



Vega Power International PTE.LTD

VGU355 *Range*

Rev.B

ALTERNATOR

APPLICATION AND STANDARDS

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

COMPLY WITH STANDARDS OF IEC60034,NEMA MG1-22,IS08528,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

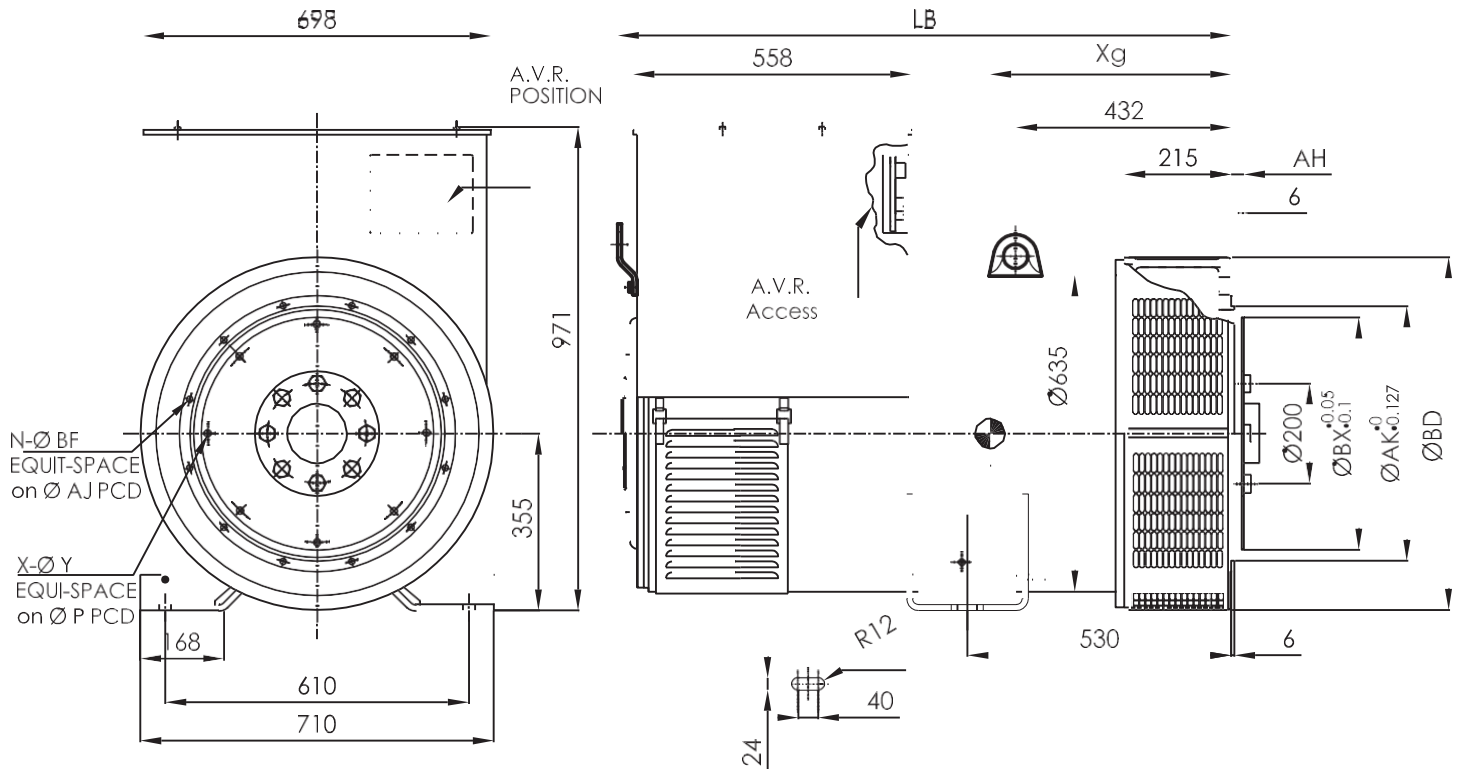
COMMON DATA

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

[illegible]

REACTANCE-TIME CONSTANT(s) H CLASS
VGU355 B/C/DS/D/ES/E

60Hz @ 480V		VGU355B	VGU355C	VGU355DS	VGU355D	VGU355E	VGU355E			
Xd	Direct axis synchro. reactance unsaturated	3.35	2.96	2.92	2.92	2.8	2.8			
X'd	Direct axis transient reactance saturated	0.16	0.15	0.15	0.15	0.14	0.14			
X''d	Direct axis sub transient reactance saturated	0.12	0.1	0.1	0.1	0.09	0.09			
Xq	Quadra. Axis synchro. reactance unsaturated	2.65	2.41	2.33	2.33	2.23	2.23			
X''q	Quadra. Axis sub transient reactance saturated	0.29	0.26	0.28	0.28	0.26	0.26			
X2	Negative sequence reactance unsaturated	0.2	0.199	0.19	0.19	0.18	0.18			
Xo	Zero sequence reactance unsaturated	0.09	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			
T''d	Sub transient time constant	0.012s	0.012s	0.012s	0.012s	0.012s	0.012s			
T'do	Open circuit time constant	2s	2.2s	2.5s	2.5s	2.5s	2.5s			
Ta	Armature time constant	0.017s	0.018s	0.019s	0.019s	0.019s	0.019s			
Kcc	Short circuit ratio	0.298	0.338	0.342	0.342	0.357	0.357			

OUTLINE DRAWING

DATA TABLE - SINGLE BEARING

Dimension mm			SAE 0/0.5/1				Weight				Packing	
Model			LB	Xg				Net(kg)	Gross(kg)	L x W x H (mm)		
VGU355B			1232	555				1210	1254	1430×850×1200		
VGU355C			1232	555				1330	1374	1430×850×1200		
VGU355DS			1232	575				1380	1424	1430×850×1200		
VGU355D			1232	575				1450	1494	1430×850×1200		
VGU355ES			1307	595				1490	1534	1430×850×1200		
VGU355E			1307	595				1580	1624	1430×850×1200		

Flange mm							Disc(mm)					
SAE#	BD	AK	AJ	BF	N	U °	SAE#	BX	P	X	Y	AH
SAE 1	715	511.18	530.22	12.7	12	15	21	673.1	641.35	12	16.7	0
SAE 0.5	715	584.2	619.12	14	12	15	18	571.5	542.92	6	16.7	15.7
SAE 0	715	647.7	679.45	14	16	11.25	14	466.72	438.15	8	13.5	25.4