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Find the *Rockwell / Allen-Bradley 1615-AA04NPU* at our website: *Click HERE*

Bulletin 161

from Allen-Bradley



Ordering Information

Drive Ratings		Part Number		
Input Voltage	Output kW (HP)	Drive Catalog No.[1] (Series B)	1 Phase Filter No.[2]	3 Phase Filter No.[2]
100–120	0.2 (0.25)	161S-DA01NP_	161S-RFD-10-B	NA
100–120	0.4 (0.5)	161S-DA02NP_	161S-RFD-10-B	NA
100–120	0.75 (1.0)	161S-DA04NP_	161S-RFD-16-C	NA
200–240	0.2 (0.25)	161S-AA01NP_	161S-RFA-7-A	161-RFA-4-A
200–240	0.4 (0.5)	161S-AA02NP_	161S-RFA-7-A	161-RFA-4-A
200–240	0.55 (0.75)	161S-AA03NP_	161S-RFA-7-A	161-RFA-4-A
200–240	0.75 (1.0)	161S-AA04NP_	161S-RFA-12-B	161-RFA-7-B
200–240	1.1 (1.5)	161S-AA05NP_	161S-RFA-12-B	161-RFA-7-B
200–240	1.5 (2.0)	161S-AA07NP_	161S-RFA-22-C	161-RFA-20-C
200–240	2.2 (3.0)	161S-AA10NP_	161S-RFA-22-C	161-RFA-20-C
200–240	3.7 (5.0)	161S-AA15NP_	NA	161-RFA-20-C

[1]"K" for 50 Hz default setting or "U" for 60 Hz default setting to complete part number. e.g. 161S-AA04NPU is 200-240 input voltage, 0.75 kW (1.0 hp) with 60 Hz factory default settings.

[2]Filters are only used to assist in meeting "CE" requirements with Series B 161 Drives



For more information, please contact your local Allen-Bradley Distributor or Rockwell Automation sales office.

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Allen-Bradley

Bulletin 161 AC Drives
The BIG value small drive

Rockwell Automation

Bringing Together Leading Brands in Industrial Automation

The big value small drive

Allen-Bradley **Ideal for installation in machines and control panels, the 161 AC Drive provides exceptional value for a wide range of applications, all with the pure quality and reliability you'd expect from the world's leading drive manufacturer.**

Versatile Control

Analog, PID and preset speed control combined with five programmable inputs and four programmable outputs, make the 161 AC Drive an ideal choice for the control of 3-phase induction motors.

Easy to Use

With a fixed program keypad with built-in speed pot, 161 AC Drives are compact, easy to install and have a small adjustment set for ease of use.

Wide Range

The 161 AC Drive is available for control of 230V three-phase induction motors with the following output power and input voltage ratings:

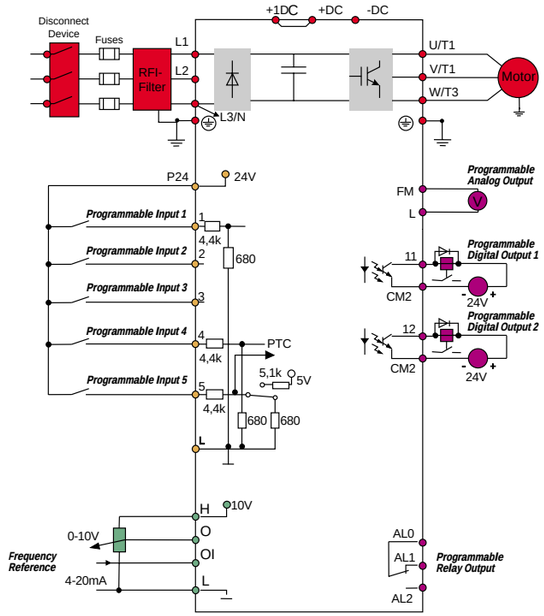
- 0.2 to 0.75 kW (0.25 to 1 hp), 100–120V single-phase input
- 0.2 to 2.2 kW (0.25 to 3 hp), 200–240V single- or three-phase input
- 3.7 kW (5 hp), 200–240V three-phase input



0.2 – 0.55 kW (0.25 – 0.75 hp)
1.5 – 3.7 kW (2.0 – 5.0 hp)
0.75 – 1.1 kW (1.0 – 1.5 hp)

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Input/Output Configuration



Power Terminals
- Power input/output
- DC Bus Terminals

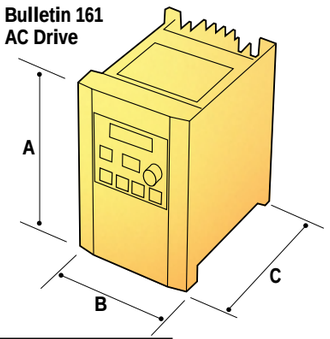
5 Programmable Inputs
- Forward run
- Reverse run
- Pre-set frequencies
- Frequency command select
- 2nd accel/decel time
- Enable
- External Fault
- Unintentional start protection
- Parameter protection
- Reset
- Jog
- PTC input
- Three-wire start
- Three-wire stop

4 Programmable Outputs[1]
- One Analog Output
  - Output frequency
  - Output current
- Two Digital Outputs
  - Running
  - At frequency
  - Above frequency
  - Motor overload
  - PID error
  - Fault
- One Relay Output
  - Ready
  - Fault

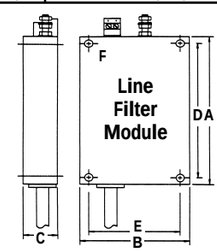
Frequency Reference
- 0-10V
- 4-20mA

Series	Bulletin 161							
Type	**-A01**	**-A02**	**-A03**	**-A04**	**-A05**	**-A07**	**-A10**	**-A15**
Drive rating kW (HP)	0.2 (.25)	0.4 (.5)	0.55 (.75)	0.75 (1)	1.1 (1.5)	1.5 (2)	2.2 (3)	3.7 (5)
115V Input rated current (A)	5.5	10.0	N/A	16.0	N/A	N/A	N/A	N/A
230V 1Φ Input rated current (A)	3.1	5.8	6.7	9.0	11.2	16.0	22.5	N/A
230V 3Φ Input rated current (A)	1.8	3.4	3.9	5.2	6.5	9.3	13.0	20.0
Output rated current (A)	1.4	2.6	3.0	4.0	5.0	7.1	10.0	15.9
Input voltage (V)	200V – 10% to 240V + 5%; 100V -5% to 120V + 5%, 50/60 Hz ± 5%							
Output voltage	3 Φ adjustable from 0 to 230V							
Enclosure type	IP20							
PWM carrier frequency	0.5 – 16kHz							
V/F characteristics	Programmable V/Hz ratio, V/Hz control (constant torque, variable torque)							
Type of control	Voltage-driven, PWM sine weighted, IGBT-Power module							
Output frequency	0.5 – 360Hz							
Accuracy of frequency command	Digital: ± 0.01% of max. frequency, Analog: ± 0.2% of maximum frequency							
Frequency resolution	Digital: 0.1%, Analog: 0.01% of maximum frequency							
Overload capacity	150% for 60 secs							
Starting torque	Minimum 150% at frequencies > 3 Hz							
Inherent Braking Torque	A01...A04: 100% A05...A07: 70% A10...A015: 20% (Approximate, actual values depend on motor characteristics)							
DC brake/hold	DC injection at 10 Hz or below with programmable hold voltage and hold time							
Analog inputs	0–10V, input impedance 10KΩ; 4–20 mA, input impedance 250KΩ; PTC input							
Digital inputs	5 programmable level-triggered inputs, 24V PNP logic, NO contacts or NC contacts							
Analog outputs	1 programmable analog output. 0–10V, 1mA, Accuracy: ± 5% for frequency, ± 20% for current.							
Digital outputs	2 open collector outputs. 27VDC, 50mA							
Protection functions	Overcurrent, overvoltage, under-voltage, electronic motor overload protection, overtemperature, ground fault at start, etc.							
Other functions	15 preset speeds, PID control, unintentional start protection, RS422 serial interface, 3 skip frequencies etc.							
Ambient temperature	-10 – +40˚C (up to +50˚C by removing top cover, reducing carrier frequency to 2 kHz, and derating output current by 20%).							
Relative humidity	20 –90% relative humidity, no condensation.							
Vibration/shock	Vibration: 0.6G operational, Shock: 10.0G operational							
Max. installation altitude	1060m (3000 ft.) above sea level							
Standards	LV: EN50178 EMC: 61800-3 external filter required							

Dimensions (Series B)



RATINGS Input Voltage	RATINGS Output kW (HP)	161S Part Number	A	B	C
100–120	0.2 (0.25)	**DA01NP**	130(5.12)	128(5.04)	117(4.61)
100–120	0.4 (0.5)	**DA02NP**	130(5.12)	128(5.04)	117(4.61)
100–120	0.75 (1.0)	**DA04NP**	180(7.09)	128(5.04)	117(4.61)
200–240	0.2 (0.25)	**AA01NP**	120(4.72)	84(3.31)	100(3.94)
200–240	0.4 (0.5)	**AA02NP**	120(4.72)	84(3.31)	114(4.49)
200–240	0.55 (0.75)	**AA03NP**	120(4.72)	84(3.31)	114(4.49)
200–240	0.75 (1.0)	**AA04NP**	130(5.12)	114(4.49)	136(5.35)
200–240	1.1 (1.5)	**AA05NP**	130(5.12)	114(4.49)	136(5.35)
200–240	1.5 (2.0)	**AA07NP**	180(7.09)	140(5.51)	160(6.30)
200–240	2.2 (3.0)	**AA10NP**	180(7.09)	140(5.51)	171(6.73)
200–240	3.7 (5.0)	**AA15NP**	180(7.09)	140(5.51)	171(6.73)



Line Filter Module[1]	A	B	C	D	E	F
161S-RFD-10-B	130(5.12)	128(5.04)	27(1.06)	118(4.65)	119(4.69)	4 x 6(.24)
161S-RFD-16-C	180(7.09)	128(5.04)	27(1.06)	168(6.61)	119(4.69)	4 x 6(.24)
161S-RFA-7-A	120(4.72)	80(3.15)	25(.98)	110(4.33)	67(2.64)	2 x 6(.24)
161S-RFA-12-B	130(5.12)	110(4.33)	27(1.06)	118(4.65)	98(3.86)	4 x 6(.24)
161S-RFA-22-C	180(7.09)	140(5.51)	29(1.14)	168(6.61)	128(5.04)	4 x 6(.24)
161-RFA-4-A	120(4.72)	80(3.15)	25(.98)	110(4.33)	67(2.64)	2 x 6(.24)
161-RFA-7-B	130(5.12)	110(4.33)	27(1.06)	118(4.65)	98(3.86)	4 x 6(.24)
161-RFA-20-C	180(7.09)	140(5.51)	29(1.14)	168(6.61)	128(5.04)	4 x 6(.24)

[1]Filters are only used to assist in meeting "CE" requirements with Series B 161 Drives

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