ENGLISH

Section 2— Product Characteristics

Catalog Number Description

The catalog number is on the nameplate attached to the inside of the process drive door (see Figure 4 on page 16). The catalog number is coded to describe the configuration of the drive.

Use Table 2 on page 14 to translate the catalog number into a description of the process drive. The example in Table 1 translates the catalog number shown on the nameplate in Figure 1.

For descriptions of the options listed in Table 2, refer to Section 4 beginning on page 43.

Table 1 – Catalog Number Example: ATV660D22T4N2ANWAANAGK

Field											
01–02	**03–04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**	**12**	**13**	**14**
ATV660	**D22**	**T4**	**N**	**2**	**A**	**N**	**W**	**A**	**A**	**N**	**A,G,K**
Altivar 660 Process Drive	3 hp	460 V, 3 phase	Normal Duty Power Rating	UL Listed	UL Type 12K Enclosure	No Harmonic Mitigation	Without Bypass	H-O-A Speed Pot.	Red Power On, Yellow Tripped, Green AFC Run, Yellow Auto	No Comm. Card	Ethernet Port in Front Door; Type 1 SPD; Additional 150 VA Control Power

ENGLISH

Table 2 – Catalog Number Description

Field	Digit	Characteristic	Description	
01–02	1–6	Drive Style	Altivar 660 Process Drive, 2-quadrant, 6-pulse drive	
03–04	7–9	Power Rating (kW)	**Normal Duty**	**Heavy Duty**
			U07 = 1 hp	
			U15 = 2 hp	U15 = 1 hp
			U22 = 3 hp	U22 = 2 hp
			U40 = 5 hp	U30 = 3 hp
			U55 = 7.5 hp	U55 = 5 hp
			U75 = 10 hp	U75 = 7.5 hp
			D11 = 15 hp	D11 = 10 hp
			D15 = 20 hp	D15 = 15 hp
			D18 = 25 hp	D18 = 20 hp
			D22 = 30 hp	D22 = 25 hp
			D30 = 40 hp	D30 = 30 hp
			D37 = 50 hp	D37 = 40 hp
			D45 = 60 hp	D45 = 50 hp
			D55 = 75 hp	D55 = 60 hp
			D75 = 100 hp	D75 = 75 hp
			D90 = 125 hp	D90 = 100 hp
			C11 = 150 hp	C11 = 125 hp
			C13 = 200 hp	C13 = 150 hp
			C16 = 250 hp	C16 = 200 hp
			C20 = 300 hp	C20 = 250 hp
			C25 = 400 hp	C25 = 300 hp
			C31 = 500 hp	C31 = 400 hp
			C40 = 600 hp	C40 = 500 hp
			C50 = 700 hp	C50 = 600 hp
			C63 = 900 hp	C63 = 700 hp
05	10–11	Voltage Class	U3 = 230 V, Three Phase T4 = 460 V, Three Phase	
06	12	Duty Rating	N = Normal Duty H = Heavy Duty	
07	13	Region	2 = UL Marking 6 = cUL Marking (Canada)	
08	14	Enclosure Type	G = Type 1 General Purpose A = Type 12K Industrial Use, Dust-tight/Drip-tight H = Type 3R Outdoor Use	
09	15	Line Harmonic Mitigation	N = None ~~A = Line Reactor~~ M = Passive Harmonic Filter	
10	16	Power Circuit	~~W = without Bypass~~ Y = Integral Full-Voltage Bypass	

Technical Characteristics

Table 3 – Electrical Specifications

Input voltage	208 Vac ±10%, 230 Vac ±10%, 460 Vac ±10% Other voltages available on request
Short circuit current rating (AC symmetrical)	100 kA
Control voltage	24 Vdc, 115 Vac +10%/-15% (control power transformer included)
Displacement power factor	98% through speed range (in AFC operation mode)
Input frequency	50/60 Hz ± 5%
Output voltage	Three-phase output, maximum voltage equal to input voltage
Galvanic isolation	Galvanic isolation between power and control (inputs, outputs, and power supplies)
Output frequency range of power converter	0.1–500 Hz (factory setting of 60 Hz)
Torque/Overtorque	Normal Duty: 110% of nominal motor torque for 60 s Heavy Duty: 150% of nominal motor torque for 60 s
Current (transient)	Normal Duty: 110% of drive rated current for 60 s Heavy Duty: 150% of drive rated current for 60 s
Switching frequency	Selectable from 0.5–8 kHz. Factory setting: 2.5 kHz The drive reduces the switching frequency automatically in the event of excessive heatsink temperature.

Table 4 – Environmental Specifications

Storage temperature	-13 to +149 °F (-25 to +65 °C)
Operating temperature 1–100 hp HD, 1–125 hp ND 460 V; 1–50 hp HD, 1–60 hp ND 230 V	+14 to +104 °F (-10 to +40 °C), Type 1/12/3R; +14 to +122 °F (-10 to +50 °C), 1/12/3R (Optional)
Operating temperature 125–700 hp HD, 150–900 hp ND 460V	+14 to +122 °F (-10 to +50 °C), Type 1/12 (below 0 °C with additional enclosure heating, above +40 °C with derating). See “Maximum Ambient Temperature” on page 19 for more information.
Humidity	95% with no condensation or dripping water, conforming to IEC 60068-2-78
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
Enclosure	UL Type 1: General indoor (ventilated); UL Type 12: Indoor dust-tight (ventilated); UL Type 3R: Outdoor (ventilated)
Pollution degree	Pollution degree 2 (Type 1, 3R) or 3 (Type 12) per NEMA ICS-1 Annex A and IEC 61800-5-1
Operational test vibration	Conforming to IEC/EN 60068-2-6 1.5 mm at 3–10 Hz, 0.6 g at 10–200 Hz 3M3 conforming to IEC/EN 60721-3-3
Transit shock test	Conforming to National Safe Transit Association and International Safe Transit Association test for packages.
Operational shock	Conforming to IEC/EN 60068-2-27 4 g for 11 ms 3M3 conforming to IEC/EN 60721-3-3
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.