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Maracanã Stadium  
Photo by Erico Maranhão / Governo do Rio de Janeiro - Portal da Coréia

# CFW701

## Variable Speed Drive for HVAC-R Systems



Special functions of an inverter with a wide range of powers, ideal for HVACR applications.

### Characteristics

- Power supply: 200-600 V
- Rated currents: 2.9 to 211 A (2.0 to 175 HP)
- IP20, IP21, NEMA1 or IP55 degree of protection
- Special functions:
  - Energy saving
  - Dry pump - protection of the pump in case of lack of water and signals the fault
  - The protection against short circuits increases the useful life of compressors
  - Bypass - the motor can be directly driven through the power line
  - Fire mode - when activated, the protections are disabled and the inverter continues to operate even under adverse conditions. Ideal for applications in fume extraction
  - SoftPLC - the functionalities of a PLC added to the CFW701 HVAC-R
  - Sleep mode - the motor is prevented from operating at low speeds for long periods, increasing the system useful life

- RFI filter
- Inductor on the DC link
- Operating interface (HMI) with specific units for HVAC applications
- BACnet, Metasys N2 and Modbus-RTU communication protocols
- Free WLP and SuperDrive G2 programming software
- Built-in USB communication port

### Certifications



Note: designed for exclusive industrial or professional use.

# Specification

## Standard Version

CFW701 HVAC-R variable speed drive <sup>2)</sup>					Maximum applicable motor <sup>1)</sup>									
Reference	Power supply (V)		Frame size	Braking IGBT	Rated output current (A)	IEC				UL				
					ND	Power supply (V) 50 Hz	kW	Power supply (V) 60 Hz	HP	Power supply (V) 60 Hz	HP			
CFW701A06P0S2DB20C3	Single-phase	200-240	A	Built-in	6.0	230	1.5	220	2.0	230	1.5			
CFW701A07P0S2DB20C3					7.0						1.5	2.0	2.0	
CFW701A10P0S2DB20C3					10						2.2	3.0	3.0	
CFW701A07P0T2DB20C3	Three-phase	200-240	A		7.0						1.5	2.0	2.0	
CFW701A10P0T2DB20C3					10						2.2	3.0	3.0	
CFW701A13P0T2DB20C3					13						3.0	4.0	3.0	
CFW701A16P0T2DB20C3					16						4.0	5.0	5.0	
CFW701B24P0T2DB20C3					B						24	5.5	7.5	7.5
CFW701B28P0T2DB20C3											28	7.5	10	10
CFW701B33P5T2DB20C3			C		33.5						9.2	12.5	10	
CFW701C45P0T2DB20C3					45						11	15	15	
CFW701C54P0T2DB20C3					54						15	20	20	
CFW701C70P0T2DB20C3					70						18.5	25	25	
CFW701D86P0T2DBN1C3					D						86	22	30	30
CFW701D0105T2DBN1C3											105	30	40	40
CFW701E0142T2DB20C3	E	Not included <sup>3)</sup>	142	37	50	50								
CFW701E0180T2DB20C3			180	45	60	60								
CFW701E0211T2DB20C3			211	55	75	75								
CFW701E0142T2NB20C3			142	37	50	50								
CFW701E0180T2NB20C3			180	45	60	60								
CFW701E0211T2NB20C3			211	55	75	75								
CFW701A03P6T4DB20C3	Three-phase	380-480	A	Not available	3.6	415	1.5	460	2.0	460	2.0			
CFW701A05P0T4DB20C3					5.0						2.2	3.0	3.0	
CFW701A07P0T4DB20C3					7.0						3.0	5.0	3.0	
CFW701A10P0T4DB20C3					10						4.0	7.5	5.0	
CFW701A13P5T4DB20C3					13.5						5.5	10	7.5	
CFW701B17P0T4DB20C3					B						17	9.2	10	10
CFW701B24P0T4DB20C3			24								11	20	15	
CFW701B31P0T4DB20C3			31								15	25	20	
CFW701C38P0T4DB20C3			C		38						18.5	30	25	
CFW701C45P0T4DB20C3					45						22	30	30	
CFW701C58P5T4DB20C3					D						58.5	30	50	40
CFW701D70P5T4DBN1C3			70.5								37	60	50	
CFW701D88P0T4DBN1C3			88								45	75	60	
CFW701E0105T4DB20C3			105								55	75	75	
CFW701E0142T4DB20C3			142								75	125	100	
CFW701E0180T4DB20C3			180	90		150	150							
CFW701E0211T4DB20C3			E	Not included <sup>3)</sup>	211	110	150	150						
CFW701E0105T4NB20C3					105	55	75	75						
CFW701E0142T4NB20C3					142	75	125	100						
CFW701E0180T4NB20C3					180	90	150	150						
CFW701E0211T4NB20C3					211	110	150	150						

Notes: 1) Motor powers are reference values, valid for WEG W22 IE2 or HGF (higher power) 4-pole motors with frequency of 60 Hz, voltage of 220, 380 or 575 V. The proper sizing must be always determined according to the rated current of the motor, which must be lower than or equal to the inverter rated output current. ND = Normal duty; for operation in HD = heavy duty, refer to the user's manual.

2) All CFW701 models come with RFI filter included.

3) The braking IGBT on frame E may be internally mounted by including DB in the smart code or externally mounted by leaving the field blank in the smart code and using the DBW03.

# Specification

## Standard Version

CFW701 HVAC-R variable speed drive <sup>2)</sup>					Maximum applicable motor <sup>1)</sup>						
Reference	Power supply (V)		Frame size	Braking IGBT	Rated output current (A)	IEC				UL	
					ND	Power supply (V) 50 Hz	kW	Power supply (V) 60 Hz	HP	Power supply (V) 60 Hz	HP
CFW701B02P9T5DB20C3	Three-phase	500-600	B	Built-in	2.9	525	1.5	575	2.0	575	2.0
CFW701B04P2T5DB20C3					4.2		2.2		3.0		3.0
CFW701B07P0T5DB20C3					7.0		4.0		5.0		5.0
CFW701B10P0T5DB20C3					10		5.5		7.5		7.5
CFW701B12P0T5DB20C3					12		7.5		10		10
CFW701B17P0T5DB20C3					17		11		15		15
CFW701D22P0T5DBN1C3					22		15		20		20
CFW701D27P0T5DBN1C3			27		18.5		25		25		
CFW701D32P0T5DBN1C3			32		22		30		30		
CFW701D44P0T5DBN1C3			44		30		40		40		
CFW701E53P0T5DB20C3			53		37		50		50		
CFW701E63P0T5DB20C3			63		45		60		60		
CFW701E80P0T5DB20C3			80		55		75		75		
CFW701E107T5DB20C3			107		75		100		100		
CFW701E125T5DB20C3			125	90	125	125					
CFW701E150T5DB20C3			150	110	150	150					
CFW701E53P0T5NB20C3			E	Not included <sup>3)</sup>	53	37	50	50			
CFW701E63P0T5NB20C3					63	45	60	60			
CFW701E80P0T5NB20C3					80	55	75	75			
CFW701E107T5NB20C3					107	75	100	100			
CFW701E125T5NB20C3	125	90			125	125					
CFW701E150T5NB20C3	150	110			150	150					

Notes: 1) Motor powers are reference values, valid for WEG W22 IE2 or HGF (higher power) 4-pole motors with frequency of 60 Hz, voltage of 220, 380 or 575 V. The proper sizing must be always determined according to the rated current of the motor, which must be lower than or equal to the inverter rated output current. ND = Normal duty; Option in HD=Heavy duty available; refer to the user's manual to check the available power ranges.

2) All CFW701 models come with RFI filter included.

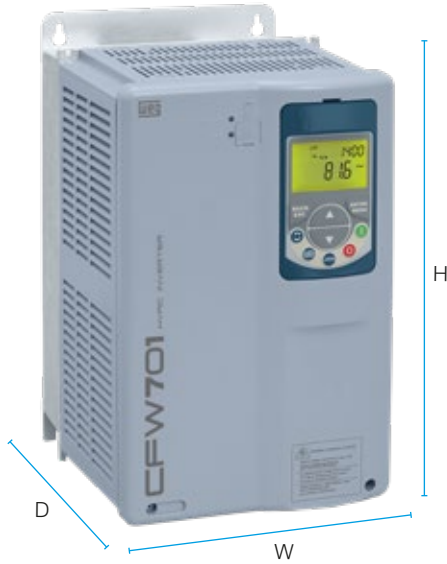
3) The braking IGBT on frame E may be internally mounted by including DB in the smart code or externally mounted by leaving the field blank in the smart code and using the DBW03.



# Dimensions

## CFW701

IP20 Models



IP55 / NEMA12 Models



Frame	H mm (in) <sup>3)</sup>			W mm (in)		D mm (in)			Weight kg (lb)		
	IP20	NEMA1	IP55	IP20 / NEMA1	IP55	IP20 / NEMA1	IP55 <sup>4)</sup>		IP20	NEMA1	IP55
							P1	P2			
A	270 (10.61)	305 (12.02)	-	145 (5.71)	-	227 (8.94)	-	-	6.3 (13.9)	7.1 (15.7)	-
B	316 (12.43)	351 (13.82)	529 (20.83)	190 (7.46)	273 (10.75)	227 (8.94)	237 (9.33)	279.1 (10.99)	10.4 (22.9)	11.3 (24.9)	17 (37.4)
C	405 (15.95)	448.1 (17.64)	670 (26.38)	220 (8.67)	307 (12.09)	293 (11.52)	306 (12.05)	348.1 (13.7)	20.5 (45.2)	21.4 (47.2)	30 (66.1)
D	-	550 (21.63)	754 (29.69)	300 (11.81)	375 (14.76)	305 (12.0)	301.3 (11.86)	338.6 (13.33)	-	32.6 (71.8)	49 (108.02)
E	675 (26.6)	<sup>1)</sup>	1.000 (39.37)	335 (13.2)	430 (16.93)	358 (14.1)	388.8 (15.31)	419 (16.5)	65 (143.3)	<sup>2)</sup>	96 (211.64)

Notes: 1) Height 735 (28.94) = 0142 T2, 0105 T4, 0142 T4 and all T5 models. Height 828.9 (32.63) = 0180 T2 / T4, 0211 T2 / T4.  
 2) Weight 67.12 (147.97) = 0142 T2, 0105 T4, 0142 T4 and all T5 models. Weight 69.3 (152.78) = 0180 T2 / T4, 0211 T2 / T4.  
 3) The height does not take into account the grounding connection terminals.  
 4) P1= Without disconnecting switch. P2= With disconnecting switch.

