

CONT 400 kVA



Ratings and Dimensions

Frequency	50 Hz.									
Wire Connection	12 Wire Three Pheese									
Power Factor	0,8 0,8				0	,8	0,8			
Winding No.	#1	125 #125			#125		#125			
Y Series Star	38	30	0 400			15	440			
YY Parallel Star	19	90	200		208		220			
△ Series Delta	22	20	230		240		254			
	kVA	kW	kVA	kW	kVA	kW	kVA	kW		
Cont. F 105/40°C	372.0	297.6	372.0	297.6	372.0	297.6	372.0	297.6		
Cont. H 125/40°C	400.0	320.0	400.0 320.0		400.0	320.0	400.0	320.0		
Stdby H 150/40°C	415.0	332.0	432.0 345.6		432.0	345.6	432.0	345.6		
Stdby H 163/27°C	426.0	340.8	451.0	360.8	442.0	353.6	442.0	353.6		

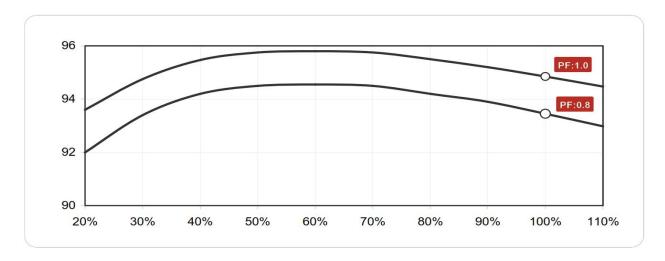
Frequency	50 Hz.									
Wire Connection		12 Wire Si	ngle Phase		4 Wire Single Phase					
Power Factor	0	,8		1	0,8		1			
Winding No.	#1	.25			#41		#41			
ΔΔ Double Delta	220-23	0-240V	220-230-240V		220-230-240V		220-230-240V			
	kVA	kW	kVA	kW	kVA	kW	kVA	kW		
Cont. F 105/40°C	185	148	185	185	N/A	N/A	N/A	N/A		
Cont. H 125/40°C	200	160	200	200	N/A	N/A	N/A	N/A		
Stdby H 150/40°C	N/A	N/A	N/A	N/A N/A		N/A	N/A	N/A		
Stdby H 163/27°C	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		

Frequency	60 Hz.									
Wire Connection	12 Wire Three Pheese									
Power Factor	0	0,8				,8	0,8			
Winding No.	#1	125 #125			#1	25	#125			
Y Series Star	4:	16	440			460		80		
YY Parallel Star	20	08	220		230		240			
△ Series Delta	24	40	254		266		277			
	kVA	kW	kVA	kW	kVA	kW	kVA	kW		
Cont. F 105/40°C	420.0	336.0	446.0	356.8	466.0	373.0	466.0	372.8		
Cont. H 125/40°C	456.0	364.8	481.0 384.8		500.0	400.0	500.0	400.0		
Stdby H 150/40°C	485.0	388.0	518.0	518.0 414.4		428.8	536.0	428.8		
Stdby H 163/27°C	505.0	404.0	532.0	425.6	555.0	444.0	555.0	444.0		

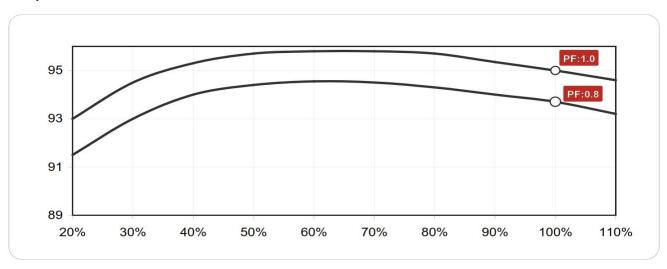
Frequency	60 Hz.									
Wire Connection		12 Wire Si	ngle Phase		4 Wire Single Phase					
Power Factor	0	,8		1	0,8		1			
Winding No.	#1	125 #125		.25	#42		#42			
ΔΔ Double Delta	24	.0V	240V		240V		240V			
	kVA	kW	kVA	kW	kVA	kW	kVA	kW		
Cont. F 105/40°C	210	168	210	210	N/A	N/A	N/A	N/A		
Cont. H 125/40°C	235	188	235	235	N/A	N/A	N/A	N/A		
Stdby H 150/40°C	N/A	N/A	N/A N/A		N/A	N/A	N/A	N/A		
Stdby H 163/27°C	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		

Effiency and Motor Starting

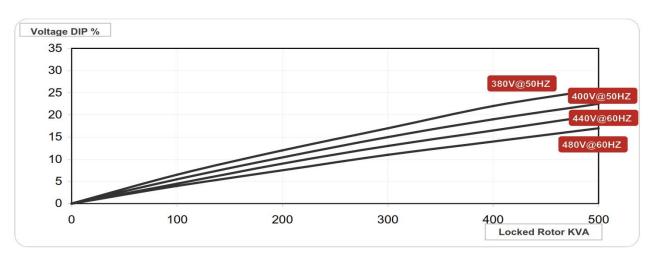
Effiency Curve @ 50 Hz,400V



Effiency Curves @ 60 Hz,480V



Motor Starting Curves @ 50 Hz, 60 Hz Locked Rotor



Technical Data Sheet

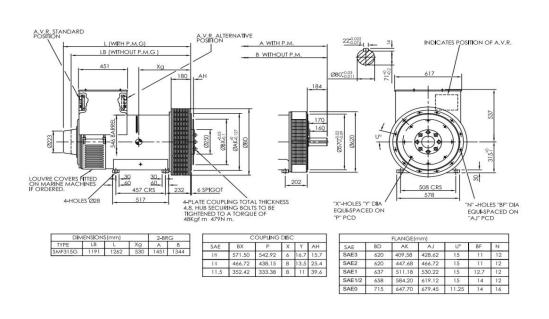
STANDARD(S) OPTIONAL(O) INFORMATION (I) SPECIFICATION

1			
EXCITATION	SELF-EXCITED	S	SUSTAINED SHORT-CIRCUIT: NOT AVAILABLE
SYSTEM	ARAP		
0.0.1	PMG		
	SX460	S	REGULATION PRECISION : +/-1,0 %
AVR	SX440	0	REGULATION PRECISION : +/-1,0 %
,,,,,	MX341		
	MX321		
WINDING	Н	S	
INSULATION	F		
WINDING PITCH	2/3	S	HIGHER FLEXIBILITY IN USE,BETTER MOTOR STARTING ABILITY
WINDINGTHEH	5/6	0	COST-EFFECTIVE POWER SUPPLY SCHEME
	STANDARD	S	
WINDING	"ANTI-HARSH"	0	SPECIAL TREATMENT OF WINDING TO AGINST HASRH ENVIROMENT
PROTECTION	SPACE HEATER	0	TO HEAT UP AIR TO REMOVE THE HUMMINITY AROUND WINDING
	THERMAL SENSOR	0	TO DETECT THE WINDING TEMPERATURE OR BEARING'S
	CT100	0	
DADALLEI	CT200		
PARALLEL	CT400		
OPERATION	СТ600		
	CT1000		
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	12	S	12 LEADS OF WINDING ENDS,
WINDING LEADS	6	0	6 LEADS OF WINDING ENGS
NAA CUUNIT	IP23	S	STANDARD MACHINE PROTECTION
MACHINE	IP44	0	TO AGINST : 1mm OBJECT AND SPLASHING WATER
PROCTIION	IP54		
2011/52 54 2502	1	0	
POWER FACTOR	0,8	S	
	SINGLE BEARING	S	
CONNECTION TO	DOUBLE BEARING	0	
ENGINE	BELT DRIVE	0	
	VERTICAL		
OVERSPEED		I	MAX ROTATING SPEED : 2250 RPM
	<=1000m	ı	DERATING IS NO NEED
ATTITUDE	>1000m	Ī	DERATING NEEDED, REFERS TO RATING BOOK
	TDF/THC	i i	NO LOAD < 1,5 %, NON DISTORATING BALANCED LINEAR LOAD< 5,0 %
ELECTIRICAL	TIF	i	<50
FEATRUES	THF	i	<2%
	DRIVE -END	i	BALL 6317 - 2RS DOUBLE BEARING CONF. ONLY
BEARING	NON DRIVE END	i	BALL 6314- 2RS
	NET	i	SINGLE BEARING 1065 KG DOUBLE BEARING : 1075KG
WEIGHT	GROSS	i	SINGLE BEARING 1005 KG DOUBLE BEARING : 1175KG SINGLE BEARING 1105 KG DOUBLE BEARING : 1117KG
PACKING SIZE	51.055	i	SINGLE BLANING 1103 KG
I ACKING SIZE			SHAPE P 1330Y030Y1000 HIIII DOODEE B 1400X030X1000HIIII

Technical Data Sheet

STANDARD (S) OPTIONAL (O) INFORMATION (I)		SPECIFICATION								
		50) HZ		60 HZ					
SERIES STAR (V)	380	400	415	440	416	440	460	480		
PARALLEL STAR (V)	190	200	208	220	208	220	230	240		
SERIES DELTA (V)	220	230	240	254	240	254	266	277		
Xd - Direct axis synchro. Reactance unsaturated	2.59	2.34	2.17	1.93	3.21	2.95	2.74	2.58		
X'd - Direct axis transient reactance saturated.	0.17	0.15	0.14	0.12	0.18	0.17	0.15	0.14		
X"d - Direct axis sub transient reactance saturated	0.12	0.11	0.10	0.09	0.13	0.12	0.11	0.10		
Xq - Qadro. Axis synchro.reactance unsaturated.	2.23	2.01	1.87	1.66	2.84	2.61	2.42	2.28		
X"q - Quadro. Axis sub transiet reactance saturated.	0.30	0.27	0.25	0.22	0.42	0.39	0.36	0.34		
X2 - Negative sequence reactance unsturated	0.21	0.19	0.18	0.16	0.28	0.26	0.24	0.22		
Xo -Zero sequence reactance unsaturated.	0.08	0.08	0.07	0.06	0.10	0.09	0.09	0.08		
T'd- Short - Circuit transiet time constant		0.08s								
T"d - Sub Transiet time constant		0.019s								
T'do- Open circuit time constant		1,7s								
Ta- Armature time constant		0.018s								
Kcc - Short Circuit Ratio		1/Xd								

Outline Drawing



Maranello designs, manufactures and markets the alternators which comply with the national and international standards. The alternator can be broadly used in the all-purposed application, such as backup, rental, telecom and marine, and also can be used in a.

Compliant with Standards

Other certifications can be considered on request.

Electrical Features

Automatic Voltage Regulator (AVR)

The high efficiency semiconductors of the AVR ensure positive build-up from initial low levels of residual voltage.

2/3 Winding Pitch

Effectively eliminates the effect of the third harmonics so as to avoid excessive neutral currents.

Varible Voltage Output

Standard voltage output can be achieved through the reconnectable 12 wire, and the beyond-the-standard voltage might be achieved by optional winding.

Overload Capability

Be capable of running at constant load limited to the insulation class with the possibility of overload up to 10% for 1 hour every 12 hours. (Continuous Duty -S1).

High Efficiency and Motor Starting Capacity

Optimizing design greatly improves the efficiency and motor starting capacity.

Mechanical Features

Bracket + Flexible Disc

The combination of casting braket and flexible disc makes product to be coupled with any brand of engine whose interface is international design

Terminal Box

Metal-made and accessed easily, it also can be customized on requests.

Shaft and Key

Rotors assembly is dymastically balanced under ISO8528 and BS5000 regulation, and double-bearing is balanced with half-key.

Bearing

Bearing is greased in the factory for life, and regreasable bearing is available on request.

Machine Protection

The standard protection is IP23, and IP44 is optional

Insulation and Impregnation

H-class Insulation

Materials used in the insulation system is classed "H", specially the copper wire applied is able to withstand 200°C

Vacuum Pressure Impregnation (VPI)

The advanced impregnation equipment is applied to ensure the electrical insulation and mechanical strength.

Winding Protection

Standard:

The winding is protected against relative humidity< 95%.

Optional:

The special-treated winding ("ANTI-HARSH") is recommended to apply for the environment humidity > 95%, or harsh environment such as atmospheric contaminants or salty water spr