

GD350-IP55 Series

High-protection Multi-function VFD



Goodrive350 -IP55

GD350-IP55 is INVT's latest high protection multifunction VFD. The IP55 protection rating provides the best protection experience for most harsh outdoor applications. GD350-IP55 also incorporates features such as ease of use, excellent performance, high scalability and wide usage. At the same time, an integrated AC switch also provides convenience and security for machine control and debugging.



Features

-  IP55 protection level
-  AC switch for safe control
-  Isolated air duct
-  Drive various motors
-  Strong scalability: support to insert 3 extension cards at the same time
-  Sectional cover design makes the wiring simple

Type Selection

GD350 - 004G/5R5P - 4 5 - AS - B

① ② ③ ④ ⑤ ⑥

Sign	Description	Remark
①	Abbreviation of product series	GD350: Goodrive350 high-performance multi-function VFD
②	Power range + Load type	004G/5R5P: 4kW G: Constant torque load P: Fan and water pump
③	Voltage level	4: AC 3PH 380(-15%)~440V(+10%)
④	Protection level	5: IP55 level
⑤	AC input switch	AS: Standard AC input switch NS: Without AC input switch
⑥	Brake unit	B: Optional built-in braking unit

Note:

Brake units have been built in the 37kW and lower VFD models as standard configuration.

Brake units are not standard configuration for the 45~110kW VFD models. (If you want to use braking units for these models, add suffix "-B" at the end of the model codes in your purchase orders, for example, GD350-045G/055P-45-AS-B.)

Application



Aquaculture farm



Water treatment



Fan

Power Ratings

Model	Constant torque				Variable torque			
	Power (kW)	Input current (A)	Output current (A)	Carrier (kHz)	Power (kW)	Input current (A)	Output current (A)	Carrier (kHz)
GD350-004G/5R5P-45-AS	4	13.5	9.5	8	5.5	19.5	12.5	4
GD350-004G/5R5P-45-NS	4	13.5	9.5	8	5.5	19.5	12.5	4
GD350-5R5G/7R5P-45-AS	5.5	19.5	14	8	7.5	23	17	4
GD350-5R5G/7R5P-45-NS	5.5	19.5	14	8	7.5	23	17	4
GD350-7R5G/011P-45-AS	7.5	25	18.5	8	11	30	23	4
GD350-7R5G/011P-45-NS	7.5	25	18.5	8	11	30	23	4
GD350-011G/015P-45-AS	11	32	25	8	15	40	32	4
GD350-011G/015P-45-NS	11	32	25	8	15	40	32	4
GD350-015G/018P-45-AS	15	40	32	4	18.5	45	38	2
GD350-015G/018P-45-NS	15	40	32	4	18.5	45	38	2
GD350-018G/022P-45-AS	18.5	45	38	4	22	51	45	2
GD350-018G/022P-45-NS	18.5	45	38	4	22	51	45	2
GD350-022G/030P-45-AS	22	51	45	4	30	64	60	2
GD350-022G/030P-45-NS	22	51	45	4	30	64	60	2
GD350-030G/037P-45-AS	30	64	60	4	37	80	75	2
GD350-030G/037P-45-NS	30	64	60	4	37	80	75	2
GD350-037G/045P-45-AS	37	80	75	4	45	98	92	2
GD350-037G/045P-45-NS	37	80	75	4	45	98	92	2
GD350-045G/055P-45-AS	45	100	92	4	55	128	115	2
GD350-045G/055P-45-NS	45	100	92	4	55	128	115	2
GD350-045G/055P-45-AS-B	45	100	92	4	55	128	115	2
GD350-045G/055P-45-NS-B	45	100	92	4	55	128	115	2
GD350-055G/075P-45-AS	55	128	115	4	75	139	150	2
GD350-055G/075P-45-NS	55	128	115	4	75	139	150	2
GD350-055G/075P-45-AS-B	55	128	115	4	75	139	150	2
GD350-055G/075P-45-NS-B	55	128	115	4	75	139	150	2
GD350-075G/090P-45-AS	75	139	150	2	90	168	170	2
GD350-075G/090P-45-NS	75	139	150	2	90	168	170	2
GD350-075G/090P-45-AS-B	75	139	150	2	90	168	170	2
GD350-075G/090P-45-NS-B	75	139	150	2	90	168	170	2
GD350-090G/110P-45-AS	90	168	180	2	110	201	215	2
GD350-090G/110P-45-NS	90	168	180	2	110	201	215	2
GD350-090G/110P-45-AS-B	90	168	180	2	110	201	215	2
GD350-090G/110P-45-NS-B	90	168	180	2	110	201	215	2
GD350-110G-45-AS	110	201	215	2	-	-	-	-
GD350-110G-45-NS	110	201	215	2	-	-	-	-
GD350-110G-45-AS-B	110	201	215	2	-	-	-	-
GD350-110G-45-NS-B	110	201	215	2	-	-	-	-

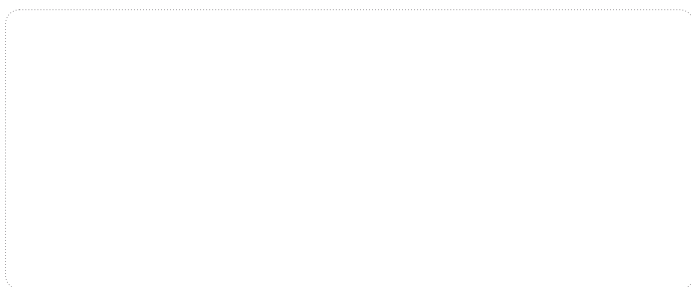
Size & Weight table

Model	Product size (H*W*D:mm)	Carton size (L*W*H:mm)	Net weight (Kg)	Gross weight (kg)
GD350-004G/5R5P-45-NS	428.5*196*227	550*290*375	8.5	10.5
GD350-5R5G/7R5P-45-NS				
GD350-7R5G/011P-45-NS	503.8*223*250.7	610*355*405	12.5	15
GD350-011G/015P-45-NS				
GD350-015G/018P-45-NS				
GD350-018G/022P-45-NS	551.5*274*246	685*390*430	20	23
GD350-022G/030P-45-NS				
GD350-030G/037P-45-NS	619*318*242.9	775*440*435	26.5	30
GD350-037G/045P-45-NS				
GD350-045G/055P-45-NS				
GD350-045G/055P-45-NS-B	829.8*338*289.7	1000*515*485	42.12	48.34
GD350-055G/075P-45-NS				
GD350-055G/075P-45-NS-B				
GD350-075G/090P-45-NS				
GD350-075G/090P-45-NS-B	825.3*370*335	945*480*600	63.65	82.45
GD350-090G/110P-45-NS				
GD350-090G/110P-45-NS-B				
GD350-110G-45-NS				
GD350-110G-45-NS-B				
GD350-004G/5R5P-45-AS	428.5*196*262.8	550*290*375	9	11
GD350-5R5G/7R5P-45-AS				
GD350-7R5G/011P-45-AS	503.8*223*289.4	610*355*405	13	16
GD350-011G/015P-45-AS				
GD350-015G/018P-45-AS				
GD350-018G/022P-45-AS	551.5*274*281.8	685*390*430	21	24.5
GD350-022G/030P-45-AS				
GD350-030G/037P-45-AS	619*318*290	775*440*435	27	31.5
GD350-037G/045P-45-AS				
GD350-045G/055P-45-AS				
GD350-045G/055P-45-AS-B	829.8*338*336.7	1000*515*485	48	55
GD350-055G/075P-45-AS				
GD350-055G/075P-45-AS-B				
GD350-075G/090P-45-AS				
GD350-075G/090P-45-AS-B	825.3*370*382	945*480*600	64	82.8
GD350-090G/110P-45-AS				
GD350-090G/110P-45-AS-B				
GD350-110G-45-AS				
GD350-110G-45-AS-B				

Product Specification

	Function description	Specification
Power input	Input voltage (V)	-4 model: 3PH 380V(-15%)~440V(+10%)
	Input current (A)	50Hz or 60Hz, allowable range: 47~63Hz
Power output	Output Voltage (V)	0~input voltage
	Output frequency (Hz)	0~599Hz
Technical control performance	Control mode	SVPWM control, SVC, VC
	Motor type	Asynchronous motor, permanent-magnet synchronous motor
	Speed regulation ratio	Asynchronous motor 1: 200 (SVC); Synchronous motor 1: 20 (SVC) , 1:1000 (VC)
	Speed control precision	±0.2%(SVC), ±0.02%(VC)
	Speed fluctuation	± 0.3%(SVC)
	Torque response	<20msSVC) , <10ms(VC)
	Torque control precision	10%(SVC) , 5%(VC)
	Starting torque	Asynchronous motor: 0.25Hz/150% (SVC) Synchronous motor: 2.5 Hz/150% (SVC) 0Hz/200% (VC)
Running control performance	Overload capacity	G type: 150%: 1min; 180%: 10s; 200%: 1s; P type: 120%: 1min;
	Frequency setup mode	Digital, analog, pulse frequency, multi-step speed running, simple PLC, PID, Modbus communication, PROFIBUS communication, etc. Realize switch-over between the set combination and the set channel
	Automatic voltage regulation function	Keep the output voltage constant when grid voltage changes
	Fault protection function	Provide over 30 kinds of fault protection functions: overcurrent, overvoltage, undervoltage, over-temperature, phase loss and overload, etc.
Peripheral interface	Speed tracking restart	Realize impact-free starting of the motor in rotating Note: This function is available for 004G/5R5P and above models
	Analog input	2
	Analog output	1
	Digital input	4 S terminal, 2 HDI
	Digital output	1 Y1, 1HDO
	Relay output	2 programmable relay output, NO/NC contact: RO1A, RO1B, RO1C RO2A, RO2B, RO2C
	Communication interface	1 RS485 (non-isolated), 1 USB
	STO input	2 redundant input
Optional cards	Expansion interface	Maximum 3 expansion interfaces:SLOT1, SLOT2, SLOT3
	Expansion I/O card	4 DI, 1 AI, 1 AO, 1 DO, 2 RO
	Communication card	Optional Profibus-DP, CANopen, Profinet, EtherCAT, Ethernet/IP, Modbus TCP etc.
	PG card	EC-PG503-05: 5V Differential Incremental EC-PG504-00: Resolver type PG card EC-PG505-12: 5V/12V Multifunctional Incremental EC-PG505-24B: 24V Incremental PG card EC-PG502: SIN/COS PG card EC-PG507-12: Multifunctional Incremental PG card
	Programmable card	PLC card, 1 AI, 6 DI, 1 AO, 2 Relay, 1 RS485
	Wireless communication	Bluetooth, WiFi, realize wireless communication
Others	Installation mode	Wall mounting, flange mounting
	Temperature	-10~50 °C (Derating is required if the ambient temperature exceeds40°C)
	Protection level	IP55
	Cooling mode	Forced air cooling
	Braking unit	37kW or below: standard built-in 45kW or above: optional built-in
	STO level	SIL2
	EMC filter	Conducted emissions of all models meet the requirements of C3 in the IEC/EN 61800-3 standard. The -AS models offers the 30m motor cable, meeting the C3 requirements. External filter is optional: Conducted emission can meet the requirements of C2 in the IEC/EN 61800-3 standard.
	Terminal Configuration	Default PNP connection mode

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66003-00241 202301(V1.2)