

GD800 Pro Series Engineering VFD



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Corporate Introduction

INVT (Shenzhen INVT Electric Co., Ltd) has been concentrating on industry automation and energy power since its foundation in 2002 and is committed to "Providing the best product and service to allow customers more competitiveness". INVT goes public in 2010 and is the first A-share listed company (002334) in Shenzhen Stock Exchange in the industry. At present, INVT owns 15 subsidiaries and more than 4000 employees, over 40 branches, forming a sales network covering more than 100 overseas countries and regions.

INVT has been awarded as the Key High-tech Enterprise of National Torch Plan based on mastering of key technologies in power electronics, auto control and IT. With business covering industry automation, electric vehicle, network power and rail transit, INVT has established 11 R&D centers nationwide, boasts more than 1300 patents and owns the first lab in the industry awarded ACT qualification from TÜV SÜD, UL-WTDP and CNAS National Lab. The industrial parks in

Shenzhen and Suzhou aim to provide customers with advanced integrated product development design management, comprehensive product R&D test and auto informational production. The worldwide INVT branches and warranty service centers are ready to offer customers all-around back-ups including professional solutions, technical trainings and service support.

In the next decade, INVT will continue to take "Honesty and Integrity, Professionalism and Excellence" as our business philosophy, enhance core business sectors including industrial automation, electric vehicle, network power and rail transit based on the three major technologies in industry automation and energy power fields, and strive to become a leading, responsible and harmonic international professional group armed with proper product structure, leading technologies, efficient management, robust profitability and superior competitiveness.

Industrial Park in Suzhou

Group's core industrial base and R&D center in East China



Industrial Park in Guangming Shenzhen

Group headquarters, new product development and new business incubation base



Product introduction



As an upgrade product of Goodrive800 Pro series engineering VFD, Goodrive800 Pro series engineering VFD inherits the high reliability feature of Goodrive800 platform, but achieves unit modularization, flexible cabinet configuration, more compact structure, easier installation and maintenance, and optimum protection.

- Excellent speed and torque control performance
- Modular design, as flexible as building blocks, making project integration simple and efficient
- Long-life component selection and fast fault recovery design to ensure efficient process control
- Ergonomic design to make installation and maintenance easier
- Enriched expansion capability to support various protection options

Drilling platform



Port hoisting



Paper making



Metallurgy



Oil rig



Mining



Technical parameters

Item		Specifications
Basic rectifier	Input voltage	4: 380–480VAC 3PH $\pm 10\%$, $-15\% < 1\text{min}$ 6: 520–690VAC 3PH $\pm 10\%$, $-15\% < 1\text{min}$
	Input frequency	47–63Hz
	Output voltage	Input voltage * 1.35
	Overload capacity	Light overload: 110% of ILD for 1 min every 5 min Heavy overload: 150% of IHD for 1 min every 5 min
	Work efficiency	$\geq 99\%$
	Power factor	≥ 0.95 (Basically at rated current)
Regenerative rectifier	Input voltage	4: 380–480VAC $\pm 10\%$, $-15\% < 1\text{min}$ 6: 520–690VAC $\pm 10\%$, $-15\% < 1\text{min}$
	Input frequency	47–63Hz
	Output voltage	Input voltage * 1.35
	Overload capacity	Light overload: 110% of ILD for 1 min every 5 min Heavy overload: 150% of IHD for 1 min every 5 min
	Work efficiency	$\geq 98\%$
	Power factor	≥ 0.95 (Basically at rated current)
Active rectifier	Input voltage	4: 380–480VAC 3PH $\pm 10\%$, $-15\% < 1\text{min}$ 6: 520–690VAC 3PH $\pm 10\%$, $-15\% < 1\text{min}$
	Input frequency	47–63Hz
	Output voltage	Input voltage * 1.5
	Overload capacity	Light overload: 110% of ILD for 1 min every 5 min Heavy overload: 150% of IHD for 1 min every 5 min
	Work efficiency	$\geq 97\%$
	Power factor	≥ 0.95 (at rated current)
Inverter	Input voltage	4: 510–720 VDC 3PH, $\pm 10\%$, $-15\% < 1\text{min}$ 6: 700–1035 VDC 3PH, $\pm 10\%$, $-15\% < 1\text{min}$
	Output frequency	0–400Hz
	Output voltage	0–0.7 * VDC
	Overload capacity	Light overload: 110% of ILD for 1 min every 5 min Heavy overload: 150% of IHD for 1 min every 5 min
	Work efficiency	$\geq 98.5\%$ (at the rated current)
	Control method	V/F; SVC; FVC
	Motor type	Permanent magnetic synchronous motor; asynchronous motor; linear motor
	Starting torque	SVC: 0.25Hz/150%; FVC: 0Hz/200%
	Accuracy at stable speed	FVC: $\pm 0.02\%$; SVC: $\pm 0.2\%$
	Speed fluctuation	FVC: $\pm 0.02\%$; SVC: $\pm 0.3\%$
	Speed regulation ratio	V/F: 1:50; SVC 1:200; FVC: 1:1000
	Torque accuracy	FVC: $\leq 5\%$; SVC: $\leq 10\%$
	Torque response	FVC: $\leq 5\text{ms}$; SVC: $\leq 20\text{ms}$
Environment condition	Working temperature	$-10^{\circ}\text{C} - +50^{\circ}\text{C}$; Derating is required when the ambient temperature exceeds 40°C
	Relative humidity	5%–95%, no condensation
	Installation altitude	Below 1000m (Derating is required when the altitude exceeds 1000m Derate by 1% for every increase of 100m.)
Mechanical data	Anti-vibration performance	Compliant with 3M4 vibration level in GB/T4798.3
	IP rating	For the module: IP00 For the cabinet: IP20 (Optional: IP23 and Ip42)
	Safety performance	Compliant with EN 61800-5-1
	Cooling method	Forced air cooling

Naming rule

GD800 – 51 – 0900 – 4 – 01

Description Example

Abbreviation of product series

GD800: Goodrive800 series engineering VFD

Product type

11: Variable-frequency drive unit
 16: 2-quadrant variable-frequency drive cabinet
 26: Active-rectifier 4-quadrant variable-frequency drive cabinet
 36: Regenerative-rectifier 4-quadrant variable-frequency drive cabinet
 41: 3PH braking unit 46: 3PH braking unit cabinet
 51: Inverter unit 56: Inverter unit cabinet
 71: Basic rectifier unit 76: Basic rectifier unit cabinet
 81: Regenerative rectifier unit
 86: Regenerative rectifier unit cabinet
 91: Active rectifier unit
 96: Active rectifier unit cabinet

Rating

Rated current for 01 version (it is rated power for 41/46)

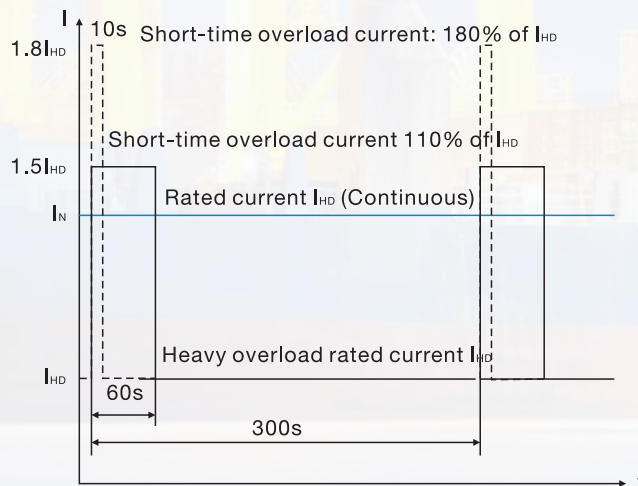
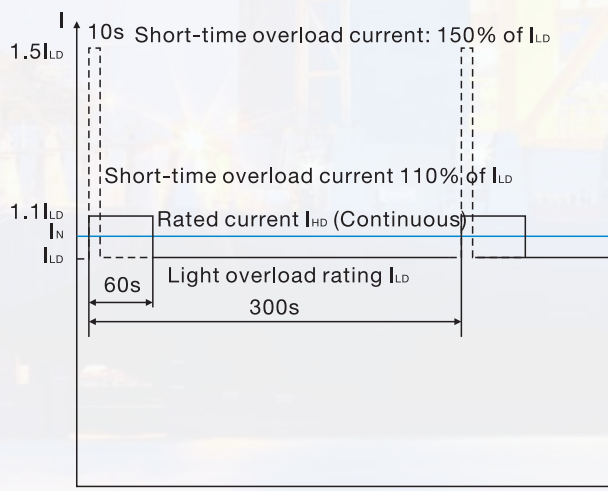
Voltage class

4: AC 3PH 380V(-15%)–440V(+10%)
 6: AC 3PH 520V(-15%)–690V(+10%)

Product management no

01: Proversion

Overload curve



Light overload: 110% 1 min or 150% 10s for every 5 min
 Heavy overload: 150% 1 min or 180% 10s for every 5 min

GD800-71 basic rectifier unit

UN=400V(Range: 380V-480V). Rated power (475-3616kW) valid when rated voltage=400V

Model	Rating					Light overload application		Heavy overload application		Frame size	Dissipation kW	Air volume m³/h
	I _N A(AC)	I _N A(DC)	I _{max} A(DC)	S _N kVA	P _N kW	I _{LD} A(DC)	P _{LD} kW	I _{HD} A(DC)	P _{HD} kW			

6-plus

GD800-71-0718-4-01	718	879	1142	497	475	844	456	659	356	D8T	2.8	1500
GD800-71-0980-4-01	980	1200	1560	680	648	1154	623	901	487	D8T	3	1500
GD800-71-1336-4-01	1336	1635	2126	926	883	1570	848	1226	662	2*D8T	5.6	3000
GD800-71-1822-4-01	1822	2232	2902	1263	1205	2143	1157	1670	902	2*D8T	6	3000
GD800-71-2734-4-01	2734	3348	4353	1895	1808	3214	1736	2504	1352	3*D8T	9	4500
GD800-71-3645-4-01	3645	4464	5804	2525	2411	4285	2314	3339	1803	4*D8T	12	6000
GD800-71-4556-4-01	4556	5580	7254	3156	3013	5357	2893	4174	2254	5*D8T	15	7500
GD800-71-5467-4-01	5467	6696	8705	3788	3616	6428	3471	5009	2705	6*D8T	18	9000

12-plus

GD800-71-1336-4-01	1336	1635	2126	926	883	1570	848	1226	662	2*D8T	5.6	3000
GD800-71-1822-4-01	1822	2232	2902	1263	1205	2143	1157	1670	902	2*D8T	6	3000
GD800-71-2672-4-01	2672	3273	4255	1852	1767	3142	1697	2455	1325	4*D8T	11.2	6000
GD800-71-3645-4-01	3645	4464	5804	2525	2408	4285	2314	3339	1803	4*D8T	12	6000
GD800-71-4008-4-01	4008	4906	6377	2777	2649	4709	2543	3679	1987	6*D8T	16.8	9000
GD800-71-5467-4-01	5467	6696	8705	3788	3616	6428	3471	5009	2705	6*D8T	18	9000

UN=690V(Range: 520V-690V). Rated power (650-5183kW) valid when rated voltage=690V

Model	Rating					Light overload application		Heavy overload application		Frame size	Dissipation kW	Air volume m³/h
	I _N A(AC)	I _N A(DC)	I _{max} A(DC)	S _N kVA	P _N kW	I _{LD} A(DC)	P _{LD} kW	I _{HD} A(DC)	P _{HD} kW			

6-plus

GD800-71-0570-6-01	570	698	907	682	650	670	624	523	487	D8T	2.5	1500
GD800-71-0815-6-01	815	998	1297	974	929	958	892	748	697	D8T	2.8	1500
GD800-71-1061-6-01	1061	1299	1688	1268	1210	1247	1161	974	907	2*D8T	5	3000
GD800-71-1515-6-01	1515	1854	2411	1810	1727	1780	1658	1391	1295	2*D8T	5.6	3000
GD800-71-2273-6-01	2273	2782	3617	2716	2591	2671	2488	2087	1944	3*D8T	8.4	4500
GD800-71-3031-6-01	3031	3710	4823	3622	3456	3561	3317	2782	2592	4*D8T	11.2	6000
GD800-71-3788-6-01	3788	4636	6027	4527	4319	4451	4146	3477	3239	5*D8T	14	7500
GD800-71-4546-6-01	4546	5564	7233	5433	5183	5341	4976	4173	3887	6*D8T	16.8	9000

12-plus

GD800-71-1061-6-01	1061	1299	1688	1268	1210	1247	1161	974	907	2*D8T	5	3000
GD800-71-1515-6-01	1515	1854	2411	1810	1727	1780	1658	1391	1295	2*D8T	5.6	3000
GD800-71-2122-6-01	2122	2597	3376	2536	2419	2493	2323	1948	1814	4*D8T	10	6000
GD800-71-3031-6-01	3031	3710	4823	3622	3456	3561	3317	2782	2592	4*D8T	11.2	6000
GD800-71-4546-6-01	4546	5564	7233	5433	5183	5341	4976	4173	3887	6*D8T	16.8	9000

Frame size	Height (mm)	Width (mm)	Depth (mm)	Weight (kg)
D8T	1275	230	584	210

Note:

· Rating: I_N indicates the rated current for continuous running when no overload occurs at 40°C, while I_{max} indicates the max. output current.

· Light overload application: I_{LD} indicates the continuous running current at light overload. Every 5 minutes, the overload with the current of 110%*I_{LD} can last for 1 minutes at 40°C.

· Heavy overload application: I_{HD} indicates the continuous running current at heavy overload. Every 5 minutes, the overload with the current of 150%*I_{HD} can last for 1 minutes at 40°C.

GD800-81 regenerative rectifier unit

UN=400V(Range: 380V-480V). Rated power (423-3513kW) valid when rated voltage=400V

Model	Rating					Light overload application		Heavy overload application		Frame size	Dissipation kW	Air volume m³/h
	I _N A(AC)	I _N A(DC)	I _{max} A(DC)	S _N kVA	P _N kW	I _{LD} A(DC)	P _{LD} kW	I _{HD} A(DC)	P _{HD} kW			
GD800-81-0640-4-01	640	783	1018	443	423	752	406	587	317	A8+L	4.9	3000
GD800-81-0900-4-01	900	1102	1432	624	595	1057	571	826	446	A8+L	6.88	3000
GD800-81-1180-4-01	1180	1445	1879	818	780	1387	749	1081	584	2*A8+L	8.4	4500
GD800-81-1770-4-01	1770	2168	2818	1226	1171	2081	1124	1622	876	2*A8+L	12.2	4500
GD800-81-2360-4-01	2360	2890	3758	1636	1560	2774	1498	2162	1168	2*(2*A8+L)	16.8	9000
GD800-81-3540-4-01	3540	4336	5636	2452	2342	4162	2248	3244	1752	2*(2*A8+L)	24.4	9000
GD800-81-5310-4-01	5310	6504	8454	3678	3513	6243	3372	4866	2628	3*(2*A8+L)	36.6	13500

UN=690V(Range: 520V-690V). Rated power (685-6057kW) valid when rated voltage=690V

Model	Rating					Light overload application		Heavy overload application		Frame size	Dissipation kW	Air volume m³/h
	I _N A(AC)	I _N A(DC)	I _{max} A(DC)	S _N kVA	P _N kW	I _{LD} A(DC)	P _{LD} kW	I _{HD} A(DC)	P _{HD} kW			
GD800-81-0600-6-01	600	734	955	717	685	705	657	550	512	A8+L	5.4	3000
GD800-81-0900-6-01	900	1102	1432	1076	1027	1058	986	824	768	A8+L	7.2	3000
GD800-81-1180-6-01	1180	1445	1879	1410	1346	1387	1292	1081	1007	2*A8+L	9.3	4500
GD800-81-1770-6-01	1770	2168	2818	2115	2019	2081	1939	1622	1510	2*A8+L	12.3	4500
GD800-81-2360-6-01	2360	2890	3758	2820	2692	2774	2584	2162	2014	2*(2*A8+L)	18.6	9000
GD800-81-3540-6-01	3540	4336	5636	4230	4038	4162	3878	3244	3020	2*(2*A8+L)	24.6	9000
GD800-81-5310-6-01	5310	6504	8454	6345	6057	6243	5817	4866	4530	3*(2*A8+L)	36.9	13500

Frame size	Height (mm)	Width (mm)	Depth (mm)	Weight (kg)
A8+L	1275	500	584	420
2*A8+L	1275	730	584	615

Note:

- Rating: I_N indicates the rated current for continuous running when no overload occurs at 40°C, while I_{max} indicates the max. output current.
- Light overload application: I_{LD} indicates the continuous running current at light overload. Every 5 minutes, the overload with the current of 110%*I_{LD} can last for 1 minutes at 40°C.
- Heavy overload application: I_{HD} indicates the continuous running current at heavy overload. Every 5 minutes, the overload with the current of 150%*I_{HD} can last for 1 minutes at 40°C.

GD800-91 active rectifier unit

UN=400V(Range: 380V--480V). Rated power (151-3167kW) valid when rated voltage=400V

Model	Rating					Light overload application		Heavy overload application		Frame size	Dissipation kW	Air volume m³/h
	I _N A(AC)	I _N A(DC)	I _{max} A(DC)	S _N kVA	P _N kW	I _{LD} A(DC)	P _{LD} kW	I _{HD} A(DC)	P _{HD} kW			
GD800-91-0220-4-01	220	251	326	153	151	241	145	188	113	A6+LCL	4.53	2000
GD800-91-0260-4-01	260	296	385	179	178	284	171	222	133	A6+LCL	5.34	2000
GD800-91-0312-4-01	312	355	462	216	214	341	205	266	161	A6+LCL	6.42	2000
GD800-91-0395-4-01	395	452	587	274	271	433	260	339	203	A7+LCL	8.13	2000
GD800-91-0516-4-01	516	590	767	358	354	565	339	442	265	A7+LCL	10.62	2000
GD800-91-0615-4-01	615	701	911	426	422	673	405	526	317	A8+LCL	12.66	3000
GD800-91-0810-4-01	810	926	1204	561	556	889	533	694	417	A8+LCL	16.68	3000
GD800-91-0980-4-01	980	1117	1452	678	672	1080	645	838	505	2*A8+LCL	20.16	4500
GD800-91-1168-4-01	1168	1332	1731	809	802	1288	769	999	602	2*A8+LCL	24.06	4500
GD800-91-1539-4-01	1539	1759	2287	1066	1056	1689	1013	1319	792	2*A8+LCL	31.68	4500
GD800-91-1960-4-01	1960	2234	2904	1356	1344	2160	1290	1676	1010	2*(2*A8+LCL)	40.32	9000
GD800-91-2336-4-01	2336	2664	3462	1618	1604	2576	1538	1998	1204	2*(2*A8+LCL)	48.12	9000
GD800-91-3078-4-01	3078	3519	4574	2132	2111	3378	2027	2639	1583	2*(2*A8+LCL)	63.33	9000
GD800-91-4617-4-01	4617	5278	6861	3199	3167	5067	3040	3958	2375	3*(2*A8+LCL)	95.01	13500

UN=690V(Range: 520-690V). Rated power (437-3642kW) valid when rated voltage=690V

Model	Rating					Light overload application		Heavy overload application		Frame size	Dissipation kW	Air volume m³/h
	I _N A(AC)	I _N A(DC)	I _{max} A(DC)	S _N kVA	P _N kW	I _{LD} A(DC)	P _{LD} kW	I _{HD} A(DC)	P _{HD} kW			
GD800-91-0369-6-01	369	422	548	441	441	405	419	316	327	A8+LCL	13.11	3000
GD800-91-0540-6-01	540	617	802	645	645	593	613	463	479	A8+LCL	19.17	3000
GD800-91-0701-6-01	701	801	1042	838	838	769	796	601	622	2*A8+LCL	24.87	4500
GD800-91-1026-6-01	1026	1173	1525	1226	1226	1126	1165	880	910	2*A8+LCL	36.42	4500
GD800-91-1402-6-01	1402	1603	2083	1676	1676	1539	1592	1202	1244	2*(2*A8+LCL)	49.77	9000
GD800-91-2052-6-01	2052	2346	3049	2452	2452	2252	2331	1759	1821	2*(2*A8+LCL)	72.84	9000
GD800-91-3078-6-01	3078	3519	4574	3678	3678	3378	3496	2639	2731	3*(2*A8+LCL)	109.26	13500

Frame size	Height (mm)	Width (mm)	Depth (mm)	Weight (kg)
A8+LCL	1275	500	584	465
2*A8+LCL	1275	730	584	630

Note:

- Rating: I_N indicates the rated current for continuous running when no overload occurs at 40°C, while I_{max} indicates the max. output current.
- Light overload application: I_{LD} indicates the continuous running current at light overload. Every 5 minutes, the overload with the current of 110%*I_{LD} can last for 1 minutes at 40°C.
- Heavy overload application: I_{HD} indicates the continuous running current at heavy overload. Every 5 minutes, the overload with the current of 150%*I_{HD} can last for 1 minutes at 40°C.

GD800-51 convertor unit

UN=400V(Range: 380V-480V). Rated power (475-3616kW) valid when rated voltage=400V

Model	Rating			Light overload application		Heavy overload application		Frame size	Dissipation kW	Air volume m³/h
	I _N A(AC)	I _{max} A(AC)	P _N kW	I _{LD} A(AC)	P _{LD} kW	I _{HD} A(AC)	P _{HD} kW			
GD800-51-0245-4-01	245	294	110	236	110	184	90	A6i	2.5	1000
GD800-51-0299-4-01	299	358	132	287	132	224	110	A6i	3.1	1000
GD800-51-0349-4-01	349	419	160	335	160	262	132	A7i	3.7	1000
GD800-51-0395-4-01	395	486	200	380	200	296	160	A7i	4.2	1000
GD800-51-0516-4-01	516	619	250	495	250	387	200	A7i	5.2	1000
GD800-51-0639-4-01	639	766	355	613	315	479	250	A8i	6.8	1500
GD800-51-0757-4-01	757	909	400	727	400	568	315	A8i	8	1500
GD800-51-0900-4-01	900	1080	500	864	450	675	355	A8i	10	1500
GD800-51-0975-4-01	975	1170	560	945	500	731	400	A8i	10.6	1500
GD800-51-1213-4-01	1213	1456	630	1165	630	910	500	2*A8i	13.6	3000
GD800-51-1439-4-01	1439	1727	800	1381	800	1079	630	2*A8i	16	3000
GD800-51-1710-4-01	1710	2052	1000	1642	900	1283	710	2*A8i	20	3000
GD800-51-1852-4-01	1852	2223	1000	1795	1000	1388	800	2*A8i	21.2	3000
GD800-51-2158-4-01	2158	2590	1200	2072	1200	1619	900	3*A8i	24	4500
GD800-51-2565-4-01	2565	3078	1400	2463	1400	1924	1000	3*A8i	30	4500
GD800-51-2778-4-01	2778	3335	1500	2693	1500	2083	1100	3*A8i	31.8	4500
GD800-51-3420-4-01	3420	4104	1800	3283	1800	2565	1400	4*A8i	40	6000
GD800-51-3704-4-01	3704	4446	2000	3590	2000	2776	1500	4*A8i	42.4	6000
GD800-51-4275-4-01	4275	5130	2400	4104	2000	3206	1800	5*A8i	50	7500
GD800-51-4630-4-01	4630	5558	2500	4488	2500	3471	1900	5*A8i	53	7500
GD800-51-5130-4-01	5130	6156	2800	4925	2400	3848	2100	6*A8i	60	9000
GD800-51-5556-4-01	5556	6669	3000	5387	3000	4167	2300	6*A8i	63.6	9000
GD800-51-0985-4-S	985	1440	560	960	560	860	450	A8s	10.2	3900
GD800-51-1260-4-S	1260	1845	710	1230	710	1127	560	A8s	12	3900
GD800-51-1405-4-S	1405	2055	800	1370	800	1257	710	A8s	13	3900

UN=690V(Range: 520V-690V). Rated power (55-3200kW) valid when rated voltage=690V

Model	Rating			Light overload application		Heavy overload application		Frame size	Dissipation kW	Air volume m³/h
	I _N A(AC)	I _{max} A(AC)	P _N kW	I _{LD} A(AC)	P _{LD} kW	I _{HD} A(AC)	P _{HD} kW			
GD800-51-0062-6-01	62	74	55	60	55	46	45	A6i	0.9	1000
GD800-51-0082-6-01	82	98	75	79	75	61	55	A6i	1.2	1000
GD800-51-0099-6-01	99	118	90	95	90	74	75	A6i	1.4	1000
GD800-51-0125-6-01	125	150	110	120	110	94	90	A6i	1.8	1000
GD800-51-0144-6-01	144	173	132	138	132	108	110	A6i	2.1	1000
GD800-51-0192-6-01	192	230	160	184	160	144	132	A6i	2.8	1000
GD800-51-0217-6-01	217	259	200	215	200	162	160	A7i	3.2	1000
GD800-51-0270-6-01	270	323	250	260	250	202	200	A7i	4	1000
GD800-51-0340-6-01	340	408	315	326	315	255	250	A7i	5.1	1000

UN=690V(Range: 520V-690V). Rated power (55-3200kW) valid when rated voltage=690V

Model	Rating			Light overload application		Heavy overload application		Frame size	Dissipation kW	Air volume m³/h
	I _N A(AC)	I _{max} A(AC)	P _N kW	I _{LD} A(AC)	P _{LD} kW	I _{HD} A(AC)	P _{HD} kW			
GD800-51-0410-6-01	410	492	400	394	355	308	315	A8i	6.2	1500
GD800-51-0530-6-01	530	636	500	509	450	398	355	A8i	8	1500
GD800-51-0600-6-01	600	720	560	576	560	450	400	A8i	9.1	1500
GD800-51-0650-6-01	650	780	630	624	560	488	450	A8i	10.3	1500
GD800-51-0720-6-01	720	864	710	690	630	540	500	A8i	11.7	1500
GD800-51-0779-6-01	779	935	800	748	710	584	560	2*A8i	12.4	3000
GD800-51-1007-6-01	1007	1208	1000	967	900	755	710	2*A8i	16	3000
GD800-51-1140-6-01	1140	1368	1100	1094	1000	855	800	2*A8i	18.2	3000
GD800-51-1235-6-01	1235	1482	1200	1186	1000	927	900	2*A8i	20.6	3000
GD800-51-1368-6-01	1368	1642	1300	1311	1200	1026	1000	2*A8i	22.5	3000
GD800-51-1510-6-01	1510	1813	1400	1450	1400	1133	1100	3*A8i	24	4500
GD800-51-1710-6-01	1710	2052	1600	1642	1600	1283	1200	3*A8i	27.3	4500
GD800-51-1853-6-01	1853	2223	1800	1778	1600	1391	1300	3*A8i	30.9	4500
GD800-51-2052-6-01	2052	2462	2000	1967	1800	1539	1500	3*A8i	32.3	4500
GD800-51-2280-6-01	2280	2736	2000	2189	2000	1710	1600	4*A8i	36.4	6000
GD800-51-2470-6-01	2470	2964	2400	2372	2000	1854	1800	4*A8i	41.2	6000
GD800-51-2736-6-01	2736	3284	2600	2622	2400	2052	2000	4*A8i	45	6000
GD800-51-3088-6-01	3088	3705	3000	2964	2600	2318	2200	5*A8i	52	7500
GD800-51-3420-6-01	3420	4104	3300	3278	3000	2565	2500	5*A8i	55	7500
GD800-51-3705-6-01	3705	4446	3600	3557	3200	2782	2600	6*A8i	62	9000
GD800-51-4104-6-01	4104	4924	4000	3934	3600	3078	3000	6*A8i	65	9000
GD800-51-0810-6-S	810	1185	800	790	800	724	710	A8s	11.5	3900
GD800-51-0910-6-S	910	1320	900	880	900	814	800	A8s	11.7	3900
GD800-51-1025-6-S	1025	1500	1000	1000	1000	917	900	A8s	13.2	3900
GD800-51-1270-6-S	1270	1845	1200	1230	1200	1136	1000	A8s	16	3900
GD800-51-1481-6-S	1481	2165	1400	1405	1400	1320	1200	A8s	18.2	3900

Frame size	Height (mm)	Width (mm)	Depth (mm)	Weight (kg)
A6i	850	200	415	45
A7i	980	200	415	55
A8i	1275	230	584	165
A8s	1225	595	535	420

Note:

- Rating: I_N indicates the rated current for continuous running when no overload occurs at 40°C, while I_{max} indicates the max. output current.
- Light overload application: I_{LD} indicates the continuous running current at light overload. Every 5 minutes, the overload with the current of 110%*I_{LD} can last for 1 minutes at 40°C.
- Heavy overload application: I_{HD} indicates the continuous running current at heavy overload. Every 5 minutes, the overload with the current of 150%*I_{HD} can last for 1 minutes at 40°C.

GD800-41 3PH braking unit

UN=400V(Range: 380V-480V). Rated power (500-750kW) valid when rated voltage=400V

Model	Braking resistance per phase		Ubr	Rating (Long-time braking)			Load cycle (1min/5min)			Frame size	Dissipation kW	Air volume m³/h	
	ohm			V	DC	AC	Braking power	DC	AC				Braking power
					I _{DC} A(DC)	I _{ms} A(AC)	P _N kW	I _{DC} A(DC)	I _{ms} A(AC)				P _{HB} kW
GD800-41-0500-4-01	RMin	1.7	653	781	310	500	999	351	640	A8b	1.5	1500	
GD800-41-0500-4-01	RMax	2.1	653	650	258	416	832	291	530	A8b	1.3	1500	
GD800-41-0750-4-01	RMin	1.2	653	1171	465	750	1499	527	960	A8b	2.4	1500	
GD800-41-0750-4-01	RMax	1.4	653	975	387	624	1249	436	800	A8b	2	1500	

UN=690V(Range: 520V-690V). Rated power (870-1300kW) valid when rated voltage=690V

Model	Braking resistance per phase		Ubr	Rating (Long-time braking)			Load cycle (1min/5min)			Frame size	Dissipation kW	Air volume m³/h
	ohm	V		DC	AC	Braking power	DC	AC	Braking power			
				I _{DC} A(DC)	I _{ms} A(AC)	P _N kW	I _{DC} A(DC)	I _{ms} A(AC)	P _{HB} kW			
GD800-41-0870-6-01	RMin	3.0	1126	781	310	870	999	351	1100	A8b	1.6	1500
GD800-41-0870-6-01	RMax	3.6	1126	650	258	725	832	291	920	A8b	1.4	1500
GD800-41-1300-6-01	RMin	2.0	1126	1171	465	1300	1499	527	1655	A8b	2.5	1500
GD800-41-1300-6-01	RMax	2.4	1126	975	387	1080	1249	436	1390	A8b	2.1	1500

Frame size	Height (mm)	Width (mm)	Depth (mm)	Weight (kg)
A8b	1275	230	584	100

Note:

- Rating: I_N indicates the rated current for continuous running when no overload occurs at 40°C, while I_{max} indicates the max. output current.
- Light overload application: I_{Ld} indicates the continuous running current at light overload. Every 5 minutes, the overload with the current of 110%*I_{Ld} can last for 1 minutes at 40°C.
- Heavy overload application: I_{Hd} indicates the continuous running current at heavy overload. Every 5 minutes, the overload with the current of 150%*I_{Hd} can last for 1 minutes at 40°C.

GD800-11 VFD unit

UN=400V(Range: 380V-480V). Rated power (355-560kW) valid when rated voltage=400V

Model	Rating				Light overload application		Heavy overload application		Frame size	Dissipation kW	Air volume m ³ /h
	Input current	Output current	Max. current	Output power	Output current	Motor power	Output current	Motor power			
	I _i A(AC)	I _N A(AC)	I _{max} A(AC)	P _N kW	I _{LD} A(AC)	P _{LD} kW	I _{HD} A(AC)	P _{HD} kW(AC)			
GD800-11-0639-4-01	556	639	766	355	613	315	479	250	11A8i	7.5	1500
GD800-11-0757-4-01	627	757	909	400	727	400	568	315	11A8i	9.5	1500
GD800-11-0900-4-01	783	900	1080	500	864	450	675	355	11A8i	10.7	1500
GD800-11-0975-4-01	848	975	1170	560	945	500	731	400	11A8i	12	1500

UN=690V(Range: 520V-690V). Rated power (400-710kW) valid when rated voltage=690V

Model	Rating				Light overload application		Heavy overload application		Frame size	Dissipation kW	Air volume m ³ /h
	Input current	Output current	Max. current	Output power	Output current	Motor power	Output current	Motor power			
	I _i A(AC)	I _N A(AC)	I _{max} A(AC)	P _N kW	I _{LD} A(AC)	P _{LD} kW	I _{HD} A(AC)	P _{HD} kW(AC)			
GD800-11-0410-6-01	364	410	492	400	394	355	308	315	11A8i	9.5	1500
GD800-11-0530-6-01	455	530	636	500	509	450	398	355	11A8i	10.8	1500
GD800-11-0600-6-01	509	600	720	560	576	560	450	400	11A8i	12.1	1500
GD800-11-0650-6-01	573	650	780	630	624	560	488	450	11A8i	13	1500
GD800-11-0720-6-01	645	720	864	710	690	630	540	500	11A8i	15	1500

Frame size	Height (mm)	Width (mm)	Depth (mm)	Weight (kg)
11A8i	1340	250	584	145

Note:

- Rating: I_N indicates the rated current for continuous running when no overload occurs at 40°C, while I_{max} indicates the max. output current.
- Light overload application: I_{LD} indicates the continuous running current at light overload. Every 5 minutes, the overload with the current of 110%*I_{LD} can last for 1 minutes at 40°C.
- Heavy overload application: I_{HD} indicates the continuous running current at heavy overload. Every 5 minutes, the overload with the current of 150%*I_{HD} can last for 1 minutes at 40°C.

GD800-16 2-quadrant single-drive cabinet

UN=400V(Range: 380V-480V). Rated power (355-1000kW) valid when rated voltage=400V

Model	Rating				Light overload application		Heavy overload application		Frame size	Dissipation kW	Air volume m³/h
	Input current	Output current	Max. current	Output power	Output current	Motor power	Output current	Motor power			
	I _i A(AC)	I _N A(AC)	I _{max} A(AC)	P _N kW	I _{LD} A(AC)	P _{LD} kW	I _{HD} A(AC)	P _{HD} kW(AC)			
GD800-16-0639-4-01	556	639	766	355	613	315	479	250	16S4	7.5	1500
GD800-16-0757-4-01	627	757	909	400	727	400	568	315		9.5	1500
GD800-16-0900-4-01	783	900	1080	500	864	450	675	355		10.7	1500
GD800-16-0975-4-01	848	975	1170	560	945	500	731	400		12	1500
GD800-16-1213-4-01	987	1213	1456	630	1165	630	910	500	16S5	15	3000
GD800-16-1439-4-01	1254	1439	1727	800	1381	800	1079	630		19	3000
GD800-16-1710-4-01	1566	1710	2052	1000	1642	900	1283	710		21.4	3000
GD800-16-1852-4-01	/	/	/	/	1796	1000	1389	800		24	3000

UN=690V(Range: 520V-690V). Rated power (400-1300kW) valid when rated voltage=690V

Model	Rating				Light overload application		Heavy overload application		Frame size	Dissipation kW	Air volume m³/h
	Input current	Output current	Max. current	Output power	Output current	Motor power	Output current	Motor power			
	I _i A(AC)	I _N A(AC)	I _{max} A(AC)	P _N kW	I _{LD} A(AC)	P _{LD} kW	I _{HD} A(AC)	P _{HD} kW(AC)			
GD800-16-0410-6-01	364	410	492	400	394	355	308	315	16S4	9.5	1500
GD800-16-0530-6-01	455	530	636	500	509	450	398	355		10.8	1500
GD800-16-0600-6-01	509	600	720	560	576	560	450	400		12.1	1500
GD800-16-0650-6-01	573	650	780	630	624	560	488	450		13	1500
GD800-16-0720-6-01	645	720	864	710	690	630	540	500		15	1500
GD800-16-0779-6-01	727	779	935	800	748	710	584	560	16S5	19	3000
GD800-16-1007-6-01	910	1007	1208	1000	967	900	755	710		21.6	3000
GD800-16-1140-6-01	1000	1140	1368	1100	1094	1000	855	800		24.2	3000
GD800-16-1235-6-01	1090	1235	1482	1200	1186	1000	927	900		26	3000
GD800-16-1368-6-01	1182	1368	1642	1300	1311	1200	1026	1000		30	3000

Frame size	Height (mm)	Width (mm)	Depth (mm)	Structure	Remarks
16S4	2300	1000	650	16S4	No independent control cabinet
16S5	2300	1400	650	16S5	No independent control cabinet

Note:

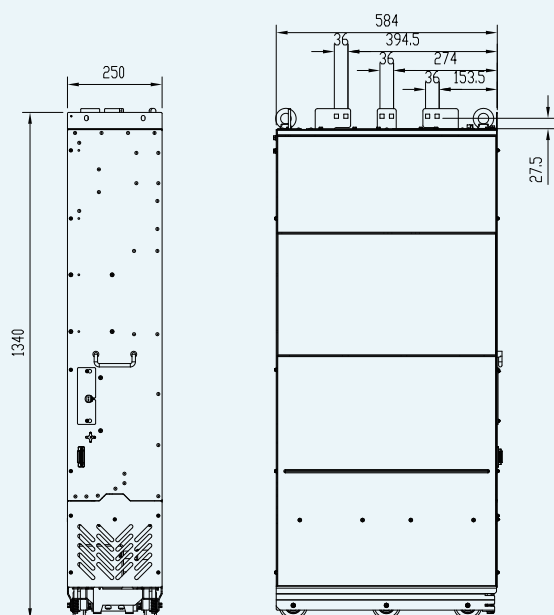
- Rating: I_N indicates the rated current for continuous running when no overload occurs at 40°C, while I_{max} indicates the max. output current.
- Light overload application: I_{LD} indicates the continuous running current at light overload. Every 5 minutes, the overload with the current of 110%*I_{LD} can last for 1 minutes at 40°C.
- Heavy overload application: I_{HD} indicates the continuous running current at heavy overload. Every 5 minutes, the overload with the current of 150%*I_{HD} can last for 1 minutes at 40°C.
- GD800-16-1852-4-01 does not support the no overload mode.

Feature and option list

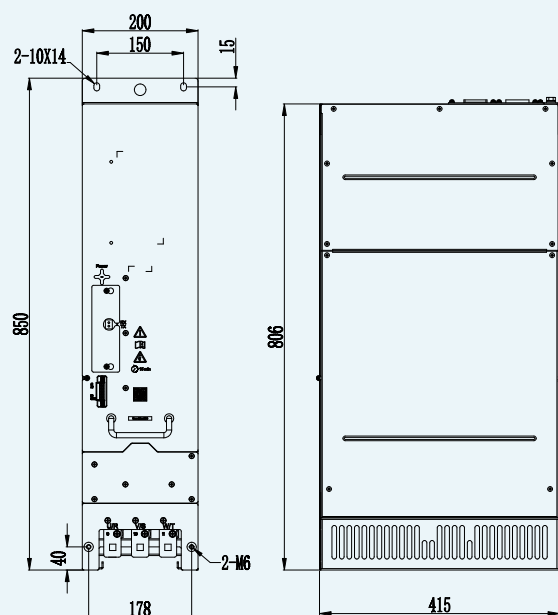
Code	Voltage and power ranges 4:355~2800kW 6:400~3200kW	GD800-56 Inverter cabinet	GD800-76 Basic rectifier cabinet	GD800-86 Regenerative rectifier cabinet	GD800-96 Active rectifier cabinet	GD800-46 3PH braking cabinet	GD800-16 Variablefrequency cabinet
IP rating							
C120	IP20(UL Type1)	●	●	●	●	●	●
C121	IP21(UL Type1)	□	□	□	□	□	□
C142	IP42(UL Type1)	□	□	□	□	□	□
Mounting							
C201	Slotted steel base (100mm)	□	□	□	□	□	□
C202	Cable base (200mm)	□	□	□	□	□	□
C211	Lifting ring	□	□	□	□	□	□
C212	Lifting lintel	●	●	●	●	●	●
C213	Air outlet to pipe	□	□	□	□	□	□
Device at cable inlet side							
E102	Drawer type air switch	—	□ ^①	□ ^①	□ ^①	—	□ ^①
E104	Insulation detector	—	□	□	□	—	□
E105	Safety relay	—	□	□	□	—	□
E106	DC pre-charge	□	—	—	—	—	—
E107	Cabinet lighting	●	●	●	●	●	●
E108	Cabinet heater	□	□	□	□	□	□
E112	Motor fan output (4.0-6.0A)	□	□	□	□	□	□
E113	Motor fan output (6.0-10A)	□	□	□	□	□	□
E114	Motor fan output (10-16A)	□	□	□	□	□	□
E115	Motor fan output (16-20A)	□	□	□	□	□	□
E116	Motor fan output (20-25A)	□	□	□	□	□	□
Filter/Reactor							
	Regenerative reactor	—	—	●	—	—	—
	LCL	—	—	—	●	—	—
	Input reactor	—	●	—	—	—	●
	Output reactor	●	—	—	—	—	●
E121	Sine filter reactor	□	—	—	—	—	□
Cable							
C221	Bottom incoming power cable	—	●	●	●	—	●
C222	Top incoming power cable	—	□	□	□	—	□
C223	Inverter-bottom outgoing cable	●	—	—	—	●	●
C224	Inverter-top outgoing cable	□	—	—	—	—	□
C225	Motor common cable outlet cable (converged in cabinet)	□	—	—	—	—	□
PG card							
PG101-05	HTL (5V differential incremental)	□	—	—	—	—	□
PG101-12	TTL (12V incremental)	□	—	—	—	—	□
PG101-24	TTL (24V incremental)	□	—	—	—	—	□
PG104-05	Resolver PG card	□	—	—	—	—	□

Code	Voltage and power ranges 4:355~2800kW 6:400~3200kW	GD800-56 Inverter cabinet	GD800-76 Basic rectifier cabinet	GD800-86 Regenerative rectifier cabinet	GD800-96 Active rectifier cabinet	GD800-46 3PH braking cabinet	GD800-16 Variablefrequency cabinet
Communication card							
TX103	PROFIBUS-DP + Ethernet	☐	—	☐	☐	—	☐
TX104	CAN + Ethernet	☐	—	☐	☐	—	☐
TX105	CANopen + Ethernet	☐	—	☐	☐	—	☐
TX106	DeviceNet + Ethernet	☐	—	☐	☐	—	☐
TX109	PROFINET	☐	—	☐	☐	—	☐
IO card							
IO101-DT2	Motor temperature detection card	☐	—	—	—	—	☐
Documentation							
D801	Customer files (electrical/wiring /layout drawings) in PDF format	●	●	●	●	●	●
D802	Chinese documentation	●	●	●	●	●	●
D803	English documentation	☐	☐	☐	☐	☐	☐
D804	Ex-factory inspection report	☐	☐	☐	☐	☐	☐
D805	Manual (in paper)	☐	☐	☐	☐	☐	☐
D806	CAD files (electrical/wiring/layout drawings)	☐	☐	☐	☐	☐	☐
① Drawer-type breaker, supported by 2000A and higher				● Standard ☐ Optional, with floating price — Not applicable			

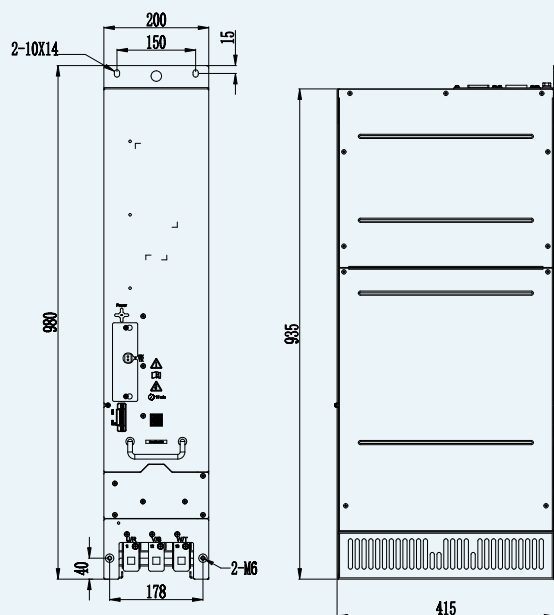
Mounting dimensions



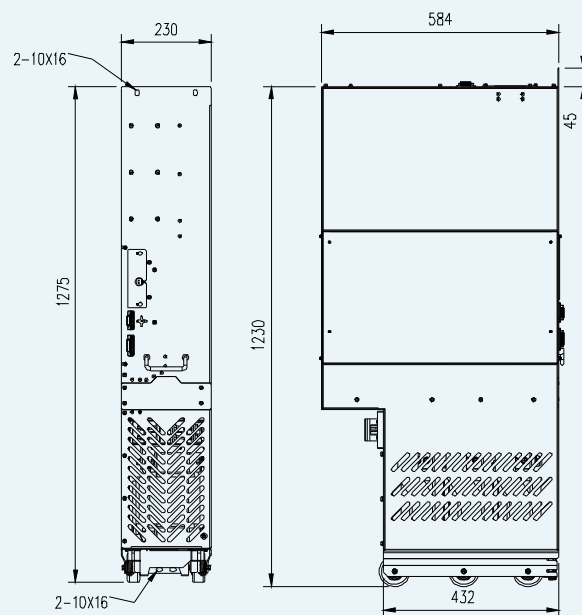
Mounting dimensions for 11A8i



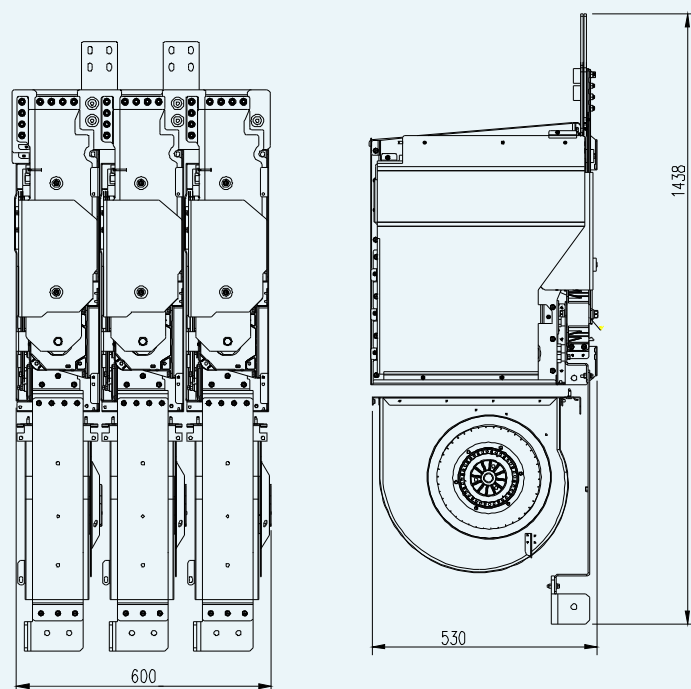
Mounting dimensions for A6i



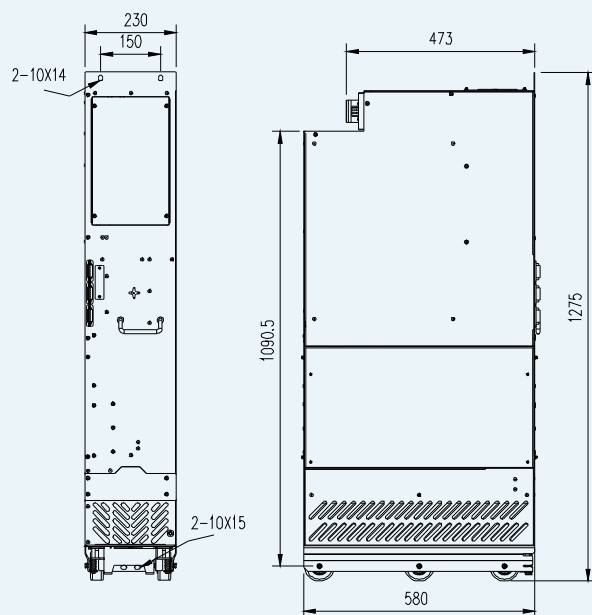
Mounting dimensions for A7i



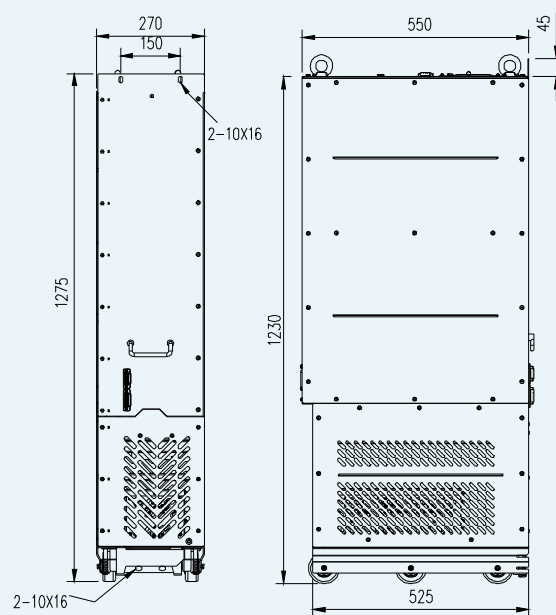
Mounting dimensions for A8i/A8b



Mounting dimensions for A8s



Mounting dimensions for D8T



Mounting dimensions for L/LCL filter unit

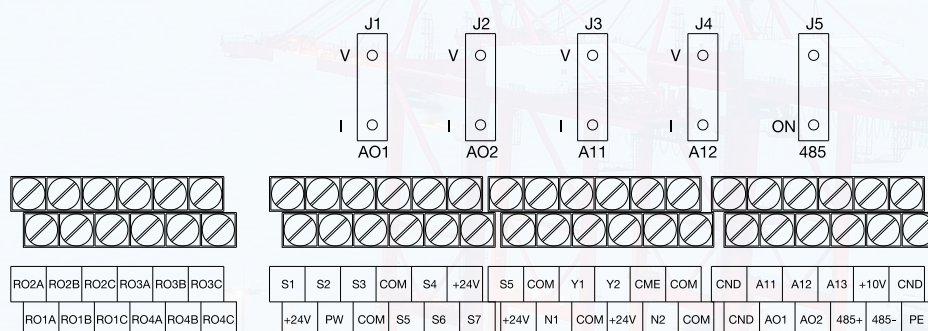
Control unit

Goodrive800 Pro series control unit uses independent modular design for the structure, greatly improving the mounting and commissioning efficiency. In addition, the enhanced mechanism for isolating the live parts protects users against electrical injuries, and the wiring terminal adaptation design allows users to quickly access function terminals.

GD800 Pro series control unit external view



GD800 Pro series control unit standard function terminals



GD800 control unit model

GD800 – ICU – 0900 – 4 – 01

Description

Example

Abbreviation of product series

GD800: Goodrive800 series engineering VFD

Control unit type

RCU: Rectifier control unit
ICU: Inverter control unit

Rating

Rated current

Voltage class

4: AC 3PH 380V(-15%)–440V(+10%)
6: AC 3PH 520V(-15%)–690V(+10%)

Product management no.

01: Pro version

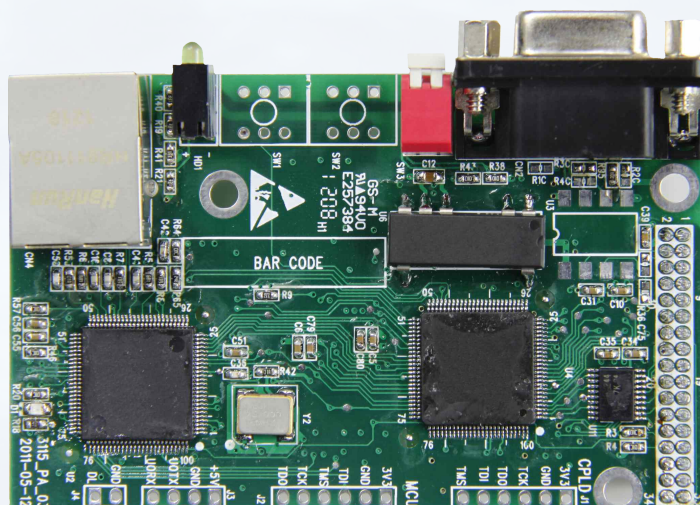
GD800 Pro series control unit standard function terminals

Category	Terminal	Name	Description
power	+10V	10V power supply	10.5V reference power supply for the local machine
	+24V	24V power supply	Used to provide 24V power supply. Max. output current: 200mA
	PW	External power	Used to provide the working power supply for switch input/output from the external to the internal Voltage range: 12~24V
	GND	Power reference ground	Reference zero potential of +10V
	COM	+24V common terminal	+24V common terminal
Analog input	AI1	Analog input 1	Input range: 0~10V or 0~20mA
	AI2	Analog input 2	
	AI3	Analog input 3	Input range: -10~10V
Analog output	AO1	Analog output 1	Output range: 0~10V or 0~20mA
	AO2	Analog output 2	Output range: -10~10V or -20~20mA
Digital input	S1	Digital input 1	1. Input impedance: 3.3k Ω 2. Voltage input range: 12~30V 3. Supporting NPN or PNP input
	S2	Digital input 2	
	S3	Digital input 3	
	S4	Digital input 4	
	S5	Digital input 5	
	S6	Digital input 6	
	S7	Digital input 7	In addition to S1~S7 functions, the terminals can also act as high frequency pulse input channels. Max. input frequency: 50kHz
	S8	Digital input 8	
Digital output	Y1	Open collector output 1	1. Switch capacity: 200mA/30V 2. Output frequency range: 0~1kHz
	Y2	Open collector output 2	1. Switch capacity: 1A/30V 2. Output frequency range: 0~50kHz
Safety function	H1	Safety input 1	It is short connected to COM by default. If safety input is required, remove the jumpers between H1 and COM and between H2 and COM.
	H2	Safety input 2	
Product series	RO1A	NO contact of relay 1	1. Contact capacity: AC250V/3A, DC30V/1A 2. Cannot be used as high frequency digital output
	RO1B	NC contact of relay 1	
	RO1C	Common contact of relay 1	
	RO2A	NO contact of relay 2	
	RO2B	NC contact of relay 2	
	RO2C	Common contact of relay 2	
	RO3A	NO contact of relay 3	
	RO3B	NC contact of relay 3	
	RO3C	Common contact of relay 3	
	RO4A	NO contact of relay 4	When the STO function is used, relay 4 is used as the brake signal output terminal
	RO4B	NC contact of relay 4	
	RO4C	Common contact of relay 4	
Product series	485+	RS485 communication	RS485 communication terminals, using the RTU protocol
	485-		

Options

Communication cards

In addition to standard RS485 communication, Goodrive800 Pro series supports other communication protocols by means of adds-on so as to meet various application needs.



Application functions

• Control

Used to send control commands including start, stop, and fault reset to the VFD; send speed or torque giving signals.

• Monitoring

Used to read status and actual values including torque, speed, and current signals, which provides quick data transmission.

• Parameter modifying

Used for users to modify VFD parameter values.

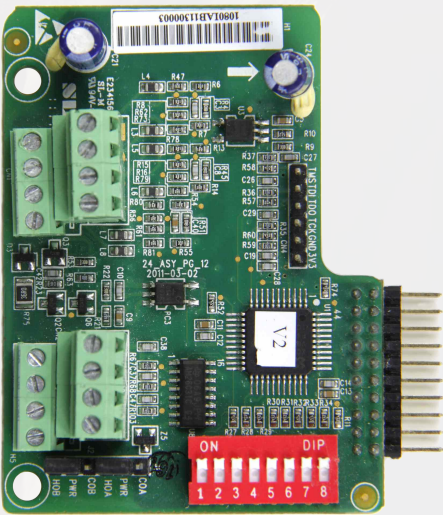
• Diagnosis

Used to diagnose faults accurately through obtained status words and values so as to reduce production downtime.

Communication card description

Card model	Description	Protocol	Baud rate
EC-TX103	PROFIBUS + Ethernet communication card	DP	9.6kbit /s—12Mbit /s
		Ethernet	10Mbit /s /100Mbit /s
EC-TX104	CANopen + Ethernet communication card	CANopen	20kbit /s-1Mbit /s
		Ethernet	10Mbit /s / 100Mbit /s
EC-TX106	DeviceNet + Ethernet communication card	DevicNet	125kbit /s /250kbit /s /500kbit /s
		Ethernet	10Mbit /s /100Mbit /s
EC-TX109	PROFINET communication card	Profinet	100Mbit /s

PG card—Incremental encoder PG card



Technical specifications

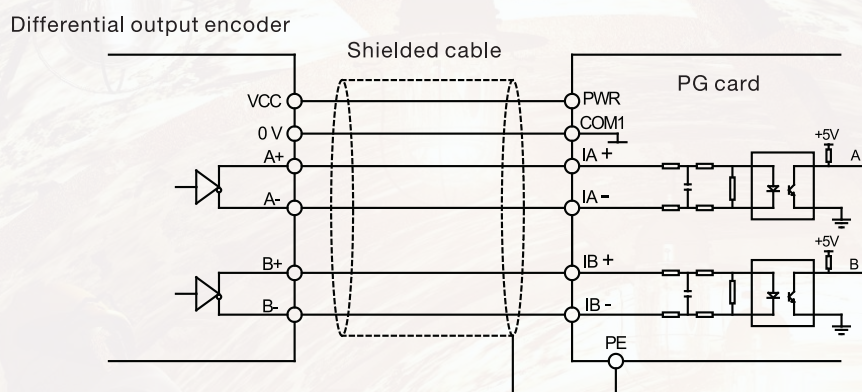
Card name	Incremental encoder PG card	
Model	EC-PG101-12	EC-PG101-24
Output power supply	Supporting the voltage output of 11.75–16V Default: 12V±5%. Max. output current: 350mA	Voltage output of 24V±5%. Max. output current: 300mA
Input signal	Supporting the A, B, and Z signal inputs of differential, open collector, and push-pull encoders. Response speed: 0–100kHz	
Output signal	Output frequency: 0–80kHz Output mode: Differential output, push-pull output, open collector output, and frequency-divided output Range: 1–256 Output impedance: 70Ω	

PG card wiring ports and terminals

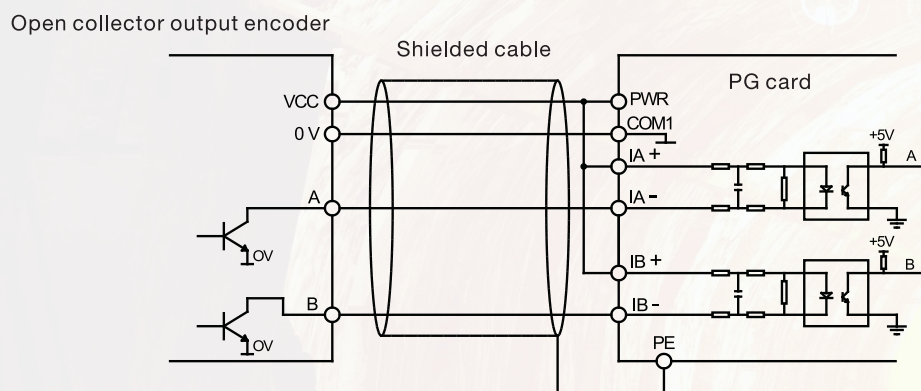
IA+		IA-		IB+		IB-				OA+		OA-		OB+		OB-					
		PWR		COM1		IZ+		IZ-						OA		OB		COM			

Input application connection

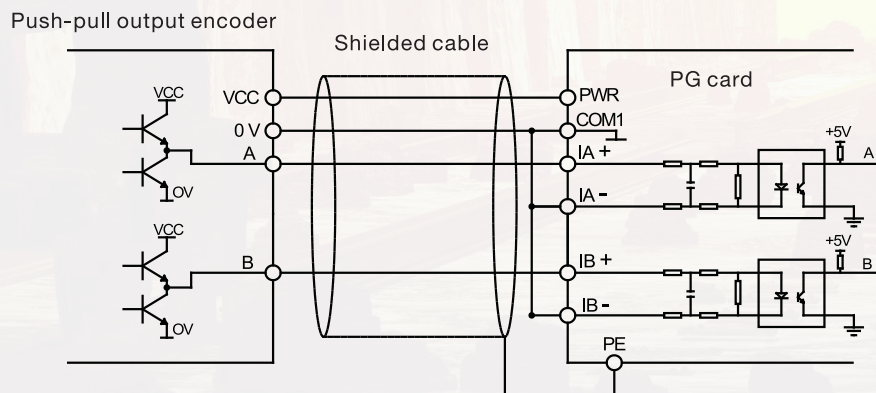
Differential output encoder connection



Open collector output encoder connection

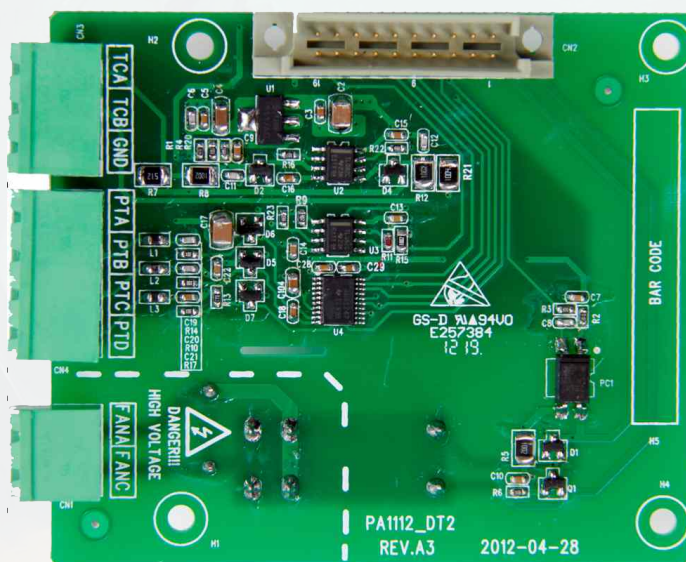


Push-pull output encoder connection



Motor temperature detection card

The motor temperature detection card is used on Goodrive800 Pro series control unit. Multiple temperature detection card are supported, including PT100, NTC, and PTC, which meets customer requirements flexibly.



Terminal description

Terminal symbol	Description
TCA	NTC and PTC temperature detection signal input port
TCB	
GND	
PTA	PT100 temperature detection signal input port
PTB	
PTC	
PTD	
FANA	External fan control
FANC	

Automation product family



■ HMI

VK Series
VT Series
VS Series
VA Series
TC Series



■ Controller

IVC1L Series Programmable Controller
IVC1S Series Programmable Controller
INV2 Series Programmable Controller
IVC3 Series Programmable Controller
AX Series High-performance Programmable Controller



■ Servo System

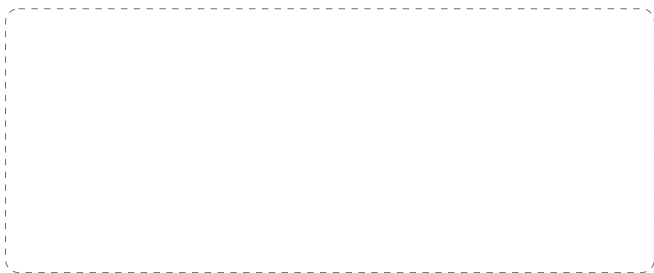
General servo drive System
Industry specific servo system
Industry specific electronic control system



■ VFD

Low-voltage general VFD
Midum-voltage VFD
Industry specific VFD

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- New Energy Vehicle Charging System
- New Energy Vehicle Motor

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