



Toase-ehe Park Sanati Gohar Ofogh
Petrochemical Co.
**CONCEPTUAL, BASIC and DETAIL DESIGN
ENGINEERING OF STYRENE PARK OFFSITE**



Document Title: Electrical Motor Data Sheet

Document No.: EI027-DMF-VD-EL-DSH-017-R4

Rev. R4

Page 1 of 3

STYRENE PARK OFFSITE

Document Title: Electrical Motor Data Sheet

R4	24-11-2024	IFA	F.Aghaienezhad	J.Beigloo	A.Gholizadeh
R3	06-11-2024	IFA	F.Aghaienezhad	J.Beigloo	A.Gholizadeh
R2	06-10-2024	IFA	F.Aghaienezhad	J.Beigloo	A.Gholizadeh
R1	11-08-2024	IFA	F.Aghaienezhad	J.Beigloo	A.Gholizadeh
R0	22-06-2024	IFA	F.Aghaienezhad	J.Beigloo	A.Gholizadeh
Rev.	Issued Date	DESCRIPTION	PREPARED	CHECKED	APPROVED

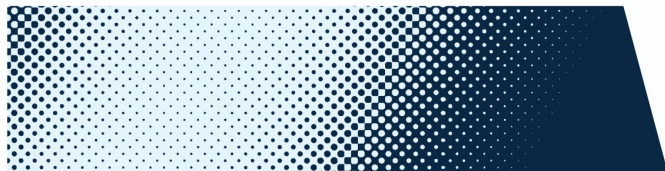
 	Toase-eh Park Sanati Gohar Ofogh Petrochemical Co. CONCEPTUAL, BASIC and DETAIL DESIGN ENGINEERING OF STYRENE PARK OFFSITE		 	
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	Document No.: EI027-DMF-VD-EL-DSH-017-R4		Rev. R4	Page 2 of 3

REVISION RECORD SHEET

Page Page	Revisions							Page	Revisions						
	R0	R1	R2	R3	R4	R5	R6		R0	R1	R2	R3	R4	R5	R6
1	X	X	X	X	X			41							
2	X	X	X	X	X			42							
3	X	X	X	X	X			43							
4		X	X					44							
5		X	X					45							
6		X	X					46							
7		X	X					47							
8		X	X					48							
9		X	X					49							
10		X	X					50							
11		X						51							
12		X						52							
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	Document No.: EI027-DMF-VD-EL-DSH-017-R4		Rev. R4	Page 3 of 3

MOTOR BASIC DATA (1158)		
INSTALLATION SITE		
QUANTITY/ Tag number	4/ RU0001A-M-02, RU0001A-M-03, RU0001B-M-02, RU0001B-M-03	
BRAND-MODEL	Marathon- E3ABL	
RATED POWER	7.5 kw	
SUPPLY VOLTS	400±5%	
FREQUENCY	50±2%	
NUMBER OF POLE	4	
WINDING CONNECTIONS/ROTATION	Delta	
COUPLING TYPE	V-Belt(Belt & Pulley)	
NOMIAL SPEED	1500 rpm	
DUTY CATEGORY	S1	
INVERTER DUTY	YES	
ALTITUDE	20 m	
AMBIENT TEMPRATURE MIN/MAX	5/48 C	
RELATIVE HUMIDITY (RH)	65%	
STARTING METHOD	2-DOL /2-VFD	
CABLE GLAND SUPLIED	YES	
DIRECTION OR ROTATION	Both	
ISULATION CLASS/TEMP. RISE	F/B	
COOLING	(IC 411)	
AREA CLASSIFICATION	Ex db IIB T4	
WINDING TEMPERATURE . DETECTORS (PTC RELAY)	N.A	
ANTI-CONDANATION HEATER (SPACE HEATER)	N.A	
MOUNTING (TYPE OF INSTALATION)	IMV3	
PROTECTION DEGREE FOR MOTOR/FOR TERMINAL BOX	IP55//IP55	
ROTOR CAGE MATERIAL (AL)	CAST IRON	
PAINT SYSTEM	STANDARD COLOR-RAL (5015)	
CABLE TYPE AND SIZE (FEEDER CABLE BY CLIENT)	MAIN	18~21 mm
	HEATER	N.A
	PTC	N.A
THERED (GLAND) ENTRY	MAIN	2XM32
	HEATER	N.A
	PTC	N.A
EARTH TERMINALS	IN & EXT	
MAX NOISE LEVEL (AT ONE METER)	< 85	
LIFTING DEVICE	YES	
DRAIN PLUGS	NO	
NO OF PHASE	3	
IE (EFFICIENCY CLASS)	IE=3	
PF (COS &)	0.84	
TYPE TEST	NO	
MOTOR SUITABLE FOR VCDs (Y/N)	NO	
CURVE & OUTLINE & COMPLETE CATALOUGE (Y/N)	YES	



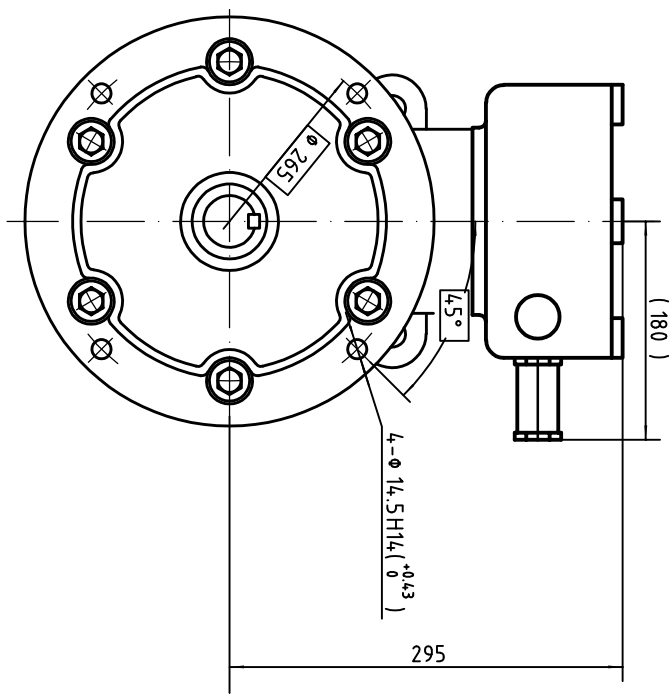
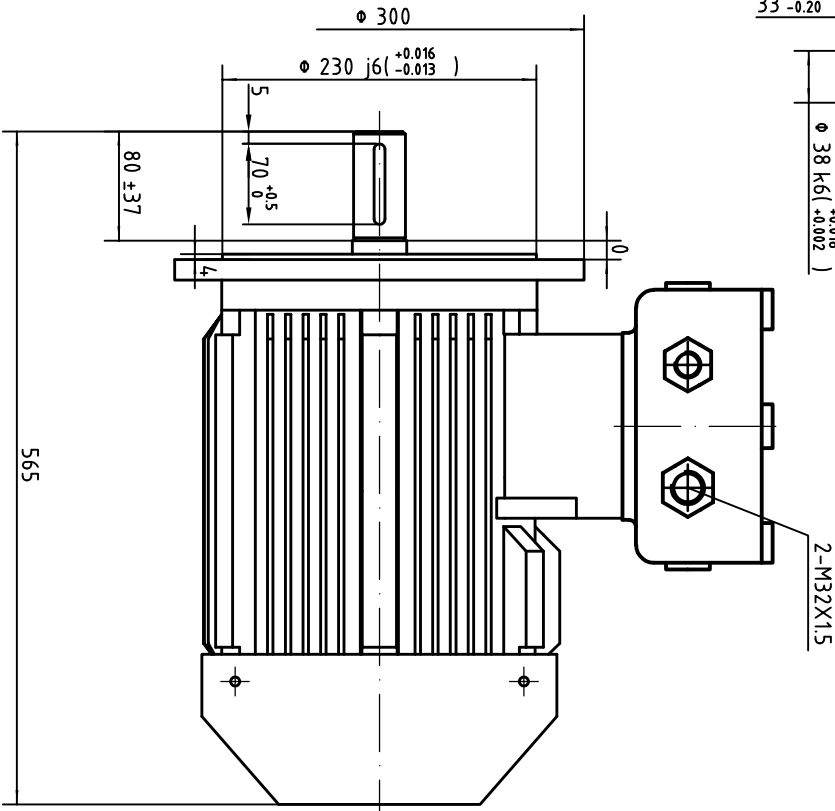
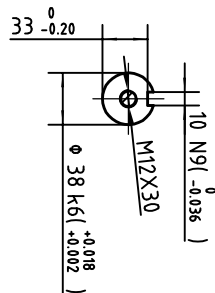
Accreditation (National)	IEC 60079
Hazardous Classification	Ex db IIB T4
Series Model Type	E3ABL
Frame Size	132M
Rated Output Power	7.5 kW
Rated Speed	1465 r/min
Number of Poles	4 Pole
Number of Phases	3 Phase
Voltage	400 V
Frequency	50 Hz
Duty Cycle	S1
Service Factor	1.00
Operating Altitude	1000 masl
Insulation Class	F (155°C)
Temperature Rise	80K (B class)
Ambient Temperature	-15°C ~ 50°C
Method of Cooling	IC411 (TEFC - Totally Enclosed Fan Cooled)
Degree of Protection (Ingress Level)	IP55
Material of Construction	Cast Iron
Connection	Δ/Y
Full Load Current [I _N]	14.43
Locked Rotor Current [I _L / I _N]	7.50
Full Load Torque [T _N]	48.89 Nm
Locked Rotor Torque [T _L / T _N]	2.0
Breakdown Torque [T _B / T _N]	2.3
Efficiency Class	IE3
Load	
Efficiency	
Power Factor (cos φ)	
Bearing Configuration (DE / NDE)	Ball Bearing / Ball Bearing
Bearing Series Type	DE: 6208-2Z/C3 NDE: 6208-2Z/C3
Bearing Lubrication Type	Grease - ESSO UNIREX N2
Vibration	1.6 mm/sec
Moment of inertia (kg.m²)	0.0488
Direction of Rotation	CW or CCW
Sound Pressure Level	75 dB(A)
Final Colour	RAL 5010
Paint Specification	2 Pack Epoxy
Mounting Options	B5 /V3
Terminal Box Position	Top Terminal Box

4

3

2

1



Note: Cable Gland not Included

DRAWING REVISION		REVISION BY	DATE
ECO		APPROVED BY	DATE
ECO DESCRIPTION			
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DRAWN BY		DATE	
APPROVED BY		DATE	
REFERENCE		MATERIAL	
FIRST ANGLE PROJECTION		SIZE	
B		DRAWING NUMBER	
E3ABL 132M B5		PROCESS/FINISH	
SHEET		SHEET	

4

3

2

1

TORQUE/CURRENT-SPEED DIAGRAM

Motore / Motor

Potenza nominale / Rated power

7.50

kW

Poli / Pole

4

Tensione - Frequenza / Voltage - Frequency

400 - 50

V - Hz

Corrente / Rated current

14.43

A

Velocità / Speed

1462

rpm

Coppia / Torque

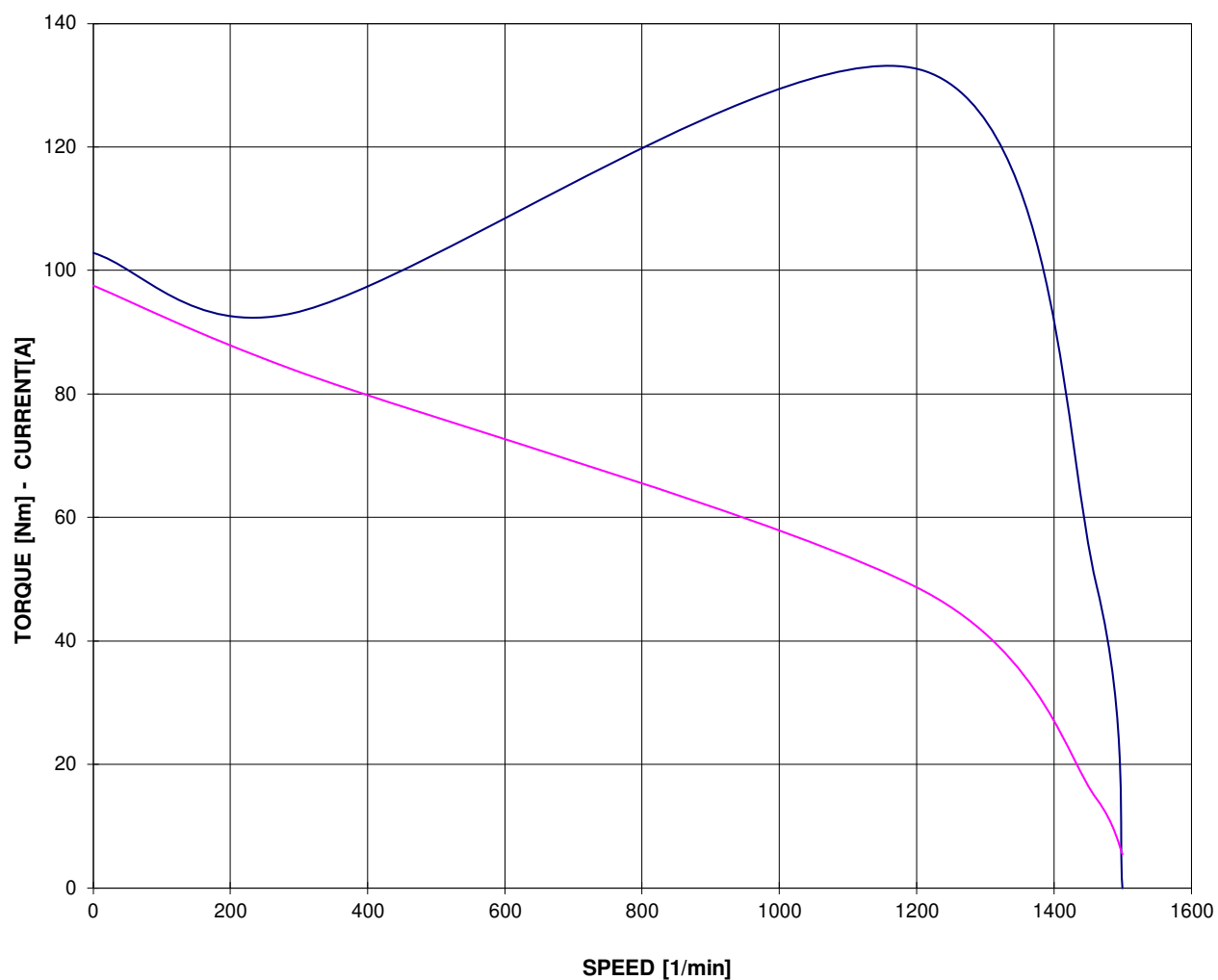
48.99

Nm

E3ABL 132M 4

— COPPIA - TORQUE

— CORRENTE - CURRENT



Data obtained by calculation method

TORQUE/CURRENT-SPEED DIAGRAM (Reduced voltage)

Motore / Motor

Potenza nominale / Rated power

7.50

kW

Poli / Pole

4

Tensione - Frequenza / Voltage - Frequency

400 - 50

V - Hz

Corrente / Rated current

14.43

A

Velocità / Speed

1462

rpm

Coppia / Torque

48.99

Nm

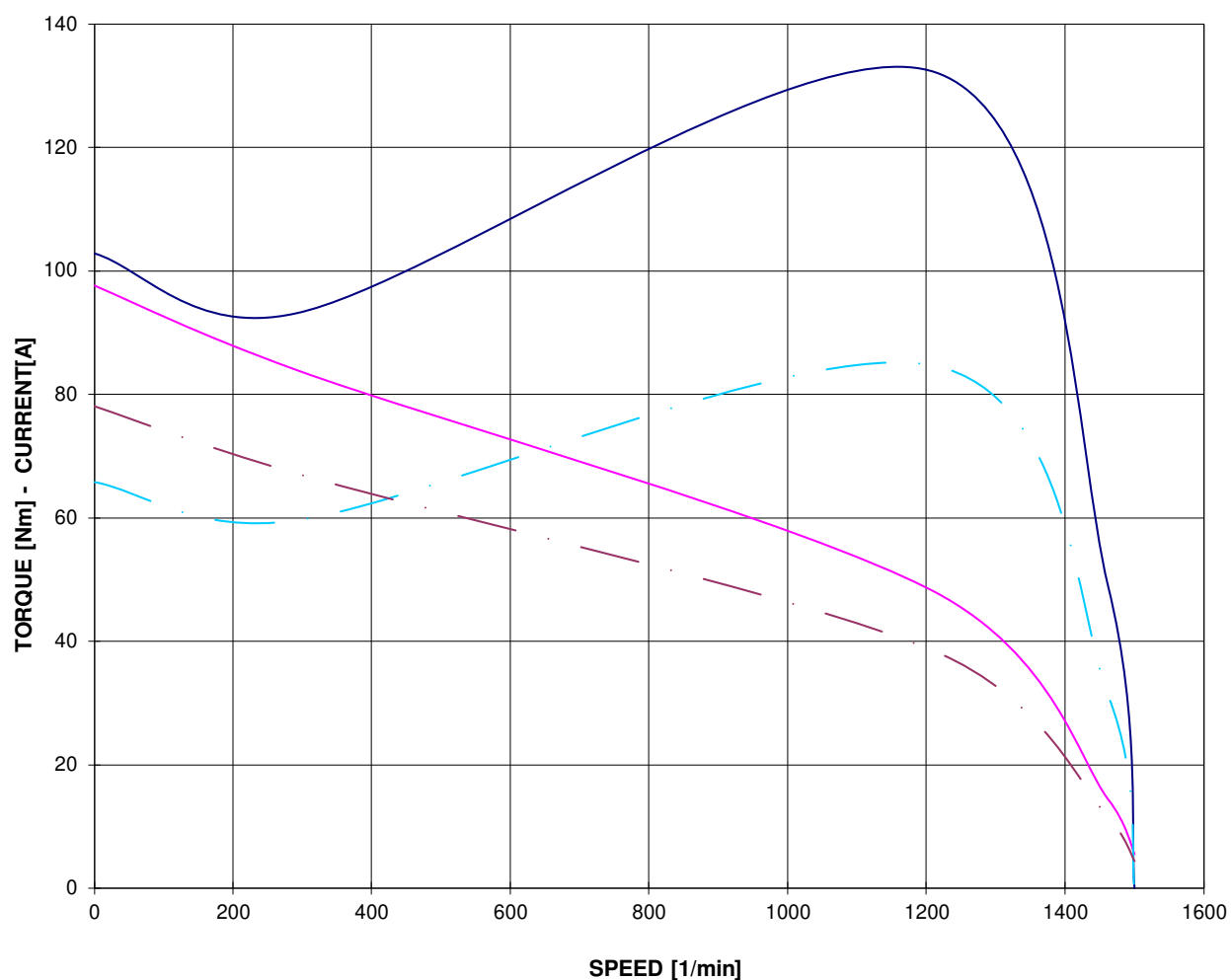
E3ABL 132M 4

— COPPIA - TORQUE

— CORRENTE - CURRENT

— COPPIA - TORQUE 80% Un

— CORRENTE - CURRENT 80% Un



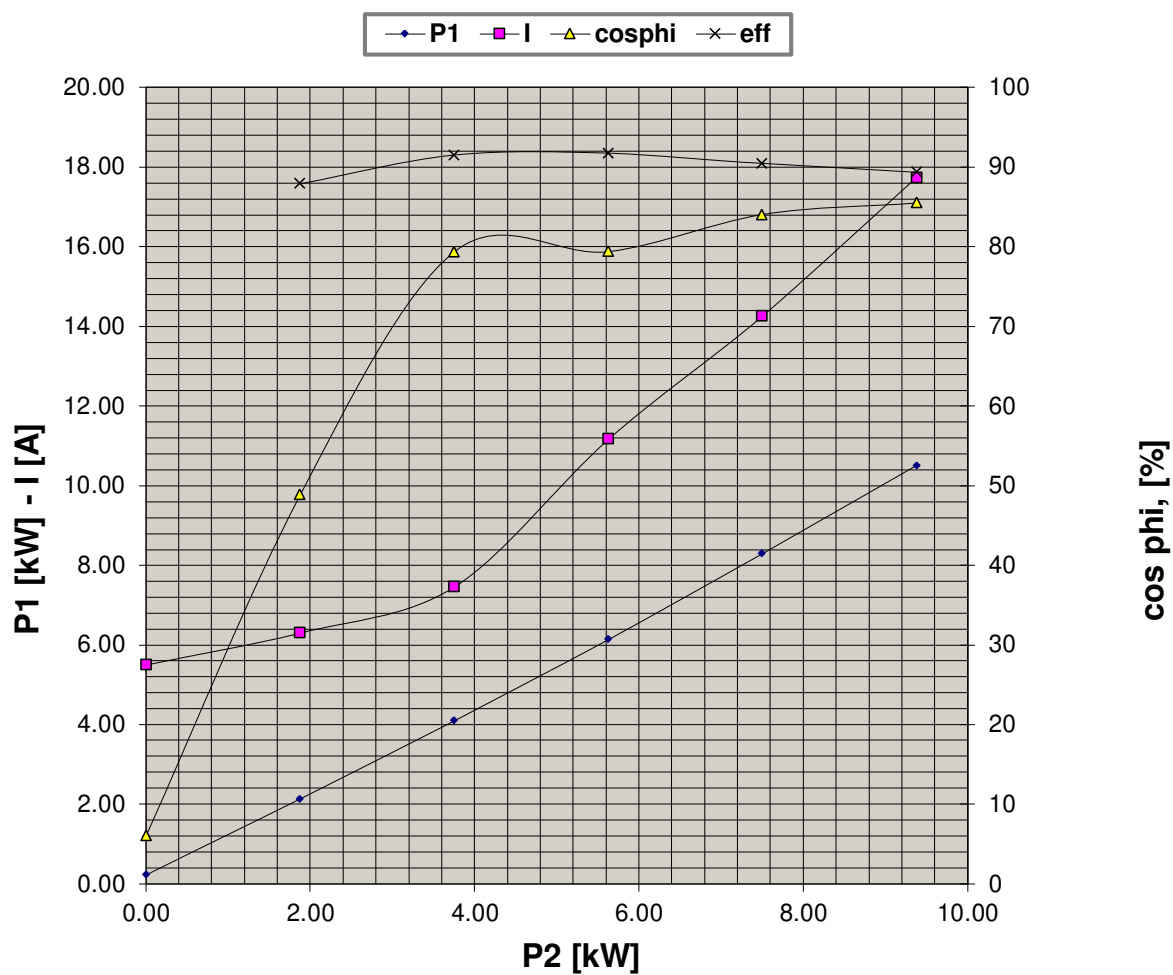
Data obtained by calculation method

PERFORMANCE CURVES

Motore / Motor

E3ABL 132M 4

Potenza nominale / Rated power	7.50	kW
Poli / Pole	4	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	14.43	A
Velocità / Speed	1462	rpm
Coppia / Torque	48.99	Nm



Data obtained by calculation method

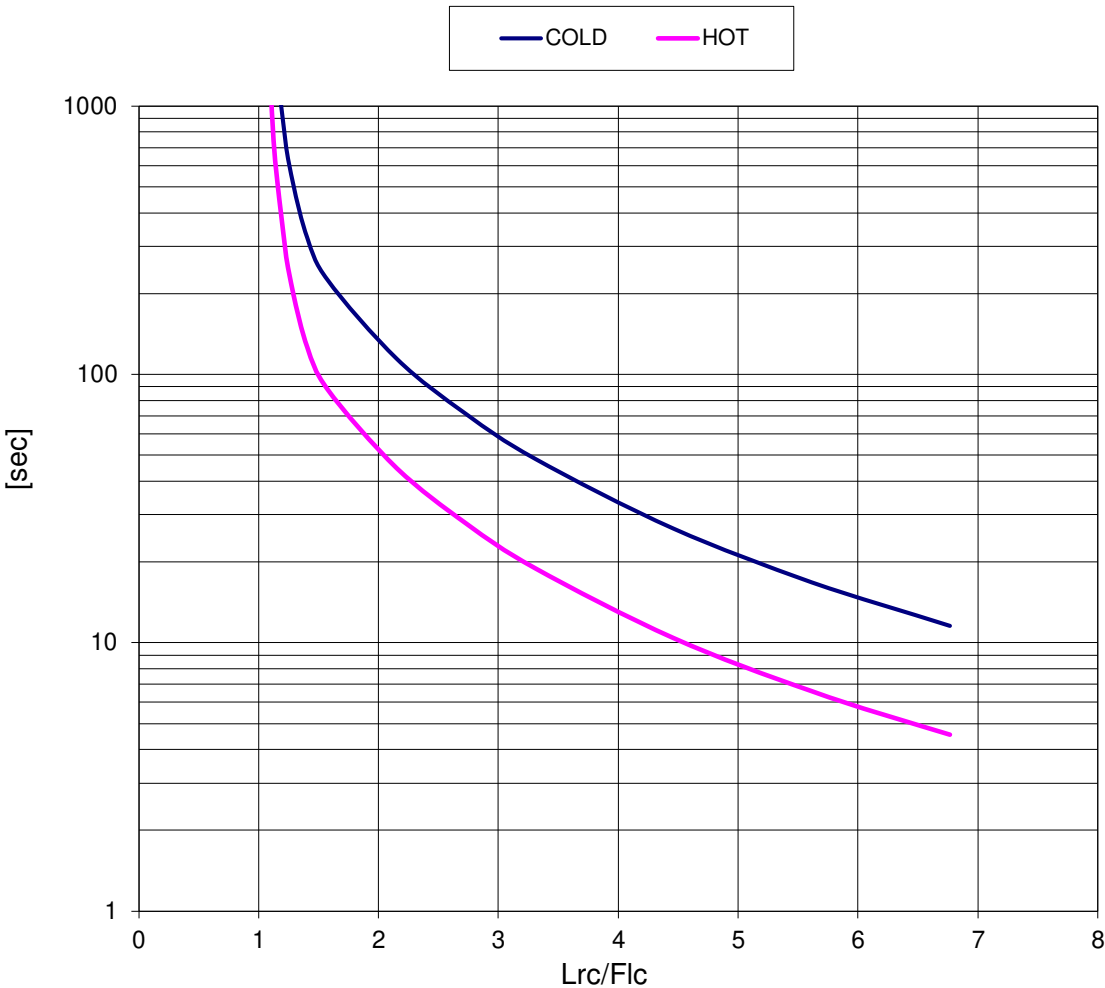
THERMAL WITHSTAND CURVE

Cliente / Customer 0

Impianto / Plant -
ITEM -

Numero d'offerta / Offer Number 2024
-

Motore / Motor	E3ABL 132M 4	
Potenza nominale / Rated power	7.50	kW
Poli / Pole	4	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	14.43	A
Velocità / Speed	1462	rpm
Coppia / Torque	48.99	Nm

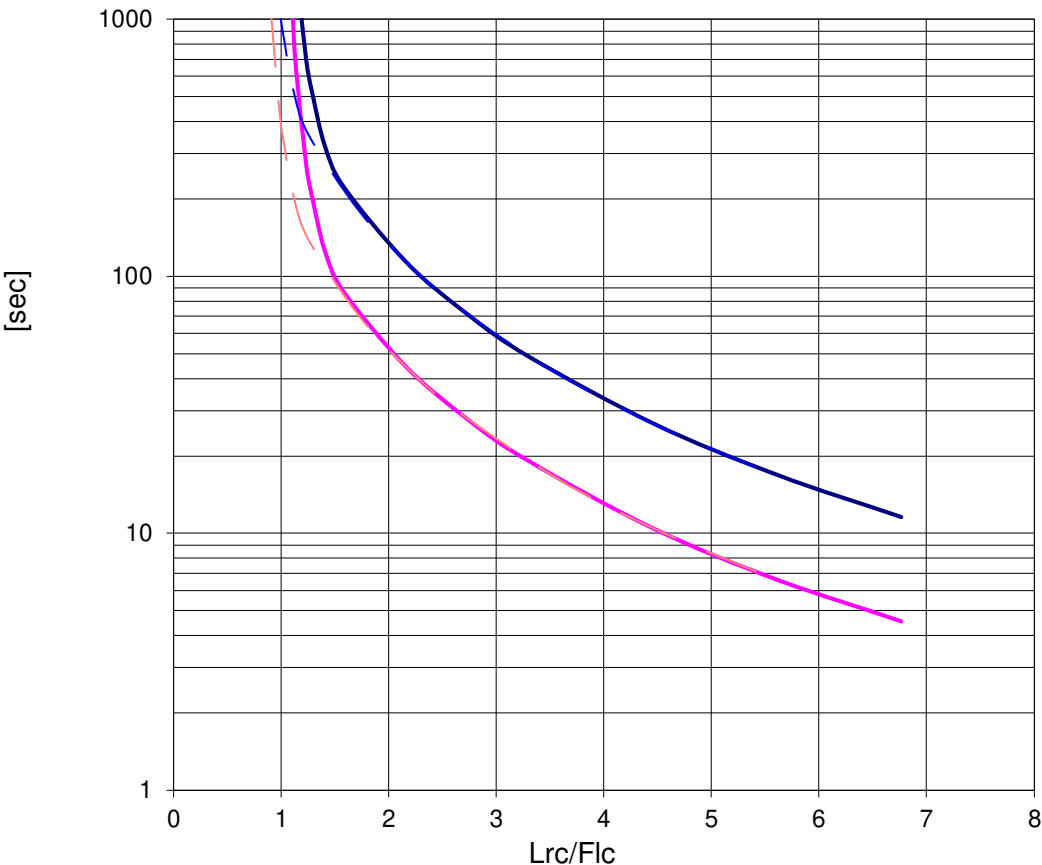


Data obtained by calculation method

THERMAL WITHSTAND CURVE (Reduced voltage)

Motore / Motor	E3ABL 132M 4	
Potenza nominale / Rated power	7.50	kW
Poli / Pole	4	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	14.43	A
Velocità / Speed	1462	rpm
Coppia / Torque	48.99	Nm

— COLD (100% Un) — HOT (100% Un) — COLD (80% Un) — HOT (80% Un)



Data obtained by calculation method