

Section 7: Inverters

Fenner QD (Quick Drive) Series inverters are ideal for both simple and sophisticated applications, due to their broad range of functions, easy configuration, simple installation and ultimate performance.



- The QD:HVAC sets a new standard for dedicated fan and pump control whilst retaining ease of use. The innovative design, combined with robust performance provides powerful flow control and reliability in a compact drive.
- The Fenner QD:Neo offers the perfect combination of high performance and simplicity providing solid solution for the most demanding applications. Suitable for use with both standard and permanent magnet motors.
- The Fenner QD:E is a revolution in simplicity. Quick and easy to install and commission and general purpose drive with V/F control

Inverters: Design Data Required
Electrical supply voltage
Constant/variable torque application
IP rating required
Driven machine
Speed range of machine
Cable length to motor
Control options required
Ambient temperature
Communication options required

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Fenner QD Series Inverters

Simple, precise control

The power to save energy

- > Wide power range, from 0.37kW to 250kW
- > Robust design in IP20, IP55 and IP66 variants
- > Quick and simple installation and commissioning
- > Built-in features which combine to offer significant total cost reductions compared to other leading manufacturers

Fenner®

THE MARK OF ENGINEERING EXCELLENCE

Applications

CONVEYING

Obtaining the optimum speed of product transfer is a primary requirement of all conveyor systems. Fenner QD inverters and Fenner FM:3 motors are suitable for horizontal, vertical or inclined conveyors, to give accurate speed control and a high starting torque to ensure reliable and efficient transportation of products.

BUILDING MANAGEMENT

Comfort and efficiency are key requirements for the environment within today's modern buildings.

Easy to install and reliable Fenner QD inverters and FM:3 motors ensure that the large number of motors driving fans and pumps for heating, ventilation and air conditioning are running at their optimum level, saving both energy and protecting the environment.

MIXING

For fixed speed or variable speed mixing applications, Fenner QD:Neo Inverters and FM:3 motors provide, high starting torque and application specific programmes ensuring mixing process times are optimised to improve productivity and increase efficiency.

PULP AND PAPER

From complex multi-function process control to single drive applications Fenner QD inverters and FM:3 motors can reliably improve preparation and manufacturing processes from the wood yard or recycling yard to the paper machine and the paper converting process. Continuously improving uptime, quality and efficiency.

PLASTICS/MOULDING

Long running hours, a harsh working environment and precise speed control are just some of the tasks Fenner QD inverters and FM:3 motors are designed to deliver. From a single conveyor application to fully integrated extrusion/ moulding, the Fenner motors and drives package delivers a new level of control, reliability, flexibility and efficiency.

PUMPING

Pump systems need to be both reliable and efficient, ensuring that the correct volume of product is transported accurately and dependably. Fenner QD:HVC inverters and FM:3 motors are designed to provide efficient and reliable service and can even be integrated into building management systems.

BOTTLING

Machinery which requires fast and accurate positioning in a harsh working environment, Fenner QD inverters are designed to work within panels or as stand-alone units allowing flexibility for high speed process applications.

FENNER QUICK DRIVE APPLICATION GUIDE

Industry/Application	QD:E	QD:HVC	QD:NEO
PERMANENT MAGNET MOTORS			●
METALWORKING			
Spindles			●
Grinding			●
Drilling			●
Polishing			●
MINING & QUARRYING			
Mixers			●
Crushers			●
Conveyors	●		●
Skip Hoist			●
BUILDING AUTOMATION			●
Fans	●	●	●
Centrifugal Pumps	●	●	●
Refrigeration		●	●
Compressors			●
WATER			
Centrifugal Pumps	●	●	●
PD Pumps	●		●
Fans	●	●	●
Blowers	●	●	●
FOOD & BEVERAGE			
Conveyors	●		●
Mixers			●
Packaging	●		●
Compressors			●
MATERIALS HANDLING			
Conveyors	●		●
Packaging	●		●
Palletisers			●
Cranes			●
WOOD WORKING			
Routing			●
Cutting			●
Conveyors	●		●
CHEMICALS			
Mixers			●
Fume Extraction	●	●	●
Pumping	●	●	●
Centrifuge	●		●
PRODUCTION			
Moulding			●
Extruders			●
Mixing			●
Winding			●

Drive Selection Overview

Specification		QD:E	QD:NEO	QD:HVAC
Input Ratings	Supply Voltage	200 – 240V ± 10% 380 – 480V ± 10%	200 – 240V ± 10% 380 – 480V ± 10%	200 – 240V ± 10% 380 – 480V ± 10%
	Supply Frequency	48 – 62Hz	48 – 62 Hz	48 – 62Hz
	Displacement Power Factor	> 0.98	>0.98	> 0.98
	Phase Imbalance	3% Maximum allowed	3% maximum allowed	3% Maximum allowed
	Inrush current	< rated current	< rated current	< rated current
	Power cycle	120 per hour maximum, evenly spaced	120 per hour max. evenly spaced	120 per hour maximum, evenly spaced
Output Ratings	Output Power	230V 1 Phase Input: 0.75–4kW (1–5HP) 400V 3 Phase Input: 0.75–11kW	230V 1 Phase Input: 0.75–2.2kW 400V 3 Phase Input: 0.75–250kW	230V 1 Phase Input: 0.75–2.2kW (1–3HP) 400V 3 Phase Input: 0.75–250kW
	Overload Capacity	150% for 60 seconds, 175% for 2 seconds	150% for 60 seconds, 200% for 4 seconds	110% for 60 seconds
	Output Frequency	0 – 500Hz, 0.1Hz resolution	0 – 500 Hz, 0.1 Hz resolution	0 – 120Hz, 0.1Hz resolution
	Typical Efficiency	98%	98%	98%
Ambient Conditions	Temperature	Storage : –40 to 60°C Operating : –10 to 40°C	Storage: –40° to 60°C Operating: -10°C to 40°C	Storage : –40 to 60°C Operating : –10 to 40°C
	Altitude	Up to 1000m ASL without derating Up to 2000m maximum UL Approved Up to 4000m maximum (non UL) Above 1000m : Derate by 1% per 100m	Up to 1000m ASL without derating Up to 2000m maximum UL Approved Up to 4000m maximum (non UL) Above 1000m : Derate by 1% per 100m	Up to 1000m ASL without derating Up to 2000m maximum UL approved Up to 4000m maximum (non UL) Above 1000m : Derate by 1% per 100m
	Humidity	95% Max, non-condensing	95% max, non-condensing	95% Max, non-condensing
	Ingress Protection	IP20 IP66 (Excluding 11kW)	IP20 (Size 2, 3) IP55 (Size 4, 5, 6, 7) IP66 (Size 2, 3)	IP20 (Frame sizes 2 & 3) IP66 (Frame sizes 2 & 3, up to 7.5kW) IP55 (Frame sizes 4 – 7)
Programming	Keypad	Built-in Keypad as standard Optional remote mountable keypad	Built-in Keypad as standard Optional remote mountable keypad	Built-in keypad as standard Optional remote mountable keypad
	Display	Built-in LED display	Optional OLED or LED display (OLED Display Multi Language)	Built-in multi language OLED display (except IP20) LED display (IP20 only)
	PC	Yes	Yes	Yes
Control Specification	Control Method	V/F Voltage Vector Energy Optimised V/F	V/F Voltage Vector Energy Optimised V/F Sensorless Vector Speed Control Sensorless Vector Torque Control Closed Loop (Encoder) Speed Control Closed Loop (Encoder) Torque Control Open Loop PM Vector Control	Variable Torque V/F Variable Torque Energy Optimised V/F
	PWM Frequency	4 – 32kHz Effective	4 – 32kHz Effective	4 – 32kHz Effective
	Stopping Mode	Ramp to Stop : User Adjustable 0.01 – 600 seconds Coast to Stop	Ramp to Stop : User Adjustable 0.1 – 600 seconds Coast to Stop	Ramp to Stop : User Adjustable 1 – 600 seconds Coast to Stop
	Braking	Motor Flux Braking Built-in Braking Transistor (Frames 2 & 3) DC injection	Motor Flux Braking Built-in Braking Transistor (Optional for frame sizes 6 & 7) DC injection	Motor Flux Braking DC injection
	Skip Frequency	Single point, user adjustable	Single point, user adjustable	Single point, user adjustable
	Setpoint Control	Analog Signal 0 to 10 Volts 10 to 0 Volts 0 to 20mA 20 to 0mA 4 to 20mA 20 to 4 mA Digital Motorised Potentiometer (Keypad) Modbus RTU	Analog Signal 0 to 10 Volts 10 to 0 Volts –10 to 10 Volts 0 to 20mA 20 to 0mA 4 to 20mA 20 to 4 mA Digital Motorised Potentiometer (Keypad) Modbus RTU CANopen Optional Profibus DP, DeviceNet, EthernetIP	Analog Signal 0 to 10 Volts 10 to 0 Volts –10 to +10 Volts 0 to 20mA 20 to 0mA 4 to 20mA 20 to 4 mA Digital Motorised Potentiometer (Keypad) Modbus RTU BACnet Optional BACnet/IP, Profibus DP, DeviceNet, EtherNet/IP
I/O Specification	Power Supply	24 Volt DC, 100mA, Short Circuit Protected 10 Volt DC, 5mA for Potentiometer	24 Volt DC, 100mA, Short Circuit Protected 10 Volt DC, 5mA for Potentiometer	24 Volt DC, 100mA, Short Circuit Protected 10 Volt DC, 5mA for Potentiometer
	Programmable Inputs	4 Total as standard 2 Digital 2 Analog / Digital Selectable	5 Total as standard (Optional additional 3) 3 Digital (Optional additional 3) 2 Analog / Digital Selectable	5 Total as standard (Optional additional 3) 3 Digital (Optional additional 3) 2 Analog / Digital Selectable
	Digital Inputs	10 – 30 Volt DC, internal or external supply, NPN Response time : < 4ms	10 – 30 Volt DC, internal or external supply, NPN Response time : < 4ms	10 – 30 Volt DC, internal or external supply, NPN Response time : < 4ms
	Analog Inputs	Resolution : 12 bits Response time : < 4ms Accuracy : < 1% full scale Parameter adjustable scaling and offset	Resolution : 12 bits Response time : < 4ms Accuracy : < 1% full scale Parameter adjustable scaling and offset	Resolution : 12 bits Response time : < 4ms Accuracy : < 1% full scale Parameter adjustable scaling and offset
	Programmable Outputs	2 Total 1 Analog / Digital 1 Relay, 1 x N.O.	4 Total (Optional additional 3) 2 Analog / Digital 2 Relays (Optional additional 3) 1 X N.O. + 1 X C.O.	4 Total (Optional additional 3) 2 Analog / Digital 2 Relays (Optional additional 3) 1 X N.O. + 1 X C.O.
	Relay Outputs	Maximum Voltage : 250 VAC, 30 VDC Switching Current Capacity : 6A AC, 5A DC	Maximum Voltage : 250 VAC, 30 VDC Switching Current Capacity : 6A AC, 5A DC	Maximum Voltage : 250 VAC, 30 VDC Switching Current Capacity : 6A AC, 5A DC
	Analog Outputs	0 to 10 Volt	0 to 10 Volt 0 to 20mA 4 to 20mA	0 to 10 Volt 0 to 20mA 4 to 20mA
Control Functions		PID Control - Internal PID control with feedback display	Dedicated Hoist Operation Mode	Fire Mode - Selectable direction, Selectable speed reference
			PID Control - Internal PID control with feedback display	Broken Belt Detection - Under load monitoring with autotuneconfiguration
				PID Control - Internal PID control with feedback display
Maintenance & Diagnostics	Fault Memory	Last 4 Trips stored with time stamp	Last 4 Trips stored with time stamp	Last 4 Trips stored with time stamp
	Data Logging	Logging of data prior to trip for diagnostic purposes : Output Current, Drive Temperature, DC Bus Voltage	Logging of data prior to trip for diagnostic purposes : Output Current, Drive Temperature, DC Bus Voltage	Logging of data prior to trip for diagnostic purposes : Output Current, Drive Temperature, DC Bus Voltage
	Maintenance Indicator	-	Maintenance Indicator with user adjustable maintenance interval Onboard service life monitoring	Maintenance Indicator with user adjustable maintenance interval Onboard service life monitoring
	Monitoring	Hours Run Meter Energy Consumption meter	Hours Run Meter Resettable & Non Resettable kWh meters	Hours Run Meter Resettable & Non Resettable kWh meters
Standards Compliance	EN 61800-3:2004	Adjustable speed electrical power drive systems. EMC requirements.	Adjustable speed electrical power drive systems. EMC requirements.	Adjustable speed electrical power drive systems. EMC requirements.

N.O. = Normally open contacts

C.O. = Change over contacts

Ordering Instructions

All Fenner QD Inverters are identified with a unique code number. This consists of an eight digit code depending on the enclosure, power, supply voltage and range.

Construction of the coding system is explained below.

FIRST THREE DIGITS:

Series and enclosure

Code	Range	Enclosure
572	QD:E / QD: NEO	IP20
575	QD:NEO / QD:HVAC	IP55
576	QD:E / QD:NEO / QD:HVAC	IP66

FOURTH DIGIT:

Inverter type

Code	Series
B	QD-E (Basic Inverter)
X	QD Options (All Models)
N	QD:NEO
F	QD:HVAC

FIFTH DIGIT:

Supply voltage code

Code	Voltage
2	220-240V 1~ supply
4	380-440V 3~ supply

SIXTH, SEVENTH & EIGHTH DIGITS:

Rated power code

Code	Output Power (kW)
0P4	0.37
0P7	0.75
1P5	1.50
2P2	2.20
3P0	3.00
4P0	4.00
5P5	5.50
7P5	7.50
011	11.0
015	15.0
018	18.5
022	22.0
030	30.0
037	37.0
045	45.0
055	55.0
075	75.0
090	90.0
110	110.0
132	132.0
160	160.0
200	200.0
250	250.0

NINTH DIGIT:

Special features

Code	Output Power
N	Non-Switched IP55 (Non-standard option)
E	Enlarged Frame Size (Non-standard option)

Electrical Data

QD:E RANGE

200-240V 1 PHASE SUPPLY

Motor Power (kW)	Output Current (Amps)	Fenner Part Number		Frame Size
		IP20	IP66	
0.37	2.3	572B20P4	576B20P4	1
0.75	4.3	572B20P7	576B20P7	1
1.5	7.0	572B21P5	576B21P5	1
1.5	7.0	572B21P5E	575B21P5E	2
2.2	10.5	572B22P2	576B22P2	2

380-480V 3 PHASE SUPPLY

Motor Power (kW)	Output Current (Amps)	Fenner Part Number		Frame Size
		IP20	IP66	
0.75	2.2	572B40P7	576B40P7	1
1.5	4.1	572B41P5	576B41P5	1
1.5	4.1	572B41P5E	576B41P5E	2
2.2	5.8	572B42P2	576B42P2	2
4	9.5	572B44P0	576B44P0	2
5.5	14	572B45P5	576B45P5	3
7.5	18	572B47P5	576B47P5	3
11	25	572B4011	-	3

QD:NEO RANGE

200-240V 1 PHASE SUPPLY

Motor Power (kW)	Output Current (Amps)	Fenner Part Number		Frame Size
		IP20	IP66	
0.75	4.3	572N20P7	-	2
1.5	7.0	572N21P5	-	2
2.2	10.5	572N22P2	-	2

380-480V 3 PHASE SUPPLY

Motor Power (kW)	Output Current (Amps)	Fenner Part Number			Frame Size
		IP20	IP55	IP66	
0.75	2.2	572N40P7	-	576N40P7	2
1.5	4.1	572N41P5	-	576N41P5	2
2.2	5.8	572N42P2	-	576N42P2	2
4	9.5	572N44P0	-	576N44P0	2
5.5	14	572N45P5	-	576N45P5	3
7.5	18	572N47P5	-	576N47P5	3
11	25	572N4011	575N4011	-	3/4
15	30	-	575N4015	-	4
18.5	39	-	575N4018	-	4
22	46	-	575N4022	-	4
30	61	-	575N4030	-	5
37	72	-	575N4037	-	5
45	90	-	575N4045	-	6
55	110	-	575N4055	-	6
75	150	-	575N4075	-	6
90	180	-	575N4090	-	6
110	202	-	575N4110	-	7
132	240	-	575N4132	-	7
160	300	-	575N4160	-	7

QD:HVAC RANGE

200-240V 1 PHASE SUPPLY

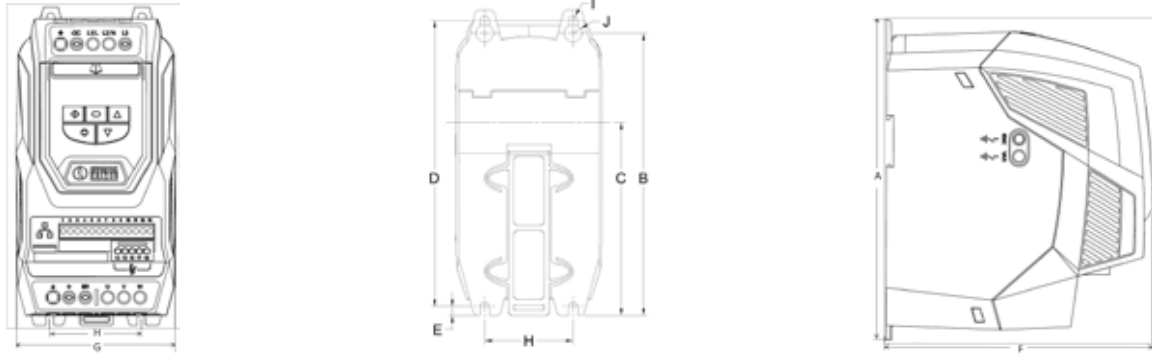
Motor Power (kW)	Output Current (Amps)	Fenner Part Number	Frame Size
		IP66 Only	
0.75	4.3	575F20P7	2
1.5	7.0	575F21P5	2
2.2	10.5	575F21P2	2

380-480V 3 PHASE SUPPLY

Motor Power (kW)	Output Current (Amps)	Fenner Part Number	Frame Size
		IP66 Only	
0.75	2.2	576F40P7	2
1.5	4.1	576F41P5	2
2.2	5.8	576F42P2	2
4	9.5	576F44P0	2
5.5	14.0	576F45P5	3
7.5	18.0	576F47P5	3
11.0	25.0	576F4011	4
15.0	30.0	576F4015	4
18.5	39.0	576F4018	4
22.0	46.0	576F4022	4
30.0	61.0	576F4030	5
37.0	72.0	576F4037	5
45.0	90.0	576F4045	5
55.0	110.0	576F4055	6
75.0	150.0	576F4075	6
90.0	180.0	576F4090	6
110.0	202.0	576F4110	6
132.0	240.0	576F4132	7
160.0	300.0	576F4160	7

Mechanical Dimensions QD:Neo

FENNER QD:NEO IP20

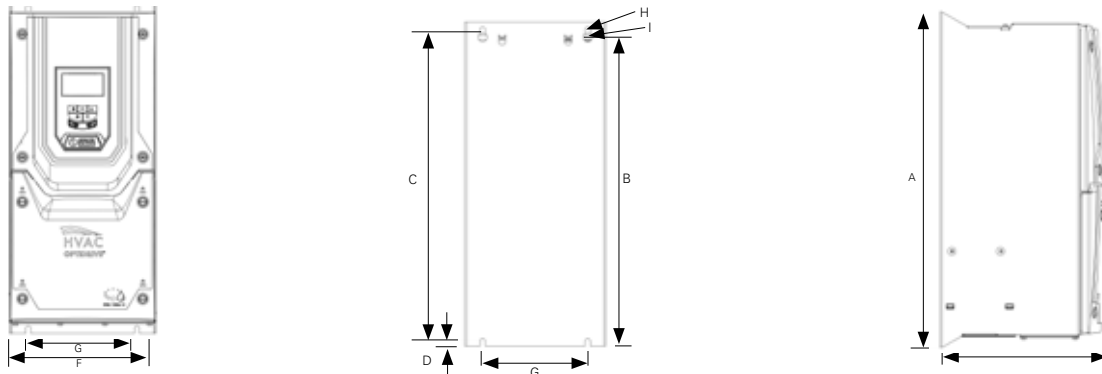


Drive Size	A		B		C		D		E		F		G		H		I		J	
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
2	221	8.70	207	8.15	137	5.39	209	8.23	5.3	0.21	185	5.91	112	4.29	63	2.48	5.5	0.22	10	0.39
3	261	10.28	246	9.69	-	-	247	9.72	6	0.24	205	6.89	131	5.16	80	3.15	5.5	0.22	10	0.39

Control terminal torque settings: All Sizes: 0.8Nm

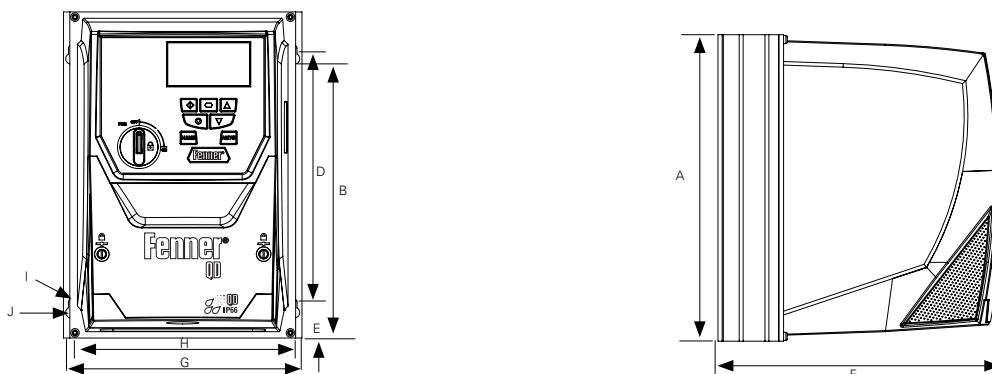
Power Terminal Torque Settings: All sizes: 1Nm

FENNER QD:NEO & QD:HVAC IP55



Drive Size	A		B		C		D		E		F		G		H		I	
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
4	450	17.32	428	16.46	433	16.65	8	0.315	252	9.449	171	6.732	110	4.331	4.25	0.167	7.5	0.295
5	540	21.26	515	20.28	520	20.47	8	0.315	270	10.63	235	9.252	175	6.89	4.25	0.167	7.5	0.295
6	865	34.06	830	32.68	840	33.07	10	0.394	330	12.99	330	12.99	200	7.874	5.5	0.217	11	0.433
7	1280	50.39	1245	49.02	1255	49.41	10	0.394	360	14.17	330	12.99	200	7.874	5.5	0.217	11	0.433

FENNER QD:NEO & QD:HVAC IP66



Drive Size	A		B		D		E		F		G		H		I		J	
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
2	257	10.1	220	8.67	200	7.9	29	1.1	238	9.37	188	7.4	176	6.9	4.2	0.2	8.5	0.3
3	310	12.2	277	10.9	252	9.9	33	1.3	256	10.1	211	8.3	198	7.8	4.2	0.2	8.5	0.3

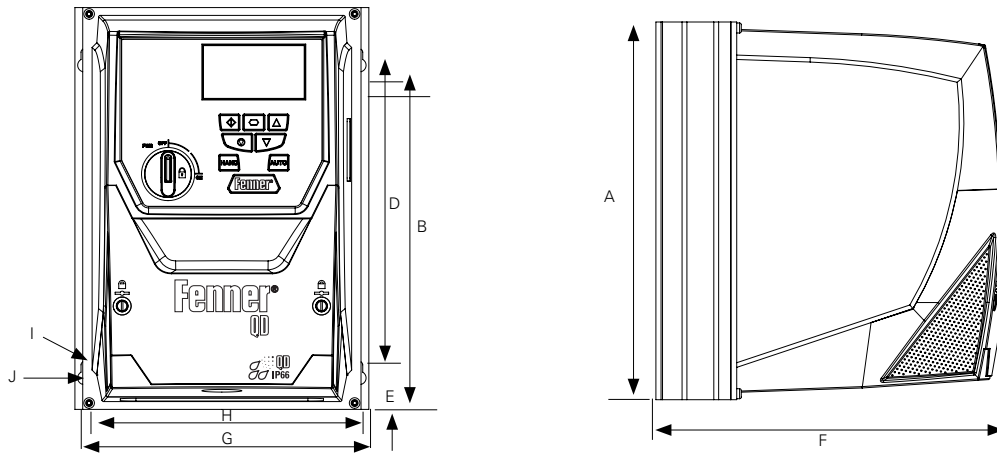
Control terminal torque settings: All Sizes: 0.8Nm

Power Terminal Torque Settings:

Frame Size 2: 1.2-1.5Nm

Mechanical Dimensions QD:HVAC

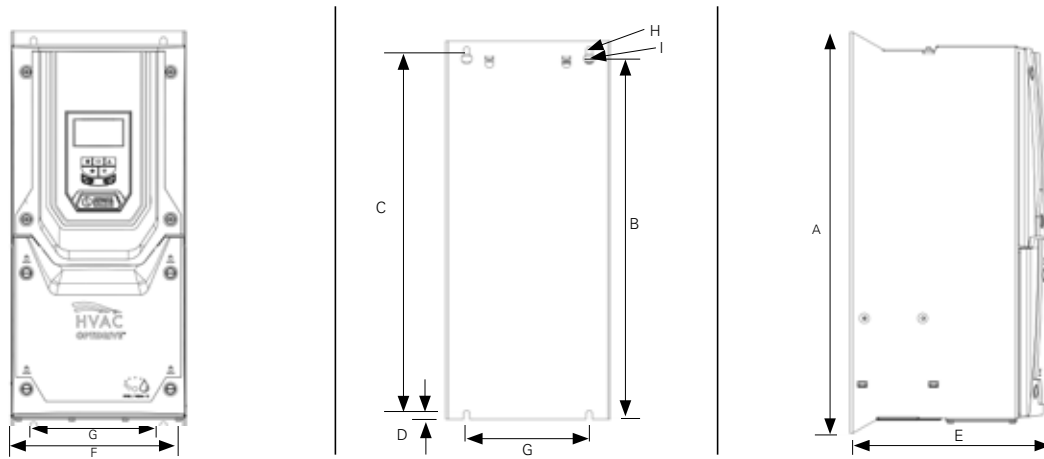
FENNER QD:HVAC & QD:NEO IP66



Drive Size	A		B		D		E		F		G		H		I		J	
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
2	257.0	10.12	220.0	8.67	200.0	1.12	28.5	1.12	238	9.37	188.0	7.4	176.0	6.93	4.2	0.17	8.5	0.33
3	310.0	12.20	276.5	10.89	251.5	9.90	33.4	1.31	256	10.08	210.5	8.29	197.5	7.78	4.2	0.17	8.5	0.33

Control terminal torque settings: All Sizes: 0.8Nm
 Power terminal torque settings: All Sizes: 1Nm

FENNER QD:HVAC & QD:NEO IP55

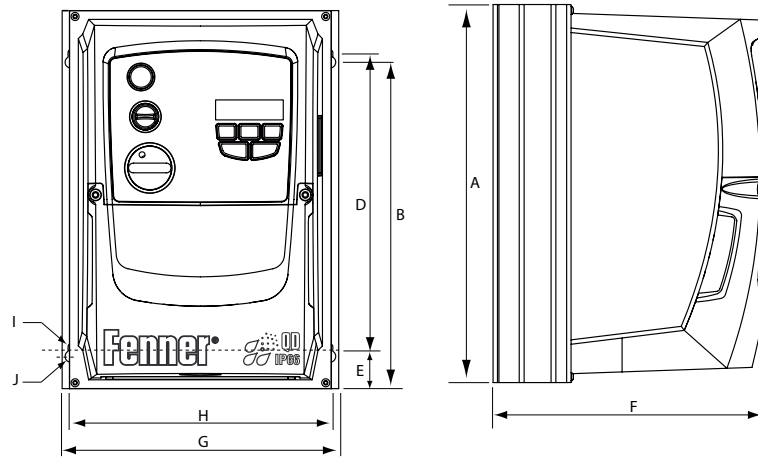


Drive Size	A		B		C		D		E		F		G		H		I	
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
4	440	17.32	418	16.46	423	16.65	8	0.315	230	9.06	173	6.81	110	4.33	4.25	0.167	7.5	0.295
5	540	21.26	515	20.28	520	20.47	8	0.315	270	10.63	235	9.25	175	6.89	4.25	0.167	7.5	0.295
6	865	34.06	830	32.68	840	33.07	10	0.394	340	13.39	290	11.42	200	7.87	5.5	0.217	11	0.433
7	1280	50.39	1245	49.02	1255	49.41	10	0.394	370	14.57	330	12.99	200	7.87	5.5	0.217	11	0.433

Control terminal torque settings: All sizes: 0.8Nm
 Power terminal torque settings: Frame size 4: 1.2-1.5Nm
 Frame size 5: 2.5 - 4.5Nm
 Frame size 6 & 7: 8Nm

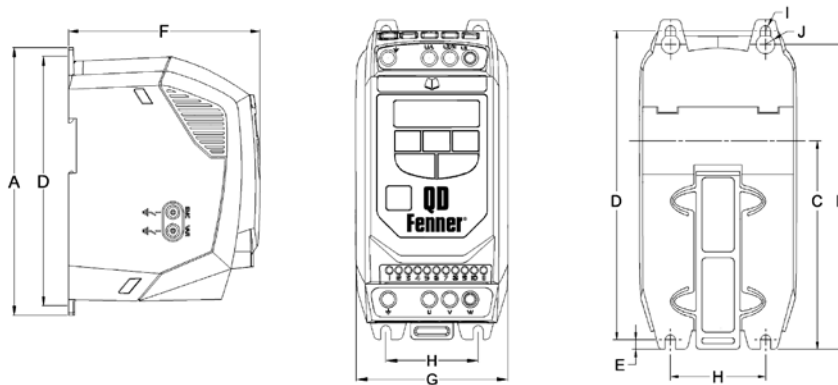
Mechanical Dimensions QD-E

FENNER QD:E IP66



Frame Size	A	B	C	D	E	F	G	H	ØI	ØJ	Weight
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg
1	232	207	-	189	25	175	161	148.5	4.0	8.0	2.8
2	257	220	-	200	28.5	186.5	188	176.0	4.2	8.4	4.6
3	310	276	-	251.5	33.4	228.7	210.5	197.5	4.2	8.4	7.4

FENNER QD:E IP20



Frame Size	A	B	C	D	E	F	G	H	ØI	ØJ	Weight
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg
1	173	160	109	162	5	123	82	50	5.5	10	1.1
2	221	207	137	209	5.3	150	109	63	5.5	10	2.6
3	261	246	*	247	6	175	131	80	5.5	10	4.0

* Size 3 does not have a DIN-rail mounting slot

QD Inverter Options

Description		QD:E	QD:Neo	QD:HVAC
QBrake Dynamic braking resistor for use with high inertia loads which need to be stopped rapidly				
Please note: the size 1 unit is not suitable for braking applications as it has no integral braking circuit				
572X1002	IP20; 100Ω, 200W, continuous 12kW peak for 0.125s - Sizes 2 & 3	●	●	
572X1002	IP20; 330Ω, 500W, continuous 12kW peak for 0.125s - Sizes 4,5 & 6	●	●	
572X1002E	IP55; 50Ω, 200W, continuous 12kW peak for 0.125s - Sizes 2 & 3	●	●	
QICHOKE - Input Chokes				
Reduce harmonic distortion and protect Fenner QD drives against harmful supply disturbances. Input chokes available for drive sizes 1-3. Sizes 4-6 include 3 phase line chokes as standard				
572X3011	IP20; Drive size 1, < 230V, single phase	●		
572X3031	IP20; Drive Size 1, < 500V, three phase	●		
572X3023	IP20; Drive Size 2, < 500V, three phase	●	●	●
572X3011E	IP55; Drive size 1, < 230V, single phase	●	●	
572X3012E	IP55; Drive size 2, < 230V, single phase	●	●	
572X3032E	IP55; Drive size 2, < 600V, three phase	●	●	
572X3033E	IP55; Drive size 3, < 600V, three phase	●	●	
QMCHOKE - Motor Chokes				
QM Motor Chokes improve the quality of the output waveform. In a small number of applications output filtering is strongly recommended to improve system functionality, reliability and longevity. Such applications include: long motor cables up to 200m, high capacitance motor cables; multiple motors connected in parallel; older motors without inverter grid insulation				
572X3113	IP20; Drive size 1, < 500V	●		
572X3133	IP20; Drive size 3, < 500V	●	●	●
572X3113E	IP55; Drive size 1, < 600V	●		
572X3123E	IP55; Drive size 2, < 600V	●	●	●
QRELAY-2 - QD:E Only				
Provides a programmable second relay output				
572X4002	QRELAY-2 Max switching voltage 250V AC, Max switching current 1A	●		
QMODULE - Encoder Module*				
The encoder feedback module is designed to provide closed loop speed control for the QD:NEO range.				
572X7001	QMODULE External encoder module (for closed loop operation)		●	
QPORT - Remote Keypad and Display				
QPort units act as a remote keypad and display for QD Drives on a network which have the same serial address. The physical layout and operation of the QPort keypad and display mimic the QD drive exactly				
572X0005	LED keypad and 3 metre cable	●	●	●
572X00007	OLED keypad and 3 metre cable	●	●	●
572X5600	I/O Expansion - provides extra 3 digital inputs and 1 N.O. relay		●	●
572X5601	Relay Expansion - provides extra 3 x N.O. relay outputs or Pump Cascade Expansion		●	●

QD Inverter Options

Description		QD:E	QD:Neo	QD:HVAC
QSplitter				
RS485 data cable splitter is an RJ11 or RJ45 1 to 2 way connection block				
572X2000	RJ45, 1-2 way	●	●	●
QAdaptor RS485 Communications Adaptor				
The QAdaptor is an isolated USB to RS485 communications adaptor designed for use with PC software studio				
572X2200	QAdaptor RS485	●	●	●
Data Cables				
572X2005	RJ45 to RJ45 RS485 data cable. 0.5 metres - blue	●	●	●
572X2010	RJ45 to RJ45 RS485 data cable. 1 metre - blue	●	●	●
572X2030	RJ45 to RJ45 RS485 data cable. 3 metre - blue	●	●	●
QSTICK Repeat Programming				
For accurate repeat programming, simply insert the QStick into the RJ45 slot on front of the QD drive with Bluetooth functionality.				
572X0006	QStick for QD:E Drives	●	●	●
Fieldbus Communications*				
Fenner QD Drives can communicate with existing networks with the use of the expansion cards				
572X8101	Profibus 9 way, D-type data cables		●	●
572X8102	DeviceNet 9 way, D-type data cables		●	●
572X8103	Ethernet TCP/IP with 9 way, D-type data cables		●	●

* Only 1 expansion module can be installed into the QD:Neo/QD:HVAC inverter

Options for QD:Inverters

QPORT REMOTE KEYPAD AND DISPLAY

OLED and LED QPorts are intelligent devices with a built in microcontroller.

Key Benefits

- Real time keypad & display operation mimics the Fenner Drive
- Single RJ45 electrical interface for power & data
- Communicates with up to 63 drives on a network
- Automatically connects to specified drive
- IP54 rated when mounted on a panel
- Parameter lock function available
- 3m Data Cable included
- Available with bright LED display (572X0005), or with Alpha-numeric OLED display (572X0007)



QBRAKE - DYNAMIC BRAKING RESISTORS

QBRAKE dynamic braking resistors are designed specifically for the Fenner QD range. For use with high inertia loads which need to be stopped rapidly. QBRAKE dynamic braking resistors assist the drive in managing the electrical energy returned from the motor during braking, by converting it to heat energy.

Key Benefits

- Fenner QD drive software protects the QBRAKE from overload, hence no need for expensive overload relays
- Internal fusible element ensures fail safe operation
- Connects to side of drive, using the heatsink of the drive to prevent overheating (FS 2 & 3)
- No space envelope penalty, fits on side of the drive
- Series/parallel arrangements for more demanding applications

