



Manufacturer	FOCQUET
Reference	CO 2016 2229
Type	MF 2255-08
Customer	WISTA JAM SANAT Co.
Reference	9504-005-HA



## Declaration of Compliance

Buyer : **WISTA JAM SANAT Co.**  
3rd Floor, No.8  
Shariati St., Ali Bakhshi Alley  
1543615614 Thran, I.R. Iran

Order no. : **9504-005-HA**

Scope of delivery :

No	Quantity	Description	Type
01	6	AC Squirrel Cage Induction Motor	MF 225S-08

We certify that the listed products have been manufactured, examined and delivered according to the technical specifications of the order.

GEMBOUX, 16<sup>th</sup> December 2016

\_\_\_\_\_  
Person in charge

The electrical apparatus:

Three-phase asynchronous motor with squirrel-cage rotor  
& Three-phase asynchronous motor with slip ring rotor

Of the series **MA / MF / MB**

Followed by the motor type, are in conformity with the instructions of the following EU directives:

**2006/95/EG**  
**2004/108/EG**

The conformity with the instructions of these directives is proved by the observation of the following standards:

**EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4**  
**EN 55014-1, EN 55014-2**  
**EN 61000-3-2, EN 61000-3-3**  
**EN 60034-1, EN 60034-2-1, EN 60034-5, EN 60034-6, EN 60034-9, EN 60034-30**  
**IEC 60038**  
**EN 60204-1**

The specified product is exclusively intended for fitting into another machine. Start of operation is permitted until conformity of the end product with the directive **2006/42/EC** is established.

Gembloux, 01<sup>st</sup> January 2015

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**Bruno Focquet**  
*Managing Director*

This certificate attests the conformity with the named Directives; however, it is not a promise of properties in the meaning of product liability.

*In case of electronic communication, the signature does not appear.*

Data		
QTY.		6
Rotor		Squirrel Cage Rotor
Type		<b>MF 225S-08</b>
Serial Number		20162229-01 / -06
Design		IEC 34-1 / EN60034-1
Duty		S1
Phase		3
Power	kW	18,5
Voltage	V	400 / 690
Tolerance	%	+/- 10
Frequency	Hz	50
Tolerance	%	+/- 2
Connection		$\Delta / Y$
Poles		8
Speed	rpm	730
Direction of Rotation		CW & CCW
Current	A	39 / 22,5
Efficiency	%	90
Power Factor		0,76
Torque	Nm	242
Start Up		DOL / VFD
$I_{\Delta}/I_N$	%	660
$M_{\Delta}/M_N$	%	190
$M_K/M_N$	%	200
Mounting		IM V1
Frame Size		225 S
Housing material		Cast Iron
Protection		IP 56
Cooling		IC 410
Balancing		Half Key
Insulation class		F
Weight	kg	262

<b>Bearings &amp; Lubrication</b>		
<b>Bearing Type</b>	Antifriction Bearing	
<b>Cooling</b>	Self Cooled	
<b>Type</b>	Drive End	6313.ZZ.C3
	Non Drive End	6313.ZZ.C3
<b>Painting</b>		
<b>System</b>	Moderate	
<b>Colour</b>	RAL 5010	
<b>Vibration</b>		
<b>Vibration</b>	mm/s	< 2,8
<b>Starting</b>		
<b>Starts</b>	Cold	3
	Warm	2
	Per Year	1.000
<b>Ambiance</b>		
<b>Ambient temperature</b>	°C	- 20 ... + 50
<b>Altitude</b>	m above sea level	≤ 1.000
<b>Humidity</b>	%	< 95
<b>Installation</b>	Outdoor / Indoor	
<b>Accessories</b>		
1x3 PTC		
Space Heater 230 VAC, 50 Hz		

Type-Test Report: Asynchronous Motor

Name-Plate Data						
Duty	S1	△				
f [Hz]	50	U <sub>N</sub> [V]	400	cos φ	0.76	
n <sub>N</sub> [min-1]	730	I <sub>N</sub> [A]	39	P <sub>N</sub> [Kw]	18.5	
IP	55	IS.Class	F	Net B3 [kg]	242	

Drive-end Bearing	6313	Non drive-end Bearing	6312
Phase-Resistance at 20 °C	[Ω] 0.289	[Ω] 0.288	[Ω] 0.289

TEMPERATURE-RISE TEST													
Conn	U [V]	f [Hz]	I <sub>N</sub> ass [A]	P <sub>N</sub> ress [kW]	Lasting [h]	Terminals	Winding θ		Wind. Res. [Ω]	Amb. θ [°C]	Frame θ		Temperature Rise Δ θ [K]
							Initial [°C]				Final [°C]		
							[Ω]				[Ω]		
△	400	50	39	18.5	3.5		19	0.289	21	64	0.358	58.6	

LOAD TEST												
Conn	Load	U [V]	f [Hz]	n [min-1]	S %	I [A]	input [kW]	T <sub>N</sub> [Nm]	out [kW]	η %	cos φ	Notes
△	25%	400	50	747	0.4	15	5.556	59.128	4.625	83.24	0.5347	
△	50%	400	50	743	0.933	22	10.42	118.89	9.25	88.81	0.6834	
△	75%	400	50	738	1.6	30.1	15.38	179.55	13.88	90.24	0.7373	
△	<b>100%</b>	<b>400</b>	<b>50</b>	<b>733</b>	<b>2.267</b>	<b>38.5</b>	<b>20.5</b>	<b>241.03</b>	<b>18.5</b>	<b>90.25</b>	<b>0.7685</b>	
△	125%	400	50	728	2.933	48.8	25.85	303.36	23.13	89.45	0.7647	

BREAKDOWN TORQUE TEST									
Conn	U [V]	f [Hz]	I [A]	n [min-1]	T <sub>N</sub> [Nm]	P <sub>ress out</sub> [kW]	P <sub>ass, abs</sub> [kW]	η %	cos φ
△	400	50			490				

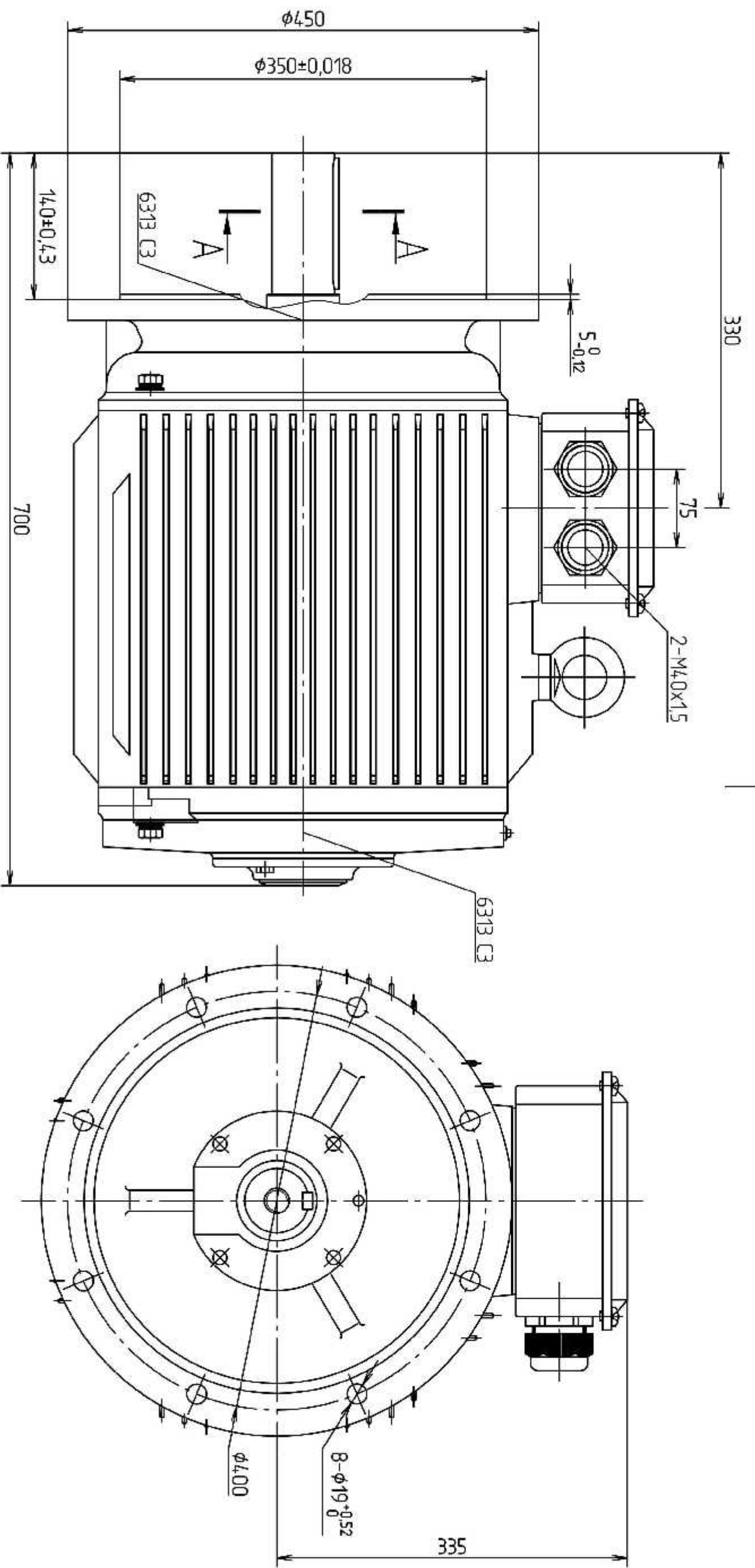
LOCKED ROTOR TEST							RATIO		
Conn	U [V]	f [Hz]	T <sub>l</sub> [Nm]	I <sub>l</sub> ass, abs [A]	P <sub>ass, abs</sub> [kW]	cos φ	I <sub>l</sub> / I <sub>N</sub>	T <sub>l</sub> / T <sub>N</sub>	T <sub>l</sub> / T <sub>N</sub>
△	400	50	462	250					

NO-LOAD TEST						
Conn	U [V]	f [Hz]	n <sub>N</sub> [min-1]	I <sub>l</sub> ass, abs [A]	P <sub>ass, abs</sub> [kW]	cos φ
△	400	50	749	21.5	800	0.0518

LWA [dB(A)]	
No Load	Load
66	

DIELECTRIC TEST		
Between Windings and the Frame		
Test N°	U [V]	I [a]
	2380	0.02A

INSUL. RES.		
amb. T [°C]	U [V]	MΩ
19	1000	500



Date	Name
01/2/2016	E. Babylif
05/2/2016	V. Erigan

**FOCQUET**  
1<sup>st</sup> IN Electrical Power Machinery

MF 225S-08

Ref. 2016 2229



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