





OWNER:  شرکت مست و سوبی آوسو ایرانیاان (سماهی خاص)	<b>BUSHEHR PETROCHEMICAL COMPANY MEG PLANT</b>							EPC CONTRACTOR:  Chagalesh-Enerchimi-Steam Joint Venture BUPC-MEG PLANT PROJECT	
MC :  شرکت مست و سوبی آوسو ایرانیاان (سماهی خاص)	<b>COMPRESSOR MOTOR CURVE FOR NITROGEN GAS BOOSTER</b>								
<b>Owner Document Number: 17811-54A</b>								<b>Project</b> BU	<b>Area</b> 20
								<b>Rev.:</b> 02	<b>Page</b> 1 of 5

## COMPRESSOR MOTOR CURVE FOR NITROGEN GAS BOOSTER

02	26/06/2023	Approved for Construction	KP	LdM	JR	
01	06/01/2022	For approval	KP	LdM	JR	
00	10/12/2021	For approval	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>
					<b>Class: 1</b>	<b>Phase: P</b>



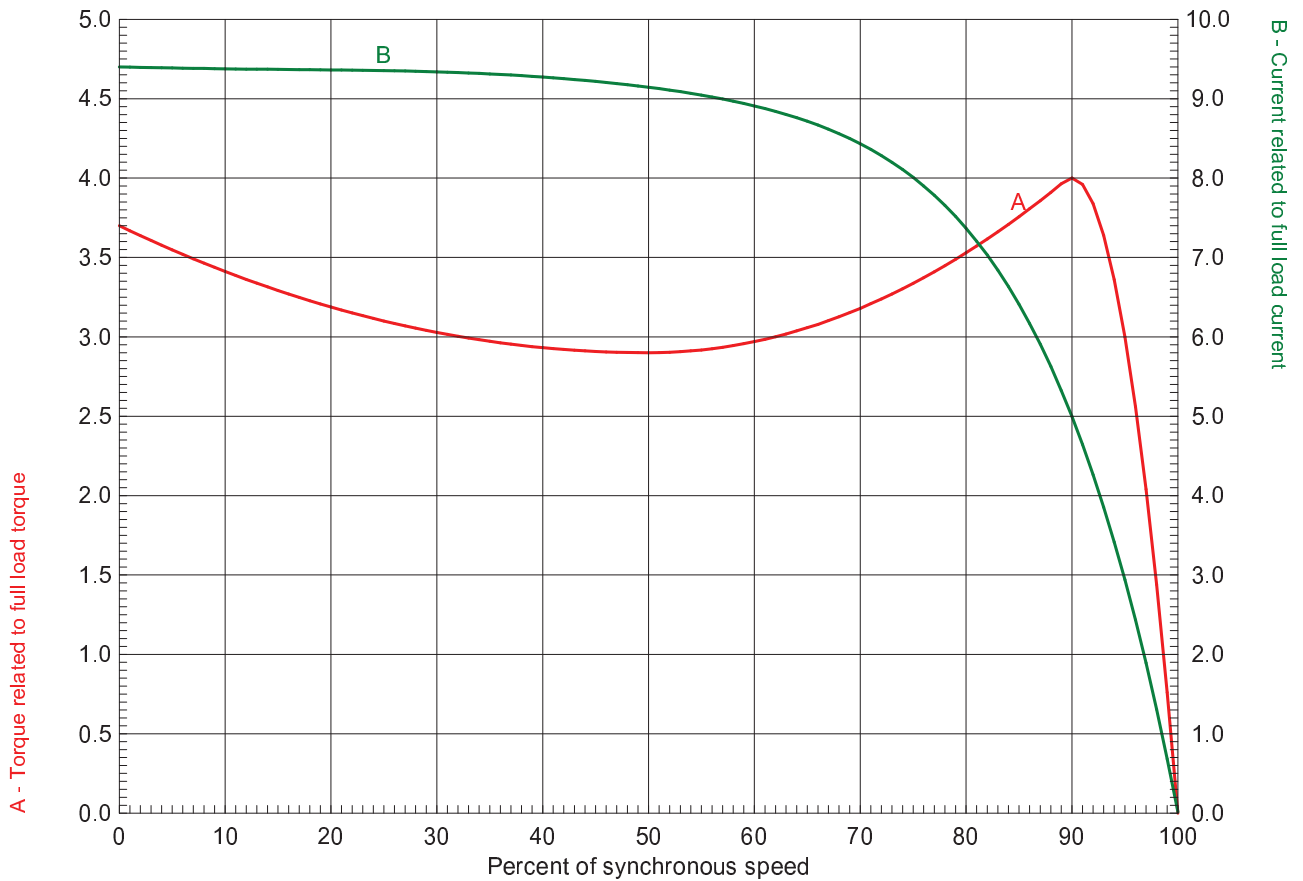
# TORQUE AND CURRENT X SPEED CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer : AIRPACK B.V.

Product line :



Performance : 45 kW (60 HP) 400/690 V 50 Hz 4P 225S/M

Rated current	: 85.1/49.3 A	Moment of inertia (J)	: 0.7347 kgm <sup>2</sup>
LRC (p.u.)	: 9.4	Duty cycle	: S1
Rated torque	: 290 Nm	Insulation class	: F
Locked rotor torque	: 370 %	Service factor	: 1.00
Breakdown torque	: 400 %	Temperature rise	: 65 K
Rated speed	: 1484 rpm	Design	: N

Locked rotor time 100% : 19 s (hot) 35 s (cold)  
 Load inertia (J=GD<sup>2</sup>/4) : 0.7347 kgm<sup>2</sup>

Rev.	Summary of changes	Performed	Checked	Date
Performed by	jessicasc	324260/2021-A1		
Checked by	josianeh	Page	Revision	
Date	22/11/2021	3/7	0	

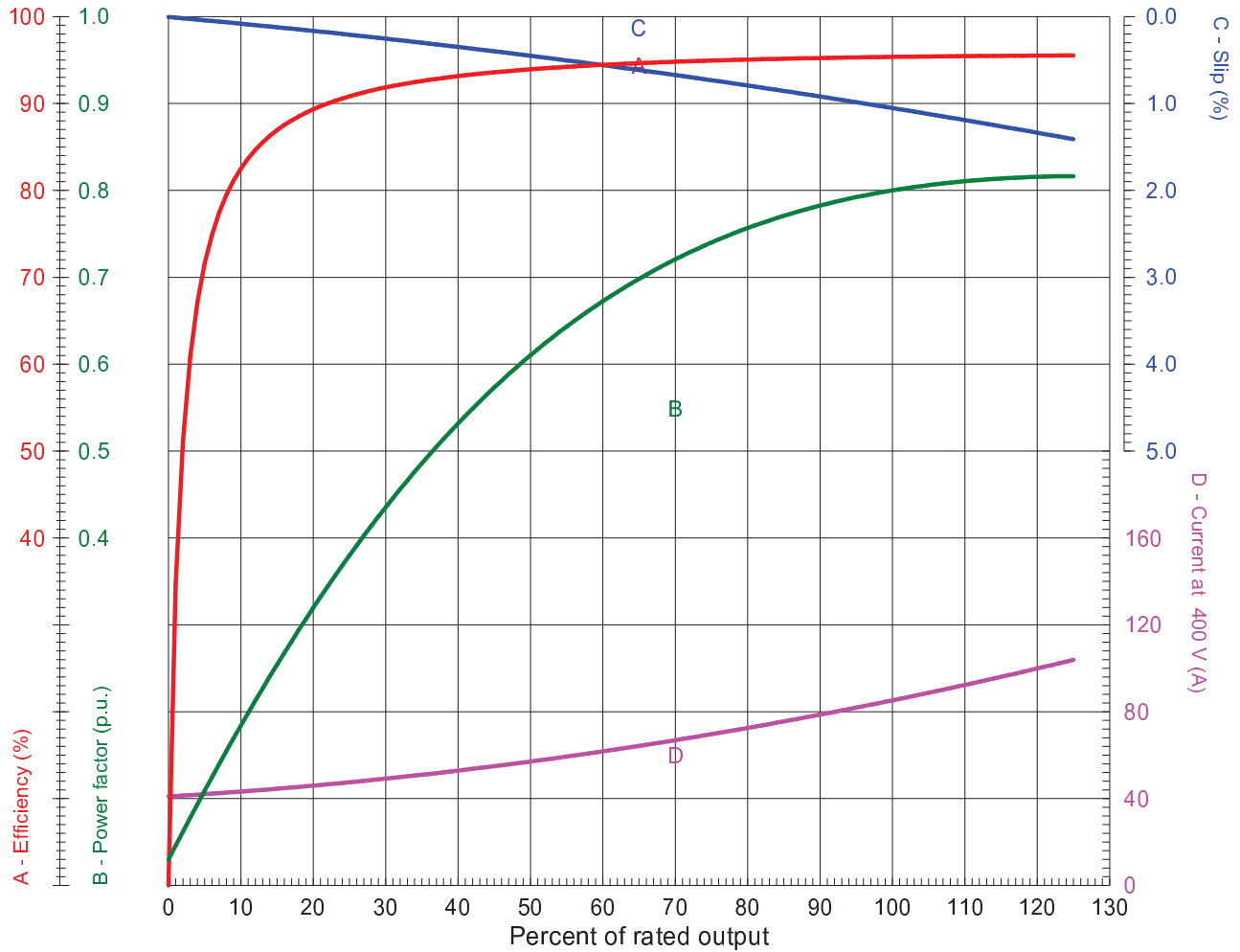
# LOAD PERFORMANCE CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer : AIRPACK B.V.

Product line :



Performance : 45 kW (60 HP) 400/690 V 50 Hz 4P 225S/M

Rated current	: 85.1/49.3 A	Moment of inertia (J)	: 0.7347 kgm <sup>2</sup>
LRC (p.u.)	: 9.4	Duty cycle	: S1
Rated torque	: 290 Nm	Insulation class	: F
Locked rotor torque	: 370 %	Service factor	: 1.00
Breakdown torque	: 400 %	Temperature rise	: 65 K
Rated speed	: 1484 rpm	Design	: N

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Performed by	jessicasc	324260/2021-A1		
Checked by	josianeh	Page	Revision	
Date	22/11/2021	4/7	0	

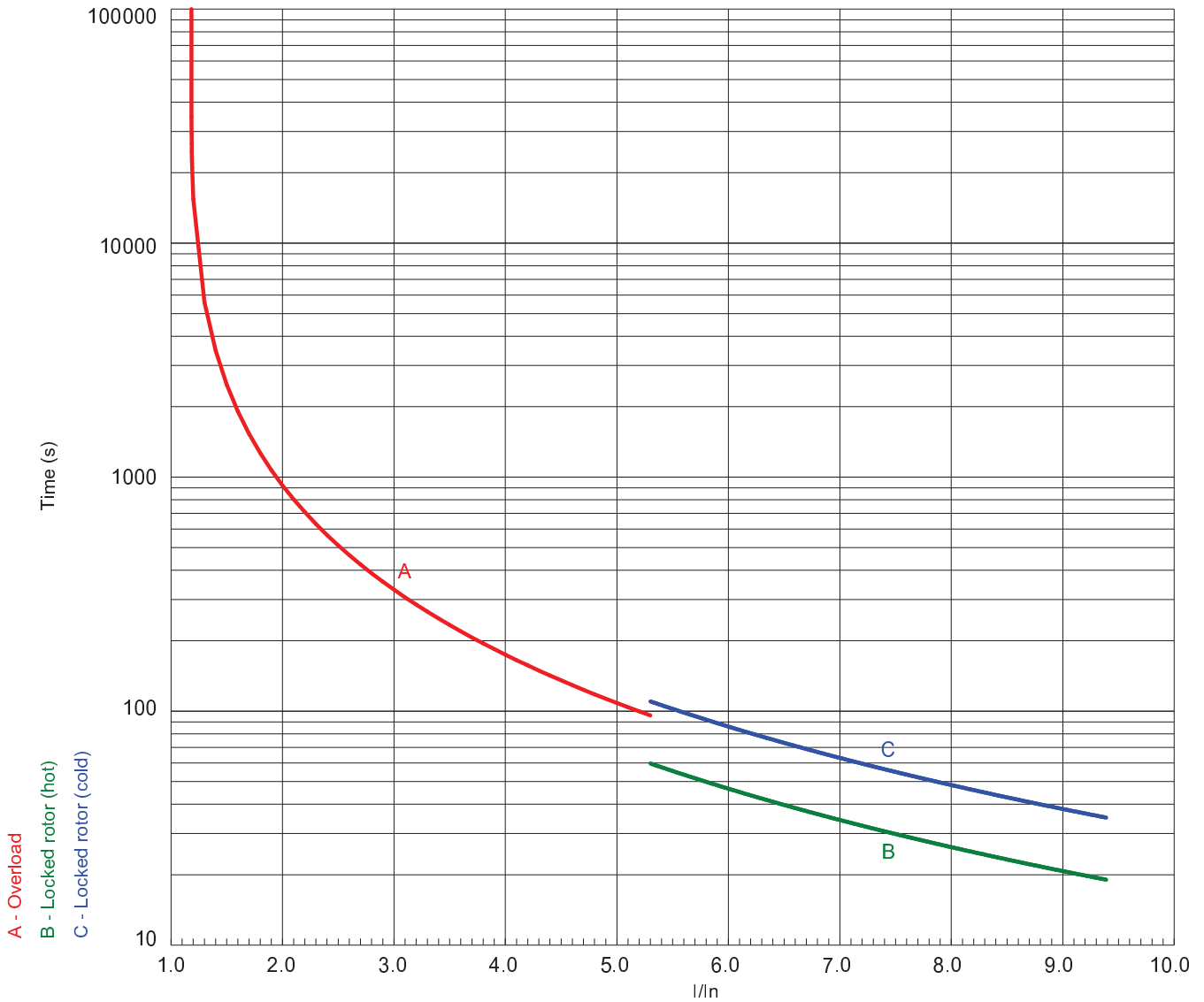
# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer : AIRPACK B.V.

Product line :



Performance : 45 kW (60 HP) 400/690 V 50 Hz 4P 225S/M

Rated current	: 85.1/49.3 A	Moment of inertia (J)	: 0.7347 kgm <sup>2</sup>
LRC (p.u.)	: 9.4	Duty cycle	: S1
Rated torque	: 290 Nm	Insulation class	: F
Locked rotor torque	: 370 %	Service factor	: 1.00
Breakdown torque	: 400 %	Temperature rise	: 65 K
Rated speed	: 1484 rpm	Design	: N

Heating constant : 35.8 min  
Cooling constant : 107.4 min

Rev.	Summary of changes		Performed	Checked	Date
Performed by	jessicasc				324260/2021-A1
Checked by	josianeh				Page Revision
Date	22/11/2021				5/7 0