

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer : GOL PUMP TECHNOLOGY, INC.

Product line : W22 - IE3 Premium Efficiency

Frame	: 225S/M	Locked rotor time	: 14 s (hot) 25 s (cold)
Output	: 45 kW	Temperature rise	: 80 K
Poles	: 4	Duty cycle	: S1
Frequency	: 60 Hz	Ambient temperature	: -20 °C to +40 °C
Rated voltage	: 230/460 V	Altitude	: 3280 ft
Rated current	: 140/69.8 A	Protection degree	: IP55
L. R. Amperes	: 1047/524 A	Cooling method	: IC411 - TEFC
LRC	: 7.5	Mounting	: B35T
No load current	: 53.6/26.8 A	Rotation <sup>1</sup>	: Both
Rated speed	: 1780 rpm	Noise level <sup>2</sup>	: 67.0 dB(A)
Slip	: 1.11 %	Vibration class	: A
Rated torque	: 242 Nm	Starting method	: Direct On Line
Locked rotor torque	: 270 %	Coupling	: Direct
Pull up torque	: 185 %	Approx. weight <sup>3</sup>	: 891 lb
Breakdown torque	: 300 %	Painting plan	: 203A
Insulation class	: F	Color	: RAL 5009
Service factor	: 1.25	Design	: N
Moment of inertia (J)	: 15.1 sq.ft.lb		

Output	50%	75%	100%	Load type	: -
Efficiency (%)	93.0	94.7	95.1	Load torque	: -
Power Factor	0.71	0.80	0.85	Load inertia (J=GD <sup>2</sup> /4)	: -

Bearing type	Drive end 6314-C3	Non drive end 6314-C3	Foundation loads	
Lubrication interval	12000 h	12000 h	Max. traction	: 6160.8 N
Lubricant amount	27 g	27 g	Max. compression	: 10124.1 N
Lubricant type	MOBIL POLYREX EM			

Notes  
See notes on page 2.

This revision replaces and cancel the previous one, which must be eliminated.  
(1) Looking the motor from the shaft end.  
(2) Measured at 1m and with tolerance of +3dB(A).  
(3) Approximate weight, subject to be changed after manufacturing process.  
(4) At 100% of full load.

These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in IEC 60034-1.

Rev.	Changes Summary	Rev.	Checked	Date	
Performed by	johnson	1228360207			
Checked by	AUTOMATICO			Page	Rev.
Date	02/11/2021			1 / 5	1

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer : GOL PUMP TECHNOLOGY, INC.

Product line : W22 - IE3 Premium Efficiency

### Thermal protection

ID	Application	Type	Quantity	Sensing Temperature
1	Winding	Thermistor - 2 wires	1 x Phase	155°C

### Notes

Standards	Specification	: IEC 60034-1	Vibration	: IEC 60034-14
	Test	: IEC 60034-2	Tolerance	: IEC 60034-1
	Noise	: IEC 60034-9		

This revision replaces and cancel the previous one, which must be eliminated.  
(1) Looking the motor from the shaft end.  
(2) Measured at 1m and with tolerance of +3dB(A).  
(3) Approximate weight, subject to be changed after manufacturing process.  
(4) At 100% of full load.

These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in IEC 60034-1.

Rev.	Changes Summary	Rev.	Checked	Date
Performed by	johnson			1228360207
Checked by	AUTOMATICO		Page	Rev.
Date	02/11/2021		2 / 5	1

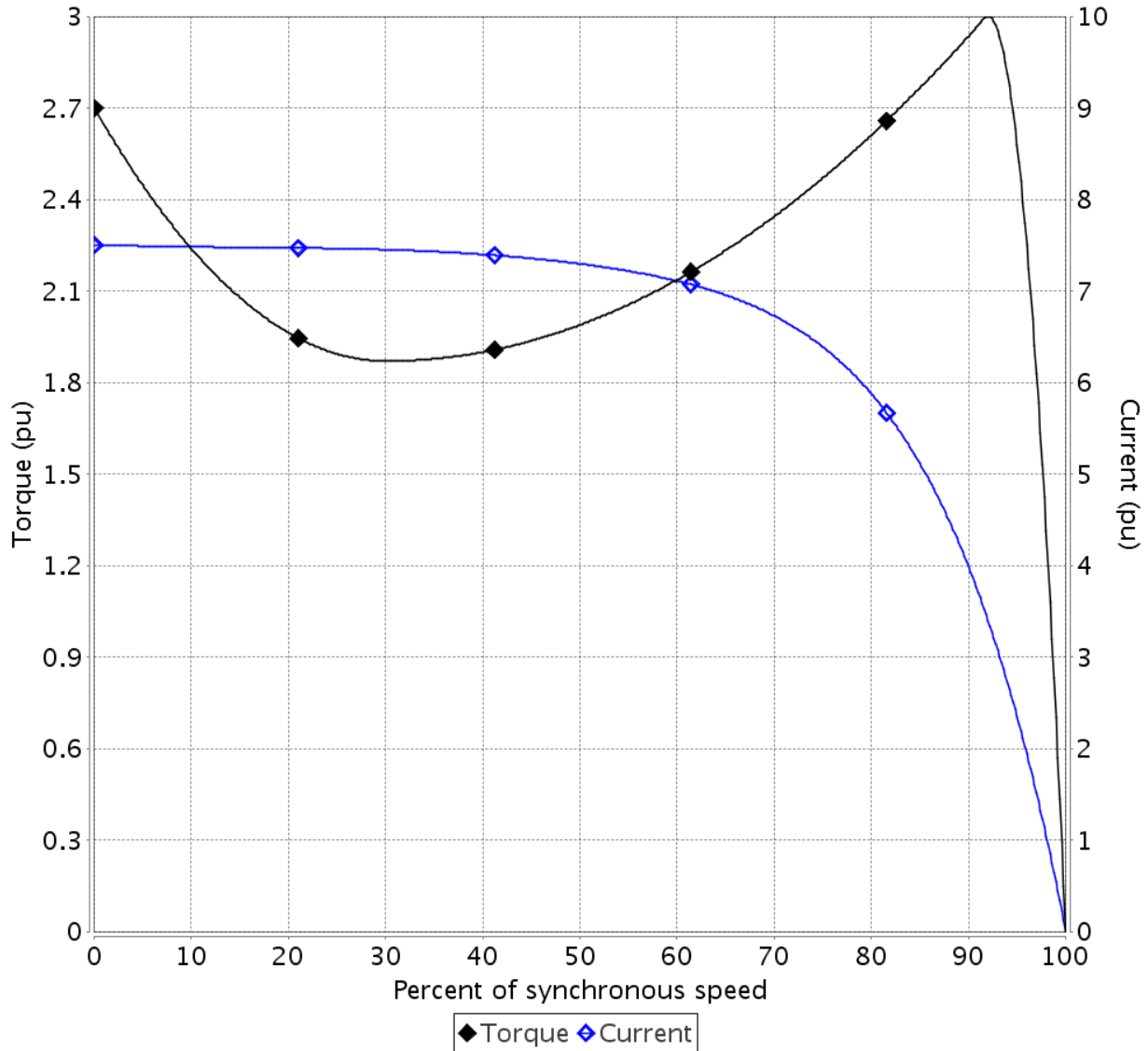
# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer : GOL PUMP TECHNOLOGY, INC.

Product line : W22 - IE3 Premium Efficiency



Performance : 45 kW 230/460 V 60 Hz 4P 225S/M

Rated current	: 140/69.8 A	Moment of inertia (J)	: 15.1 sq.ft.lb
LRC	: 7.5	Duty cycle	: S1
Rated torque	: 242 Nm	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.25
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1780 rpm	Design	: N

Locked rotor time 100% : 14 s (hot) 25 s (cold)

Load inertia (J=GD<sup>2</sup>/4) : 15.1 sq.ft.lb

Rev.	Changes Summary	Rev.	Checked	Date
Performed by	johnson	1228360207		
Checked by	AUTOMATICO			
Date	02/11/2021			
		Page	Rev.	
		3 / 5	1	

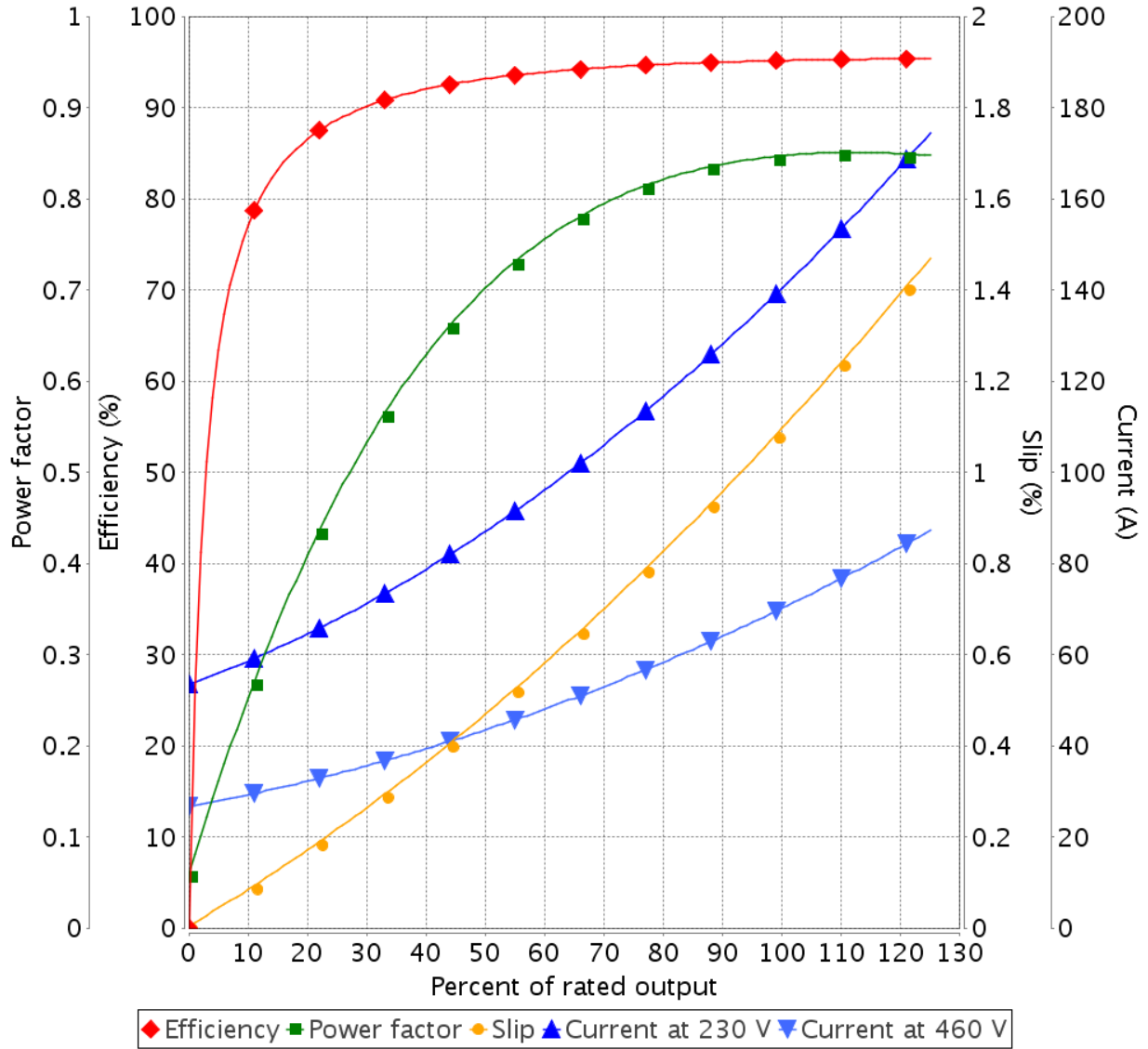
# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer : GOL PUMP TECHNOLOGY, INC.

Product line : W22 - IE3 Premium Efficiency



Performance : 45 kW 230/460 V 60 Hz 4P 225S/M

Rated current	: 140/69.8 A	Moment of inertia (J)	: 15.1 sq.ft.lb
LRC	: 7.5	Duty cycle	: S1
Rated torque	: 242 Nm	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.25
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1780 rpm	Design	: N

Rev.	Changes Summary	Rev.	Checked	Date
Performed by	johnson	1228360207		
Checked by		Page	Rev.	
Date	02/11/2021	4 / 5	1	

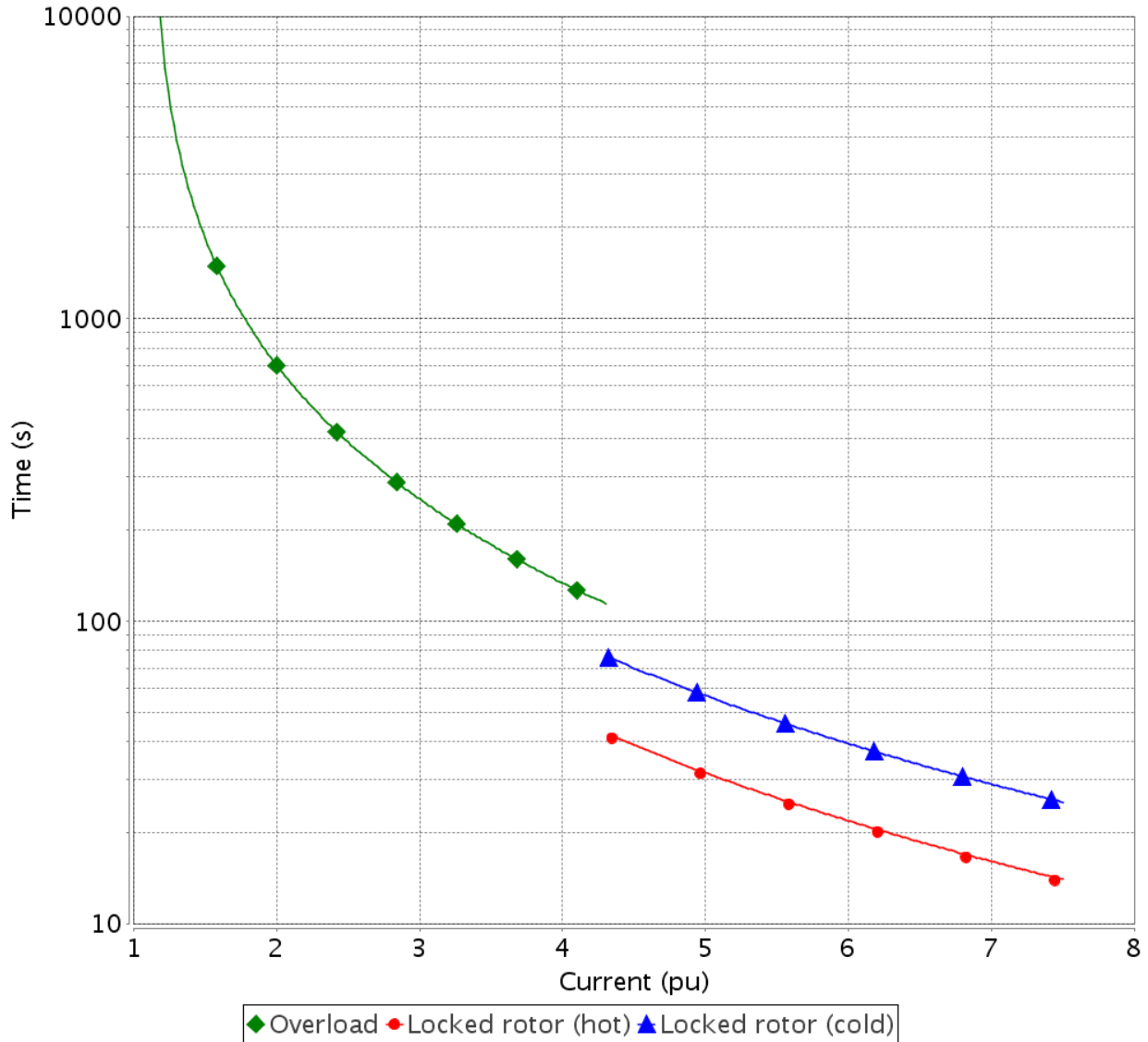
# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer : GOL PUMP TECHNOLOGY, INC.

Product line : W22 - IE3 Premium Efficiency

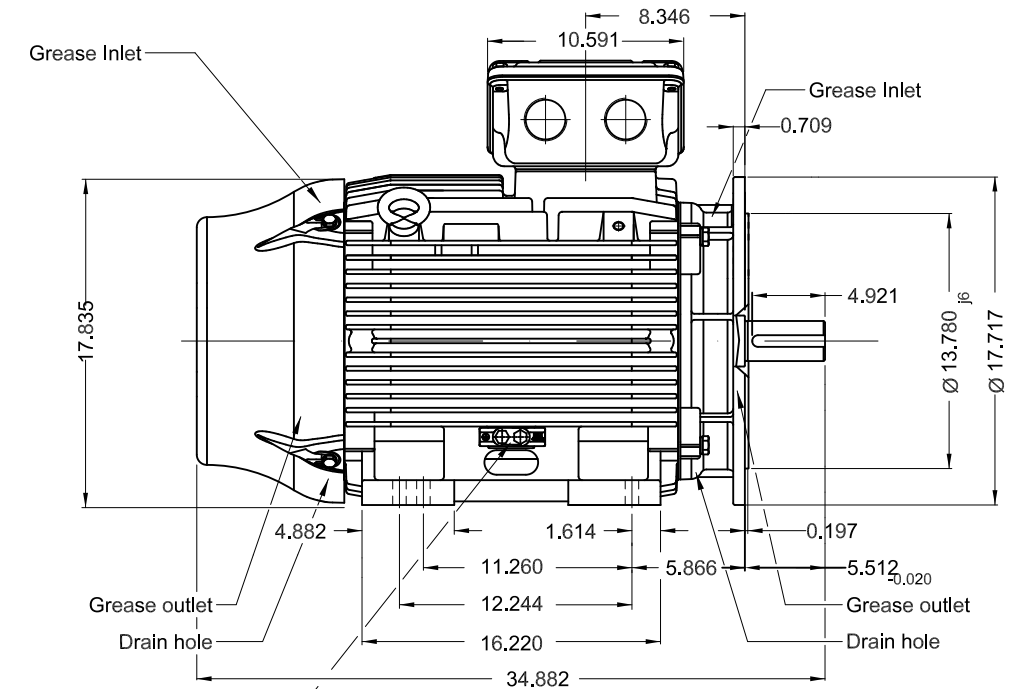
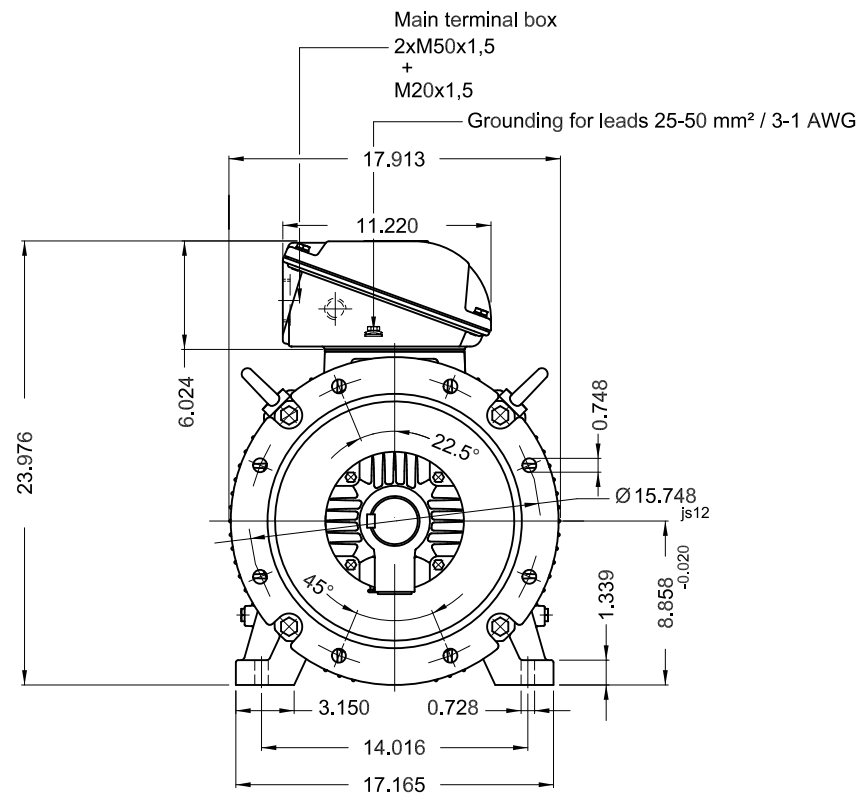


Performance : 45 kW 230/460 V 60 Hz 4P 225S/M

Rated current	: 140/69.8 A	Moment of inertia (J)	: 15.1 sq.ft.lb
LRC	: 7.5	Duty cycle	: S1
Rated torque	: 242 Nm	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.25
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1780 rpm	Design	: N

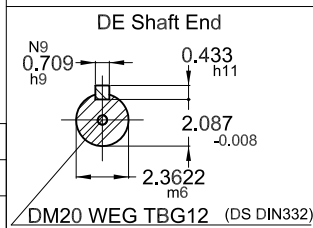
Heating constant : 33.9 min  
Cooling constant : 101.7 min

Rev.	Changes Summary		Rev.	Checked	Date
Performed by	johnson		1228360207		
Checked by			Page	Rev.	
Date	02/11/2021		5 / 5	1	



Grounding for leads 25-185 mm² / 3AWG-350MCM

Color RAL 5009  
 Painting plan 203A  
 Mounting B35T



45 kW 04 Poles 60 Hz

GOL PUMP TECHNOLOGY, INC.

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PHASE W22 MOTOR - PREMIUM EFF					
CHECKED		FRAME 225S/M IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering				

PREVIEW  
 WDD



SHEET 1 / 1

Dimensions in inches

XME A3