

ALTERNATOR

SMU270 Range

_ Rev.E _

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** : BIGGER SIZE AND SEAL FOR LIFE
- TERMINAL BOX**: THREE OPTIONS: HIGH, LOW AND NONE (2mm-CABLE EXTENTION)
- DIODE**: ACCESS FROM NON-DRIVE END FOR EASY-MAINTENANCE
- AVR**: AS440 STANDARD, CAN BE UPGRADED TO R438 FOR 3-TIME SHORT CIRCUIT CAPABILITY

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

SPACE HEATER: CAN BE EQUIPPED UPON REQUEST.

NAMEPLATE, MADE OF STEEL OR PLASTIC

SINOCOX LOGO STAMPED TO THE TOP COVER OF T-BOX



COMMON DATA

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

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	%		
SMU270B	100	80.0	100	80.0	100	80.0	N/A	N/A	112	89.6	90.4	112	89.6	118	94.4	118	94.4	126	101	139	111	89.2		
SMU270CS	113	90.0	113	90.0	113	90.0	N/A	N/A	124	98.8	91.0	124	98.8	130	104	130	104	138	110	151	120	91.0		
SMU270C	125	100	125	100	125	100	N/A	N/A	135	108	91.0	134	107	141	113	141	113	150	120	162	130	90.9		
SMU270D	140	112	140	112	140	112	N/A	N/A	152	122	92.1	162	130	162	130	168	134	180	144	195	156	91.2		
SMU270ES	150	120	150	120	150	120	N/A	N/A	161	129	92.3	171	137	175	140	175	140	189	151	204	163	91.5		
SMU270E	163	130	163	130	163	130	N/A	N/A	178	142	92.3	184	147	193	154	193	154	209	167	220	176	91.4		
SMU270F	180	144	180	144	180	144	N/A	N/A	194	155	92.5	205	164	219	175	219	175	231	185	250	200	92.1		
SMU270GS	188	150	188	150	188	150	N/A	N/A	206	165	93.3	208	166	221	177	221	177	235	188	260	208	92.5		
SMU270G	200	160	200	160	200	160	N/A	N/A	224	179	93.4	240	192	246	197	246	197	258	206	282	226	92.4		
SMU270H	230	184	230	184	230	184	N/A	N/A	262	210	92.7	270	216	282	226	295	236	302	242	327	262	92.5		
SMU270J	250	200	250	200	250	200	N/A	N/A	275	220	92.7	294	235	300	240	315	252	315	252	345	276	93.2		

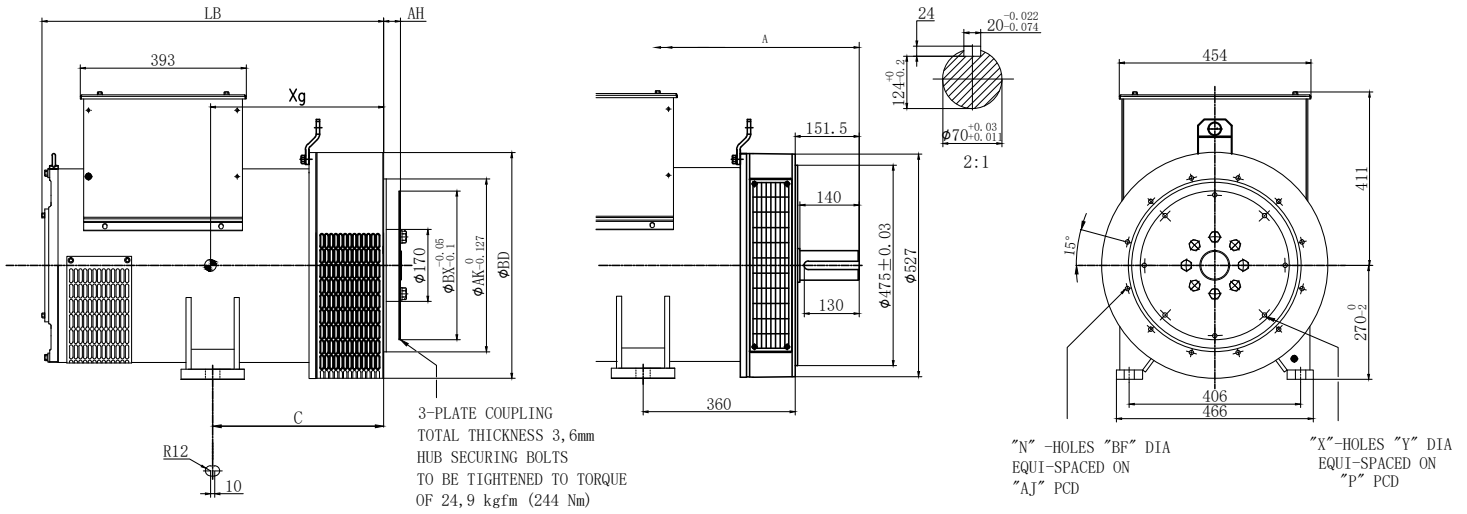
REACTANCE-TIME CONSTANT(s) H CLASS

SMU270 B/CS/C/D/ES/E/F/GS/G/H/J

50Hz @ 400V		SMU270B	SMU270CS	SMU270C	SMU270D	SMU270ES	SMU270E	SMU270F	SMU270GS	SMU270G	SMU270H	SMU270J
Xd	Direct axis synchro..	2.31	2.1	2.1	2.24	2.15	2.15	2.07	2.03	2.03	2.21	2.53
X'd	Direct axis transient..	0.199	0.18	0.18	0.2	0.18	0.18	0.19	0.18	0.18	0.14	0.12
X''d	Direct axis sub...	0.13	0.12	0.12	0.13	0.12	0.12	0.12	0.11	0.11	0.09	0.08
Xq	Quadra. Axis synchro...	1.31	1.26	1.26	1.42	1.3	1.3	1.26	1.24	1.24	1.11	1.15
X'q	Quadra. Axis sub...	0.19	0.18	0.18	0.18	0.17	0.17	0.16	0.16	0.16	0.116	0.141
X2	Negative sequence...	0.16	0.15	0.15	0.16	0.14	0.14	0.13	0.13	0.13	0.101	0.106
Xo	Zero sequence...	0.1	0.09	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.06	0.04
T'd	Short-Circuit...	0.027s	0.03s	0.03s	0.032s	0.034s	0.034s	0.038s	0.041s	0.041s	0.044s	0.048s
T''d	Sub transient time...	0.001s	0.01s	0.01s	0.01s	0.011s	0.011s	0.012s	0.012s	0.012s	0.014s	0.02s
T'do	Open circuit time...	0.78s	0.82s	0.82s	0.83s	0.89s	0.89s	0.96s	1.11s	1.11s	1.2s	1.25s
Ta	Armature time...	0.007s	0.0073s	0.0073s	0.0017s	0.009s	0.009s	0.01s	0.012s	0.012s	0.025s	0.02s
Kcc	Short circuit ratio	0.433	0.476	0.476	0.446	0.465	0.465	0.483	0.493	0.493	0.452	0.395

OUTLINE DRAWING

STANDARD T-BOX, ASK FACTORY FOR HIGH BOX AND NONE BOX PRINTS



DATA TABLE - DOUBLE BEARING

Dimension (mm)	Double BRG	Weight		Packing
		Net(kg)	Gross(kg)	
Model	A			L x W x H (mm)
SMU270B	790	397	432	1100x680x780
SMU270CS	790	422	457	1100x680x780
SMU270C	790	433	468	1100x680x780
SMU270D	890	478	513	1100x680x780
SMU270ES	890	503	538	1100x680x780
SMU270E	890	523	558	1100x680x780
SMU270F	915	573	608	1100x680x780
SMU270GS	950	573	608	1100x680x780
SMU270G	950	620	655	1100x680x780
SMU270H	1025	684	718	1100x680x780
SMU270J	1025	711	745	1100x680x780

SAE AVAILABILITY

SAE#	10	11.5	14		
3	x	x			
2	x	x			
1		x	x		

DATA TABLE - SINGLE BEARING

Dimension (mm)	SAE 1			SAE 2/3			D	Weight		Packing
	LB	Xg	C	LB	Xg	C		Net(kg)	Gross(kg)	
Model										L x W x H (mm)
SMU270B	698	352	419.3	684	340	405	140	369	404	1100x680x780
SMU270CS	698	362	419.3	684	350	405	140	394	429	1100x680x781
SMU270C	698	362	419.3	684	350	405	140	405	440	1100x680x782
SMU270D	798	377	419.3	784	365	405	240	450	485	1100x680x783
SMU270ES	798	402	419.3	784	390	405	240	475	510	1100x680x784
SMU270E	798	402	419.3	784	390	405	240	495	530	1100x680x785
SMU270F	823	422	419.3	809	410	405	240	545	580	1100x680x786
SMU270GS	858	422	419.3	844	410	405	240	545	580	1100x680x787
SMU270G	858	442	419.3	844	430	405	240	592	627	1100x680x788
SMU270H	933	457	419.3	919	445	405	240	656	690	1100x680x787
SMU270J	933	467	419.3	919	455	405	240	683	717	1100x680x788

Flange (mm)						Disc (mm)					
SAE#	BD	AK	AJ	BF	N	SAE#	BX	P	X	Y	AH
SAE 3	530	409.58	428.62	11	12	14	466.72	438.15	8	13.5	25.4
SAE 2	530	447.68	466.72	11	12	11.5	352.42	333.38	8	11	39.6
SAE 1	553	511.18	530.22	14	12	10	314.32	295.28	8	11	53.8