

## Fenner Inverters

### Quick Drive NEO (QD:NEO)

The QD:Neo is a high performance variable speed drive with sensorless vector control. Available in sizes up to 250 kW (480 Amps).



#### Technical Specifications

Input Ratings	Supply Voltage	200 – 240V ± 10% 380 – 480V ± 10% 500 – 600V ± 10%
	Supply Frequency (Hz)	48 – 62
	Displacement Power Factor	> 0.98
	Phase Imbalance	3% Maximum allowed
	Inrush Current	< rated current
	Power Cycles	120 per hour maximum, evenly spaced
Output Ratings	Output Power	230V 1 Phase: 0.75 – 2.2 kW 230V 3 Phase: 0.75 – 75 kW 400V 3 Phase: 0.75 – 250 kW 460V 3 Phase: 0.75 – 250 kW 575V 3 Phase: 0.75 – 110 kW
	Overload Capacity	150% for 60 seconds
	Output Frequency	0 – 500 Hz, 0.1 Hz resolution
	Acceleration Time	0.01 – 600 Seconds
	Deceleration Time	0.01 – 600 Seconds
	Typical Frequency	98%
	Ambient Conditions	Temperature
Altitude		Up to 1000m ASL without derating Up to 2000m maximum UL approved Up to 4000m maximum (non UL)
Humidity		95% Max, non-condensing
Vibration		Conforms to IEC 60068-2-6 Sinusoidal Vibration 10 - 57Hz @ 0.075mm Pk 57 - 150Hz @ 1g Pk

# Fenner®

Reliable | Trusted | Connected

[fptgroup.com](http://fptgroup.com)

Enclosure	Ingress Protection	IP20 / IP55 / IP66		
Programming	Keypad	Built-in keypad as standard Optional remote mountable keypad		
	Display	Built-in multi language text display		
	PC	QD Drive Designer		
Control Specification	Control Method	V/F Voltage Vector Energy Optimised V/F 3GV Sensorless Vector Speed Control 3GV Sensorless Vector Torque Control Closed Loop (Encoder) Speed Control Closed Loop (Encoder) Torque Control PM Vector Control BLDC Control Synchronous Reluctance		
	PWM Frequency	4 – 32 kHz Effective		
	Stopping Mode	Ramp to stop: User Adjustable 0.1 – 600 secs Coast to stop		
	Braking	Motor Flux Braking Built-in braking transistor		
	Skip Frequency	Single point, user adjustable		
	Setpoint Control	Analogue Signal	0 to 10 Volts 10 to 0 Volts 0 to 20 mA 20 to 0 mA 4 to 20 mA 20 to 4 mA	
		Digital	Motorised Potentiometer (Keypad) Modbus RTU CANopen	
Fieldbus	Built In	CANopen	125–1000 kbps	
		Modbus RTU	9.6–115.2 kbps selectable 8N1 / 8N2 / 8E1 / 8O1	
	Optional	Other	PROFIBUS DP (DPV1) PROFINET IO DeviceNet EtherNet/IP EtherCAT Modbus TCP	



Reliable | Trusted | Connected

# Data Sheet

I/O Specification	Power Supply	24 Volt DC, 100mA, Short Circuit Protected 10 Volt DC, 10mA for Potentiometer
	Programmable Inputs	5 Total as standard (Optional additional 3) 3 Digital (Optional additional 3) 2 Analog / Digital Selectable
	Digital Inputs	Up to 5 - Isolated 8 – 30 Volt DC, internal or external supply Response time < 4ms
	Analog Inputs	Resolution: 12 bits Response time: < 4ms Accuracy: < 1% full scale Parameter adjustable scaling and offset
	PTC Input	Motor PTC / Thermistor Input Trip Level : 3kΩ
	Programmable Outputs	4 Total (Optional additional 3) 2 Analog / Digital 2 Relays (Optional additional 3)
	Relay Outputs	Maximum Voltage: 250 VAC / 30 VDC Switching Current Capacity: 5A AC / 5A DC
	Analog Outputs	0 to 10 Volt 0 to 20mA 4 to 20mA
Application Features	PID Control	Internal PID Controller Multi Setpoint Select Standby / Sleep Mode Boost Function
	Hoist Mode	Dedicated Hoist Mode Motor Holding Brake Pre-Torque & Control Over Limit Protection
Maintenance & Diagnostics	Fault Memory	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
	Monitoring	Hours Run Meter Resettable & Non-Resettable kWh meters Cooling Fan Run Time
	Maintenance Indicator	With user adjustable maintenance interval Onboard service life monitoring



Reliable | Trusted | Connected

[fptgroup.com](http://fptgroup.com)

Standards Compliance	Low Voltage Directive	2014/35/EU
	EMC Directive	2014/30/EU
	Additional Conformance	UL / cUL / EAC / RCM
	Marine Certification	DNV Type Approval
	Environmental Conditions	Designed to meet IEC 60721-3-3, in operation: IP20 Drives: 3S2/3C2 IP55 & 66 Drives: 3S3/3C3
	Environmental Class	Conformal Coated PCBs. Suitable for use in the following environments: IP20: 3C2 / 3S2 IP55 & IP66: 3C3 / 3S3

# Fenner<sup>®</sup>

Reliable | Trusted | Connected

## IP20 Enclosures

QD:Neo IP20, 1Ph. Input, 3Ph. Output, 200-240V With EMC Filter / Brake Chopper / TFT Display					
Part Number	Frame Size	Output Current (Amps)	Power Rating (kW)	Weight (Kg)	Dimensions (mm) H x W x D
672N20P7A	2	4.3	0.75	1.8	221 x 110 x 185
672N21P5A	2	7	1.5	1.8	221 x 110 x 185
672N22P2A	2	10.5	2.2	1.8	221 x 110 x 185

QD:Neo IP20, 3Ph. Input, 3Ph. Output, 380-480V With EMC Filter / Brake Chopper / TFT Display					
Part Number	Frame Size	Output Current (Amps)	Power Rating (kW)	Weight (Kg)	Dimensions (mm) H x W x D
672N40P7A	2	2.2	0.75	1.8	221 x 110 x 185
672N41P5A	2	4.1	1.5	1.8	221 x 110 x 185
672N42P2A	2	5.8	2.2	1.8	221 x 110 x 185
672N44P0A	2	9.5	4	1.8	221 x 110 x 185
672N45P5A	3	14	5.5	3.5	261 x 131 x 205
672N47P5A	3	18	7.5	3.5	261 x 131 x 205
672N4011A	3	24	11	3.5	261 x 131 x 205
672N4015A	4	30	15	9.2	418 x 172 x 240
672N4018A	4	39	18.5	9.2	418 x 172 x 240
672N4022A	4	46	22	9.2	418 x 172 x 240
672N4030A	5	61	30	18,1	486 x 233 x 260
672N4037A	5	72	37	18,1	486 x 233 x 260
672N4045A	6A	90	45	32	614 x 286 x 320
672N4055A	6A	110	55	32	614 x 286 x 320
672N4075A	6B	150	75	43	726 x 330 x 320
672N4090A	6B	180	90	43	726 x 330 x 320
672N4110A	6B	202	110	43	726 x 330 x 320
672N4200A	8	370	200	124.5	974 x 444 x 423
672N4250A	8	480	250	124.5	974 x 444 x 423

# Fenner®

Reliable | Trusted | Connected

[fptgroup.com](http://fptgroup.com)

**QD:Neo IP20, 3Ph. Input, 3Ph. Output, 380-480V  
With High Performance EMC Filter / Brake Chopper / TFT Display**

Part Number	Frame Size	Output Current (Amps)	Power Rating (kW)	Weight (Kg)	Dimensions (mm) H x W x D
672N4200HA	8	370	200	124.5	974 x 444 x 423
672N4250HA	8	480	250	124.5	974 x 444 x 423

# Fenner<sup>®</sup>

Reliable | Trusted | Connected

## IP55 Enclosures

QD:Neo IP55, 3Ph. Input, 3Ph. Output, 380-480V With EMC Filter / Brake Chopper / TFT Display					
Part Number	Frame Size	Output Current (Amps)	Power Rating (kW)	Weight (Kg)	Dimensions (mm) H x W x D
675N4011A	4	24	11	11.5	450 x 171 x 252
675N4015A	4	30	15	11.5	450 x 171 x 252
675N4018A	4	39	18.5	11.5	450 x 171 x 252
675N4022A	4	46	22	11.5	450 x 171 x 252
675N4030A	5	61	30	23	540 x 235 x 270
675N4037A	5	72	37	23	540 x 235 x 270
675N4045A	6	90	45	55	865 x 330 x 332
675N4055A	6	110	55	55	865 x 330 x 332
675N4075A	6	150	75	55	865 x 330 x 332
675N4090A	6	180	90	55	865 x 330 x 332
675N4110A	7	202	110	89	1280 x 330 x 358
675N4132A	7	240	132	89	1280 x 330 x 358
675N4160A	7	302	160	89	1280 x 330 x 358
675N4200A	8	370	200	144	1334 x 444 x 423
675N4250A	8	480	250	144	1334 x 444 x 423

QD:Neo IP55, 3Ph. Input, 3Ph. Output, 380-480V With High Performance EMC Filter / Brake Chopper / TFT Display					
Part Number	Frame Size	Output Current (Amps)	Power Rating (kW)	Weight (Kg)	Dimensions (mm) H x W x D
675N4200HA	8	370	200	144	1334 x 444 x 423
675N4250HA	8	480	250	144	1334 x 444 x 423



Reliable | Trusted | Connected

## IP66 Outdoor Enclosures

### QD:Neo IP66 Non-Switched, 1Ph. Input, 3Ph. Output, 200-240V With EMC Filter / Brake Chopper / TFT Display

Part Number	Frame Size	Output Current (Amps)	Power Rating (kW)	Weight (Kg)	Dimensions (mm) H x W x D
676N20P7NA	2	4.3	0.75	3.5	257 x 188 x 172
676N21P5NA	2	7	1.5	3.5	257 x 188 x 172
676N22P2NA	2	10.5	2.2	3.5	257 x 188 x 172

### QD:Neo IP66 Non-Switched, 3Ph. Input, 3Ph. Output, 380-480V With EMC Filter / Brake Chopper / TFT Display

Part Number	Frame Size	Output Current (Amps)	Power Rating (kW)	Weight (Kg)	Dimensions (mm) H x W x D
676N40P7NA	2	2.2	0.75	3.5	257 x 188 x 172
676N41P5NA	2	4.1	1.5	3.5	257 x 188 x 172
676N42P2NA	2	5.8	2.2	3.5	257 x 188 x 172
676N44P0NA	2	9.5	4	3.5	257 x 188 x 172
676N45P5NA	3	14	5.5	6.6	310 x 211 x 225
676N47P5NA	3	18	7.5	6.6	310 x 211 x 225
676N4011NA	3	24	11	6.6	310 x 211 x 225
676N4015NA	4	30	15	9.5	360 x 240 x 261
676N4018NA	4	39	18.5	9.5	360 x 240 x 261
676N4022NA	4	46	22	9.5	360 x 240 x 261



Reliable | Trusted | Connected

**QD:Neo IP66 Switched, 1Ph. Input, 3Ph. Output, 200-240V  
With EMC Filter / Brake Chopper / TFT Display**

Part Number	Frame Size	Output Current (Amps)	Power Rating (kW)	Weight (Kg)	Dimensions (mm) H x W x D
676N20P7A	2	4.3	0.75	3.5	257 x 188 x 182
676N21P5A	2	7	1.5	3.5	257 x 188 x 182
676N22P2A	2	10.5	2.2	3.5	257 x 188 x 182

**QD:Neo IP66 Switched, 3Ph. Input, 3Ph. Output, 380-480V  
With EMC Filter / Brake Chopper / TFT Display**

Part Number	Frame Size	Output Current (Amps)	Power Rating (kW)	Weight (Kg)	Dimensions (mm) H x W x D
676N40P7A	2	2.2	0.75	3.5	257 x 188 x 182
676N41P5A	2	4.1	1.5	3.5	257 x 188 x 182
676N42P2A	2	5.8	2.2	3.5	257 x 188 x 182
676N44P0A	2	9.5	4	3.5	257 x 188 x 182
676N45P5A	3	14	5.5	6.6	310 x 211 x 235
676N47P5A	3	18	7.5	6.6	310 x 211 x 235
676N4011A	3	24	11	6.6	310 x 211 x 235
676N4015A	4	30	15	9.5	360 x 240 x 271
676N4018A	4	39	18.5	9.5	360 x 240 x 271
676N4022A	4	46	22	9.5	360 x 240 x 271



Reliable | Trusted | Connected