





Micro AC Drive

PRODUCT DEFINITION

- ❑ The VAT20 is a compact, maintenance free and reliable electronic frequency inverter that -feeding from 1ph 200-240V or 3ph 380-460V, varies the speed of standard three phase AC motors, providing full motor protection and application functions.





Micro AC Drive

FEATURES (1)

□ VAT20's key features

- Built-in Keypad and 3 digit LED display interface, which provides parameter settings, monitoring and application functions
- Built-in Class A EMC filter as standard
- Industrial EMC is achieved without use external filters
- DIN rail mounting kit as an option
- IP20 and IP65 protection degree versions available





Micro AC Drive

DIMENSIONS IP20 RANGE

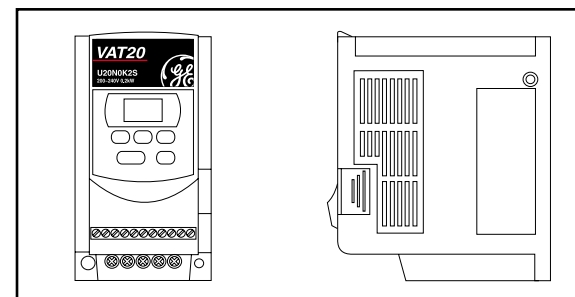
❑ **Very small dimensions (mm) :**

		W	H	D
Frame 1	1ph (0.2- 0.75 kW)	72	132	11
Frame 2	1ph (1.5- 2.2 kW) 3ph (0.75-2.2 kW)	118	143	172

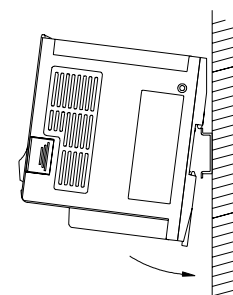
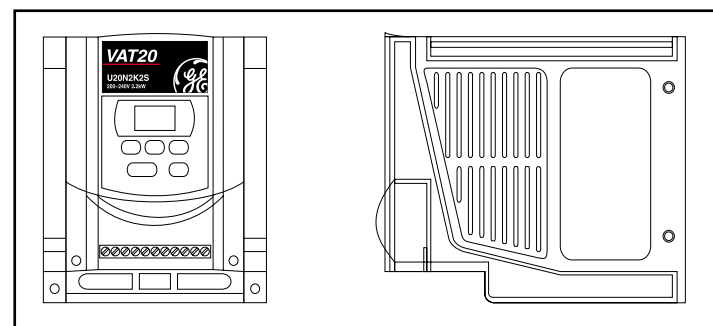
❑ **DIN Rail kit mounting**



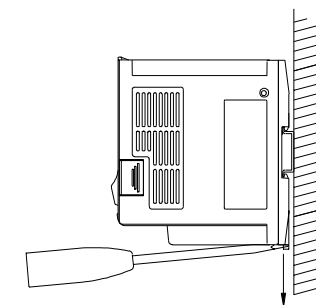
Frame 1



Frame 2



Mount



Dismount



Micro AC Drive

DIMENSIONS IP65 RANGE

Size (mm) :

		W	H	D
Frame 1	1ph (0.2- 0.75 kW)	140	215	162
Frame 2	1ph (1.5- 2.2 kW)	230	294	217
	3ph (0.75-2.2 kW)			

Available Versions

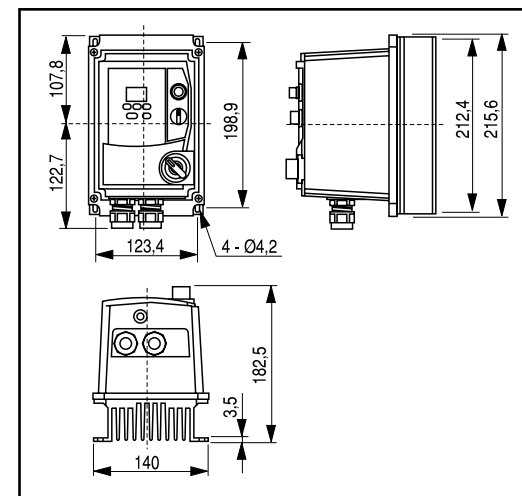


"P" Version

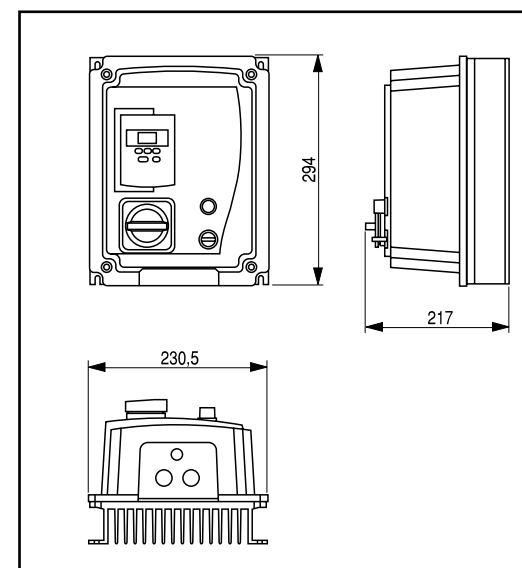


"PS" Version

Frame 1



Frame 2



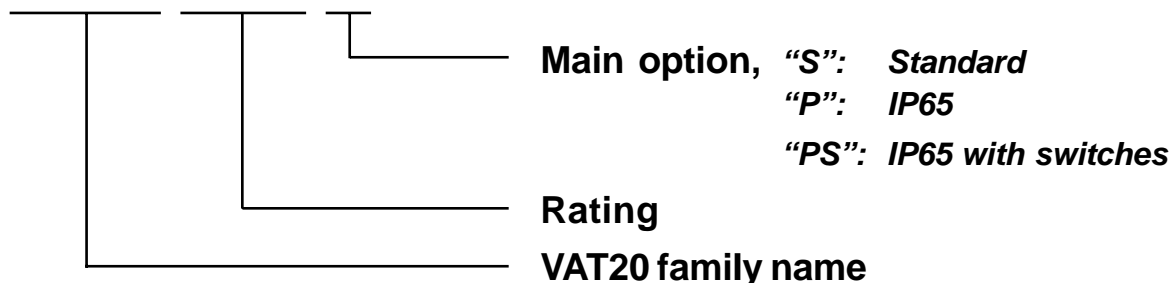


Micro AC Drive

PRODUCT RANGE CONFIGURATION

Product Configuration:

U 2 0 N0K4 S



Catalogue numbers

AC Drive VAT 20

U20N0K2_	U20N0K4_	U20N0K7_	U20N1K5_	U20N2K2_
----------	----------	----------	----------	----------

Ratings

Maximum applicable motor (kW)	0.2	0.4	0.75	1.5	2.2
Maximum applicable motor (HP)	1/4	1/2	1	2	3
Rated output current (A)	1.4	2.3	4.2	7.5	10.5
Rated input power (kVA)	0.53	0.88	1.6	2.9	4.0

Voltage range

Input voltage: Single phase 200-240V (+10%, -15%), 50/60 Hz (+1- 5%)

Output voltage: Three phase 200-240V (Output can not be higher than input voltage)

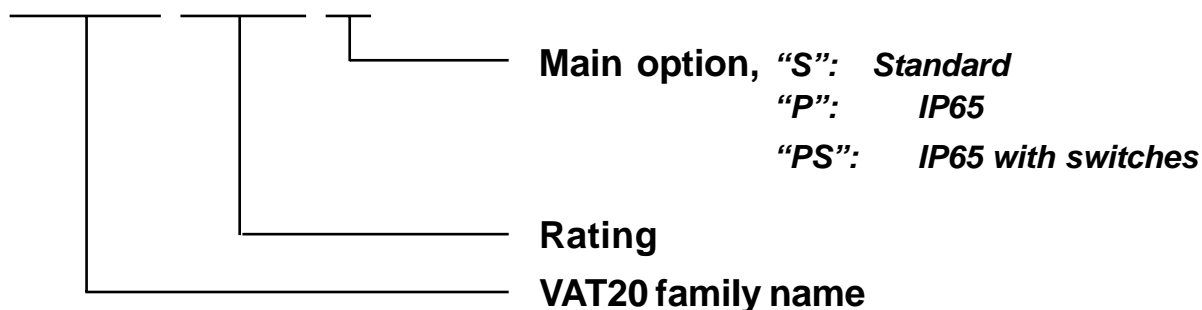


Micro AC Drive

PRODUCT RANGE CONFIGURATION

Product Configuration:

U 2 0 X0K7 S



Catalogue numbers

AC Drive VAT 20

U20X0K7_

U20X1K5_

U20X2K2_

Ratings

Maximum applicable motor (kW)

0.75

1.5

2.2

Maximum applicable motor (HP)

1

2

3

Rated output current (A)

2.3

3.8

5.2

Rated input power (kVA)

1.6

2.9

4.0

Voltage range

Input voltage

Three phase 380-460V (+10%, -15%), 50/60 Hz (+- 5%)

Output voltage

Three phase 380-460V (Output can not be higher than input voltage)



Micro AC Drive

PRODUCT SPECIFICATIONS

- Voltage ratings**
 - 1 phase systems 200-240VAC 50/60Hz.
 - 3 phase systems 380-460VAC 50/60Hz

- Applicable motor**
 - From 0.2kW to 2.2KW
 - Five ratings in two physical frames for 1ph Mains
 - Three ratings one physical frame for 3ph mains

- Overload capacity**
 - 150% / 60sec.

- Installation Environment**
 - Not in contact with corrosive or inflammable gas
 - Wall mounting by screws or DIN rail mounting
 - Temperature range: -10 to 50°C,
 - Humidity: 95% non-condensation
 - Vibrations Max. 1 g
 - Protection degree IP20 and IP65

- Standards**
 - UL & CSA (UL 508C)
 - CE - EMC Class A achieved
(Class B optional for Residential environment)



Micro AC Drive

PRODUCT FEATURES & FUNCTIONS (1)


- ❑ Main circuit** IPM, sinusoidal wave PWM inverter
- ❑ Output frequency** 0 - 200Hz
- ❑ Setting resolution** Digital : 0.1 Hz / Analogue : 0.1 %
- ❑ Carrier frequency** Selectable 1 - 16 kHz

- ❑ Braking torque** 20% for U20N0K2_, U20N0K4_, U20N0K7_
100% for rest of the range using external resistor
- ❑ I/O Configuration** Two fixed and two programmable digital inputs
One programmable relay output
One configurable 0 - 10 V, 4 - 20 mA analogue input,
One fixed 0-10V, analogue output.



Micro AC Drive

PRODUCT FEATURES & FUNCTIONS (3)

- ❑ **Acceleration / deceleration** Linear 0.1-999 sec
- ❑ **Speed setting** Keypad panel : by Up / Down keys 
Terminal board: multi-speed operation
Analogue setting: by potentiometer,
by voltage signal 0-10V or current signal 0-20mA
- ❑ **Operating command** Forward / Reverse run, and Jog
- ❑ **Stopping system** Either ramp down or coast to stop
- ❑ **Braking** DC Braking and Dynamic Braking (frame 2 only)
- ❑ **Protections** Overload, Overvoltage, Undervoltage, Power loss,
Stall prevention, Output short circuit and
Overtemperature
- ❑ **Other functions** Frequency Upper/Lower limits, Torque Boost, Jog
and two programmable speed, Auto restart with
5 tries, Flying start, Inverse time by electronic
overload motor protection and Fault trace.

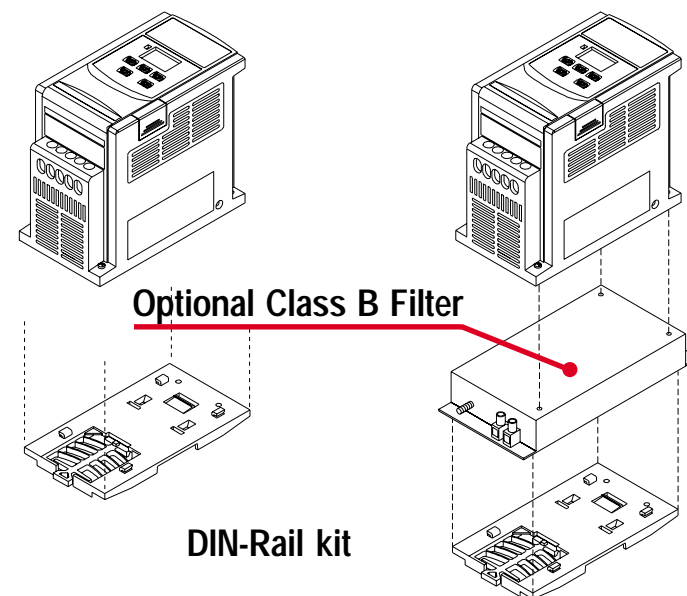


Micro AC Drive

6-DIGIT CODES AND CATALOGUE NUMBERS- IP20

□
VAT 20 - IP20, AC Drive & accessories
(200~240V & 380~460V, 50 / 60 Hz)
PSI group K54

Item	kW	Catalogue #	Ref. #
AC Drives	0,2	U20N0K2S	167075
	0,4	U20N0K4S	167076
	0,75	U20N0K7S	167077
	1,5	U20N1K5S	167078
	2,2	U20N2K2S	167079
Class B Filter (220V)		U20AF0K7	167085
		U20AF2K2	167086
Class B Filter (400V)		U20AF2K2X	167084
DIN-rail kit (10 pcs)		U20AR0K7	167087







Micro AC Drive

6-DIGIT CODES AND CATALOGUE NUMBERS- IP65

□
VAT 20 - IP65, AC Drive & accessories
(200~240V & 380~460V, 50 / 60 Hz)
PSI group K54

Item		kW	Cat. #	Ref. #
	“P” Version 200V	0,2	U20N0K2P	167088
		0,4	U20N0K4P	167089
		0,75	U20N0K7P	167090
		1,5	U20N1K5P	167091
		2,2	U20N2K2P	167092
	400V	0,75	U20X0K7P	167093
		1,5	U20X1K5P	167094
		2,2	U20X2K2P	167095

Item		kW	Cat. #	Ref. #
	“PS” Version 200V	0,2	U20N0K2PS	167132
		0,4	U20N0K4PS	167133
		0,75	U20N0K7PS	167134
		1,5	U20N1K5PS	167135
		2,2	U20N2K2PS	167136
	400V	0,75	U20X0K7PS	167137
		1,5	U20X1K5PS	167138
		2,2	U20X2K2PS	167139