







OWNER:  شرکت مست و سویی گیسو ایران (سهامی خاص) MC :  شرکت مست و سویی گیسو ایران (سهامی خاص)	<b>BUSHEHR PETROCHEMICAL COMPANY MEG PLANT</b>							EPC CONTRACTOR:  Chagalesh-Enerchimi-Steam Joint Venture BUPC-MEG PLANT PROJECT	
	<b>COMPRESSOR MOTOR CURVE FOR EMERGENCY INSTRUMENT AIR COMPRESSOR</b>							 Contract No: 52-98/445	
<b>Owner Document Number: 17811-54B</b>	Project	Area	Phase	Unit	Dis.	Doc.	Seq.	Rev.:	Page
	BU	20	VD	303	EL	DIG	0100	02	1 of 5

## COMPRESSOR MOTOR CURVE FOR EMERGENCY INSTRUMENT AIR COMPRESSOR

 شرکت مست و سویی گیسو ایران  Chagalesh-Enerchimi-Steam Joint Venture BUPC-MEG PLANT PROJECT	<b>BUSHEHR PETROCHEMICAL COMPANY MEG PLANT</b>
<b>Document Review</b>	
Issue Purpose:	AFC
Result Code: AP,AN,CM,RE,NC	AP
Next Status : IFC,IFA,IFI,AFC,AB	-
Responsible Department	MECHANICAL
Commented Date	Jun.28,2023
<b>Approval or review hereunder shall not be construed to relieve Vendor / Subcontractor of his responsibilities and liability under the contract.</b>	

02	26/06/2023	<b>Approved for Construction</b>	KP	LdM	JR	
01	06/01/2022	<b>For approval</b>	KP	LdM	JR	
00	10/12/2021	<b>For approval</b>	KP	LdM	JR	
<b>Rev.</b>	<b>Date</b>	<b>Purpose of Issue</b>	<b>Prepared</b>	<b>Checked</b>	<b>Approved</b>	<b>AC Code</b>
					Class: 1	Phase: P



# TORQUE AND CURRENT X SPEED CURVE

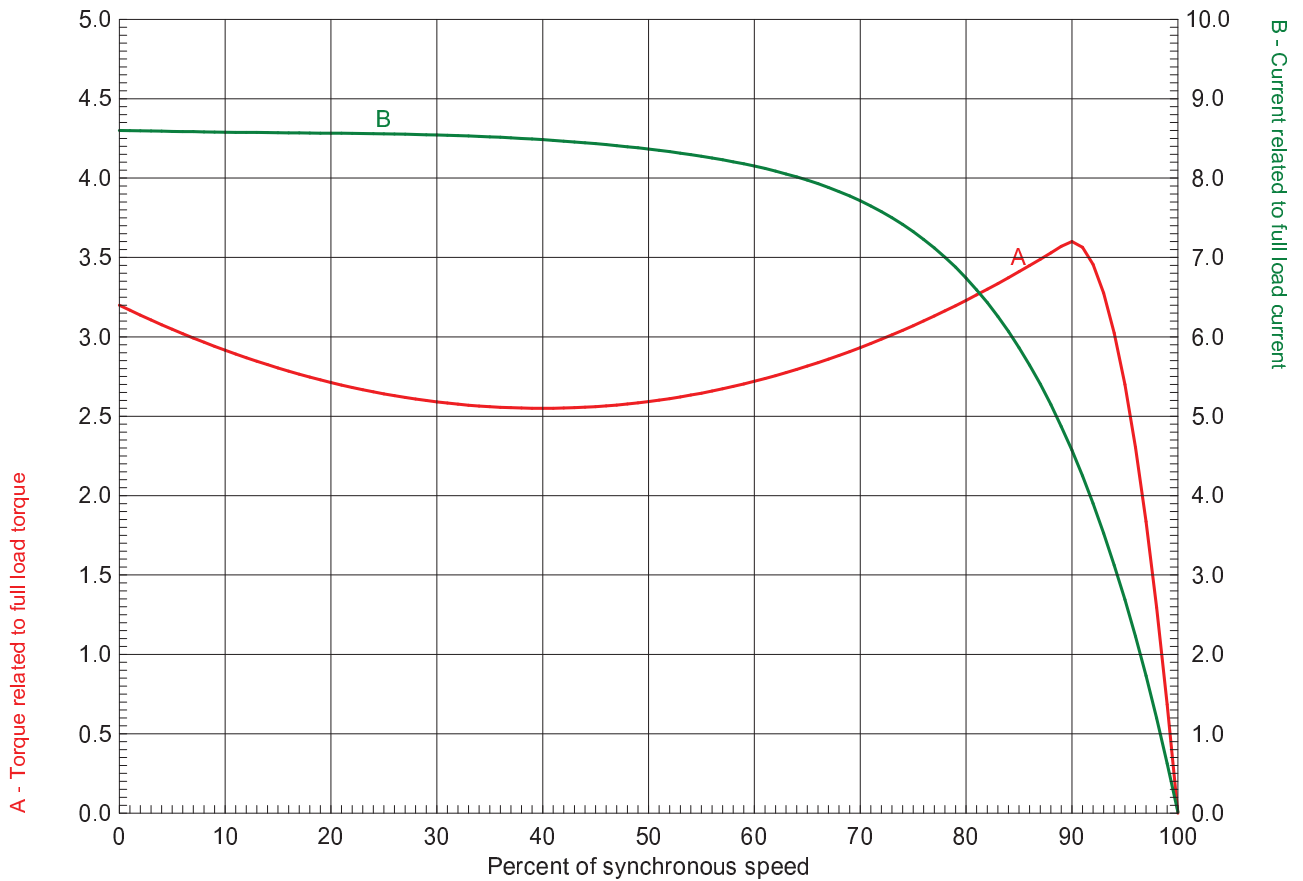


## Three Phase Induction Motor - Squirrel Cage

Customer : \_\_\_\_\_

Product line : W22Xdb Flameproof - Super Premium Efficiency IE4 (400/690//460V)

Product code : 16354333



Performance : 15 kW (20 HP) 400/690 V 50 Hz 4P 160M/L

Rated current	: 29.2/16.9 A	Moment of inertia (J)	: 0.1813 kgm <sup>2</sup>
LRC (p.u.)	: 8.6	Duty cycle	: S1
Rated torque	: 96.9 Nm	Insulation class	: F
Locked rotor torque	: 320 %	Service factor	: 1.00
Breakdown torque	: 360 %	Temperature rise	: 80 K
Rated speed	: 1479 rpm	Design	: N

Locked rotor time 100% : 19 s (hot) 34 s (cold)  
 Load inertia (J=GD<sup>2</sup>/4) : 0.18125 kgm<sup>2</sup>

Rev.	Summary of changes	Performed	Checked	Date
Performed by	ydamhuis	345288/2021-A1		
Checked by	AUTOMATICO	Page	Revision	
Date	10/12/2021	3/6	0	

# LOAD PERFORMANCE CURVE

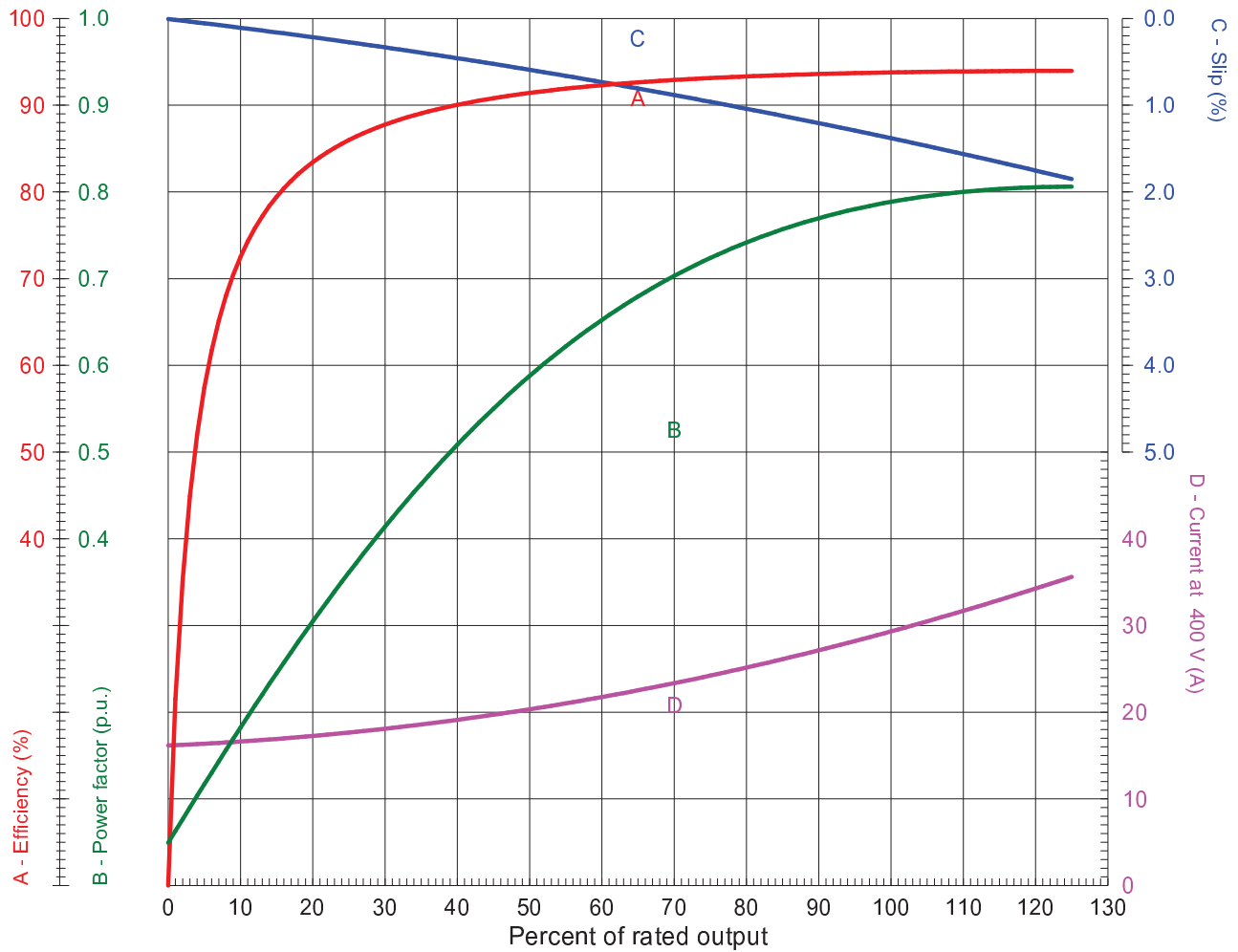


## Three Phase Induction Motor - Squirrel Cage

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Product code : 16354333



Performance : 15 kW (20 HP) 400/690 V 50 Hz 4P 160M/L

Rated current : 29.2/16.9 A  
 LRC (p.u.) : 8.6  
 Rated torque : 96.9 Nm  
 Locked rotor torque : 320 %  
 Breakdown torque : 360 %  
 Rated speed : 1479 rpm

Moment of inertia (J) : 0.1813 kgm<sup>2</sup>  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

Rev.	Summary of changes	Performed	Checked	Date
Performed by	ydamhuis	345288/2021-A1		
Checked by	AUTOMATICO	Page	Revision	
Date	10/12/2021	4/6	0	

# THERMAL LIMIT CURVE

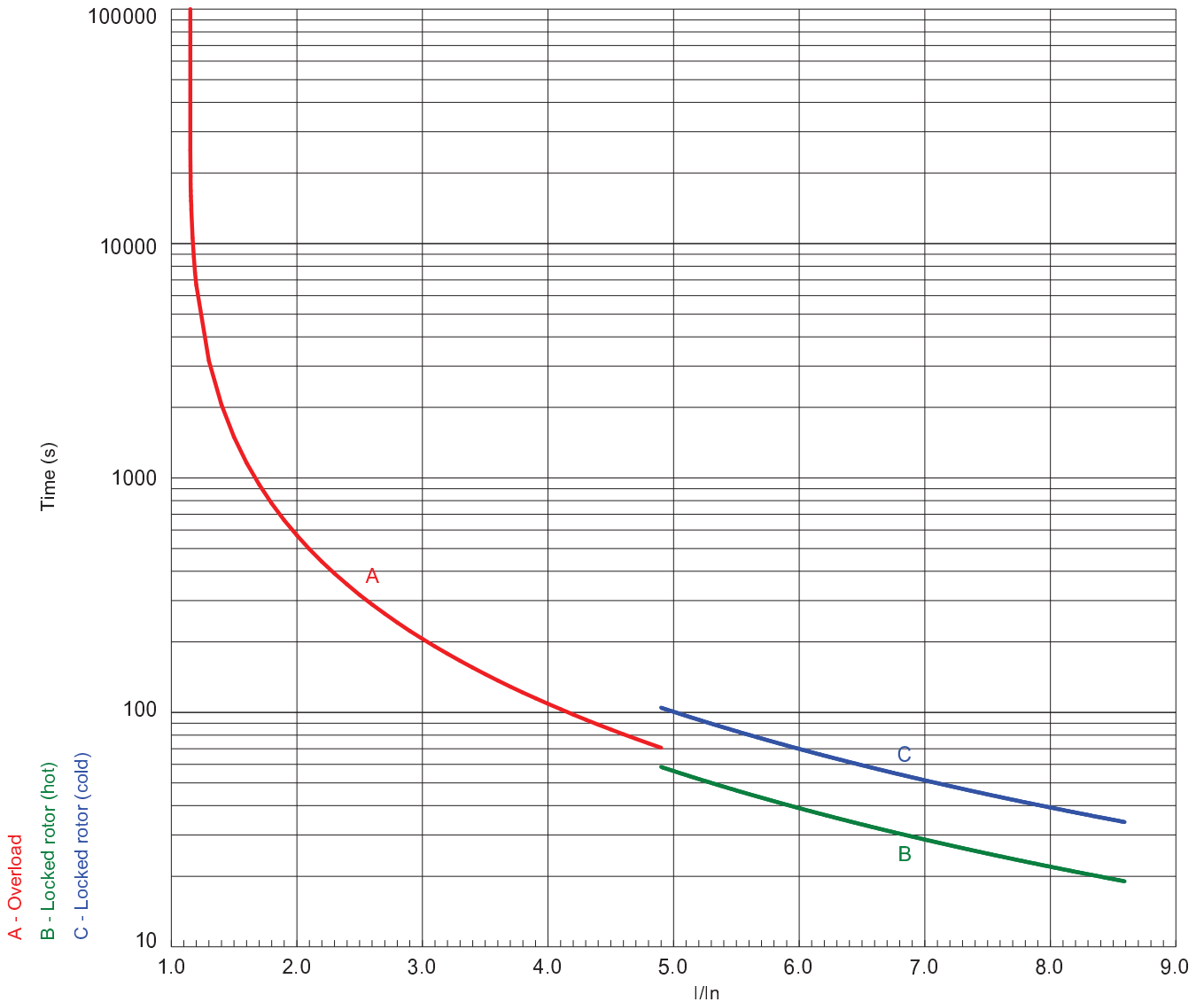


## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22Xdb Flameproof - Super Premium Efficiency IE4 (400/690//460V)

Product code : 16354333



Performance : 15 kW (20 HP) 400/690 V 50 Hz 4P 160M/L

Rated current	: 29.2/16.9 A	Moment of inertia (J)	: 0.1813 kgm <sup>2</sup>
LRC (p.u.)	: 8.6	Duty cycle	: S1
Rated torque	: 96.9 Nm	Insulation class	: F
Locked rotor torque	: 320 %	Service factor	: 1.00
Breakdown torque	: 360 %	Temperature rise	: 80 K
Rated speed	: 1479 rpm	Design	: N

Heating constant : 27.6 min  
Cooling constant : 82.8 min

Rev.	Summary of changes	Performed	Checked	Date
Performed by	ydamhuis			345288/2021-A1
Checked by	AUTOMATICO			Page Revision
Date	10/12/2021			5/6 0