

CONTROL SYSTEM	SELF EXCITED		
A.V.R.	SX460		AS440
VOLTAGE REGULATION	± 1.0 %	± 1.0 %	With 4% ENGINE GOVERNING
SUSTAINED SHORT CIRCUIT	SERIES 4 CONTROL DOES NOT SUSTAIN A SHORT CIRCUIT CURRENT		

INSULATION SYSTEM	CLASS H
PROTECTION	IP22
RATED POWER FACTOR	0.8
STATOR WINDING	DOUBLE LAYER CONCENTRIC
WINDING PITCH	TWO THIRDS
WINDING LEADS	12
STATOR WDG. RESISTANCE	0.065 Ohms PER PHASE AT 22°C SERIES STAR CONNECTED
ROTOR WDG. RESISTANCE	0.83 Ohms at 22°C
EXCITER STATOR RESISTANCE	20 Ohms at 22°C
EXCITER ROTOR RESISTANCE	0.078 Ohms PER PHASE AT 22°C
R.F.I. SUPPRESSION	BS EN 61000-6-2 & BS EN 61000-6-4,VDE 0875G, VDE 0875N. refer to factory for others
WAVEFORM DISTORTION	NO LOAD < 1.5% NON-DISTORTING BALANCED LINEAR LOAD < 5.0%
MAXIMUM OVERSPEED	2250 Rev/Min
BEARING DRIVE END	BALL. 6312-2RS (ISO)
BEARING NON-DRIVE END	BALL. 6309-2RS (ISO)

	1 BEARING	2 BEARING
WEIGHT COMP. GENERATOR	337 kg	350 kg
WEIGHT WOUND STATOR	120 kg	120 kg
WEIGHT WOUND ROTOR	110.69 kg	102.32 kg
WR <sup>2</sup> INERTIA	0.6071 kgm <sup>2</sup>	0.5754 kgm <sup>2</sup>
SHIPPING WEIGHTS in a crate	360 kg	371 kg
PACKING CRATE SIZE	66 x 52 x 64(cm)	66 x 52 x 64(cm)

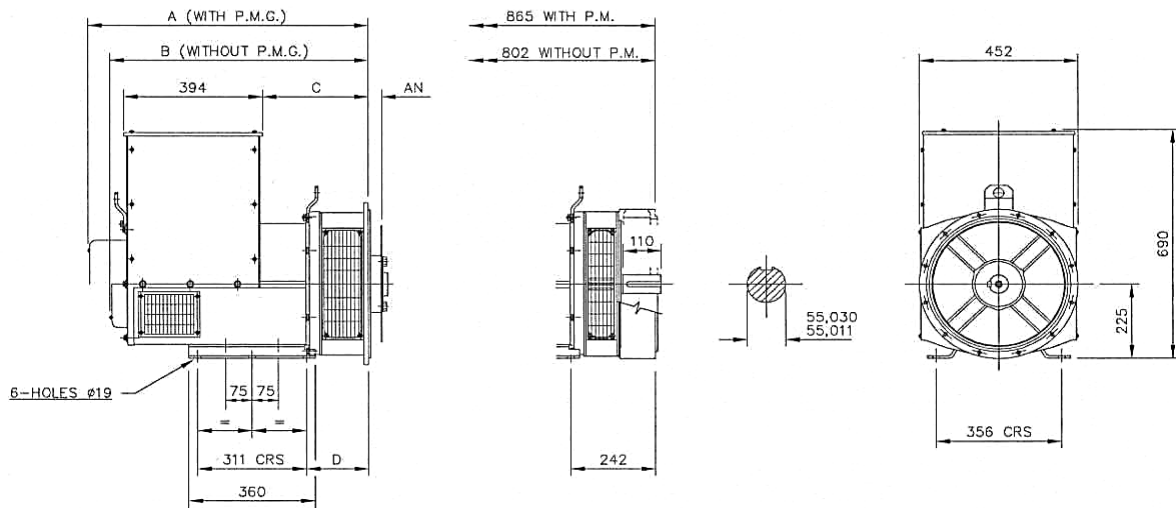
	50 Hz	60 Hz
TELEPHONE INTERFERENCE	THF<2%	TIF<50
COOLING AIR	0.216 m <sup>3</sup> /sec 458 cfm	0.281 m <sup>3</sup> /sec 595 cfm

VOLTAGE SERIES STAR	380/220	400/231	415/240	440/254	416/240	440/254	460/266	480/277
VOLTAGE PARALLEL STAR	190/110	200/115	208/120	220/127	208/120	220/127	230/133	240/138
VOLTAGE SERIES DELTA	220/110	230/115	240/120	254/127	240/120	254/127	266/133	277/138
KVA BASE RATING FOR REACTANCE VALUES	72.5	72.5	72.5	70	83.8	87.5	87.5	93.8
X <sub>d</sub> DIR. AXIS SYNCHRONOUS	2.29	2.07	1.92	1.65	2.52	2.35	2.15	2.12
X' <sub>d</sub> DIR. AXIS TRANSIENT	0.18	0.16	0.15	0.13	0.21	0.20	0.18	0.18
X'' <sub>d</sub> DIR. AXIS SUBTRANSIENT	0.12	0.11	0.10	0.09	0.14	0.13	0.12	0.12
X <sub>q</sub> QUAD. AXIS REACTANCE	1.05	0.95	0.88	0.76	1.16	1.08	0.99	0.98
X'' <sub>q</sub> QUAD. AXIS SUBTRANSIENT	0.16	0.14	0.13	0.11	0.13	0.12	0.11	0.11
X <sub>L</sub> LEAKAGE REACTANCE	0.07	0.06	0.06	0.05	0.08	0.07	0.07	0.07
X <sub>2</sub> NEGATIVE SEQUENCE	0.14	0.13	0.12	0.10	0.13	0.12	0.11	0.11
X <sub>0</sub> ZERO SEQUENCE	0.11	0.10	0.09	0.08	0.10	0.09	0.09	0.08

REACTANCES ARE SATURATED	VALUES ARE PER UNIT AT RATING AND VOLTAGE INDICATED
T' <sub>d</sub> TRANSIENT TIME CONST.	0.03 s
T'' <sub>d</sub> SUB-TRANSTIME CONST.	0.008 s
T' <sub>do</sub> O.C. FIELD TIME CONST.	0.75 s
T <sub>a</sub> ARMATURE TIME CONST.	0.0065 s
SHORT CIRCUIT RATIO	1/X <sub>d</sub>

## RATINGS

Class - Temp Rise		Cont. F - 105/40°C				Cont. H - 125/40°C				Standby - 150/40°C				Standby - 163/27°C			
50 Hz	Series Star (V)	380	400	415	440	380	400	415	440	380	400	415	440	380	400	415	440
	Parallel Star (V)	190	200	208	220	190	200	208	220	190	200	208	220	190	200	208	220
	Series Delta (V)	220	230	240	254	220	230	240	254	220	230	240	254	220	230	240	254
	kVA	65.0	65.0	65.0	48.7	72.5	72.5	72.5	55.0	77.0	77.0	77.0	58.0	80.0	80.0	80.0	60.5
	kW	52.0	52.0	52.0	39.0	58.0	58.0	58.0	44.0	61.6	61.6	61.6	46.4	64.0	64.0	64.0	48.4
	Efficiency (%)	90.0	90.3	90.4	90.7	89.6	89.9	90.1	90.4	89.4	89.7	89.9	90.3	89.2	89.6	89.8	90.2
	kW Input	57.8	57.6	57.5	54.7	64.7	64.5	64.4	61.9	68.9	68.7	68.5	65.6	71.7	71.4	71.3	68.3



## DIMENSIONS

Length (mm)	Width (mm)	Height (mm)
840	452	690