





26 از 1: شماره صفحه

خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد 30-BK-HD-GCS-CO)

شماره پیمان:

· 24 - · 74 - 4116

DATASHEET (W/DRAWING) FOR AUXILIARY MOTORS								
پروژه	بسته کاری	صادركننده	تسهيلات	رشته	نوع مدرک	سريال	نسخه	
BK	GCS	HY	120	EL	DS	0002	V00	

طرح نگهداشت و افزایش تولید ۲۷ مخزن

DATASHEET (W/DRAWING) FOR AUXILIARY MOTORS

نگهداشت و افزایش تولید میدان نفتی بینک

Rev.	Date	Purpose of Issue/Status	Prepared by:	Checked by:	Approved by:	CLIENT Approval
V00	Jul. 2023	IFR	Havayar Co	M.Fakharian	A.M.Mohseni	

Class: 2

Status:

IFA: Issued for Approval (For Docs. with Class#1) IFR: Issued for Review (For Docs. with Class#2) IFI: Issued for Information (For Docs. with Class#3)

AFC: Approved for Construction







خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد BK-HD-GCS-CO-0008_03)

 نسخه
 سریال
 نوع مدر ک
 رشته
 تسهیلات
 صادر کننده
 بسته کاری
 پروژه

 BK
 GCS
 HY
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 EL
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 V00

26 از 2:شماره صفحه

REVISION RECORD SHEET

PAGE	V00	V01	V02	V03	V04
1	Х				
2	X				
3	X				
<u>4</u> 5	X				
6	X				
7	X				
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10 11	X				
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خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد BK-HD-GCS-CO-0008_03)

شماره پیمان:

.04 - . 14 - 4114

DATASHEET (W/DRAWING) FOR AUXILIARY MOTORS									
پروژه	بسته کاری	صادركننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه		
BK	GCS	HY	120	EL	DS	0002	V00		

26 از 3: شماره صفحه

LUBRICATOR MOTOR







خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد BK-HD-GCS-CO-0008_03)

شماره پیمان:

· ۵۳ - · ۷۳ - 9118

DATASHEET (W/DRAWING) FOR AUXILIARY MOTORS								
پروژه	بسته کاری	صادركننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه	
BK	GCS	HY	120	EL	DS	0002	V00	

26 از 4:شماره صفحه

	Data Sl	neets for LV Induction Motors			
Item	Category	Required Specification	Vendor Data		
1	Driven Machine	Electrical Motor	Electrical Motor		
2	Driven Machine Tag No.	-	-		
3	Manufacturer	By Vendor	HYOSUNG		
4	Manufacturer's Number / Type	By Vendor	N/A		
5	Manufacturing Standard	IEC 60034 & IPS-M-EL-131(2)	IEC 60034 & IPS-M-EL-131(2)		
6	Location	[X] Outdoor (Under Shelter) [] Indoor	Outdoor		
7	Area Classification	Acc. to requisition data			
8	Ambient Temperature	5 to +55°C	5 to +50°C		
9	Relative Humidity	100 %	100		
10	Dust	[X] Yes [] No	Yes		
11	Corrosion	[X] Yes [] No	Yes		
12	Elevation	12.5m Above Sea Level	12.5m Above Sea Level		
13	Quantity	Acc. To Load List (BK-GCS-PEDCO-120-EL-LI-0001)	3		
14	Tag Number	Acc. To Load List (BK-GCS-PEDCO-120-EL-LI-0001)	N/A		
15	Motor Type	Asynchronous, Squirrel Cage	Asynchronous, Squirrel Cage		
16	Mounting	[] Horizontal [] Vertical	Vertical		
17	Rotor Construction	[] Brazed Copper Bars [] Aluminum Die Cast	Aluminum Die Cast		
18	Frame Material	Steel Sheet or Cast Iron	Cast Iron		
19	Rotor Cage Material	By Vendor	Steel		
20	Cooling Method	IC411 According to IPS-M-EL-131(2)	IC411		
21	Ingress Protection Degree for Motor	IP 54	IP 55		
22	Ingress Protection Degree for Terminal Box	IP 55	IP 55		
23	Explosion Protection of Motor	N/A for Safe Area Zone 2, IIB, T3	Ex db llB T4 Gb		
24	Explosion Protection of Terminal Box	N/A for Safe Area Zone 2, IIB, T3	Ex db llB T4 Gb		
25	Ex. Certificate Authority/Certificate No.	By Vendor	N/A		
26	Driven Machine Shaft Power Requirement (Pmp)	As Per Related Mechanical Data sheet (to be Specified by Vendor)	N/A		
27	De-Rating Factor due to Ambient Temperature (Kt)	Vendor Shall Advise	N/A		
28	De-Rating Factor Due to Altitude (${ m K}_a$)	1	N/A		
29	Design margin (Km)	Acc. to IPS Standard (Note 1)	N/A		







خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد BK-HD-GCS-CO-0008_03)

DATASHEET (W/DRAWING) FOR AUXILIARY MOTORS

• ۵۳ - • ۷۳ - 9 ۱ ۸۴

DATASHEET (WIDRAWING) FOR AUXILIANT MOTORS								
پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سر يال	نسخه	
BK	GCS	HY	120	EL	DS	0002	V00	

26 از 5: شماره صفحه

	Data Sheets for LV Induction Motors								
Item	Category	Required Specification	Vendor Data						
30	Motor Shaft Power Requirement @ Site condition (=Km X Pmp)	By Vendor	Not Motor Vendor scop						
31	Standard Rated Motor Output =Km X Pmp (Ka Kt)	By Vendor	Not Motor Vendor scop						
32	Frame Size	By Vendor	80M						
33	Frame Earth Boss	External	M6						
34	Rated Voltage	400 V ±10%	400 V ±10%						
35	Rated Frequency	50 Hz ±5%	50 Hz ±5%						
36	Protection Devices	Switch-Fuse							
37	Neutral Earthing System	TNS							
38	Voltage During Motor Start	80% Un	80% Un						
39	Synchronous Speed	By Vendor	1500						
40	Full Load Speed [RPM]	By Vendor	1440						
41	Over Speed Capability	By Vendor	150%						
42	Number of Poles	By Vendor	4						
43	Starting Method	Direct on Line	Direct on Line						
44	Direction of Rotation (Viewed from coupling end)	Shall be Proposed by MFR Based on Driven Load Rotation of Direction	[] CW [] CCW [] Unidirectional [X] Bidirectional						
45	Stator Winding Connection	Delta	Delta						
46	Location of Terminal Box (Viewed from DE)	[]Right []Left	Left						
47	Insulation Class	Class F	Class F						
48	Class of Temperature Rise	Class B	Class B						
49	Max. Permissible Starting Time [s]	By Vendor	17s						
50	Accelerating Time DOL starting, at 100% \mathbf{U}_{n} [s]	By Vendor	load torque curve be needed						
51	Accelerating Time DOL starting, at 80% U _n [s]	By Vendor	load torque curve be needed						
52	Starting Torque at 100% U n [N.m]	By Vendor	4.4						
53	Starting Torque at 80% Un [N.m]	By Vendor	2.8						
54	Maximum Torque [N.m]	By Vendor	5.7						
55	Pull-Up Torque	By Vendor	4						
56	Locked Rotor Torque	By Vendor	4.4						
57	Rated Torque [N.m]	By Vendor	2.6						
58	Rated Current [A]	By Vendor	1						







خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد BK-HD-GCS-CO-0008_03)

DATASHEET (W/DRAWING) FOR AUXILIARY MOTORS

.04-.44-9174

	DATACILLI (WEKAWING) FOR ACKLEART MOTORS									
پروژه	بسته کاری	صادركننده	تسهيلات	رشته	نوع مدرک	سريال	نسخه			
BK	GCS	HY	120	EL	DS	0002	V00			

26 از 6: شماره صفحه

Data Sheets for LV Induction Motors									
Item	Category	Required Specification	Vendor Data						
59	Max Starting Current	By Vendor	6						
60	No Load Current [A]	By Vendor	0.5						
61	Locked Rotor Current [A]	<71 n	600%						
62	Locked Rotor Power Factor [A]	By Vendor	62.30%						
63	Torque-Speed Class	Shall be Selected Based on Driven Load Torque Requirement	[]A [v]B []C []D						
64	Duty Cycle	S1	S1						
65	Current at ½ Rated Load	By Vendor	0.6						
66	Current at ¾ Rated load	By Vendor	0.8						
67	Current at Rated Load	By Vendor	1						
68	Starting Power Factor	By Vendor	62.30%						
69	Power Factor at ½ Rated Load	By Vendor	60						
70	Power Factor at ¾ Rated load	By Vendor	70						
71	Power Factor at Rated Load	By Vendor	75						
72	Efficiency at ½ Rated Load	By Vendor	75						
73	Efficiency at 3/4 Rated Load	By Vendor	77						
74	Efficiency at Rated Load	By Vendor	78						
75	No Load Losses	By Vendor	26W						
76	Stall Time (Hot/Cold) (Sec)	By Vendor	17s / 24s						
77	Transient Reactance (X'd)	By Vendor							
78	Sub - Transient Reactance (X"d)	By Vendor							
79	Acceleration Time At 80% Un (Sec)	By Vendor							
	Bearing (DE)								
	Type (Detail Description by Vendor)	Anti Friction (Ball Bearing)	Anti Friction (Ball Bearing)						
	Manufacturer	By Vendor	Later						
	Minimum Life Without Load	Minimum 40000 Hours	Minimum 40000 Hours						
	Minimum Life With Load	Minimum 32000 Hours	Load info. Be needed						
	Lubrication	Grease	Grease						
	Cooling Water/ Oil Capacity	N/A	N/A						
6.0	Permissible Trust Force [N]	By Vendor	Later						
80	Bearing (NDE)								
81	Type (Detail Description by Vendor)	Anti friction (ball bearing)	Anti Friction (Ball Bearing)						
	Manufacturer	By Vendor	Later						







خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد BK-HD-GCS-CO-0008_03)

DATASHEET (W/DRAWING) FOR AUXILIARY MOTORS

.04 - . 14 - 9114

	Extracting to the state of the								
پروژه	بسته کاری	صادركننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه		
BK	GCS	HY	120	EL	DS	0002	V00		

26 از 7: شماره صفحه

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Item	Category	Required Specification	Vendor Data					
	Minimum Life Without Load	Minimum 40000 Hours	Minimum 40000 Hours					
	Minimum Life Without Load Minimum Life With Load Lubrication Cooling Water/ Oil Capacity Permissible Trust Force [N] Space Heater Space Heater Voltage [V] Space Heater Power [W] Temp. Detector (Winding/Bearing) Terminal Boxes Main Power Cable Specification & Size & Orientation Motor Weight (Net/Shipped) Rotor Moment of Inertia Method of Cable Entry Cable Gland Hub of Main Terminal Box Cable Gland Entry for aux. Terminal Box (if applicable) Short Circuit Capability of Terminal Box Sound Level at 1 distance meter From Motor Finish Color Load Torque/Slip, Current/Slip Curves Motor Torque/Slip, Current/Slip Curves Time - Current Heating (Thermal Limit) Curve Motor Thermal Capacity Data Installation, Operation & Maintenance Instruction Spare Parts List for Two Years Operation	Minimum 32000 Hours						
	Lubrication	Grease	Grease					
	Cooling Water/ Oil Capacity	N/A	N/A					
	Permissible Trust Force [N]	By Vendor	Later					
	Space Heater	Not Required	N/A					
	Space Heater Voltage [V]	230VAC, 50Hz, 1Ph	N/A					
	Space Heater Power [W]	By Vendor	N/A					
82	Temp. Detector (Winding/Bearing)	By Vendor	N/A					
83	Terminal Boxes	[X] Power Terminal Box [X] Space heater (if required)	Power Terminal Box					
84	Main Power Cable Specification & Size & Orientation	According to (BK-GCS-PEDCO-120-EL-CN-0003)	Not Motor Vendor scope					
85	Motor Weight (Net/Shipped)	By Vendor	34 kgf					
86	Rotor Moment of Inertia	By Vendor	0.048 kg-m2					
87	Method of Cable Entry	[X] Cable Gland [] Sealing Gasket	Cable Gland					
88	Cable Gland Hub of Main Terminal Box	By Vendor	1-M25x1.5					
89	Cable Gland Entry for aux. Terminal Box (if applicable)	1 X M25 (if Required)	N/A					
90	Short Circuit Capability of Terminal Box	30 kA for 0.2 S	N/A					
91	Sound Level at 1 distance meter From Motor	Max. 85 dB(A)	Max. 85 dB(A)					
92	Finish Color	Manufacturer Standard	RAL7047 (LIGHT GREY ENAMEL)					
93	Load Torque/Slip, Current/Slip Curves	By Vendor	N/A					
94	Motor Torque/Slip, Current/Slip Curves	By Vendor	N/A					
95	Time - Current Heating (Thermal Limit) Curve	By Vendor	N/A					
96	Motor Thermal Capacity Data	By Vendor	N/A					
97	Installation, Operation & Maintenance Instruction	By Vendor	N/A					
98	Spare Parts List for Two Years Operation	By Vendor	N/A					
99	Commissioning Spare Part List	By Vendor	N/A					
100	Dimensional Outline Drawing	By Vendor	ES1A126004 / ES1B1009					
101	Certified Type Test Report & Written Statement	By Vendor	N/A					
102	Certified Conformity for EX Type Motors	By Vendor	N/A					
103	Deviation List (if Any)	By Vendor	N/A					







خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد BK-HD-GCS-CO-0008_03)

DATASHEET (W/DRAWING) FOR AUXILIARY MOTORS

· ۵۳ - · ۷۳ - 9114

	DATACILET (WIDIAWING) TOK ACKIETAN INCTOKE						
پروژه	بسته کاری	صادركننده	تسهيلات	رشته	نوع مدرك	سر يال	نسخه
BK	GCS	HY	120	EL	DS	0002	V00

26 از 8: شماره صفحه

	Data Sheets for LV Induction Motors					
Item	Category	Required Specification	Vendor Data			
104	Test & Inspection	Factory Routine Test Report Shall be Submitted				

DE: Drive End

NDE: Non Drive End CW: Clockwise

CCW: Counter Clockwise

Note 1: IPS design margin is defined in accordance with standard output power rating of motor:

	Standard Output Power Rating	Design margin
1	Up to 22kW	1.25
2	from 22kW to 55kW	1.15
3	Above 55kW	1.10

Note 2: The following values are default unless otherwise specified during finalization of motors:

	Standard Output Power Rating	Cable Size	Gland Size
1	5.5kW	3x6	M25
2	7.5kW	3x6	M25
3	15kW	3x16	M32
4	18.5kW	3x16	M32
5	30kW	3x50	M40
6	37kW	3x50	M40
7	45kW		M50
8	55kW	3x95	M50

INDUCTION MOTOR DATA SHEET

PROJECT No.	F0238444-L1-0002
HS No.	HLA020106014871
L-SPEC No.	DSML21444F020M

1 OF 1 CUSTOMER SHEET FOR APPROVAL JOB No. N/A ITFM No · QUANTITY SERVICE: N/A 효성강전_광신기계공업_UAE PJT_220220 3 **SETS** SITE **GENERAL DATA** PERFORMANCE DATA FRAME No. 80M **OUTPUT** 0.4 kW **TYPE** EF-F **POLES** 4 Р **ENCLOSURE** TE **ROTOR TYPE** SQUIRREL CAGE COOLING METHOD FC(IC411) STARTING METHOD DIRECT ON LINE INSULATION CLASS F **CLASS** PHASE PHASE 3 TEMP. RISE AT FULL LOAD **FREQUENCY** 50 Нz RES. METHOD K (at S.F:1.0) SPEED (AT FULL LOAD) 1440 r/min **RATING** S1 **PRIMARY** LOCATION 400 **OUTDOOR VOLTAGE** V **ALTITUDE** LESS THAN NO LOAD CURRENT 0.5 1030 Α m HUMIDITY **LESS THAN** 80 % **FULL LOAD CURRENT** 1.0 Α AMBIENT TEMP. LOCKED-ROTOR CURRENT 600 $^{\circ}$ C % **EXPLOSION PROOF TYPE** Ex db IIB T4 Gb **EFFICIENCY** MOUNTING AT 1/2 LOAD 75.0 % **BEARING TYPE ANTI-FRICTION** AT 3/4 LOAD 77.0 % AT FULL LOAD 78.0 NDE/DE BRG. No. 6203ZZ 6204ZZ % **BRG. LUBRICATION** N/A POWER FACTOR PROTECTION GRADE IP55 AT 1/2 LOAD 60.0 % SERVICE FACTOR 1.0 AT 3/4 LOAD 70.0 DIRECT COUPLED AT FULL LOAD **DRIVE** 75.0 % SHAFT **TORQUE EXTENSION** SINGLE **FULL LOAD** 0.27 kg-m **EXTERNAL THRUST** N/A 2.6 N-m LOCKED ROTOR 170 NOISE LEVEL(MEAN VALUE AT 1m FROM MOTOR) % NO-LOAD **STANDARD BREAKDOWN** 220 **VIBRATION** 2.8 mm/s (r.m.s) 0.012 MOTOR GD² kg-m² NUMBER OF COLD: 2/HOT: 1 (4P) MAX LOAD GD2 AT MOTOR SHAFT 1.7 kq-m² **CONSECUTIVE STARTS** MOTOR APPROX, WEIGHT 34 kq ROTATION(VIEWED FROM DE) C.C.W **PAINTING** RAL7047 (LIGHT GREY, ENAMEL) **ACCESSORIES (OPTIONAL)** SUBMITTAL DRAWINGS TEMPERATURE DETECTOR **OUTLINE DIMENSION** ES1A126004 WINDING **CONDUIT BOX & COVER** ES1B100912 NO TYPE N/A SPEED-TORQUE & 1STF0238444-L1-0002 **BEARING** NO **CURRENT CURVE** TYPE 1TLF0238444-L1-0002 N/A THERMAL LIMIT SPACE HEATER NO & TIME-CURRENT CURVE **RATING** N/A LOAD vs POWER FACTOR 1PEF0238444-L1-0002 & EFFICIENCY <REMARKS> 1. ABOVE ALL DATA ARE CALCULATED AT 100% VOLTAGE. 2. PREMIUM EFFICIENCY TYPE MOTOR APPLICATION STANDARDS IEC60034-1, ISO 3746 < NOTE > 1. THESE DATA ARE ONLY DESIGN VALUES AND SHALL BE GUARANTEED WITH TOLERANCE OF APPLICATION STANDARD 2 EXCEPT FOR STATEMENTS SPECIFIED ON THIS SHEET. 2023-04-28 M.S.KIM D.H.OH B.W.KO ANYTHING ELSE SHALL BE IN ACCORDANCE WITH MAKER'S STANDARD. 0 APPROVED REV. NO CHECKED 3. THE TEMPERATURE MEASURED AT BEARING HOUSING DOES NOT EXCEED 105 $^{\circ}\mathrm{C}$ DATE **PREPARED**

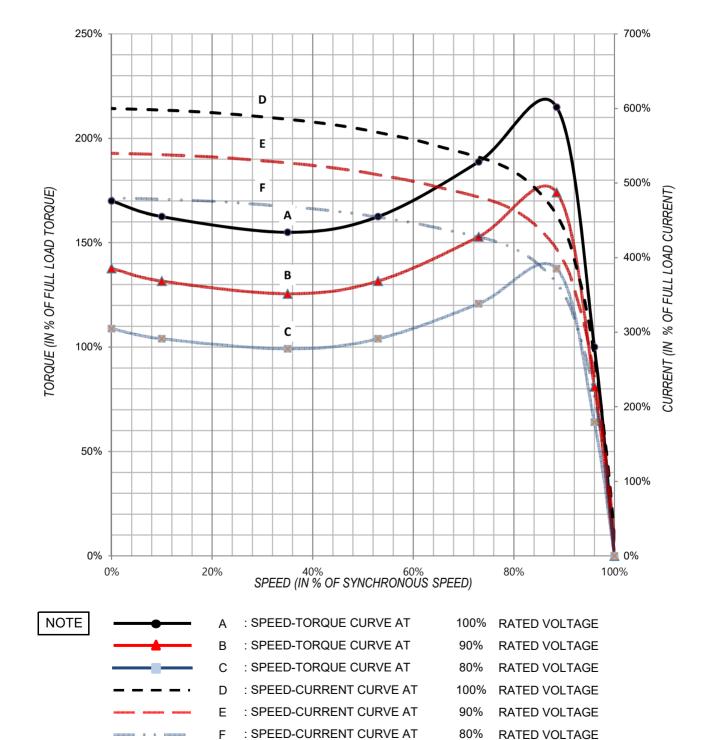
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SPEED - TORQUE & CURRENT CURVE

Curve No.

1STF0238444-L1-0002

OUTPUT	0.4	kW	POLES	4	Р	
VOLTAGE	400	V	FREQUENCY	50	Hz	
FULL LOAD TORQUE	0.27	kg·m	FULL LOAD CURRENT	1.0	Α	
LOCKED ROTOR TORQUE	170	%	LOCKED-ROTOR CURREN	Г 600	%	
BREAKDOWN TORQUE	220	%	SPEED (at FULL LOAD)	1440	r/min	
GD ² of LOAD :	-	$kg \cdot m^2$	GD ² of MOTOR	0.012	$kg \cdot m^2$	



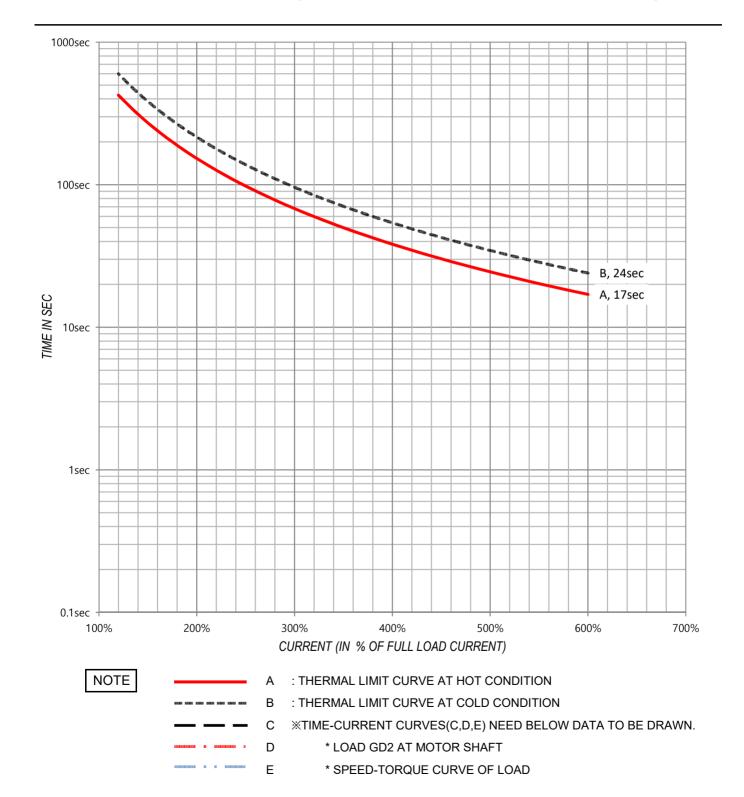


THERMAL LIMIT & TIME - CURRENT CURVE

Curve No.

1TLF0238444-L1-0002

OUTPUT	0.4	kW	POLES	4	Р	
VOLTAGE	400	V	FREQUENCY	50	Hz	
FULL LOAD TORQUE	0.27	kg·m	FULL LOAD CURRENT	1.0	Α	
LOCKED ROTOR TORQUE	170	%	LOCKED-ROTOR CURREN	T 600	%	
BREAKDOWN TORQUE	220	%	SPEED (at FULL LOAD)	1440	r/min	
GD ² of LOAD :	-	$kg \cdot m^2$	GD ² of MOTOR	0.012	$kg \cdot m^2$	

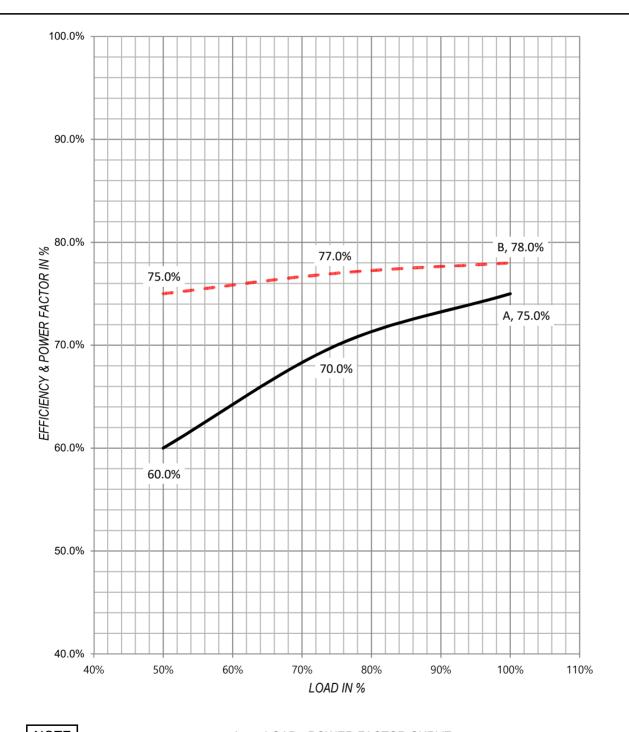


LOAD - POWER FACTOR & EFFICIENCY CURVE

Curve No.

1PEF0238444-L1-0002

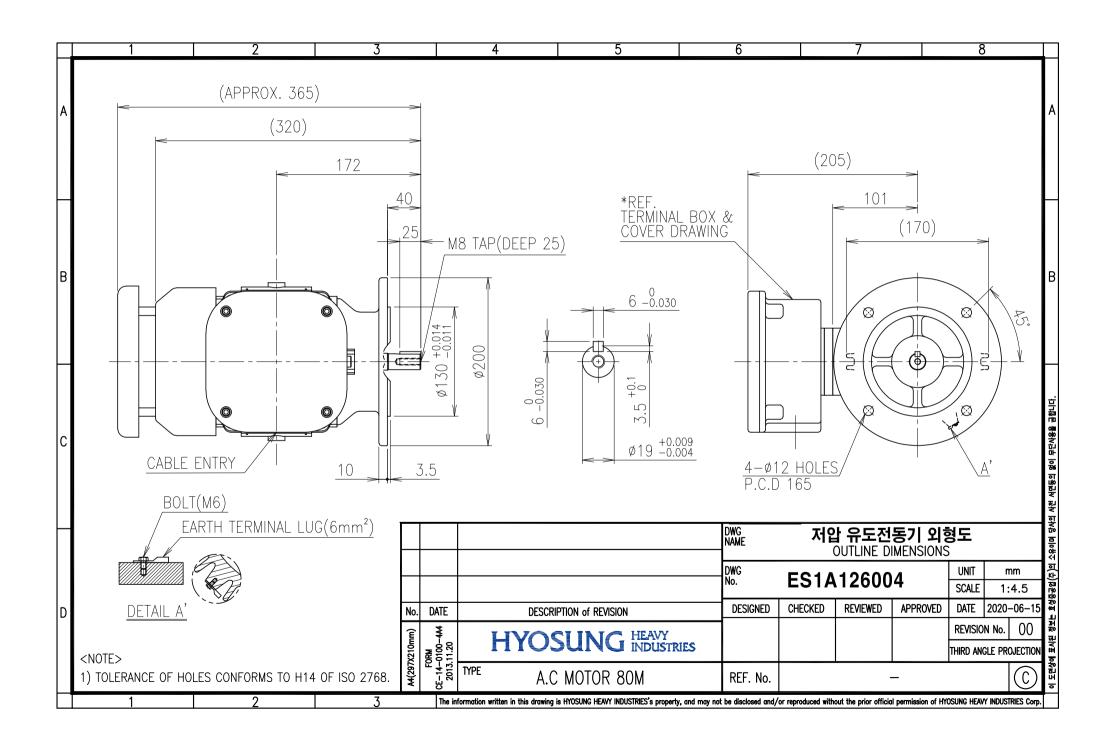
OUTPUT	4 P	1 P
VOLTAGE	50 Hz) Hz
FULL LOAD TORQUE	ENT 1.0 A	Α
LOCKED ROTOR TORQUE	URRENT 600 %) %
BREAKDOWN TORQUE	OAD) 1440 r/min	r/min
GD ² of LOAD :	0.012 kg·m	2 kg⋅m²
FULL LOAD TORQUE LOCKED ROTOR TORQUE BREAKDOWN TORQUE	ENT 1.0 A URRENT 600 % OAD) 1440 r/mi	A) %) r/mi

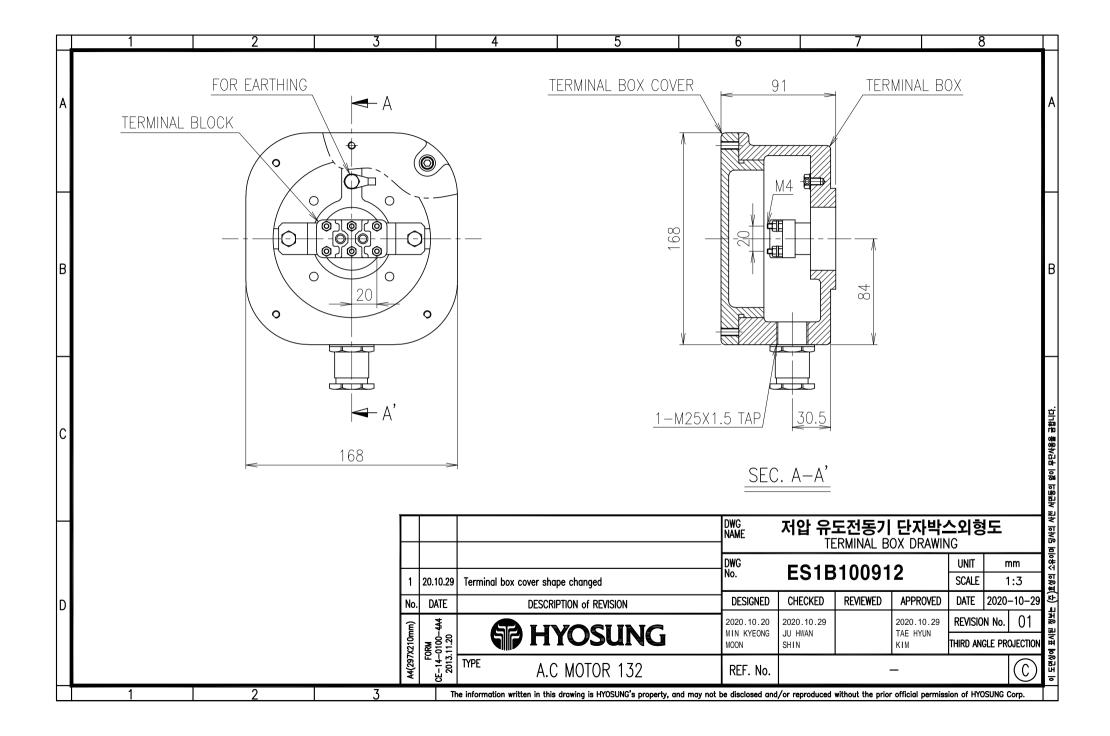


NOTE

A : LOAD - POWER FACTOR CURVE

B : LOAD - EFFICIENCY CURVE











خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک

(قرارداد BK-HD-GCS-CO-0008_03)

شماره پیمان:

.04 - . 14 - 4114

DATASHEET (W/DRAWING) FOR AUXILIARY MOTORS							
پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه
BK	GCS	HY	120	EL	DS	0002	V00

26 از 15: شماره صفحه

BARRING DEVICE MOTOR







26 از 16: شماره صفحه

خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد BK-HD-GCS-CO-0008_03)

شماره پیمان:

· ۵۳ - · ۷۳ - 9114

DATASHEET (W/DRAWING) FOR AUXILIARY MOTORS							
پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه
BK	GCS	HY	120	EL	DS	0002	V00

Data Sheets for LV Induction Motors							
Item	Category	Required Specification	Vendor Data				
1	Driven Machine	Electrical Motor	Electrical Motor				
2	Driven Machine Tag No.	-	-				
3	Manufacturer	By Vendor	HYOSUNG				
4	Manufacturer's Number / Type	By Vendor	N/A				
5	Manufacturing Standard	IEC 60034 & IPS-M-EL-131(2)	IEC 60034 & IPS-M-EL-131(
6	Location	[X] Outdoor (Under Shelter) [] Indoor	Outdoor				
7	Area Classification	Acc. to requisition data					
8	Ambient Temperature	5 to +55°C	5 to +50°C				
9	Relative Humidity	100 %	100%				
10	Dust	[X] Yes [] No	Yes				
11	Corrosion	[X] Yes [] No	Yes				
12	Elevation	12.5m Above Sea Level	12.5m Above Sea Level				
13	Quantity	Acc. To Load List (BK-GCS-PEDCO-120-EL-LI-0001)	3				
14	Tag Number	Acc. To Load List (BK-GCS-PEDCO-120-EL-LI-0001)	N/A				
15	Motor Type	Asynchronous, Squirrel Cage	Asynchronous, Squirrel Ca				
16	Mounting	[] Horizontal [] Vertical	Horizontal				
17	Rotor Construction	[] Brazed Copper Bars [] Aluminum Die Cast	Aluminum Die Cast				
18	Frame Material	Steel Sheet or Cast Iron	Cast Iron				
19	Rotor Cage Material	By Vendor	Steel				
20	Cooling Method	IC411 According to IPS-M-EL-131(2)	IC411				
21	Ingress Protection Degree for Motor	IP 54	IP 55				
22	Ingress Protection Degree for Terminal Box	IP 55	IP 55				
23	Explosion Protection of Motor	N/A for Safe Area Zone 2, IIB, T3	Ex db llB T4 Gb				
24	Explosion Protection of Terminal Box	N/A for Safe Area Zone 2, IIB, T3	Ex db llB T4 Gb				
25	Ex. Certificate Authority/Certificate No.	By Vendor	N/A				
26	Driven Machine Shaft Power Requirement (Pmp)	As Per Related Mechanical Data sheet (to be Specified by Vendor)	N/A				
27	De-Rating Factor due to Ambient Temperature (Kt)	Vendor Shall Advise	N/A				
28	De-Rating Factor Due to Altitude (${ m K}_a$)	1	N/A				
29	Design margin (K _m)	Acc. to IPS Standard (Note 1)	N/A				







خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد BK-HD-GCS-CO-0008_03)

(قرارداد BK-HD-GCS-CO-0008_03

DATASHEET (W/DRAWING) FOR AUXILIARY MOTORS شماره پیمان: بسته کاری صادر کننده تسهيلات پروژه نوع مدرك سر يال .04 - . 14 - 4114 BK GCS 0002 V00 HY 120 EL DS

26 از 17: شماره صفحه

Data Sheets for LV Induction Motors Item Category Required Specification Vendor Da							
30	Motor Shaft Power Requirement @ Site condition (=Km X Pmp)	By Vendor	Not Motor Vendor scope				
31	Standard Rated Motor Output =Km X P mp / (Ka Kt)	By Vendor	Not Motor Vendor scope				
32	Frame Size	By Vendor	112M				
33	Frame Earth Boss	External	M6				
34	Rated Voltage	400 V ±10%	400 V ±10%				
35	Rated Frequency	50 Hz ±5%	50 Hz ±5%				
36	Protection Devices	Switch-Fuse					
37	Neutral Earthing System	TNS					
38	Voltage During Motor Start	80% Un	80% Un				
39	Synchronous Speed	By Vendor	1500				
40	Full Load Speed [RPM]	By Vendor	1455				
41	Over Speed Capability	By Vendor	150%				
42	Number of Poles	By Vendor	4				
43	Starting Method	Direct on Line	Direct on Line				
44	Direction of Rotation (Viewed from coupling end)	Shall be Proposed by MFR Based on Driven Load Rotation of Direction	[] CW [] CCW [] Unidirectional [X] Bidirectional				
45	Stator Winding Connection	Delta	Delta				
46	Location of Terminal Box (Viewed from DE)	[]Right []Left	Left				
47	Insulation Class	Class F	Class F				
48	Class of Temperature Rise	Class B	Class B				
49	Max. Permissible Starting Time [s]	By Vendor	15s				
50	Accelerating Time DOL starting, at 100% Un [s]	By Vendor	load torque curve be neede				
51	Accelerating Time DOL starting, at 80% U n [s]	By Vendor	load torque curve be neede				
52	Starting Torque at 100% Un [N.m]	By Vendor	25.9				
53	Starting Torque at 80% U [N.m]	By Vendor	16.6				
54	Maximum Torque [N.m]	By Vendor	33.1				
55	Pull-Up Torque	By Vendor	23.7				
56	Locked Rotor Torque	By Vendor	25.9				
57	Rated Torque [N.m]	By Vendor	14.4				
58	Rated Current [A]	By Vendor	4.8				







خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد BK-HD-GCS-CO-0008_03)

DATASHEET (W/DRAWING) FOR AUXILIARY MOTORS

.54 - .74 - 9114

DATACHEET (WERATHIO) FOR ACALEJART MOTORS									
پروژه	بسته کاری	صادركننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه		
BK	GCS	HY	120	EL	DS	0002	V00		

26 از 18: شماره صفحه

	Dat	ta Sheets for LV Induction Motors	
Item	Category	Required Specification	Vendor Data
59	Max Starting Current	By Vendor	33.6
60	No Load Current [A]	By Vendor	2.3
61	Locked Rotor Current [A]	<71 _n	700%
62	Locked Rotor Power Factor [A]	By Vendor	46.30%
63	Torque-Speed Class	Shall be Selected Based on Driven Load Torque Requirement	[]A [v]B []C []D
64	Duty Cycle	SI	S1
65	Current at ½ Rated Load	By Vendor	3.2
66	Current at ¾ Rated load	By Vendor	4.0
67	Current at Rated Load	By Vendor	4.8
68	Starting Power Factor	By Vendor	46.30%
69	Power Factor at ½ Rated Load	By Vendor	59
70	Power Factor at ¾ Rated load	By Vendor	69
71	Power Factor at Rated Load	By Vendor	76
72	Efficiency at ½ Rated Load	By Vendor	83.7
73	Efficiency at ¾ Rated Load	By Vendor	85.7
74	Efficiency at Rated Load	By Vendor	86.7
75	No Load Losses	By Vendor	81W
76	Stall Time (Hot/Cold) (Sec)	By Vendor	15s / 35s
77	Transient Reactance (X'd)	By Vendor	
78	Sub - Transient Reactance (X"d)	By Vendor	
79	Acceleration Time At 80% Un (Sec)	By Vendor	
	Bearing (DE)		
	Type (Detail Description by Vendor)	Anti Friction (Ball Bearing)	Anti Friction (Ball Bearing)
	Manufacturer	By Vendor	Later
	Minimum Life Without Load	Minimum 40000 Hours	Minimum 40000 Hours
	Minimum Life With Load	Minimum 32000 Hours	Load info. Be needed
	Lubrication	Grease	Grease
	Cooling Water/ Oil Capacity	N/A	N/A
90	Permissible Trust Force [N]	By Vendor	Later
80	Bearing (NDE)	I	
81	Type (Detail Description by Vendor)	Anti friction (ball bearing)	Anti Friction (Ball Bearing)
	Manufacturer	By Vendor	Later







خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد BK-HD-GCS-CO-0008_03)

DATASHEET (W/DRAWING) FOR AUXILIARY MOTORS

.04 - .74 - 1146

DATASTILLI (WDRAWING) FOR AUXILIAN I MOTORS									
پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سر يال	نسخه		
BK	GCS	HY	120	EL	DS	0002	V00		

26 از 19:شماره صفحه

Data Sheets for LV Induction Motors Required Specification Vendor Data								
Item	Category	Required Specification	Vendor Data					
	Minimum Life Without Load	Minimum 40000 Hours	Minimum 40000 Hours					
	Minimum Life With Load	Minimum 32000 Hours	Load info. Be needed					
	Lubrication	Grease	Grease					
	Cooling Water/ Oil Capacity	N/A	N/A					
	Permissible Trust Force [N]	By Vendor	Later					
	Space Heater	Not Required	N/A					
	Space Heater Voltage [V]	230VAC, 50Hz, 1Ph	N/A					
	Space Heater Power [W]	By Vendor	N/A					
82	Temp. Detector (Winding/Bearing)	By Vendor	N/A					
83	Terminal Boxes	[X] Power Terminal Box [X] Space heater (if required)	Power Terminal Box					
84	Main Power Cable Specification & Size & Orientation	According to (BK-GCS-PEDCO-120-EL-CN-0003)	Not Motor Vendor scope					
85	Motor Weight (Net/Shipped)	By Vendor	66 kgf					
86	Rotor Moment of Inertia	By Vendor	0.312 kg-m2					
87	Method of Cable Entry	[X] Cable Gland [] Sealing Gasket	Cable Gland					
88	Cable Gland Hub of Main Terminal Box	By Vendor	1-M25x1.5					
89	Cable Gland Entry for aux. Terminal Box (if applicable)	1 X M25 (if Required)	N/A					
90	Short Circuit Capability of Terminal Box	30 kA for 0.2 S	N/A					
91	Sound Level at 1 distance meter From Motor	Max. 85 dB(A)	Max. 85 dB(A)					
92	Finish Color	Manufacturer Standard	RAL7047 (LIGHT GREY, ENAMEL)					
93	Load Torque/Slip, Current/Slip Curves	By Vendor	N/A					
94	Motor Torque/Slip, Current/Slip Curves	By Vendor	N/A					
95	Time - Current Heating (Thermal Limit) Curve	By Vendor	N/A					
96	Motor Thermal Capacity Data	By Vendor	N/A					
97	Installation, Operation & Maintenance Instruction	By Vendor	N/A					
98	Spare Parts List for Two Years Operation	By Vendor	N/A					
99	Commissioning Spare Part List	By Vendor	N/A					
100	Dimensional Outline Drawing	By Vendor	ES1AS64855 / ES1B10091:					
101	Certified Type Test Report & Written Statement	By Vendor	N/A					
102	Certified Conformity for EX Type Motors	By Vendor	N/A					
103	Deviation List (if Any)	By Vendor	N/A					







خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد BK-HD-GCS-CO-0008_03)

DATASHEET (W/DRAWING) FOR AUXILIARY MOTORS

شماره پیمان: بسته کاری صادر كننده تسهيلات نسخه پروژه رشته نوع مدرك سر يال $\bullet \Delta \Upsilon = \bullet V \Upsilon - 91 \Lambda \Upsilon$ BK GCS HY 120 EL DS 0002 V00

26 از 20: شماره صفحه

Data Sheets for LV Induction Motors						
Item	Category	Required Specification	Vendor Data			
104	Test & Inspection	Factory Routine Test Report Shall be Submitted				

DE: Drive End

NDE: Non Drive End CW: Clockwise

CCW: Counter Clockwise

Note 1: IPS design margin is defined in accordance with standard output power rating of motor:

	Standard Output Power Rating	Design margin
1	Up to 22kW	1.25
2	from 22kW to 55kW	1.15
3	Above 55kW	1.10

Note 2: The following values are default unless otherwise specified during finalization of motors:

	Standard Output Power Rating	Cable Size	Gland Size
1	5.5kW	3x6	M25
2	7.5kW	3x6	M25
3	15kW	3x16	M32
4	18.5kW	3x16	M32
5	30kW	3x50	M40
6	37kW	3x50	M40
7	45kW		M50
8	55kW	3x95	M50

INDUCTION MOTOR DATA SHEET

PROJECT No. F0238444-L1-0001
HS No. HLA020106014870
L-SPEC No. DSML21159F020H

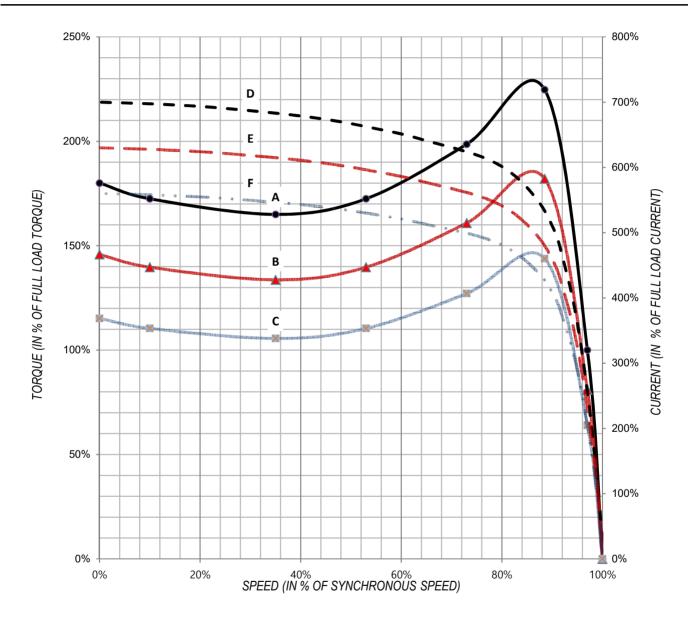
FOR APPROVAL SITE			D	A I P	1 2	псс	1	L-SPEC N	lo. DSML2115	9F020H
SERVICE : NA	SHEET 1 OF 1		CUSTOMER	:						
Performance data Performance	FOR APPROVAL		JOB No.	:	N/A				ITEM No. :	
FRAME No.	SERVICE: N/A		SITE	:	효성	강전_광신기	기계공업_UAE PJ	IT_220220	QUANTITY :	3 SETS
Type	GENERA	AL DATA					PE	RFORMAN	ICE DATA	
ENCLOSURE	FRAME No.	112M			OL	JTPUT			2.2	kW
COOLING METHOD	TYPE	EF-F			PC	DLES			4	Р
NSULATION CLASS	ENCLOSURE	TE			RC	OTOR TY	PE		SQUIRREL	CAGE
TEMP. RISE AT FULL LOAD	COOLING METHOD	FC(IC	411)		ST	ARTING	METHOD		DIRECT O	N LINE
RES. METHOD 65	INSULATION CLASS	F	CLASS		PH	HASE			3	PHASE
RATING	TEMP. RISE AT FULL LOAD				FR	REQUENC	CY		50	Hz
VOLTAGE	RES. METHOD	65	K (at S.F:	1.0)	SF	PEED (AT	FULL LOAD)		1455	r/min
ALTITUDE	RATING	S1			PR	RIMARY		•		
HUMIDITY	LOCATION	OUTE	OOR			VOLTA	GE		400	V
AMBIENT TEMP.	ALTITUDE	LESS	THAN 1030	m		NO LO	AD CURRENT	Γ	2.3	Α
EXPLOSION PROOF TYPE	HUMIDITY	LESS	THAN 80	%		FULL L	OAD CURRE	NT	4.8	Α
MOUNTING	AMBIENT TEMP.	55	${\mathbb C}$			LOCKED	-ROTOR CURRE	ENT	700	%
BEARING TYPE	EXPLOSION PROOF TYPE	Ex db	IIB T4 Gb		EF	FICIENC	Υ			
BEARING TYPE	MOUNTING	B35			1				83.7	%
POWER FACTOR	BEARING TYPE	ANTI-	FRICTION			AT 3/4	LOAD		85.7	%
POWER FACTOR	NDE/DE BRG. No.			07ZZ		AT FUL	L LOAD		86.7	%
PROTECTION GRADE		N/A			PC					
AT 3/4 LOAD					† ` `				59.0	%
DRIVE										%
STAFT			CT COUPLED							
EXTENSION SINGLE EXTERNAL THRUST N/A					TC					
EXTERNAL THRUST N/A		SING	F		. •		OAD		1.47	ka-m
NOISE LEVEL(MEAN VALUE AT 1m FROM MOTOR) NO-LOAD STANDARD BREAKDOWN 230 %							.07.12			
NO-LOAD			TOR)			LOCKE	D ROTOR			
VIBRATION 2.8 mm/s (r.m.s) MOTOR GD² 0.078 kg-m²	,									
NUMBER OF COLD: 2 / HOT: 1 (4P) CONSECUTIVE STARTS ROTATION(VIEWED FROM DE) ROTATION(VIEWED FROM DE) C.C.W PAINTING RAL7047 (LIGHT GREY, ENAMEL) RACCESSORIES (OPTIONAL) SUBMITTAL DRAWINGS TEMPERATURE DETECTOR WINDING NO CONDUIT BOIM SCOVER ES1B100912 TYPE N/A SPEED-TORQUE & 1STF0238444-L1-0001 SPACE HEATER NO RATING N/A LOAD vs POWER FACTOR RATING N/A LOAD vs POWER FACTOR REFICIENCY **CHEMRKS** 1. ABOVE ALL DATA ARE CALCULATED AT 100% VOLTAGE. 2. PREMIUM EFFICIENCY TYPE MOTOR **APPLICATION STANDARDS IEC60034-1, ISO 3746 **ANOTE-1. THESE DATA ARE ONLY DESIGN VALUES AND SHALL BE GUARANTEED WITH TOLERANCE OF APPLICATION STANDARD. 2. EXCEPT FOR STATEMENTS SPECIFIED ON THIS SHEET. ANYTHING ELSE SHALL BE IN ACCORDANCE WITH MAKER'S STANDARD. 3. THE TEMPERATURE MEASURED AT BEARING HOUSING DOES NOT EXCEED 105°C. REV. NO DATE PREPARED **COLUMN STANDARDS DATE **MOTOR APPROX. WEIGHT RAL7047 (LIGHT GREY, ENAMEL) 6.2 kg-m² RAL7047 (LIGHT GREY, ENAMEL) **EMARKS** 1. ABOVE ALL DATA ARE CALCULATED AT 100% VOLTAGE. 2. PREMIUM EFFICIENCY TYPE MOTOR **ANOTE-1. THESE DATA ARE ONLY DESIGN VALUES AND SHALL BE GUARANTEED WITH TOLERANCE OF APPLICATION STANDARD. 2. EXCEPT FOR STATEMENTS SPECIFIED ON THIS SHEET. ANYTHING ELSE SHALL BE IN ACCORDANCE WITH MAKER'S STANDARD. 3. THE TEMPERATURE MEASURED AT BEARING HOUSING DOES NOT EXCEED 105°C. REV. NO DATE **DATE THOM TOLERANCE OF APPLICATION STANDARD. APPROVED APPROVED APPROVED APPROVED APPROVED APPROVED ACCURATE OF THE TORY TOLERANCE OF APPLICATION STANDARD. BASING C.C.W. APPLICATION STANDARD. ANYTHING ELSE SHALL BE IN ACCORDANCE WITH MAKER'S STANDARD. APPLICATION					MO					
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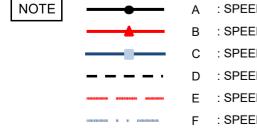
SPEED - TORQUE & CURRENT CURVE

Curve No.

1STF0238444-L1-0001

OUTPUT	2.2	kW	POLES	4	Р	
VOLTAGE	400	V	FREQUENCY	50	Hz	
FULL LOAD TORQUE	1.47	kg·m	FULL LOAD CURRENT	4.8	Α	
LOCKED ROTOR TORQUE	180	%	LOCKED-ROTOR CURRENT	700	%	
BREAKDOWN TORQUE	230	%	SPEED (at FULL LOAD)	1455	r/min	
GD ² of LOAD :	-	kg·m²	GD ² of MOTOR	0.078	$kg \cdot m^2$	
LOCKED ROTOR TORQUE BREAKDOWN TORQUE	180 230	%	LOCKED-ROTOR CURRENT SPEED (at FULL LOAD)	700 1455	% r/min	2





A : SPEED-TORQUE CURVE AT
 B : SPEED-TORQUE CURVE AT
 C : SPEED-TORQUE CURVE AT
 D : SPEED-CURRENT CURVE AT
 E : SPEED-CURRENT CURVE AT
 F : SPEED-CURRENT CURVE AT

100% RATED VOLTAGE
90% RATED VOLTAGE
80% RATED VOLTAGE
100% RATED VOLTAGE
90% RATED VOLTAGE
80% RATED VOLTAGE

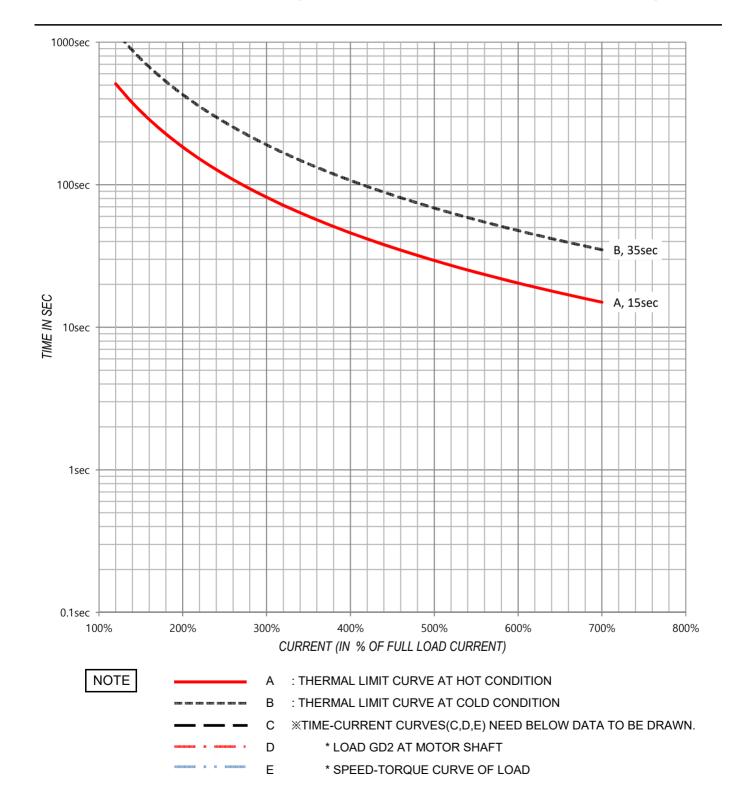


THERMAL LIMIT & TIME - CURRENT CURVE

Curve No.

1TLF0238444-L1-0001

OUTPUT	2.2	kW	POLES	4	Р	
VOLTAGE	400	V	FREQUENCY	50	Hz	
FULL LOAD TORQUE	1.47	kg·m	FULL LOAD CURRENT	4.8	Α	
LOCKED ROTOR TORQUE	180	%	LOCKED-ROTOR CURRENT	700	%	
BREAKDOWN TORQUE	230	%	SPEED (at FULL LOAD)	1455	r/min	
GD ² of LOAD :	-	kg·m²	GD ² of MOTOR	0.078	$kg \cdot m^2$	

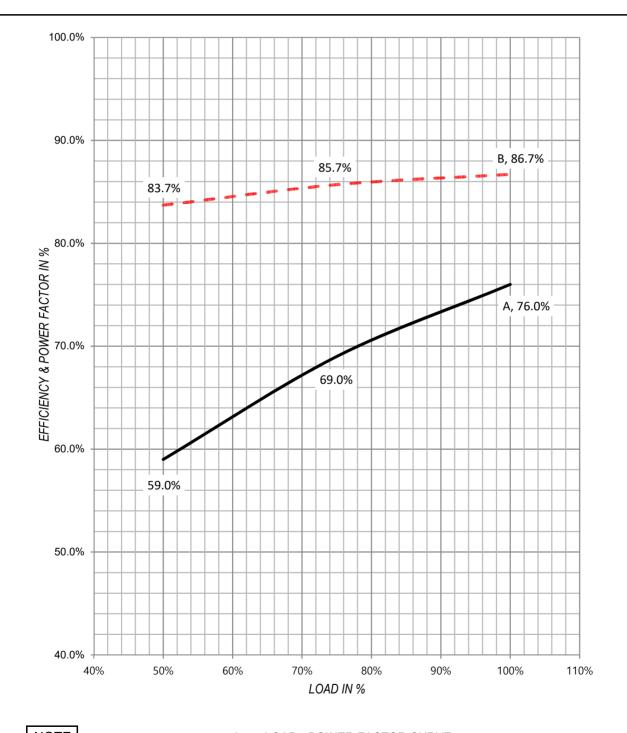


LOAD - POWER FACTOR & EFFICIENCY CURVE

Curve No.

1PEF0238444-L1-0001

OUTPUT	2.2	kW	POLES	4	Р
VOLTAGE	400	V	FREQUENCY	50	Hz
FULL LOAD TORQUE	1.47	kg·m	FULL LOAD CURRENT	4.8	Α
LOCKED ROTOR TORQUE	180	%	LOCKED-ROTOR CURREN	T 700	%
BREAKDOWN TORQUE	230	%	SPEED (at FULL LOAD)	1455	r/min
GD ² of LOAD :	-	$kg \cdot m^2$	GD ² of MOTOR	0.078	kg·m²



NOTE

A : LOAD - POWER FACTOR CURVE

B : LOAD - EFFICIENCY CURVE

