

ADJUSTABLE SPEED DRIVES



Q7 flow

Q



Unsurpassed Quality

Toshiba is known throughout the world for high quality products. Manufactured in our state-of-the-art ISO 9001 plant in Houston, Texas, the Q7 is no exception to this legacy of quality.

Reliable

We pride ourselves in having one of the most reliable drives in the industry. Users know they can depend on our drives. When the drive is installed, it is going to work right out of the box for many years.

Rugged

Our Q7 is designed to last. It will give you long life well beyond the warranty period. We utilize oversized transistors to increase the life of the drive and heavy-duty DC bus capacitors to absorb spikes and dips that may occur during operation. All of our integrated configurations come in metal enclosures to reduce RF/EMI noise. The Q7 enclosures are listed for 100,000 amps interrupting capacity. A 100,000 AIC rating can eliminate the requirement for purchasing a costly building short circuit study. Don't settle for anything less.

Communications

We speak your language. RS232, RS485, METASYS N2, LANDIS P1, MODBUS RTU, MODBUS and TCP/IP are just a few of the protocols that we offer.





The award winning Toshiba Q Series drive is back and better than ever.

The Q7 combines our state-of-the-art IGBTs with faster microprocessors to give you the most advanced HVAC drive we have ever built. All of this is in our proven 7 series platform.

We continue to set the standard in the world of power electronics.

System Friendly

Easy on Your Equipment

Our Q7 can catch a motor spinning forward or in reverse with our built-in speed search features. The adjustable ramp times and inherent softstart capabilities provide minimal stress on fans, pumps, belts and pulleys. This minimized stress will ultimately lengthen the life of your equipment.

Easy on Your Systems

The Q7 drive is available with AC line reactor or DC link reactor along with 12 or 18 pulse options to mitigate harmonics on power systems. This will allow you to meet IEEE 519 guidelines.

Easy on Motors

We have manufactured PWM drives since 1981, and we are one of the only companies that manufacture drives and motors under one roof. Put this together and it is no wonder why we have one of the cleanest wave forms in the industry. Don't shorten your motor's life.

Easy to Install

We have designed our "roomy" enclosures to give you easy access to all customer power and control terminations. Terminals are also oversized to easily accommodate your wiring. This will make installation a breeze.



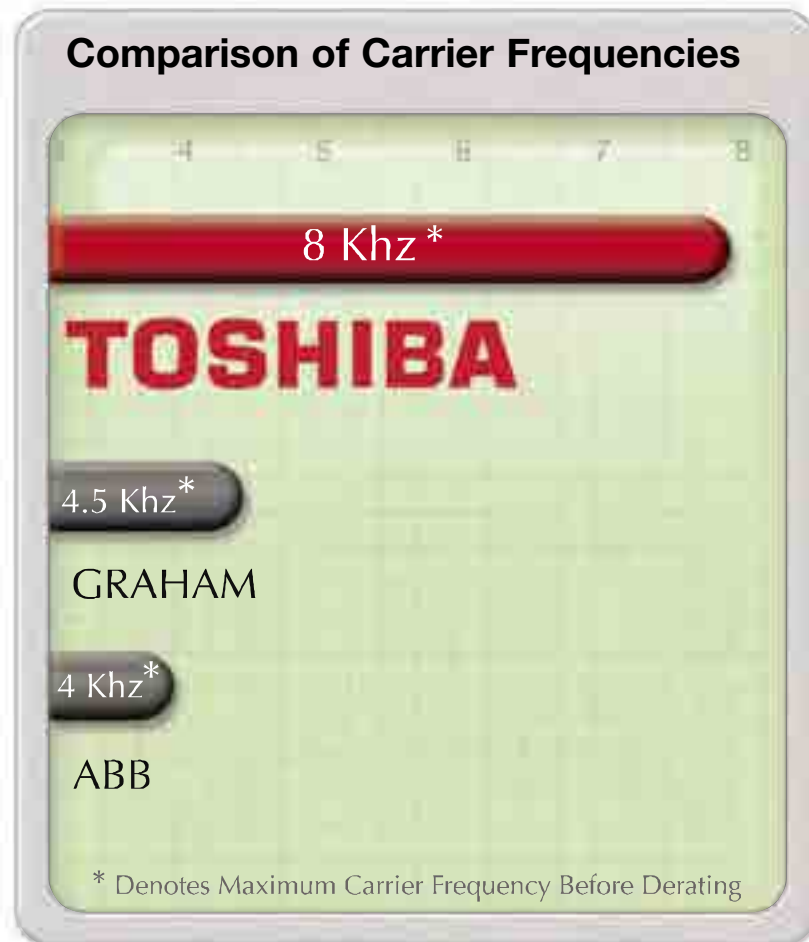
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Comparison of Carrier Frequencies



Carrier frequencies shown are taken from: Graham Manual # 23-6108-00, page 57 and ABB Technical Catalog 3AFE-64792857 Rev. D, Page 12

Easy on Your Ears

We first introduced the high carrier frequency drive in 1981. Our high carrier frequency drive provides a quieter and cooler motor operation and sets new standards for the industry to follow.

Easy to Find The Horsepower You Need

208V	1HP to 75HP
230V	1HP to 75HP
460V	1HP to 350HP
600V	1HP to 300HP

User Friendly

User friendly

The Q7 is not only rugged and reliable but also easy to use. The Q7 has an easy-to-use LCD, true English display. The keypad is menu driven with user-friendly parameters. Out of the box setup makes it a breeze to start-up. With the quick setup keys, you are only a few strokes away from any parameter. All this along with our windows based software makes interacting with the Q7 a snap.



Inputs:

We put you in control.

(8) digital inputs, (3) analog inputs,
all fully programmable

Outputs:

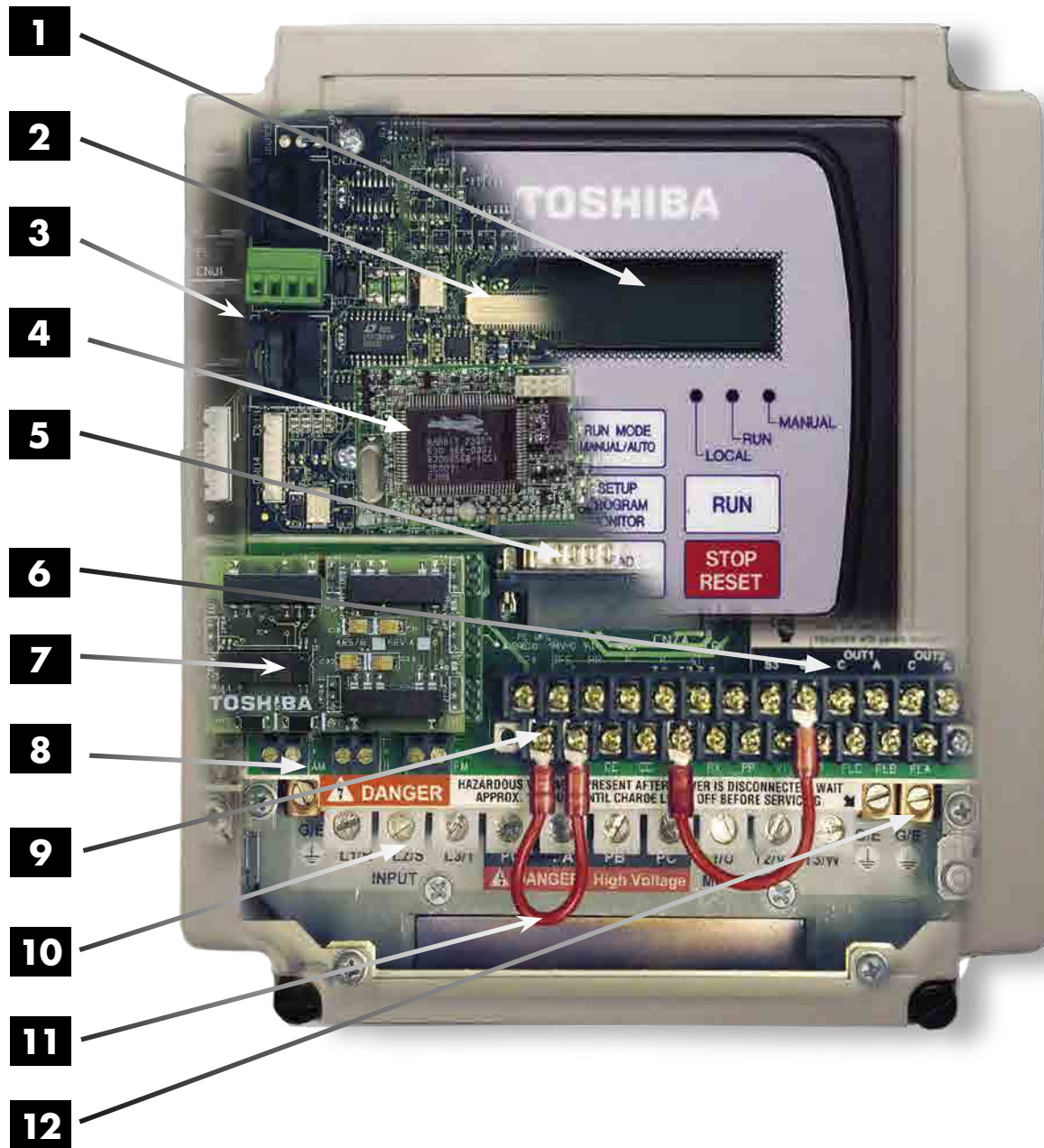
We tell you what you want to know.

(3) digital relay outputs, (2) 4-20mA analog outputs,
all fully programmable,
(8) door mounted status indicators

Truly Designed for Your HVAC System

The fire speed circuit allows you to run at a preset speed during a smoke purge. The damper permissive function can be utilized to protect your ductwork from over pressuring. In addition, the PID settings will keep your system balanced.

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|----------------------------------------|--------------------------------------------|
| 1. Graphic LCD | 7. Signal Isolator Daughter Board (Option) |
| 2. High Speed OptiBus Option Card Port | 8. 0-1 mA/4-20 mA Programmable Outputs |
| 3. RS 232/485 & TTL Ports | 9. 8 Digital Programmable Input Terminals |
| 4. Nano Communication Chip | 10. Power Terminal Strip |
| 5. Remote Mountable Terminal Strip | 11. Fail Safe Emergency Interlock |
| 6. (3) Programmable Output Contacts | 12. (3) Easy Access Ground Lugs |