

CONT 1560 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	25	#1	‡125		25	#125		
Y Series Star	38	30 400		00	415		440		
YY Parallel Star	19	90 20		00	208		220		
△ Series Delta	22	20	23	30	240		254		
	kVA	kW	kVA	kW	kVA	kW	kVA	kW	
Cont. F 105/40°C	1410	1128	1450	1160	1450	1160	1420	1136	
Cont. H 125/40°C	1510	1208	1560 1248		1560 1248		1550	1240	
Stdby H 150/40°C	1580	1264	1615 1292		1615	1292	1595	1276	
Stdby H 163/27°C	1620	1296	1670	1336	1670	1336	1640	1312	

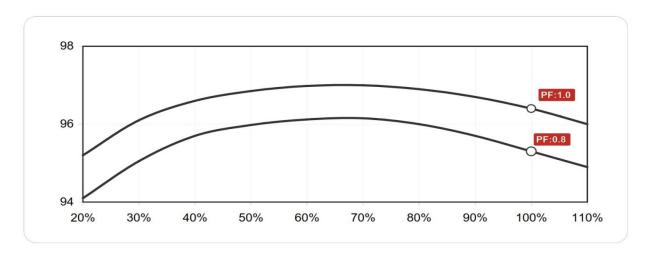
Frequency	50 Hz.									
Wire Connection		12 Wire Si	ngle Phase		4 Wire Single Phase					
Power Factor	0	,8		1	0,8			1		
Winding No.	#1	25			#41		#4	41		
ΔΔ Double Delta	220-23	0-240V	220-230-240V		220-230-240V		220-230-240V			
	kVA	kW	kVA	kW	kVA	kW	kVA	kW		
Cont. F 105/40°C	-	-	-	-	-	1	-	-		
Cont.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

Frequency	60 Hz.								
Wire Connection	12 Wire Three Pheese								
Power Factor	0	,8	0	,8	0	,8	0,8		
Winding No.	#1	.25 #1		.25	#125		#125		
Y Series Star	4:	16	6 440		46	50	480		
YY Parallel Star	20	08	220		230		240		
△ Series Delta	24	40	2!	54	266		277		
	kVA	kW	kVA	kW	kVA	kW	kVA	kW	
Cont. F 105/40°C	1600	1280	1700	1360	1730	1384	1780	1424	
Cont. H 125/40°C	1715	1372	1820 1456		1880 1504		1900	1520	
Stdby H 150/40°C	1780	1424	1890	1512	1940	1552	1980	1584	
Stdby H 163/27°C	1840	1472	1958	1566	1993	1594	2032	1626	

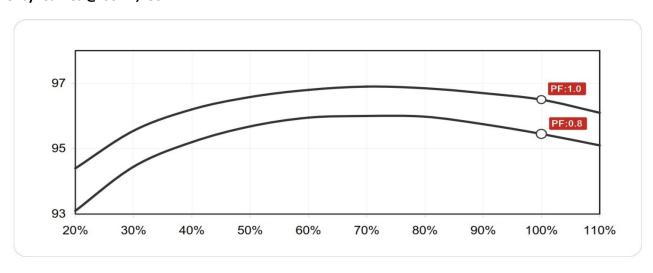
Frequency	60 Hz.									
Wire Connection		12 Wire Si	ngle Phase		4 Wire Single Phase					
Power Factor	0	,8		1 0,8		,8	1			
Winding No.	#1	.25	#125		#42		#4	42		
ΔΔ Double Delta	24	.0V	240V		240V		240V			
	kVA	kW	kVA	kW	kVA	kW	kVA	kW		
Cont. F 105/40°C	-	-	-	-	-	1	-	-		
Cont. H 125/40°C	-	-	-	-			-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

Effiency and Motor Starting

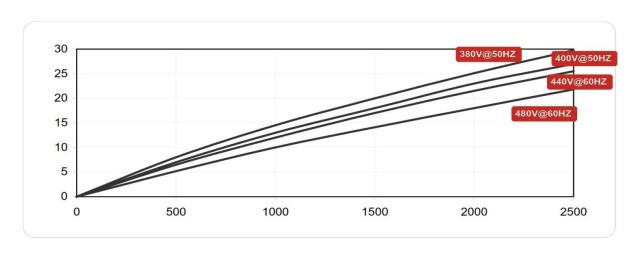
Effiency Curve @ 50 Hz,400V



Effiency Curves @ 60 Hz,480V



Motor Starting Curves @ 50 Hz, 60 Hz Locked Rotor



Technical Data Sheet

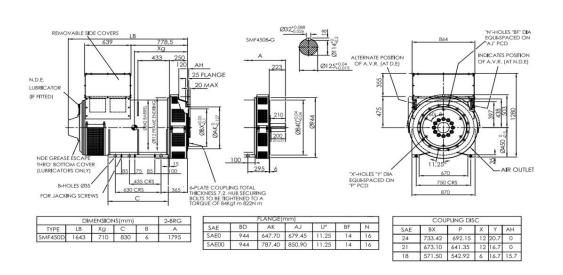
STANDARD(S) OPTIONAL(O) INFORMATION (I) SPECIFICATION

EVCITATION.	SELF-EXCITED	S	SUSTAINED SHORT-CIRCUIT: NOT AVAILABLE
EXCITATION	ARAP		
SYSTEM	PMG		
	M-AVR 46	S	REGULATION PRECISION : +/-1,0 %
A) / D	M-AVR 44	0	REGULATION PRECISION : +/-1,0 %
AVR	M-AVR 32		
	M-AVR 34		
WINDING	Н	S	
INSULATION	F		
MUNICING DITCH	2/3	S	HIGHER FLEXIBILITY IN USE,BETTER MOTOR STARTING ABILITY
WINDING PITCH	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	
04041151	CT200		
PARALLEL	CT400		
OPERATION	CT600		
	CT1000		
MANDINGLEADS	12	S	12 LEADS OF WINDING ENDS,
WINDING LEADS	6	0	6 LEADS OF WINDING ENGS
MACHINE	IP23	S	STANDARD MACHINE PROTECTION
PROCTIION	IP44	0	TO AGINST : 1mm OBJECT AND SPLASHING WATER
PROCTION	IP54		
POWER FACTOR	1	0	
POWER FACIOR	0,8	S	
	SINGLE BEARING	S	
CONNECTION TO	DOUBLE BEARING	0	
ENGINE	BELT DRIVE	0	
	VERTICAL		
OVERSPEED		ı	MAX ROTATING SPEED : 2250 RPM
ATTITUDE	<=1000m	ı	DERATING IS NO NEED
ATTITODE	>1000m	ı	DERATING NEEDED, REFERS TO RATING BOOK
ELECTIRICAL	TDF/THC	ı	NO LOAD < 1,5 %, NON DISTORATING BALANCED LINEAR LOAD< 5,0 %
FEATRUES	TIF	ı	<50
TEATRUES	THF	ı	<2%
BEARING	DRIVE -END	I	BALL 6228 - 2RS DOUBLE BEARING CONF. ONLY
DEAMING	NON DRIVE END	I	BALL 6319- 2RS
WEIGHT	NET	I	SINGLE BEARING 3018 KG DOUBLE BEARING :3043KG
VVLIGITI	GROSS	I	SINGLE BEARING 3118 KG DOUBLE BEARING : 3143KG
PACKING SIZE		ı	SINGLE B. : 2000x1100x1550 mm DOUBLE B. : 2000x1100x1550 mm

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	3.18	2.96	2.75	2.40	3.86	3.67	3.43	3.21		
X'd - Direct axis transient reactance saturated.	0.19	0.18	0.17	0.15	0.23	0.22	0.21	0.20		
X"d - Direct axis sub transient reactance saturated	0.14	0.13	0.12	0.11	0.17	0.16	0.15	0.14		
Xq - Qadro. Axis synchro.reactance unsaturated.	2.05	1.91	1.77	1.55	2.49	2.37	2.22	2.07		
X"q - Quadro. Axis sub transiet reactance saturated.	0.29	0.27	0.25	0.22	0.35	0.33	0.31	0.29		
X2 - Negative sequence reactance unsturated	0.20	0.19	0.18	0.15	0.25	0.23	0.22	0.21		
Xo -Zero sequence reactance unsaturated.	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03		
T'd- Short - Circuit transiet time constant		0.135s								
T"d - Sub Transiet time constant		0.01s								
T'do- Open circuit time constant		2.23s								
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