 600 V	125 A
SDX475	75	150 A, 600 V	150 A
SDX4100	100	200 A, 600 V	200 A



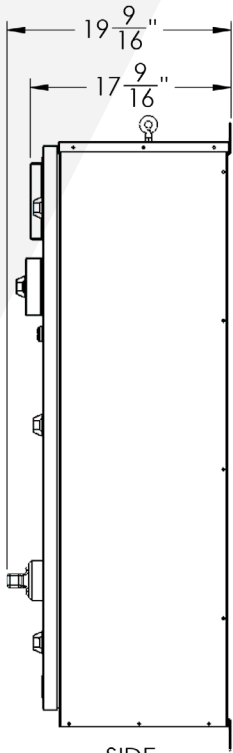
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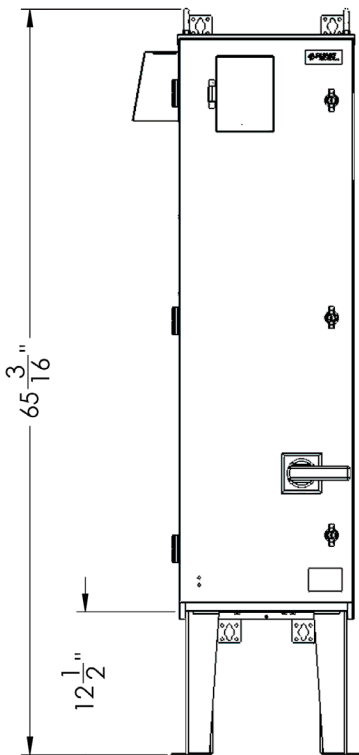
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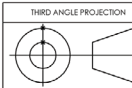
FRONT



SIDE



SHOWN WITH OPTIONAL LEG KIT
AND MCCB



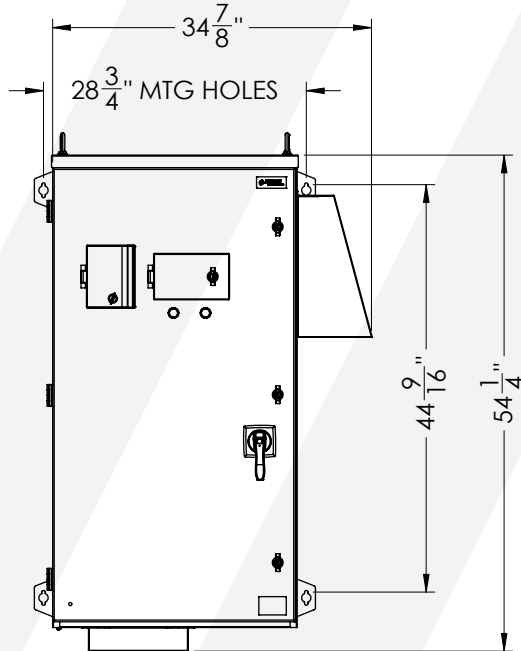
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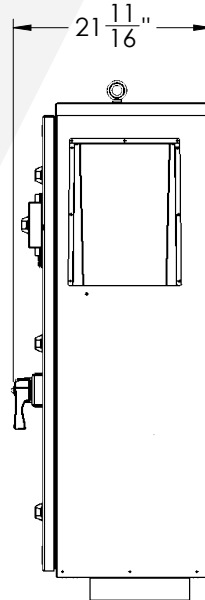
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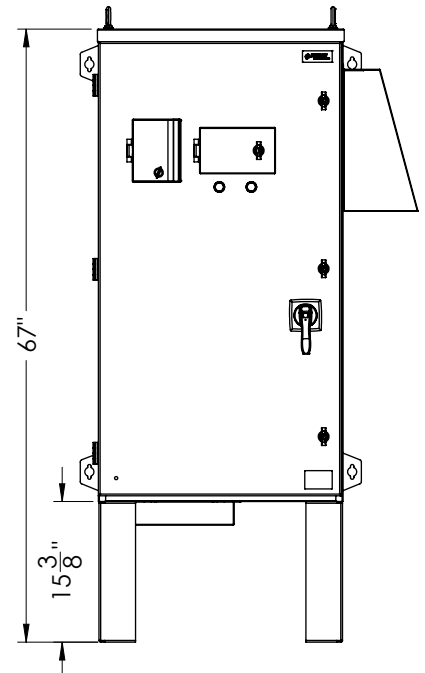
ENC4A



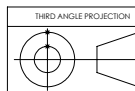
FRONT



SIDE



OPTIONAL LEG KIT



UNLESS OTHERWISE SPECIFIED:
 NO DIM. ± 0.060 " TO MODEL
 FRACTIONAL $\pm 1/16$ "
 0.XX: ± 0.06 " 0.XXX: ± 0.020 "
 ANGLES: $\pm 1^\circ$
 HOLE \varnothing : ± 0.003 " TO MODEL
 HOLE \oplus : ± 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:

JLT

Checked/Approved by:

Scale:

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Sheet:

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11/26/2024

Units:

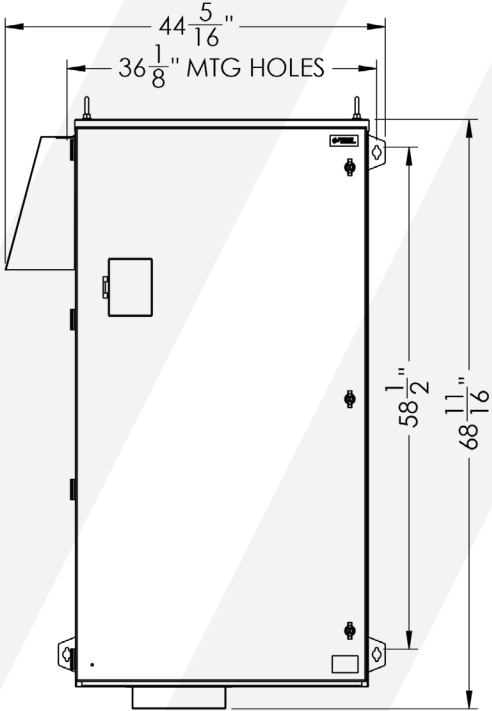
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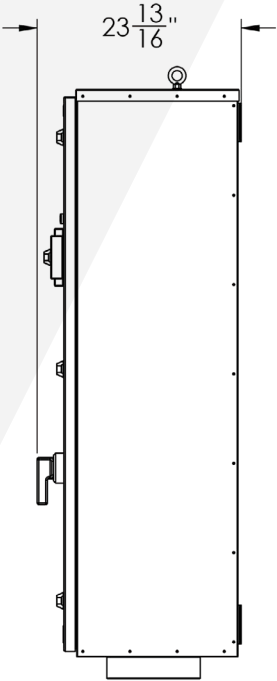
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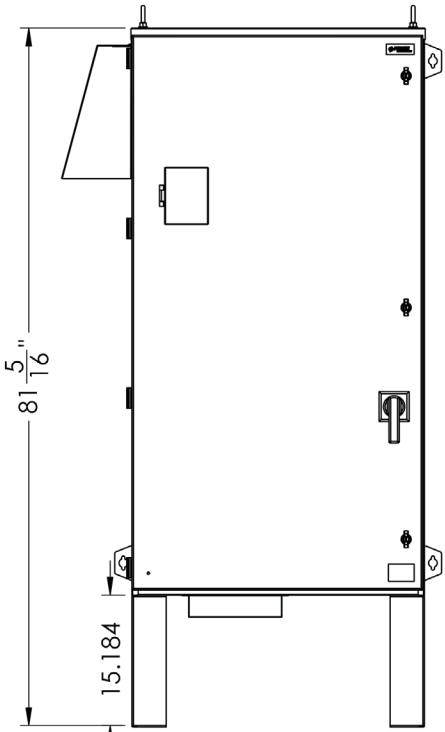
ENC5



FRONT



SIDE



SHOWN WITH OPTIONAL LEG KIT
AND MCCB

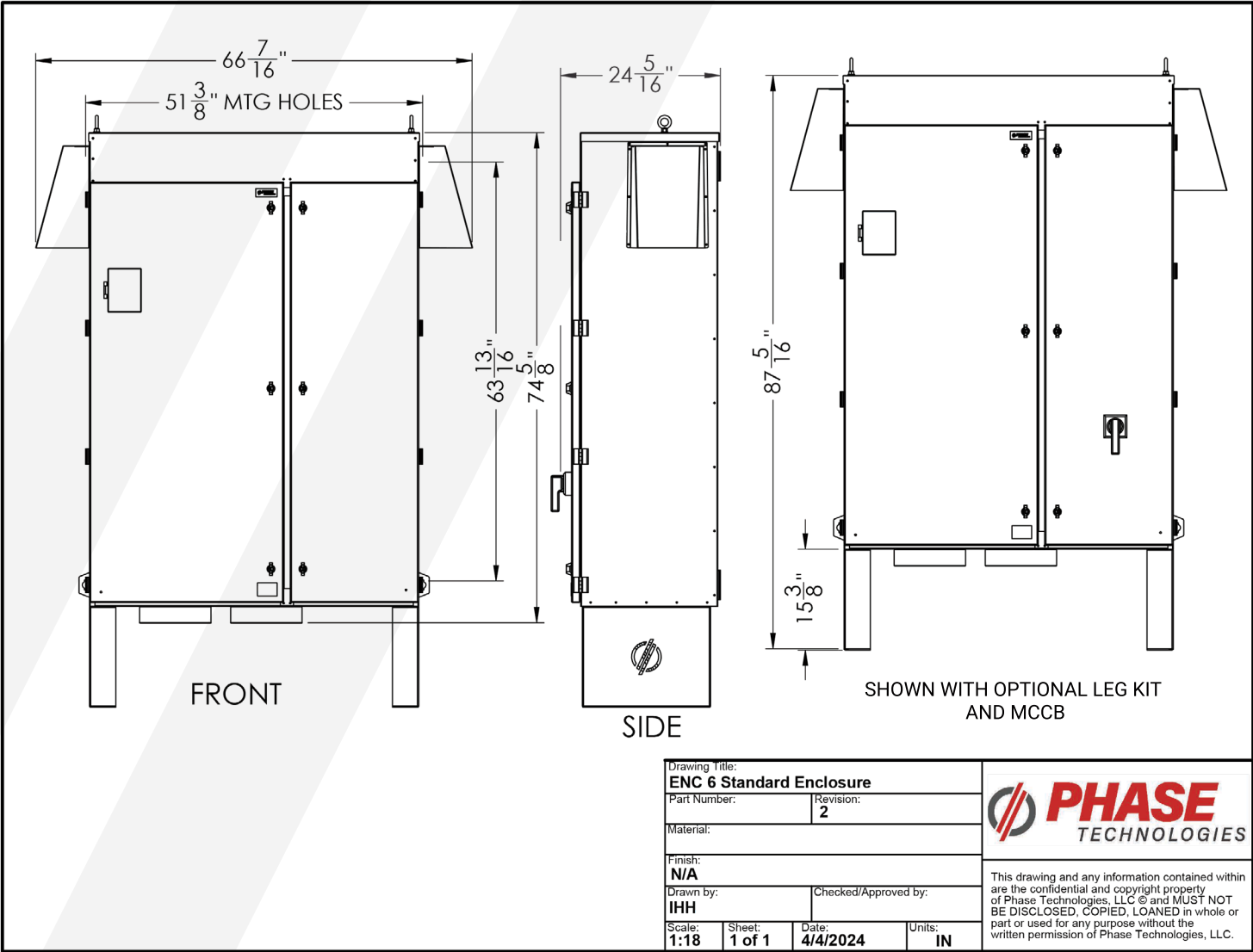
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ENC6



INTUITIVELY ENGINEERED



**DIGITAL PHASE
CONVERTERS**

**VARIABLE
FREQUENCY
DRIVES**

**MOTOR
PROTECTION**

**SOFT
STARTER**

**508A
PANEL
SHOP**

OUR MISSION

Relentlessly seek to provide Uncommon Value, solutions, innovation, and support for the industries that we serve.



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