

OWNER:



**BUSHEHR PETROCHEMICAL COMPANY  
MEG PLANT**

EPC CONTRACTOR:



MC :



**COMPRESSOR MOTOR CURVE FOR  
EMERGENCY INSTRUMENT  
AIR COMPRESSOR**



Owner Document Number: 17811-54B	Project	Area	Phase	Unit	Dis.	Doc.	Seq.	Contract No: 52-98/445	
	BU	20	VD	303	EL	DIG	0100	Rev.:	Page
								00	1 of 5

**COMPRESSOR MOTOR CURVE FOR EMERGENCY  
INSTRUMENT AIR COMPRESSOR**

00	10/12/2021	For approval	KP	LdM	JR		
Rev.	Date	Purpose of Issue	Prepared	Checked	Approved	AC Code	
						Class: 1	Phase: P



# TORQUE AND CURRENT X SPEED CURVE

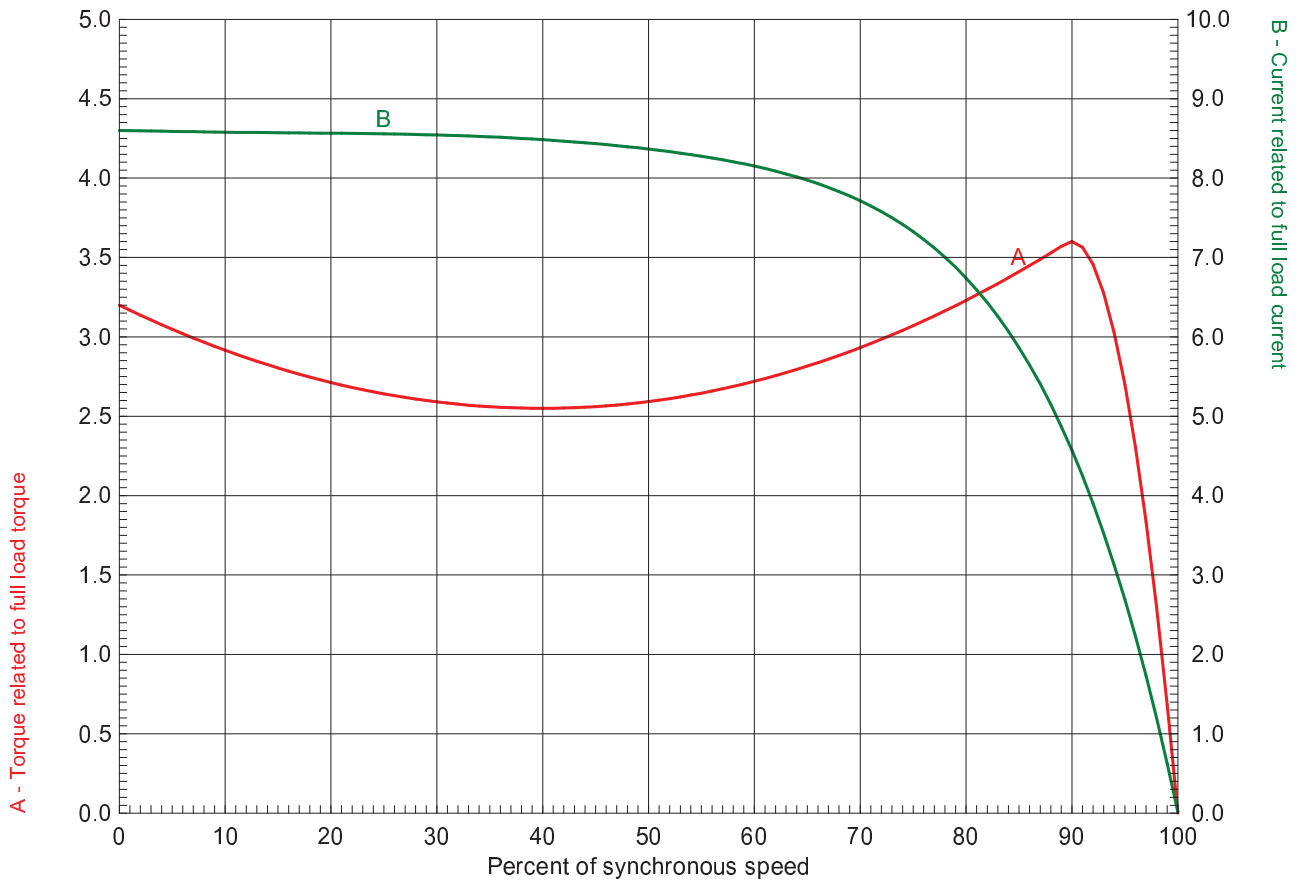


## Three Phase Induction Motor - Squirrel Cage

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

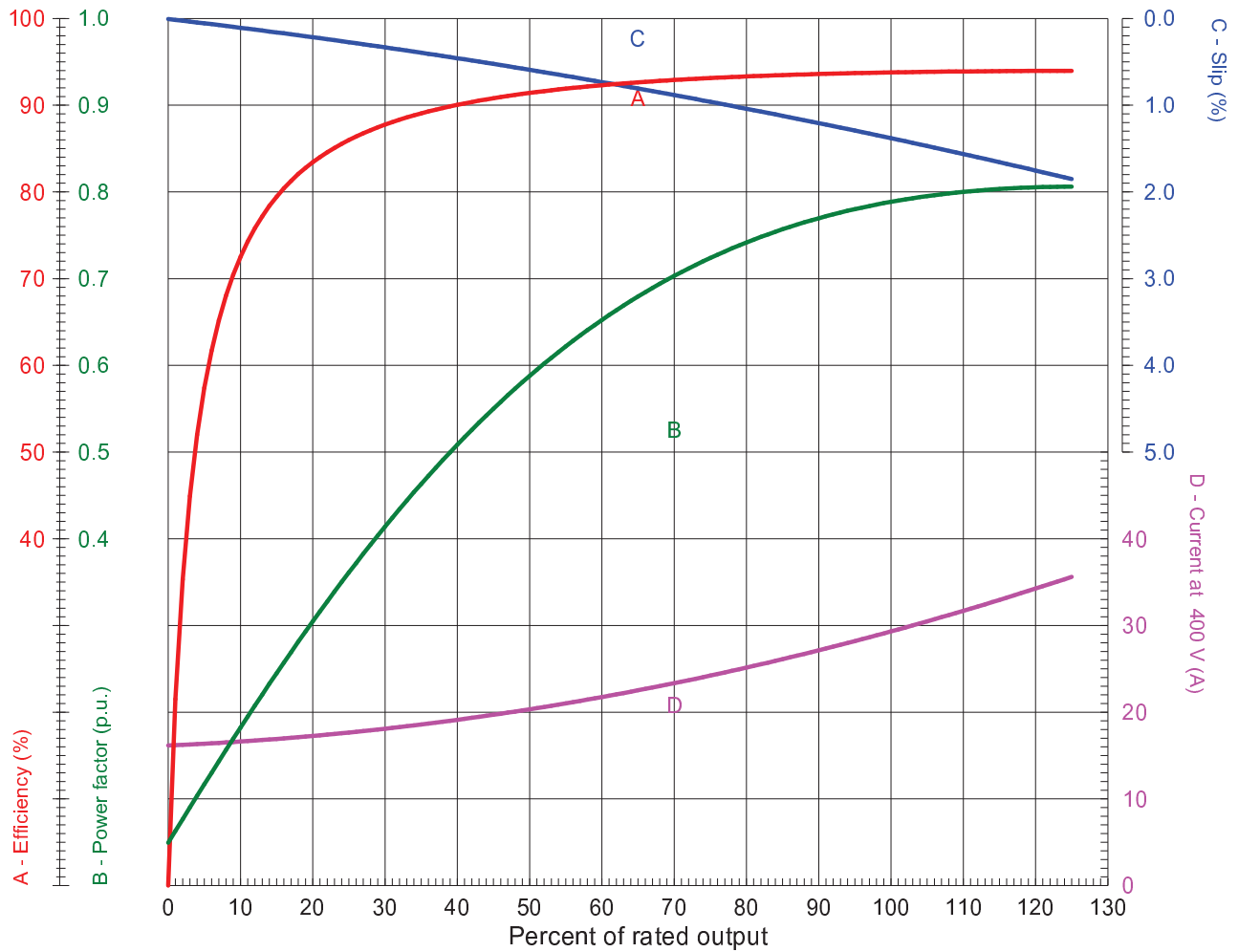


## Three Phase Induction Motor - Squirrel Cage

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

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

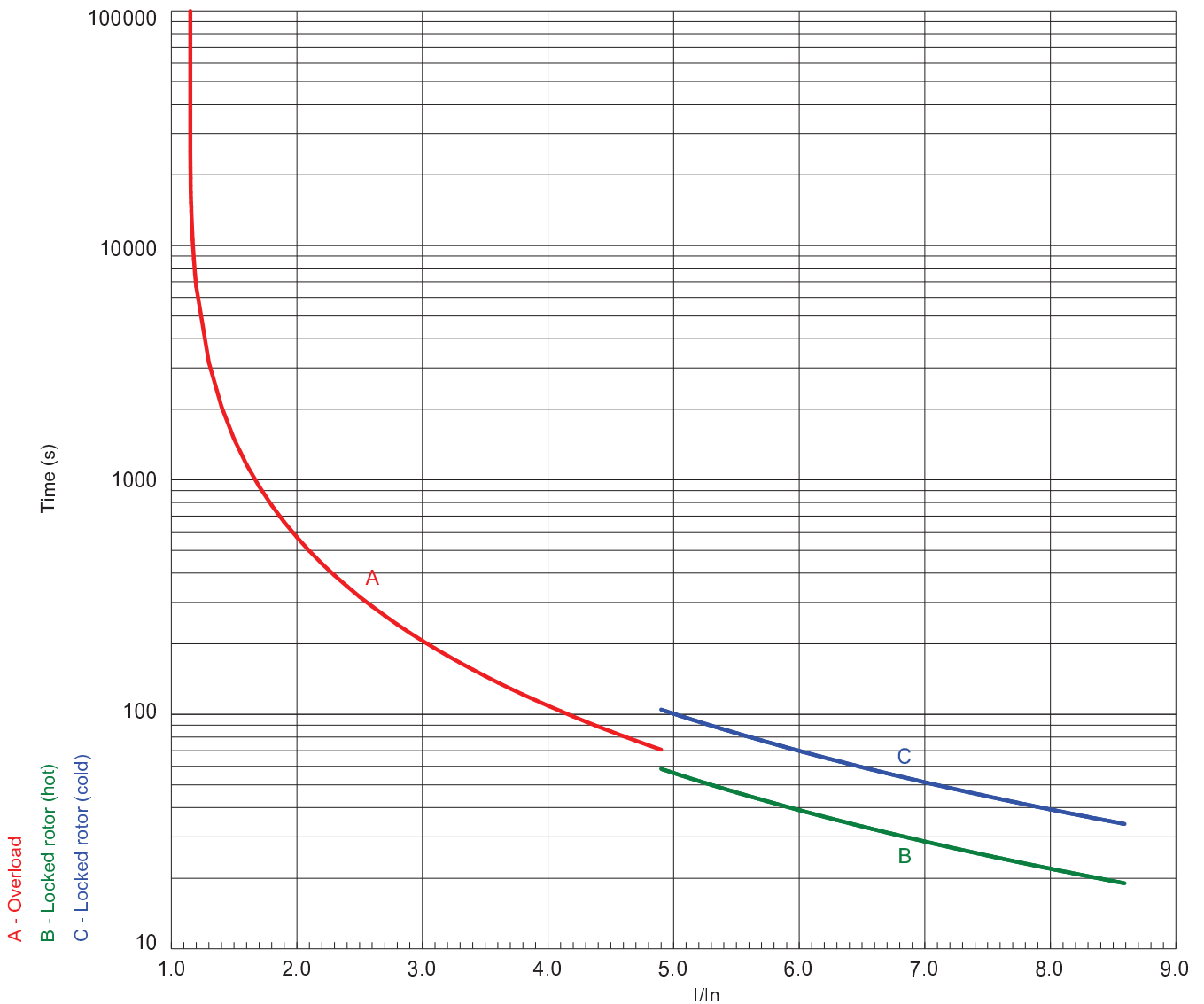


## Three Phase Induction Motor - Squirrel Cage

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	