

Altivar™ 660 Drive Systems

The Schneider Electric Altivar™ 660 Drive Systems provides a robust, packaged, adjustable-speed solution for commercial, industrial, and municipal applications. All ratings are UL 508A listed, with selectable control and power configurations. These drives combine the reliability and ease-of-use of the Altivar drives family with proven, validated, and tested drive system designs.

- 1 - 900hp at 460V Normal Duty
- 1 - 60hp at 230V Normal Duty
- 1 - 700hp at 460V Heavy Duty
- 1 - 50hp at 230V Heavy Duty

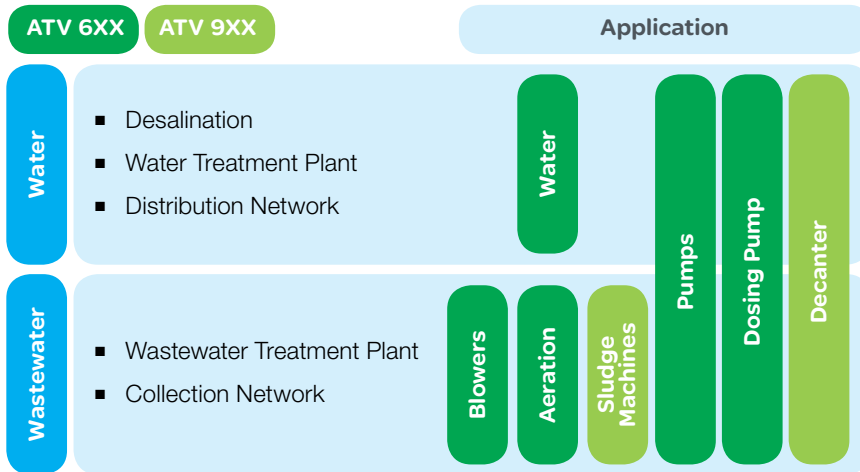


- Pre-engineered, ready to use solutions in highly efficient designs
- Modular and compact to maximize space utilization
- Flexibility for application requirements
- UL Type 1, 12 and 3R rated enclosures
- Built in pump curves
- Embedded ethernet and web server
- Dynamic QR codes
- Real time clock

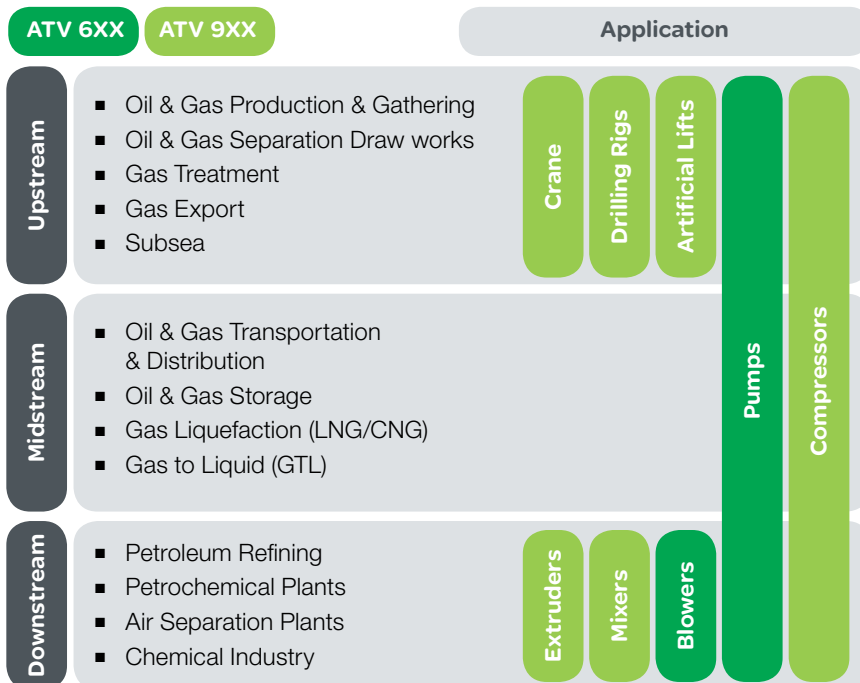
ATV660 Drive Systems

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Applications in WWW



Applications in O&G



Applications in MMM



	ATV 6XX	ATV 9XX	Application
Mining	- Extraction - Underground - Processing - Transportation & Logistics	Flotation Separation Thickening Long Conveyor	Crusher, Screen, Grinder, Mill Loading/Unloading Conveying Pump/Fan/Compressor
Cement	- Cement - Aggregates	Fan Blower	
Metal	- Raw Material Preparation (Coke/Sinter/Pellet) - Iron Making Area - Rolling - Finishing	Steel Converter Tilt Crane	



Applications in F&B



	ATV 6XX	ATV 9XX	Application
Liquid Food	- Dairy - Juice	Air Drying Cyclone Mech, Vapor Recompression Pumping Pipe Distribution	Pumps Air Blower Fan
Agri-Business	- Sugar - Oil - Grain	Mixers Conveying Mill & Crushers Centrifugal Pump	



ATV660 Drive Systems (1-125hp ND)



- 1–125hp Normal Duty at 460V, 1–100hp Heavy Duty at 460V, 1–60hp Normal Duty at 230V, 1–50hp at 230V Heavy Duty
- All four frames are 16 in wide
- All wall mount frames are 19.5 in deep
- Two additional frame enclosures available for ETO options
- UL Type 1, 12 & 3R rated enclosures
- 100,000 SCCR short circuit rating
- Energy management (integrated power measurement)
- Remote graphic keypad
- Standard 3% equivalent impedance
- Circuit breaker disconnect
- White component mounting plate
- Service entrance - 3R

75-125hp ND
@460V



40-60hp ND
@460V



20-30hp ND
@460V



1-15hp ND
@460V



ATV660 Drive Systems

ATV660 Drive Systems (1-125hp ND)

Available options:

- Bypass-utilizing Zelio Smart Relay (up to 250hp)
- Harmonic filter
- Service switch (bypass)
- DV/DT motor filter
- 50 Deg C (3R)
- Communication cards
- Control and indicator options
- 5% equivalent impedance option
- Many more to meet customer requirements



ATV660 Drive Systems (150-900hp ND)

- 150–900hp Normal Duty @ 460V, 125-700hp Heavy Duty at 460V
- UL Type 1 & Type 12 rated enclosures
- UL 508A
- 100,000 AIC short circuit rating
- Contains frequency inverter & rectifier modules, circuit breaker, line reactor, motor choke
- Remote graphic keypad
- Removable conduit entry plate

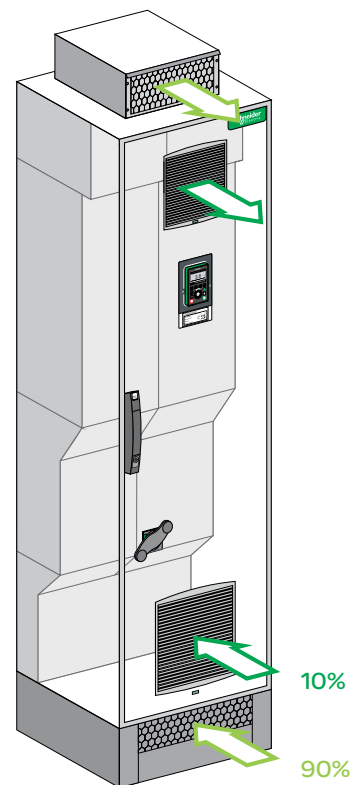
150-250hp ND
@460V



300-500hp ND
@460V

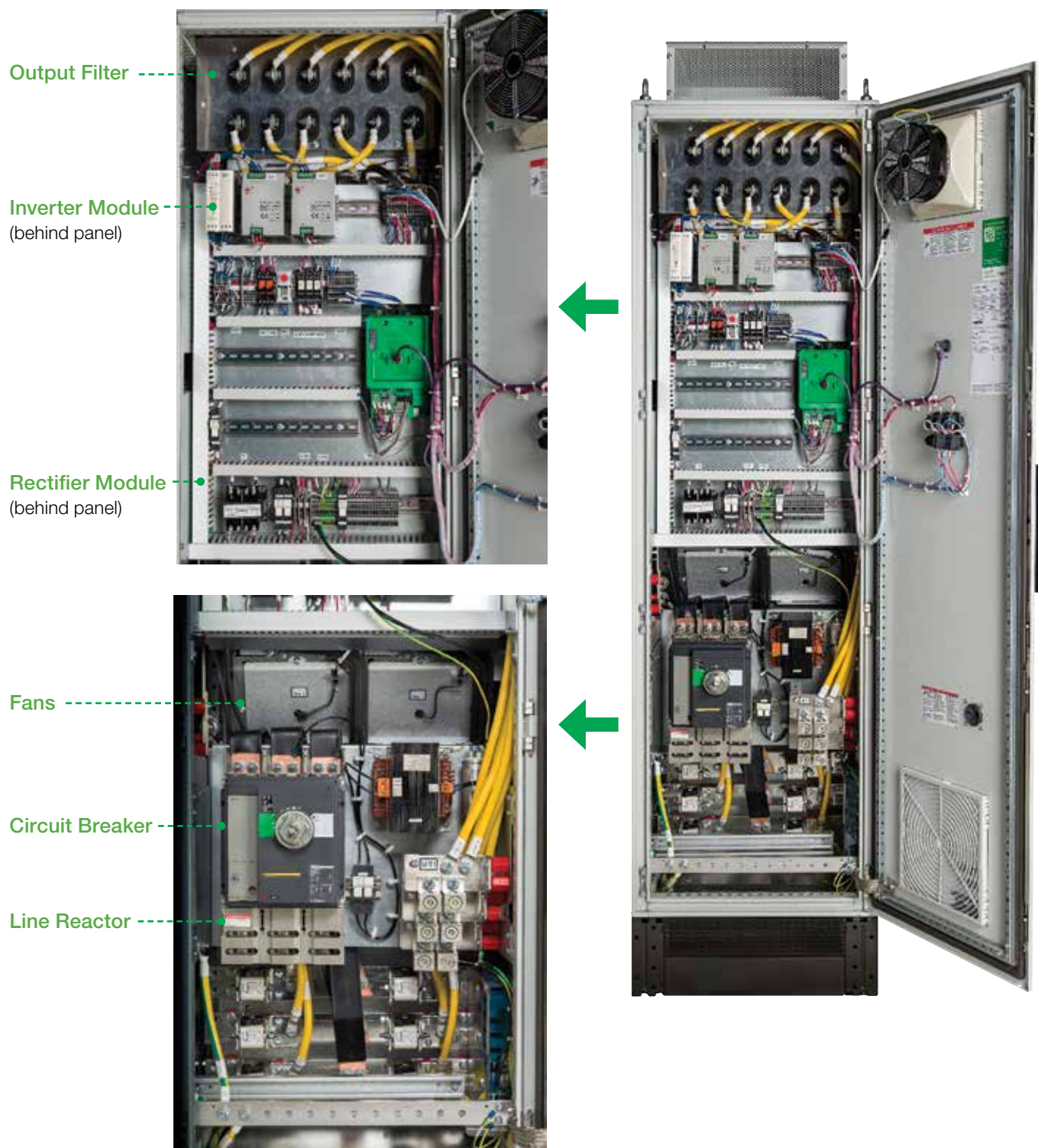


Cooling concept



ATV660 Drive Systems

ATV660 Drive Systems (150-900hp ND)



Configuration To Order

Catalog number example: ATV660D22T4N2ANWAANAGK

ATV660	D22	T4	N	2	A	N	W	A	A	N	A	G	K
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Product line (Utility)
660 ATV660 Drive System
680 Low Harmonic

Product line (Industry)
960 ATV960 Drive System
980 Regen

Voltage
U3 230V
T4 460V

Normal Duty Values

Code	HP at 460V
U07	1
U15	2
U22	3
U40	5
U55	7.5
U75	10
D11	15
D15	20
D18	25
D22	30
D30	40
D37	50
D45	60
D55	75
D75	100
D90	125
C11	150
C13	200
C16	250
C20	300
C25	400
C31	500
C40	600
C50	700
C63	900

Heavy Duty Values

Code	HP at 460V
—	—
U15	1
U22	2
U30	3
U55	5
U75	7.5
D11	10
D15	15
D18	20
D22	25
D30	30
D37	40
D45	50
D55	60
D75	75
D90	100
C11	125
C13	150
C16	200
C20	250
C25	300
C31	400
C40	500
C50	600
C63	700

2 UL (default)
6 cUL

Normal Duty (default)
H Heavy Duty

Enclosure
G Type 1 (default)
A Type 12
H Type 3R (<150hp)

Power Circuit
W W/O bypass (default)
Y Bypass (<300hp)

Control Options
N Prewired for HOA
A HOA, Speed Pot (default)
B HOA, Speed Pot, Start-Stop

Harmonic Mitigation
N None (default)
A 5% line impedance
M Harmonic filter

Light Options
N None
A Red pwr on, Yell trip gr AFC run, Yell auto
B Red pwr on, Yell trip gr AFC run

Comms Options
N None
A Profibus DP
B CANopen daisy chain
C Devicenet
D CANopen sub-D9
E CANopen open style
F Profinet
G Ethernet/IP-VW3A3720

Misc Options
N None
A Ethernet port on front door (PC/iPad)
B Line contactor
C Drive I/O extension
D Drive extended relay module (3 NO)
E 0-10V auto speed reference
F 1 NO auxiliary auto mode contact
G Type 1 SPD 40 k
H Type 2 SPD 80 k
J Not assigned
K Additional 150VA control power transformer
L Push-to-test pilot lights
M Not assigned
P Permanent wire markers (sleeve type)
Q Trip reset button
R Not assigned
S 50 deg C (3R only, 125hp & below)
T Service Switch
U Top entry cubical (150hp & above)
V Assembled in US (60hp & below)
W Not assigned
X DV/DT filter

Make the Switch Today

M-Flex

- Commercial
- Industrial
- WWW



ATV Plus

- Commercial
- Industrial
- WWW



E-Flex

- Industrial
- Some WWW



Smaller footprint
Advanced keypad
Option rich

Embedded pump curves
Embedded web server
Dynamic QR codes



ATV660 Drive Systems

ATV660 Drive Systems (1-900hp ND)

Electrical Specifications		Environmental Specifications	
Input mains voltage	230 Vac $\pm$ 10%, 460 Vac $\pm$ 10%	Storage temperature	-13 to +149 °F (-25 to +65 °C)
Short circuit current rating (AC symmetrical)	100 kA	Operating temperature	+14 to +104 °F (-10 to +40 °C) Type 1/12; +14 to +122 °F (-10 to +50 °C) Type 3R
Control voltage	24 Vdc, 115 Vac + 10%/-15% (control power transformer included)	Humidity	95% with no condensation or dripping water, conforming to IEC 60068-2-78
Displacement power factor	98% through speed range	Altitude	3,300 ft (1000 m), without derating, derating of the current by 1% for each additional 330 ft (100 m) up to 9,842 ft. (3000 m) maximum
Input frequency	50/60Hz $\pm$ 5%	Enclosure	UL Type 1 : General indoor; UL Type 12: Indoor dust-tight (ventilated); UL Type 3R: Outdoor (ventilated)
Output voltage	Three-phase output, maximum voltage equal to input voltage	Pollution degree	Pollution degree 2 or 3 per NEMA ICS-1 Annex A and IEC 60664-1
Galvanic isolation	Galvanic isolation between power and control (inputs outputs, & power supplies)	Operational test vibration	Conforming to IEC 60721-3-3-3M3 amplitude 1.5 mm peak to peak from 3-13 Hz 1 g from 13-200Hz
Torque/Over torque	Normal Duty: 110% of nominal motor torque for 60s Heavy Duty: 150% of nominal motor torque for 60s	Transit shock test	15 g, 11 ms
Current (transient)	Normal Duty: 110% of drive rated current for 60s Heavy Duty: 150% of drive rated current for 60s	Codes and standards	UL Listed per UL 508A IEEE519 compliant (passive harmonic filter required); Conforms to applicable NEMA ICS, NFPA, and IEC standards; Manufactured under ISO 9001 standards
Switching frequency	Selectable from .5-8 kHz Factory setting: 2.5 kHz The drive reduces the switching frequency automatically in the event of excessive heat sink temperature	Cyber Security	Achilles™ Level 2 certification
Efficiency	95% (or greater) at full load typical		

Process drives without bypass are available up to 700hp HD / 900hp ND at 460V or 50hp HD / 60hp ND at 230V. The following standard features for process drives without bypass, when no options are ordered:

- Disconnect handle with lockout/tagout provisions
- Door mounted keypad holder and display
- One form C tripped relay
- Two form A sequence relays
- Six programmable digital inputs
- Standard color RAL735
- Class 10 overload protection
- Controller programming
 - Acceleration (ACC): 10s
 - Deceleration (DEC): 10s
 - Low Speed (LSP): 3Hz

ATV660 Drive Systems Specifications

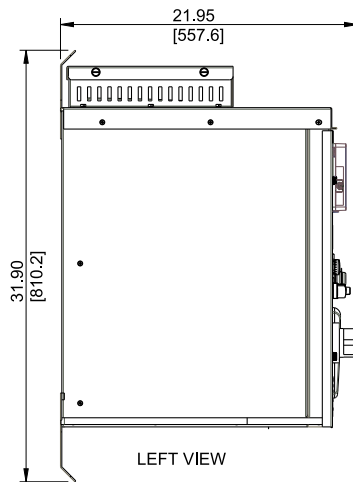
1HP[.75KW] - 15HP[11KW]
AT 460V NORMAL DUTY*

1HP[.37KW] - 10HP[7.5KW]
AT 460V HEAVY DUTY*

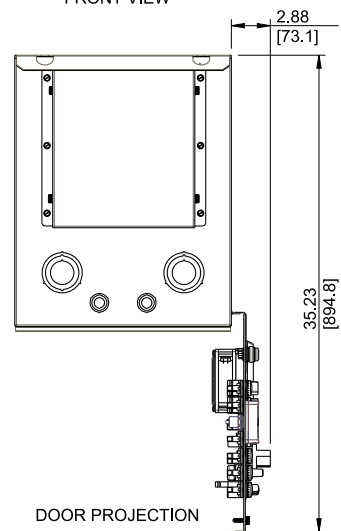
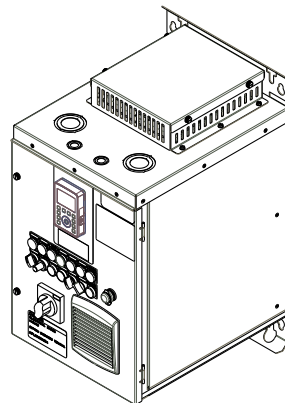
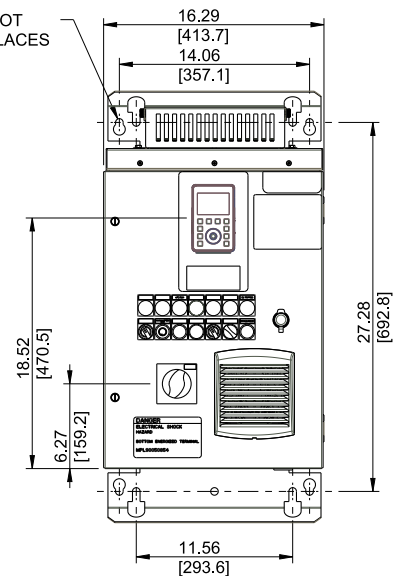
1HP[.75KW] -
7.5HP[5.5KW] AT 230V
NORMAL DUTY*

*STANDARD DRIVE
PACKAGE

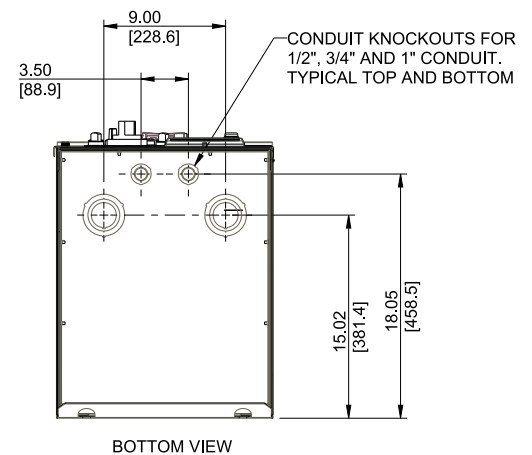
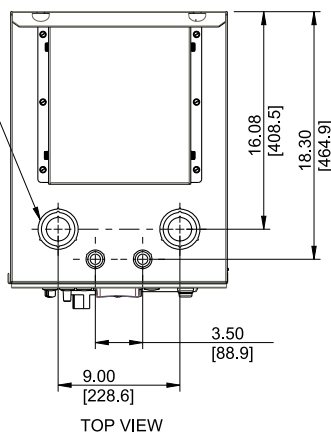
ELEVATION 600MM
TYPE 1, 12



0.56 [14.2] SLOT
TYPICAL 4 PLACES



CONDUIT KNOCKOUTS FOR
1-1/4", 2" AND 2-1/2" CONDUIT.
TYPICAL TOP AND BOTTOM



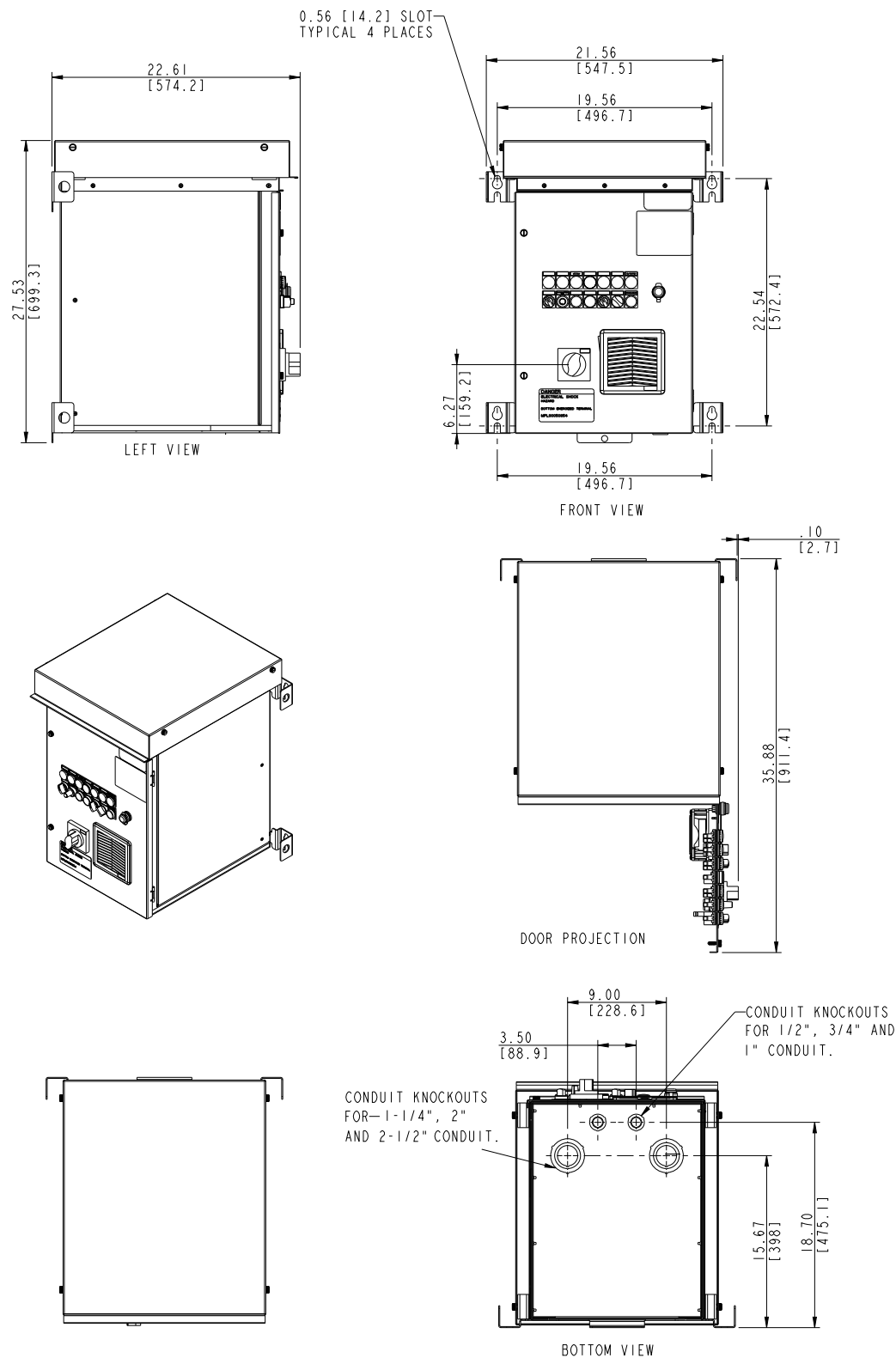
1HP[.75KW] - 15HP[11KW]
AT 460V NORMAL DUTY*

1HP[.37KW] - 10HP[7.5KW]
AT 460V HEAVY DUTY*

1HP[.75KW] -
7.5HP[5.5KW] AT 230V
NORMAL DUTY*

*STANDARD DRIVE
PACKAGE

ELEVATION 600MM
TYPE 1, 12



ATV660 Drive Systems Specifications

20HP[15KW] - 30HP[22KW]
AT 460V NORMAL DUTY*

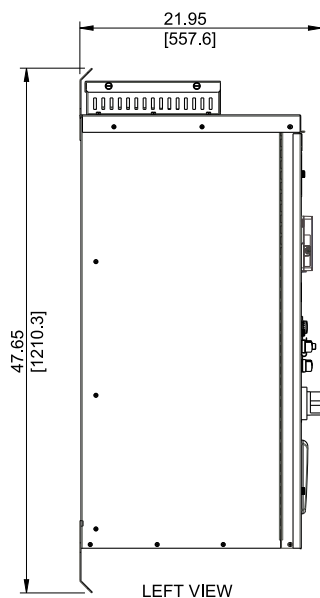
15HP[11KW] - 25HP[19KW]
AT 460V HEAVY DUTY*

10HP[7.5KW] -
15HP[11KW] AT 230V
NORMAL DUTY*

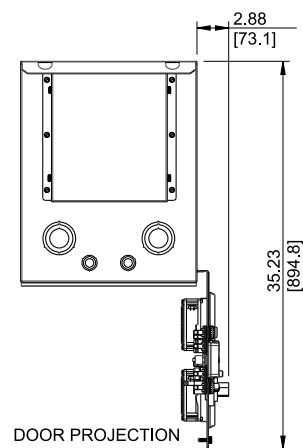
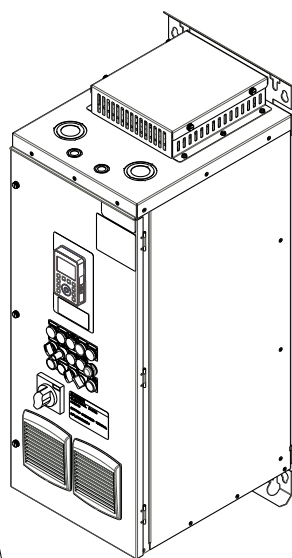
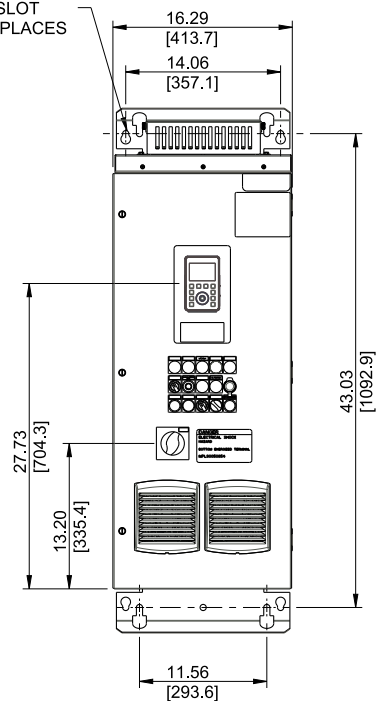
7.5HP[5.5KW] -
10HP[7.5KW] AT 230V
HEAVY DUTY*

*STANDARD
DRIVE PACKAGE

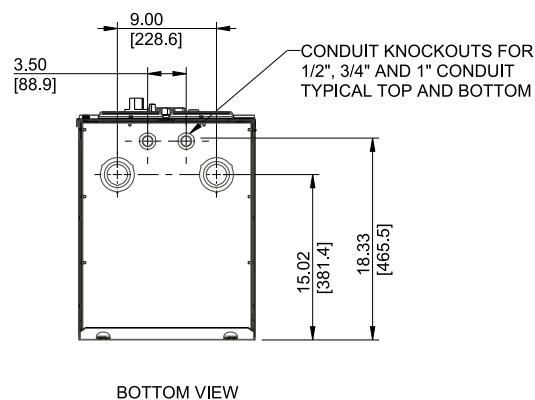
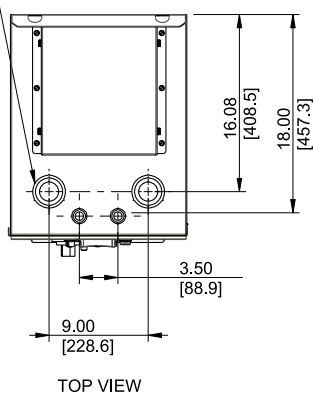
ELEVATION 1000MM
TYPE 1, 12



0.56 [14.2] SLOT
TYPICAL 4 PLACES



CONDUIT KNOCKOUTS FOR
1-1/4", 2" AND 2-1/2" CONDUIT
TYPICAL TOP AND BOTTOM



20HP[15KW] - 30HP[22KW]
AT 460V NORMAL DUTY*

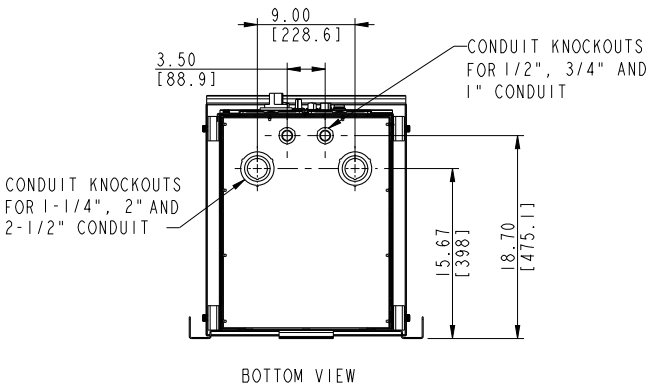
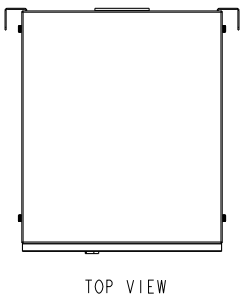
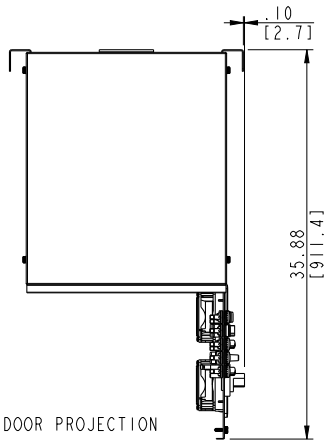
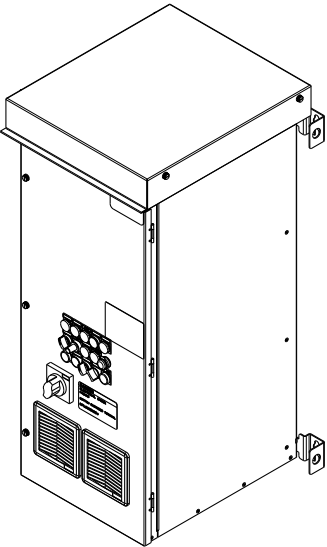
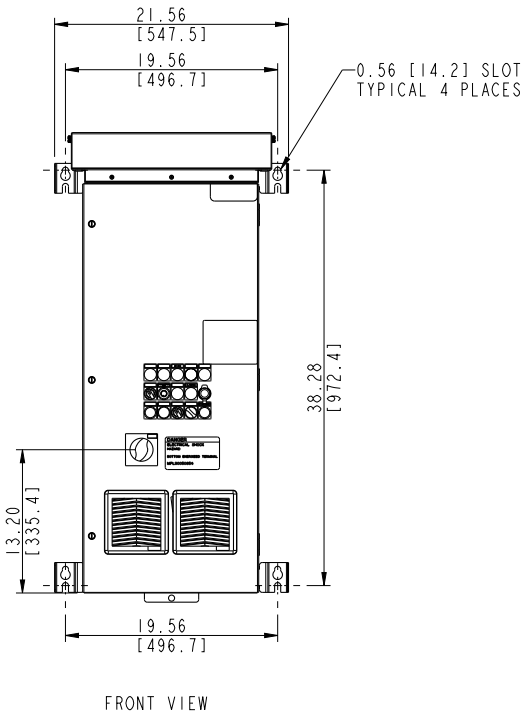
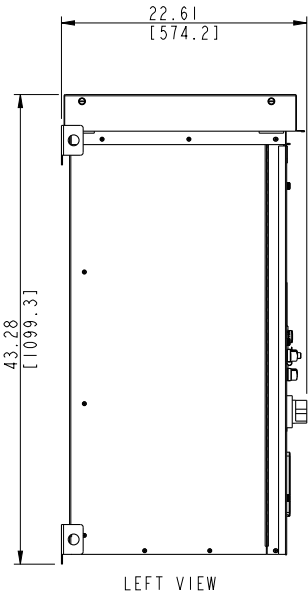
15HP[11KW] - 25HP[19KW]
AT 460V HEAVY DUTY*

10HP[7.5KW] -
15HP[11KW] AT 230V
NORMAL DUTY*

7.5HP[5.5KW] -
10HP[7.5KW] AT 230V
HEAVY DUTY*

*STANDARD DRIVE
PACKAGE

ELEVATION 1000MM
TYPE 3R



ATV660 Drive Systems Specifications

40HP[30KW] - 60HP[45KW]
AT 460V NORMAL DUTY*

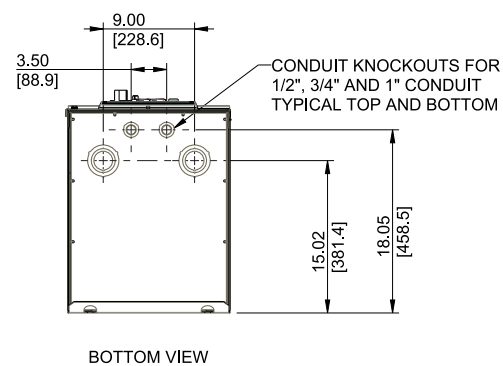
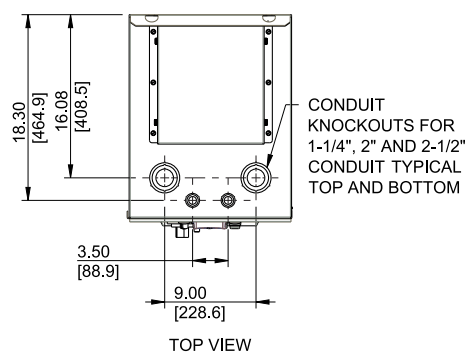
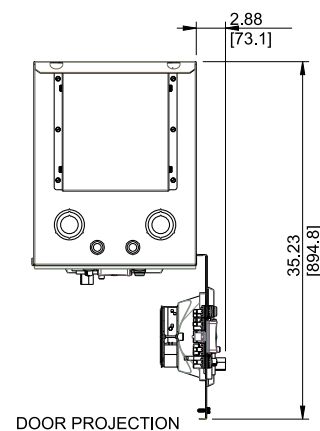
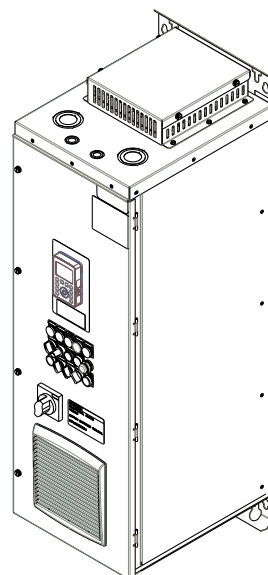
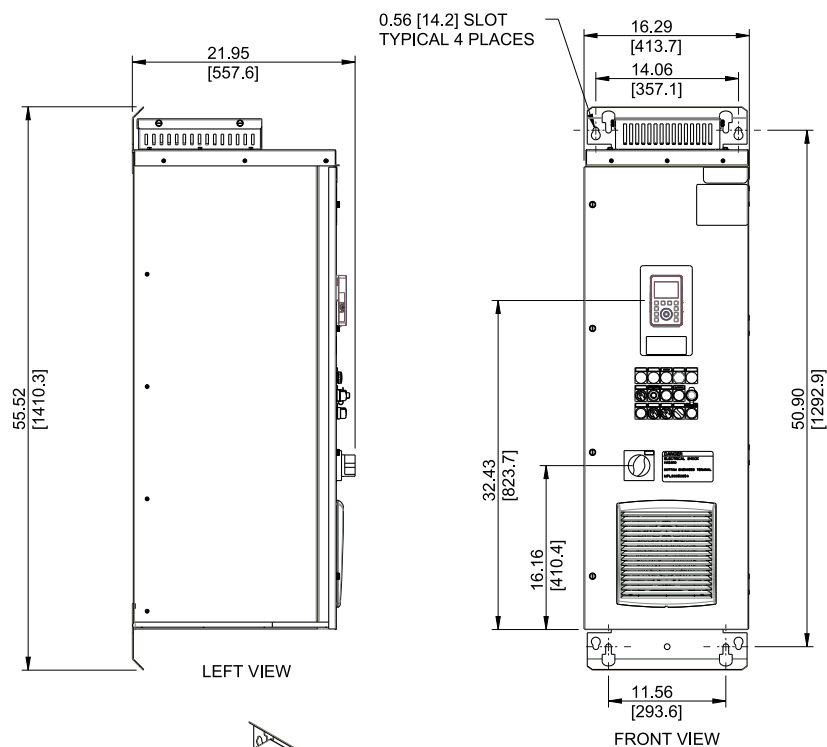
30HP[22KW] - 50HP[37KW]
AT 460V HEAVY DUTY*

20HP[15KW] - 30HP[22KW]
AT 230V NORMAL DUTY*

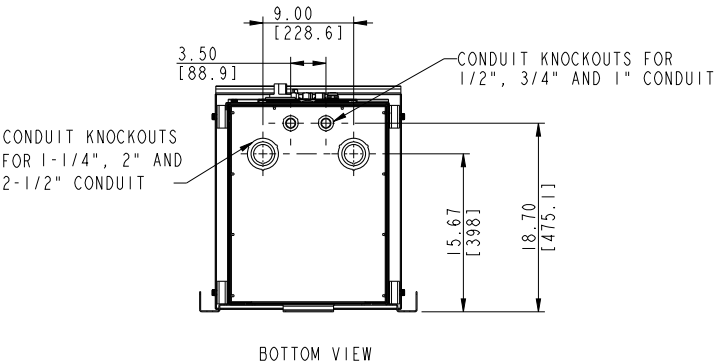
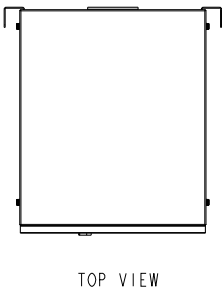
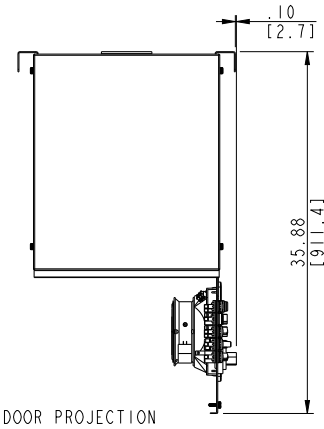
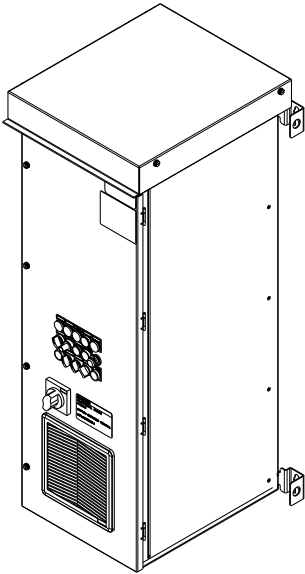
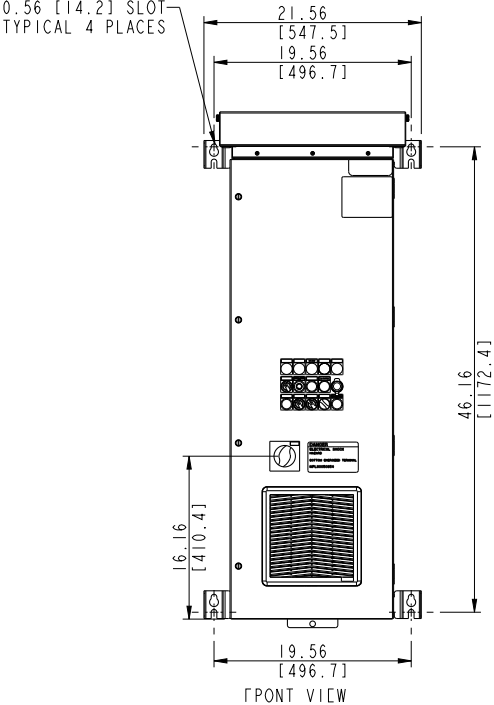
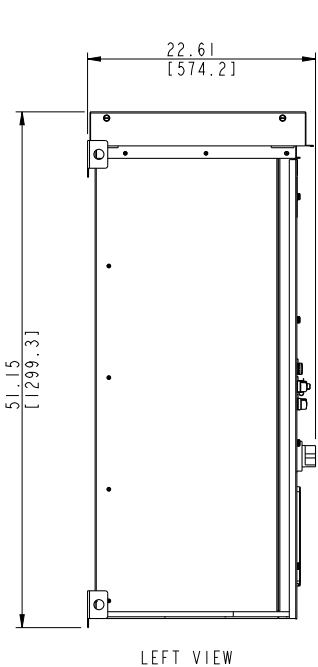
15HP[11KW] - 25HP[19KW]
AT 230V HEAVY DUTY*

*STANDARD DRIVE
PACKAGE

ELEVATION 1200MM
TYPE 1, 12



40HP[30KW] - 60HP[45KW]
AT 460V NORMAL DUTY*
30HP[22KW] - 50HP[37KW]
AT 460V HEAVY DUTY*
20HP[15KW] - 30HP[22KW]
AT 230V NORMAL DUTY*
15HP[11KW] - 25HP[19KW]
AT 230V HEAVY DUTY*
*STANDARD DRIVE
PACKAGE
ELEVATION 1200MM
TYPE 3R



ATV660 Drive Systems

75HP[55KW] -
125HP[90KW] AT 460V
NORMAL DUTY*

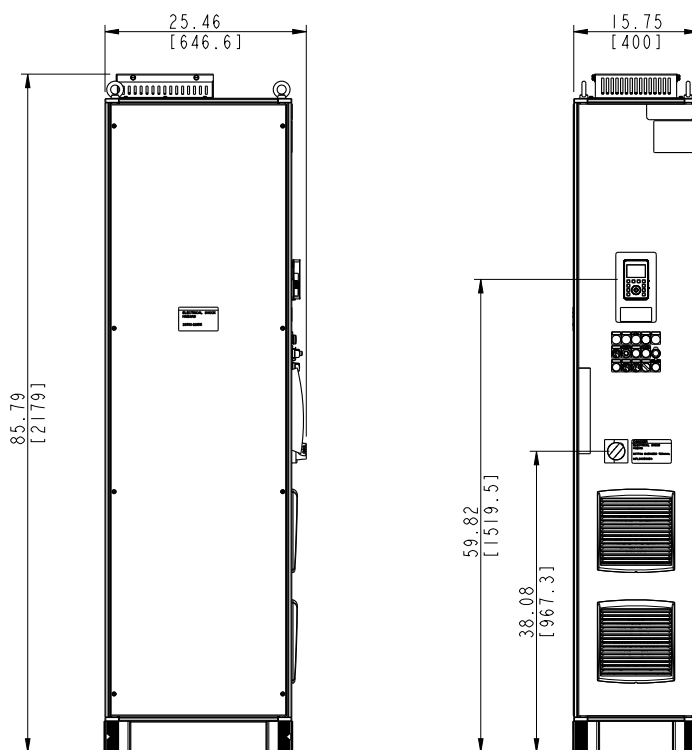
60HP[45KW] -
100HP[75KW] AT 460V
HEAVY DUTY*

40HP[30KW] - 60HP[45KW]
AT 230V NORMAL DUTY*

30HP[22KW] - 50HP[37KW]
AT 230V HEAVY DUTY*

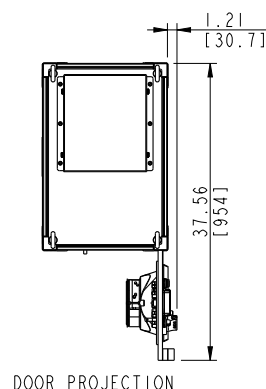
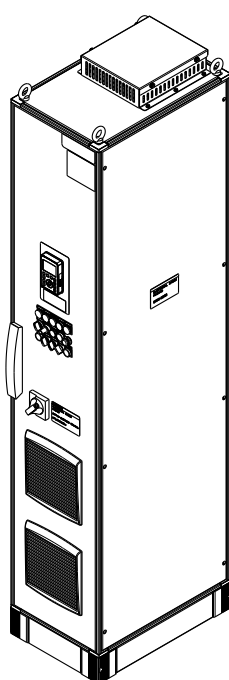
*STANDARD DRIVE
PACKAGE

ELEVATION 2000MM
TYPE 1

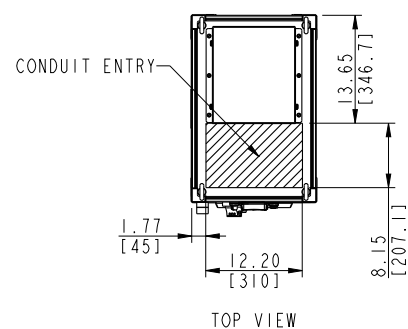


LEFT VIEW

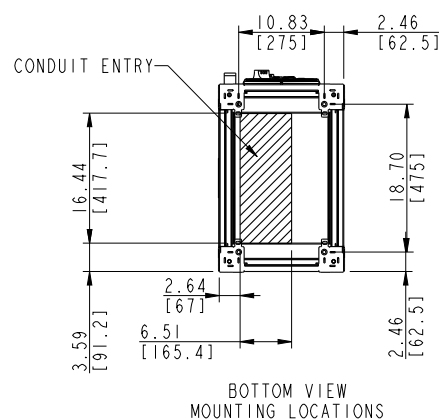
FRONT VIEW



DOOR PROJECTION



TOP VIEW



BOTTOM VIEW
MOUNTING LOCATIONS

TYPE I CONFIGURATION

ATV660 Drive Systems

75HP[55KW] -
125HP[90KW] AT 460V
NORMAL DUTY*

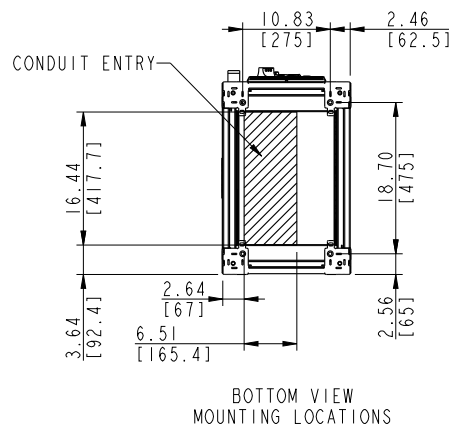
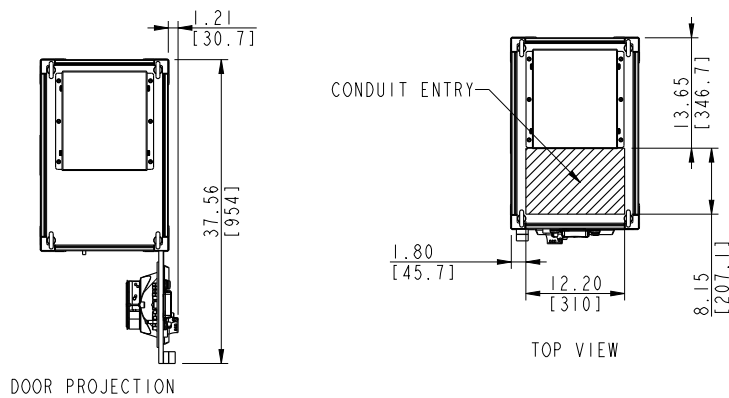
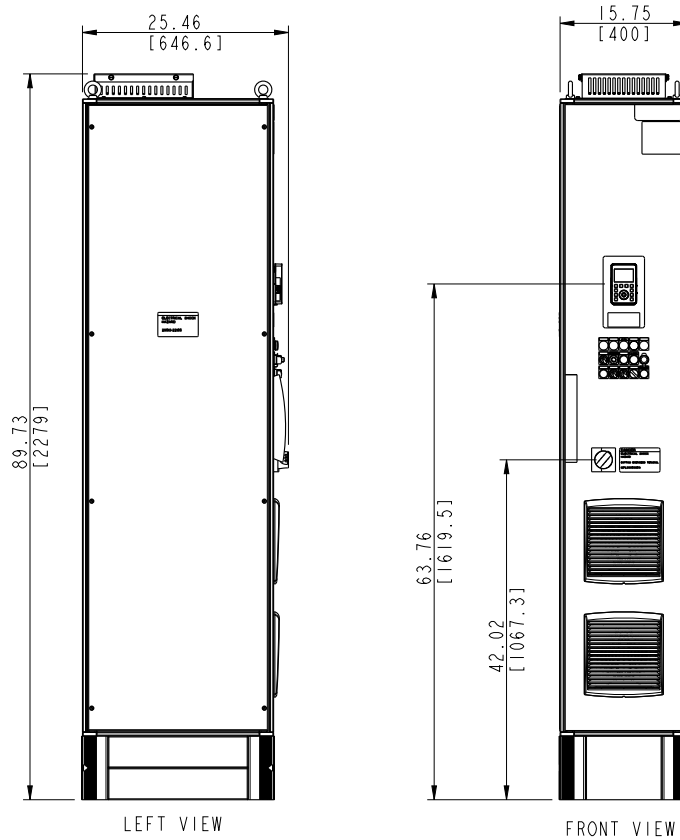
60HP[45KW] -
100HP[75KW] AT 460V
HEAVY DUTY*

40HP[30KW] - 60HP[45KW]
AT 230V NORMAL DUTY*

30HP[22KW] - 50HP[37KW]
AT 230V HEAVY D

*STANDARD DRIVE
PACKAGE

ELEVATION 2000MM
TYPE 12



TYPE 12 CONFIGURATION

ATV660 Drive Systems

75HP[55KW] -
125HP[90KW] AT 460V
NORMAL DUTY*

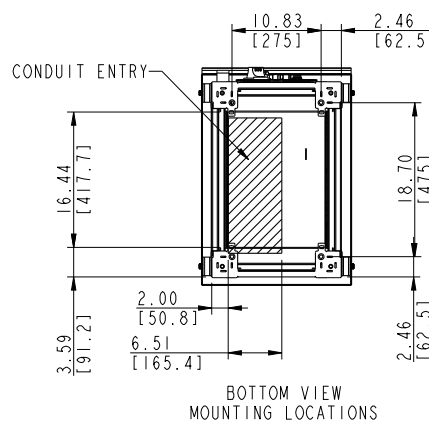
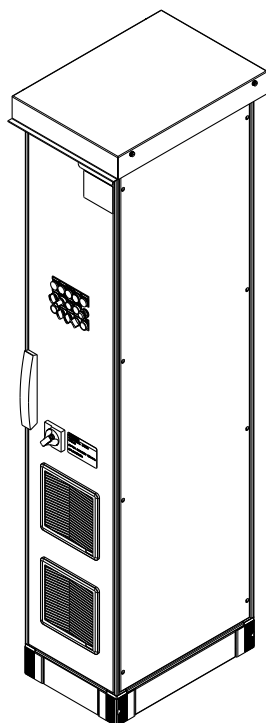
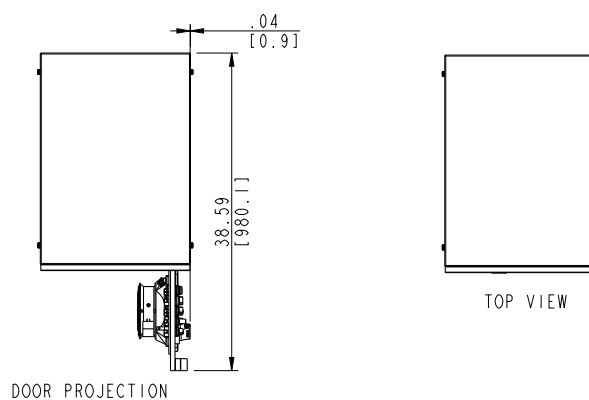
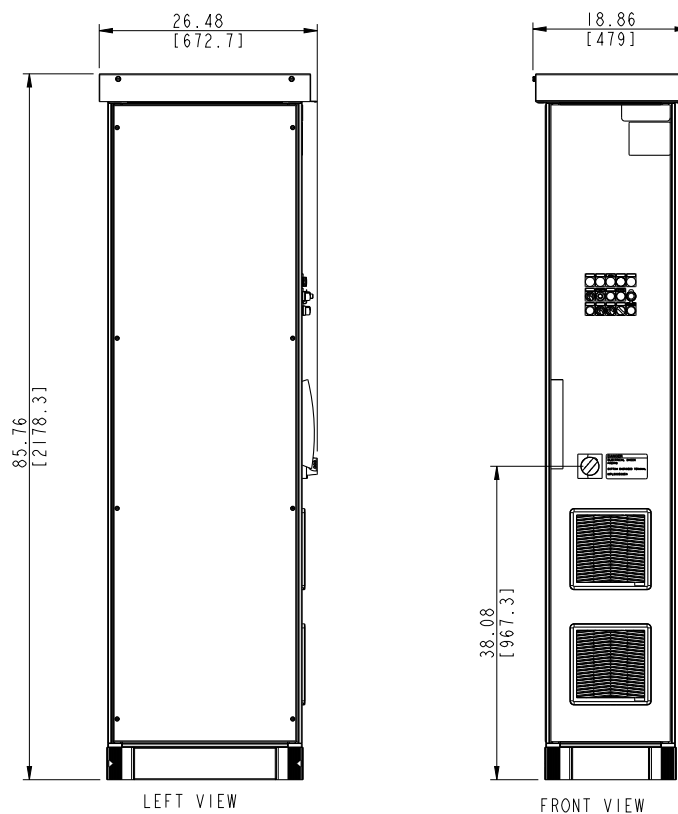
60HP[45KW] -
100HP[75KW] AT 460V
HEAVY DUTY*

40HP[30KW] - 60HP[45KW]
AT 230V NORMAL DUTY*

30HP[22KW] - 50HP[37KW]
AT 230V HEAVY DUTY*

*STANDARD DRIVE
PACKAGE

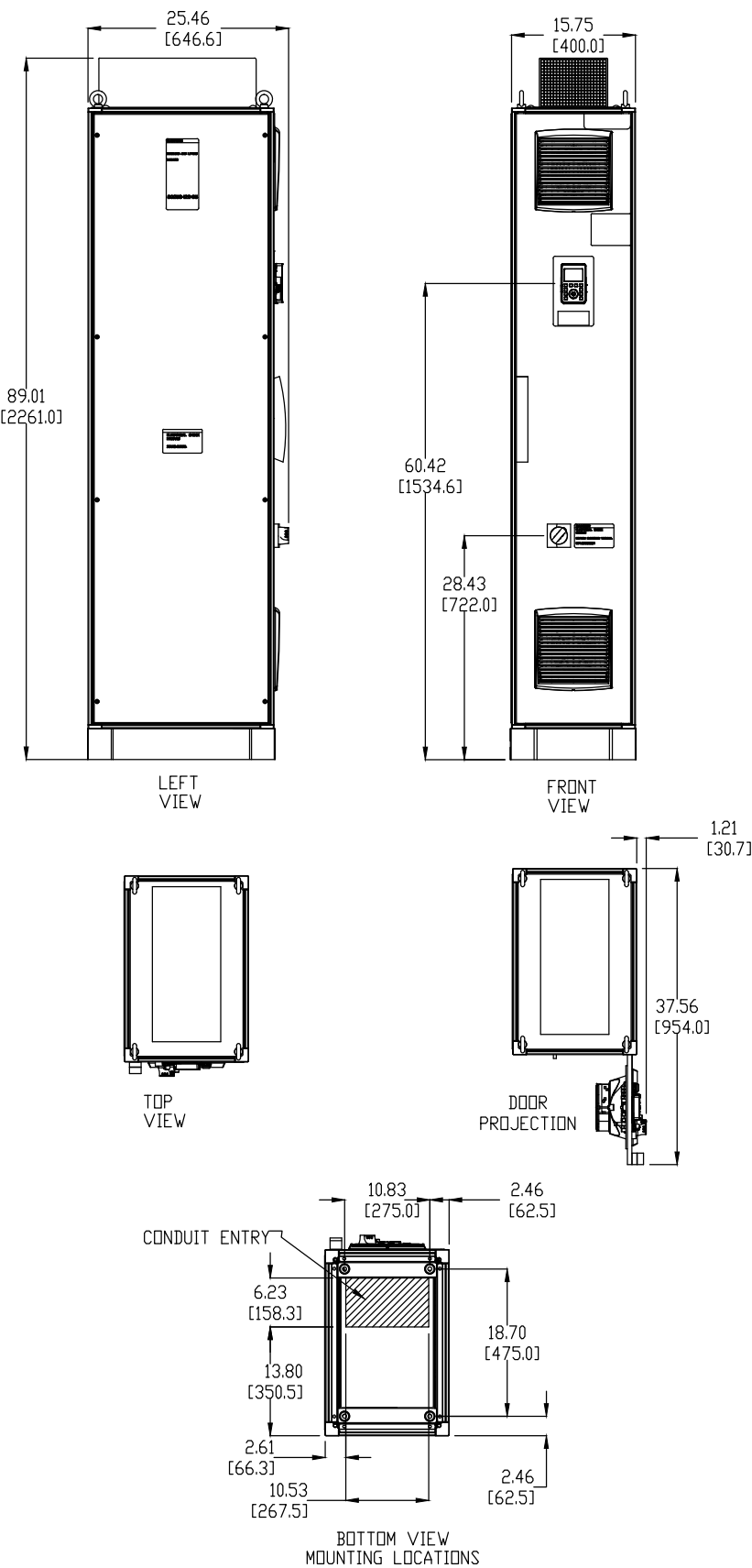
ELEVATION 2000MM
TYPE 3R



ATV660 Drive Systems

ATV660
TYPE 1 FRAME 1P
150-250HP @ 460V

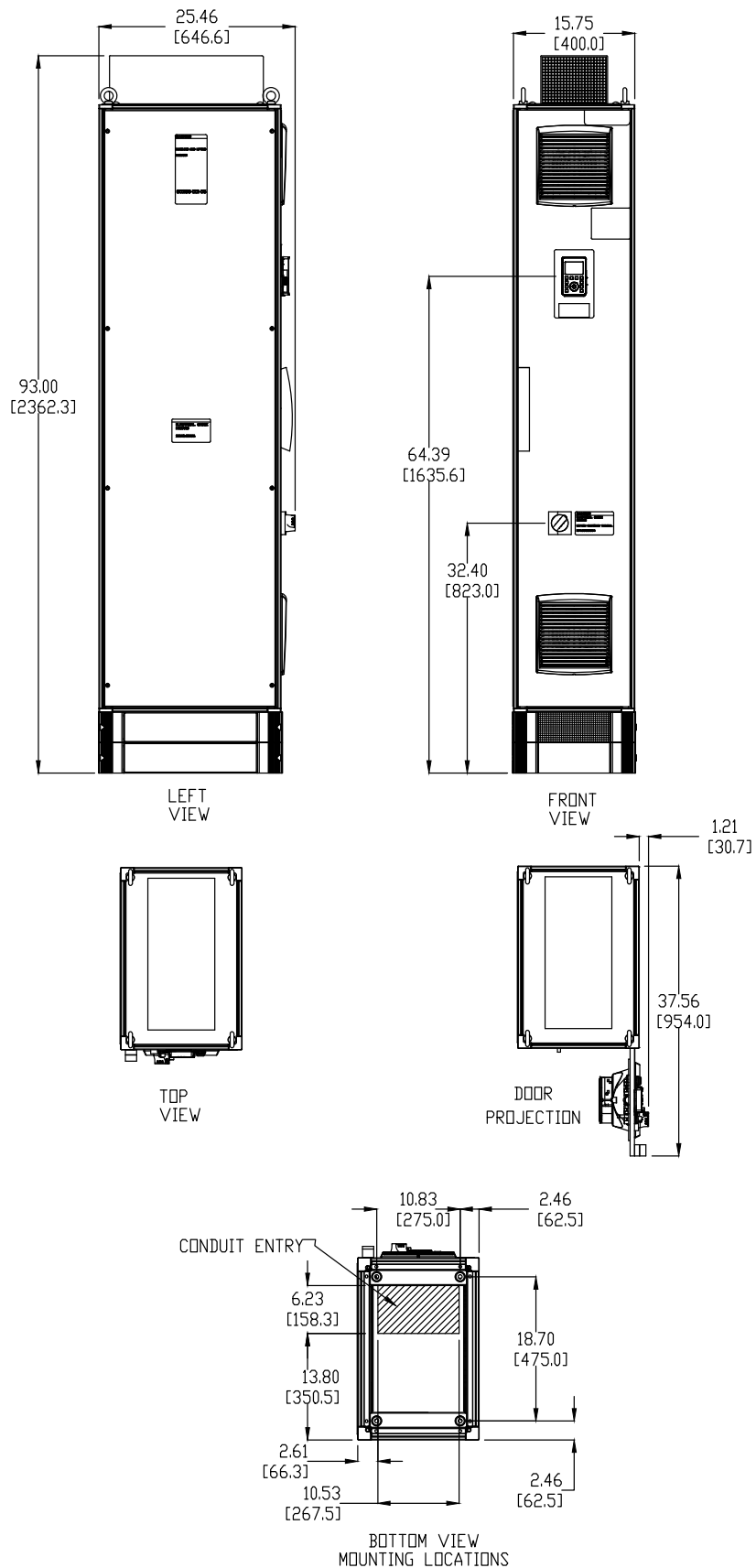
ELEVATION 2000MM
TYPE 1



ATV660 Drive Systems

ATV660
TYPE 12 FRAME 1P
150-250HP @ 460V

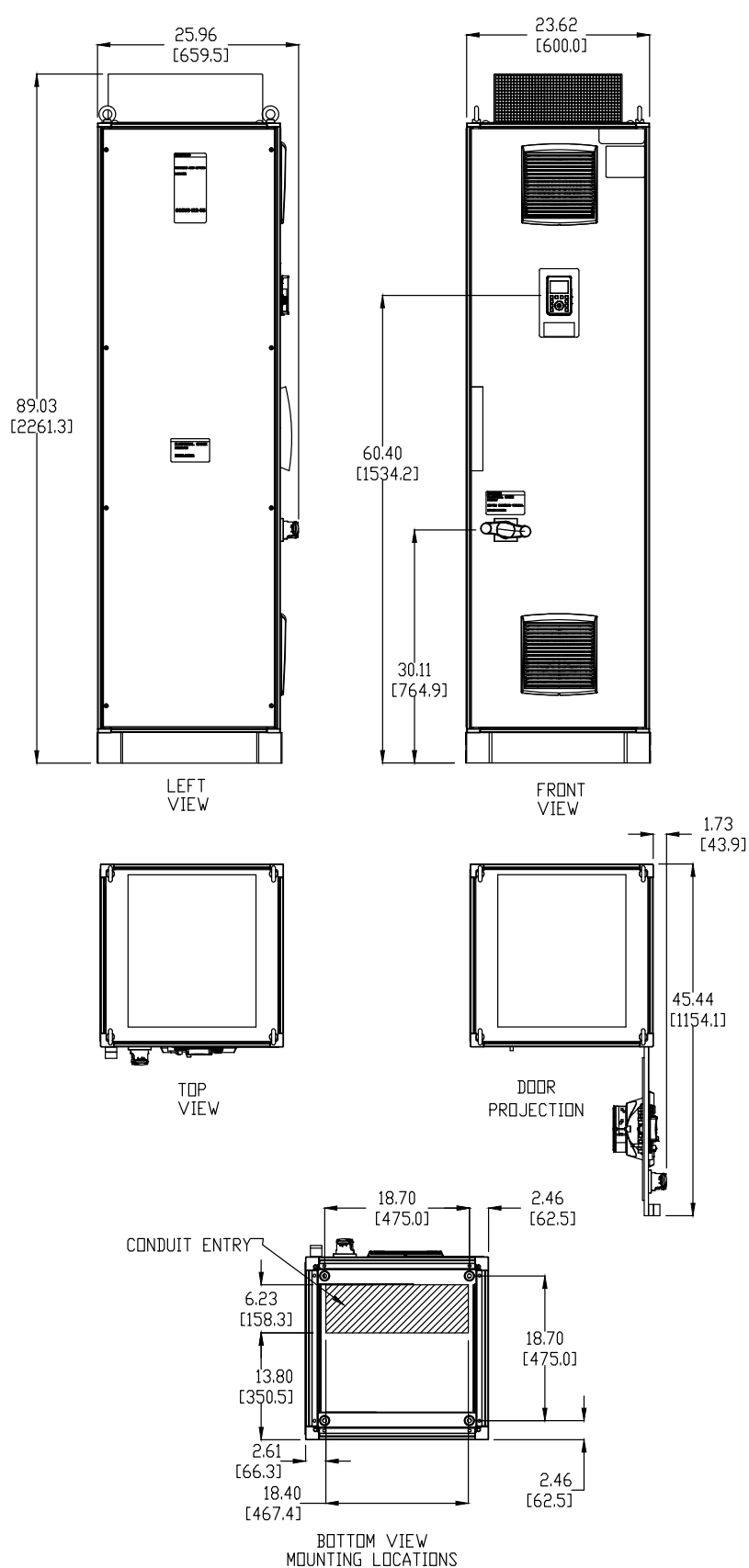
ELEVATION 2000MM
TYPE 12



ATV660 Drive Systems

ATV660
TYPE 1 FRAME 2P
300-500HP @ 460V

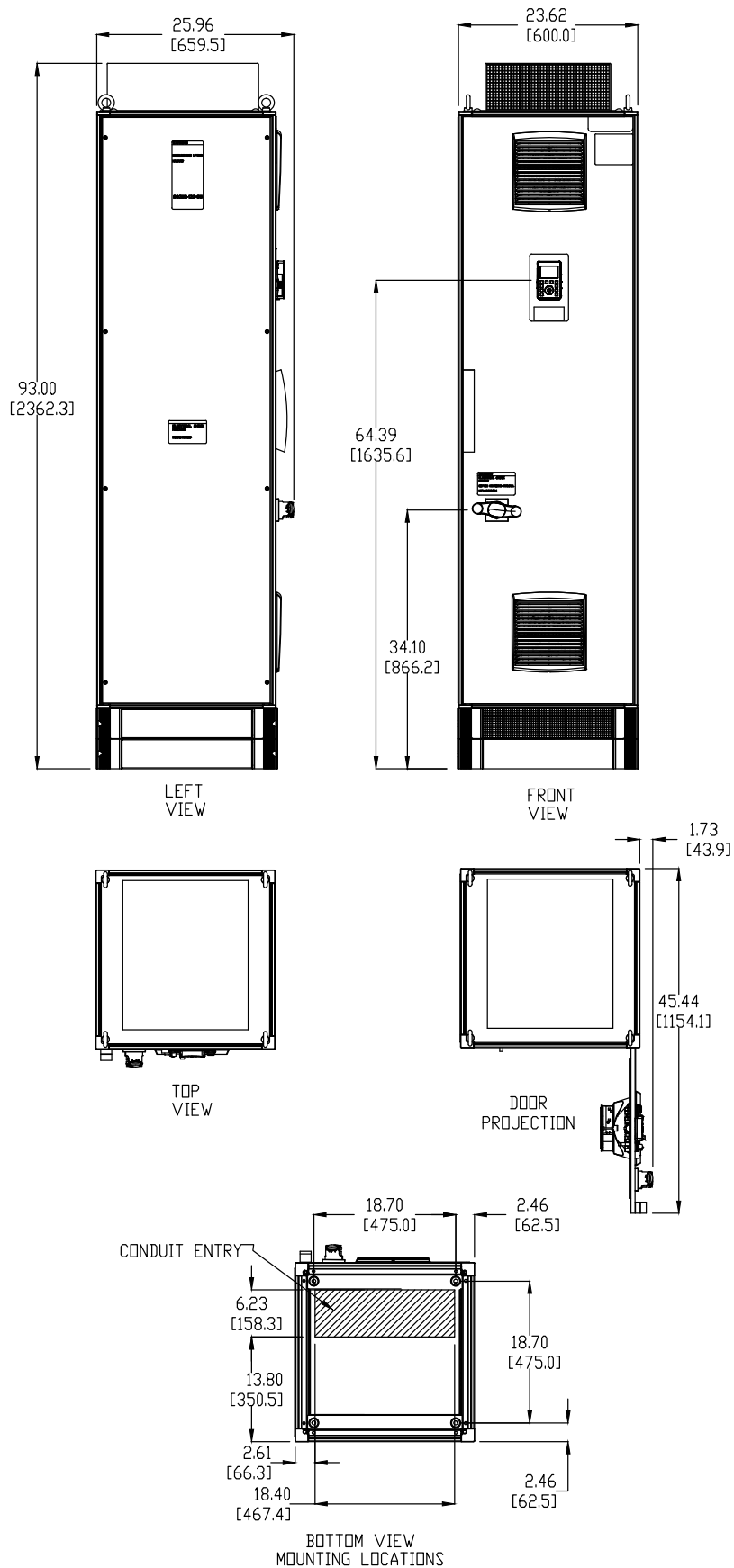
ELEVATION 2000MM
TYPE 1



ATV660 Drive Systems

ATV660
TYPE 12 FRAME 2P
300-500HP @ 460V

ELEVATION 2000MM
TYPE 12



For additional information,
contact your local field office.



Schneider Electric USA, Inc.

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altivardrives.com

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