

ALPHA6460V Series Special AC Drive for Cross Cutter



Feature

ALPHA6460V series special AC drive is exclusively used in cross cutter. In packing and processing industries, there is the cut-to-length process on materials in constant conveying. Conventional cross cut machine consists of PLC and servo system. Cross cut, also known as rotary cut or flying saw, is one of the cut-to-length methods. It allows the material to be vertically cut along its conveying direction. In both packaging and processing industries, the constantly running materials must undergo the cut-to-length process.

ALPHA6460V series realizes the cross cutting by controlling the common asynchronous motor. It can work in rotary-cut, flying shear, and flying-saw with low system cost, good control performance, wide application, flexible process adjustment, and convenient operation, ALPHA6460V series provides a brand new drive and control solution to cross cutting industry.

Technical Characteristics

- Cutting precision: $\pm 3\text{mm}$ at speed of 120m/s
- Smooth speed curve: Generate motion track by using high precision electric cam; the speed and Acc. curves varying smoothly
- Valid for rotary-cutting, after-cutting and flying cutting
- Ten groups of cutting length switchable and can be set during running
- Manual & Auto cutting modes
- Valid for multi-cutter system; Faster cutting
- Valid for color-mark correction; applied in the cutting of compensated printing/ position bias on paper or package bags
- Material feeding simulation; easy for testing and debugging

Applications

The special AC drive for cross cutter can be often found in the corrugated paper cutting machine, packaging machinery, color printing presses, flying saws, rolling mills, punching machines, embossing machines, slitters, filling machines, and the high-speed wire and rebar cutting machines, among others.

Specification

Technical Specifications of ALPHA6460V

Item	Specification
Power Range	380V \pm 20% three phases: From 1.5 to 93kW
Rated Input Voltage and Frequency	380V three phases: 50/60Hz
Allowable Input Voltage Range	380V three phases: from 304 to 456V, Voltage unbalance rate of less than 3%, Frequency fluctuation of below \pm 5%
Rated Output Voltage	From 0 to rated input voltage
Max. Overload Current	G model: 150% for one minute, 180% for 20 seconds
Control Method	V/F control, Open loop vector control, Close loop vector control
Frequency Range	From 0.00 to 650.00Hz (from 3R75GB to 3004GB) From 0.00 to 400.00Hz (from 35R5GB to 3500G)
Frequency Accuracy	Digital command \pm 0.01 % (from -10 $^{\circ}$ C to +40 $^{\circ}$ C) Simulation command \pm 0.01 % (25 $^{\circ}$ C \pm 10 $^{\circ}$ C)
Preset Frequency Resolution	Digital command 0.01Hz Simulation command 1/1000 of the maximum frequency
Output Frequency Resolution	0.01Hz
Preset Frequency Signal	From 0 to 10V, from 0 to 20mA
Acceleration-Deceleration Time	From 0.1 to 3600 seconds (The acceleration and deceleration time are set individually.)
Braking Torque	The additional braking resistance reaches up to 125%.
Voltage-Frequency Characteristic	Four kinds of fixed V /F characteristics are selectable. Any V/F characteristic can be preset. The V/F control with PG is available.
Protective Functions	Over-voltage, under-voltage, current limit, over-current, overload, electronic thermal relay, overheating, over-voltage stall, load short circuit, grounding, under-voltage protection, input phase loss, output phase loss, short circuit to ground, interphase short circuit, motor overload protection, etc
Ambient Temperature	From -10 $^{\circ}$ C to +40 $^{\circ}$ C
Humidity	From 5 to 95% RH (No condensation)
Storage Temperature	From -40 $^{\circ}$ C to +70 $^{\circ}$ C
Service Place	Indoor (without any corrosive gas)
Installation Site	The altitude is at most 1,000m. There is not any dust, corrosive gas, or direct solar radiation.

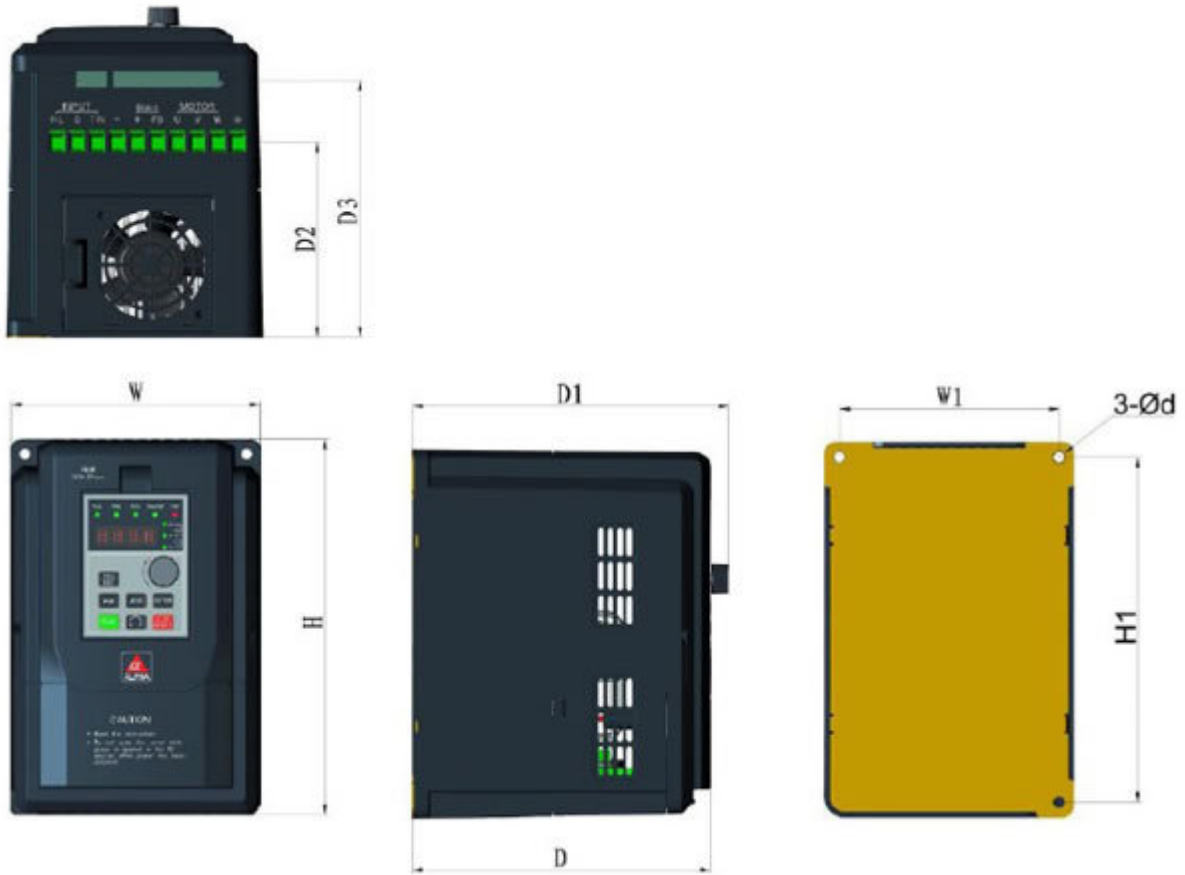
Vibration	Less than 5.9m/s^2 (0.6g)
Protection Rating	IP20
Cooling Method	Natural cooling or forced air cooling

Selection Guide

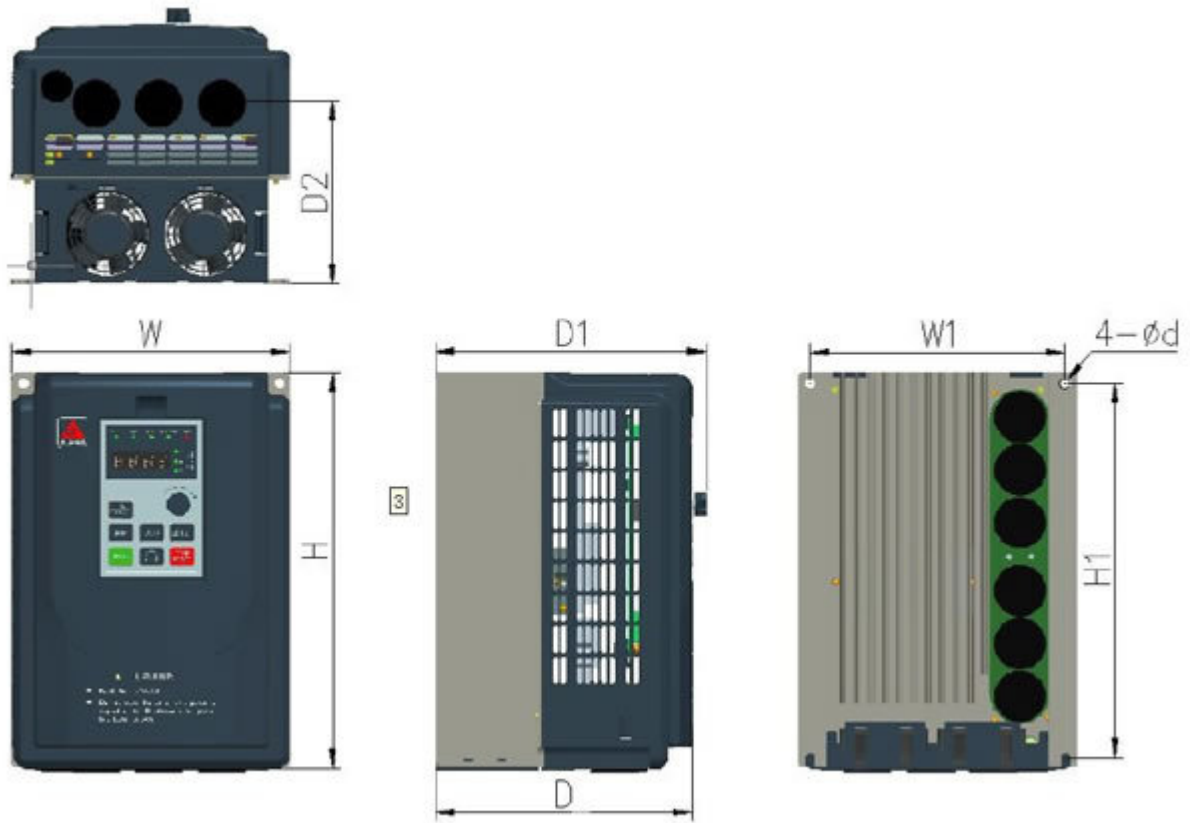
ALPHA6460V Selection Table

Voltage Classes	Model	Motor Power (kW)	Rated Output Current (A)
380V Three Phases	6460V-3R75GB	0.75	2.5
	6460V-31R5GB	1.5	4
	6460V-32R2GB	2.2	6
	6460V-3004GB	4	9
	6460V-35R5GB	5.5	13
	6460V-37R5GB	7.5	17
	6460V-3011GB	11	25
	6460V-3015GB	15	32
	6460V-3018G	18.5	37
	6460V-3022G	22	45
	6460V-3030G	30	60
	6460V-3037G	37	75
	6460V-3045G	45	90
	6460V-3055G	55	110
	6460V-3075G	75	152
	6460V-3093G	90	176

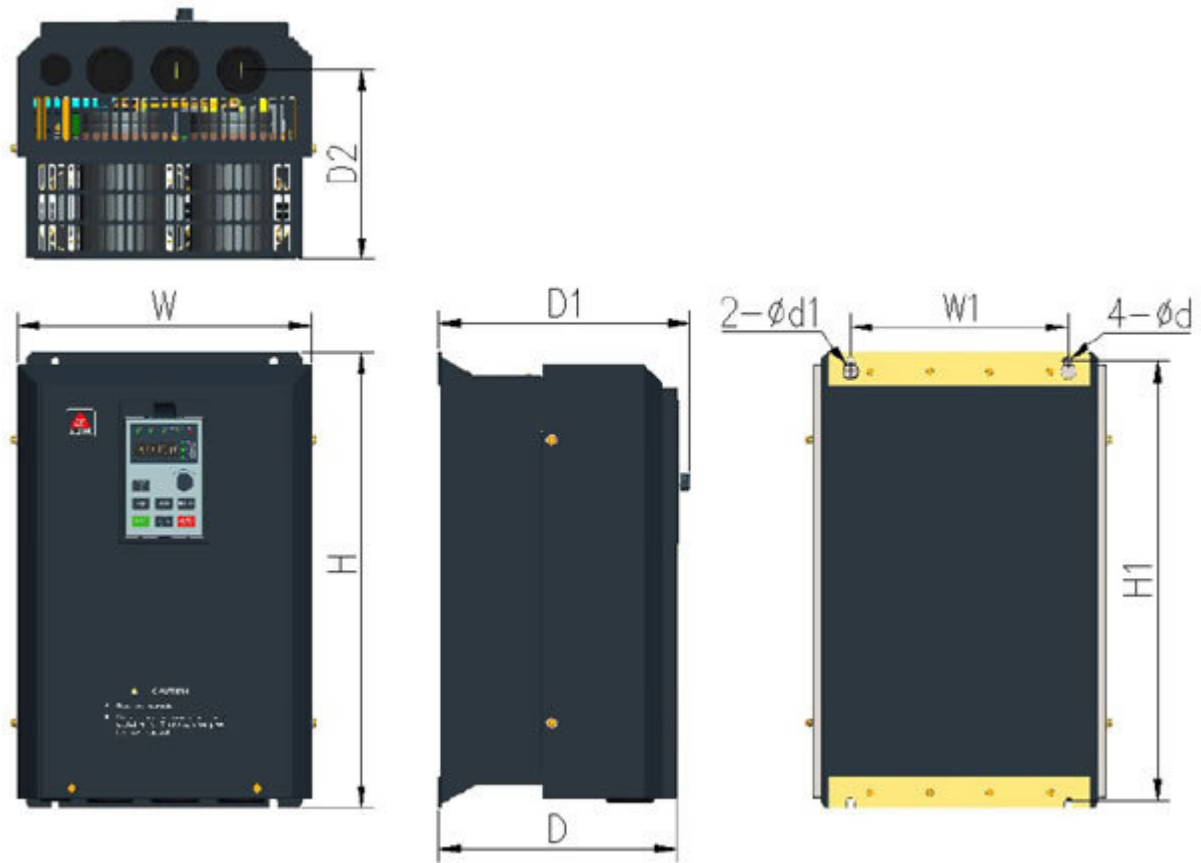
Overall Dimension of ALPHA6460V Series Special AC Drive for Cross Cutter



Specifications	H	H1	W	W1	D	D1	D2	D3	d
6460V-3R75GB	180	169	115	105	150	158	85	120	4.5
6460V-31R5GB									
6460V-32R2GB									
6460V-3004GB	195	173	130	108	157	167	100	130	4.5



Specifications	H	H1	W	W1	D	D1	D2	d
6460V-35R5GB	270	255	190	175	176	186	122	7
6460V-37R5GB								



Specifications	H	H1	W	W1	D	D1	D2	d	d 1
6460V-3011GB	373	360	235	200	176	188	125	7	12
6460V-3015GB									
6460V-3018G	420	405	270	200	218	230	175	7	14
6460V-3022G									
6460V-3030G	503	488	311	200	230	242	180	7	14
6460V-3037G									
6460V-3045G	590	570	351	200	254	266	192	10	20
6460V-3055G									
6460V-3075G	698	672	400	280	260	272	186	12	22
6460V-3093G									