

ALTERNATOR

APPLICATION AND STANDARDS

SUPER RELIABLE MACHINE, MAINLY LAND-USED AS PRIME OR STANDBY POWER

COMPLY WITH STANDARDS OF IEC60034, NEMA MG1-22, ISO8528, CSA C22.2-100, VDE 0530, GB755

SPECIAL FEATURES

- **OVERLOAD** : 15% OVERLOAD FOR 1 HOUR EVERY 12 HOURS
- **WINDING PROTECTION** : VPI(VACUUM PRESSURE IMPREGNATION)+ EPOXY RESIN+ ANTI-HARSH PAINTING
- **SUPER SILENCE** : FAN, MADE OF STEEL, ROTATING EVENLY
- **VIBRATION** : MOST RIGID DYNAMIC-BALANCED ROTOR AND STRONGER BODY
- **EXCITATION** : THE AUXILIARY WINDING AND PMG IS OPTIONAL
- **THERMAL OVERLOAD** : WINDING AND BEARING DETECTOR CAN BE EQUIPPED UPON CUSTOMER REQUEST
- **BEARING** : BIGGER SIZE AND SEAL FOR LIFE
- **TERMINAL BOX**: THREE OPTIONS: HIGH, LOW AND NONE (2mm-CABLE EXTENTION)
- **DIODE**: ACCESS FROM NON-DRIVE END FOR EASY-MAINTENANCE
- **AVR**: AS440 STANDARD, CAN BE UPGRADED TO R438 FOR 3-TIME SHORT CIRCUIT CAPABILITY



GENERAL FEATURES

WIRE WOUND AND CLASS H THERMAL INSULATION

IP23, STANDARD EQUIPPED, AND IP44, IP54 UPON CUSTOMER REQUEST ROUND-SHAPE MACHINE BODY FOR BETTER CENTERLIZATION NAMEPLATE, MADE OF STEEL OR PLASTIC

SPACE HEATER: CAN BE EQUIPPED UPON REQUEST.

VEGA LOGO STAMPED TO THE TOP COVER OF T-BOX

COMMON DATA

Insulation	Altitude	Overspeed	Protection	Leads	Pitch	AVR	Voltage Regulation	Wareform Distortion	TIF	THF
H/H	<=1000m	2250rpm	IP23	12	2/3	AS440	±1	<1,5% No load	<50	<2%

RATING TABLE

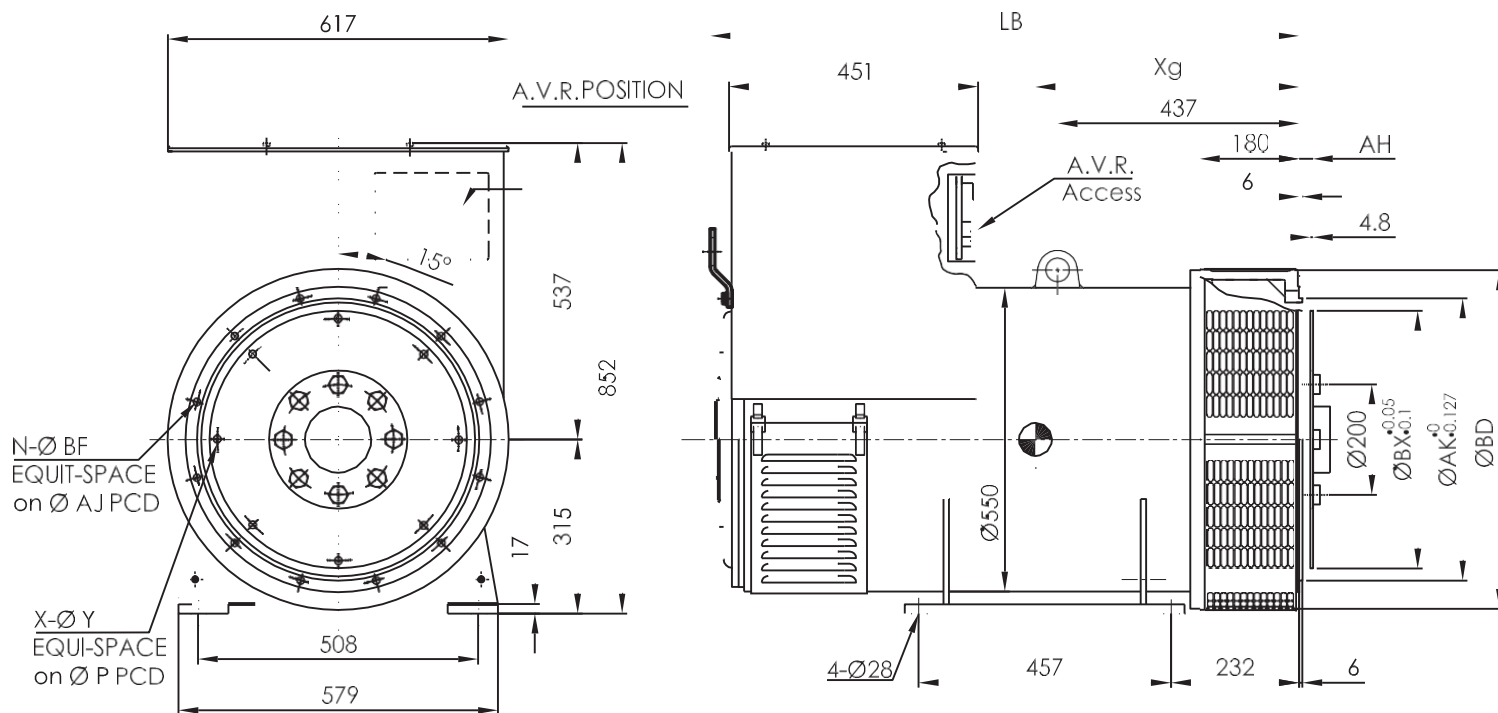
H CLASS	50Hz/1500RPM/PF 0.8											60Hz/1800RPM/PF 0.8										
TEMP.	125°C /40°C PRIME POWER										163°C /27°C Standby	Effi.	125°C /40°C PRIME POWER								163°C /27°C Standby	Effi.
Y	380	400	415	440	400	400	416	440	460	480	480	480	416	440	460	480	480	480	480	480	480	480
YY	190	200	208	220	200	200	208	220	230	240	240	240	208	220	230	240	240	240	240	240	240	240
△	220	230	240	254	230	230	240	254	266	277	277	277	240	254	266	277	277	277	277	277	277	277
RATING	kVA	kW	kVA	kW	kVA	kW	kVA	kW	kVA	kW	%	kVA	kW	kVA	kW	kVA	kW	kVA	kW	kVA	kW	%
VGU315B	250	200	250	200	250	200	250	200	278	222	92.9	290	232	302	242	316	253	316	253	348	278	92.8
VGU315C	300	240	300	240	300	240	290	232	334	267	93.1	345	276	360	288	378	302	378	302	415	332	93.4
VGU315DS	313	250	313	250	313	250	313	250	346	276	93.2	357	285	367	293	390	312	390	312	426	340	93.8
VGU315D	325	260	325	260	325	260	325	260	360	288	93.5	371	297	382	306	406	325	406	325	445	356	93.7
VGU315E	350	280	350	280	350	280	350	280	390	312	93.5	400	320	421	337	444	355	444	355	478	382	93.8
VGU315F	380	304	380	304	380	304	380	304	415	332	93.6	425	340	446	357	469	375	469	375	503	402	94.0
VGU315G	400	320	400	320	400	320	400	320	451	361	93.7	456	365	481	385	500	400	500	400	555	444	94.0

REACTANCE-TIME CONSTANT(s) H CLASS

VGU315 B/C/DS/D/E/F/G

60Hz @ 480V		VGU315B	VGU315C	VGU315D	VGU315D	VGU315E	VGU315F	VGU315G
Xd	Direct axis synchro. reactance unsaturated	3.1	2.95	2.95	2.95	2.87	2.71	2.71
X'd	Direct axis transient reactance saturated	0.21	0.18	0.18	0.18	0.17	0.15	0.15
X''d	Direct axis sub transient reactance saturated	0.13	0.12	0.12	0.12	0.12	0.11	0.11
Xq	Quadra. Axis synchro. reactance unsaturated	2.66	2.53	2.53	2.53	2.41	2.39	2.39
X''q	Quadra. Axis sub transient reactance saturated	0.37	0.33	0.33	0.33	0.34	0.35	0.35
X2	Negative sequence reactance unsaturated	0.25	0.25	0.25	0.25	0.23	0.24	0.24
Xo	Zero sequence reactance unsaturated	0.09	0.08	0.08	0.08	0.08	0.08	0.08
T'd	Short-Circuit transient time constant	0.08s	0.08s	0.08s	0.08s	0.08s	0.08s	0.08s
T''d	Sub transient time constant	0.019s	0.019s	0.019s	0.019s	0.019s	0.019s	0.019s
T'do	Open circuit time constant	1.7s	1.7s	1.7s	1.7s	1.7s	1.7s	1.7s
Ta	Armature time constant	0.018s	0.018s	0.018s	0.018s	0.018s	0.018s	0.018s
Kcc	Short circuit ratio	0.56	0.338	0.338	0.338	0.384	0.369	0.369

OUTLINE DRAWING



DATA TABLE - SINGLE BEARING

Dimension mm		SAE 0/0.5/1/2		Weight		Packing
Model		LB	Xg	Net(kg)	Gross(kg)	L x W x H (mm)
VGU315B		1066	463	800	840	1280x770x1050
VGU315C		1066	483	875	915	1280x770x1050
VGU315DS		1066	504	930	970	1280x770x1050
VGU315D		1066	504	930	970	1280x770x1050
VGU315E		1066	522	960	1000	1280x770x1050
VGU315F		1151	530	1030	1070	1280x770x1050
VGU315G		1151	530	1100	1140	1280x770x1050

Flange mm							Disc(mm)					
SAE#	BD	AK	AJ	BF	N	U °	SAE#	BX	P	X	Y	AH
SAE 3	620	408.58	428.62	11	12	15	18	571.5	542.92	6	16.7	16
SAE 2	620	447.68	466.72	11	12	15	14	466.72	438.15	8	13.5	25.4
SAE 1	620	511.18	530.22	12.7	12	15	11.5	352.42	333.38	8	11	39.6
SAE 0.5	655	584.2	619.12	14	12	15						
SAE 0	715	647.7	679.45	14	16	11.25						

