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Ratings and Dimensions

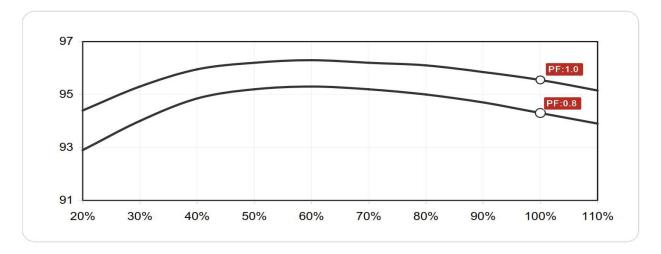
Frequency	50 Hz.								
Wire Connection	12 Wire Three Pheese								
Power Factor	0,8		0,8		0,8		0,8		
Winding No.	#1	#125		#125		#125		#125	
Y Series Star	38	30	400		415		440		
YY Parallel Star	190		200		208		220		
Δ Series Delta	220		230		240		254		
	kVA	kW	kVA	kW	kVA	kW	kVA	kW	
Cont. F 105/40°C	450.0	360.0	495.0	396.0	450.0	360.0	450.0	360.0	
Cont. H 125/40°C	500.0	400.0	550.0	440.0	500.0	400.0	500.0	400.0	
Stdby H 150/40°C	515.0	412.0	575.0	460.0	515.0	412.0	515.0	412.0	
Stdby H 163/27°C	530.0	424.0	590.0	472.0	530.0	424.0	530.0	424.0	

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	181	145	N/A	N/A	N/A	N/A	N/A	N/A
Cont. H 125/40°C	200	160	N/A	N/A	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

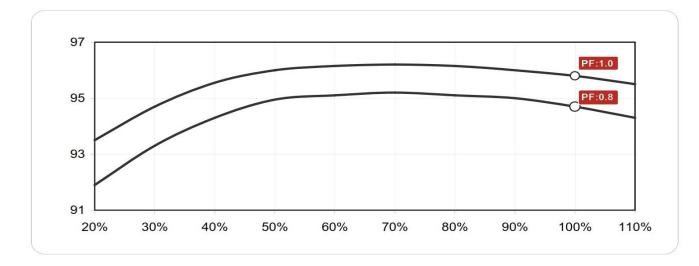
Frequency	60 Hz.								
Wire Connection	12 Wire Three Pheese								
Power Factor	0,8		0,8		0,8		0,8		
Winding No.	#125		#125		#125		#125		
Y Series Star	41	16	44	440		460		480	
YY Parallel Star	208		220		230		240		
Δ Series Delta	24	240		254		266		277	
	kVA	kW	kVA	kW	kVA	kW	kVA	kW	
Cont. F 105/40°C	519.0	415.0	537.5	430.0	563.0	450.0	588.0	470.0	
Cont. H 125/40°C	575.0	460.0	594.0	475.0	625.0	500.0	644.0	515.0	
Stdby H 150/40°C	588.0	470.0	625.0	500.0	655.0	524.0	675.0	540.0	
Stdby H 163/27°C	606.0	485.0	644.0	515.0	673.0	538.0	694.0	555.0	

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	25	#125		#42		#42	
ΔΔ Double Delta	24	0V	24	10V 2		0V	240V	
	kVA	kW	kVA	kW	kVA	kW	kVA	kW
Cont. F 105/40°C	199	159	N/A	N/A	N/A	N/A	N/A	N/A
Cont. H 125/40°C	235	188	N/A	N/A	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

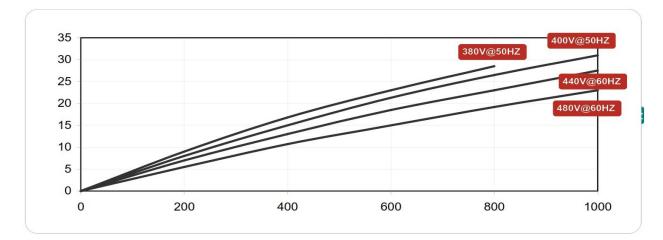
Effiency Curve @ 50 Hz,400V



Effiency Curves @ 60 Hz,480V



Motor Starting Curves @ 50 Hz, 60 Hz Locked Rotor



Technical Data Sheet

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

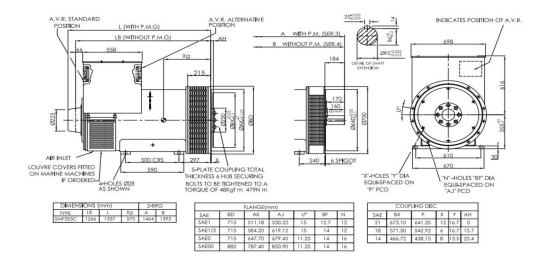
SPECIFICATION

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
WINDING FITCH	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	
	CT200		
PARALLEL	CT400		
OPERATION	СТ600		
	CT1000		
	12	S	12 LEADS OF WINDING ENDS,
WINDING LEADS	6	0	6 LEADS OF WINDING ENGS
	IP23	S	STANDARD MACHINE PROTECTION
MACHINE	IP44	0	TO AGINST : 1mm OBJECT AND SPLASHING WATER
PROCTIION	IP54		
	1	0	
POWER FACTOR	0,8	S	
	SINGLE BEARING	S	
CONNECTION TO	DOUBLE BEARING	0	
ENGINE	BELT DRIVE	0	
	VERTICAL	-	
OVERSPEED			MAX ROTATING SPEED : 2250 RPM
	<=1000m		DERATING IS NO NEED
ATTITUDE	>1000m	I	DERATING IS NO REED
	TDF/THC		NO LOAD < 1,5 %, NON DISTORATING BALANCED LINEAR LOAD< 5,0 %
ELECTIRICAL FEATRUES	TIF	<u> </u>	<50
	THF	 	<2%
	DRIVE -END	 	SALL 6317 - 2RS DOUBLE BEARING CONF. ONLY
BEARING	NON DRIVE END	 	
	NET	<u> </u>	BALL 6314- 2RS
WEIGHT	GROSS	<u> </u>	SINGLE BEARING 1365 KG DOUBLE BEARING : 1377KG
PACKING SIZE	GRUSS	<u> </u>	SINGLE BEARING 1409 KG DOUBLE BEARING : 1421KG
PACKING SIZE		I	SINGLE B. : 1500x850x1170 mm DOUBLE B. : 1500x850x1170mm

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) 190 200 208 220 208 220 230 240 220 230 240 254 240 254 277 SERIES DELTA (V) 266 2.25 3.52 3.25 2.96 Xd - Direct axis synchro. Reactance unsaturated 3.02 2.72 2.53 3.13 X'd - Direct axis transient reactance saturated. 0.16 0.14 0.13 0.12 0.17 0.16 0.15 0.14 X"d - Direct axis sub transient reactance saturated 0.110.10 0.09 0.08 0.12 0.11 0.11 0.10 Xq - Qadro. Axis synchro.reactance unsaturated. 2.48 2.24 2.08 1.85 2.87 2.65 2.55 2.41 0.29 X"q - Quadro. Axis sub transiet reactance saturated. 0.27 0.25 0.23 0.20 0.31 0.28 0.26 X2 - Negative sequence reactance unsturated 0.19 0.17 0.16 0.14 0.22 0.20 0.20 0.19 0.10 0.09 0.08 Xo -Zero sequence reactance unsaturated. 0.10 0.09 0.08 0.07 0.09 T'd- Short - Circuit transiet time constant 0.08s T"d - Sub Transiet time constant 0.012s T'do- Open circuit time constant 2,2s Ta- Armature time constant 0.018s 1/Xd Kcc - Short Circuit Ratio

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