



Toase-eh 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-R2

Rev. R2

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STYRENE PARK OFFSITE

**Document Title:
Electrical Motor Data Sheet**

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



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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					41							
2	X	X	X					42							
3	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							
13		X						53							
14		X						54							
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40								80							



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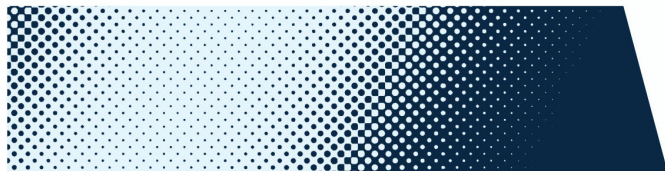
MOTOR BASIC DATA (1158)		
INSTALLATION SITE		
QUANTITY	4	
BRAND-MODEL	Marathon	
RATED POWER	7.5 kw	
SUPPLY VOLTS	400±5%	
FREQUENCY	50±2%	
NUMBER OF POLE	4	
WINDING CONNECTIONS/ROTATION	Delta	
COUPLING TYPE	V-Belt(Belt & Pulley)	
NOMIAL SPEED	1500 rpm	
DUTY CATEGORY	S1	
INVERTER DUTY	YES	
ALTITUDE	20 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	Exe IIB T3	
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=2 (MINIMUM)	
PF (COS &)	0.84	
TYPE TEST	NO	
MOTOR SUITABLE FOR VCDS (Y/N)	NO	
CURVE & OUTLINE & COMPLETE CATALOGUE (Y/N)	YES	

Tag numbers to be added:
1-RU0001A-M-02
2-RU0001A-M-03
3-RU0001B-M-02
4-RU0001B-M-02

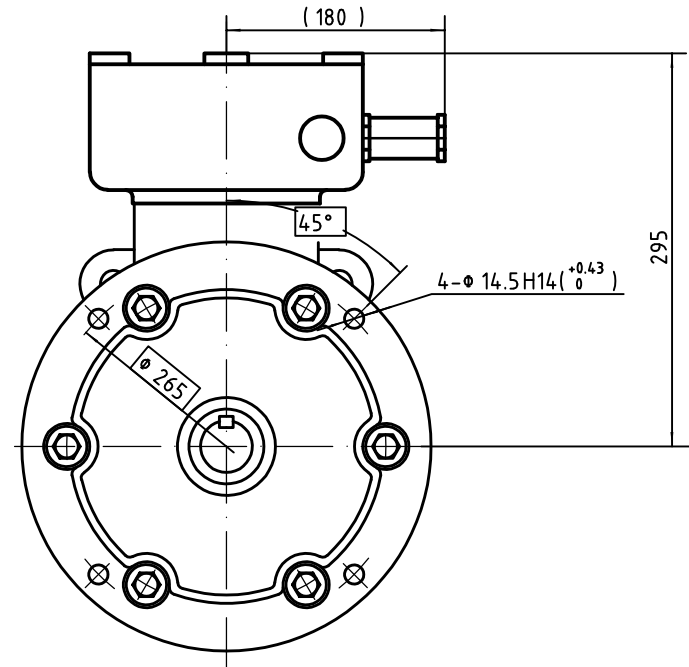
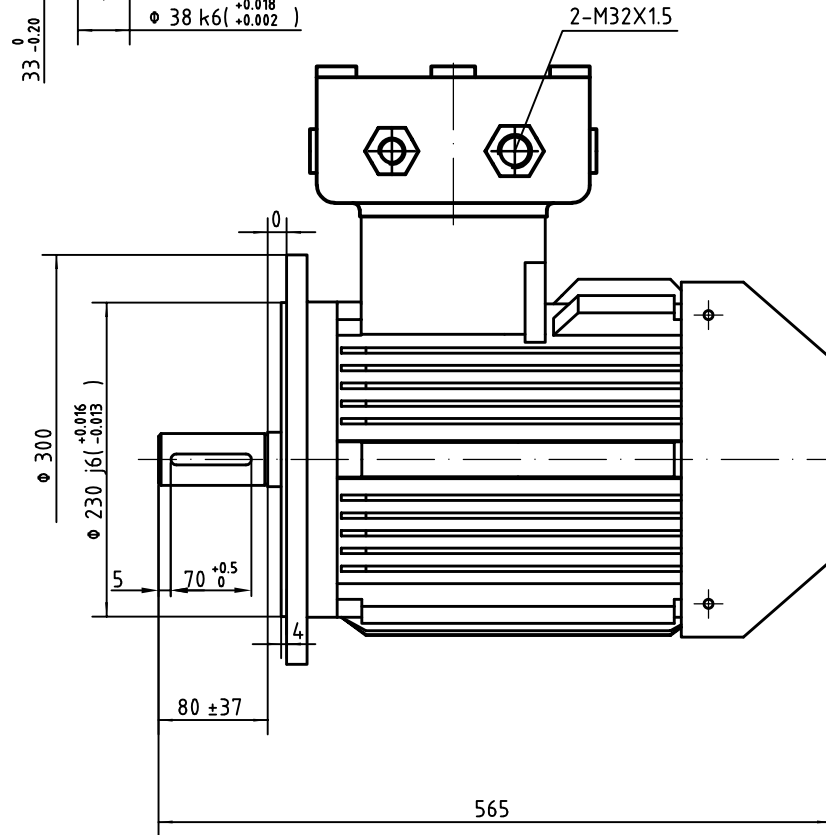
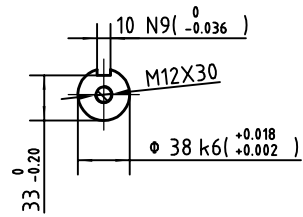
Ex db IIB T4

Please check the gland catalog, M32 generally match with cable OD 25~33 mm

IE=3



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	<table border="1"><thead><tr><th>100% load</th><th>75% load</th><th>50% load</th></tr></thead><tbody><tr><td>90.4%</td><td>90.3%</td><td>89.7%</td></tr><tr><td>0.84</td><td>0.79</td><td>0.69</td></tr></tbody></table>	100% load	75% load	50% load	90.4%	90.3%	89.7%	0.84	0.79	0.69
100% load	75% load	50% load								
90.4%	90.3%	89.7%								
0.84	0.79	0.69								
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									



Note: Cable Gland not Included

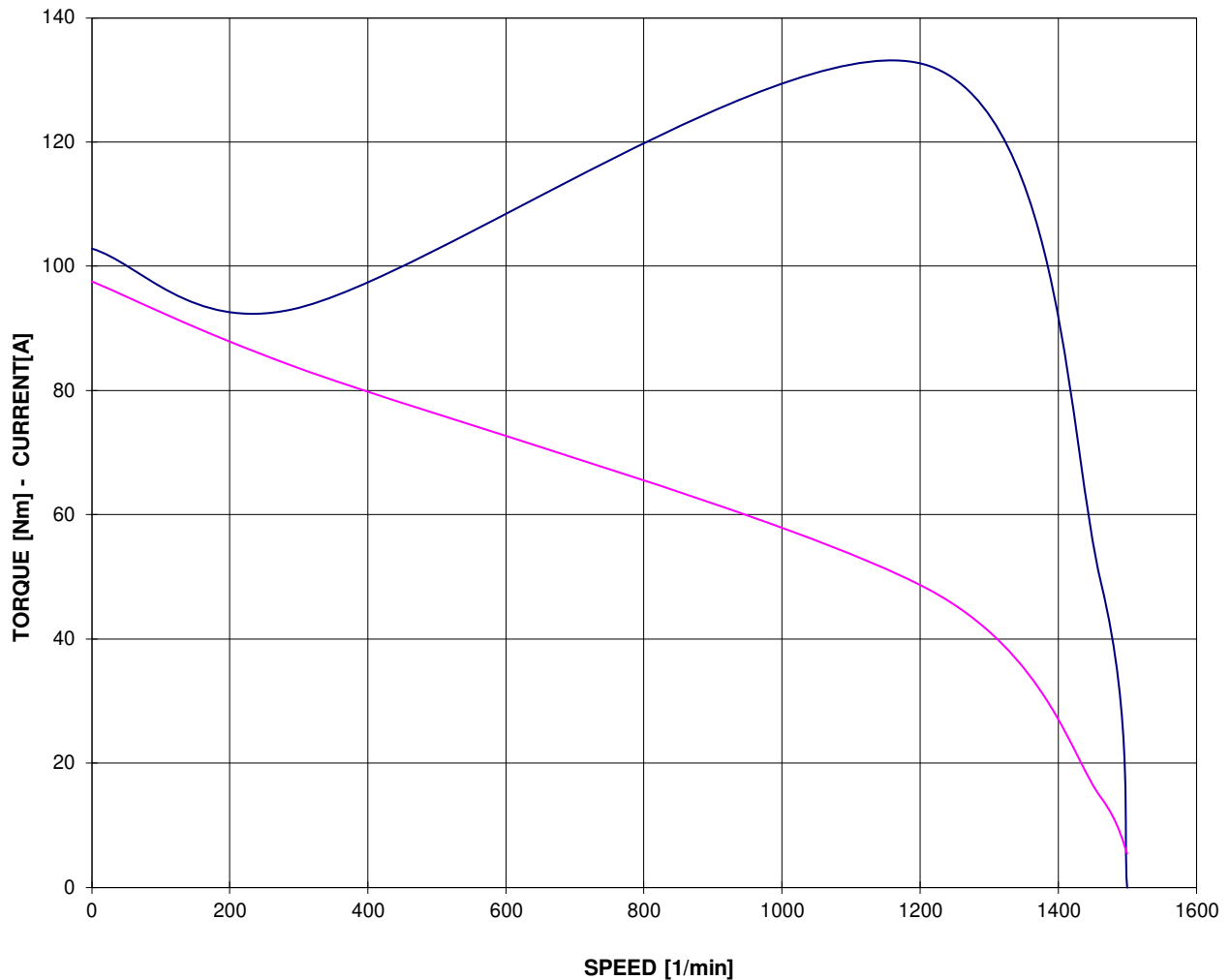
DRAWING REVISION	REVISION BY	DATE		DRAWN BY	
ECD	APPROVED BY	DATE		DATE	
ECD DESCRIPTION				APPROVED BY	
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			REFERENCE	MATERIAL	PROCESS/FINISH
FIRST ANGLE PROJECTION		SIZE B	DRAWING NUMBER	SHEET	

E3ABL 132M B5

TORQUE/CURRENT-SPEED DIAGRAM

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

— COPPIA - TORQUE — CORRENTE - CURRENT

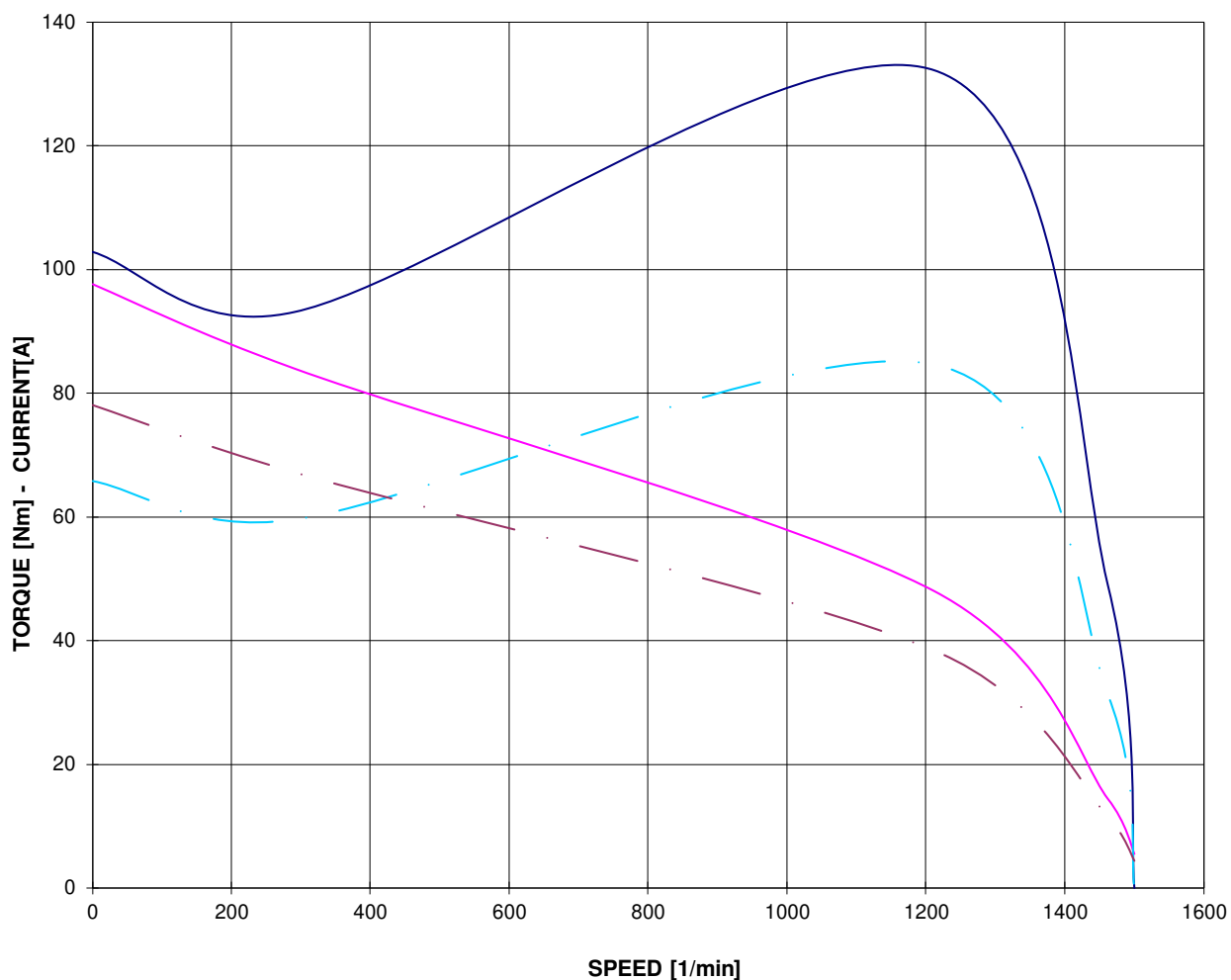


Data obtained by calculation method

TORQUE/CURRENT-SPEED DIAGRAM (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

— COPPIA - TORQUE — CORRENTE - CURRENT
— COPPIA - TORQUE 80% Un — CORRENTE - CURRENT 80% Un



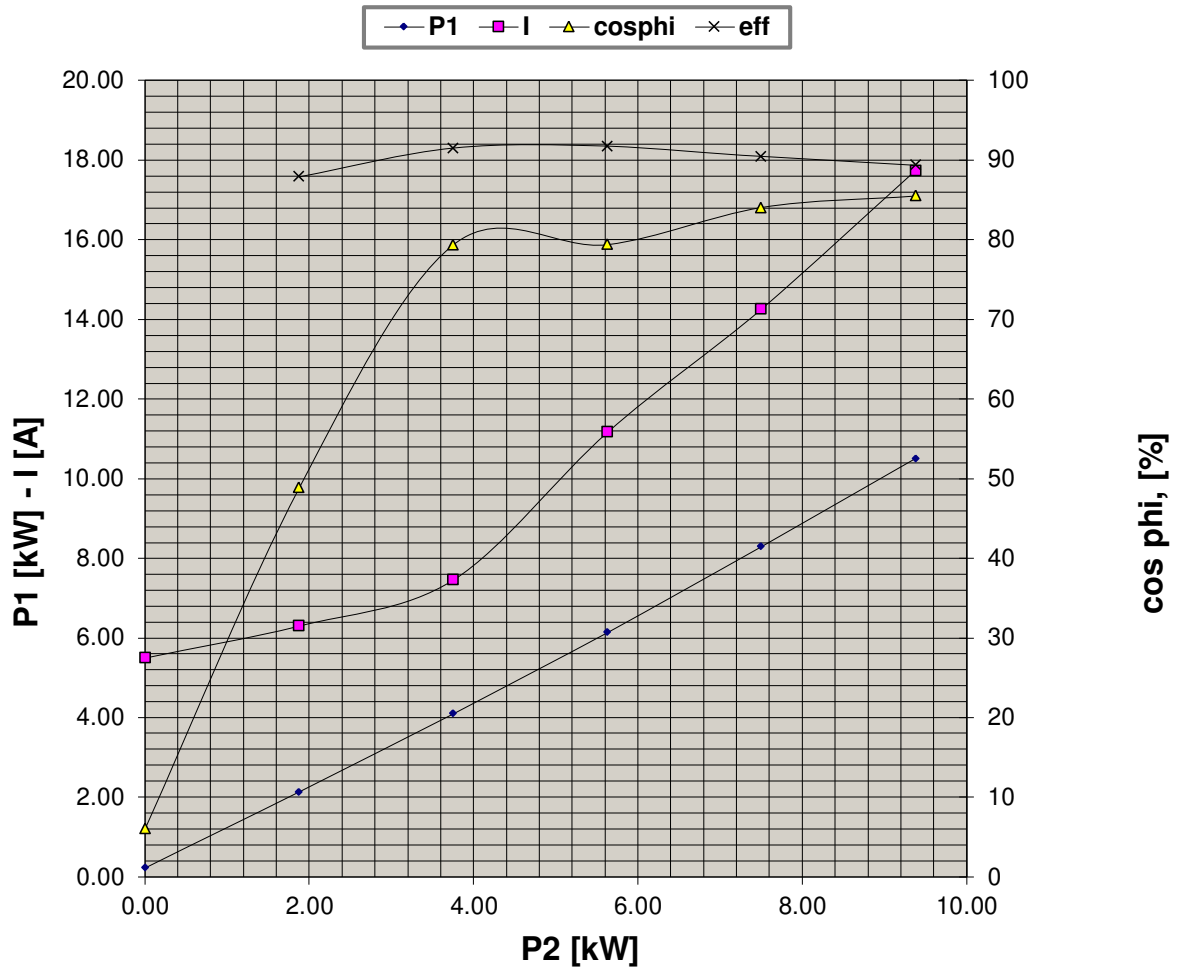
Data obtained by calculation method

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

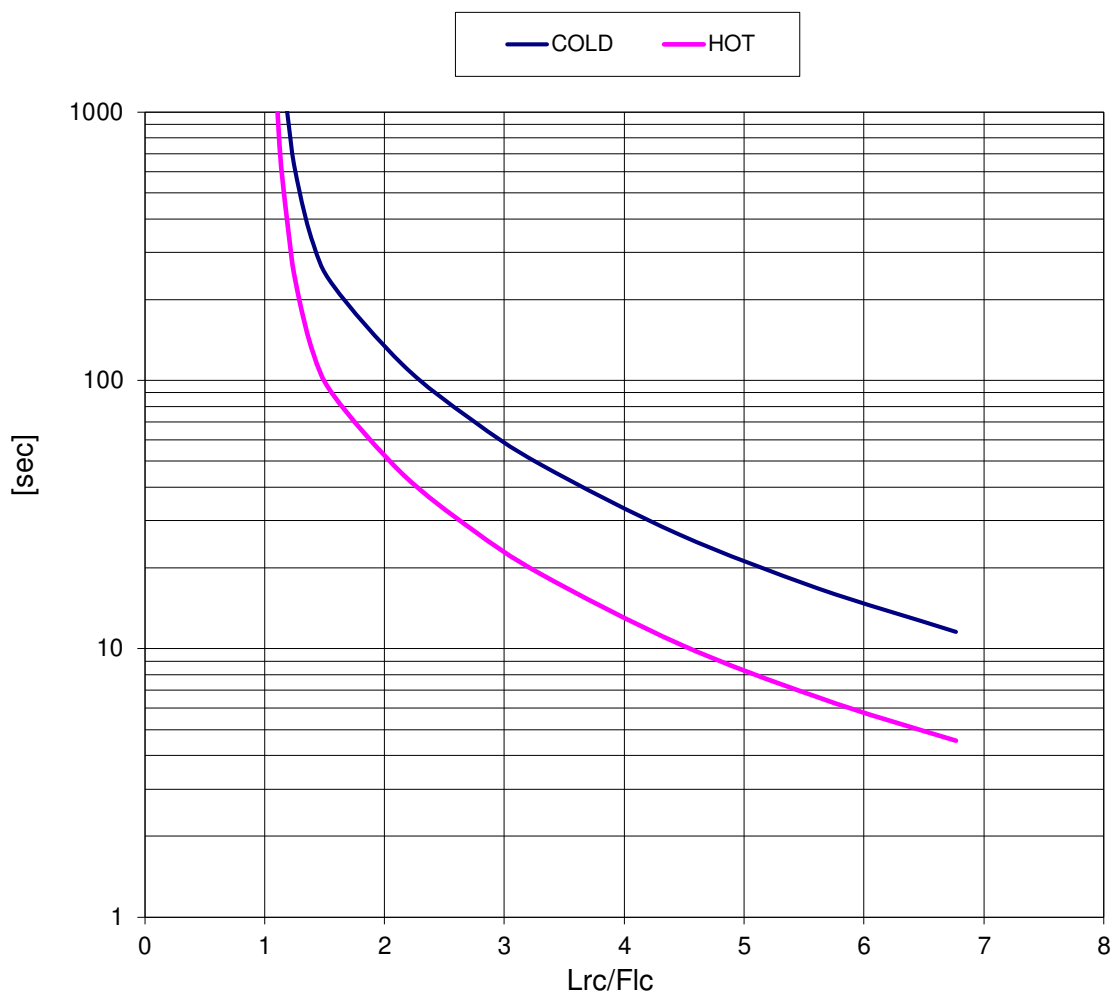
THERMAL WITHSTAND CURVE

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

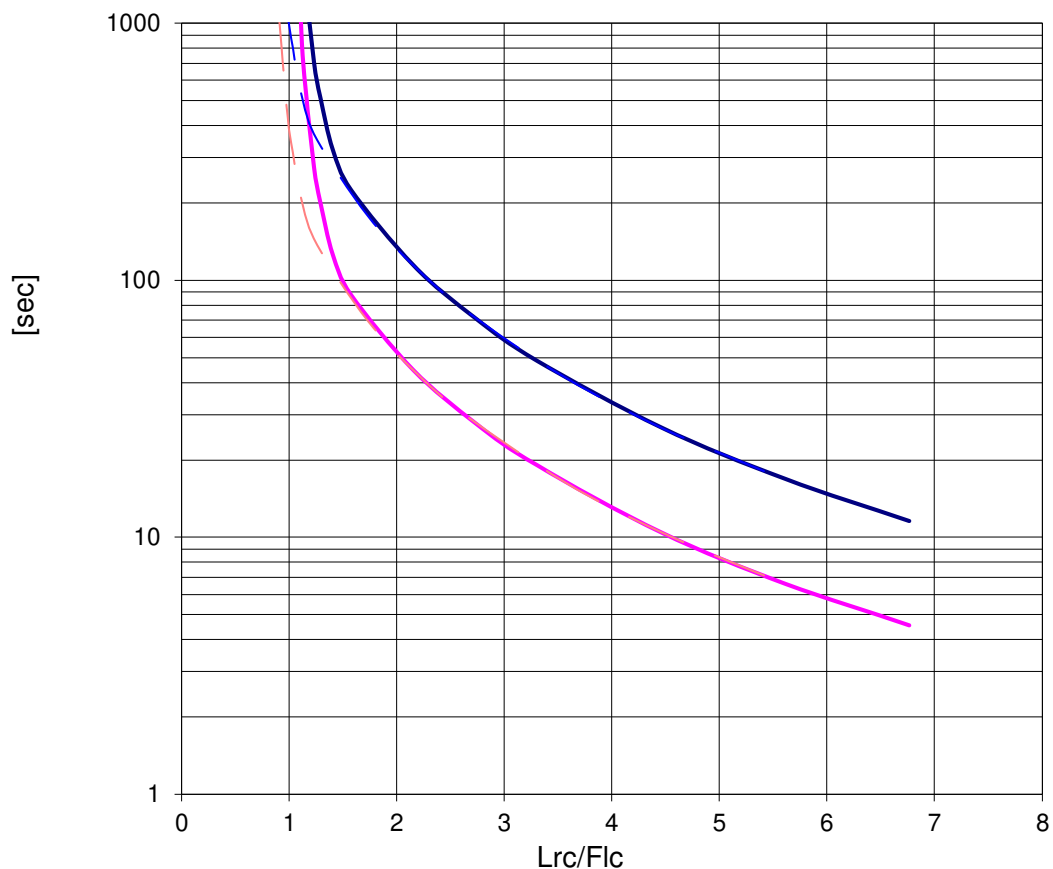


Data obtained by calculation method

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