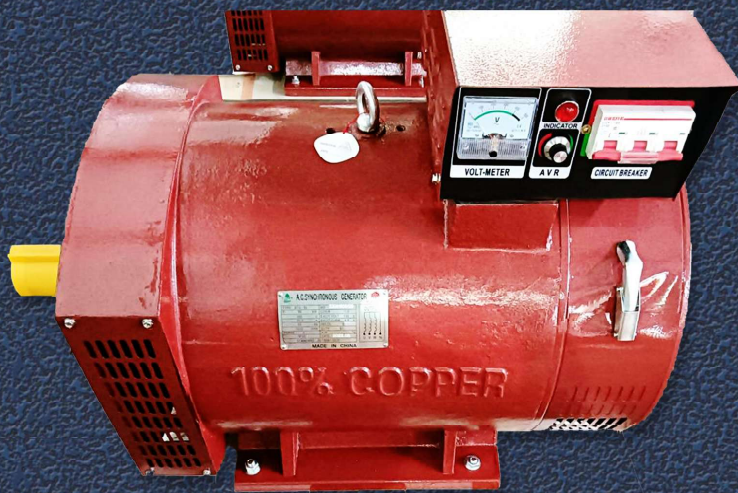


AJLAN



Mighty Max



- Motor
- **Alternator**
- Machine Tool



Brief introduction

KAIGONG ELECTRIC (SUZHOU) CO.,LTD is located in Zhujiang Road, New District, Suzhou. We always adhere to the policy of high standard, high quality and high efficiency and devoted ourselves to the research and sales of the generators, machine tools and their spare parts. It is a creative technology company comprising the manufacture, sales and research of electric motors and generators. We have 2 national invention patents. Our products in "KAIGONG" brand are exported to more than 50 countries and districts in Europe, South America, Middle East, South Asia, Southeast Asia etc. We have steady sales channels and more than 50 agencies both at home and abroad. It is the leading company in the industry and the total annual sales is Keeping growing.

We adhere to the spirit of pragmatism, creation and pioneering, adhere to the operation philosophy of supplying high quality products to the customers and attach great importance to the talent introduction and advanced equipment. We have strong technical force, rigorous and efficient technology research team. The ordinary motors of CDF series, high efficiency motors of KE series and ultrahigh efficiency motors of KE3 series are in accordance with the latest EU standards and take the leading position in the market. The manufacture and sales of the ST STC series generators with brush ranked the first steadily in domestic market for years. TWGII series brushless generators became the new generation generators which set the trend thanks to several patented technology of our independent research.

Kaigong takes "creating the best in China" as the direction, "satisfying the customers" as the stuff duty, "beating the competitors" as the glory and "getting win-win situation" as the ultimate goal. We have built strategic cooperation relationship with domestic and overseas well-known enterprises and sincerely hope to cooperate with more new and old customers.



02 **TWG** SERIES THREE-PHASE BRUSHLESS SYNCHRONOUS GENERATOR

12 **TWGII** SERIES THREE-PHASE BRUSHLESS SYNCHRONOUS GENERATOR

26 **ST** SERIES SINGLE-PHASE A.C. SYNCHRONOUS GENERATOR

28 **STC** SERIES THREE-PHASE A.C. SYNCHRONOUS GENERATOR

30 **FHW** SERIES PERMANENT-MAGNET DC ARC-WELDING GENERATOR

32 **FHWS** SERIES PERMANENT-MULTIFUNCTIONAL ARC-WELDING GENERATOR

34 **SD/SDC** SERIES GENERATING & WELDING DUAL-USE ALTERNATOR

INTRODUCTION:

TWG series three-phase brushless synchronous generators, by introducing and developing on foreign advanced technology of well-known generators, are our newly developed products. Its body is constructed by steel shell and rotor is made as whole salient pole type with full damping, with brushless self excitation and automatic controlling by AVR. It has following features: small-size, light-weight, good appearance and perfect performance. The technical performance and mounting dimension of TWG generators are in conformity with international IEC34-1 and relevant national standard, the quality of the products can reach up-to-day international level.

MAIN PERFORMANCE INDEX:

Four-pole brushless controllable self-excitation, drip-leak-proof(protection class IP22), insulation class H; Full-damping whole salient structure makes the generator to be operated stably in any conditions and enable it to overspeed 2 minutes under 150% rated speed; Adjusting rate of stable voltage $\leq \pm 1\%$, adjusting rate of instant voltage: $-15\% \sim +20\%$, Wave aberration rate of voltage THD $\leq 3\%$, telephone harmony wave factor of telephone THF $\leq 2\%$, telephone influenced factor TIF ≤ 50 .

ENVIRONMENT CONDITIONS

Under the following environment, the generator could run continuously:

1. Altitude: not exceed 1000m.
2. Cooling air temperature: 25 \pm 3K(-15 \sim 40 $^{\circ}$ C).
3. Relative air humidity: not exceed 90%.

FEATURES:

1. Providing invariable excitation on all occasions.
2. Easy to be connected with power network of other generators.
3. Balanced rotor with single or two sealed ball bearings.
4. Convenient installation and maintenance with easy access to terminals, rotating diodes and coupling bolts.
5. Wide range of flange adaptor and single bearing coupling disc.
6. In conformity with all leading standards.

TWG

SERIES THREE-PHASE BRUSHLESS SYNCHRONOUS GENERATOR



电气特征 ELECTRICAL CHARACTER:

励磁系统: EXCITATION SYSTEM:

自动电压调节器 (AVR) 共有3种以上型号, 主要规格: EA05A, SX460及SX440, 主机定子通过AVR给励磁定子提供电力。

励磁转子的输出功率通过三相全波整流器输给主机转子, 该整流器二端并有压敏电阻, 抑制浪涌电压, 以免由诸如短路或者并联时相位失步而引起的冲击。励磁机定子带有磁钢, 可保证在任何情况下, 顺利启动。

所有AVR的稳态电压调整率为 $\pm 1\%$, 其中SX440具有并联运行, 低噪声, 外端电压调节等多种功能。

Auto-voltage regulation(AVR) has more than 3 series, including EA05A, SX460 and SX440 and others. The main stator provides the exciter stator with the power via AVR. Output power of exciter's rotor is input to that of mains through 3-phase full wave rectifier. Two ends of the rectifier are connected with piezoresistance for restraining surge voltage and avoiding the impact caused by short circuit or parallel synchroniz ation loss. Exciter's stator is equipped with permanent magnetic steel. It can make generator starting smoothly in any occasions. Whole stable voltage regulation is $\pm 1\%$, and SX440 has features of parallel connection, low frequency protection and exterior voltage adjustment, etc.

电压调整率: VOLTAGE REGULATION:

电压调整率是指发电机转速在4%以内的波动下, 功率因数在0.8滞后与1之间, 从空载到满载的电压变化(包括冷态至热态的变化), 可用AVR上的一个微调来调整电压。

Voltage regulation refers to the change of voltage from no-load to full-load with power factor ranging from 0.8 to 1 and 4% fluctuation of the speed of engine. Voltage is adjusted via potentiometer of AVR.

电气特性: ELECTRIC FEATURES:

绝缘和浸漆: INSULATION:

绝缘等级是 "H" 级。

所有铁制的零件都是用专门研制的材料并采用特殊的工艺浸漆的, 为发电机在恶劣环境中运行提供保障。专门开发的树脂基材料为线圈和壳体部件提供了更加工程化和高机械强度。

Insulation class H

All regulatory components are made up with special materials and also immersed in lacquer by peculiar tech. Varnish and colophony materials are developed to strengthen the processing and machinery intensity of windings and revolving parts for protecting the generator work under corrosive environment.

绕组和电气性能: WINDINGS AND ELECTRIC FEATURES:

所有发电机的定子采用高等磁性冷轧硅钢极叠压而成, 新型双扇叠绕组, 结构坚固, 绝缘性能好。一个完全连续的阻尼绕组减少了并联时的振荡, 这种新型绕组, 且铁芯也经过仔细精选的绕组抑制了输出电压的波形畸变。

All the generator stators adopt high magnetic conductivity energy cold rolling silicon steel plate to fold up, double winding, firm structure, good insulating. Continuous damp windings abate surges. The poles and teeth of the windings are carefully chosen, which helps checking the wave distortion of output voltage.

电话干扰: PHONE INTERFERENCE:

THF (如BS EN 600 34-1所定义) 小于2%, TIF (如NEMA MG1-22所定义) 小于50.

THF (as defined by BS EN 600 34-1) $\leq 2\%$, TIF (as defined by NEMA MG1-22) ≤ 50 .

无线电干扰: RADIO INTERFERENCE

无刷装置和高品质的AVR确保无线电传输时干扰很小。如果需求的话,可另外提供RFI抑制装置。
Brushless apparatus and high quality AVR ensure little radio interference in transmission. RFI noise filter is also available.

机械特性 MECHANIC FEATURES:

外壳: FRAME:

所有陆用发电机的标准型为IP22 (NEMA1)。作为可选,可提供IP23的防护等级,但额定功率下降5%。船用发电机的标准型为IP23,作为可选可在发电机上安装空气过滤器,但额定值下降5%。
All industrial standard generators is IP22(NEMA1).IP23 is also available, but rated power will decrease 5%. Marine generator is IP23 as normal standard. Air filter is an option, but rated power will decrease 5% while it is installed.

轴和键: AXIS AND KEY:

所有发电机转子都经动平衡校验,校验振动比BS6861第1部分第2.5级中规定的最小值还要低。双轴承发电机带一个半键校动平衡。
All rotors should pass balance test, which vibration is lower than the minimum value of BS6861 P.1, G 2.5. Two-bearing generator has a half-key testing balance.

接线端子和接线盒: TERMINAL AND TERMINAL BOX:

标准的发电机是三相,并可对引互接线端子的12个接线头重接,接线端子安装在发电机非驱动端的出线板上。在薄钢板制成的出线盒内有AVR,具有足够空间让用户布线,为易于操作,面板为掀盖式面板。
The normal three-phase generators have 12 leads brought out to the terminals in the terminal box. The terminals are put on the board of the non-drive end. AVR is mounted in the terminal box made in steel sheet and enough space left inside for laying wires. The box is equipped with removable panels.

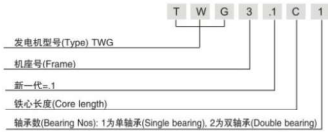
过渡接套和联轴器: ENGINE ADAPTOR AND COUPLING

TWG系列发电机具有单轴承和双轴承两种结构。
TWG系列单轴承结构的过渡接套,可选SAE#00, 0, 1/2, 1, 2, 3, 4, 5; 盘片式联轴器可选SAE#6.5, 7.5, 8, 10, 11.5, 16, 18, 21。
TWG系列双轴承结构的过渡接套,可选SAE#00, 0, 1/2, 1, 2, 3, 4, 5。
Engine adaptor for single-bearing could be SAE#00, 0, 1/2, 1, 2, 3, 4 and 5. Coupling disc for single-bearing could be SAE#6.5, 7.5, 8, 10, 11.5, 16, 18 and 21.
Engine adaptor for double-bearing could be SAE#00, 0, 1/2, 1, 2, 3, 4, 5.

可供选择的配置 OPTION FEATURES:

- | | |
|-------------------|--|
| 1. 过渡接套及可互换的盘式联轴器 | 1. Adapters and interchangeable drive disk |
| 2. 单相 | 2. Single phase |
| 3. 远程电压调整 | 3. Remote voltage adjust |
| 4. IP23防护等级 | 4. IP23 protection class |
| 5. 空冷加热器 | 5. Space heaters |
| 6. 热敏电阻 | 6. Thermistors |

产品型号定义 THE DEFINITION OF THE PRODUCT MODEL:



额定参数 RATED DATA

TWG		50Hz 1500rpm								
电气参数 ELECTRICAL DATA		50Hz 1500rpm								
额定 RATING	KVA/KW	cos ϕ =0.8								
最大环境温度 Max. Ambient Temperature	40°C									
海拔 Altitude	\leq 1000m									
绝缘等级 Insulation Class	H									
引线接头数 Leads Number	12	励磁系统* Excitation System*			励磁系统 Self-excitation					
		A.V.R. Model			EA05A SX460 SX440					
防护等级** Protection class	IP22	电压调整率 Voltage Regulation			\pm 1%					
超速 Over-Speed	2250rpm	瞬态电压恢复时间Recovery time(s)			\leq 1.0					
电压波形正弦畸变率THD*** Total Harmonic THD***	\leq 3%	电话谐波因数 THF Wave Form: IEC = THF***			\leq 2%					
波形: NEMA = TIF*** Waveform: NEMA = TIF***	\leq 50									
** IP23为按求选项。 ** IP23 optional on request										
*** 空载或额定平衡负载时的线电压波形正弦畸变率。 *** Total harmonic content line to line, at no load or full rated linear and balanced load.										
工作制 / 环境温度 Duty / Ambient T [†]	连续 Continuous / 40°C	备用 Stand by / 40°C			备用 Stand by / 27°C					
绝缘等级 / 温升 ins. Class/ T [†] Rise	H / 1250K	H / 1500K			H / 1630K					
相数 Phase	3 Phase	3 Phase			3 Phase					
电压 Voltage	Y	380V	400V	415V	380V	400V	415V	380V	400V	415V
TWG2.1C	KVA	43.8	46.3	48.8						
	KW	35	37	39						
TWG2.1D	KVA	50	56	59						
	KW	40	45	47						
TWG2.1E	KVA	62.5	67.5	71						
	KW	50	54	57						
TWG2.1F	KVA	80	85	91.5						
	KW	64	69	73						
TWG2.1G	KVA	94	100	106.5						
	KW	76	80	86						
TWG3.1C	KVA	94	100	106.5						
	KW	75	80	85						
TWG3.1CB	KVA	100	106.3	112.5						
	KW	80	85	90						
TWG3.1D	KVA	112.5	117.5	123						
	KW	90	94	100						
TWG3.1E	KVA	125	130	137.5						
	KW	100	104	110						
TWG3.1F	KVA	150	160	170						
	KW	120	128	136						
TWG3.1G	KVA	187.5	200	212.5						
	KW	150	160	170						
TWG3.1GB	KVA	200	213.8	225						
	KW	160	171	180						
TWG4.1CB	KVA	225	237.5	250						
	KW	180	190	200						
TWG4.1C	KVA	250	260	275						
	KW	200	208	220						
TWG4.1CC	KVA	275	290	300						
	KW	220	232	240						

上面表内数据在任何情况下将随着新的技术发展而有所变动, 客户可以向我公司咨询。
The above data will be changeable together with the development of the new technology. Our clients are welcome to consult with us at any time.

额定参数 RATED DATA

TWG										
电气参数 ELECTRICAL DATA										
60Hz 1500rpm										
电压 Voltage	Y	380V	440V	480V	380V	440V	480V	380V	440V	480V
TWG4.1D	KVA	312.5			325				335	
	KW	250			260				268	
TWG4.1EB	KVA	350			368.8				385	
	KW	280			295				308	
TWG4.1E	KVA	375			387				400	
	KW	300			310				320	
TWG4.1FB	KVA	400			420				437.5	
	KW	320			336				350	
TWG4.1F	KVA	443.75			465				500	
	KW	355			372				400	
TWG4.1G	KVA	500			525				562.5	
	KW	400			420				450	
TWG5C	KVA	562.5			593.8				625	
	KW	450			475				500	
TWG5D	KVA	625			662.5				700	
	KW	500			530				560	
TWG5DB	KVA	700			737.5				762.5	
	KW	560			590				610	
TWG5E	KVA	787.5			812.5				850	
	KW	630			650				680	
TWG5F	KVA	900			937.5				987.5	
	KW	720			750				790	
TWG5G	KVA	1000			1050				1100	
	KW	800			840				880	

额定参数 RATED DATA

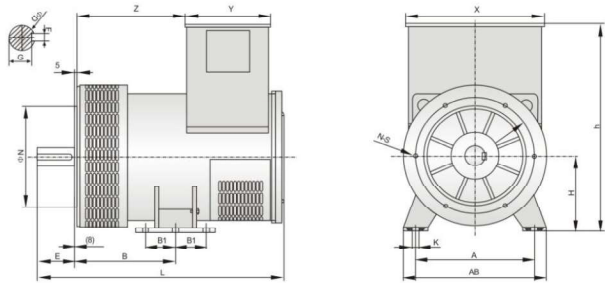
TWG										
电气参数 ELECTRICAL DATA										
60Hz 1800rpm										
额定 RATING	KVA/KW cosφ=0.8									
最大环境温度 Max. Ambient Temperature	40°C									
海拔 Altitude	≤ 1000m									
绝缘等级 Insulation Class	H									
引线接头数 Leads Number	12	激磁系统* Excitation System*				自励系统 Self-excitation				
		A.V.R. Model				EA05A-S, EA460或440-1				
防护等级** Drip Proof	IP22	电压调整率 Voltage Regulation								±1%
超速 Over-Speed	2250rpm	瞬态电压恢复时间Recovery time(s)								≤1.0
电压波形正弦性畸变率THD*** Total Harmonic THD***	≤ 3%	电话谐波因数 THF Wave Form: IEC = THF***								≤2%
波形: NEMA = TIF*** Waveform: NEMA = TIF***	≤ 50									
** IP23为按客户要求. ** IP23 optional on request										
*** 空载或额定平衡负载时的线电压波形正弦性畸变率. *** Total harmonic content line to line, at no load or full rated linear and balanced load.										
工作制 / 环境温度 Duty / Ambient T°	连续 Continuous / 40°C		备用 Stand by / 40°C			备用 Stand by / 27°C				
绝缘等级 / 温升 ins. Class / T° Rise	H / 1250K		H / 1500K			H / 1630K				
相数 Phase	3 Phase		3 Phase			3 Phase				
电压 Voltage	Y	380V	400V	415V	380V	400V	415V	380V	400V	415V

上面表内数据在任何情况下将随着新的技术发展而有所变动, 客户可以向我公司咨询。
The above data will be changeable together with the development of the new technology. Our clients are welcome to consult with us at any time.

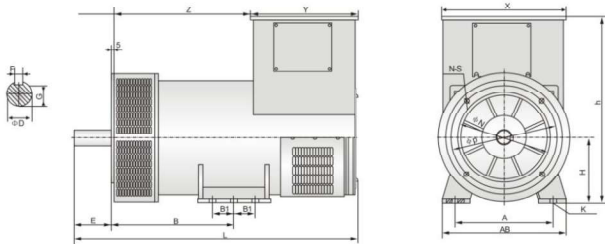
额定参数 RATED DATA

TWG										
电气参数 ELECTRICAL DATA										
60Hz 1800rpm										
电压 Voltage	Y	380V	440V	480V	380V	440V	480V	380V	440V	480V
TWG2.1C	KVA	50	55	56	53	61	62.5	56	63	67.5
	KW	40	44	44.5	42.5	48.5	50	44.5	50.5	54
TWG2.1D	KVA	55	70	63.8	58.8	67.5	71.3	70	76	76
	KW	44	50	51	47	54	57	49	56	60
TWG2.1E	KVA	65	72.5	77.5	68.8	77.5	85	71.3	81.3	87.5
	KW	52	58	62	55	62	68	57	65	70
TWG2.1F	KVA	82.5	95	100	87.5	100	106.3	92.5	105	111.3
	KW	66	76	80	70	80	85	74	84	89
TWG2.1G	KVA	95	110	119	100	116	125	106	122.5	131.5
	KW	76	88	95	80	93	100	85	98	105
TWG3.1C	KVA	95	110	119	100	116	125	106	122.5	131.5
	KW	76	88	95	80	93	100	85	98	105
TWG4.1CB	KVA	102.5	112.5	118.8	106.3	118.8	122.5	112.5	125	130
	KW	82	90	95	85	95	98	90	100	104
TWG3.1D	KVA	115	130	140	121	140	150	129	147.5	157.5
	KW	92	104	112	97	112	120	103	118	126
TWG3.1E	KVA	125	145	156	130	150	162.5	137.5	157.5	170
	KW	100	116	125	104	120	130	110	126	136
TWG3.1F	KVA	156	181	194	164	188	206	174	197.5	216.5
	KW	125	145	155	131	150	165	139	158	173
TWG3.1G	KVA	192.5	217.5	235	205	231	257.5	217.5	244	270
	KW	154	174	188	164	185	206	174	195	216
TWG3.1GB	KVA	205	218.8	235	212.5	235	262.5	225	250	268.8
	KW	165	175	188	170	188	210	180	200	215
TWG4.1CB	KVA	232.2	250	262.5	243.8	252.5	272.5	250	262.5	275
	KW	186	200	210	195	202	218	200	210	220
TWG4.1C	KVA	257	289	300	276	308	324	285	317	337
	KW	206	231	240	221	246	259	228	254	270
TWG4.1CC	KVA	285	312.5	327.5	297.5	306.3	325	312.5	325	340
	KW	228	250	262	238	245	260	250	260	272
TWG4.1D	KVA	330	370	379	356	395	410	367	412	426
	KW	264	296	303	285	316	328	294	330	341
TWG4.1EB	KVA	362.5	400	418.8	375	387.5	406.3	390	400	425
	KW	290	320	335	300	310	325	312	320	340
TWG4.1E	KVA	412	450	469	437	476	492	450	490	510
	KW	330	360	375	350	381	394	360	392	408
TWG4.1FB	KVA	415	450	375	425	438.5	450	437.5	450	470
	KW	332	360	380	340	346	360	350	360	376
TWG4.1F	KVA	485	510	560	510	540	585	530	560	620
	KW	388	408	448	408	432	468	424	448	498
TWG4.1G	KVA	540	570	620	560	590	650	590	630	685
	KW	432	456	496	448	472	520	472	504	546
TWG5C	KVA	550	637.5	693.8	600	700	756.3	625	718.8	775
	KW	440	510	555	480	560	605	500	575	620
TWG5D	KVA	615	656.3	772.5	672.5	775	837.5	700	793.8	875
	KW	492	525	618	538	620	670	560	635	700
TWG5DB	KVA	687.5	775	837.5	700	725	750	715	737.5	765.3
	KW	550	620	670	560	580	600	572	590	605
TWG5EB	KVA	737.5	825	900	750	780	812.5	770	806.3	825
	KW	590	660	720	600	624	650	616	645	660
TWG5E	KVA	775	875	962.5	843.8	875	1056.3	875	1006.5	1090
	KW	620	700	770	675	780	845	700	805	872
TWG5F	KVA	887.5	1025	1112.5	937.5	1093.8	1200	987.5	1131.3	1250
	KW	710	8220	890	750	87.5	960	790	905	1000
TWG5G	KVA	987.5	1137.5	1237.5	1037.5	1193.8	1306.3	1062.5	1250	1350
	KW	790	910	990	830	955	1045	850	1000	1080

双轴承发电机外形及安装尺寸
DOUBLE BEARING GENERATOR OVERALL & MOUNTING DIMENSIONS

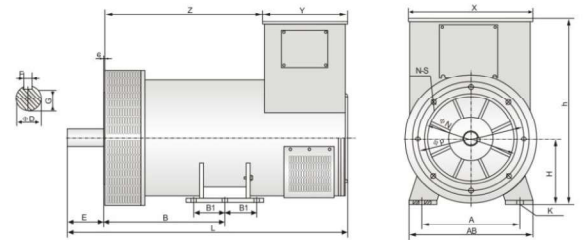


型号 Type	安装尺寸 MOUNTING DIMENSIONS(mm)													外形尺寸 OVERALL DIMENSIONS(mm)					重量 Wt.(kg)	
	H	A	A/2	B	B1	D	E	F	G	6-fk	N	M	N-S	X	Y	Z	AB	h		L
TWG2.1C2				305												350	734	260		
TWG2.1D2	225	356	178	325	90	55	110	16	49	19	300	350	6-M10	409	254	405	426	622	789	292
TWG2.1E2				325												445			629	315
TWG2.1F2				365												480			864	326

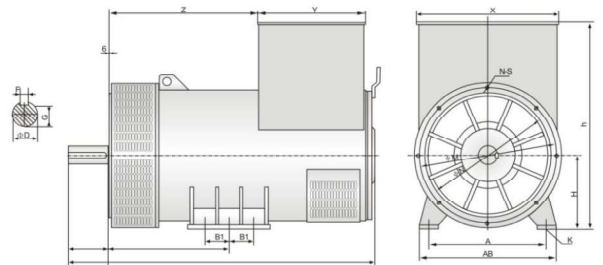


型号 Type	安装尺寸 MOUNTING DIMENSIONS(mm)													外形尺寸 OVERALL DIMENSIONS(mm)					重量 Wt.(kg)	
	H	A	A/2	B	B1	D	E	F	G	6-fk	N	M	N-S	X	Y	Z	AB	h		L
TWG3.1C2				350												375	876	380		
TWG3.1C2E				350												375	876	396		
TWG3.1D2				350												375	876	405		
TWG3.1E2	250	368	184	400	80	60	140	18	53	24	350	400	4-M6	464	358	455	468	713	956	430
TWG3.1F2				400												455	956	500		
TWG3.1G2				460												555	1056	605		
TWG3.1G2E				460												555	1056	620		

AJLAN

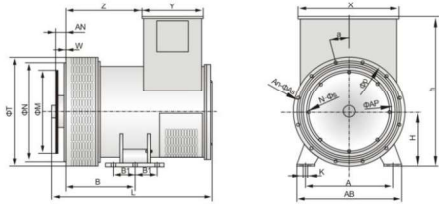


型号 Type	安装尺寸 MOUNTING DIMENSIONS(mm)													外形尺寸 OVERALL DIMENSIONS(mm)					重量 Wt.(kg)	
	H	A	A/2	B	B1	D	E	F	G	6-fk	N	M	N-S	X	Y	Z	AB	h		L
TWG4.1C2E				450												471	1079	760		
TWG4.1C2				450												471	1079	810		
TWG4.1CC2				450												471	1079	860		
TWG4.1D2				450												471	1079	940		
TWG4.1E2B	315	508	254	480	150	85	170	22	76	24	450	500	8-M16	574	428	536	608	887	1144	990
TWG4.1E2				480												536	1144	1030		
TWG4.1FB2				550												706	1314	1080		
TWG4.1FE				550												706	1314	1145		
TWG4.1G2				550												706	1314	1270		



型号 Type	安装尺寸 MOUNTING DIMENSIONS(mm)													外形尺寸 OVERALL DIMENSIONS(mm)					重量 Wt.(kg)	
	H	A	A/2	B	B1	D	E	F	G	6-fk	N	M	N-S	X	Y	Z	AB	h		L
TWG5C2				500												478	1303	1760		
TWG5D2				550												610	1440	1640		
TWG5D2E				550												618	1443	1860		
TWG5E2				550												618	1443	1890		
TWG5E2E	400	630	315	550	130	100	210	28	90	35	680	740	8-M20	769	579	618	730	1132	1443	1890
TWG5F2				640												808	1633	2020		
TWG5G2				640												808	1633	2150		

单轴承发电机外形及安装尺寸
SINGLE BEARING GENERATOR OVERALL & MOUNTING DIMENSIONS



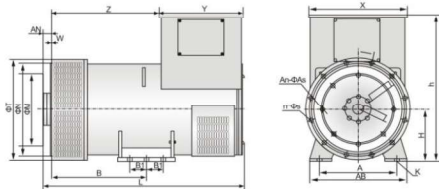
盘片式联轴器尺寸SAE DRIVE DISC

SAE Number	M	AP	An-FAs	AN
8	F253.4	F244.4	8-F11	61.9
10	F314.3	F295.3	8-F11	53.8
11.5	F352.4	F333.4	8-F14	39.6

法兰过渡接套尺寸SAE ADAPTER

SAE Number	T	N	P	N-FS	A
2	494	F447.7	F466.7	12-F12	15°
3	452	F409.6	F428.6	12-F12	15°
4	452	F361.9	F381.0	12-F12	15°

型号 Type	安装尺寸 MOUNTING DIMENSIONS(mm)						外形尺寸 OVERALL DIMENSIONS(mm)						重量 Wt.(kg)	
	H	A	A/2	B	B1	W	6-ik	X	Y	Z	AB	h		L
TWG2.1C1	225	356	178	296	90	5	19	409	254	350	426	622	673	250
TWG2.1D1				316						405			728	282
TWG2.1E1				316						445			768	305
TWG2.1F1				356						480			803	316



盘片式联轴器尺寸SAE DRIVE DISC

SAE Number	M	AP	An-FAs	AN
10	F314.3	F295.3	8-F11	53.8
11.5	F352.4	F333.37	8-F11	39.6
14	F466.7	F438.2	8-F14	25.4

法兰过渡接套尺寸SAE ADAPTER

SAE Number	T	N	P	N-FS	A
1	560	F511.2	F530.2	12-F12	15°
2	494	F447.7	F466.7	12-F12	15°
3	494	F409.6	F428.6	12-F12	15°

型号 Type	安装尺寸 MOUNTING DIMENSIONS(mm)						外形尺寸 OVERALL DIMENSIONS(mm)						重量 Wt.(kg)		
	H	A	A/2	B	B1	W	6-ik	X	Y	Z	AB	h		L	
TWG3.1C1	225	368	184	340	80	6	24	468	713	374	464	358	374	772	370
TWG3.1CR1				340						374			772	388	
TWG3.1D1				340						374			772	395	
TWG3.1E1				390						454			852	420	
TWG3.1F1				390						454			852	490	
TWG3.1G1				450						554			952	595	
TWG3.1GB1	450	554	952	610											

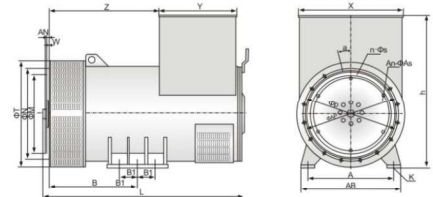
盘片式联轴器尺寸SAE DRIVE DISC

SAE Number	M	AP	An-FAs	AN
11.5	F352.4	F333.37	8-F11	39.6
14	F446.7	F438.2	8-F14	25.4
18	F571.5	F542.9	8-F18	15.7

法兰过渡接套尺寸SAE ADAPTER

SAE Number	T	N	P	N-FS	A
0	713	Φ647.7	Φ679.4	16-Φ14	11.25°
1	669	Φ511.2	Φ530.2	16-Φ12	15°
2	669	Φ447.8	Φ466.7	16-Φ12	15°

型号 Type	安装尺寸 MOUNTING DIMENSIONS(mm)						外形尺寸 OVERALL DIMENSIONS(mm)						重量 Wt.(kg)		
	H	A	A/2	B(Φ0)	B(Φ1/Φ2)	B1	W	6-ik	X	Y	Z	L			
TWG4.1CB1	315	508	254	500	150	6	24	608	887	574	428	521	991	720	
TWG4.1C1				500								490	521	991	790
TWG4.1CC1				500								490	521	991	840
TWG4.1D1				500								490	521	991	920
TWG4.1EB1				530								520	586	1056	970
TWG4.1E1				530								520	586	1056	1010
TWG4.1FB1				600								590	666	1226	1060
TWG4.1F1				600								590	666	1226	1125
TWG4.1G1				600								590	666	1226	1250



盘片式联轴器尺寸SAE DRIVE DISC

SAE Number	M	AP	An-FAs	AN
SAE14	466.7	438.2	8-Φ14	25.4
SAE18	571.5	542.9	6-Φ18	15.7
SAE21	673.1	641.3	12-Φ18	0

法兰过渡接套尺寸SAE ADAPTER

SAE Number	T	N	P	N-FS	W	a
SAE00	886	787.4	850.9	16-Φ14	6	11.25°
SAE0	793	647.7	679.5	16-Φ14	6	11.25°
SAE0.5	793	584.2	619.1	12-Φ14	6	15°

型号 Type	安装尺寸 MOUNTING DIMENSIONS(mm)						外形尺寸 OVERALL DIMENSIONS(mm)						重量 Wt.(kg)		
	H	A	A/2	B	B1	W	6-ik	X	Y	Z	AB	h		L	
TWG5C1	400	630	315	510	130	6	35	769	579	638	730	1132	498	1146	1750
TWG5D1				560									638	1286	1830
TWG5DB1				560									638	1286	1850
TWG5EB1				560									638	1286	1880
TWG5E1				560									638	1286	1900
TWG5F1				650									828	1476	2010
TWG5G1				650									828	1476	2140

TWG II

简介 INTRODUCTION:

TWG II 系列三相无刷同步发电机是我公司在 TWG 系列的基础上, 结合国内外先进无刷发电机的设计和制造技术自行开发的一代发电机。该系列发电机体积小、重量轻、外观精致、可靠性高, 电气性能达到国际先进水平。

TWG II 系列三相交流无刷同步发电机符合 IEC 国际电工委员会和 GB755 等相关标准, 适用于与柴油机组组成柴油发电机组或移动电站, 使用于陆地、舰船、列车、宾馆等需要工频电源的场合。

TWG II series three-phase brushless synchronous generators, by introducing and developing foreign and domestic advanced technology and design, are newly designed by our company on basis of our primary TWG series. It possesses following features: small-size, light-weight, delicate appearance, reliable operation, the electrical performance of our product can reach up to the international advanced level.

TWG II series three-phase brushless synchronous generators are in conformity with IEC, GB755 and relevant standard. It is suitable to match with the diesel engine to be genset and mobile power station used in land, boat, train, hotel and the occasion where industry power needed.

主要性能参数 MAIN PERFORMANCE INDEX:

01. 励磁结构 (IP22 防护等级)
02. H 级绝缘
03. 额定电压 400V
04. 三相四线制
05. 稳态电压调整率 $\leq \pm 1\%$
06. 瞬态电压调整率 $\leq -15\% \rightarrow +20\%$
07. 电压波形畸变率 THD $\leq 3\%$
08. 电话谐波系数 THF $\leq 2\%$
09. 电话影响系数 TIF ≤ 50
10. 其它电压范围的发电机要根据用户需要制造
1. Drip-leak-proof structure; (IP22 protection class)
2. Insulation class H
3. Rated voltage 400V
4. Three phase four threads
5. Adjusting rate of stable voltage $\leq \pm 1\%$
6. Transient state voltage $\leq -15\% \rightarrow +20\%$
7. Wave aberration rate of voltage THD $\leq 3\%$
8. Telephone harmony wave factor of telephone THF $\leq 2\%$
9. Telephone eff. evalue factor of telephone TIF ≤ 50
10. Voltage of other range depends on the customer's request

使用环境 ENVIRONMENT CONDITIONS

- 在下列环境下, 发电机能够稳定运行。
1. 海拔不超过 1000 米。
 2. 冷却空气温度 25 \pm 313K (-15 \sim 40 $^{\circ}$ C)。
 3. 相对湿度不超过 90%。
- Under the following environment, the generator could running continuously:
1. Altitude: not exceed 1000m.
 2. Cooling air temperature: 25 \pm 313K(-15 $^{\circ}$ C-40 $^{\circ}$ C).
 3. Relative air humidity: not exceed 90%.

特征 FEATURES:

1. 可靠的自动电压调节励磁系统和任选的永磁发电机系统, 在各种情况下可提供恒定励磁。
2. 激磁器与电网或其它发电机并联。
3. 经动平衡的转子, 带有密封的滚动轴承, 具有单轴承和双轴承两种结构。
4. 安装简单, 维护保养方便; 具有极易操作的接线柱、旋转整流器和联轴器螺栓。
5. 多规格的过渡接套和单轴承盘片式联轴器。
6. 符合所有主要的应用标准。
1. Reliable AVR exciting system and optional permanent magnetic system always provide invariable excitation on all occasions.
2. Easy to be connected with power network of parallel other generators.
3. Balanced rotor, sealed single and double ball bearings.
4. Convenient installation and easy maintenance, easy access to terminal, rotating rectifier and coupling bolts.
5. Wide range of flange adapter and coupling disc for single bearing.
6. In conformity with all mainland standard.

系列三相无刷同步发电机 SERIES THREE-PHASE BRUSHLESS SYNCHRONOUS GENERATOR



电气特征 ELECTRICAL CHARACTER:

励磁系统: EXCITATION SYSTEM:

标准配置自动电压调节器 (AVR) 为: EA05A, EA04C, SX440, SX460 或 MAX321 为任选的自动电压调节器 (AVR) 主机定子通过 AVR 向励磁机定子提供电力。AVR 中的高效率半导体器件确保输出电压从最初最低的剩磁电压逐渐增大至额定值。励磁机转子的输出功率通过三相全波桥式整流器供给主机转子。该整流器两端并有压敏电阻, 抑制浪涌电压, 以免由诸如短路或者并联时相位失步而引起的冲击。励磁机定子带有磁锁, 可保证在任何情况下顺利启动。

所有 AVR 的稳态电压调整率 $\leq \pm 1\%$, SX440 具有并联、低频保护, 外部电压调节等多种功能。MAX321 为带永磁发电机所用的 AVR。

The standard AVR include EA05A, EA04C, SX440, SX460 OR MAX321 (optional AVR)

The main stator provides the exciter stator with the power via AVR. The high efficiency semiconductor inside AVR ensures the output voltage gradually up to the rated value from the initial lower remanence voltage. The power of the exciter's rotor is output to the host rotor through 3-phase full wave rectifier. Two ends of the rectifier are connected with piezoresistance for restraining surge voltage and avoiding the impact caused by short circuit of parallel synchronization loss. Exciter's stator is equipped with permanent magnetic steel. It can make generator starting smoothly in any occasions. Whole stable voltage regulation is 1%, and SX440 has features of parallel connection, low frequency protection and exterior voltage adjustment, etc. MAX321 is the AVR for the permanent magnetic motors.

电压调整率: VOLTAGE REGULATION:

电压调整率是指允许发电机转速在 4% 以内的波动下, 功率因数在 0.8 滞后与 1 之间, 从空载到满载的电压变化 (包括冷态至热态的变化), 可用 AVR 上的一个电位器调整电压。

Voltage regulation refers to the change of voltage from no-load to full-load with power factor ranging from 0.8 to 1 and 4% fluctuation of the speed of engine. Voltage is adjusted via potentiometer of AVR.

电气特性 ELECTRIC FEATURES:

绝缘和浸漆: INSULATION:

绝缘等级是 "H" 级。

所有铁制的零部件都是用专门研制的材料并采用特殊的工艺浸漆的, 为发电机在恶劣环境中运行提供保障。专门开发的树脂基材料为线圈和转各部件提供高强度和高机械强度。

Insulation class H

All regulatory components are made up with special materials and also immersed in lacquer by peculiar tech. Vernish and colophony materials are developed to strengthen the processing and machinery intensity of windings and revolving parts for protecting the generator work under corrosive environment.

绕组和电气性能: WINDINGS AND ELECTRIC FEATURES:

所有发电机的定子采用高导磁性冷轧硅钢板叠压而成, 新型双层叠绕组, 结构坚固, 绝缘性能好。一个完全连续的阻尼绕组减少了并联时的振荡。这种新型绕组, 且铁和齿部经过仔细精选的绕组抑制了输出电压的波形畸变。

All the generator stators adopt high magnetic conductivity energy cold-rolling silicon steel plate to fold up, double winding, firm structure, good insulating. Continuous damp windings abate surges. The poles and teeth of the windings are carefully chosen, which helps checking the wave distortion of output voltage.

电话干扰: PHONE INTERFERENCE:

THF (如 BS EN 600 34-1 所定义) 小于 2%。TIF (如 NEMA MG1-22 所定义) 小于 50。

THF (as defined by BS EN 600 34-1) < 2%. TIF (as defined by NEMA MG1-22) < 50.

无线电干扰: RADIO INTERFERENCE

前期装置和高质量的AVR确保无线电传输时干扰很小。如果需要的话,可另外提供RFI抑制装置。
 Bushless apparatus and high quality AVR ensure little radio interference in transmission. RFI noise filter is also available.

机械特性 MECHANIC FEATURES:

外壳: FRAME:

所有陆用发电机的标准型为IP22 (NEMA1)。作为任选,可提供IP23的防护等级,但额定功率下降5%。船用发电机的标准型为IP23,作为任选,可在发电机上安装空气过滤器,但额定功率下降5%。

All industrial standard generators is IP22(NEMA1). IP23 is also available, but rated power will decrease 5%. Marine generator is IP23 as normal standard. Air filter is an option, but rated power will decrease 5% while it is installed.

轴和键: AXIS AND KEY:

所有发电机转子都经动平衡试验,校验振动比BS6861第1部分第2.5级中规定的最小值还更低。双支点发电机带一个半键轴动平衡。
 All rotors should pass balance test, which vibration is lower than the minimum value of BS6861 P.1, G.2.5. Two-bearing generator has a half-key testing balance.

接线端子和接线盒: TERMINAL AND TERMINAL BOX:

标准的发电机是三相,并可对引至接线端子的12个接线头重接,接线端子安装在发电机非驱动端的出线板上。在薄钢板制成的出线盒内有AVR,具有足够空间让用户布线,为易于操作,面板为拆卸式面板。
 The normal three-phase generators have 12 leads brought out to the terminals in the terminal box. The terminals are put on the board of the non-drive end. AVR is mounted in the terminal box made in steel sheet and enough space left inside for laying wires. The box is equipped with removable panels.

The normal three-phase generators have 12 leads brought out to the terminals in the terminal box. The terminals are put on the board of the non-drive end. AVR is mounted in the terminal box made in steel sheet and enough space left inside for laying wires. The box is equipped with removable panels.

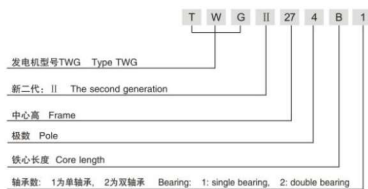
过渡接套和联轴器: ENGINE ADAPTOR AND COUPLING

TWG II 系列发电机都具有单轴承和双轴承两种结构。
 TWG II 系列单轴承结构的过渡接套可选SAE#00, 0, 1/2, 1, 2, 3, 4, 5; 盘片联轴器可选SAE#6.5, 7.5, 8, 10, 11.5, 14, 16, 18, 21。
 TWG II 系列双轴承结构的过渡接套可选SAE#00, 0, 1/2, 1, 2, 3, 4, 5。
 TWG series generators have two kinds of structure, single bearing and double bearing.
 Engine adaptor for single-bearing could be SAE#00, 0, 1/2, 1, 2, 3, 4 and 5. Coupling disc for single-bearing could be SAE#6.5, 7.5, 8, 10, 11.5, 14, 16, 18 and 21.
 Engine adaptor for double-bearing could be SAE#00, 0, 1/2, 1, 2, 3, 4 and 5.

可供选择的配置 OPTION FEATURES:

1. 过渡接套及可互换的盘式联轴器
2. 单相
3. 电压远程调整
4. IP23防护等级
5. 空间加热器
6. 热敏电阻
1. Adaptors and interchangeable drive disk
2. Single phase
3. Remote voltage adjust
4. IP23 protection class
5. Space heaters
6. Thermistors

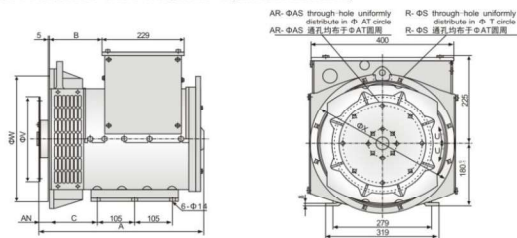
产品型号定义 THE DEFINITION OF THE PRODUCT MODEL:



型号及容量 TYPE AND CAPACITY

型号 TYPE	额定功率 Rated Power (4P-1500rpm 2P-3000rpm 50Hz 400V)						重量 Weight (KG)		
	连续 Continuous/40°C		备用 Stand by/40°C		备用 Stand by/27°C				
	H级125K		H级150K		H级163K				
	KVA	KW	η(%)	KVA	KW	KVA	KW	双轴承 Double Bearing	单轴承 Single Bearing
TWG II 162D	12.5	10	73.2	13.8	11	15	12	83	89
TWG II 162E	15	12	76.8	17.5	14	20	16	94	100
TWG II 162F	17.5	14	78.9	20	16	22.5	18	101	107
TWG II 162H	25	20	81.2	27.5	22	30	24	117	123
TWG II 162G	30	24	81.6	32.5	26	35	28	130	136
TWG II 162J	35	28	82.5	37.5	30	40	32	140	149
TWG II 162K	37.5	30	84.5	40	32	42.5	34	159	165
TWG II 164A	7.5	6	78.5	8.3	6.6	9	7.2	82	88
TWG II 164B	10	8	78.8	11	8.8	12	9.6	86	92
TWG II 164C	12.5	10	80.6	13.8	11	15	12	92	98
TWG II 164D	15	12	81.2	17.5	14	20	16	95	101
TWG II 164E	20	16	84.5	22.5	18	25	20	116	122
TWG II 164F	25	20	85.9	27.5	22	30	24	146	152
TWG II 164FC	27.5	22	86	30	24	32.5	26	148	154
TWG II 164G	30	24	86.3	32.5	26	35	28	150	156
TWG II 164H	37.5	30	86.6	40	32	41.3	33	200	206
TWG II 184J	42.5	34	86.8	45	36	47.5	38	211	217
TWG II 224BC	37.5	30	86.7	40	32	41.3	33	230	236
TWG II 224B	42.5	34	87	45	36	47.5	38	240	246
TWG II 224C	50	40	88	52.5	42	55	44	255	261
TWG II 224DC	56.3	45	88.4	60	48	62.5	50	268	274
TWG II 224D	60	48	88.6	62.5	50	65	52	276	281
TWG II 224E	72.5	58	90	77.5	62	80	64	300	306
TWG II 224FC	80	64	90.1	85	68	87.5	70	330	336
TWG II 224F	85	68	90.2	87.5	70	94	75	340	346
TWG II 224G	94	75	90.3	100	80	106	85	350	356
TWG II 274H	100	80	90.4	106	85	110	88	360	366
TWG II 274C	117.5	94	90.8	127.5	102	131	105	385	391
TWG II 274CC	125	100	91	132.5	106	137.5	110	420	425
TWG II 274D	140	112	91.5	145	116	150	120	430	436
TWG II 274EC	150	120	92.1	160	128	165	132	460	467
TWG II 274E	160	128	92.3	170	138	175	140	475	481
TWG II 274F	181	145	92.4	187.5	150	200	160	520	526
TWG II 274FC	190	152	92.5	200	160	212.5	170	640	647
TWG II 274G	200	160	93.3	212.5	170	220	176	570	576
TWG II 274H	225	180	93.1	237.5	190	250	200	590	600
TWG II 274HC	250	200	93	270	216	275	220	610	620
TWG II 314BC	250	200	92.2	270	216	275	220	800	810
TWG II 314B	275	220	92.4	287.5	230	305	244	812	820
TWG II 314C	300	240	92.7	320	256	330	264	860	865
TWG II 314DC	325	260	93.1	350	280	375	300	930	932
TWG II 314D	350	280	93.3	370	296	400	320	940	942
TWG II 314EC	375	300	93.4	400	320	425	340	1050	1055
TWG II 314E	400	320	93.5	425	340	450	360	1065	1070
TWG II 314F	450	360	94.1	477.5	382	495	396	1125	1130
TWG II 354B	450	360	94.1	477.5	382	495	396	1160	1170
TWG II 354C	500	400	94.4	525	420	550	440	1272	1280
TWG II 354CC	562.5	450	94.5	587.5	470	625	500	1300	1310
TWG II 354D	600	480	94.6	640	512	665	532	1412	1420
TWG II 354DC	625	500	94.6	662.5	530	687.5	550	1430	1435
TWG II 354E	700	560	94.8	737.5	590	762.5	610	1563	1570
TWG II 354F	750	600	93.3	775	620	790	632	1683	1690
TWG II 404B	760	600	93.3	775	620	790	632	1780	1780
TWG II 404C	800	640	93.6	825	660	840	672	1790	1790
TWG II 404D	900	720	93.8	937.5	750	957.5	766	1850	1850
TWG II 404E	1000	800	94.3	1030	824	1050	840	2000	2000
TWG II 404F	1125	900	94.7	1162.5	930	1187.5	950	2250	2250
TWG II 404G	1250	1000	95	1287.5	1030	1312.5	1050	2540	2550
TWG II 454B	1400	1120	95.2	1460	1168	1500	1200	2670	2670
TWG II 454C	1500	1200	95.5	1613	1292	1660	1328	2710	2710
TWG II 454D	1687.5	1350	95.9	1750	1400	1800	1440	2970	2970
TWG II 454E	1875	1500	96.1	1950	1560	2000	1600	3180	3180
TWG II 454F	2000	1600	96.2	2100	1680	2150	1720	3290	3290
TWG II 454G	2250	1800	95.8	2330	1864	2400	1920	3480	3500
TWG II 454H	2500	2000	95.7	2600	2080	2670	2136	3720	3740

OUTLINE FOR TWG II 184E-G & TWG II 182H-K (SINGLE BEARING)



尺寸DIMENSION

型号MODEL	A	B
TWG II 184E	432	147
TWG II 184F	522	237
TWG II 184G	522	237

法兰式过渡接套FLANGE

SAE No.	R	S	T	U	W	X	C
2	12	11	466.7	15	447.6	489	172
3	8	11	428.6	15	409.5	451	145
4	8	11	381.0	15	361.9	402	133
5	8	11	333.3	22.5	314.3	356	133
6	8	11	285.8	22.5	266.7	308	164.7

尺寸DIMENSION

型号MODEL	A	B
TWG II 182H	482	197
TWG II 182J	482	197
TWG II 182K	522	237

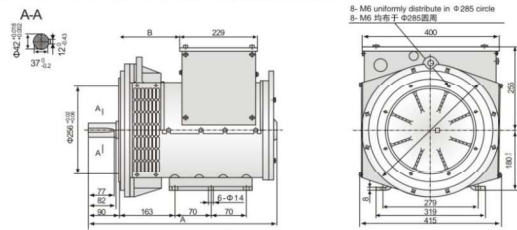
盘片式联轴器 DISC COUPLING

SAE No.	AN	AR	AS	AT	V
6.5	30.16	6	8.7	200.0	215.8
7.5	30.16	8	8.7	222.2	241.2
8	61.9	6	11	244.5	263.4
10	53.98	8	11	295.3	314.2
11.5	39.69	9	11	339.4	352.3

注：表中A和B为SAE4 & SAE5 时的长度尺寸
SAE2 尺寸A,B需增加39;
SAE3 尺寸A,B需增加12;
SAE6 尺寸A,B需增加31.7;
SAE3 & SAE4 的Φ孔均布于12等分圆周上。

Remark: In the table, A and B refer to the length of SAE4 & SAE5
The length of SAE2(A and B) should add 39;
The length of SAE3(A and B) should add 12;
The length of SAE6(A and B) should add 31.7;
The Φ holes of SAE3 & SAE4 are distributed in the 12 equal parts of circumference.

OUTLINE FOR TWG II 184E-G & TWG II 182H-K (DOUBLE BEARING)



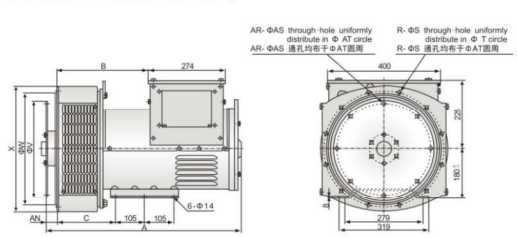
尺寸DIMENSION

型号MODEL	A	D
TWG II 184E	553	177
TWG II 184F	643	267
TWG II 184G	643	267

尺寸DIMENSION

型号MODEL	A	D
TWG II 182H	603	227
TWG II 182J	603	227
TWG II 182K	643	267

OUTLINE FOR TWG II 184H-J (SINGLE BEARING)



尺寸DIMENSION

型号MODEL	A	B
TWG II 184H	643	313
TWG II 184J	643	313

法兰式过渡接套FLANGE

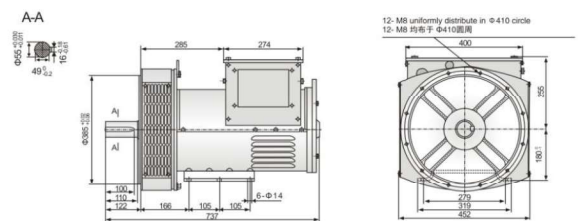
SAE No.	C	R	S	T	W	X
1	220.3	12	12.7	530.2	511.1	553
2	206	12	12	466.7	447.6	490
3	206	12	12	428.6	409.5	460
4	206	12	12	381	361.9	460

盘片式联轴器 DISC COUPLING

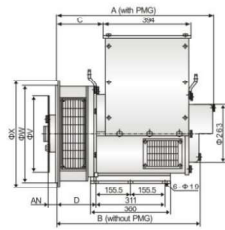
SAE No.	AN	AR	AS	AT	V
8	61.9	6	11	244.5	263.4
10	53.98	8	11	295.3	314.2
11.5	39.68	8	11	333.4	352.3
14	25.4	8	13.5	438.2	466.5

注：表中A和B为SAE2、SAE3 & SAE4时的长度尺寸
SAE1 尺寸A和B需增加14.3。
Remark: In the table, A and B refer to the length of SAE2,SAE3&SAE4
The length of SAE1(A and B) should add 14.3.

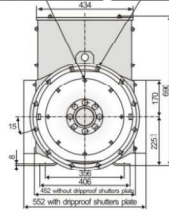
OUTLINE FOR TWG II 184H-J (DOUBLE BEARING)



OUTLINE FOR TWG II 224B-F (SINGLE BEARING)



AR-ΦAS through hole uniformly distribute in Φ AT circle
 R-ΦS through hole uniformly distribute in Φ T circle
 AR-ΦAS 通孔均布于ΦAT圆周 R-ΦS 通孔均布于ΦT圆周



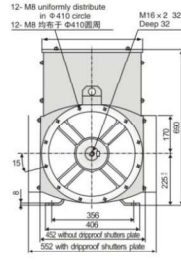
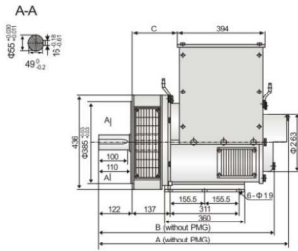
尺寸DIMENSION

SAE No.1	型号MODEL	A	B	C
	TWG II 224B	763	661	267
	TWG II 224C	763	661	267
	TWG II 224D	853	751	357
	TWG II 224E	853	751	357
	TWG II 224F	898	796	402
	TWG II 224G	898	796	402

尺寸DIMENSION

SAE No.2	型号MODEL	A	B	C
	TWG II 224B	749	686	253
	TWG II 224C	749	686	253
	TWG II 224D	839	776	343
	TWG II 224E	839	776	343
	TWG II 224F	884	821	388
	TWG II 224G	884	821	388

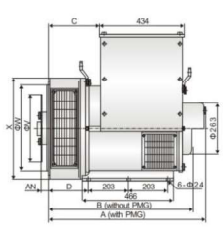
OUTLINE FOR TWG II 224B-F (DOUBLE BEARING)



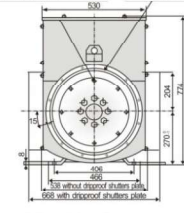
尺寸DIMENSION

型号MODEL	A	B	C
TWG II 224B	831	768	218
TWG II 224C	831	768	218
TWG II 224D	921	858	308
TWG II 224E	921	858	308
TWG II 224F	1011	903	388
TWG II 224G	1011	903	388

OUTLINE FOR TWG II 274B-G (SINGLE BEARING)



AR-ΦAS through hole uniformly distribute in Φ AT circle
 R-ΦS through hole uniformly distribute in Φ T circle
 AR-ΦAS 通孔均布于ΦAT圆周 R-ΦS 通孔均布于ΦT圆周



尺寸DIMENSION

SAE No.1	型号MODEL	A	B	C	D
	TWG II 274B	814	751	274	316
	TWG II 274C	814	751	274	216
	TWG II 274D	929	866	389	216
	TWG II 274E	929	866	389	216
	TWG II 274F	979	916	439	216
	TWG II 274G	1018	956	479	216
	TWG II 274H	1018	956	479	216

尺寸DIMENSION

SAE No.2	型号MODEL	A	B	C	D
	TWG II 274B	799	736	260	202
	TWG II 274C	799	736	260	202
	TWG II 274D	914	851	375	202
	TWG II 274E	914	851	375	202
	TWG II 274F	964	904	425	202
	TWG II 274G	1004	941	465	202
	TWG II 274H	1004	941	465	202

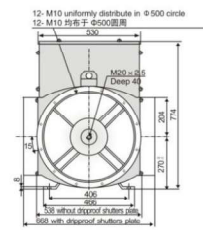
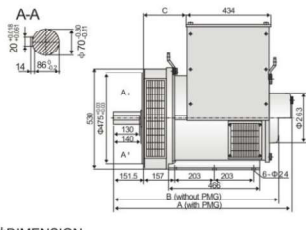
法兰式过渡接套FLANGE

SAE No.	R	S	T	W	X	U
1	12	12.7	530.2	511.1	580	15
2	12	11	466.7	447.6	530	15
3	12	11	428.6	409.5	530	15

盘片式联轴器 DISC COUPLING

SAE No.	AN	AR	AS	AT	V
8	61.9	6	11	244.5	283.4
10	53.98	8	11	295.3	314.2
11.5	39.68	8	11.5	333.4	352.3
14	25.4	8	13.5	438.2	466.5

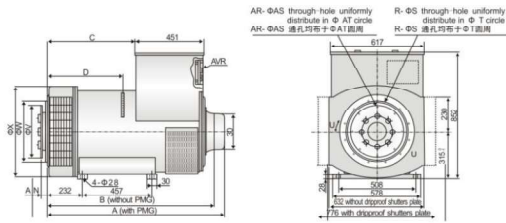
OUTLINE FOR TWG II 274B-G (DOUBLE BEARING)



尺寸DIMENSION

型号MODEL	A	B	C
TWG II 274B	905	842	315
TWG II 274C	905	842	215
TWG II 274D	1020	957	330
TWG II 274E	1020	957	330
TWG II 274F	1070	1007	380
TWG II 274G	1110	1047	420
TWG II 274H	1110	1047	420

OUTLINE FOR TWG II 314B-E (SINGLE BEARING)



尺寸DIMENSION

型号MODEL	A	B	C	D
TWG II 314B	1172	1101	584	493
TWG II 314C	1172	1101	584	493
TWG II 314D	1262	1191	674	583
TWG II 314E	1262	1191	674	583
TWG II 314F	1262	1191	674	583

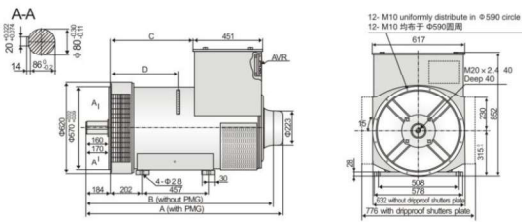
法兰式过渡接套FLANGE

SAE No.	R	S	T	W	X	U
0	12	14	679.5	647.6	711	15
1/2	12	14	619.1	584.1	660	15
1	12	12.7	530.2	511.1	617	15
2	12	11	466.7	447.6	617	15
3	12	11	428.6	409.5	617	15

盘片式联轴器 DISC COUPLER

SAE No.	AN	AR	AS	AT	V
11.5	39.58	8	11	333.4	352.3
14	25.4	8	13.3	438.2	466.5
16	15.87	6	16.7	543.0	571.1

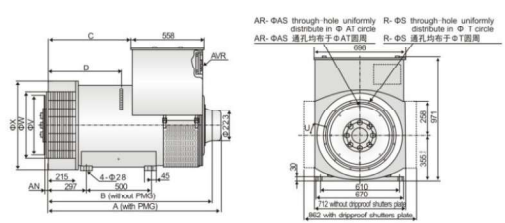
OUTLINE FOR TWG II 314B-E (DOUBLE BEARING)



尺寸DIMENSION

型号MODEL	A	B	C	D
TWG II 314B	1326	1255	554	463
TWG II 314C	1326	1255	554	463
TWG II 314D	1416	1345	654	553
TWG II 314E	1416	1345	654	553
TWG II 314F	1416	1345	654	553

OUTLINE FOR TWG II 354B-E (SINGLE BEARING)



尺寸DIMENSION

型号MODEL	A	B	C	D
TWG II 354B	1337	1266	642	568
TWG II 354C	1337	1266	642	568
TWG II 354D	1337	1266	642	568
TWG II 354E	1412	1341	717	643
TWG II 354F	1412	1341	717	643

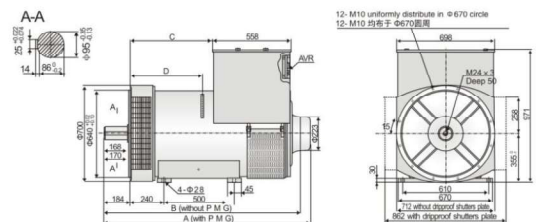
法兰式过渡接套FLANGE

SAE No.	R	S	T	W	X	U
00	12	14	850.9	787.3	882	11.25
0	12	14	679.5	647.6	711	11.25
1/2	12	14	619.1	584.1	700	15
1	12	12.7	530.2	511.1	710	15
2	12	11	466.7	447.6	710	15

盘片式联轴器 DISC COUPLER

SAE No.	AN	AR	AS	AT	V
14	25.4	8	13.3	438.2	466.5
16	15.87	6	16.7	543.0	571.1
21	0	12	10.7	641.3	673.0

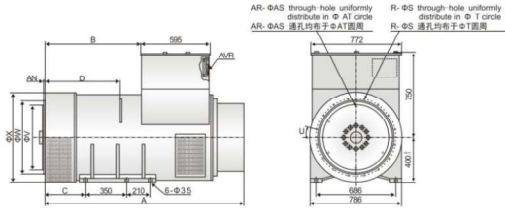
OUTLINE FOR TWG II 354B-E (DOUBLE BEARING)



尺寸DIMENSION

型号MODEL	A	B	C	D
TWG II 354B	1464	1393	585	511
TWG II 354C	1464	1393	585	511
TWG II 354D	1464	1393	585	511
TWG II 354E	1539	1468	660	586
TWG II 354F	1539	1468	660	586

OUTLINE FOR TWG II 404B-G (SINGLE BEARING)



尺寸DIMENSION

型号MODEL	A	B
TWG II 404B	1615	727
TWG II 404C	1616	727
TWG II 404D	1615	727
TWG II 404E	1615	727
TWG II 404F	1615	727
TWG II 404G	1716	828

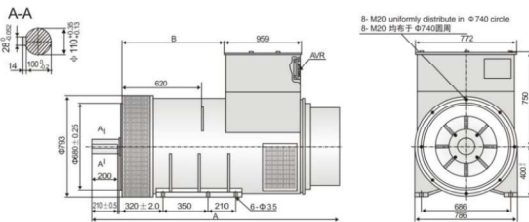
法兰式过渡接套FLANGE

SAE No.	R	S	T	W	X	U	C
00	16	14	650.9	767.4	669	11.25	366
0	16	14	679.5	647.7	793	11.25	350
1/2	12	14	619.1	584.2	793	15	350

盘片式联轴器 DISC COUPLING

SAE No.	AN	AR	AS	AT	V
14	25.4	8	14	438.2	466.6
18	15.7	6	18	542.9	571.5
21	0	12	18	641.3	673.1
24	0	12	20.7	692.0	733.3

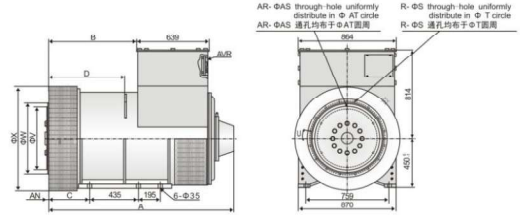
OUTLINE FOR TWG II 404B-G (DOUBLE BEARING)



尺寸DIMENSION

型号MODEL	A	B
TWG II 404B	1810	698
TWG II 404C	1810	698
TWG II 404D	1810	698
TWG II 404E	1810	698
TWG II 404F	1810	698
TWG II 404G	1910	799

OUTLINE FOR TWG II 454B-H (SINGLE BEARING)



尺寸DIMENSION

型号MODEL	A	B	C
TWG II 454B	1630	767	675
TWG II 454C	1630	787	675
TWG II 454D	1630	787	675
TWG II 454E	1800	937	725
TWG II 454F	1800	937	725
TWG II 454G	1885	937	835
TWG II 454H	1885	937	835

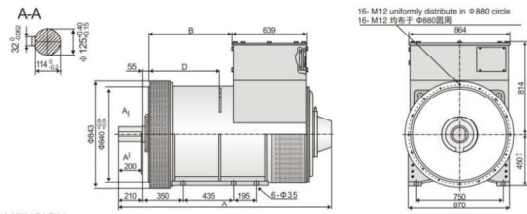
法兰式过渡接套FLANGE

SAE No.	R	S	T	W	X	U
00	16	14	651.0	787.3	943	11.25
0	16	14	679.5	647.6	943	11.25
1/2	12	14	619.1	584.1	943	15

盘片式联轴器 DISC COUPLING

SAE No.	AN	AR	AS	AT	V
14	25.4	8	14	438.2	466.6
18	15.87	6	18	543.0	571.5
21	0	12	18	641.3	673.1
24	0	12	20.7	692.0	733.3

OUTLINE FOR TWG II 454B-H (DOUBLE BEARING)



尺寸DIMENSION

型号MODEL	A	B	C	D	E	F	G
TWG II 454B	1845	717	308	125	605	32	114
TWG II 454C	1845	717	306	125	605	32	114
TWG II 454D	1845	717	308	125	605	32	114
TWG II 454E	1995	867	308	125	655	32	114
TWG II 454F	1995	867	308	125	655	32	114
TWG II 454G	2080	867	347	150	765	36	138
TWG II 454H	2080	867	347	150	765	36	138

ST

系列单相交流同步发电机
SERIES SINGLE PHASE A.C. SYNCHRONOUS GENERATOR

简介 INTRODUCTION:

ST系列发电机主要是作为城镇、乡村、家庭及小型船舶的照明和日常用电的电源。
发电机为防滴式结构，防护等级IP21，凸极旋转磁场自激恒压型式，内部采用优质电磁材料和电工材料制造。定、转子铁芯等级为B级或F级。
发电机采用JB/T3320.2-2000标准制造，同时也符合IEC34-1标准。
整机外观精美、结构紧凑、易于维护。
ST series generators are designed to serve mainly as the power of household appliances and the lighting in towns, villages, houses or minitype ships.
The structure of generator is drip-proof type, protection class IP21, salient-pole rotating field self excitation and constant voltage type. The generator interior is made of high quality magnetic and electrical materials. The insulation for stator and rotor is class B or F. The generators are made as per standard JB/T3320.2-2000, also in conformity to IEC34-1 standard.
The generators are elegant in appearance, tight in structure and easy maintenance.

使用环境 ENVIRONMENT CONDITIONS

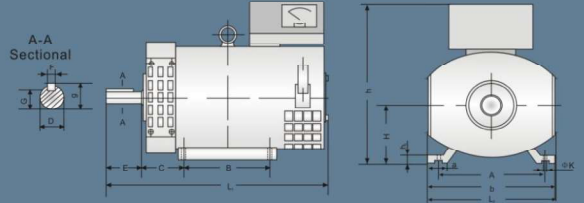
- 在下列环境条件下，发电机能够稳定运行。
- 海拔不超过1000米。
 - 冷却空气温度258-313K(-15°C-40°C)。
 - 相对湿度不超过90%。
- Under the following environment, the generator could run continuously.
- Altitude: not exceed 1000m.
 - Cooling air temperature: 258-313K(-15°C-40°C).
 - Relative air humidity: not exceed 90%.



技术参数 TECHNICAL DATA

型号 Type	功率 Output (kW)	电流 Current(A)		电压 Voltage(V)		功率因数 Power Factor (cos φ)	极数 Pole number	转速 Speed (r.p.m)	频率 Freq. (Hz)
		串联Series Connection	并联Parallel Connection	串联Series Connection	并联Parallel Connection				
ST-1	1	4.35	8.7	230	115	1.0	4	1500/1800	50/60
ST-2	2	8.7	17.4						
ST-3	3	12	26						
ST-5	5	21.6	43.3						
ST-7.5	7.5	32.6	65.2						
ST-10	10	43.5	87						
ST-12	12	52.2	104						
ST-15	15	65.3	130						
ST-20	20	87	174						
ST-24	24	104	208						

外形及安装尺寸 OVERALL AND MOUNTING DIMENSIONS



型号 Type	功率 Output (kW)	安装尺寸 Installing dimensions(mm)											外形尺寸 Overall dimensions(mm)					
		H	A	B	C	D	E	F	G	g	K	a	b	h1	h	L1	L2	
ST-1	1	132	216	178	89	32	80	10	27	34.8	12	34	250	18	384	480	270	
ST-2	2	132	216	178	89	32	80	10	27	34.8	12	34	250	18	385	480	270	
ST-3	3	132	216	178	89	32	80	10	27	34.8	12	34	250	18	384	480	270	
ST-5	5	160	254	254	108	38	80	10	33	40.8	15	50	310	25	440	580	325	
ST-7.5	7.5	160	254	254	108	38	80	10	33	40.8	15	50	310	25	440	580	325	
ST-10	10	180	279	203	121	42	110	12	37	44.8	15	60	339	25	480	610	365	
ST-12	12	180	279	203	121	42	110	12	37	44.8	15	60	339	25	480	610	365	
ST-15	15	200	318	228	133	48	110	14	42.5	51.2	19	60	378	30	540	660	400	
ST-20	20	200	318	228	133	48	110	14	42.5	51.2	19	60	378	30	540	660	400	
ST-24	24	200	318	228	133	48	110	14	42.5	51.2	19	60	378	30	540	660	400	

STC

简介 INTRODUCTION:

STC系列发电机适用于乡村、城镇、工地、山区及牧区等照明及动力的三相交流电源，也可作为应急备用电源。
 发电机为防滴转场式结构，防护等级IP21，绝缘等级B级或F级。采用谐波励磁系统，使用安全可靠，维护简单方便。
 发电机为三相四线制，采用带中性点的星形接法。额定线电压400V，相电压230V，频率50Hz，功率因数0.8（滞后）。根据需要，也可提供60Hz及其它电压值的发电机。
 发电机可以直接通过三角皮带连接原动力在额定速度下做正反转连续运转，当原动力的旋转速度发生3%变化，负载在0-100%，功率因数在0.8-1.0范围内时，发电机提供恒定电压。当负载突然发生变化（增减或瞬）时，发电机将立即回到正常上作状态。同时，不需要任何启动装置，发电机能够直接启动空载的鼠笼式感应电机。
 本系列发电机采用JB/T8981-1999标准制造，同时也符合IEC34-1标准。

STC Series generators are used in town, countryside, workites, villages and pastures as electric STC series generators are used as lighting in countryside, town, workites, mountain and pasturing areas ,the three phase A.C. power supply, as well as to be reserved emergency power source.
 The generator is adopted drip-proof with rotary field type, protection class IP23, insulation class B or F and harmonic excitation system. It is safe and reliable, easy operation and maintenance.
 The generator is three-phase, four-wire type, adopting star connection with neutral point. The rated line voltage is 400V, phase voltage 230V, frequency 50Hz, power factor 0.8(lag). We can provide 60Hz and the other voltages value according to the customer's request.
 The generator can be coupled with a prime mover directly or through v-belt making right or reverse continuous rotation at the rated speed. When the rotation speed of prime mover changes 3% or so and load varies in the range of 0-100% and 0.8-1.0, the generators offer constant voltage. When sudden change (increase or decrease) of load, the generator will soon return to their normal working state, at the same time, without any starting device the generator can directly start an unloaded squirrel cage induction motor.
 The generators are made as per standard JB/T8981-1999, as well as in conformity to IEC34-1.

使用环境 ENVIRONMENT CONDITIONS

- 在下列环境条件下，发电机能够稳定运行。
- 海拔不超过1000米。
 - 冷却空气温度258-313K(-15℃-40℃)。
 - 相对湿度不超过90%。
- Under the following environment, the generator could run continuously:
- Altitude: not exceed 1000m.
 - Cooling air temperature: 258-313K(-15℃-40℃).
 - Relative humidity: not exceed 90%.

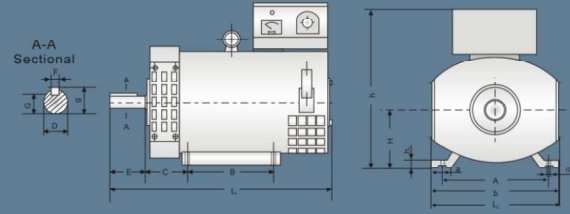


系列三相交流同步发电机 SERIES THREE-PHASE A.C. SYNCHRONOUS GENERATOR

技术参数 TECHNICAL DATA

型号 Type	功率 Output		电压 Voltage (V)	电流 Current (A)	功率因数 Power Factor (cos φ)	转速 Speed (r.p.m)	频率 Freq. (Hz)	极数 Pole number
	kVA	kW						
STC-3	3.8	3	400/230	5.4	0.8	1500	50	4
STC-5	6.3	5		9				
STC-7.5	9.4	7.5		13.5				
STC-8	10	8		14.4				
STC-10	12.5	10		18.1				
STC-12	15	12		21.7				
STC-15	18.5	15		27.1				
STC-20	25	20		36.1				
STC-24	30	24		43.3				
STC-30	37.5	30		54.1				
STC-40	50	40		72.2				
STC-50	62.5	50	90.2					

外形及安装尺寸 OVERALL AND MOUNTING DIMENSIONS



型号 Type	功率 Output		安装尺寸 Installing dimensions(mm)													外形尺寸 Overall dimensions(mm)					
	kVA	kW	H	A	B	C	D	E	F	G	g	K	a	b	h1	h	L1	L2			
STC-3	3.8	3	132	216	178	89	32	80	10	27	34.8	12	34	250	18	400	480	270			
STC-5	6.3	5	160	254	254	108	38	80	10	33	40.8	15	50	310	25	455	580	325			
STC-7.5	9.4	7.5	160	254	254	108	38	80	10	33	40.8	15	50	310	25	455	580	325			
STC-8	10	8	160	254	254	108	38	80	10	33	40.8	15	50	310	25	455	580	325			
STC-10	12.5	10	180	279	203	121	42	110	12	37	44.8	15	60	339	25	495	610	365			
STC-12	15	12	180	279	203	121	42	110	12	37	44.8	15	60	339	25	495	610	365			
STC-15	18.5	15	200	318	228	133	48	110	14	42.5	51.5	19	60	378	30	540	660	400			
STC-20	25	20	200	318	228	133	48	110	14	42.5	51.5	19	60	378	30	540	660	400			
STC-24	30	24	200	318	228	133	48	110	14	42.5	51.5	19	60	378	30	540	660	400			
STC-30	37.5	30	225	356	266	149	60	140	18	53	64	19	65	421	32	610	770	452			
STC-40	50	40	225	356	266	149	60	140	18	53	64	19	65	421	32	610	770	452			
STC-50	62.5	50	225	356	311	149	60	140	18	53	64	19	65	421	32	610	810	452			

简介 INTRODUCTION:

FHW系列永磁式弧焊发电机,具有体积小,重量轻,容量大,效率高,使用方便,质量可靠之特点,采用不低于12PS柴油,汽油机或7.5KW电动机催动力,并可装配于三,四轮车及其它机动车辆上,组成移动或固定式电焊,发电两用机组,适用于油田,矿产开发,道路工程,桥梁建筑工程,管道工程,城镇,农村,林区,牧区,渔港,工业,作坊,边防哨所,小型船舶,家庭及公共场所的电焊,照明(不可用日光灯)或电钻,电锤等交流两用电器之电源。

本机电焊部分采用阴极接地两极输出结构,电焊和发电可分别使用或同时使用,其总负载以达本说明书中所规定容量。其特点是采用永磁方式,(使用稀土永磁材料)从而免除了传统的励磁结构,电焊时,降低电流调节范围更广,引弧容易,燃弧稳定,焊接性能可达到国家AX系列弧焊机的技术标准。

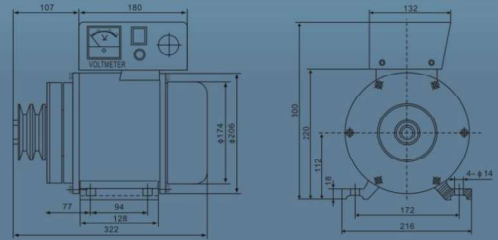
FHW Series of Permanent magnet DC Arc-Welding Generator has such characteristics as small size, light weight, convenient in operation, high in efficiency and reliable in quality, etc. It adopts 12ps diesel or gasoline engine or 7.5KW electric motor as its dynamic force. And it can also be assembled on tricycle, quadricycle or other motor vehicles to make up movable or stationary welding and generating double duty equipment. It has been widely used as power supply for lighting and such A-C-DC electrical appliances as electric drill and electric hammer in oil field, mineral exploitation, highway and bridge engineering, pipe work, cities and towns rural area forest region, pastoral area, fishing port, industries workshops, frontier sentry, small ship, house hold and public places, etc.

The welding section of this equipment adopts the structure of cathode to ground and bipole output. The welding and generation can be used separately or simultaneously. The total load can reach the specified capacity in the instruction manual. Furthermore, since it adopts the permanent-magnet structure, the traditional excitation unit has been abolished. During welding, it has such characteristic as wide adjusting range of welding current, easy generating of arc, and stable flameholding, etc. The welding performance has met the national technical standard for AX series arc-welding machine.



系列永磁直流弧焊发电机
SERIES PERMANENT-MAGNET DC ARC-WELDING GENERATOR

外形及安装尺寸 OVERALL AND MOUNTING DIMENSIONS



技术参数 TECHNICAL DATA

数据名称		计量单位	FHW-160	FHW-180	FHW-200	FHW-250
电焊部分	直流空载电压 DC Idle Voltage	V	60	60	65	70
	额定电流 Rated Current	A	160	180	200	200
	电流调节范围 Adjustable Current Range	A	80-160	85-200	90-220	95-250
	直流电焊电压 DC Welding Voltage	V	22-32	22-32	22-32	25-32
	额定负载持续率 Rated Duty Cycle	%	60	60	60	60
	温升 Temperature Rise	°C	70	70	70	70
发电部分	额定电压 Rated Voltage	V	220	220	220	220
	额定功率 Rated Output	W	1500	1600	1800	1800
	工作周期 Work Cycle		连续	连续	连续	连续
共性数据	额定转速 Rated Speed	r/min	3000	3000	3000	3000
	组合动力匹配内燃机 Combined Power-Matching Internal Combustion Engine	PS	=10	=12	=14	=14
	组合动力匹配电动机 Combined Power-Matching Electromotor	kW	=6.5	=7.5	=9.5	=9.5
	三角带轮 Wheel for V-belt	直径 φ50mm	槽型S10t-typeB	槽型S10t-typeB	槽型S10t-typeB	槽型S10t-typeB
	绝缘等级 Class Of Insulation	级	B	B	B	B
	外形尺寸 Size	mm	322 × 216 × 300	322 × 216 × 300	322 × 216 × 300	322 × 216 × 300
重量 Weight	kg	27	28.5	30.5	31	



简介 INTRODUCTION:

FHWS系列交流发电直流电焊两用机，是本公司最新研制可以同时提供交流发电，直流电焊两种功能的两用机。本机可用汽油机或柴油机组成移动固定式电源，在3000转/分这个转速下实现工频交流发电，直流电焊两种功能。作为直流电焊，它能焊接各种高低合金钢铁部件，可使用Φ2.0-Φ6.0，由于采用高性能永磁材料（钕铁硼），实现了光轴刷设计，也增强了焊接性能，所以本机的可靠性及使用寿命得到了极大的提高。同时该机还可同时输出交流电，电压为220V，频率为50HZ，适合照明，电风扇，小功率家用电器以及野外施工时需要交流电的情况。

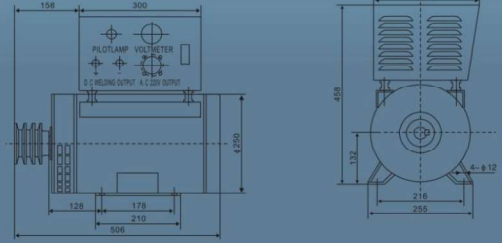
FHWS Series A.C&D.C electrical machine is our new product that can provide A.C generating and D.C welding function simultaneously. Either gasoline engine or diesel can act as a movable/fixed power, and to realize its double-function, a speed of 3000 circles per minute is also needed. As a D.C welding machine, it can weld all kinds of alloy parts with the welding rod of Φ2.0-Φ6.0 Thanks to the high quality permanent magnetic material (Nd, Fe, and Boron) the non-carbon brushes are reached, and welding properties are strengthened, so the machine's reliability and ease of use improve a lot. Also the machine can generate an A.C voltage of 220V and frequency 50HZ, which can be used as a illumination, electric fan, and small power house hold appliances, as well as the work in the field where the A.C is needed.

FHWS

系列交流发电直流电焊两用机
SERIES PERMANENT-MULTIFUNCTIONAL ARC-WELDING GENERATOR



外形及安装尺寸 OVERALL AND MOUNTING DIMENSIONS



技术参数 TECHNICAL DATA

数据名称		计量单位	FHWS-250	FHWS-300	FHWS-350
电焊部分	直流空载电压 DC Idle Voltage	V	70	70	75
	额定电流 Rated Current	A	250	300	350
	电流调节范围 Adjustable Current Range	A	95-250	120-300	150-350
	直流焊接电压 DC Welding Voltage	V	30-35	30-35	30-35
	额定负载持续率 Rated Duty Cycle	%	60	60	60
	温升 Temperature Rise	℃	70	70	70
发电部分	额定电压 Rated Voltage	V	230	230	230
	额定功率 Rated Output	W	1600	1800	1800
	额定频率 Rated Frequency	Hz	50	50	50
	工作周期 Work Cycle		连续	连续	连续
共性数据	额定转速 Rated Speed	r/min	3000	3000	3000
	组合动力匹配内燃机 Combined Power-Matching Internal Combustion Engine	PS	=14	=18	=22
	组合动力匹配电动机 Combined Power-Matching Electromotor	kW	=10	=12	=14
	三角带轮 Wheel for V-belt	直径Φ104mm	槽型S10I-typeB	槽型S10I-typeB	槽型S10I-typeB
	绝缘等级 Class Of Insulation	级	B	B	B
	体积 Size	mm	506 × 265 × 458	506 × 265 × 458	506 × 265 × 458
	重量 Weight	kg	56	62	68

SD/SDC

系列发电/电焊两用交流发电机 SERIES GENERATING & WELDING DUAL-USE ALTERNATOR

简介 INTRODUCTION:

SD/SDC系列发电、电焊两用机，适用于内燃机拖动组成移动或固定电源，适用于城镇、乡村、林业、建筑工程、小型船舶等作为照明、家用电器、电动工具以及电焊的电源。本产品可发电、电焊单独使用，也可以小容量同时使用。防护等级IP21，绝缘等级为B级。

SD/SDC series generating and welding dual-use alternators are suitable to be mobile or fixed power supply driven by an internal combustion engine. They can be used as power sources for lighting, household appliances, power tools and welding purpose in town, countryside, woodland, worksite and minitype ships. The alternators can generate electricity and weld separately, as well as simultaneously. The protection class is IP21 and insulation class is B.

使用环境 ENVIRONMENT CONDITIONS

在下列环境条件下，发电机能够额定运行。

- 1.海拔不超过1000米。
- 2.冷却空气温度258-313K(-15℃-40℃)。
- 3.相对湿度不超过90%。

Under the following environment, the generator could run continuously:

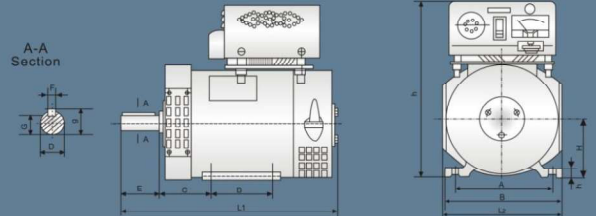
1. Altitude: not exceed 1000m.
2. Cooling air temperature: 258~313K(-15℃~40℃).
3. Relative humidity: not exceed 90%.



技术参数 TECHNICAL DATA

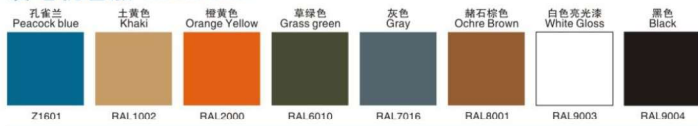
型号 Type	额定功率 Rated output		额定电压 Rated voltage (V)	额定电流 Rated Current (A)	电焊空载电压 Welding voltage under no-load (V)	电焊空载电流 Welding Current (A)	负载率 Continuous rate under load (%)	电焊电流调节范围 Current adjustment range for welding(A)
	kW	KVA						
SD-5	5	5	230	21.7	<80	160	40	70-200
SD-7.5	7.5	7.5	230	32.6	<80	200	40	80-240
SD-10	10	10	230	43.6	<80	230	40	100-300
SD-12	12	12	230	52.2	<80	300	40	140-320
三相 Three-Phase 400V 50Hz/1500r/min COS φ=0.8								
Model								
SDC-5	5	6.3	400	9	<80	140	40	60-160
SDC-7.5	7.5	9.4	400	13.5	<80	180	40	70-200
SDC-10	10	12.5	400	18.1	<80	225	40	80-280
SDC-12	12	15	400	21.7	<80	280	40	100-300

外形及安装尺寸 OVERALL AND MOUNTING DIMENSIONS

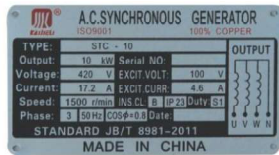
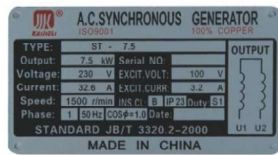


型号 Type	功率 POWER (kW)	安装尺寸 MOUNTING DIMENSIONS(mm)										外形尺寸 OVERALL DIMENSIONS(mm)					
		H	A	B	C	D	E	F	G	g	K	a	b	H1	h	L1	L2
SD-5	5	160	254	254	108	38	80	10	33	40.8	15	50	310	25	440	580	325
SD-7.5	7.5	180	254	254	108	38	80	10	33	40.8	15	50	310	25	440	580	325
SDC-5	5	180	279	203	121	42	110	12	37	44.8	15	60	339	25	480	610	365
SD-10	10	180	279	203	121	42	110	12	37	44.8	15	60	339	25	480	610	365
SDC-7.5	7.5	180	279	203	121	42	110	12	37	44.8	15	60	339	25	480	610	365
SD-12	12	200	318	228	133	48	110	14	42.5	51.2	19	60	378	30	540	660	400
SDC-12	12	200	318	228	133	48	110	14	42.5	51.2	19	60	378	30	540	660	400

发电机色版 The color series



发电机铭牌 Name Plate



发电机配件 Spare Parts of Generator



- 美、澳、非洲区域 America, Australia & Africa
Tel: 0086-512-66658651
- 欧洲区域 Europe
Tel: 0086-512-66659568
- 中东区域 Middle East
Tel: 0086-512-66658698
- 南亚区域 South Asia
Tel: 0086-512-66659178
- 东南亚区域 South East Asia
Tel: 0086-512-66659078

