

# GD880 series industrial drives



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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.

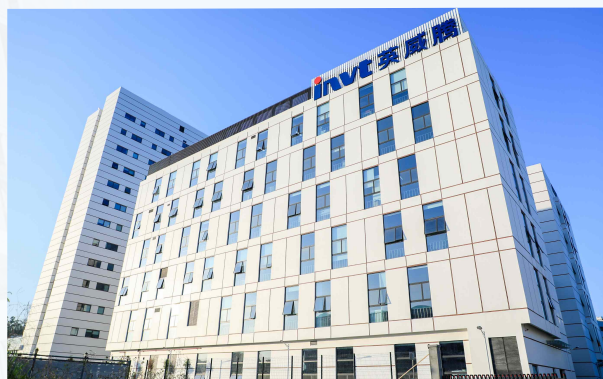
## Industrial Park in Suzhou

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



The GD880 series industrial drives is divided into two topological forms: single drive and multi drive, and is a transmission product positioned for high-end applications. The product is modular designed based on the DFX concept and adopts advanced control algorithms. It has excellent speed and torque control performance, high reliability, high power density, convenient installation, debugging, maintenance, and comprehensive 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
- Meets CCS type approval

Drilling platform



Port hoisting



Paper making



Metallurgy



Oil rig



Mining



# Technical parameters

Item		Specifications
Basic rectifier	Input voltage	4: 380- 440VAC 3PH $\pm 10\%$ , -15%<1min 6: 520- 690VAC 3PH $\pm 10\%$ , -15%<1min
	Input frequency	47-63Hz
	Output voltage	Input voltage * 1.35
	Overload capacity	Light overload: 110% of I <sub>LD</sub> for 1 min every 5 min Heavy overload: 150% of I <sub>HD</sub> for 1 min every 5 min
	Work efficiency	$\geq 99\%$
	Power factor	$\geq 0.95$ (Basically at rated current)
Smart rectifier	Input voltage	4: 380- 440VAC $\pm 10\%$ , -15%<1min 6: 520- 690VAC $\pm 10\%$ , -15%<1min
	Input frequency	47-63Hz
	Output voltage	Input voltage * 1.35
	Overload capacity	Light overload: 110% of I <sub>LD</sub> for 1 min every 5 min Heavy overload: 150% of I <sub>HD</sub> for 1 min every 5 min
	Work efficiency	$\geq 98\%$
	Power factor	$\geq 0.95$ (Basically at rated current)
Active rectifier	Input voltage	4: 380- 440VAC $\pm 10\%$ , -15%<1min 6: 520- 690VAC $\pm 10\%$ , -15%<1min
	Input frequency	47-63Hz
	Output voltage	Input voltage * 1.5
	Overload capacity	Light overload: 110% of I <sub>LD</sub> for 1 min every 5 min Heavy overload: 150% of I <sub>HD</sub> for 1 min every 5 min
	Work efficiency	$\geq 97\%$
	Power factor	$\geq 0.99$ (at rated current)
Inverter	Input voltage	4: 510- 720 VDC, $\pm 10\%$ , -15% < 1min 6: 520- 690 VDC, $\pm 10\%$ , -15% < 1min
	Output frequency	0-400Hz
	Output voltage	0-0.7 * VDC
	Overload capacity	Light overload: 110% of I <sub>LD</sub> for 1 min every 5 min Heavy overload: 150% of I <sub>HD</sub> for 1 min every 5 min
	Work efficiency	$\geq 98.5\%$
	Control method	V/F; SVC; FVC
	Motor type	Permanent magnetic synchronous motor; asynchronous motor; linear motor
	Starting torque	FVC: 0Hz/200%; SVC: 0.25Hz/150%
	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: $\leq 3\%$ ; SVC: $\leq 5\%$
Torque response	FVC: $\leq 5\text{ms}$ ; SVC: $\leq 10\text{ms}$	
Environment condition	Working temperature	-10°C - +50°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
	Safety performance	Compliant with EN 61800-5-1
	Cooling	Forced air cooling

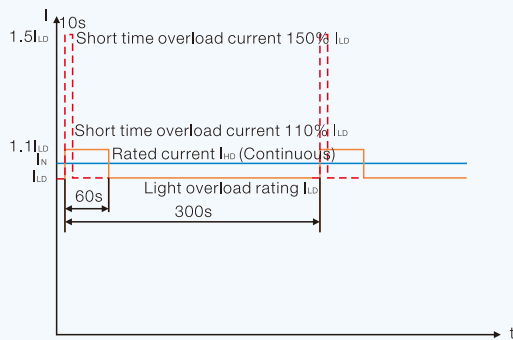
# Naming rule

**GD880 - 51 - 0650 - 6 - LC**

Description	Example
Abbreviation of product series	GD880: GD880 Series Engineer VFD
Product type	11: Variable-frequency drive unit 16: 2-quadrant variable-frequency drive cabinet 41: 3PH braking unit      46: 3PH braking cabinet 51: Inverter unit      56: Inverter cabinet 71: Basic rectifier unit      76: Basic rectifier cabinet 81: Smart rectifier unit 86: Smart rectifier cabinet 91: Active rectifier unit      96: Active rectifier cabinet 09: DC/DC Converter 26: Active-rectifier 4-quadrant variable-frequency drive cabinet 36: Smart-rectifier 4-quadrant variable-frequency drive cabinet
Rating	Rated current (it is rated power for 41 /46)
Voltage class	4: 380- 440VAC 3PH ±10%, -15%<1min 6: 520- 690VAC 3PH ±10%, -15%<1min
Product management No.	Default: Air cooling LC: Liquid-cooling N: A8n unit L2: A8L2 unit K: Frame structure

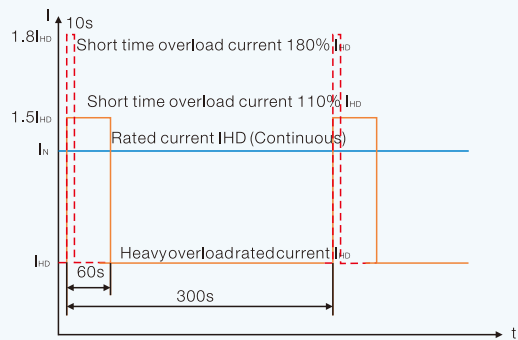
# Overload curve

Based on light overload continuous operating current  $I_{LD}$ , the power unit has overload capacity of 110% overload for 60 seconds or 150% overload for 10 seconds.



Light overload application

Based on heavy overload continuous operating current  $I_{HD}$ , the power unit has overload capacity of 150% overload for 60 seconds or 180% overload for 10 seconds.



Heavy overload application

Note: The 10s short-term overload current is related to the unit temperature, and different overload modes are different.

# GD880-71 basic rectifier unit

**UN= 400V (range 380 to 480V). The power ratings are valid at nominal voltage 400V (475 to 3616kW).**

Drive type	Nominal ratings					Light overload use		Heavy overload use		Frame size	Heat dissipation kW	Air flow m <sup>3</sup> /h
	I <sub>N</sub> A(AC)	I <sub>N</sub> A(DC)	I <sub>max</sub> A(DC)	S <sub>N</sub> kVA	P <sub>N</sub> kW	I <sub>LD</sub> A(DC)	P <sub>LD</sub> kW	I <sub>HD</sub> A(DC)	P <sub>HD</sub> kW			

## 6-pulse

GD880-71-0718-4	718	879	1142	497	475	844	456	659	356	D8T	2.8	1500
GD880-71-0980-4	980	1200	1560	680	648	1154	623	901	487	D8T	3	1500
GD880-71-1336-4-XX	1336	1635	2126	926	883	1570	848	1226	662	2*D8T	5.6	3000
GD880-71-1822-4-XX	1822	2232	2902	1263	1205	2143	1157	1670	902	2*D8T	6	3000
GD880-71-2734-4-XX	2734	3348	4353	1895	1808	3214	1736	2504	1352	3*D8T	9	4500
GD880-71-3645-4-XX	3645	4464	5804	2525	2411	4285	2314	3339	1803	4*D8T	12	6000
GD880-71-4556-4-XX	4556	5580	7254	3156	3013	5357	2893	4174	2254	5*D8T	15	7500
GD880-71-5467-4-XX	5467	6696	8705	3788	3616	6428	3471	5009	2705	6*D8T	18	9000

## 12-pulse

GD880-71-1336-4-XX	1336	1635	2126	926	883	1570	848	1226	662	2*D8T	5.6	3000
GD880-71-1822-4-XX	1822	2232	2902	1263	1205	2143	1157	1670	902	2*D8T	6	3000
GD880-71-2672-4-XX	2672	3270	4252	1852	1766	3140	1696	2452	1324	4*D8T	11.2	6000
GD880-71-3645-4-XX	3645	4464	5804	2525	2408	4285	2314	3339	1803	4*D8T	12	6000
GD880-71-4008-4-XX	4008	4905	6378	2778	2649	4710	2544	3678	1986	6*D8T	16.8	9000
GD880-71-5467-4-XX	5467	6696	8705	3788	3616	6428	3471	5009	2705	6*D8T	18	9000

**UN= 690V (range 520 to 690V). The power ratings are valid at nominal voltage 690V (487 to 5183kW).**

Drive type	Nominal ratings					Light overload use		Heavy overload use		Frame size	Heat dissipation kW	Air flow m <sup>3</sup> /h
	I <sub>N</sub> A(AC)	I <sub>N</sub> A(DC)	I <sub>max</sub> A(DC)	S <sub>N</sub> kVA	P <sub>N</sub> kW	I <sub>LD</sub> A(DC)	P <sub>LD</sub> kW	I <sub>HD</sub> A(DC)	P <sub>HD</sub> kW			

## 6-pulse

GD880-71-0570-6	570	698	907	682	650	670	624	523	487	D8T	2.5	1500
GD880-71-0815-6	815	998	1297	974	929	958	892	748	697	D8T	2.8	1500
GD880-71-1061-6-XX	1061	1299	1688	1268	1210	1247	1161	974	907	2*D8T	5	3000
GD880-71-1515-6-XX	1515	1854	2411	1810	1727	1780	1658	1391	1295	2*D8T	5.6	3000
GD880-71-2273-6-XX	2273	2782	3617	2716	2591	2671	2488	2087	1944	3*D8T	8.4	4500
GD880-71-3031-6-XX	3031	3710	4823	3622	3456	3561	3317	2782	2592	4*D8T	11.2	6000
GD880-71-3788-6-XX	3788	4636	6027	4527	4319	4451	4146	3477	3239	5*D8T	14	7500
GD880-71-4546-6-XX	4546	5564	7233	5433	5183	5341	4976	4173	3887	6*D8T	16.8	9000

## 12-pulse

GD880-71-1061-6-XX	1061	1299	1688	1268	1210	1247	1161	974	907	2*D8T	5	3000
GD880-71-1515-6-XX	1515	1854	2411	1810	1727	1780	1658	1391	1295	2*D8T	5.6	3000
GD880-71-2122-6-XX	2122	2597	3376	2536	2419	2493	2323	1948	1814	4*D8T	10	6000
GD880-71-3031-6-XX	3031	3710	4823	3622	3456	3561	3317	2782	2592	4*D8T	11.2	6000
GD880-71-4546-6-XX	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:

Nominal ratings: I<sub>N</sub>, Rated current available continuously without overloadability at 40 °C. I<sub>max</sub>, Maximum output current. Available for 10 seconds at start, then as long as allowed by drive temperature.

Light overload use: I<sub>LD</sub>, Continuous current allowing 110% I<sub>LD</sub> for 1 minute every 5 minutes at 40 °C.

Heavy overload use: I<sub>HD</sub>, Continuous current allowing 150% I<sub>HD</sub> for 1 minute every 5 minutes at 40 °C.

# GD880-81 smart rectifier unit

**UN= 400V (range 380 to 480V). The power ratings are valid at nominal voltage 400V (76 to 3513kW).**

Drive type	Nominal ratings					Light overload use		Heavy overload use		Frame size	Heat dissipation kW	Air flow m <sup>3</sup> /h
	I <sub>N</sub> A(AC)	I <sub>N</sub> A(DC)	I <sub>max</sub> A(DC)	S <sub>N</sub> kVA	P <sub>N</sub> kW	I <sub>LD</sub> A(DC)	P <sub>LD</sub> kW	I <sub>HD</sub> A(DC)	P <sub>HD</sub> kW			
GD880-81-0116-4	116	141	184	80	76	135	73	106	57	A4+L	1.03	255
GD880-81-0149-4	149	181	236	102	97	174	94	136	73	A4+L	1.31	255
GD880-81-0183-4	183	223	290	126	120	214	115	167	90	A4+L	1.62	255
GD800-81-0245-4	245	299	389	169	161	287	155	224	121	A6+L	2.18	1000
GD800-81-0299-4	299	365	475	206	197	351	189	274	148	A6+L	2.66	1000
GD800-81-0349-4	349	426	555	241	230	410	221	320	172	A7+L	2.92	1000
GD800-81-0395-4	395	483	628	273	261	464	250	362	195	A7+L	3.32	1000
GD800-81-0516-4	516	631	820	357	341	606	327	473	255	A7+L	4.34	1000
GD800-81-0640-4-XX	640	783	1018	443	423	752	406	587	317	A8+L	4.9	3000
GD800-81-0757-4-XX	757	923	1201	522	497	886	478	692	373	A8+L	5.2	3000
GD800-81-0900-4-XX	900	1102	1432	624	595	1057	571	826	446	A8+L	6.88	3000
GD800-81-1180-4-XX	1180	1445	1879	818	780	1387	749	1081	584	2*A8+L	8.4	4500
GD800-81-1770-4-XX	1770	2168	2818	1226	1171	2081	1124	1622	876	2*A8+L	12.2	4500
GD880-81-2360-4-XX	2360	2890	3758	1636	1560	2774	1498	2162	1168	2*(2*A8+L)	16.8	9000
GD880-81-3540-4-XX	3540	4336	5636	2452	2342	4162	2248	3244	1752	2*(2*A8+L)	24.4	9000
GD880-81-5310-4-XX	5310	6504	8454	3678	3513	6243	3372	4866	2628	3*(2*A8+L)	36.6	13500

\* The control unit needs to be used in conjunction with the AC voltage detection module and the fiber optic communication module

\* A6 and A7 structures require separate purchase of LCD keypad

\* A8 and above structures require separate purchase of LCD keypad and control unit

\* The rectifier unit of A8 and above structures is a fast insertion structure, L is a filtering unit, and other structures are discrete filtering reactors

\* - XX: Default/K optional, default to standard air-cooled product

**UN= 690V (range 520 to 690V). The power ratings are valid at nominal voltage 690V (685 to 6057kW).**

Drive type	Nominal ratings					Light overload use		Heavy overload use		Frame size	Heat dissipation kW	Air flow m <sup>3</sup> /h
	I <sub>N</sub> A(AC)	I <sub>N</sub> A(DC)	I <sub>max</sub> A(DC)	S <sub>N</sub> kVA	P <sub>N</sub> kW	I <sub>LD</sub> A(DC)	P <sub>LD</sub> kW	I <sub>HD</sub> A(DC)	P <sub>HD</sub> kW			
GD800-81-0600-6-XX	600	734	955	717	685	705	657	550	512	A8+L	5.4	3000
GD800-81-0900-6-XX	900	1102	1432	1076	1027	1058	986	824	768	A8+L	7.2	3000
GD800-81-1180-6-XX	1180	1445	1879	1410	1346	1387	1292	1081	1007	2*A8+L	9.3	4500
GD800-81-1770-6-XX	1770	2168	2818	2115	2019	2081	1939	1622	1510	2*A8+L	12.3	4500
GD880-81-2360-6-XX	2360	2890	3758	2820	2692	2774	2584	2162	2014	2*(2*A8+L)	18.6	9000
GD880-81-3540-6-XX	3540	4336	5636	4230	4038	4162	3878	3244	3020	2*(2*A8+L)	24.6	9000
GD880-81-5310-6-XX	5310	6504	8454	6345	6057	6243	5817	4866	4530	3*(2*A8+L)	36.9	13500

\* The control unit needs to be used in conjunction with the AC voltage detection module and the fiber optic communication module

\* A8 and above structures require separate purchase of LCD keypad and control unit

\* The rectifier unit of A8 and above structures is a fast insertion structure, L is a filtering unit, and other structures are discrete filtering reactors

\* - XX: Default/K optional, default to standard air-cooled product

Frame size	Height (mm)	Width (mm)	Depth (mm)	Weight (kg)
A4	440	200	435	19.5
A6	850	200	465	45
A7	980	200	465	55
A8+L	1275	500	584	420
2*A8+L	1275	730	584	615

Note:

Nominal ratings: I<sub>N</sub>, Rated current available continuously without overloadability at 40 °C. I<sub>max</sub>, Maximum output current. Available for 10 seconds at start, then as long as allowed by drive temperature.

Light overload use: I<sub>LD</sub>, Continuous current allowing 110% I<sub>LD</sub> for 1 minute every 5 minutes at 40 °C.

Heavy overload use: I<sub>HD</sub>, Continuous current allowing 150% I<sub>HD</sub> for 1 minute every 5 minutes at 40 °C.



# GD880-91 active rectifier unit

**UN= 400V (range 380 to 480V). The power ratings are valid at nominal voltage 400V (64 to 3167kW).**

Drive type	Nominal ratings					Light overload use		Heavy overload use		Frame size	Heat dissipation kW	Air flow m <sup>3</sup> /h
	I <sub>N</sub> A(AC)	I <sub>N</sub> A(DC)	I <sub>max</sub> A(DC)	S <sub>N</sub> kVA	P <sub>N</sub> kW	I <sub>LD</sub> A(DC)	P <sub>LD</sub> kW	I <sub>HD</sub> A(DC)	P <sub>HD</sub> kW			
GD880-91-0094-4	94	107	140	65	64	103	62	81	48	A3+LCL	1.92	179
GD880-91-0116-4	116	132	172	80	78	127	76	99	59	A4+LCL	2.34	255
GD880-91-0149-4	149	170	221	103	102	164	98	128	77	A4+LCL	3.06	255
GD880-91-0183-4	183	209	272	127	126	201	120	157	94	A4+LCL	3.78	255
GD880-91-0220-4	220	251	326	153	151	241	145	188	113	A6+LCL	4.53	1000
GD880-91-0260-4	260	296	385	179	178	284	171	222	133	A6+LCL	5.34	1000
GD880-91-0312-4	312	355	462	216	214	341	205	266	161	A7+LCL	6.42	1000
GD880-91-0395-4	395	452	587	274	271	433	260	339	203	A7+LCL	8.13	1000
GD880-91-0516-4	516	590	767	357	354	565	339	442	265	A7+LCL	10.62	1000
GD880-91-0615-4-XX	615	701	911	426	422	673	405	526	317	A8+LCL	12.66	3000
GD880-91-0681-4-XX	681	775	1014	471	463	746	449	586	347	A8+LCL	13.89	3000
GD880-91-0810-4-XX	810	926	1204	561	556	889	533	694	417	A8+LCL	16.68	3000
GD880-91-0980-4-XX	980	1115	1459	678	667	1073	646	844	500	2*A8+LCL	20.16	4500
GD880-91-1168-4-XX	1168	1332	1731	809	802	1288	769	999	602	2*A8+LCL	24.06	4500
GD880-91-1295-4-XX	1295	1480	1925	897	888	1421	852	1110	666	2*A8+LCL	26.64	4500
GD880-91-1539-4-XX	1539	1759	2287	1066	1056	1689	1013	1319	792	2*A8+LCL	31.68	4500
GD880-91-2336-4-XX	2336	2670	3471	1617	1602	2563	1538	2002	1201	2*(2*A8+LCL)	48.12	9000
GD880-91-3078-4-XX	3078	3519	4574	2132	2111	3378	2027	2639	1583	2*(2*A8+LCL)	63.33	9000
GD880-91-4617-4-XX	4617	5278	6861	3198	3167	5067	3040	3958	2375	3*(2*A8+LCL)	95.01	13500

- \* The control unit needs to be used in conjunction with the AC voltage detection module and the fiber optic communication module
- \* A6 and A7 structures require separate purchase of LCD keypad
- \* A8 and above structures require separate purchase of LCD keypad and control unit
- \* The rectifier unit of A8 and above structures is a fast insertion structure, L is a filtering unit, and other structures are discrete filtering reactors
- \* - XX: Default/K optional, default to standard air-cooled product

**UN= 690V (range 520 to 690V). The power ratings are valid at nominal voltage 690V (437 to 6070kW).**

Drive type	Nominal ratings					Light overload use		Heavy overload use		Frame size	Heat dissipation kW	Air flow m <sup>3</sup> /h
	I <sub>N</sub> A(AC)	I <sub>N</sub> A(DC)	I <sub>max</sub> A(DC)	S <sub>N</sub> kVA	P <sub>N</sub> kW	I <sub>LD</sub> A(DC)	P <sub>LD</sub> kW	I <sub>HD</sub> A(DC)	P <sub>HD</sub> kW			
GD880-91-0369-6-XX	369	422	548	441	437	405	419	316	327	A8+LCL	13.11	3000
GD880-91-0477-6-XX	477	545	570	708	564	523	541	408	422	A8+LCL	16.92	3000
GD880-91-0540-6-XX	540	617	802	645	639	593	613	463	479	A8+LCL	19.17	3000
GD880-91-0701-6-XX	701	801	1042	838	829	769	796	601	622	2*A8+LCL	24.87	4500
GD880-91-0906-6-XX	906	1036	1082	1347	1072	994	1029	777	804	2*A8+LCL	32.16	4500
GD880-91-1026-6-XX	1026	1173	1525	1226	1214	1126	1165	880	910	2*A8+LCL	36.42	4500
GD880-91-1402-6-XX	1402	1603	1675	2083	1659	1539	1592	1202	1244	2*(2*A8+LCL)	49.77	9000
GD880-91-2052-6-XX	2052	2346	2452	3049	2428	2252	2331	1759	1821	2*(2*A8+LCL)	72.84	9000
GD880-91-3078-6-XX	3078	3519	3678	4574	3642	3378	3496	2639	2731	3*(2*A8+LCL)	109.26	13500
GD880-91-4104-6-XX	4104	4692	6100	4904	4856	4504	4660	3520	3640	4*(2*A8+LCL)	145.68	18000
GD880-91-5130-6-XX	5130	5865	7625	6130	6070	5630	5825	4400	4550	5*(2*A8+LCL)	182.1	22500

- \* The control unit needs to be used in conjunction with the AC voltage detection module and the fiber optic communication module
- \* A8 and above structures require separate purchase of LCD keypad and control unit
- \* The rectifier unit of A8 and above structures is a fast insertion structure, L is a filtering unit, and other structures are discrete filtering reactors
- \* - XX: Default/K optional, default to standard air-cooled product

Frame size	Height (mm)	Width (mm)	Depth (mm)	Weight (kg)
A3	440	100	435	8.7
A4	440	200	435	19.5
A6	850	200	465	45
A7	980	200	465	55
A8+LCL	1275	500	584	465
2*A8+LCL	1275	730	584	630

Note:

Nominal ratings:  $I_N$ , Rated current available continuously without overloadability at 40 °C.  $I_{max}$ , Maximum output current. Available for 10 seconds at start, then as long as allowed by drive temperature.

Light overload use:  $I_{LD}$ , Continuous current allowing 110%  $I_{LD}$  for 1 minute every 5 minutes at 40 °C.

Heavy overload use:  $I_{HD}$ , Continuous current allowing 150%  $I_{HD}$  for 1 minute every 5 minutes at 40 °C.

## GD880-51 inverter unit

Input: 510...720Vdc output: 0-0.7\*Vdc The power ratings are valid at nominal voltage 400V (4 to 3000kW).

Drive type	Nominal ratings			Light overload use		Heavy overload use		Frame size	Heat dissipation kW	Air flow m <sup>3</sup> /h
	$I_N$ A(AC)	$I_{max}$ A(AC)	$P_N$ kW(AC)	$I_{LD}$ A(AC)	$P_{LD}$ kW(AC)	$I_{HD}$ A(AC)	$P_{HD}$ kW(AC)			
GD880-51-0009-4	9	11	4	9	4	5.1	2.2	A1i	0.1	17
GD880-51-0013-4	13	15.6	5.5	13	5.5	9	4	A1i	0.14	17
GD880-51-0017-4	17	21	7.5	17	7.5	13	5.5	A1i	0.17	17
GD880-51-0023-4	23	27	11	22	11	17	7.5	A1i	0.19	17
GD880-51-0033-4	33	40	15	32	15	25	11	A2i	0.29	68
GD880-51-0038-4	38	51	18.5	37	18.5	32	15	A2i	0.31	68
GD880-51-0048-4	48	59	22	45	22	37	18.5	A2i	0.41	94
GD880-51-0060-4	60	72	30	58	30	45	22	A3i	0.51	110
GD880-51-0078-4	78	96	37	75	37	60	30	A3i	0.61	128
GD880-51-0094-4	94	120	45	91	45	75	37	A3i	0.75	179
GD880-51-0116-4	116	146	55	112	55	91	45	A4i	0.78	255
GD880-51-0149-4	149	179	75	143	75	112	55	A4i	1.2	255
GD880-51-0183-4	183	240	90	176	90	150	75	A4i	1.5	255
GD880-51-0245-4	245	294	110	236	110	184	90	A6i	1.8	1000
GD880-51-0299-4	299	358	132	287	132	224	110	A6i	2.2	1000
GD880-51-0349-4	349	419	160	335	160	262	132	A7i	2.6	1000
GD880-51-0395-4	395	486	200	380	200	296	160	A7i	3.2	1000
GD880-51-0516-4	516	619	250	495	250	387	200	A7i	5.2	1000
GD880-51-0639-4-XX	639	766	355	613	315	479	250	A8i/A8n/A8L2	6.8	1500
GD880-51-0757-4-XX	757	909	400	727	400	568	315	A8i/A8n/A8L2	8	1500
GD880-51-0900-4-XX	900	1080	500	864	450	675	355	A8i/A8n/A8L2	10	1500
GD880-51-0975-4-XX	960	1152	560	931	500	720	400	A8i/A8n/A8L2	10.1	1500
GD880-51-1213-4-XX	1213	1456	630	1165	630	910	500	2*A8i/A8n/A8L2	13.6	3000
GD880-51-1439-4-XX	1439	1727	800	1381	800	1079	630	2*A8i/A8n/A8L2	16	3000
GD880-51-1710-4-XX	1710	2052	1000	1642	900	1283	710	2*A8i/A8n/A8L2	20	3000
GD880-51-1852-4-XX	1852	2222	1000	1795	1000	1388	800	2*A8i/A8n/A8L2	21.2	3000
GD880-51-2158-4-XX	2158	2590	1200	2072	1200	1619	900	3*A8i/A8n/A8L2	24	4500
GD880-51-2565-4-XX	2565	3078	1400	2463	1400	1924	1000	3*A8i/A8n/A8L2	30	4500
GD880-51-2778-4-XX	2778	3333	1500	2693	1500	2083	1100	3*A8i/A8n/A8L2	31.8	4500
GD880-51-3420-4-XX	3420	4104	1800	3283	1800	2565	1400	4*A8i/A8n/A8L2	40	6000
GD880-51-3704-4-XX	3704	4444	2000	3590	2000	2776	1500	4*A8i/A8n/A8L2	42.4	6000
GD880-51-4275-4-XX	4275	5130	2400	4104	2200	3206	1800	5*A8i/A8n/A8L2	50	7500
GD880-51-4630-4-XX	4630	5556	2500	4488	2500	3471	1900	5*A8i/A8n/A8L2	53	7500
GD880-51-5130-4-XX	5130	6156	2800	4925	2800	3848	2000	6*A8i/A8n/A8L2	60	9000
GD880-51-5566-4-XX	5566	6666	3000	5386	3000	4166	2300	6*A8i/A8n/A8L2	63.6	9000

\* A6 and A7 structures require separate purchase of LCD keypad  
 \* A8 and above structures require separate purchase of LCD keypad and control unit  
 \* A8i is a fast plug structure with back-end wiring, while A8n is a direct connection structure with front-end wiring. When placing an order, the structural requirements need to be specified; A8L2 is a direct connected structure, including an output reactor and front-end outgoing lines  
 \* - XX: Default/K optional, default to standard air-cooled product

Input: 700... 1035Vdc output: 0-0.7*Vdc The power ratings are valid at nominal voltage 690V (55 to 6300kW).										
Drive type	Nominal ratings			Light overload use		Heavy overload use		Frame size	Heat dissipation kW	Air flow m <sup>3</sup> /h
	I <sub>N</sub> A(AC)	I <sub>max</sub> A(AC)	P <sub>N</sub> kW(AC)	I <sub>LD</sub> A(AC)	P <sub>LD</sub> kW(AC)	I <sub>HD</sub> A(AC)	P <sub>HD</sub> kW(AC)			
GD880-51-0062-6	62	74	55	60	55	46	45	A6i	0.9	1000
GD880-51-0082-6	82	98	75	79	75	61	55	A6i	1.2	1000
GD880-51-0099-6	99	118	90	95	90	74	75	A6i	1.4	1000
GD880-51-0125-6	125	150	110	120	110	94	90	A6i	1.8	1000
GD880-51-0144-6	144	173	132	138	132	108	110	A6i	2.1	1000
GD880-51-0192-6	192	230	160	184	160	144	132	A6i	2.8	1000
GD880-51-0217-6	217	259	200	215	200	162	160	A7i	3.2	1000
GD880-51-0270-6	270	323	250	260	250	202	200	A7i	4	1000
GD880-51-0340-6	340	408	315	326	315	255	250	A7i	5.1	1000
GD880-51-0410-6-XX	410	492	400	394	355	308	315	A8i/A8n/A8L2	6.2	1500
GD880-51-0530-6-XX	530	636	500	509	450	398	355	A8i/A8n/A8L2	8	1500
GD880-51-0600-6-XX	600	720	560	576	560	450	400	A8i/A8n/A8L2	9.1	1500
GD880-51-0650-6-XX	650	780	630	624	560	488	450	A8i/A8n/A8L2	10.3	1500
GD880-51-0720-6-XX	720	864	710	690	630	540	500	A8i/A8n/A8L2	11.7	1500
GD880-51-0779-6-XX	779	935	800	748	710	584	560	2*A8i/A8n/A8L2	12.4	3000
GD880-51-1007-6-XX	1007	1208	1000	967	900	755	710	2*A8i/A8n/A8L2	16	3000
GD880-51-1140-6-XX	1140	1368	1100	1094	1000	855	800	2*A8i/A8n/A8L2	18.2	3000
GD880-51-1235-6-XX	1235	1482	1200	1186	1000	927	900	2*A8i/A8n/A8L2	20.6	3000
GD880-51-1368-6-XX	1368	1642	1300	1311	1200	1026	1000	2*A8i/A8n/A8L2	22.5	3000
GD880-51-1510-6-XX	1510	1813	1400	1450	1400	1133	1100	3*A8i/A8n/A8L2	24	4500
GD880-51-1710-6-XX	1710	2052	1600	1642	1600	1283	1200	3*A8i/A8n/A8L2	27.3	4500
GD880-51-1853-6-XX	1853	2223	1800	1778	1600	1390	1300	3*A8i/A8n/A8L2	30.9	4500
GD880-51-2052-6-XX	2052	2462	2000	1967	1800	1539	1500	3*A8i/A8n/A8L2	32.3	4500
GD880-51-2280-6-XX	2280	2736	2000	2189	2000	1710	1600	4*A8i/A8n/A8L2	36.4	6000
GD880-51-2470-6-XX	2470	2964	2400	2371	2000	1854	1800	4*A8i/A8n/A8L2	41.2	6000
GD880-51-2736-6-XX	2736	3283	2600	2622	2400	2052	2000	4*A8i/A8n/A8L2	45	6000
GD880-51-3088-6-XX	2850	3420	2800	2736	2400	2138	2000	5*A8i/A8n/A8L2	51.5	7500
GD880-51-3420-6-XX	3420	4104	3200	3278	3200	2565	2400	5*A8i/A8n/A8L2	54.8	7500
GD880-51-3705-6-XX	3705	4446	3600	3557	3200	2782	2600	6*A8i/A8n/A8L2	61.8	9000
GD880-51-4104-6-XX	4104	4925	4000	3933	3600	3078	3000	6*A8i/A8n/A8L2	64.6	9000
GD880-51-4940-6-XX	4940	5928	4800	4744	4000	3708	3600	8*A8i/A8n/A8L2	82.4	12000
GD880-51-5472-6-XX	5472	6566	5200	5244	4800	4104	4000	8*A8i/A8n/A8L2	93.6	12000
GD880-51-6175-6-XX	6175	7410	6000	5930	5000	4635	4500	10*A8i/A8n/A8L2	103	15000
GD880-51-6840-6-XX	6840	8208	6300	6555	6300	5130	5000	10*A8i/A8n/A8L2	117	15000

\* A6 and A7 structures require separate purchase of LCD keypad  
 \* A8 and above structures require separate purchase of LCD keypad and control unit  
 \* A8i is a fast plug structure with back-end wiring, while A8n is a direct connection structure with front-end wiring. When placing an order, the structural requirements need to be specified; A8L2 is a direct connected structure, including an output reactor and front-end outgoing lines  
 \* - XX: Default/K optional, default to standard air-cooled product

Frame size	Height (mm)	Width (mm)	Depth (mm)	Weight (kg)
A1i	420	100	435	6.5
A2i	420	100	435	8.7
A3i	440	100	435	8.7
A4i	440	200	435	19.5
A6i	850	200	465	45
A7i	980	200	465	55
A8i	1275	230	584	165
A8n	933	230	584	98
A8L2	1275	230	584	170

Note:

Nominal ratings:  $I_N$ , Rated current available continuously without overloadability at 40 °C.  $I_{max}$ , Maximum output current. Available for 10 seconds at start, then as long as allowed by drive temperature.

Light overload use:  $I_{Ld}$ , Continuous current allowing 110%  $I_{Ld}$  for 1 minute every 5 minutes at 40 °C.

Heavy overload use:  $I_{Hd}$ , Continuous current allowing 150%  $I_{Hd}$  for 1 minute every 5 minutes at 40 °C.

## GD880-41 3PH braking unit

Input: 510...720VDC, The power ratings are valid at nominal voltage 400V (500 to 750kW).

Drive type	Resistor values		U <sub>br</sub>	Nominal ratings			Duty cycle use (1min/5min)			Frame size	Heat dissipation kW	Air flow m <sup>3</sup> /h
	ohm		V	I <sub>DC</sub> A(DC)	I <sub>rms</sub> A(AC)	P <sub>N</sub> kW	I <sub>DC</sub> A(DC)	I <sub>rms</sub> A(AC)	P <sub>HB</sub> kW			
GD880-41-0500-4	R <sub>min</sub>	1.7	653	781	310	500	999	351	640	A8b	1.5	1500
	R <sub>max</sub>	2.1	653	650	258	416	832	291	530	A8b	1.3	1500
GD880-41-0750-4	R <sub>min</sub>	1.2	653	1171	465	750	1499	527	960	A8b	2.4	1500
	R <sub>max</sub>	1.4	653	975	387	624	1249	436	800	A8b	2	1500

Input: 700...1035VDC, The power ratings are valid at nominal voltage 690V (870 to 1300kW).

Drive type	Resistor values		U <sub>br</sub>	Nominal ratings			Duty cycle use (1min/5min)			Frame size	Heat dissipation kW	Air flow m <sup>3</sup> /h
	ohm		V	I <sub>DC</sub> A(DC)	I <sub>rms</sub> A(AC)	P <sub>N</sub> kW	I <sub>DC</sub> A(DC)	I <sub>rms</sub> A(AC)	P <sub>HB</sub> kW			
GD880-41-0870-6	R <sub>min</sub>	3	1126	781	310	870	999	351	1100	A8b	1.6	1500
	R <sub>Max</sub>	3.6	1126	650	258	725	832	291	920	A8b	1.4	1500
GD880-41-1300-6	R <sub>Min</sub>	2	1126	1171	465	1300	1499	527	1655	A8b	2.5	1500
	R <sub>max</sub>	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:

Nominal ratings:  $I_{DC}$ , Total input DC current of brake unit.  $I_{rms}$ , Total rms DC output phase current of brake unit.

Duty cycle use:  $I_{DC}$ , Total input DC current of brake unit during a period of 1 minute with braking power  $P_{br}$ .  $I_{rms}$ , Total rms DC current per brake unit phase during a period of 1 minute with braking power  $P_{br}$ .

# GD880-LC liquid-cooling unit

Inverter unit Input: 700...1035Vdc output: 0-0.7\*Vdc. The power ratings are valid at nominal voltage 690V (400 to 630kW).

Drive type	Nominal ratings			Light overload use		Heavy overload use		Frame size	Heat dissipation C/a/T kW	Air flow m <sup>3</sup> /h
	I <sub>N</sub> A(AC)	I <sub>max</sub> A(AC)	P <sub>N</sub> kW(AC)	I <sub>LD</sub> A(AC)	P <sub>LD</sub> kW(AC)	I <sub>HD</sub> A(AC)	P <sub>HD</sub> kW(AC)			
GD880-51-0410-6-LC	410	492	400	394	355	308	315	A8LC	6.8/0.4/7.2	A8LC
GD880-51-0530-6-LC	530	636	500	509	450	398	355		8.8/0.5/9.3	
GD880-51-0600-6-LC	600	720	560	576	560	450	400		9.9/0.7/10.6	
GD880-51-0650-6-LC	650	780	630	624	560	488	450		10.7/0.7/11.4	

Basic rectifier unit UN=690V (range 525 to 690V). The power ratings are valid at nominal voltage 690V (2283kW).

Drive type	Nominal ratings			Light overload use		Heavy overload use		Frame size	Heat dissipation C/a/T kW	Air flow m <sup>3</sup> /h
	I <sub>N</sub> A(AC)	I <sub>max</sub> A(AC)	P <sub>N</sub> kW(AC)	I <sub>LD</sub> A(AC)	P <sub>LD</sub> kW(AC)	I <sub>HD</sub> A(AC)	P <sub>HD</sub> kW(AC)			
GD880-61-2000-6-LC	2000	2450	2283	2352	2192	1833	1708	D3T	11	16

Single-drive UN=690V (range 525V to 690V). The power ratings are valid at nominal voltage 690V (315 to 500kW).

Drive type	Nominal ratings			Light overload use		Heavy overload use		Frame size	Heat dissipation C/a/T kW	Air flow m <sup>3</sup> /h
	I <sub>N</sub> A(AC)	I <sub>max</sub> A(AC)	P <sub>N</sub> kW(AC)	I <sub>LD</sub> A(AC)	P <sub>LD</sub> kW(AC)	I <sub>HD</sub> A(AC)	P <sub>HD</sub> kW(AC)			
GD880-11-0340-6-LC	340	408	315	326	315	255	250	A8LC	5.8/0.4/6.2	16
GD880-11-0410-6-LC	410	492	400	394	355	308	315		7.0/0.4/7.4	
GD880-11-0530-6-LC	530	636	500	509	450	398	355		9.0/0.5/9.5	

Note: c=Power loss dissipated in the coolant; a=Power loss dissipated in the air; T=Total power loss; The above losses are only unit losses, excluding reactor losses.

Frame size	Height (mm)	Width (mm)	Depth (mm)	Weight (kg)
A8LC	910	230	538	85
D3T	197	580	332	40

Note:

Nominal ratings: I<sub>N</sub>, Rated current available continuously without overloadability at 40 °C. I<sub>max</sub>, Maximum output current. Available for 10 seconds at start, then as long as allowed by drive temperature.

Light overload use: I<sub>LD</sub>, Continuous current allowing 110% I<sub>LD</sub> for 1 minute every 5 minutes at 40 °C.

Heavy overload use: I<sub>HD</sub>, Continuous current allowing 150% I<sub>HD</sub> for 1 minute every 5 minutes at 40 °C.

# GD880 single-drive

**UN=400V (range 380 to 440V). The power ratings are valid at nominal voltage 400V (355 to 1000kW).**

Drive type	Nominal ratings				Light overload use		Heavy overload use		Frame size	Heat dissipation kW	Air flow m <sup>3</sup> /h
	I <sub>i</sub> A(AC)	I <sub>N</sub> A(AC)	I <sub>max</sub> A(AC)	P <sub>N</sub> kW	I <sub>LD</sub> A(AC)	P <sub>LD</sub> kW	I <sub>HD</sub> A(AC)	P <sub>HD</sub> kW(AC)			
GD880-11-0639-4	556	639	766	355	613	315	479	250	11A8	7.5	1500
GD880-11-0757-4	627	757	909	400	727	400	568	315		9.5	1500
GD880-11-0900-4	783	900	1080	500	864	450	675	355		10.7	1500
GD880-11-0975-4	848	975	1170	560	945	500	731	400		12	1500
GD880-16-0639-4	556	639	766	355	613	315	479	250	16S4	7.5	3000
GD880-16-0757-4	627	757	909	400	727	400	568	315		9.5	3000
GD880-16-0900-4	783	900	1080	500	864	450	675	355		10.7	3000
GD880-16-0975-4	848	975	1170	560	945	500	731	400		12	3000
GD880-16-1213-4	987	1213	1456	630	1165	630	910	500	16S5	15	6000
GD880-16-1439-4	1254	1439	1727	800	1381	800	1079	630		19	6000
GD880-16-1710-4	1566	1710	2052	1000	1642	900	1283	710		21.4	8000
GD880-16-1852-4	1611	1852	2223	1000	1795	1000	1388	800		24	8000

**UN=690V (range 525 to 690V). The power ratings are valid at nominal voltage 690V (400 to 1300kW).**

Drive type	Nominal ratings				Light overload use		Heavy overload use		Frame size	Heat dissipation kW	Air flow m <sup>3</sup> /h
	I <sub>i</sub> A(AC)	I <sub>N</sub> A(AC)	I <sub>max</sub> A(AC)	P <sub>N</sub> kW	I <sub>LD</sub> A(AC)	P <sub>LD</sub> kW	I <sub>HD</sub> A(AC)	P <sub>HD</sub> kW(AC)			
GD880-11-0410-6	364	410	492	400	394	355	308	315	11A8	9.5	1500
GD880-11-0530-6	455	530	636	500	509	450	398	355	11A8	10.8	1500
GD880-11-0600-6	509	600	720	560	576	560	450	400	11A8	12.1	1500
GD880-11-0650-6	573	650	780	630	624	560	488	450	11A8	13.4	1500
GD880-11-0720-6	645	720	864	710	690	630	540	500	11A8	15	1500
GD880-16-0410-6	364	410	492	400	394	355	308	315	16S4	9.5	3000
GD880-16-0530-6	455	530	636	500	509	450	398	355		10.8	3000
GD880-16-0600-6	509	600	720	560	576	560	450	400		12.1	3000
GD880-16-0650-6	573	650	780	630	624	560	488	450		13.4	3000
GD880-16-0720-6	645	720	864	710	690	630	540	500	16S4	15	3000
GD880-16-0779-6	727	779	935	800	748	710	584	560	16S5	19	6000
GD880-16-1007-6	910	1007	1208	1000	967	900	755	710		21.6	6000
GD880-16-1140-6	1000	1140	1368	1100	1094	1000	855	800		24.2	8000
GD880-16-1235-6	1090	1235	1482	1200	1186	1000	927	900		26	8000
GD880-16-1368-6	1182	1368	1642	1300	1311	1200	1026	1000	16S5	30	8000

Frame size	Height (mm)	Width (mm)	Depth (mm)	Weight (kg)
11A8	1340	250	584	150
16S4	2200	800	600	640
16S5	2300	1400	600	1100

Note:

Nominal ratings: I<sub>N</sub>, Rated current available continuously without overloadability at 40 °C.

I<sub>max</sub>, Maximum output current. Available for 10 seconds at start, then as long as allowed by drive temperature.

Light overload use: I<sub>LD</sub>, Continuous current allowing 110% I<sub>N</sub> for 1 minute every 5 minutes at 40 °C.

Heavy overload use: I<sub>HD</sub>, Continuous current allowing 150% I<sub>N</sub> for 1 minute every 5 minutes at 40 °C.

# Feature and option list

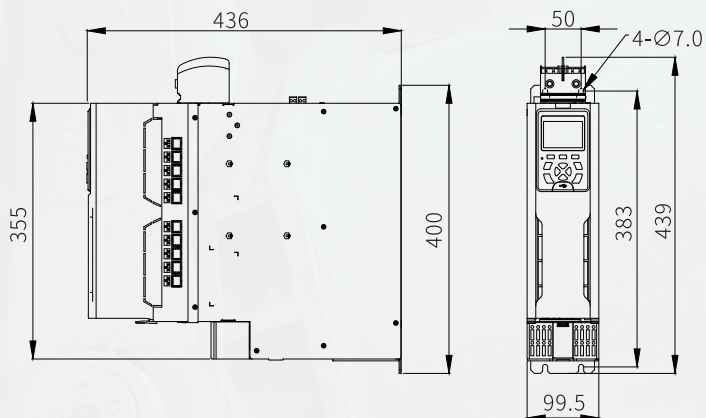
Code	Voltage and power ranges 4:4-3000kW 6:55-6300kW	GD880-56 inverter cabinet	GD880-76 basic rectifier cabinet	GD880-86 smart rectifier cabinet	GD880-96 active rectifier cabinet	GD880-46 3PH braking cabinet	GD880-16 variable frequency cabinet	GD880-36 smart rectifier variable frequency cabinet	GD880-26 active rectifier variable frequency cabinet
<b>IP rating</b>									
C120	IP20 (UL Type1)	●	●	●	●	●	●	●	●
C121	IP21 (UL Type1)	□	□	□	□	□	□	□	□
C142	IP42 (UL Type1)	□	□	□	□	□	□	□	□
C154	IP54 (UL Type12)	□	□	□	□	□	□	□	□
<b>Mounting</b>									
C201	Normal base (100mm)	□	□	□	□	□	□	□	□
C202	Cable base (200mm)	□	□	□	□	□	□	□	□
C211	Lifting ring	□ <sup>①</sup>	□ <sup>①</sup>	□ <sup>①</sup>	□ <sup>①</sup>	□ <sup>①</sup>	□ <sup>①</sup>	□ <sup>①</sup>	□ <sup>①</sup>
C212	Lifting lintel	● <sup>①</sup>	● <sup>①</sup>	● <sup>①</sup>	● <sup>①</sup>	● <sup>①</sup>	● <sup>①</sup>	● <sup>①</sup>	● <sup>①</sup>
C213	Air outlet to pipe	□	□	□	□	□	□	□	□
<b>Device at cable inlet side</b>									
E100	Circuit breakers	-	●	●	●	-	● <sup>②</sup>	● <sup>②</sup>	● <sup>②</sup>
E101	Drawer type air switch	-	□ <sup>③</sup>	□ <sup>③</sup>	□ <sup>③</sup>	-	□ <sup>③</sup>	□ <sup>③</sup>	□ <sup>③</sup>
E102	Contactors	-	-	□ <sup>④</sup>	□ <sup>④</sup>	-	□ <sup>④</sup>	□ <sup>④</sup>	□ <sup>④</sup>
E103	Insulation detector	-	□	□	□	-	□	□	□
E104	Safety relay	-	□	□	□	-	□	□	□
E105	DC pre-charge	□	-	-	-	□	-	-	-
E106	Cabinet lighting	●	●	●	●	●	●	●	●
E107	Cabinet heater	□	□	□	□	□	□	□	□
E108	Incoming cabinet voltmeter	-	□	□	□	-	□	□	□
E109	Incoming cabinet Ammeter	-	□	□	□	-	□	□	□
E110	AC fuse	-	□ <sup>⑤</sup>	□ <sup>⑤</sup>	□ <sup>⑤</sup>	-	□ <sup>⑤</sup>	□ <sup>⑤</sup>	□ <sup>⑤</sup>
E111	Motor fan output (1.0-1.6A)	□	□	□	□	□	□	□	□
E112	Motor fan output (1,6-2.5A)	□	□	□	□	□	□	□	□
E113	Motor fan output (2,4-4.0A)	□	□	□	□	□	□	□	□
E114	Motor fan output (4,0-6,0A)	□	□	□	□	□	□	□	□
E115	Motor fan output (6,0-10A)	□	□	□	□	□	□	□	□
E116	Motor fan output (10-16A)	□	□	□	□	□	□	□	□
E117	Motor fan output (16-20A)	□	□	□	□	□	□	□	□
E118	Motor fan output (20-25A)	□	□	□	□	□	□	□	□
<b>Filter/Reactor</b>									
-	Regenerative reactor	-	-	●	-	-	-	●	-
-	LCL	-	-	-	●	-	-	-	●
-	Input reactor	-	●	-	●	-	● <sup>⑥</sup>	-	-
-	Output reactor	● <sup>⑦</sup>	-	-	-	-	● <sup>⑦</sup>	● <sup>⑦</sup>	● <sup>⑦</sup>
E121	Sine filter	□	-	-	-	-	□	□	□
<b>Cable</b>									
C221	Bottom incoming power cable	-	●	●	●	-	●	●	●
C222	Top incoming power cable	-	□ <sup>⑧</sup>	□ <sup>⑧</sup>	□ <sup>⑧</sup>	-	□ <sup>⑧</sup>	□ <sup>⑧</sup>	□ <sup>⑧</sup>
C223	Inverter-bottom outgoing cable	●	-	-	-	●	●	●	●
C224	Inverter-top outgoing cable	□ <sup>⑨</sup>	-	-	-	-	□ <sup>⑨</sup>	□ <sup>⑨</sup>	□ <sup>⑨</sup>
C225	Motor common cable outlet cable (converged in cabinet)	□	-	-	-	-	□	□	□

Code	Voltage and power ranges 4:4-3000kW 6:55-6300kW	GD880-56 inverter cabinet	GD880-76 basic rectifier cabinet	GD880-86 smart rectifier cabinet	GD880-96 active rectifier cabinet	GD880-46 3PH braking cabinet	GD880-16 variable frequency cabinet	GD880-36 smart rectifier variable frequency cabinet	GD880-26 active rectifier variable frequency cabinet
<b>PG module</b>									
HTL PG module	EC-PG805-24	<input type="checkbox"/>	-	-	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TTL PG module	EC-PG805-05	<input type="checkbox"/>	-	-	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Resolver PG module	EC-PG804	<input type="checkbox"/>	-	-	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Fibre-optical module</b>									
Fibre-optical module 1	EC-TX821 (1X50M)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fibre-optical module 2	EC-TX823 (3X50M)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Communication expansion module</b>									
PROFINET IO	EC-TX809	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PROFIBUS-DP	EC-TX803	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CANopen	EC-TX805	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>I/O module</b>									
I/O module	EC-IO801	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Voltage detection module</b>									
AC Voltage detection module	IVDM-10	-	-	●	●	-	-	●	●
<b>Documentation</b>									
D801	Customer files (electrical/wiring/layout drawings) in pdf format	●	●	●	●	●	●	●	●
D802	Chinese documentation	●	●	●	●	●	●	●	●
D803	English documentation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D804	Ex-factory inspection report	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D805	Manual (in paper)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D806	CAD files (electrical/wiring/layout drawings)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CCS type approval	CCS Type Approval Report	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Note	- Not applicable ● Standard <input type="checkbox"/> Optional, with floating price	<p>① Single cabinet products are equipped with lifting rings as standard, while group cabinet products are equipped with lifting eyebrows as standard</p> <p>② 1600A and below products are equipped with fixed circuit breakers as standard, and 800A and above products are equipped with circuit breaker electric operating mechanisms as standard (excluding products 16 and 76)</p> <p>③ 2000A and above support optional configuration</p> <p>④ 800A and above do not support optional AC contactors</p> <p>⑤ AC fults only supports basic rectifier unit, smart rectifier unit, active rectifier unit</p> <p>⑥ Input reactor: only for 16 products, standard configuration for A8 and above power, optional for other power options</p> <p>⑦ Output reactor: A8 and above power standard configuration, other power options</p> <p>⑧ Top power inlet: A8 and above power support, increasing cabinet or cabinet space to meet the requirements</p> <p>⑨ Output top outlet: A8 and above power support, increasing cabinet or cabinet space to meet the requirements</p>							

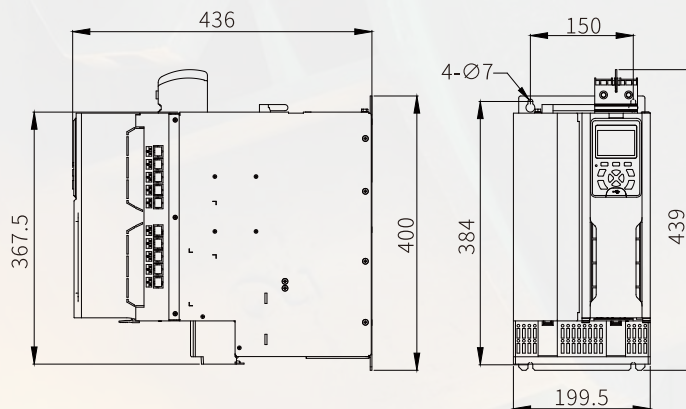


# Mounting dimensions

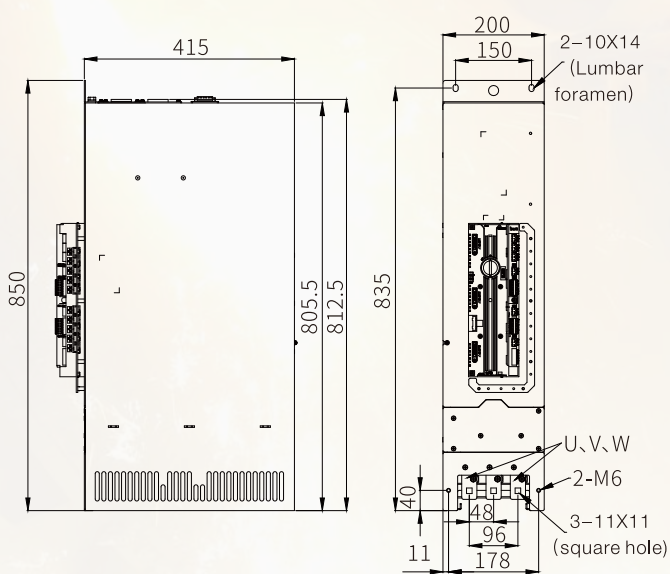
Unit: mm



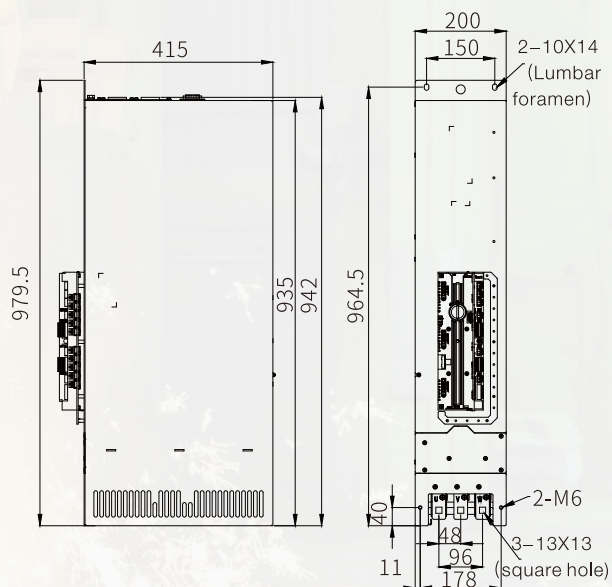
A1i-A3i



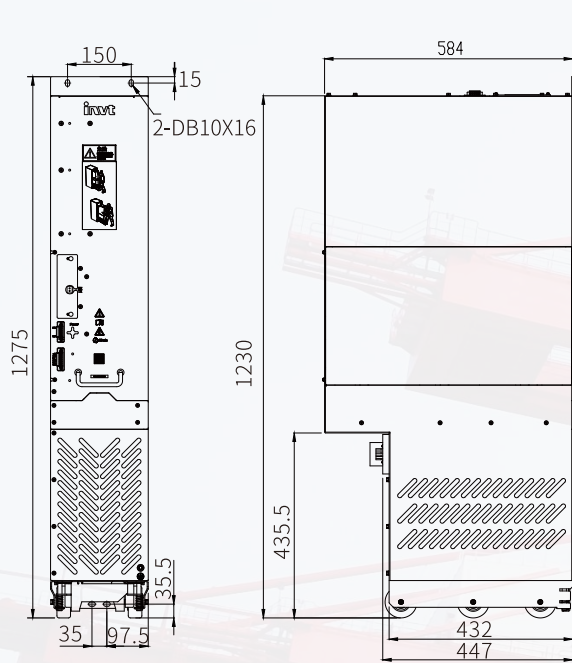
A4i



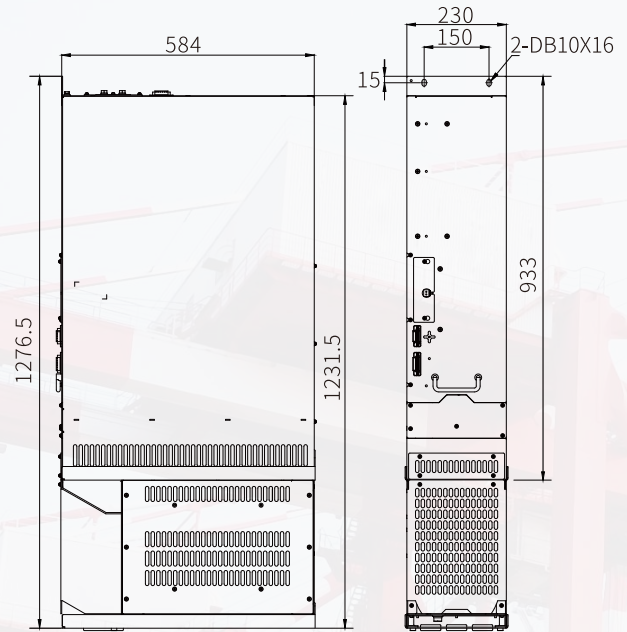
A6i



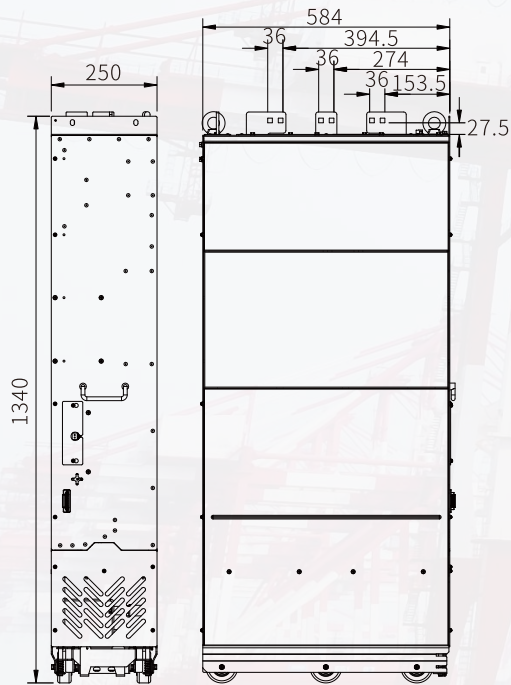
A7i



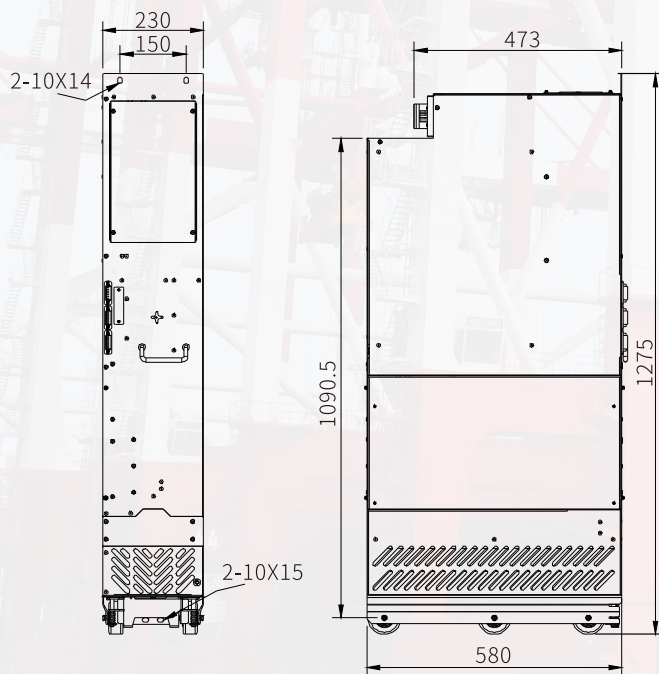
A8i / A8b



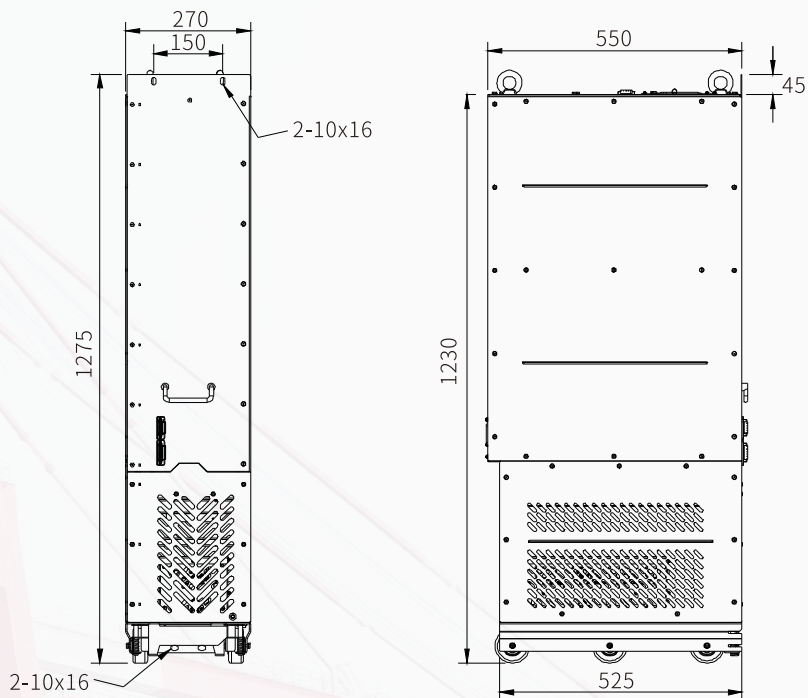
A8n/A8L2 (Note: The height of A8N is 933 mm)



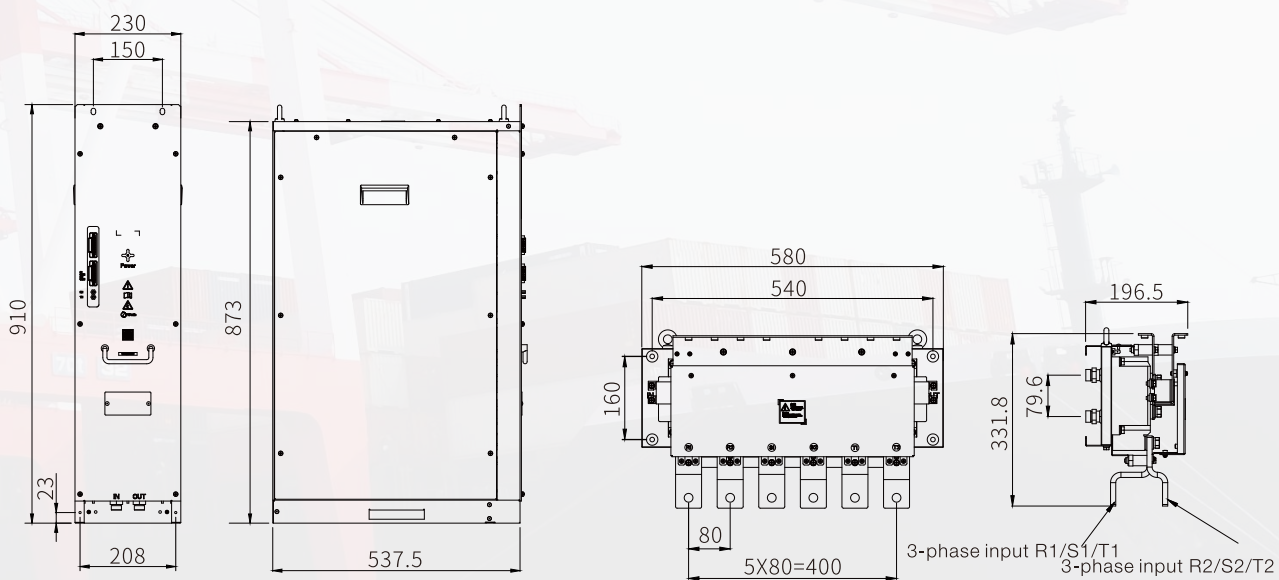
11A8i



D8T



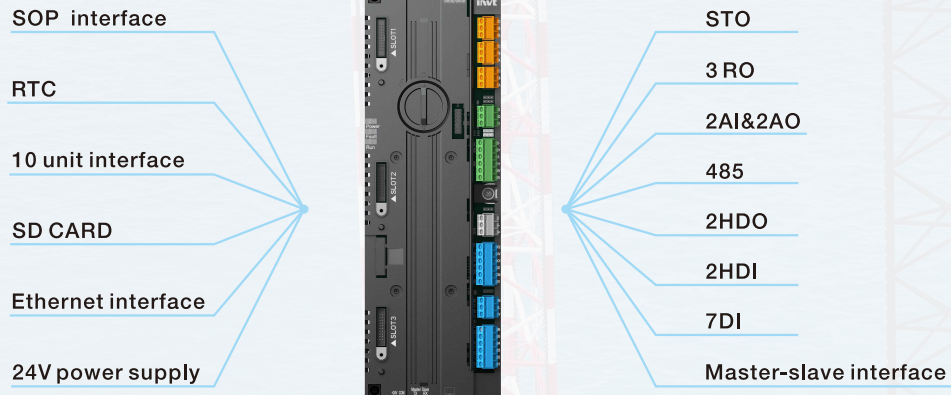
Mounting dimensions for L/LCL filter unit



Liquid-cooling inverter unit

Liquid-cooling rectifier unit

# Control unit



## GD880 – ICU - 11

Description	Example
Abbreviation of product series	GD880: GD880 series engineering VFD
Control unit type	ICU: Inverter control unit TCU: Basic rectifier control unit RCU: Smart rectifier control unit ACU: Active rectifier control unit DCU: DC/DC control unit BCU: 3PH braking control unit
Master-slave	0: without 1: Master-slave
Molule connection	1: 1 power unit 3: 3 power unit 6: 6 power unit A: 10 power unit

# Control unit interface description

Terminal NO.	Terminal identification	Terminal Description	Cable specifications
<b>Input power supply</b>			
1	24V	24Vdc±10%2A	Recommend using 2-core twisted pair cables cross-sectional area: 0.5-2.5mm <sup>2</sup>
2	COM1		
<b>Digital input</b>			
1	DI1	1. Input impedance: 3.3kΩ 2. Voltage input range: 12-30V 3. Supporting NPN or PNP input, Passive contact input 4. Maximum input frequency: 1kHz	Single core wire cross-sectional area: 0.5-2.5mm <sup>2</sup>
2	DI2		
3	DI3		
4	DI4		
5	DI5		
6	DI6		
<b>DIL</b>			
1	+24V	Provide power to input terminals, 24V±10%0.2A	Recommend using 2-core twisted pair cables cross-sectional area: 0.5-2.5mm <sup>2</sup>
2	DIL	Digital interlocking: When its input is high, all other input terminals are forced to be invalid	
3	COM	Digital input Common ground	

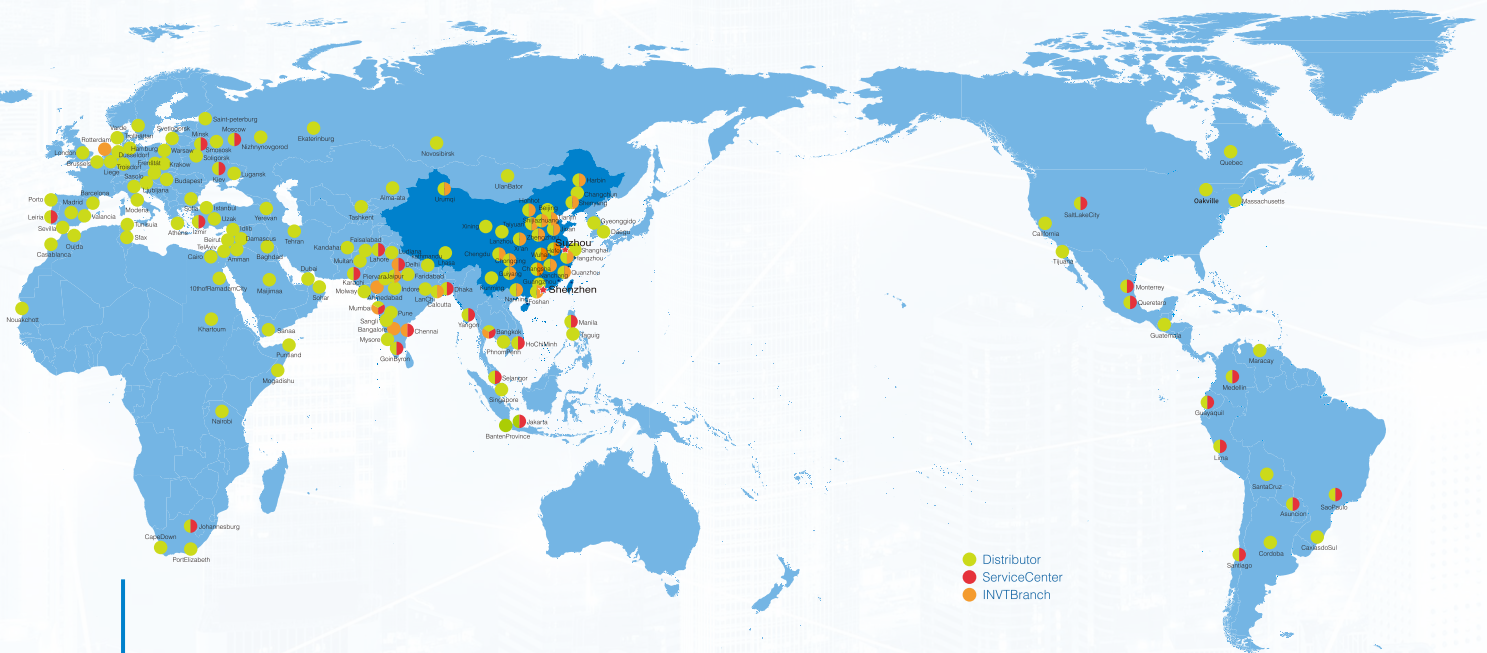
Terminal NO.	Terminal identification		Cable specifications
<b>Jumper J10: Power selection</b>			
		1 and 2 are short circuited, +24V and PW are connected together, and the input signal comes from the NPN transistor	
		2 and 3 are short circuited, COM and PW are connected together, and the input signal comes from the PNP transistor	
<b>HDIO</b>			
1	HDI1	1. Input Type: PNP, NPN 2. Input frequency range: 0-50kHz 3. Input Voltage range: 12-30V 4. Duty cycle: 30%-70%	Recommend using 2-core twisted pair cables cross-sectional area: 0.5-2.5mm <sup>2</sup>
2	COM		
3	HDI2		
4	HDO1	1. Output Type: OC 2. Output frequency range: 0-50kHz 3. Maximum output load: 20mA/30V 4. Duty cycle: 50%	
5	+24V		
6	HDO2		
<b>485 Communication terminal</b>			
1	485+	RS485 bus, standard 5V level Terminal resistance: 120 Ω Maximum Baud Rate: 115200 Maximum nodes: 32 (without relay)	Recommend using 2-core twisted pair cables cross-sectional area: 0.5-2.5mm <sup>2</sup>
2	485-		
3	PE		
<b>Jumper J8: Terminal resistance selection</b>			
		Short circuit between 1 and 2, terminal resistor disconnected	
		Short circuit between 2 and 3, with terminal resistor connected	
<b>Analog input terminal</b>			
1	-10V	10V power supply maximum output current: 10mA	Recommend using 2-core twisted pair cables cross-sectional area: 0.5-2.5mm <sup>2</sup>
2	+10V		
3	AI1+	current input: -20mA~20mA, Rin: 500Ω Voltage input: -10V~10V, Rin: 30kΩ differential inputDIFF: ±30V sampling interval: 0.1ms resolution ratio: 11 bit+signbit	
4	AI1-		
5	AI2+		
6	AI2-		
<b>Differential input jumper J4: AI1 voltage or current signal input selection</b>			
		Short circuit between 1 and 2, AI1 current input	
		Short circuit between 2 and 3, AI1 voltage input	
<b>Jumper J5: AI2 voltage or current signal input selection</b>			
		Short circuit between 1 and 2, AI2 current input	
		Short circuit between 2 and 3, AI2 voltage input	
<b>Analog output terminal</b>			
Analog output	AO1	Output range: 0~20mA, Rload≤500Ω 0~10V, Rload≥10kΩ resolution ratio: 11 bit+signbit accuracy	Recommend using 2-core twisted pair cables cross-sectional area: 0.5-2.5mm <sup>2</sup>
	GND		
	AO2		
<b>Jumper J6: AO1 voltage or current signal output selection</b>			
		Short circuit between 1 and 2, AO1 current output	
		Short circuit between 2 and 3, AO1 voltage output	
<b>Jumper J7: AO2 voltage or current signal output selection</b>			
		Short circuit between 1 and 2, AO2 current output	
		Short circuit between 2 and 3, AO2 voltage output	

Terminal NO.	Terminal identification	Terminal Description	Cable specifications
<b>Relay 1 output terminal</b>			
1	RO1A	Output type: passive normally open and normally closed contacts Contact parameters: 250Vac/30Vdc, 3A	Single core wire cross-sectional area: 0.5-2.5mm <sup>2</sup>
2	RO1B		
3	RO1C		
<b>Relay 2 output terminal</b>			
1	RO2A	open and normally closed contacts Contact parameters: 250Vac/30Vdc, 3A	Single core wire cross-sectional area: 0.5-2.5mm <sup>2</sup>
2	RO2B		
3	RO2C		
<b>Relay 3 output terminal</b>			
1	RO3A	open and normally closed contacts Contact parameters: 250Vac/30Vdc, 3A	Single core wire cross-sectional area: 0.5-2.5mm <sup>2</sup>
2	RO3B		
3	RO3C		
<b>Master-slave optical fiber</b>			
1	TX	Sending (fiber-optic communication)	Fiber optic
2	RX	Receive (fiber-optic communication)	
<b>Safety torque interrupt</b>			
1	STO1	Inverter module safety torque interrupt input Factory default short circuit	Recommend using 4-core twisted pair cables cross-sectional area: 0.5-2.5mm <sup>2</sup>
2	+24V		
3	STO2		
4	+24V		
<b>RJ45 keypad</b>			
1	RJ45	Connect SOP-880-01 keypad	CAT 6
<b>RJ45 Ethernet</b>			
1	RJ45	Communicate with PC	CAT 6

## Option

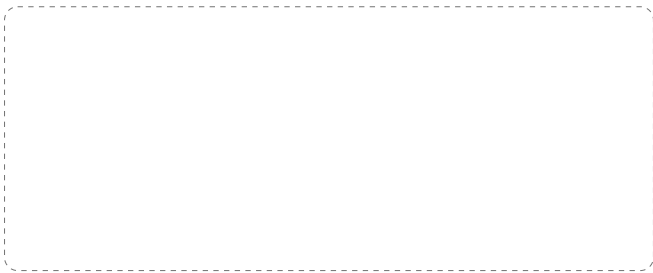
Extension module type	Type	Category	Specification Data
Encoder expansion module	EC-PG805-24	15/24V Incremental encoder module	Support open collector, push pull, differential encoder; Support KTY84 or PT100 temperature detection
	EC-PG805-05	5V Incremental encoder module	Support differential encoder; Support KTY84 or PT100 temperature detection
	EC-PG804	Rotating transformer expansion module	Rotary transformer type encoder; 10/20KHZ optional, supports KTY84 or PT100 temperature detection
Communication expansion module	EC-TX803	PROFIBUS-DP module	PROFIBUS-DP, 9.6Kbit-12Mbit/S
	EC-TX809	PROFINET IO module	PROFINET IO, 100Mbit/S
	EC-TX805	CANopen module	CANopen, 20Kbit-1Mbit/S
Fiber optic expansion module	EC-TX821	1-way Fiber optic expansion module	1-way 50M expansion fiber
	EC-TX823	3-way fiber optic expansion module	3-way 50M expansion fiber
I/O expansion module	EC-IO801	I/O expansion module	3DI+2AI+2AO+1RO
Voltage detection module	IVDM-10	AC voltage detection module	0-100VAC OR 0-690VAC
	IVDM-20	DC AC voltage detection module	0-1000VDC

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