

2400 CONT 2205 kVA



Ratings and Dimensions

Frequency	50 Hz.									
Wire Connection	12 Wire Three Pheese									
Power Factor	0	,8	0	0,8		,8	0,8			
Winding No.	#1	125 #125			#1	25	#125			
Y Series Star	38	30	40	00	4:	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	1990	1592	2055	1644	2055 1644		2008	1606		
Cont. H 125/40°C	2140	1712	2205 1764		2205	1764	2180	1744		
Stdby H 150/40°C	2230	1784	2300 1840		2300	1840	2280	1824		
Stdby H 163/27°C	2300	1840	2390	1912	2390	1912	2320	1856		

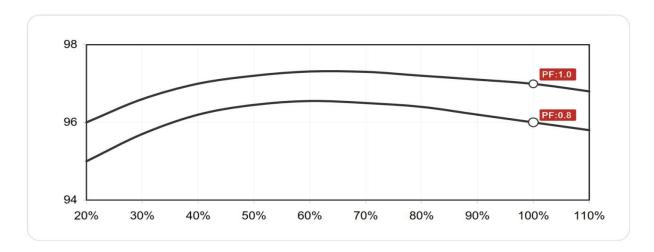
Frequency	50 Hz.									
Wire Connection		12 Wire Si	ngle Phase		4 Wire Single Phase					
Power Factor	0	,8		1	0,8		1			
Winding No.	#1	.25			#41		#41			
ΔΔ Double Delta	220-23	0-240V	220-230-240V		220-230-240V		220-230-240V			
	kVA	kW	kVA	kW	kVA	kW	kVA	kW		
Cont. F 105/40°C	-	-	-	-	-	-	-	-		
Cont.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

Frequency	60 Hz.									
Wire Connection	12 Wire Three Pheese									
Power Factor	0	0,8 0,8			0	,8	0,8			
Winding No.	#1	125 #125			#1	25	#125			
Y Series Star	4:	16	4	40	46	50	480			
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	2280	1824	2380	1904	2450	1960	2560	2048		
Cont. H 125/40°C	2435	1948	2540 2032		2650	2120	2790	2232		
Stdby H 150/40°C	2560	2048	2640 2112		2770	2216	2880	2304		
Stdby H 163/27°C	2605	2084	2723	2178	2834	2267	2954	2363		

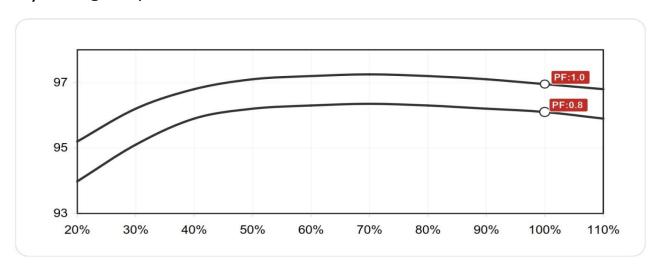
Frequency	60 Hz.									
Wire Connection	12 Wire Single Phase				4 Wire Single Phase					
Power Factor	0	,8		1	0	,8	1			
Winding No.	#1	25	#125		#42		#4	42		
ΔΔ Double Delta	24	0V	240V		240V		240V			
	kVA	kW	kVA	kW	kVA	kW	kVA	kW		
Cont. F 105/40°C	-	-	-	-	-	1	-	-		
Cont. H 125/40°C	-	-	-	-	-	-	-	-	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

Effiency and Motor Starting

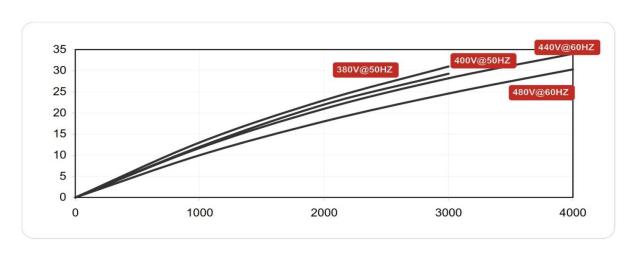
Effiency Curve @ 50 Hz,400V



Effiency Curves @ 60 Hz,480V



Motor Starting Curves @ 50 Hz, 60 Hz Locked Rotor



Technical Data Sheet

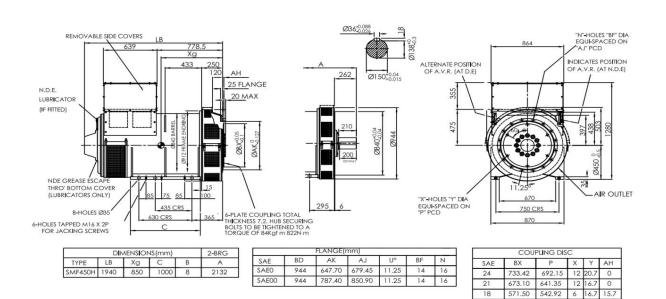
STANDARD(S) OPTIONAL(O) INFORMATION (I) SPECIFICATION

1			
EXCITATION	SELF-EXCITED	S	SUSTAINED SHORT-CIRCUIT: NOT AVAILABLE
SYSTEM	ARAP		
	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	CT600		
	CT1000		
MUNICIA DO	12	S	12 LEADS OF WINDING ENDS,
WINDING LEADS	6	0	6 LEADS OF WINDING ENGS
NAA CHUNIE	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		ı	MAX ROTATING SPEED : 2250 RPM
	<=1000m	1	DERATING IS NO NEED
ATTITUDE	>1000m	Ī	DERATING NEEDED, REFERS TO RATING BOOK
	TDF/THC	l i	NO LOAD < 1,5 %, NON DISTORATING BALANCED LINEAR LOAD< 5,0 %
ELECTIRICAL	TIF	l i	<50
FEATRUES	THF	i	<2%
	DRIVE -END	i	BALL 6228 - 2RS DOUBLE BEARING CONF. ONLY
BEARING	NON DRIVE END	i	BALL 6319- 2RS
	NET NET	i	SINGLE BEARING 4054 KG DOUBLE BEARING : 4079KG
WEIGHT	GROSS	i	SINGLE BEARING 4054 KG DOUBLE BEARING : 4079KG SINGLE BEARING 4154 KG DOUBLE BEARING : 4179KG
PACKING SIZE	51(555	<u> </u>	SINGLE BLANING 4134 KG BOOBLE BLANING . 4179KG SINGLE B. : 2000x1100x1550 mm DOUBLE B. : 2000x1100x1550 mm
I AGRING SIZE		<u> </u>	SHAGE B ZOOOXIIOOXIDDO HIIII DOODEE B ZOOOXIIOOXIDDO HIIII

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	3.71	3.45	3.20	2.80	4.38	4.10	3.89	3.74	
X'd - Direct axis transient reactance saturated.	0.21	0.19	0.18	0.15	0.24	0.23	0.22	0.21	
X"d - Direct axis sub transient reactance saturated	0.15	0.14	0.13	0.11	0.17	0.16	0.15	0.15	
Xq - Qadro. Axis synchro.reactance unsaturated.	2.38	2.22	2.06	1.80	2.82	2.64	2.50	2.41	
X"q - Quadro. Axis sub transiet reactance saturated.	0.28	0.26	0.24	0.21	0.33	0.31	0.30	0.28	
X2 - Negative sequence reactance unsturated	0.20	0.19	0.18	0.15	0.24	0.22	0.21	0.21	
Xo -Zero sequence reactance unsaturated.	0.04	0.04	0.03	0.03	0.04	0.04	0.04	0.04	
T'd- Short - Circuit transiet time constant	0.16s								
T"d - Sub Transiet time constant	0.01s								
T'do- Open circuit time constant	2.89s								
Ta- Armature time constant	0.02s								
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