



제2019 - 2079673 호

안 전 인 증 서

(사업장명) 극동호이스트(주)

(소 재 지) (15423)경기도 안산시 단원구 해봉로 119(성곡동)

위 사업장에서 제조하는 아래의 품목이 산업안전보건법 제34조 및 같은 법 시행규칙 제58조의4제4항에 따른 안전인증 심사 결과 안전·보건기준에 적합하므로 안전인증표시의 사용을 인증합니다.

_____ 품 목 _____

호이스트 (국내품)

_____ 형식,모델(용량,등급)/인증번호 _____

KD2M-10T (10Ton) / 19-AE2AC-14317

_____ 인 증 기 준 _____

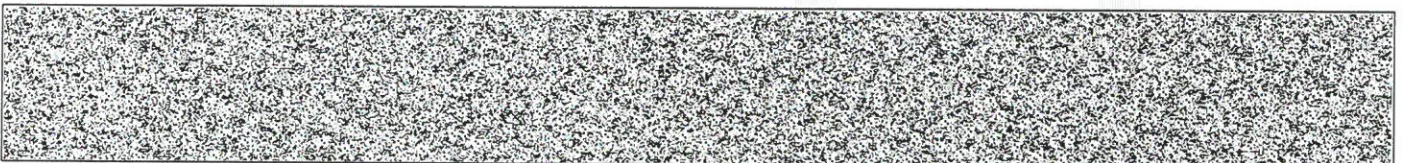
고용노동부 고시 제2016 - 29호 (위험기계·기구 안전인증 고시)

_____ 인 증 조 건 _____

인증유효기간 : 해당없음

2019년 07월 08일

한국산업안전보건공단 이사장





심사결과 통지서

신청인	사업장명	극동호이스트(주)	사업장관리번호	134-81-013350
	사업자등록번호	134-81-01335	대표자 성명	최성찬
	소재지	(154 - 23) 경기도 안산시 단원구 해봉로 119(성곡동)		
안전인증대상 기계·기구명				
호이스트 [전기분야 일부 변경 및 동일형식인정 - "별첨 2"참조]				
형 식 (규 격)		KD2M-10T	용 량 (등 급)	10 Ton

산업안전보건법 제 34조 및 같은 법 시행규칙 제58조의4에 따라 실시한

[] 예비심사

[√] 서면심사

[] 기술능력 및 생산체계 심사

[] 개별 제품심사

[] 개별 제품심사(제작중)

[] 형식별 제품심사

결과가 [√] 적 합
[] 부적합

함을 통지합니다.

2019년 05월 31일

인증심사원

이승태

이승태 (서명 또는 인)

한국산업안전보건공단 이사장



한국산업안전보건공단

크레인제작기준.안전기준 및 검사기준에 의한
전동 체인호이스트 서면심사

형식번호 : KD2M-10T



극동호이스트 주식회사

(주소 : 경기도 안산시 단원구 해봉로 119, 반월공단 607B-14L)

(전화 : 031-491-5311/4, FAX : 031-363-3952)

산업재해예방
안전보건공단
www.kosha.or.kr

동일 형식 일람 표

사업장명	극동호이스트(주)	개정일자 및 번호	2018. 1. 30	인증번호		
형식 및 모델		동일 형식 인정범위 및 내역			비 고	
형식	모델	권상속도(m/min)	회행속도(m/min)	양정(m)		회행방식
KD2M-10T	KD-2M-10T-L34	3.6 (m/min)	12 (m/min)	34	Motor 구동식	회행 INVERTER 방식 포함
	KD-2M-10T-L55		12/6 (m/min)	55		
			2~12 (m/min)			
	KDT-2M-10T-L34	3.6/0.9 (m/min)	12 (m/min)	34	Motor 구동식	회행 INVERTER 방식 포함
	KDT-2M-10T-L55		12/6 (m/min)	55		
			2~12 (m/min)			
	KD-2-10T-L34	3.6 (m/min)	-	34	정치식	
	KD-2-10T-L55		-	55		
	KDT-2-10T-L34	3.6/0.9 (m/min)	-	34	정치식	
	KDT-2-10T-L55			55		

불법복제 및 배포금지

1	2	3	4	5	6	7	8	9	10
형식번호	KD2M-10T								
모델명	KD-2M-10T-L34								

Technical drawing of the KD2M-10T hoist. The drawing includes front and side views. Key dimensions are: overall height 770, base width 405, motor width 203.8, and various mounting and clearance dimensions. Callouts 1-6 point to specific components.

NO	DESCRIPTION	MATERIAL	QTY	SIZE	REMARK
1	KMT-ASSY		1	10Ton	
2	TOP HOLDER ASSY		1	10Ton	
3	HOIST		2	KD-2-5Ton	
4	CHAIN BUCKET		2		
5	BOTTOM HOLDER ASSY		1	10Ton	
6	PUSH BUTTON		1	5P, 7P	

MODEL	KD-2M-10T-L34	
CAPACITY	10.0 Ton	
TEST LOAD	12.5 Ton	
LIFT	Max. 34m	
HOISTING SPEED	2x3.3 kw x 4 poles 3.6 m/min	
TRAVERSING SPEED	0.75 kw x 4 poles 12 m/min.	
BRAKE	MECHANICAL BRAKE	
SYSTEM	DC ELECTRO MAGNETIC BRAKE	
POWER SOURCES	AC 3ø 220,380,440,460,480V 60Hz	
CONTROL VOLTAGE	AC 1ø 48,110,120V 60Hz	
OPERATION METHOD	PUSH BUTTON SWITCH TYPE ON FL.	
PAINT COLOR	0.4 PB 4.2/5.6	
BEAM SIZE	150, 175, 190	
Min. RADIUS for CURVE	2500	
LOAD CHAIN	ø11.2 x P34.3mm x 4roll	
NET WEIGHT	Max. 800 kg	

REV	DATE	DESCRIPTION	DRAWN	CHECK	APPROVD
19 JAN 2018		REDRAWING	K.H.Han		

CLIENT	
MANUFACTURER	크도홍이스트 주식회사 KUKDOONG HOIST CO., LTD.
TITLE	ASSEMBLY DRAWING KD-2M-10T-L34
SCALE	DWG. NO. SHT. NO. REV.

BEAM WIDTH	A	B
150	325	460
175	338	473
190	345	480

Technical drawing of the KD2M-10T hoist. The drawing includes front and side views. Key dimensions are: overall height 770, base width 405, motor width 203.8, and various mounting and clearance dimensions. Callouts 1-6 point to specific components.

NO	DESCRIPTION	MATERIAL	QTY	SIZE	REMARK
1	KMT-ASSY		1	10Ton	
2	TOP HOLDER ASSY		1	10Ton	
3	HOIST		2	KD-2-5Ton	
4	CHAIN BUCKET		2		
5	BOTTOM HOLDER ASSY		1	10Ton	
6	PUSH BUTTON		1	5P, 7P	

MODEL	KD-2M-10T-L34	
CAPACITY	10.0 Ton	
TEST LOAD	12.5 Ton	
LIFT	Max. 34m	
HOISTING SPEED	2x3.3 kw x 4 poles 3.6 m/min	
TRAVERSING SPEED	0.75 kw x 4 poles 12 m/min.	
BRAKE	MECHANICAL BRAKE	
SYSTEM	DC ELECTRO MAGNETIC BRAKE	
POWER SOURCES	AC 3ø 220,380,440,460,480V 60Hz	
CONTROL VOLTAGE	AC 1ø 48,110,120V 60Hz	
OPERATION METHOD	PUSH BUTTON SWITCH TYPE ON FL.	
PAINT COLOR	0.4 PB 4.2/5.6	
BEAM SIZE	150, 175, 190	
Min. RADIUS for CURVE	2500	
LOAD CHAIN	ø11.2 x P34.3mm x 4roll	
NET WEIGHT	Max. 800 kg	

REV	DATE	DESCRIPTION	DRAWN	CHECK	APPROVD
19 JAN 2018		REDRAWING	K.H.Han		

CLIENT	
MANUFACTURER	크도홍이스트 주식회사 KUKDOONG HOIST CO., LTD.
TITLE	ASSEMBLY DRAWING KD-2M-10T-L34
SCALE	DWG. NO. SHT. NO. REV.

BEAM WIDTH	A	B
150	325	460
175	338	473
190	345	480

1	2	3	4	5	6	7	8	9	10
형식번호	KD2M-10T								
모델명	KD-2M-10T-L55								

NO	DESCRIPTION	MATERIAL	QTY	SIZE	REMARK
1	KMT-ASSY		1	10Ton	
2	TOP HOLDER ASSY		1	10Ton	
3	HOIST		2	KD-2-5Ton	
4	CHAIN BUCKET		2		
5	BOTTOM HOLDER ASSY		1	10Ton	
6	PUSH BUTTON		1	5P, 7P	

MODEL		KD-2M-10T-L55	
CAPACITY		10.0 Ton	
TEST LOAD		12.5 Ton	
LIFT		Max. 55m	
HOISTING	MOTOR	2x3.3 kw x 4 poles	
	SPEED	3.6 m/min	
TRAVERSING	MOTOR	0.75 kw x 4 poles	
	SPEED	12 m/min.	
BRAKE	HOISTING	MECHANICAL BRAKE	
	TRAVERSING	DC ELECTRO MAGNETIC BRAKE	
SYSTEM		DC ELECTRO MAGNETIC BRAKE	
POWER SOURCES		AC 3ø 220,380,440,460,480V 60Hz	
CONTROL VOLTAGE		AC 1ø 48,110,120V 60Hz	
OPERATION METHOD		PUSH BUTTON SWITCH TYPE ON FL.	
PAINT COLOR		0.4 PB 4.2/5.6	
BEAM SIZE		150, 175, 190	
Min. RADIUS for CURVE		2500	
LOAD CHAIN		ø11.2 x P34.3mm x 4fall	
NET WEIGHT		Max. 1030 kg	

BEAM WIDTH	A	B
150	325	460
175	338	473
190	345	480

PROJECT	REBRANING	DATE	DESCRIPTION	DRAWN	CHECK	APPROVD

CLIENT	MANUFACTURER	TITLE	SCALE	DWG. NO.	SHT. NO.	REV.
	KD KUKDONG HOIST CO., LTD.	ASSEMBLY DRAWING		KD2M10TL55-ASS'Y	-	-

The drawing shows a KD2M-10T-L34 hoist assembly. The front view (top) shows a vertical assembly with a motor at the top, a gear train, and a drum. Dimensions include a total height of 1850mm, a motor height of 420mm, and a drum diameter of 110mm. The side view (bottom) shows the hoist from the side, with a total width of 405mm and a motor width of 340mm. A table at the bottom right lists the parts and their quantities.

NO	DESCRIPTION	MATERIAL	QTY	SIZE	REMARK
1	KMT-ASSY		1	10Ton	
2	TOP HOLDER ASSY		1	10Ton	
3	HOIST		2	KD-2-5Ton	
4	CHAIN BUCKET		2		
5	BOTTOM HOLDER ASSY		1	10Ton	
6	PUSH BUTTON		1	5P, 7P	

MODEL	KD-2M-10T-L34
CAPACITY	10.0 Ton
TEST LOAD	12.5 Ton
LIFT	Max. 34m
HOISTING	MOTOR SPEED 2x3.3 kw x 4 poles 3.6 m/min
TRAVERSING	MOTOR SPEED 0.8/0.4 kw x 4/8 poles 12/6 m/min.
BRAKE	MOTOR SPEED 0.75 kw x 4 poles(INVERTER) 2~12 m/min.
SYSTEM	MECHANICAL BRAKE DC ELECTRO MAGNETIC BRAKE DC ELECTRO MAGNETIC BRAKE
POWER SOURCES	AC 3ø 220,380,440,460,480V 60Hz
CONTROL VOLTAGE	AC 1ø 48,110,120V 60Hz
OPERATION METHOD	PUSH BUTTON SWITCH TYPE ON FL.
PAINT COLOR	0.4 PB 4.2/5.6
BEAM SIZE	150, 175, 190
Min. RADIUS for CURVE	2500
LOAD CHAIN	ø11.2 x P34.3mm x 4fall
NET WEIGHT	Max. 800 kg

REV	DATE	DESCRIPTION	DRAWN	CHECK	APPROV
19	JAN.2018	REDRAWING	KH Han		

CLIENT	MANUFACTURER	TITLE	SCALE	DWG. NO.	SHT. NO.	REV.
	극동호이스트 주식회사 KUDONG HOIST CO., LTD.	ASSEMBLY DRAWING KD-2M-10T-L34	-	KD2M10TL34-ASSY	-	-

BEAM WIDTH	A	B
150	410	460
175	423	473
190	430	480

불법복제 및 배포금지

	1	2	3	4	5	6	7	8	9	10
A	형식번호	KD2M-10T								
B	모델명	KD-2M-10T-L55								
C										
D										
E										
F										
G										
H										

Max. 1580

Push button cord length : OWNER SCOPE

G:Min.1140

Lift Max.55m

Max.1460

W.B:203.8

Ø135

Ø120

110

75

110

75

360°

530

152

75

352

507

287

340

43

20

280

NO	DESCRIPTION	MATERIAL	QTY	SIZE	REMARK
1	KMT-ASSY		1	10Ton	
2	TOP HOLDER ASSY		1	10Ton	
3	HOIST		2	KD-2-5Ton	
4	CHAIN BUCKET		2		
5	BOTTOM HOLDER ASSY		1	10Ton	
6	PUSH BUTTON		1	5P, 7P	

MODEL	KD-2M-10T-L55
CAPACITY	10.0 Ton
TEST LOAD	12.5 Ton
LIFT	Max. 55m
HOISTING	MOTOR SPEED 2x3.3 kw x 4 poles 3.6 m/min
TRAVERSING	MOTOR SPEED 0.8/0.4 kw x 4/8 poles 12/6 m/min.
	MOTOR SPEED 0.75 kw x 4 poles(INVERTER) 2~12 m/min.
BRAKE	HOISTING MECHANICAL BRAKE
SYS TEM	TRAVERSING DC ELECTRO MAGNETIC BRAKE
POWER SOURCES	AC 3ø 220,380,440,460,480V 60Hz
CONTROL VOLTAGE	AC 1ø 48,110,120V 60Hz
OPERATION METHOD	PUSH BUTTON SWITCH TYPE ON FL.
PAINT COLOR	0.4 PB 4.2/5.6
BEAM SIZE	150, 175, 190
Min. RADIUS for CURVE	2500
LOAD CHAIN	ø11.2 x P34.3mm x 4fall
NET WEIGHT	Max. 1030 kg

REV	DATE	DESCRIPTION	DRAWN	CHECK	APPRVD
△	19.JAN.2018	REDRAWING	K.H.Iam	-	-

PROJECT _____

CLIENT _____

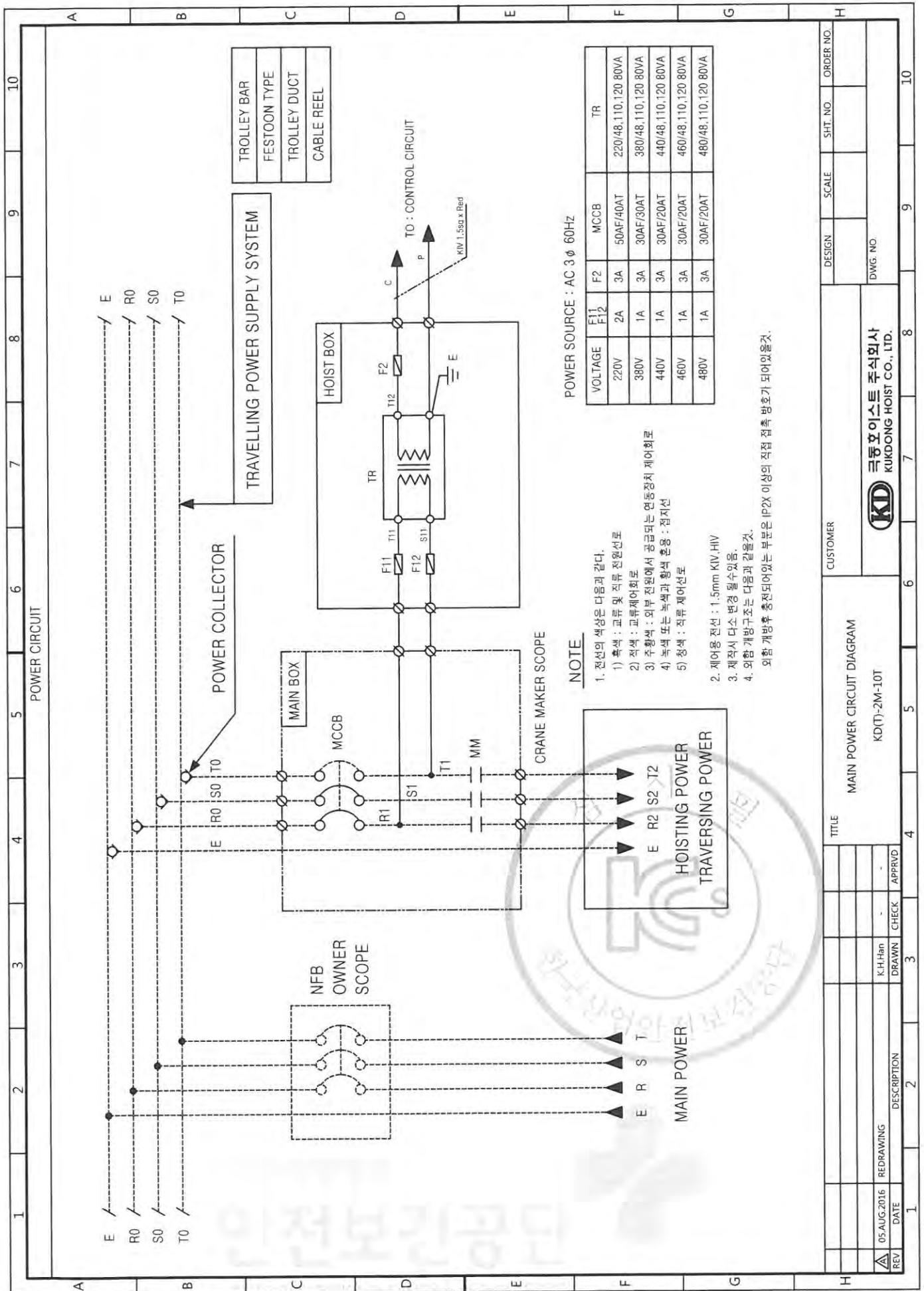
MANUFACTURER **KD** 크봉호이스트 주식회사 KUKDOONG HOIST CO., LTD.

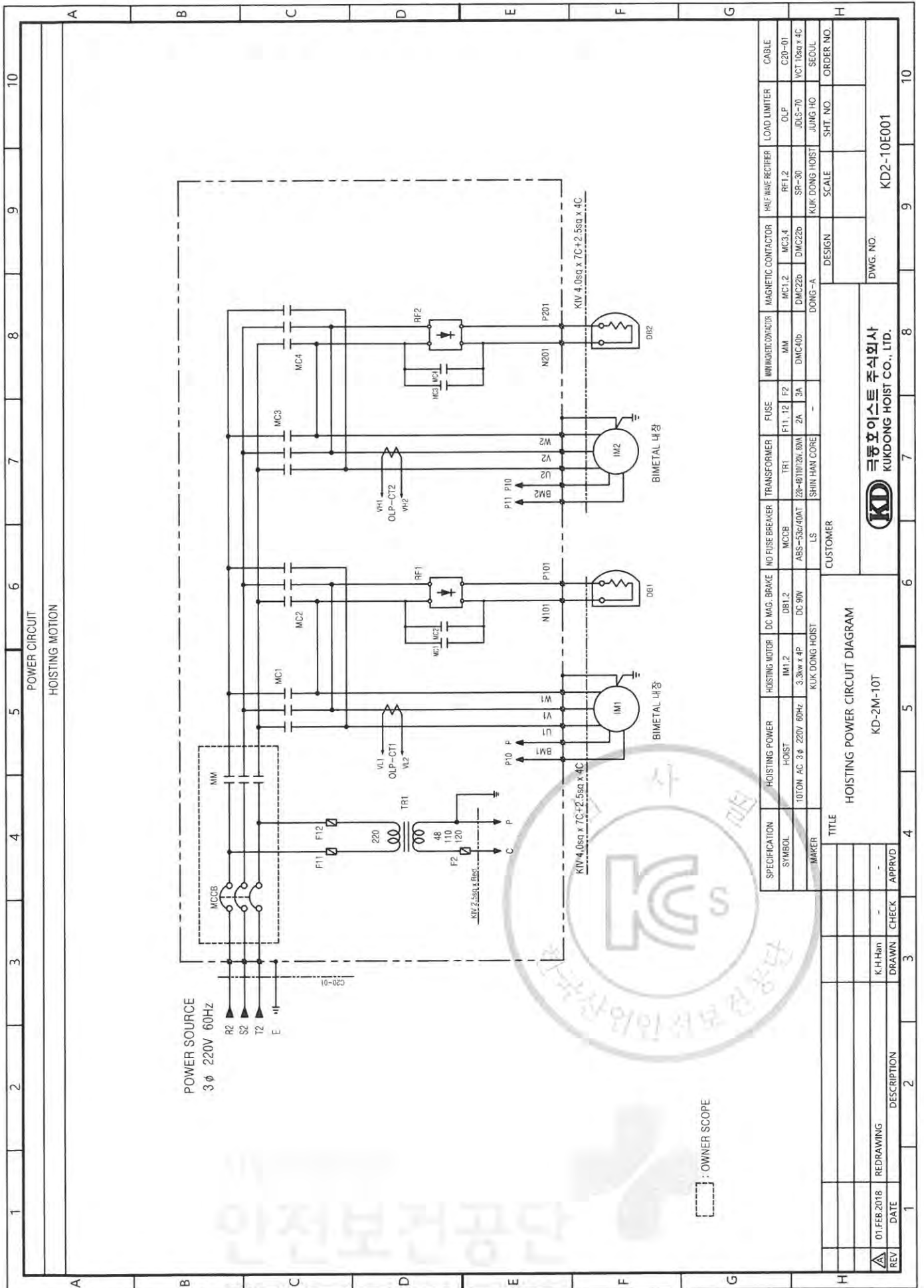
TITLE ASSEMBLY DRAWING

SCALE DWG. NO. SHT. NO. REV.

KD2M10TL55-ASSY - - 10

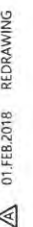
BEAM WIDTH	A	B
150	410	460
175	423	473
190	430	480



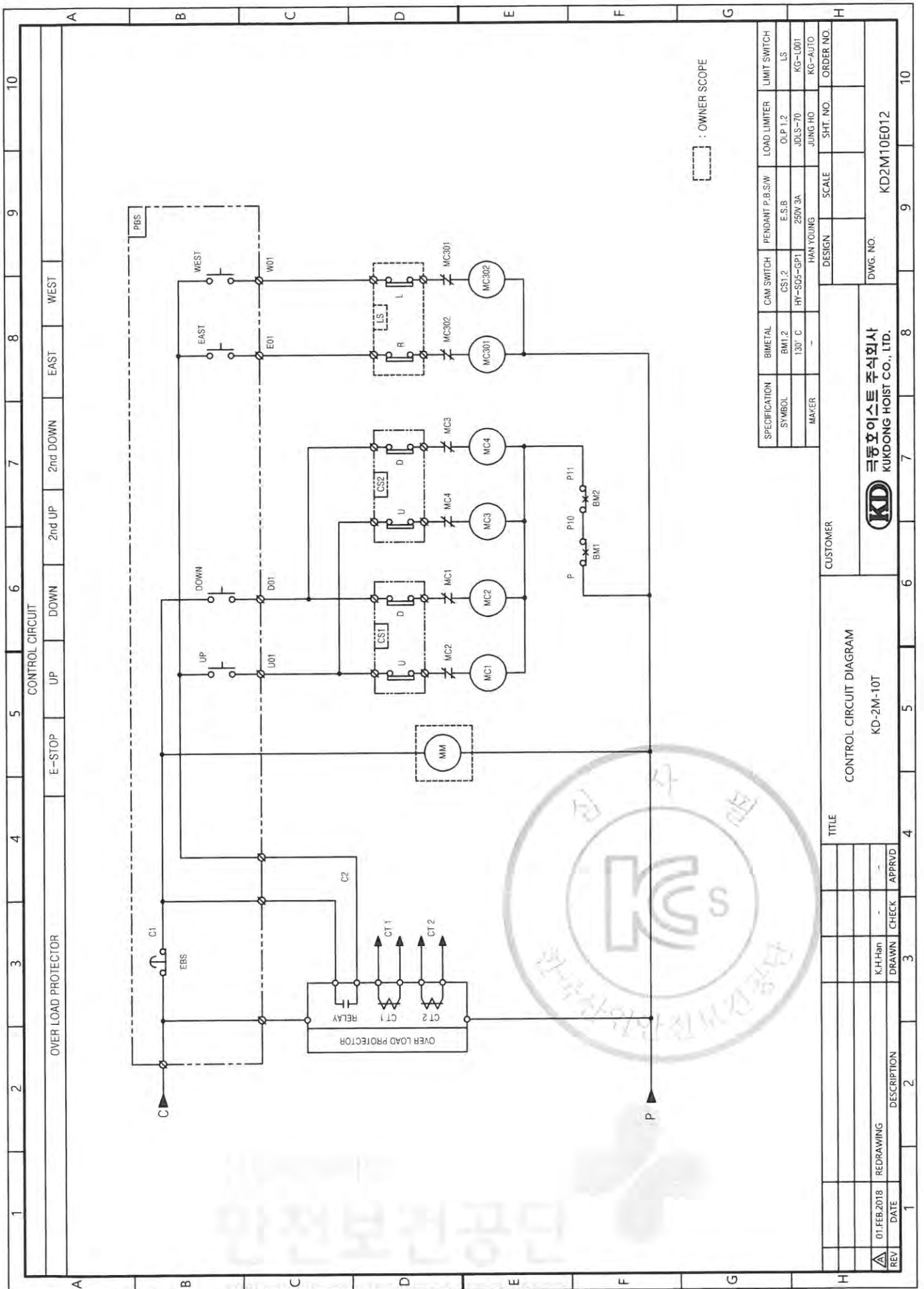












SPECIFICATION	BIMETAL	CAM SWITCH	PENDANT P.B.S.W	LOAD LIMITER	LIMIT SWITCH
SYMBOL	BM1.2	CS1.2	E.S.B	OLP 1.2	LS
MAKER	130° C	HY-SQS-6P1	250V 3A	JOLS-70	KG-L001
				JUNG HO	KG-AUTO

CUSTOMER

CONTROL CIRCUIT DIAGRAM

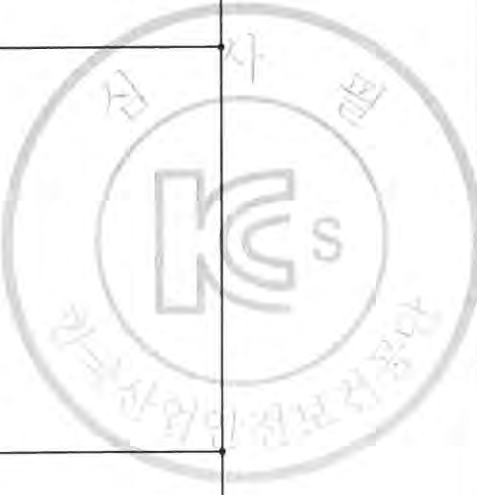
KD-2M-10T

극동호이스트 주식회사
KUKOONG HOIST CO., LTD.

DWG. NO. KD2M10E012

TITLE

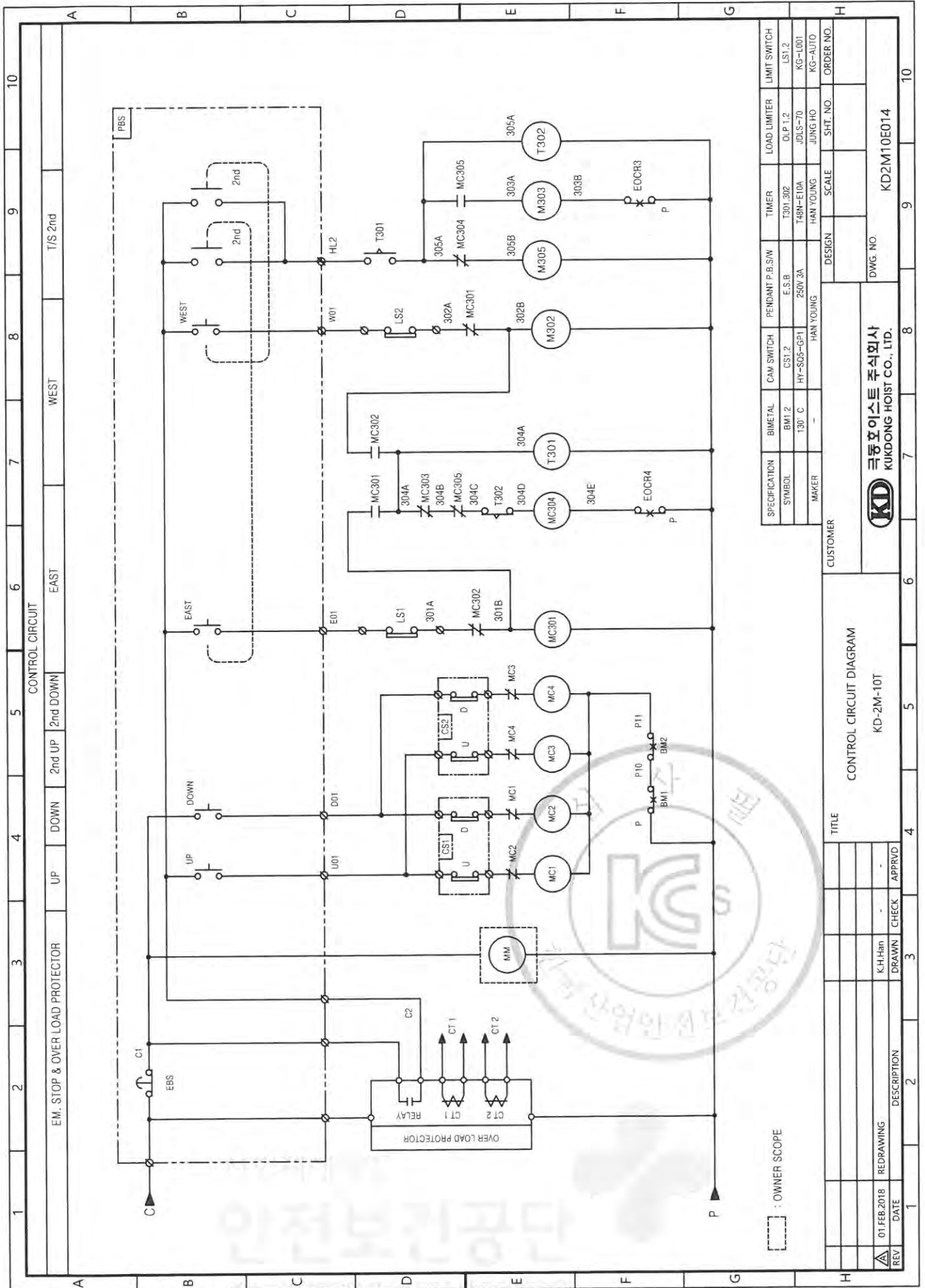
REV	DATE	DESCRIPTION	DRAWN	CHECK	APPRVD
01.FEB.2018		REDRAWING	K.H.Han		

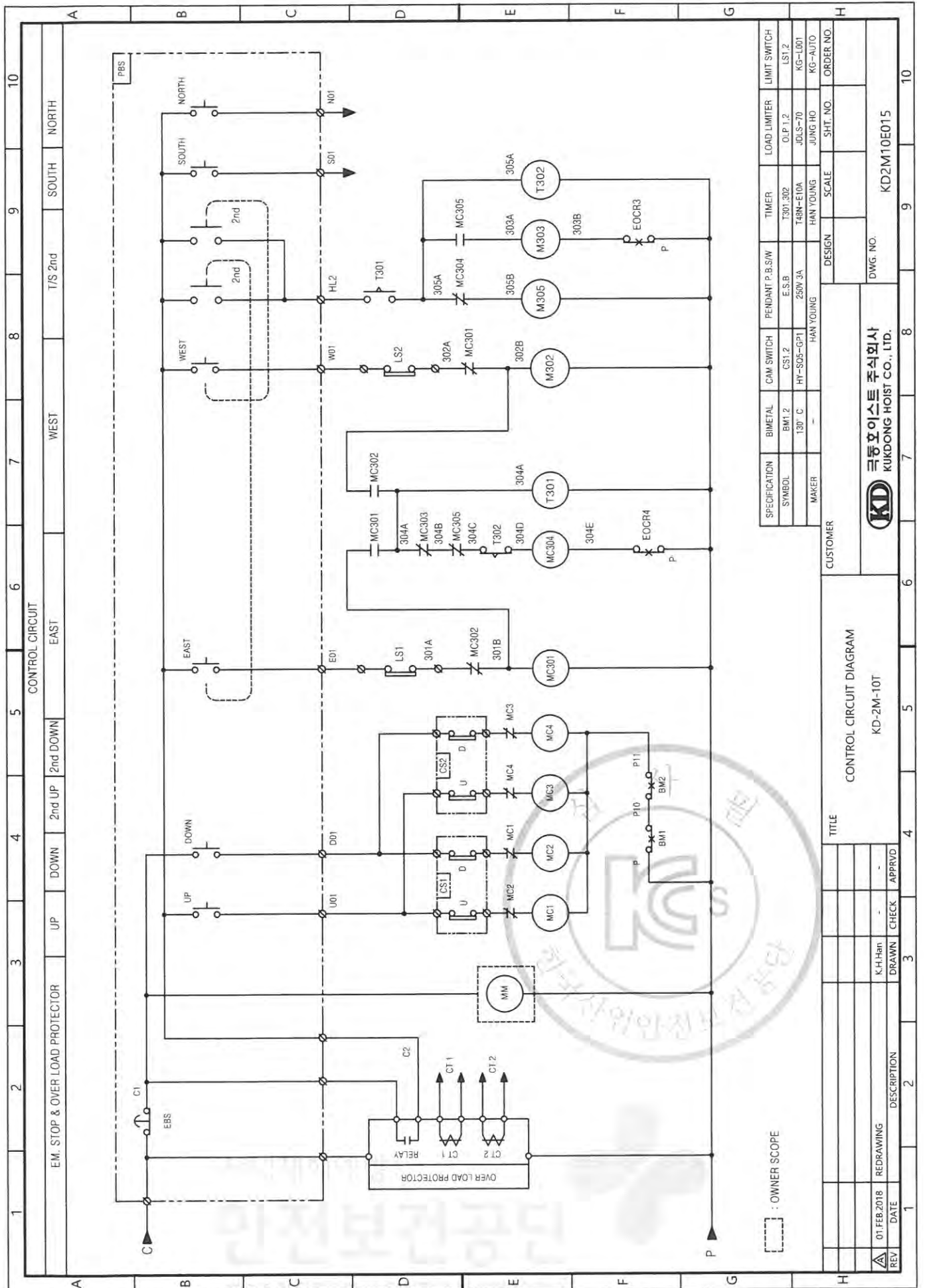


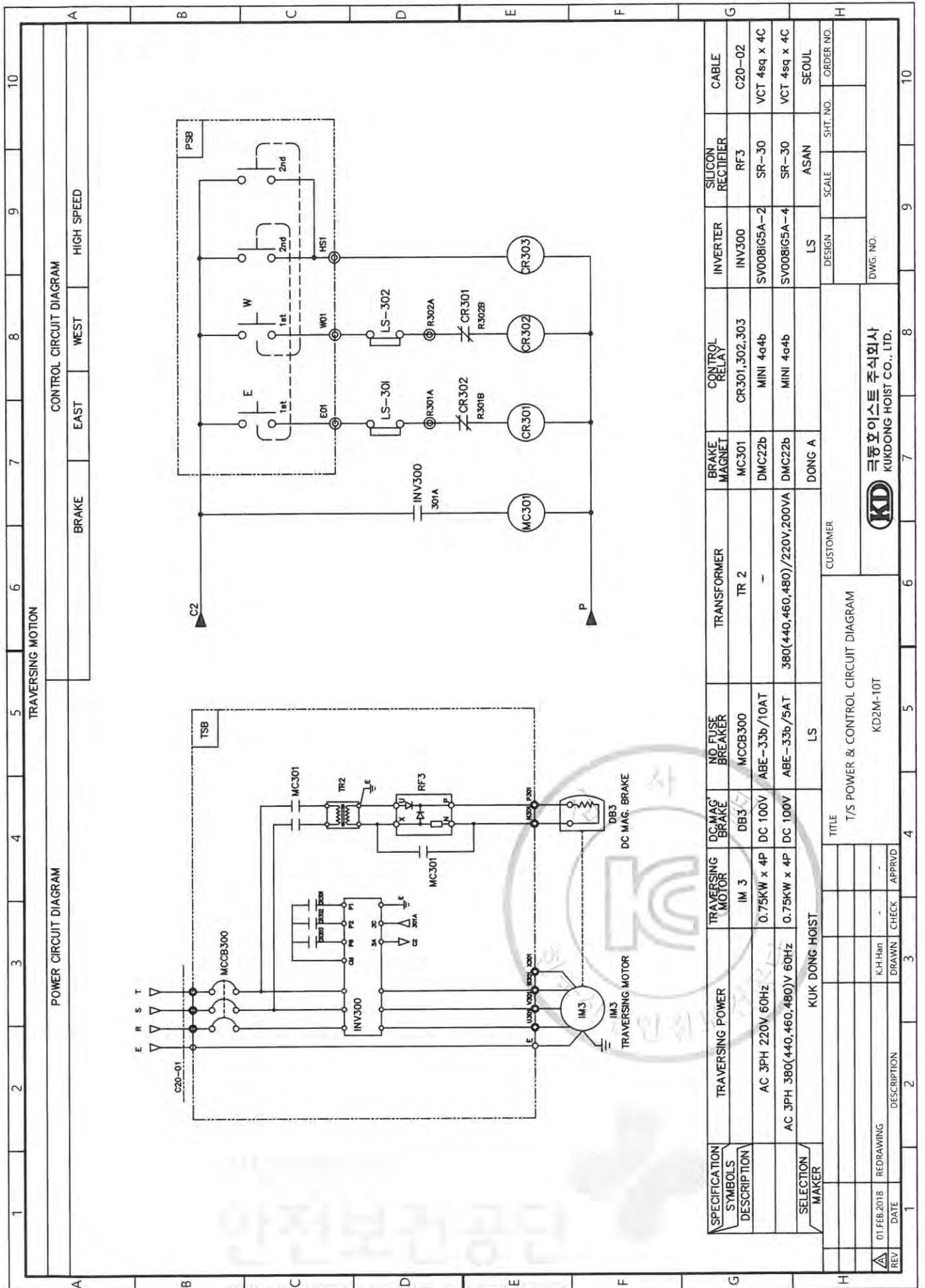


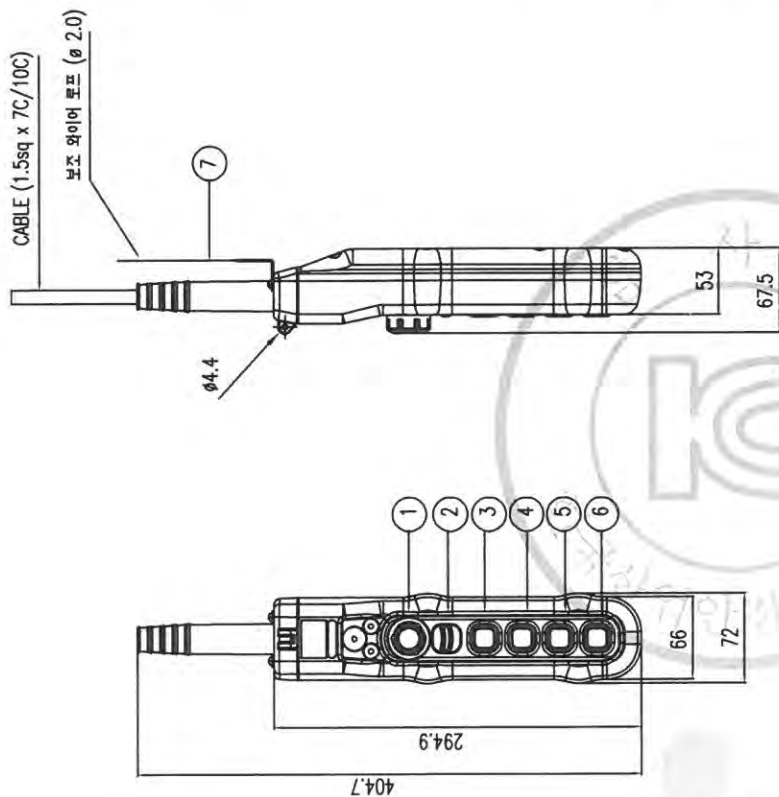


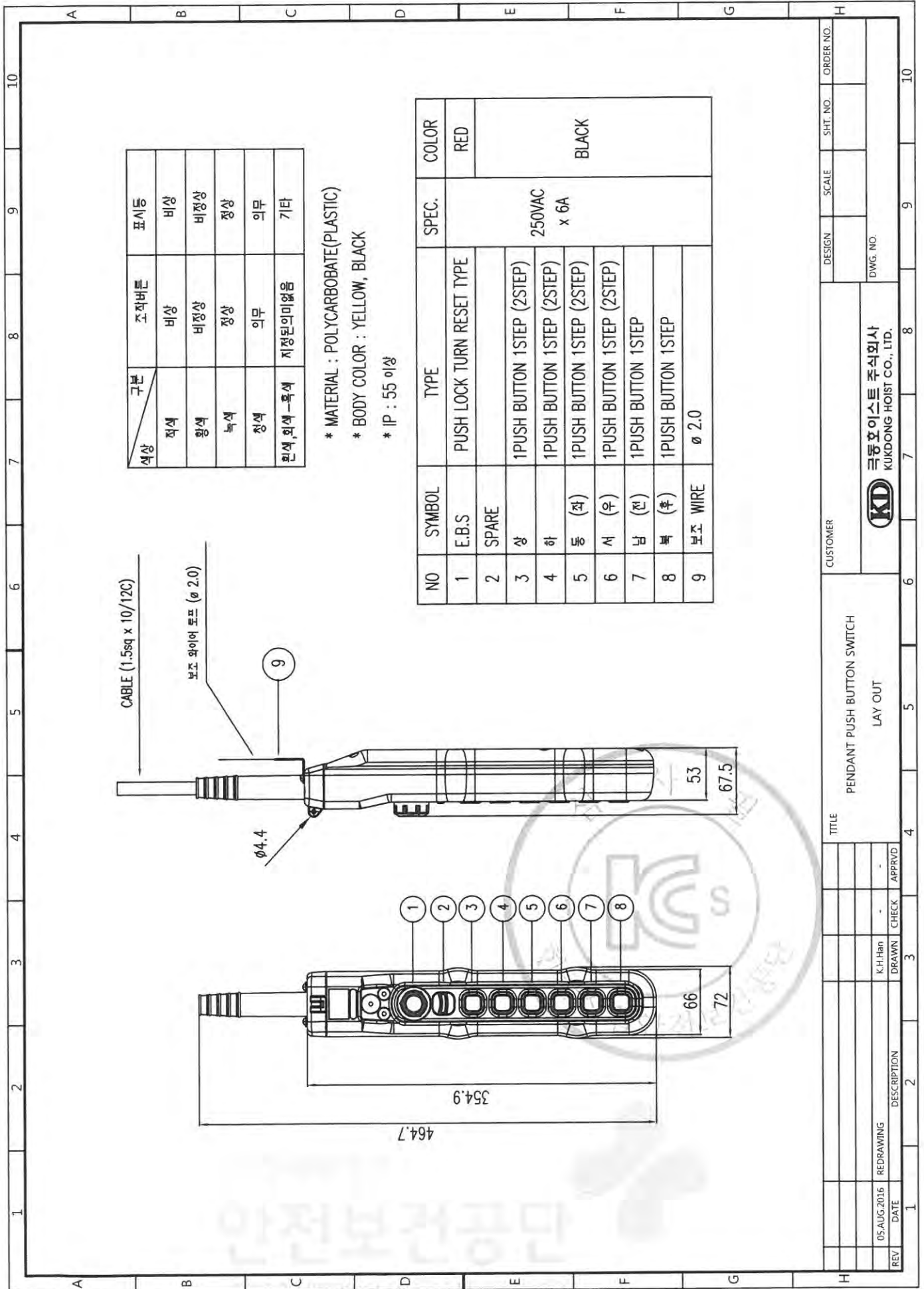
불법복제 및 배포금지











I-BEAM 계산서



■ I-BEAM 최대지지거리

☞ 최대지지거리 판정결과

I-BEAM 규격	최대 지지거리 (cm)	처짐량 판정1 > 800	처짐량 판정2 >1000	굽힘응력(kg/cm ²) < 1159
200×150×t9/16	150	1802.1	1809.9	1141.5
300×150×t8/13	200	2152.1	2163.9	1112.5
300×150×t10/18.5	270	1574.9	1590.6	1120.4
300×150×t11.5/22	320	1292.7	1310.7	1156.9
350×150×t9/15	270	1886.9	1903.7	1118.1
350×150×t12/24	400	1253.5	1278.3	1137.6
400×150×t10/18	370	1583.4	1607.3	1150.5
400×150×t12.5/25	480	1224.4	1256.2	1148.8
450×175×t11/20	520	1288.9	1323.6	1154.9
450×175×t13/26	630	1078.4	1122.6	1140.4
600×190×t13/25	830	1182.5	1256.4	1150.8
600×190×t16/35	1050	974.6	1076.6	1156

☞ 기본 조건

정격하중 (Kg)	양정 (m)	권상속도 (m/min)	호이스트		작업계수	풍력계수
			자중 (Kg)	풍압면적 (m ²)		
10000	55	3.6	1040	1.4	1.08	1.2

*첨부 강도계산서 참조



[I-BEAM 최대 지지거리 강도계산서]

1. 굽힘 MOMENT 계산

1-1. 수직하중에 의한 굽힘 MOMENT

$$\text{빔 자중에 의한 MOMENT : } M_s = \frac{\phi \times \text{BEAM자중(등분포하중)} \times \text{지지거리}}{8} \quad (\text{kg} \cdot \text{cm})$$

$$\text{※ 작업계수 } (\phi) = 1.08$$

$$\text{※ BEAM 자중 (kg) = BEAM 단위중량(kg/cm) } \times \text{지지거리(cm)}$$

$$\text{이동하중에 의한 MOMENT : } M_d = \frac{\phi \times \psi \times \text{이동하중} \times \text{지지거리}}{4} \quad (\text{kg} \cdot \text{cm})$$

$$\begin{aligned} \text{※ 이동하중 (kg)} &= \text{정격하중} + \text{호이스트 자중} \\ &= 10000 + 1040 = 11040 \quad (\text{kg}) \end{aligned}$$

$$\begin{aligned} \text{※ 충격계수 } (\psi) &= 1 + 0.6V \quad (\text{단, } \psi < 1.1 \text{ 이면 } \psi = 1.1, \quad \psi > 1.6 \text{ 이면 } \psi = 1.6 \text{ 으로 한다.}) \\ &= 1 + (0.6 \times 0.06) = 1.036 \longrightarrow 1.1 \end{aligned}$$

$$\text{※ 권상속도 } (V) = \frac{3.6}{60} \quad (\text{m/min}) = 0.06 \quad (\text{m/sec})$$

$$\text{수직하중에 의한 굽힘 MOMENT : } \Sigma M_v = M_s + M_d$$

1-2. 풍하중에 의한 굽힘 MOMENT

$$\text{풍하중에 의한 MOMENT : } M_w = \frac{\text{풍하중}(W) \times \text{지지거리}}{2}$$

$$\text{※ 풍하중 } (W) = \text{속도압}(q) \times \text{풍력계수} \times \text{풍압을 받는 면적 } (A) \quad (\text{kg})$$

$$\text{※ 속도압 } (q) = 8.5 \times \sqrt{h} = 23.1 \quad (h = \text{양정: } 55)$$

$$\text{※ 풍력계수 } (C) = 1.2 \quad (\text{크레인 제작기준 참조})$$

$$\text{※ 풍압을 받는 면적 } (A) = \text{I-BEAM의 풍압면적} + \text{HOIST의 풍압면적} \quad (\text{m}^2)$$

$$\text{※ HOIST의 풍압 면적} = 1.4 \quad (\text{m}^2)$$

2. 굽힘 응력 계산

2-1. 수직하중에 의한 굽힘 응력

$$\sigma_v = \frac{\text{수직하중에 의한 굽힘MOMENT : } \Sigma M_v}{\text{단면 계수 : } Z_x} \quad (\text{kg/cm}^2)$$

2-2. 풍하중에 의한 굽힘 응력

$$\sigma_w = \frac{\text{풍하중에 의한 굽힘 MOMENT : } M_w}{\text{단면계수 : } Z_y} \quad (\text{kg/cm}^2)$$

2-3. 수직하중 및 풍하중에 의한 굽힘 응력

$$\Sigma \sigma = \sigma_v + \sigma_w$$



표 1. I-BEAM 최대지지거리에 따른 굽힘응력 계산 결과

I-BEAM 규격	최대지지 거리(cm)	I-BEAM		단면계수		Ms (kg · cm)	Md (kg · cm)	Σ Mv		I-BEAM 용압면적 (m ²)	W (kg)	Mw (kg · cm)	σ _v (kg/cm ²)	σ _w (kg/cm ²)
		단위중량 (kg/cm)	자중 (kg)	Zx (cm ³)	Zy (cm ³)			(kg · cm)	(kg · cm)					
200 × 150 × t9/16	150	0.504	75.6	446	100	1530.90	491832.00	493362.90	493362.90	0.30	47.12	3534.30	1106.19	35.34
300 × 150 × t8/13	200	0.483	96.6	632	78.4	2608.20	655776.00	658384.20	658384.20	0.60	55.44	5544.00	1041.75	70.71
300 × 150 × t10/18.5	270	0.655	176.85	849	118	6446.18	885297.60	891743.78	891743.78	0.81	61.26	8270.26	1050.35	70.09
300 × 150 × t11.5/22	320	0.768	245.76	978	143	10616.83	1049241.60	1059858.43	1059858.43	0.96	65.42	10467.07	1083.70	73.20
350 × 150 × t9/15	270	0.585	157.95	870	93.5	5757.28	885297.60	891054.88	891054.88	0.95	65.00	8775.46	1024.20	93.86
350 × 150 × t12/24	400	0.872	348.8	1280	158	18835.20	1311552.00	1330387.20	1330387.20	1.40	77.62	15523.20	1039.37	98.25
400 × 150 × t10/18	370	0.72	266.4	1200	115	13306.68	1213185.60	1226492.28	1226492.28	1.48	79.83	14769.22	1022.08	128.43
400 × 150 × t12.5/25	480	0.958	459.84	1580	165	29797.63	1573862.40	1603660.03	1603660.03	1.92	92.03	22087.30	1014.97	133.86
450 × 175 × t11/20	520	0.917	476.84	1740	173	33474.17	1705017.60	1738491.77	1738491.77	2.34	103.67	26954.93	999.13	155.81
450 × 175 × t13/26	630	1.15	724.5	2170	231	61618.73	2065694.40	2127313.13	2127313.13	2.84	117.39	36979.17	980.33	160.08
600 × 190 × t13/25	830	1.33	1103.9	3280	259	123692.00	2721470.40	2845162.40	2845162.40	4.98	176.85	73394.24	867.43	283.38
600 × 190 × t16/35	1050	1.76	1848	4330	373	261954.00	3442824.00	3704778.00	3704778.00	6.30	213.44	112058.10	855.61	300.42

불법복제 및 배포금지

[I-BEAM의 처짐량(Deflection) 및 최대굽힘응력 판정 결과]

1. 처짐량 판정 1

판정기준: $L / \sigma > 800$
 $\ast \sigma = \sigma_s + \sigma_d$

2. 처짐량 판정 2

판정기준: $L / \sigma_d > 1000$

3. 최대굽힘응력 판정

판정기준: $\sum \sigma \leq 1159 \text{ (kg/cm}^2\text{)} (= \text{SS400 허용굽힘응력 } 1449 \times 0.8)$
 $\ast \sum \sigma = \sigma_v + \sigma_w$

$\ast$ I-BEAM 자중에 의한 처짐 (σ_s)

$$\sigma_s = \frac{5 \times \text{I-Beam자중} \times \text{지지거리}^3}{384 \times E \times I_x}$$

$\ast$ 이동하중에 의한 처짐 (σ_d)

$$\sigma_d = \frac{(\text{정격하중} + \text{호이스트 자중}) \times \text{지지거리}^3}{48 \times E \times I_x}$$

$E =$ 종탄성계수 (2,100,000 kg/cm²)

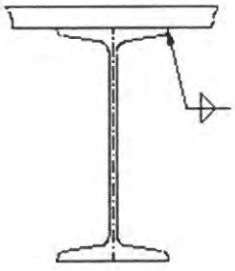
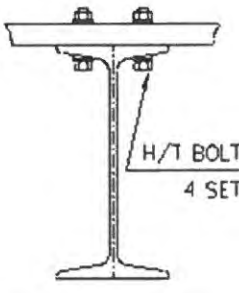
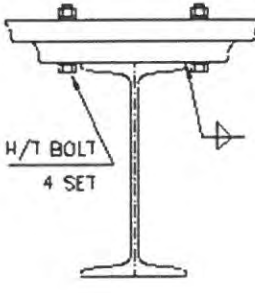
$I_x =$ 단면2차MOMENT

판정기준		
> 800	> 1000	≤ 1159

I-BEAM 규격	I_x (cm ⁴)	최대지지 거리(cm)	σ_s (cm)	σ_d (cm)	처짐량판정1	처짐량판정2	$\sum \sigma$ (kg/cm ²)
200 × 150 × t9/16	4460	150	0.0004	0.0829	1802.1	1809.9	1141.5
300 × 150 × t8/13	9480	200	0.0005	0.0924	2152.1	2163.9	1112.5
300 × 150 × t10/18.5	12700	270	0.0017	0.1697	1574.9	1590.6	1120.4
300 × 150 × t11.5/22	14700	320	0.0034	0.2441	1292.7	1310.7	1156.9
350 × 150 × t9/15	15200	270	0.0013	0.1418	1886.9	1903.7	1118.1
350 × 150 × t12/24	22400	400	0.0062	0.3129	1253.5	1278.3	1137.6
400 × 150 × t10/18	24100	370	0.0035	0.2302	1583.4	1607.3	1150.5
400 × 150 × t12.5/25	31700	480	0.0099	0.3821	1224.4	1256.2	1148.8
450 × 175 × t11/20	39200	520	0.0106	0.3929	1288.9	1323.6	1154.9
450 × 175 × t13/26	48800	630	0.0230	0.5612	1078.4	1122.6	1140.4
600 × 190 × t13/25	94800	830	0.0413	0.6606	1182.5	1256.4	1150.8
600 × 190 × t16/35	130000	1050	0.1020	0.9753	974.6	1076.6	1156

■ I-BEAM의 고정방법 및 사양

1. I-BEAM의 고정방법

용접구조	BOLT 체결구조	복합구조
		

2. 기본조건 및 사양

- * 용접이음의 허용응력(필렛용접 효율 포함) : 560kg/cm²
- * 필렛 용접효율 : 80%
- * H/T BOLT의 허용 인장응력 : 2,500kg/cm²

단위: mm

정격하중(Kg)	용접구조		BOLT 체결구조
	최소 용접두께	최소 용접길이	최소 BOLT SIZE
10000	10	190	M20 x 4set

단, 적용 I-BEAM 600×190×t16/35 의 경우임

※강도계산서 참조



[I-BEAM 고정볼트 강도 및 용접강도 계산서]

1) I-BEAM 고정방법중 BOLT구조의 강도 계산

[H/T BOLT의 허용인장응력 : 2500 kg/cm²]

☞ 작용하중 계산

$$P = \Psi \times (Q+Q1) + \phi \times Q2$$

충격계수 $\Psi = 1.1$
 작업계수 $\phi = 1.08$
 정격하중 $Q = 10000$
 HOIST자중 $Q1 = 1040$

☞ BOLT 1 개당 인장강도 계산

$$\sigma = \frac{P}{A} = 4 \times \frac{P}{(\pi \times d^2 \times z)}$$

※ 판정기준: $\sigma < 2500 \text{ kg/cm}^2$

BEAM 규격	BEAM자중 (kg)	하중 P(kg)	BOLT 규격	BOLT수	BOLT 단면적 (cm ²)	BOLT강도
200 × 150 × t9/16	75.6	12225.6	M20	4	3.14	973.4
300 × 150 × t8/13	96.6	12248.3	M20	4	3.14	975.2
300 × 150 × t10/18.5	176.85	12335	M20	4	3.14	982.1
300 × 150 × t11.5/22	245.76	12409.4	M20	4	3.14	988
350 × 150 × t9/15	157.95	12314.6	M20	4	3.14	980.5
350 × 150 × t12/24	348.8	12520.7	M20	4	3.14	996.9
400 × 150 × t10/18	266.4	12431.7	M20	4	3.14	989.8
400 × 150 × t12.5/25	459.84	12640.6	M20	4	3.14	1006.4
450 × 175 × t11/20	476.84	12659	M20	4	3.14	1007.9
450 × 175 × t13/26	724.5	12926.5	M20	4	3.14	1029.2
600 × 190 × t13/25	1103.9	13336.2	M20	4	3.14	1061.8
600 × 190 × t16/35	1848	14139.8	M20	4	3.14	1125.8

불법복제 및 배포금지

2) I-BEAM 고정방법중 용접구조의 강도 계산

[용접이음의 허용응력: 560 kg/cm²]

용접강도 계산

$$\sigma_w = \frac{P}{0.707 \times t \times 2 \times l} \quad \text{kg/cm}^2$$

※ 판정기준: $\sigma_w < 560 \text{ kg/cm}^2$

BEAM 규격	하중 P(kg)	용접두께 t (cm)	용접길이 l (cm)	용접강도 $\sigma_w(\text{kg/cm}^2)$
200 × 150 × t9/16	12225.6	1.2	15	480.3
300 × 150 × t8/13	12248.3	1.2	15	481.2
300 × 150 × t10/18.5	12335	1.2	15	484.6
300 × 150 × t11.5/22	12409.4	1.2	15	487.6
350 × 150 × t9/15	12314.6	1.2	15	483.8
350 × 150 × t12/24	12520.7	1.2	15	491.9
400 × 150 × t10/18	12431.7	1.2	15	488.4
400 × 150 × t12.5/25	12640.6	1.2	15	496.6
450 × 175 × t11/20	12659	1	17.5	511.6
450 × 175 × t13/26	12926.5	1	17.5	522.4
600 × 190 × t13/25	13336.2	1	19	496.4
600 × 190 × t16/35	14139.8	1	19	526.3

안전보건공단

REFERENCE



불법복제 및 배포금지

■ 배선용 차단기의 정격전류 용량 계산

♣ 규격 : 차단기의 차단용량이 해당 전동기 등의 정격전류에 대하여 250% 이하일 것.
(안전인증 절차 및 안전인증 기준 55항목 전기관계)

$$I_B \leq 2.5 \times (I_M + I_L)$$

I_B : 배선용 차단기의 정격전류

I_M : 전동기 정격전류

I_L : 전동기 이외의 부하전류

전압 부품		220V	380V	440V	460V	480V
10 TON (2 x 3.3kw x 4p)	관상 전동기	13.0	7.53	6.5	6.0	5.96
	횡행 전동기	4.8	2.78	2.4	2.3	2.3
	CONTROL	2	1	1	1	1
합 계		32.8	18.84	16.4	15.3	15.2
배선용 차단기 적용 계산값		82	47.1	41	38.25	38
배선용 차단기 적용 용량		50AF/40AT	30AF/30AT	30AF/20AT	30AF/20AT	30AF/20AT

※ 횡행 전동기는 0.8/0.4kw x 4/8P모터의 0.8kw x 4P 전류치를 적용하여 계산함

▣ 과부하 방지장치 전류 조정 기준치

1. 내부 조작반의 전류 조정버튼으로 설정한다.
2. 전류 설정범위 도표

구 분	전동기 용량	범위	공급전압 별 전류 설정값	
			공급전압[V]	전류 설정값[A]
권 상	3.3[Kw] x 4P	100%	220V	13.0
			380V	7.53
			440V	6.50
			460V	6.0
			480V	5.96
		110%	220V	14.3
			380V	8.28
			440V	7.15
			460V	6.60
			480V	6.56

3. 과부하 방지장치의 전류설정은 하중110%에 대한 전류 값을 전류 조정버튼으로 조정한다.
4. 상기 정격전류는 극동제품에 맞게 설정되어 있으며, 공장내부의 전압 및 전류는 변동이 발생할 수 있기 때문에 정격전류의 설정치는 약간의 변동이 발생할 수도 있음. 또한, 전동기의 제조 특성상 $\pm 5\%$ 범위의 오차 가능성도 있음.



(OVER LOAD PROTECTOR) 합격증사본



제 2012-BJ-0008 호



안 전 인 증 서

정호엔지니어링

경기도 광명시 노동사동 440-5

위 사업장에서 제조하는 아래의 품목이 산업안전보건법 제34조 및 같은 법 시행규칙 제58조의4제4항에 따른 안전인증 심사 결과 안전·보건기준에 적합하므로 안전인증표시의 사용을 인증합니다.

품 목

양중기용 과부하방지장치

형식·모델/용량·등급/인증번호

형식·모델

용량·등급

인증번호

JDLS-70

J-2

12-AV2BJ-0008

인 증 기 준

방호장치 의무안전인증 고시(고용노동부고시 제2010-36호)

인 증 조 건

아래 주소에서 생산되는 제품에 한함.

정호엔지니어링, 경기도 광명시 노동사동 440-5

2012년 06월 11일

한국산업안전보건공단 이사장



◆ DATA SHEET OF MOTOR ◆

1	APPLICATION : HOISTING MOTOR			2	MOTOR TYPE : SQUIRREL CAGE INDUCTION MOTOR		
3	OUTPUT : 3.3 [kw]			4	POLES : 4		
5	SPEED : 1740 [rpm]			6	INSULATION CLASS : F		
7	STARTING METHOD : ACROSS THE LINE STARTER (FULL VOLTAGE)			8	RATING : 30 [min]		
9	POWER SUPPLY	220V 380V AC 3Φ 440V 60Hz 460V 480V		10	NO LOAD CURRENT [A]	220V 380V 440V 460V 480V	7.1 4.11 3.55 3.4 3.25
11	FULL LOAD CURRENT [A]	220V 380V 440V 460V 480V	13.0 7.53 6.50 6.00 5.96	12	STARTING CURRENT [A]	220V 380V 440V 460V 480V	55.3 32.02 27.65 26.45 25.35
13	WINDING CONNECTION	220V 380V 440V 460V 480V	DELTA STAR STAR STAR STAR	14	MINIMUM STARTING VOLTAGE [V]	220V 380V 440V 460V 480V	198 342 396 414 432
15	EFFICIENCY : 82.8 [%]			16	POWER FACTOR : 77.7 [%]		
17	FULL LOAD TORQUE : 1.84 [kg · m]			18	STARTING TORQUE : 279 [%]		
19	BEARING : OPL – 6009Z , PL – 6206Z			20	NOISE LEVEL : 65 [dB]		
21	PAINTING COLOR : 0.4PB 4.2/5.6			22	ROTATION : CCW & CW		
23	ENCLOSURE : TENV			24	NET WEIGHT : 30.7 [kg]		
25	BEARING LUBRICATION : GREASE			26	LOCATION : OUT DOOR		
27	TEMPERATURE RISE AT FULL LOAD : BY RESISTOR METHOD : 90 [°C]						

THREE PHASE INDUCTION MOTOR DATA SHEET

SCHEDULE OF TECHNICAL DATA

1. SERVICE	TRAVERSING
2. MANUFACTURE	극동 호이스트 (주)
3. FRAME NUMBER	90 S
4. RATED POWER	0.75 KW x 4 P
5. RATED VOLTAGE AND FREQUENCY	220 V 60 Hz
6. MOTOR TYPE	SQUIRREL CAGE ROTOR TYPE
7. SERVICE FACTOR AND RATting	1.0 , 30 MIN
8. LOCATION AND INSULATION CLASS	INDOOR, OUTDOOR, B CLASS
9. DESIGN TEMPERATURE RISE(BY RESISTANCE)	80 °C
10. FULL LOAD SPEED	1760 RPM
11. FULL LOAD CURRENT	4.1 A
12. STARTING CURRENT AT RATED VOLTAGE	22.1 A
13. MINIMUM STARTING VOLTAGE	198 V
14. EFFICIENCY AT 100% RATED LOAD	66.0 %
15. POWER FACTOR AT 100% RATED LOAD	73.5 %
16. STARTING TORQUE	1.02 KG.M
17. SITE ALTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	T E N V
19. TYPE OF BEARING	PL : 6205zz OPL : 6204zz
20. MOUNTING	H O R I Z O N T A L
21. MAXIMUM AMBIENT TEMPERATURE	40 °C
22. BEARING LUBRICATION	G R E A S E
23. STARTING METHOD	F U L L V O L T A G E

THREE PHASE INDUCTION MOTOR DATA SHEET

SCHEDULE OF TECHNICAL DATA

1. SERVICE	TRAVERSING
2. MANUFACTURE	극동 호이스트 (주)
3. FRAME NUMBER	90 S
4. RATED POWER	0.75 KW x 4 P
5. RATED VOLTAGE AND FREQUENCY	380 V 60 Hz
6. MOTOR TYPE	SQUIRREL CAGE ROTOR TYPE
7. SERVICE FACTOR AND RATting	1 . 0 , 30 MIN
8. LOCATION AND INSULATION CLASS	INDOOR, OUTDOOR, B CLASS
9. DESIGN TEMPERATURE RISE(BY RESISTANCE)	80 °C
10. FULL LOAD SPEED	1760 RPM
11. FULL LOAD CURRENT	2.4 A
12. STARTING CURRENT AT RATED VOLTAGE	13.5 A
13. MINIMUM STARTING VOLTAGE	342 V
14. EFFICIENCY AT 100% RATED LOAD	67.0 %
15. POWER FACTOR AT 100% RATED LOAD	69.5 %
16. STARTING TORQUE	0.85 KG.M
17. SITE ALTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	T E F C
19. TYPE OF BEARING	PL : 6205zz OPL : 6204zz
20. MOUNTING	H O R I Z O N T A L
21. MAXIMUM AMBIENT TEMPERATURE	40 °C
22. BEARING LUBRICATION	G R E A S E
23. STARTING METHOD	F U L L V O L T A G E

THREE PHASE INDUCTION MOTOR DATA SHEET

SCHEDULE OF TECHNICAL DATA

1. SERVICE	TRAVERSING
2. MANUFACTURE	극동 호이스트 (주)
3. FRAME NUMBER	90 S
4. RATED POWER	0.75 KW x 4 P
5. RATED VOLTAGE AND FREQUENCY	440 V 60 Hz
6. MOTOR TYPE	SQUIRREL CAGE ROTOR TYPE
7. SERVICE FACTOR AND RATting	1.0 , 30 MIN
8. LOCATION AND INSULATION CLASS	INDOOR, OUTDOOR, B CLASS
9. DESIGN TEMPERATURE RISE(BY RESISTANCE)	80 °C
10. FULL LOAD SPEED	1760 RPM
11. FULL LOAD CURRENT	2.0 A
12. STARTING CURRENT AT RATED VOLTAGE	11.1 A
13. MINIMUM STARTING VOLTAGE	396 V
14. EFFICIENCY AT 100% RATED LOAD	67.0 %
15. POWER FACTOR AT 100% RATED LOAD	73.5 %
16. STARTING TORQUE	1.02 KG.M
17. SITE ALTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	T E N V
19. TYPE OF BEARING	PL : 6205zz OPL : 6204zz
20. MOUNTING	H O R I Z O N T A L
21. MAXIMUM AMBIENT TEMPERATURE	40 °C
22. BEARING LUBRICATION	G R E A S E
23. STARTING METHOD	F U L L V O L T A G E

THREE PHASE INDUCTION MOTOR DATA SHEET

SCHEDULE OF TECHNICAL DATA

1. SERVICE	TRAVERSING
2. MANUFACTURE	극동 호이스트 (주)
3. FRAME NUMBER	90 S
4. RATED POWER	0.75 KW x 4 P
5. RATED VOLTAGE AND FREQUENCY	460 V 60 Hz
6. MOTOR TYPE	SQUIRREL CAGE ROTOR TYPE
7. SERVICE FACTOR AND RATting	1.0 , 30 MIN
8. LOCATION AND INSULATION CLASS	INDOOR, OUTDOOR, B CLASS
9. DESIGN TEMPERATURE RISE(BY RESISTANCE)	80 °C
10. FULL LOAD SPEED	1760 RPM
11. FULL LOAD CURRENT	2.0 A
12. STARTING CURRENT AT RATED VOLTAGE	10.6 A
13. MINIMUM STARTING VOLTAGE	414 V
14. EFFICIENCY AT 100% RATED LOAD	66.0 %
15. POWER FACTOR AT 100% RATED LOAD	73.5 %
16. STARTING TORQUE	1.02 KG.M
17. SITE ALTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	T E N V
19. TYPE OF BEARING	PL : 6205zz OPL : 6204zz
20. MOUNTING	H O R I Z O N T A L
21. MAXIMUM AMBIENT TEMPERATURE	40 °C
22. BEARING LUBRICATION	G R E A S E
23. STARTING METHOD	F U L L V O L T A G E

THREE PHASE INDUCTION MOTOR DATA SHEET

SCHEDULE OF TECHNICAL DATA

1. SERVICE	TRAVERSING
2. MANUFACTURE	극동 호이스트 (주)
3. FRAME NUMBER	90 S
4. RATED POWER	0.75 KW x 4 P
5. RATED VOLTAGE AND FREQUENCY	480 V 60 Hz
6. MOTOR TYPE	SQUIRREL CAGE ROTOR TYPE
7. SERVICE FACTOR AND RATting	1.0 , 30 MIN
8. LOCATION AND INSULATION CLASS	INDOOR, OUTDOOR, B CLASS
9. DESIGN TEMPERATURE RISE(BY RESISTANCE)	80 °C
10. FULL LOAD SPEED	1760 RPM
11. FULL LOAD CURRENT	1.9 A
12. STARTING CURRENT AT RATED VOLTAGE	10.2 A
13. MINIMUM STARTING VOLTAGE	432 V
14. EFFICIENCY AT 100% RATED LOAD	66.0 %
15. POWER FACTOR AT 100% RATED LOAD	73.5 %
16. STARTING TORQUE	1.02 KG.M
17. SITE ALTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	T E N V
19. TYPE OF BEARING	PL : 6205zz OPL : 6204zz
20. MOUNTING	H O R I Z O N T A L
21. MAXIMUM AMBIENT TEMPERATURE	40 °C
22. BEARING LUBRICATION	G R E A S E
23. STARTING METHOD	F U L L V O L T A G E

THREE PHASE INDUCTION MOTOR DATA SHEET

SCHEDULE OF TECHNICAL DATA

1. SERVICE	TRAVERSING
2. MANUFACTURE	극동 호이스트 (주)
3. FRAME NUMBER	90 M
4. RATED POWER	0.8 / 0.4 KW x 4 / 8 P
5. RATED VOLTAGE AND FREQUENCY	220 V 60 Hz
6. MOTOR TYPE	SQUIRREL CAGE ROTOR TYPE
7. SERVICE FACTOR AND RATting	1.0 , 30 MIN
8. LOCATION AND INSULATION CLASS	INDOOR, OUTDOOR, B CLASS
9. DESIGN TEMPERATURE RISE(BY RESISTANCE)	80 °C
10. FULL LOAD SPEED	1750 / 850 RPM
11. FULL LOAD CURRENT	4.8 / 4.25 A
12. LOCKED ROTOR CURRENT	14.2 / 13.6 A
13. MINIMUM STARTING VOLTAGE	198 V
14. EFFICIENCY AT 100% RATED LOAD	72.8 / 65.8 %
15. POWER FACTOR AT 100% RATED LOAD	82.3 / 75.0 %
16. FULL LOAD TORQUE	0.80 KG.M
17. SITE ALTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	T E N V
19. TYPE OF BEARING	PL : 6205zz OPL : 6204zz
20. MOUNTING	H O R I Z O N T A L
21. MAXIMUM AMBIENT TEMPERATURE	40 °C
22. BEARING LUBRICATION	G R E A S E
23. STARTING METHOD	F U L L V O L T A G E

THREE PHASE INDUCTION MOTOR DATA SHEET

SCHEDULE OF TECHNICAL DATA

1. SERVICE	TRAVERSING
2. MANUFACTURE	극동 호이스트 (주)
3. FRAME NUMBER	90 M
4. RATED POWER	0.8 / 0.4 KW x 4 / 8 P
5. RATED VOLTAGE AND FREQUENCY	380 V 60 Hz
6. MOTOR TYPE	SQUIRREL CAGE ROTOR TYPE
7. SERVICE FACTOR AND RATting	1.0 , 30 MIN
8. LOCATION AND INSULATION CLASS	INDOOR, OUTDOOR, B CLASS
9. DESIGN TEMPERATURE RISE(BY RESISTANCE)	80 °C
10. FULL LOAD SPEED	1750 / 850 RPM
11. FULL LOAD CURRENT	2.78 / 2.63 A
12. LOCKED ROTOR CURRENT	9.2 / 6.3 A
13. MINIMUM STARTING VOLTAGE	342 V
14. EFFICIENCY AT 100% RATED LOAD	72.8 / 65.8 %
15. POWER FACTOR AT 100% RATED LOAD	82.3 / 75.0 %
16. FULL LOAD TORQUE	0.80 KG.M
17. SITE ALTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	T E N V
19. TYPE OF BEARING	PL : 6205zz OPL : 6204zz
20. MOUNTING	H O R I Z O N T A L
21. MAXIMUM AMBIENT TEMPERATURE	40 °C
22. BEARING LUBRICATION	G R E A S E
23. STARTING METHOD	F U L L V O L T A G E

THREE PHASE INDUCTION MOTOR DATA SHEET

SCHEDULE OF TECHNICAL DATA

1. SERVICE	TRAVERSING
2. MANUFACTURE	극동 호이스트 (주)
3. FRAME NUMBER	90 M
4. RATED POWER	0.8 / 0.4 KW x 4 / 8 P
5. RATED VOLTAGE AND FREQUENCY	440 V 60 Hz
6. MOTOR TYPE	SQUIRREL CAGE ROTOR TYPE
7. SERVICE FACTOR AND RATting	1.0 , 30 MIN
8. LOCATION AND INSULATION CLASS	INDOOR, OUTDOOR, B CLASS
9. DESIGN TEMPERATURE RISE(BY RESISTANCE)	80 °C
10. FULL LOAD SPEED	1750 / 850 RPM
11. FULL LOAD CURRENT	2.4 / 2.27 A
12. LOCKED ROTOR CURRENT	8.6 / 6.2 A
13. MINIMUM STARTING VOLTAGE	396 V
14. EFFICIENCY AT 100% RATED LOAD	72.8 / 65.8 %
15. POWER FACTOR AT 100% RATED LOAD	82.3 / 75.0 %
16. FULL LOAD TORQUE	0.80 KG.M
17. SITE ALTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	T E N V
19. TYPE OF BEARING	PL : 6205zz OPL : 6204zz
20. MOUNTING	H O R I Z O N T A L
21. MAXIMUM AMBIENT TEMPERATURE	40 °C
22. BEARING LUBRICATION	G R E A S E
23. STARTING METHOD	F U L L V O L T A G E

THREE PHASE INDUCTION MOTOR DATA SHEET

SCHEDULE OF TECHNICAL DATA

1. SERVICE	TRAVERSING
2. MANUFACTURE	극동 호이스트 (주)
3. FRAME NUMBER	90 M
4. RATED POWER	0.8 / 0.4 KW x 4 / 8 P
5. RATED VOLTAGE AND FREQUENCY	460 V 60 Hz
6. MOTOR TYPE	SQUIRREL CAGE ROTOR TYPE
7. SERVICE FACTOR AND RATting	1 . 0 , 30 MIN
8. LOCATION AND INSULATION CLASS	INDOOR, OUTDOOR, B CLASS
9. DESIGN TEMPERATURE RISE(BY RESISTANCE)	80 °C
10. FULL LOAD SPEED	1750 / 850 RPM
11. FULL LOAD CURRENT	2.3 / 2.17 A
12. LOCKED ROTOR CURRENT	8.5 / 6.2 A
13. MINIMUM STARTING VOLTAGE	414 V
14. EFFICIENCY AT 100% RATED LOAD	72.8 / 65.8 %
15. POWER FACTOR AT 100% RATED LOAD	82.3 / 75.0 %
16. FULL LOAD TORQUE	0.80 KG.M
17. SITE ALTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	T E N V
19. TYPE OF BEARING	PL : 6205zz OPL : 6204zz
20. MOUNTING	H O R I Z O N T A L
21. MAXIMUM AMBIENT TEMPERATURE	40 °C
22. BEARING LUBRICATION	G R E A S E
23. STARTING METHOD	F U L L V O L T A G E

THREE PHASE INDUCTION MOTOR DATA SHEET

SCHEDULE OF TECHNICAL DATA

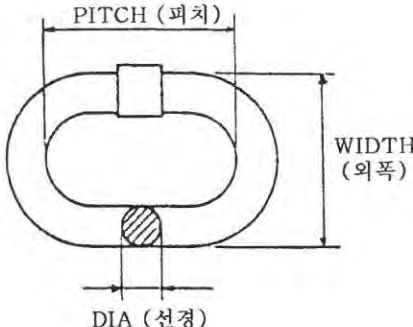
1. SERVICE	TRAVERSING
2. MANUFACTURE	극동 호이스트 (주)
3. FRAME NUMBER	90 M
4. RATED POWER	0.8 / 0.4 KW x 4 / 8 P
5. RATED VOLTAGE AND FREQUENCY	480 V 60 Hz
6. MOTOR TYPE	SQUIRREL CAGE ROTOR TYPE
7. SERVICE FACTOR AND RATting	1.0 , 30 MIN
8. LOCATION AND INSULATION CLASS	INDOOR, OUTDOOR, B CLASS
9. DESIGN TEMPERATURE RISE(BY RESISTANCE)	80 °C
10. FULL LOAD SPEED	1750 / 850 RPM
11. FULL LOAD CURRENT	2.3 / 2.1 A
12. LOCKED ROTOR CURRENT	8.4 / 6.15 A
13. MINIMUM STARTING VOLTAGE	432 V
14. EFFICIENCY AT 100% RATED LOAD	72.8 / 65.8 %
15. POWER FACTOR AT 100% RATED LOAD	82.3 / 75.0 %
16. FULL LOAD TORQUE	0.80 KG.M
17. SITE ALTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	T E N V
19. TYPE OF BEARING	PL : 6205zz OPL : 6204zz
20. MOUNTING	H O R I Z O N T A L
21. MAXIMUM AMBIENT TEMPERATURE	40 °C
22. BEARING LUBRICATION	G R E A S E
23. STARTING METHOD	F U L L V O L T A G E

불법복제 및 배포금지

CERTIFICATE OF INSPECTION AND TEST FOR LOAD CHAIN

KUK DONG HOIST Co., Ltd.
극동호이스트 주식회사

주 소 : 경기도 안산시 단원구 해봉로 119
T E L : 031-491-5311~4
F A X : 031-492-0473

MESSERS 납 품 처	아이케이티오	ORDER NO.					Test Certificate According to KS B 6278 GRADE-80
I T E M 품 명	LOAD CHAIN 11.2 Ø						
CERT No. 검사번호	KDQ-A-112						
Characteristics of the Chain 체 인 치 수	Diameter 선경(mm)	Pitch 피치(mm)	Width 외경너비(mm)	Weight 중량(kg/M)			
S P E C. 규 격	11.2	34.3	36.0	2.70			
Tolerance + 허용오차 -	0 0.1	0.2 0					
Measurement 측 정 치	11.2	34.3	36.0	2.70			
Material: SAE15B24		Welding Process(용접방법) Butt Resistance Welding			Heat Treatment 열처리 : Hv 600		
Quantity 납품수량		Weight 중량(kg)	Safe Working 안전사용하중(kgf)	Proof Load 시험하중(kgf)	Breaking Load 파단하중(kgf) Min.16,000 kg	Elongation 연신율(%) 6%	
LOT No.	M						
-	92	-	4,000 kg	8,000 kg	19,100 kg	8.4 %	
RESULT OF TEST POSITIVE				TEST DATE : 2016. 01. 05 검 사 일 자 KUK DONG CO., LTD SIGNATURE OF TESTER 검사자 서명 : SEO SANG YEON			
THIS TEST CERTIFICATE MUST BE KEPT FOR THREE YEARS RESP. DURING THE ENTIRE SERVICE LIFE OF THE CHAIN. 본 시험 성적서는 체인의 작업수명인 3년간 보관되어야 합니다.							
※ 로드 체인 사용 시 주의사항 1. 안전사용 하중을 초과하지 말 것. 2. 충격을 가하지 말 것. 3. 부식으로 부터 보호할 것. 4. 체인이 꼬이지 않도록 할 것.							

KUK DONG HOIST Co., Ltd.

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