

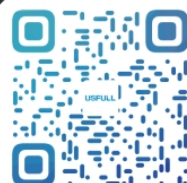
USFULL[®]

ZHEJIANG FULLWILL ELECTRIC CO., LTD.

Variable Frequency Drive

www.usfull.com

www.usfull.net



Website



ZHEJIANG FULLWILL ELECTRIC CO., LTD.

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Innovation



Services



Quality



Sincerity

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Full of confidence, Will only offer satisfactory quality.

Zhejiang Fullwill Electric Co., Ltd.(USFULL), established in 2005, is a national high-tech enterprise.

USFULL manufactures solar and low-voltage electrical products such as inverters, combiner boxes, circuit breakers, and contactors.

We are dedicated to offering customized solutions to make users happier.

R&D



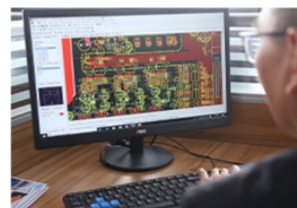
Strong R&D Team



Fast Sample Providing Ability



Hardware Engineering Team



Customize Design Working Group

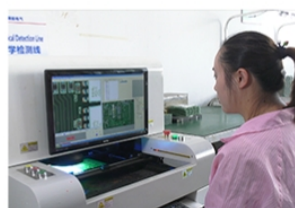
PRODUCTION BASE



High Management Standard



Whole Procedure Quality Control



Advanced Detection Equipments



Highly-automated Production Line

USFULL[®]

GENERAL HEAVY-LOAD VECTOR VFD

FU9000D Series

***0.75kW
to 630kW***

***Induction Motor
& Synchronous Motor***

***Modbus-RTU
Profibus-DP
Profinet***





- * Open loop V/F & SVC control
- * Closed loop FVC control
- * Starting torque
 - 150% at 0.5 Hz for SVC
 - 180% at 0 Hz for FVC
- * Communication options:
 - Modbus-RTU RS485
 - Profibus-DP
 - Profinet
- * Automatic torque boost
- * Slip compensation
- * Simplified parameter for easy startup
- * Flexible programmable I/O connection
- * User programmable function
- * Variable DC-injection braking
- * Comprehensive trip diagnostic
- * Output frequency 500 Hz
- * Built-in dynamic braking unit



Food Processing Machine

- * Food processing
- * Fruit processing
- * Milling machine
- * Grinding machine



Pumps

- * Fan equipment
- * Industrial pump
- * Water treatment
- * Centrifugal equipment



Oil Production

- * Oil equipment
- * Mining equipment
- * Transmission equipment
- * Crane



HVAC

- * Air compressor
- * Cable machine
- * CNC machine
- * Mixing machine
- ...

FU9000 D - 5R5 G - 4
 Product Code
 Series Code
 Voltage Degree
 S2: AC 1PH 220V
 2: AC 3PH 220V
 4: AC 3PH 380V
 G: Constant Torque Load
 Power Code
 5R5: 5.5kW



USFULL



Model: FU9000D-5R5G-4

IP20

Power: 5.5kW

Input: AC 3PH 380V-480V 14.7A 47Hz-63Hz

Output: AC 3PH 0V-Uinput 13A 0Hz-500Hz

S/N:

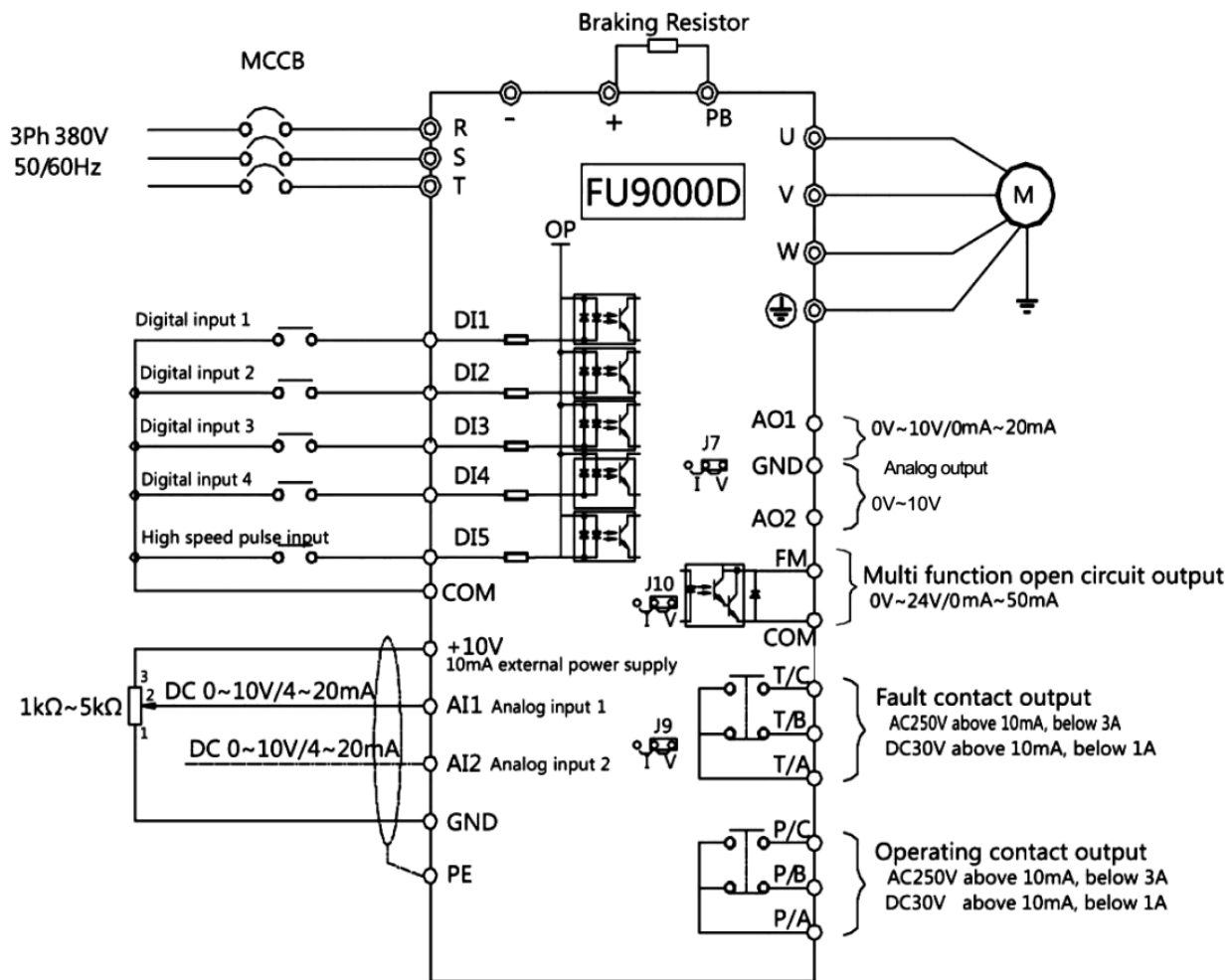
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MODEL	INPUT VOLTAGE	RATED POWER (kW)	HORSE POWER (HP)	RATED INPUT CURRENT (A)	RATED OUTPUT CURRENT (A)
FU9000D-0R7G-S2	1PH 220V-240V	0.75	1	8.2	4
FU9000D-1R5G-S2		1.5	2	14	7
FU9000D-2R2G-S2		2.2	3	23	9.6
FU9000D-0R7G-2	3PH 220V-240V	0.75	1	4.5	4
FU9000D-1R5G-2		1.5	2	8	7
FU9000D-2R2G-2		2.2	3	11	10
FU9000D-004G-2		4	5	14.6	13
FU9000D-5R5G-2		5.5	7.5	26	25
FU9000D-7R5G-2		7.5	10	35	32
FU9000D-011G-2		11	15	46.5	45
FU9000D-015G-2		15	20	62	60
FU9000D-018G-2		18.5	25	76	75
FU9000D-022G-2		22	30	92	91
FU9000D-030G-2		30	40	113	112
FU9000D-037G-2		37	50	157	150
FU9000D-045G-2		45	60	180	176
FU9000D-055G-2		55	75	214	210
FU9000D-075G-2		75	100	307	304
FU9000D-0R7G-4	3PH 380V-480V	0.75	1	3.4	2.5
FU9000D-1R5G-4		1.5	2	5	3.7
FU9000D-2R2G-4		2.2	3	5.8	5
FU9000D-004G-4		4.0	5	10.5	9
FU9000D-5R5G-4		5.5	7.5	14.6	13
FU9000D-7R5G-4		7.5	10	20.5	17
FU9000D-011G-4		11	15	26	25
FU9000D-015G-4		15	20	35	32
FU9000D-018G-4		18.5	25	38.5	37
FU9000D-022G-4		22	30	46.5	45
FU9000D-030G-4		30	40	62	60
FU9000D-037G-4		37	50	76	75
FU9000D-045G-4		45	60	92	91
FU9000D-055G-4		55	75	113	112
FU9000D-075G-4		75	100	157	150
FU9000D-090G-4		90	120	180	176
FU9000D-110G-4		110	150	214	210
FU9000D-132G-4		132	180	256	253
FU9000D-160G-4		160	220	307	304
FU9000D-185G-4		185	250	340	330
FU9000D-200G-4		200	300	385	377
FU9000D-220G-4		220	300	430	426
FU9000D-250G-4		250	330	468	465
FU9000D-280G-4		280	370	525	520
FU9000D-315G-4		315	420	590	585
FU9000D-350G-4		350	460	665	650
FU9000D-400G-4		400	530	785	725
FU9000A-450G-4		450	600	820	782
FU9000A-500G-4		500	670	883	820
FU9000A-630G-4		630	850	1080	1000

Wiring of AC Drive Control Circuit



Wiring of AC Drive Control Circuit

AI analog input terminal:

Weak analog voltage signal is easy to be disrupted by external factors, generally shield cable is needed (and as short as possible, less than 20 meters).

If facing severe disruption, the analog signal side need filter capacitor or ferrite core.

USFULL VFD Expansion Board



RS 485 Board



Profibus-DP Board

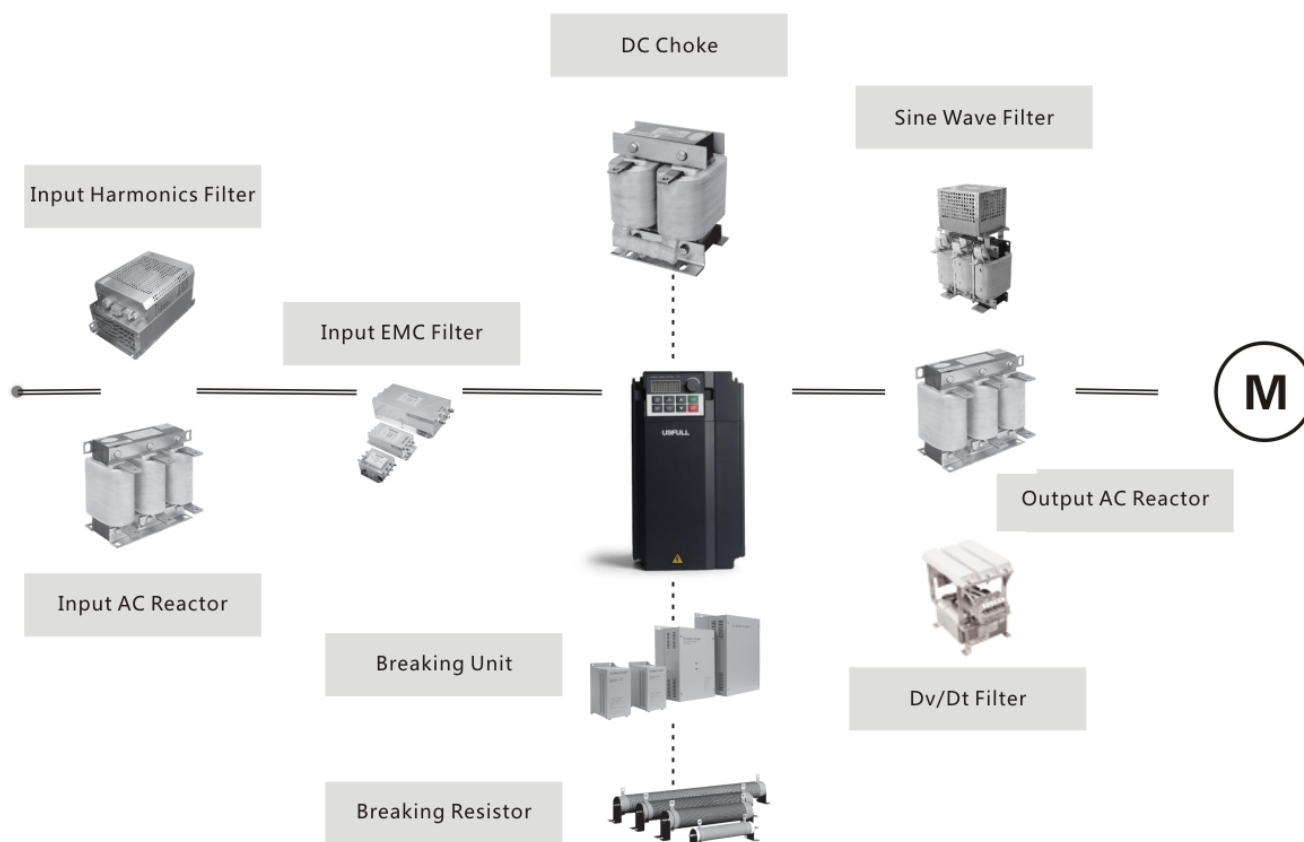


Profinet Board



Encoder Board

USFULL Complete VFD Control System Customization



FU9000MD Mini Type Inverter

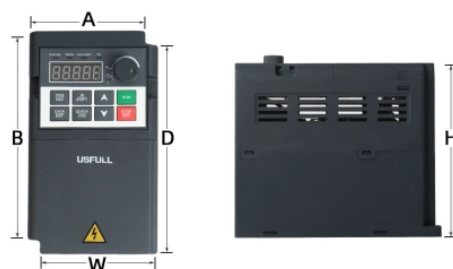
Mini Size
High Performance



Easy Installation

Specification

MODEL	RATED POWER		RATED INPUT CURRENT(A)	RATED OUTPUT CURRENT(A)
	kW	HP		
Input: single phase 220V, Output: three phase 220V				
FU9000MD-0R7G-S2	0.75	1	8.2	4
FU9000MD-1R5G-S2	1.5	2	14	7
FU9000MD-2R2G-S2	2.2	3	23	10
Input: three phase 220V, Output: three phase 220V				
FU9000MD-0R7G-2	0.75	1	5	4.5
FU9000MD-1R5G-2	1.5	2	7.7	7
Three phase 380V				
FU9000MD-0R7G-4	0.75	1	3.4	2.1
FU9000MD-1R5G-4	1.5	2	5	3.8
FU9000MD-2R2G-4	2.2	3	5.5	5.1



MODEL	MOUNTING HOLE MM		DIMENSIONS MM			INSTALLATION APERTURE MM	WEIGHT KG
	A	B	H	W	D		
FU9000MD	81.4	147.2	156	90.2	131.3	0.40	/

FU9000H Crane and Hoist Solution

Save Energy

Easy to Control

Anti-sway Control



USFULL

CE

Model: FU9000H-5R5G-4

IP20

Power: 5.5kW

Input: AC 3PH 380V-480V 14.7A 47Hz-63Hz

Output: AC 3PH 0V-Uinput 13A 0Hz-500Hz

S/N:

Made in China

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Features

USFULL crane VFD is a special hoist and crane inverter for crane loads, which is widely used in lifting applications, like electric hoists, mine hoists, winches, translation mechanisms of gantry or bridge cranes, and other occasions.



Application



Hoist



Gantry Crane



Overhead Crane

FU9000C Air Compressor Solution



USFULL

CE

Model: FU9000C-5R5G-4

IP20

Power: 5.5kW

Input: AC 3PH 380V-480V 14.7A 47Hz-63Hz

Output: AC 3PH 0V-Uinput 13A 0Hz-500Hz

S/N:

Made in China

ZHEJIANG FULLWILL ELECTRIC CO., LTD.

Features

FU9000C series inverter has tailored control logic for air compressor, directly support the input of multiple signals like emergency stop, pressure, temperature, fault, etc.

It can realize the control to electromagnetic valve, supply 24V power to external touch screen, provide MODBUS communication port, match USFULL air compressor touch screen without external control or PLC.

While greatly simplifying the electrical system of air compressor, the solution achieves perfect frequency control.



Application



PMSM Compressor

Water Proof Solution



USFULL



Model: FU9000P-5R5G-4

IP20

Power: 5.5kW

Input: AC 3PH 380V-480V 14.7A 47Hz-63Hz

Output: AC 3PH 0V-Uinput 13A 0Hz-500Hz

S/N:

Made in China

ZHEJIANG FULLWILL ELECTRIC CO., LTD.

FU9000P pump vfd is widely used in water supply, supports constant pressure water supply, and supports multi-pump networking. USFULL waterproof inverter is widely used indoors and outdoors. The protection grade is IP65, waterproof and dust-proof. This appearance of vfd can be applied in general vfd as well.



Control Panel Case



USFULL offers solutions of the cabinet for various kinds of applications, with the mission of providing customized product solutions that make users happier.