

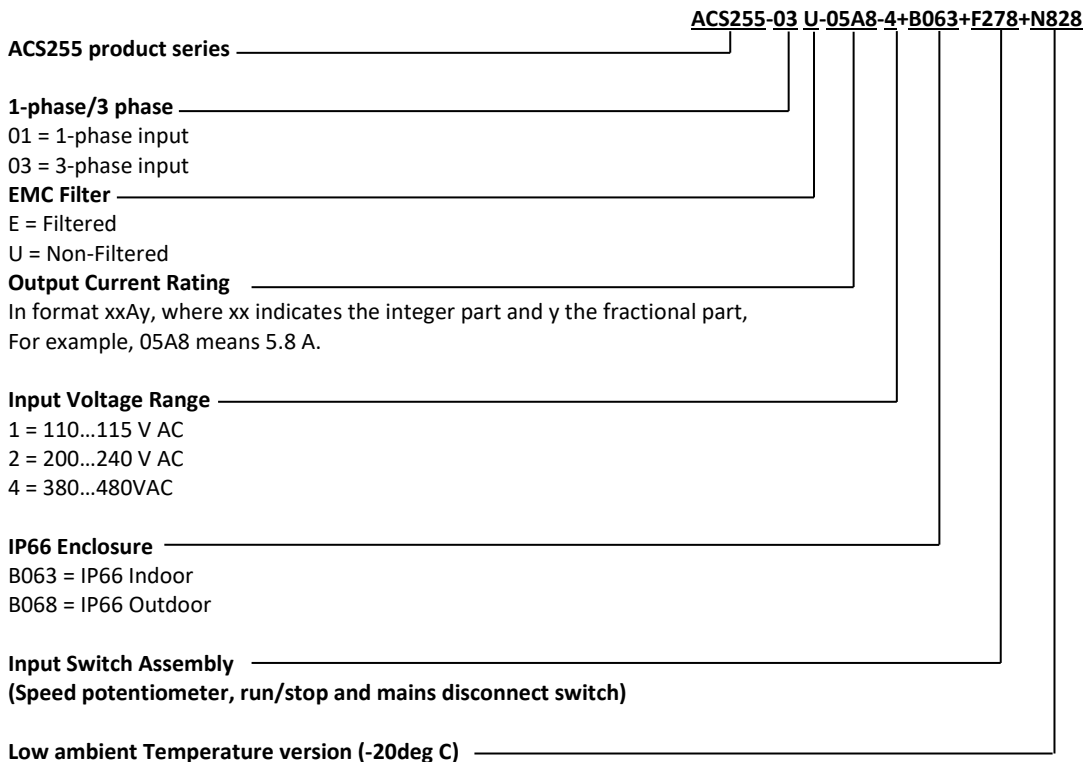
3. General Information and Ratings

This chapter contains information about the ACS255 including how to identify the drive.

3.1. Type designation key

The type designation contains information on the specification and configuration of the drive. You find the type designation label attached to the drive. The first digits from the left express the basic configuration, for example ACS255-03U-05A8-4.

The explanations of the type designation label selections are described below.



3.2. Drive Model Numbers – IP20

Mechanical Dimensions and Mounting information are shown in section 4.

Further Electrical Specifications are shown in section 12.2.

Model Number	Power (HP)	Output Current (A)	Input switch assembly	Internal DB transistor	Frame Size
1-phase 110V...115V AC (+/-10%) - 3 Phase 230V Output					
ACS255-01U-02A3-1	0.5	2.3	No	No	E1
ACS255-01U-04A3-1	1	4.3	No	No	E1
ACS255-01U-05A8-1	1.5	5.8	No	Yes	E2

3.3. Drive Model Numbers – IP66

Mechanical Dimensions and Mounting information are shown in section 4.

Further Electrical Specifications are shown in section 12.2.

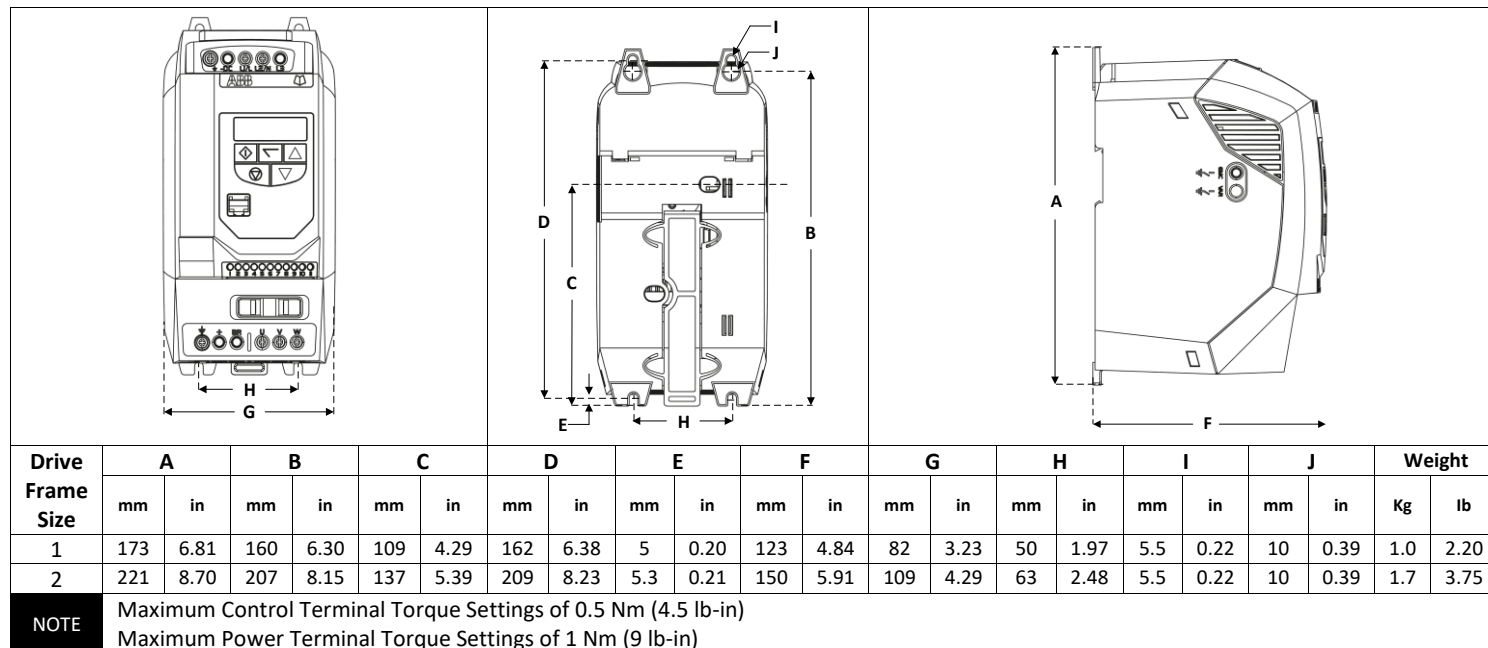
Model Number	Power (HP)	Output Current (A)	Input switch assembly	Internal DB transistor	Frame Size
3-phase 200...240V AC (+/-10%) - 3 Phase Output					
ACS255-03U-24A0-2+B068	7.5	24	No	Yes	E3
ACS255-03U-24A0-2+B068+F278	7.5	24	Yes	Yes	E3
ACS255-03U-30A0-2+B068	10	30	No	Yes	E4
ACS255-03U-30A0-2+B068+F278	10	30	Yes	Yes	E4
ACS255-03U-46A0-2+B068	15	46	No	Yes	E4
ACS255-03U-46A0-2+B068+F278	15	46	Yes	Yes	E4
3-phase 380...480V AC (+/-10%) - 3 Phase Output					
ACS255-03U-24A0-4+B068	15	24	No	Yes	E3
ACS255-03U-24A0-4+B068+F278	15	24	Yes	Yes	E3
ACS255-03U-30A0-4+B068	20	30	No	Yes	E4
ACS255-03U-30A0-4+B068+F278	20	30	Yes	Yes	E4
ACS255-03U-39A0-4+B068	25	39	No	Yes	E4
ACS255-03U-39A0-4+B068+F278	25	39	Yes	Yes	E4
ACS255-03U-46A0-4+B068	30	46	No	Yes	E4
ACS255-03U-46A0-4+B068+F278	30	46	Yes	Yes	E4

4. Mechanical Installation

4.1. General

- Carefully Unpack the ACS255 and check for any signs of damage. Notify the shipper immediately if any exist.
- Check the drive rating label to ensure it is of the correct type and power requirements for the application.
- Store the ACS255 in its box until required. Storage should be clean and dry and within the temperature range -40°C to $+60^{\circ}\text{C}$
- The ACS255 should be mounted in a vertical position only on a flat, flame resistant vibration free mounting using the integral holes.
- The ACS255 must be installed in a pollution degree 1 or 2 environment only.
- Do not mount flammable material close to the ACS255
- Ensure that the minimum cooling air gaps, as detailed in sections 4.3 and 4.5 are left clear
- Ensure that the ambient temperature range does not exceed the permissible limits for the ACS255 given on page 46.
- Provide suitable clean, moisture and contaminant free cooling air sufficient to fulfil the cooling requirements of the ACS255 according to sections 4.3 and 12.1.

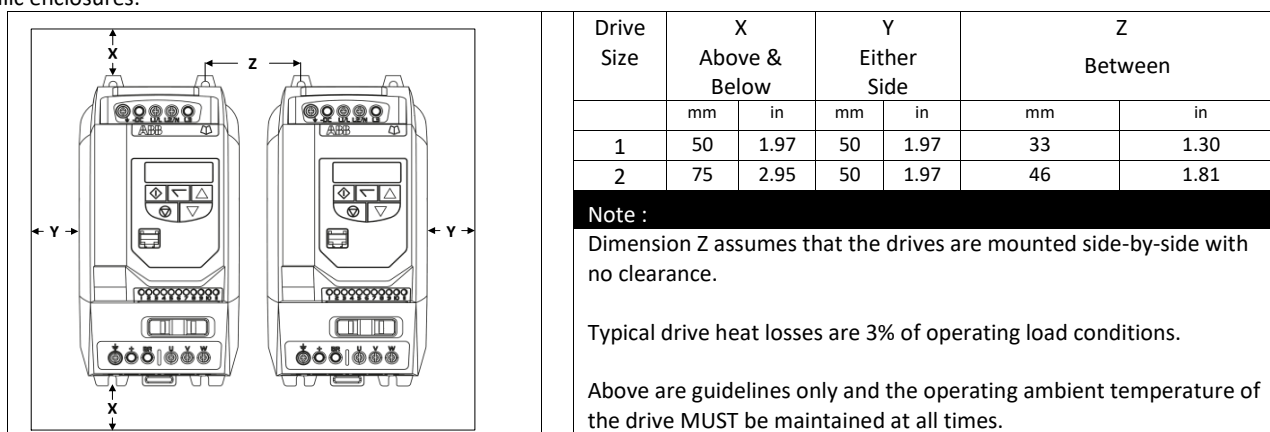
4.2. Mechanical Dimensions and Mounting – IP20 Open Units



4.3. Guidelines for Enclosure Mounting – IP20 Units

- Installation should be in a suitable enclosure, according to EN60529 or other relevant local codes or standards.
- Enclosures should be made from a thermally conductive material.
- Where vented enclosures are used, there should be free space clearance above and below the drive to ensure good air circulation – see the diagram below for minimum free space clearance. Air should be drawn in below the drive and expelled above the drive.
- In any environments where the conditions require it, the enclosure must be designed to protect the ACS255 against ingress of airborne dust, corrosive gases or liquids, conductive contaminants (such as condensation, carbon dust, and metallic particles) and sprays or splashing water from all directions.
- High moisture, salt or chemical content environments should use a suitably sealed (non-vented) enclosure.

The enclosure design and layout should ensure that the adequate ventilation paths and clearances are left to allow air to circulate through the drive heatsink. ABB Drives recommend the following minimum mounting clearance requirements for drives mounted in non-ventilated metallic enclosures:-



4.4. Mechanical Dimensions – IP66 (Nema 4X) Enclosed Units

Drive Frame Size	A		B		C		D		E		Weight	
	mm	in	mm	in	mm	in	mm	in	mm	in	kg	lb
3	310.0	12.2	210.5	8.29	238	9.37	251.5	9.90	197.5	7.78	7.0	15.4
4	360.0	14.17	240	9.45	275	10.83	300.0	11.08	226.0	8.89	9.5	20.9
NOTE	The size 3 and 4 product has 4 symmetrical mounting points Maximum Control Terminal Torque Settings of 0.5 Nm (4.5 lb-in) Maximum Power Terminal Torque Settings of 1 Nm (9 lb-in) / Size 4 = 4.1 Nm (36.5 lb-in)											

4.5. Guidelines for Mounting Enclosed Units

- Before mounting the drive, ensure that the chosen location meets the environmental condition requirements for the drive shown in section 12.1
- The drive must be mounted vertically, on a suitable flat surface
- The minimum mounting clearances as shown in the table below must be observed
- The mounting site and chosen mountings should be sufficient to support the weight of the drives
- The Enclosed ACS255s can be installed side-by-side with their heatsink flanges touching. This gives adequate ventilation space between drives.
- If the ACS255 is to be installed above another drive or any other heat-producing device, the minimum vertical spacing (X) is 150mm (5.9 inches) above and below.

