

SMU

FUJIAN SINOCOX GENERATOR TECHNOLOGY CO., LTD

ALTERNATOR

SMU160 Range

_ Rev.B _

APPLICATION AND STANDARDS

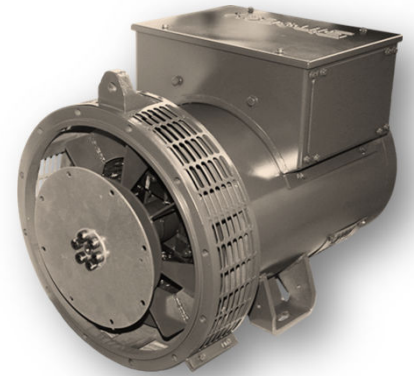
SUPER RELIABLE MACHINE, MAINLY LAND-USED AS PRIME OR STANDBY POWER
 COMPLY WITH STANDARDS OF IEC60034,NEMA MG1-22,IS08528,CSA C22.2-100, VDE 0530, GB755

SPECIAL FEATURES

- OVERLOAD** : 15% OVERLOAD FOR 1 HOUR EVERY 12 HOURS
- WINDING PROTECTION** : VPI(VACUUM PRESSURE IMPREGNATION)+ EPOXY RESIN+ ANTI-HARSH PAINTING
- SUPER SILENCE** : FAN, MADE OF STEEL, ROTATING EVENLY
- VIBERATION** : MOST RIGID DYNAMIC-BALANCED ROTOR AND STRONGER BODY AND FEET
- EXCITATION** : THE AUXILIARY WINDING AND PMG IS OPTIONAL
- THERMAL OVERLOAD** : WINDING AND BEARING DETECTOR CAN BE EQUIPPED UPON CUSTOMER REQUEST
- BEARING** : SEAL FOR LIFE
- DIODE**: ACCESS FROM NON-DRIVE END FOR EASY-MAINTENANCE

GENERAL FEATURES

WIRE WOUND AND CLASS H THERMAL INSULATION
 IP23, STANDARD EQUIPPED, AND IP44, IP54 UPON CUSTOMER REQUEST
 ROUND-SHAPE MACHINE BODY FOR BETTER CENTERLIZATION
 NAMEPLATE, MADE OF STEEL OR PLASTIC
 SINOCOX LOGO STAMPED TO THE TOP COVER OF T-BOX



COMMON DATA

INSULATION	ALTITUDE	OVERSPEED	PROTECTION	LEADS	PITCH	AVR	VOLTAGE REGULATION	WAVEFORM DISTORTION	TIF	THF
H/H	<=1000m	2250 rpm	IP23	12	2/3	SX460	± 1%	<1.5% NO LOAD	<50	<2%

RATING TABLE

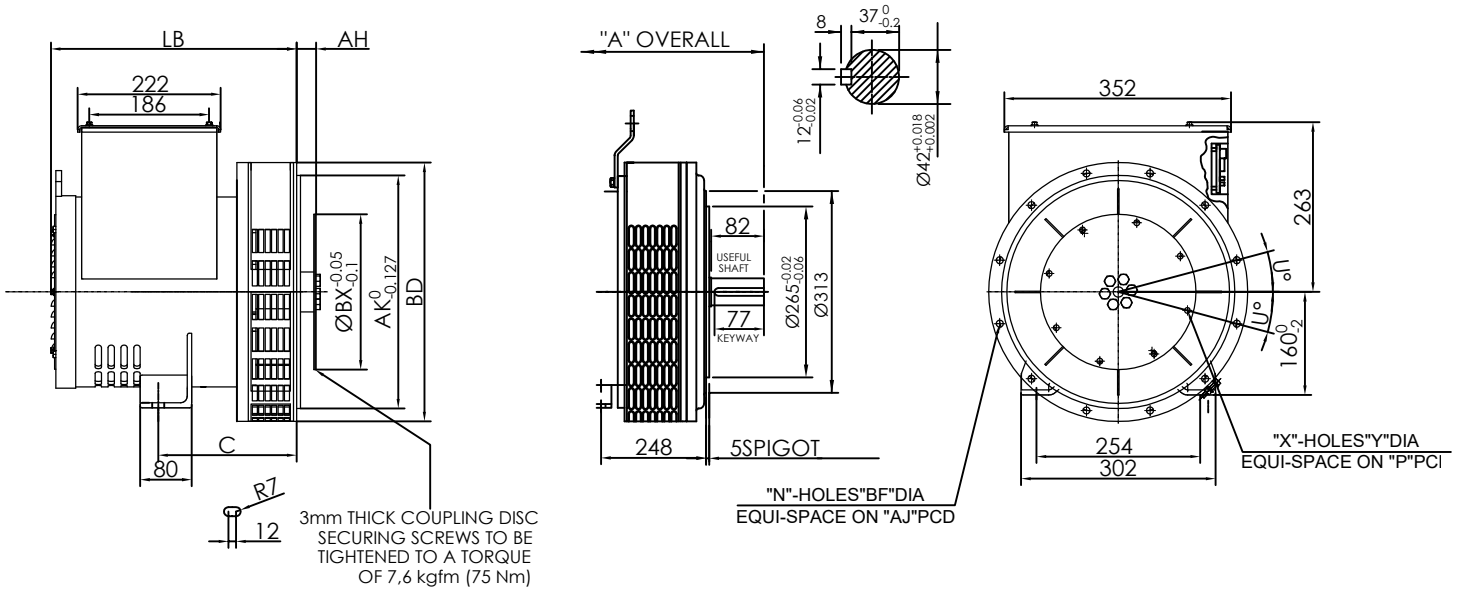
H CLASS	50Hz/1500RPM/PF 0.8											60Hz/1800RPM/PF 0.8												
	125°C/40°C PRIME POWER										163°C/27°C Standby	Effi.	125°C/40°C PRIME POWER										163°C/27°C Standby	Effi.
TEMP.																								
Y	380	400	415	440	400	400	416	440	460	480	480	480												
YY	190	200	208	220	200	200	208	220	230	240	240	240												
Δ	220	230	240	254	230	230	240	254	266	277	277	277												
RATING	kVA	kW	kVA	kW	kVA	kW	kVA	kW	kVA	kW	%	kVA	kW	kVA	kW	kVA	kW	kVA	kW	kVA	kW	%		
SMU160B	8.1	6.5	8.1	6.5	8.1	6.5	6.2	5.0	8.8	7.1	77.3	9.6	7.7	10.2	8.2	10.2	8.2	10.2	8.2	11.1	8.9	78.3		
SMU160C	11.0	8.8	11.0	8.8	11.0	8.8	8.5	6.8	11.9	9.5	79.5	13.0	10.4	13.8	11.0	13.8	11.0	13.8	11.0	15.0	12.0	80.9		
SMU160D	13.5	10.8	13.5	10.8	13.5	10.8	11.0	8.8	14.6	11.7	80.8	16.0	12.8	16.9	13.5	16.9	13.5	16.9	13.5	18.3	14.7	82.4		
SMU160E	16.0	12.8	16.0	12.8	16.0	12.8	13.5	10.8	17.4	13.9	81.8	18.9	15.1	20.0	16.0	20.0	16.0	20.0	16.0	21.7	17.4	83.6		

REACTANCE-TIME CONSTANT(S) H CLASS

SMU160 B/C/D/E

60Hz @ 480V		SMU160B	SMU160C	SMU160D	SMU160E
Xd	Direct axis synchro. reactance unsaturated	1.889	1.858	1.828	1.807
X'd	Direct axis transient reactance saturated	0.194	0.189	0.186	0.185
X''d	Direct axis sub transient reactance saturated	0.122	0.118	0.117	0.115
Xq	Quadra. Axis synchro. reactance unsaturated	0.938	0.923	0.907	0.898
X'q	Quadra. Axis sub transient reactance saturated	0.216	0.212	0.209	0.208
X2	Negative sequence reactance unsaturated	0.178	0.178	0.176	0.174
Xo	Zero sequence reactance unsaturated	0.182	0.081	0.08	0.079
Td	Short-Circuit transient time constant	0.012s	0.014s	0.017s	0.018s
T'd	Sub transient time constant	0.003s	0.003s	0.004s	0.005s
Tdo	Open circuit time constant	0.2s	0.3s	0.3s	0.4s
Ta	Armature time constant	0.004s	0.005s	0.005s	0.006s
Kcc	Short circuit ratio	0.529	0.538	0.547	0.553

OUTLINE DRAWING



DATA TABLE - DOUBLE BEARING

Dimension (mm)	Double BRG	Weight		Packing
		Net(kg)	Gross(kg)	
Model	A			L x W x H (mm)
SMU160B	507.6	79	105	1120x680x700
SMU160C	507.6	94	121	1120x680x700
SMU160D	507.6	101	129	1120x680x700
SMU160E	507.6	107	136	1120x680x700

SAE AVAILABILITY

SAE#	6.5	7.5	8	10	11.5
5	x	x			
4		x	x	x	
3				x	x
2					

DATA TABLE - SINGLE BEARING

Dimension (mm)	SAE 3	SAE 4	SAE 5	Weight		Packing
				Net(kg)	Gross(kg)	
Model	LB	LB	LB			L x W x H (mm)
SMU160B	399.6	387.6	387.6	76	104	1120x680x700
SMU160C	399.6	387.6	387.6	91	118	1120x680x700
SMU160D	399.6	387.6	387.6	98	126	1120x680x700
SMU160E	399.6	387.6	387.6	104	132	1120x680x700

Flange (mm)								Disc(mm)					
SAE#	BD	AK	AJ	BF	N	U°	C	SAE#	BX	P	X	Y	AH
SAE 5	356	314.32	333.38	11	8	22.5	218	11.5	352.42	333.38	8	11	39.6
SAE 4	402	361.95	381	11	12	15	218	10	314.32	295.28	8	11	53.8
SAE 3	451	409.58	428.62	11	12	15	230	8	263.52	244.48	6	11	62
								7.5	241.3	222.25	8	9	30.2
								6.5	215.9	200.02	6	9	30.2