

ES

GENERAL PURPOSE

VARIABLE FREQUENCY DRIVE



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	-25 °C to 74 °C (-13 °F to 165 °F)
Enclosure	NEMA Type 3R: Outdoor Rainproof
Altitude	Derate by 5 °C every 2000 ft over 5500 ft of elevation

Input Power

Input Phase	Single-Phase
Input Voltage	120 240 VAC
Input Voltage Range	90V to 160V 180V to 260V
Input Frequency	60 Hz

Output Power

Output Phase	Single-Phase
Output Voltage	Equal to Input
Output Frequency	5 Hz – 120 Hz
Horsepower	1/3 HP - 2HP
Output Power	1.5 kW
Switching Frequency	2 kHz – 8 kHz
Output	V/f control

Electrical

Short Circuit Withstand Rating	25 kA RMS Symmetrical Amps
Efficiency	> 98%
Startup Ramp Time	1 – 120 s
Shutdown Ramp Time	1 – 120 s or Coast to Stop
Overload Capacity	150% for 2s



Analog Inputs

Quantity	(2) Programmable
Current Reference	4-20 mA One Input
Voltage Reference	0 to 5 VDC One Inpu
Terminal Block Size	24 to 16 AWG

Digital Inputs

Quantity	(4) Programmable
Ratings	< 5 V, galvanically isolated
Terminal Block Size	26 - 12 AWG

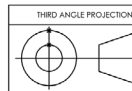
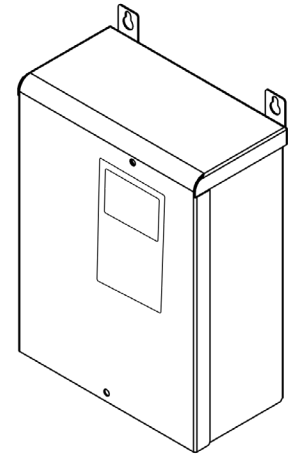
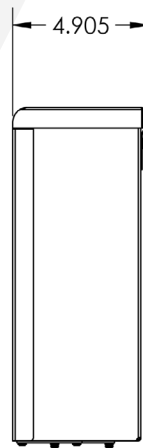
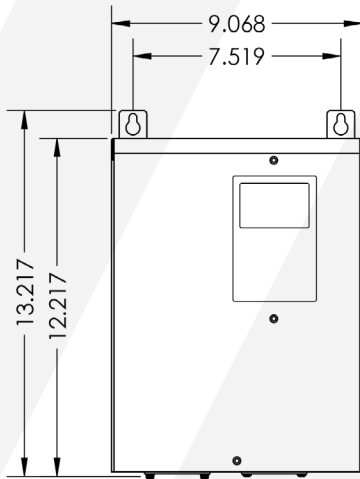


120V & 240V

	Motor HP	Rated Current (Input)	Fuse/Breaker
120 V & 240 V	120 V		
	1/3	8 A	10 A
	1/2	12 A	15 A
	1	24 A	25 A
	240 V		
	1/2	6 A	10 A
	3/4	9 A	15 A
	1	12 A	15 A
	1.5	18 A	25 A
	2	24 A	30 A



ES



MASS = 0.0000lb

Drawing Title:

Essential Drive

Part Number:

ES3R-A

Revision:

0

Material:

Finish:

None

Drawn by:

AHK

Checked/Approved by:

-

Scale:

1:8

Sheet:

1 of 1

Date:

10/7/2021

Units:

IN

UNLESS OTHERWISE SPECIFIED:
 NO DIM, ±0.060" TO MODEL
 0.XX: ±0.02" 0.XXX: ±0.010"
 ANGLES: ±1°
 HOLE Ø: ±0.020" TO MODEL
 HOLE ⌀: ±0.010" TO MODEL



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**DIGITAL PHASE
CONVERTERS**

**VARIABLE
FREQUENCY
DRIVES**

**MOTOR
PROTECTION**

**STARTER
PANELS**

OUR MISSION

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

