



제 2013 - 69186 호

안 전 인 증 서

(사업장명)

극동호이스트(주)

(소재지) (425-833)경기도 안산시 성곡동630-2 반월공단 B-607-14

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

_____ 형식,모델(용량,등급)/인증번호 _____
KD3-L (3.0Ton) /13-AQ2AC-03901

_____ 인 증 기 준 _____
고용노동부 고시 제2012 - 33호 (위험기계,기구 의무안전인증 고시)

_____ 인 증 조 건 _____

2013년 08월 27일



한국산업안전보건공단이사장



심사결과 통지서

신청인	사업장명	극동호이스트(주)	사업장관리번호	134-81-013350
	사업자등록번호	134-81-01335	대표자 성명	최성찬
	소재지	(425 - 833) 경기도 안산시 성곡동630-2 반월공단 B-607-14		
안전인증대상 기계·기구명				
호이스트				
형식 (규격)		KD3-L	용량 (등급)	3.0 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.

2011년 11월 02일

인증심사원

강성두 변명수

(서명인)

한국산업안전보건공단 경기서부지도원장

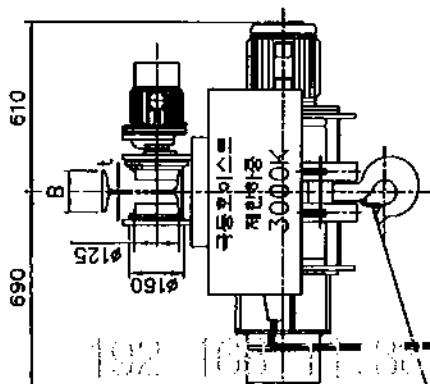
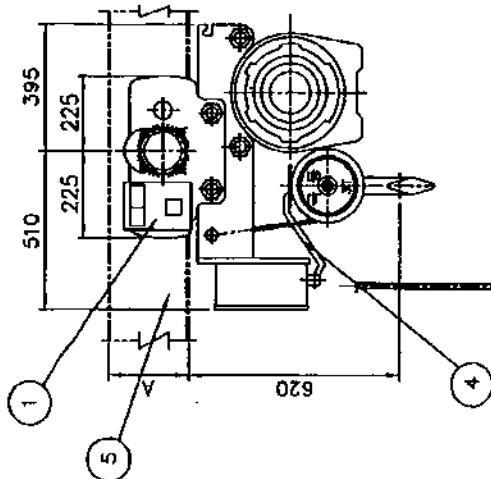


동일형식일람표

사업장명	구동호이스트(원)	개정일자 및 번호	동일 형식 인정범위 및 내역	인정번호	비고
형식	모델	권상속도(m/min)	원행속도(m/min)	양정(m)	행방식
KD3-L	KD3-L6-L	고속:9.0M/MIN	고속:24M/MIN	6	모터구동식
	KD3-L9-L		저속:16M/MIN	9	
		저속:4.5M/MIN	듀얼고속:24/12M/MIN		
			듀얼저속:16/8M/MIN		



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TRAVERSING	BEAM	I_x	Z_{CAL}	SUPPORT
A x B x		(Cm ⁴)	(Cm ³)	LENGTH
250 x 125 x 75		5180	414	MAX. 3.7M
300 x 150 x 10		12700	845	MAX. 5.8M
350 x 150 x 9		15200	870	MAX. 6.3M
400 x 150 x 10		24100	1200	MAX. 8.0M
450 x 175 x 11		39200	1740	MAX. 10.0M

PUSH BUTTON SW

DESCRIPTION	SYMBOLS	DESCRIPTION	SYMBOLS	SYMBOLS		DESCRIPTION	SYMBOLS	
				MAKE	BREAK		MAKE	BREAK
3 PHASE SQUIRREL CAGE ROTOR INDUCTION MOTOR		NO FUSE BREAKER 2 PHASE		MAGNETIC & RELAY CONTACTOR		PUSHBUTTON SWITCH 1 BUTTON 2 STEP TYPE		
3 PHASE WOUND ROTOR INDUCTION MOTOR		NO FUSE BREAKER 3 PHASE		ON DELAY TIME CONTACTOR				
DC MAG. BRAKE DISK TYPE		EARTH LEAKAGE BREAKER 2 PHASE		OFF DELAY TIME CONTACTOR				
THRUSTOR BRAKE		EARTH LEAKAGE BREAKER 3 PHASE		DOOR OR THERMAL RELAY CONTACTOR		TOGGLE SWITCH OR SELECTOR SWITCH		
AC-DC MAG. BRAKE		TRANSFORMER		THERMOSTAT				
SC BRAKE		CURRENT TRANSFORMER		UNIT SWITCH				
EC BRAKE		POTENTIAL TRANSFORMER		PUSHBUTTON SWITCH				
RECTIFIER		FUSE		EMERGENCY PUSHBUTTON SWITCH				
LOAD LIMITER ELECTRICAL TYPE		FUSE WITH CONTACTOR		KEY SWITCH				
ELECTRONIC OVER CURRENT RELAY		TRANSISTOR UNIT		FOOT SWITCH				

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ELECTRICAL SPECIFICATION

POWER SOURCE : AC 3 Φ 220V, 380V, 440V, 460V, 480V 60Hz

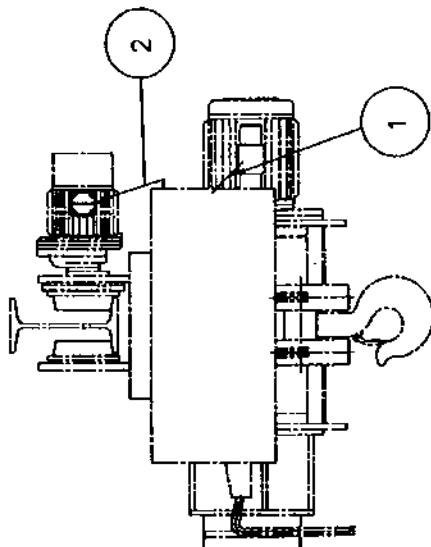
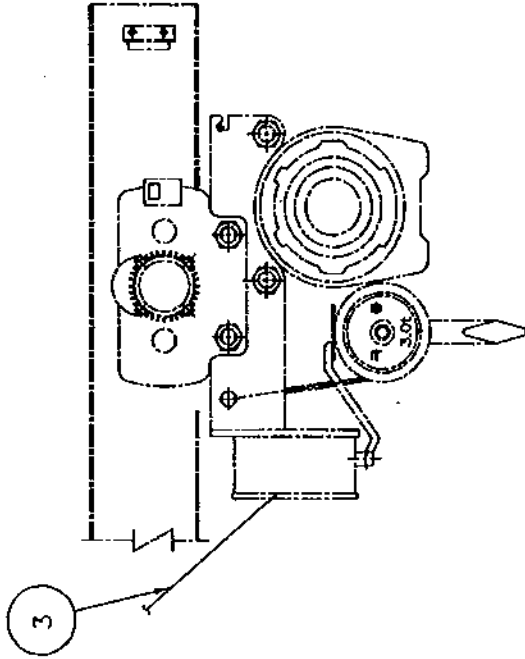
CONTROL SOURCE : AC 1 Φ 110V, 120V 60Hz

OBJECT	MOTOR OUTPUT	220V		380V		440V	460V	480V	440, 460, 480V	BRAKE	REMARK
		STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	STATOR CURRENT	STATOR CURRENT	1st CABLE SIZE		
MAIN HOIST	HIGH 5.5KW x 4P 30 MIN	22.80 A	6.0 sq	12.20 A	6.0 sq	10.5 A	10.0 A	9.6 A	4.0 sq	DC MAG. BRAKE	
	LOW 2.8KW x 8P 30 MIN	17.70 A	6.0 sq	10.30 A	6.0 sq	8.9 A	7.7 A	7.3 A	4.0 sq	DC MAG. BRAKE	
TRAVERSING	HIGH 0.75KW x 4P 30 MIN	4.10 A	4.0 sq	2.40 A	4.0 sq	2.00 A	2.00 A	1.90 A	4.0 sq	DC MAG. BRAKE	1 DRIVE
	LOW 0.5KW x 6P 30 MIN	3.40 A	4.0 sq	2.00 A	4.0 sq	1.70 A	1.70 A	1.60 A	4.0 sq	DC MAG. BRAKE	1 DRIVE
CONTROL CIRCUIT		2 A	2.5 sq	2 A	2.5 sq	2 A	2 A	2 A	2.5 sq		
LIGHTING & ACC'Y CIRCUIT											
SUB TOTAL (PEAK LOAD)		HIGH 28.90 A	10.0 sq	16.60 A	6.0 sq	14.50 A	14.00 A	13.50 A	6.0 sq	I(A)=M/H + T/S + ASS'Y	
SUB TOTAL (NORMAL LOAD)		LOW 23.10 A	10.0 sq	14.30 A	6.0 sq	12.60 A	11.40 A	10.90 A	6.0 sq	I(A)=M/H + T/S + ASS'Y	



* 위 계산은 HIGH(MAX.)일때와 LOW(MIN.)일때만 계산한것임.
* 위 계산은 LIFT 6.9M에 적용.

* MAIN POWER : AC 3PH 220V,380V,440V,460V,480 60Hz (LIFT 6.9M)



본 도면은 EARTH를 영기하기 위한 도면으로서
실제-배치와 다를 수 있으며 HOIST 본체와의
EARTH용 CABLE은 REFERENCE함
*3층-점지공사 100Ω 이하 (AC 3PH 400V 이하)
*4층-점지공사 100Ω 이하 (AC 3PH 400V 이하)

NO	CABLE		REMARK
	TYPE	SIZE	
1	VCT	225V 380V 440V,460V,480V	HOISTING-MOTOR WITH EARTH
2	VCT	6sqx4c 6.0sqx5c	4.0sqx4c+2.5sqx3c
3	VFCT	10sqx4c 6.0sqx4c	MAIN POWER WITH EARTH

시험대상	전선의 최소 유효단면적	최고전압강하(V)
1.0	1.0	3.3
1.5	1.5	2.6
2.5	2.5	1.6
4.0	4.0	1.4
>6.0	>6.0	1.0

동전력전지

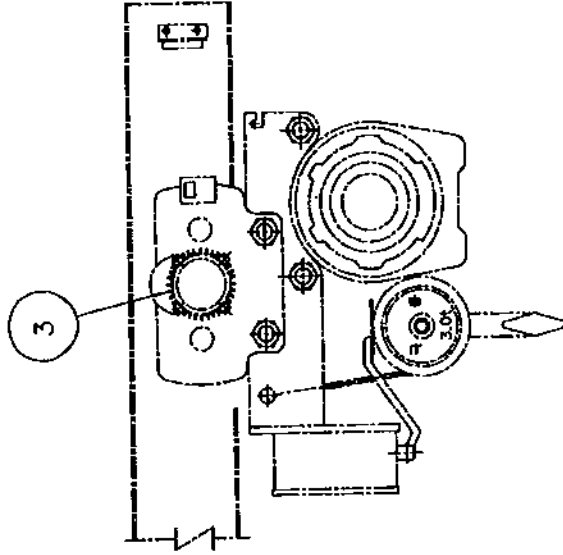
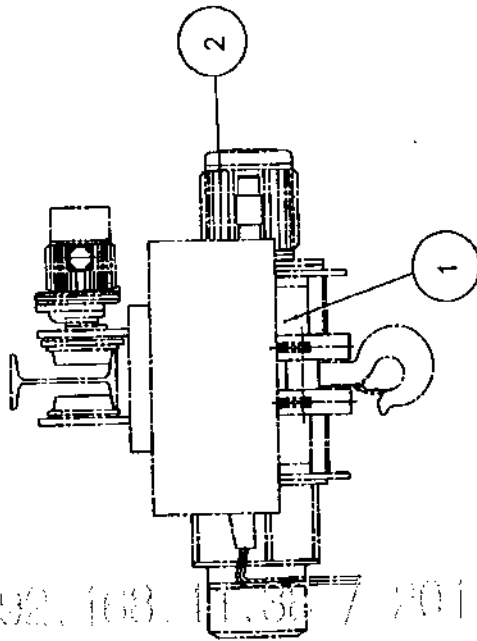
1. 전기장비와 기계의 노출된 모든 도선부는 보호봉장피복에 연결되어야 하며
피복한 전지연속성 기능이 유지되어야 함.
2. 보호봉장피복에는 개폐기, 과전류보호장치가 부착되지 않아야 함.

MK	DATE	REVISIONS	CHK.	APP.	CUSTOMER	DRAWING TITLE	GROUND WIRE SYSTEM	DRAWING	DESIGN	CHECKED	APPROVED	SCALE	DATE	ORDER NO.
						KID KUK DONG HOIST CO., LTD.		DWG. NO				KD3LE06001		

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• MAIN POWER : AC 3PH 220V,380V,440V,460V,480 60Hz (LIFT 6.9M)



ELECTRIC WIRE ROPE HOIST									
MODEL	RATING		MIN						
CAPACITY	Kg	#	LIFT	m					
HOIST SPEED	m/min	POWER SOURCE		V/Hz					
HOIST MOTOR	Kw	#	AMP. S R&T HOIST		A				
TRAV. SPEED	m/min	#	AMP. S R&T TRAV		A				
TRAV. MOTOR	Kw	#	WIRE ROPE		mm				
WIDTH OF RAIL	mm	WEIGHT		Kg					
DATE	SERIAL								
KUKDONG HOIST CO., LTD									

3 PHASE INDUCTION MOTOR			
	KW	P TYPE	TENV
	VOLTS	V RATING	min
AMP.S	A	AMP. TEMP	40C
HEARTS		INS.CLASS	F
R.P.M		BEARING	
ROTOR	C	BEARING	
SERIAL		DATE	
KUKDONG HOIST CO.,LTD			

3 PHASE INDUCTION MOTOR									
	KW	P TYPE	TENV						
	VOLTS	V RATING	min						
AMP'S	A AMP.TEMP	40C							
HEARTS	INS.CLASS	F							
R.P.M	BEARING								
ROTOR	C	BEARING							
SERIAL	DATE								
KUKDONG HOIST CO.,LTD									

DRAWING	DESIGN	CHECKED	APPROVED	SCALE	DATE	ORDER NO.
				NONE		
WIRE HOIST NAMEPLATE						DWG. NO
KUKDONG HOIST CO., LTD.						KD3LE06001
DATE	REVISIONS	CHK	APP.			

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NO	DESCRIPTION	CABLE SIZE
1	MAIN EARTH LINE	USER SCOPE
2	POWER SOURCE	USER SCOPE
3	TROLLEY BAR	USER SCOPE
4	POWER SOURCE WITH EARTH	USER SCOPE
5	HOIST POWER SOURCE WITH EARTH	VCT 1050 x 1C
6	HOISTING MOTOR WITH EARTH	VCT 4.050 x 1C
7	TRAVELING MOTOR WITH EARTH	VCT 4.050 x 1C

* CV CABLE 4C 중 1C는 EARTH로 사용함.

- NOTE -
1. 전동기 외형, 제어반의 프레임 등은 설치하
여 그 설치 자평을

400V 미만 : 100오옴 이하임것.(3중 경지)
400V 이상 : 10오옴 이하임것.(복 3중경지)

2.MAIN S/W BOX는 3중 경지 모.

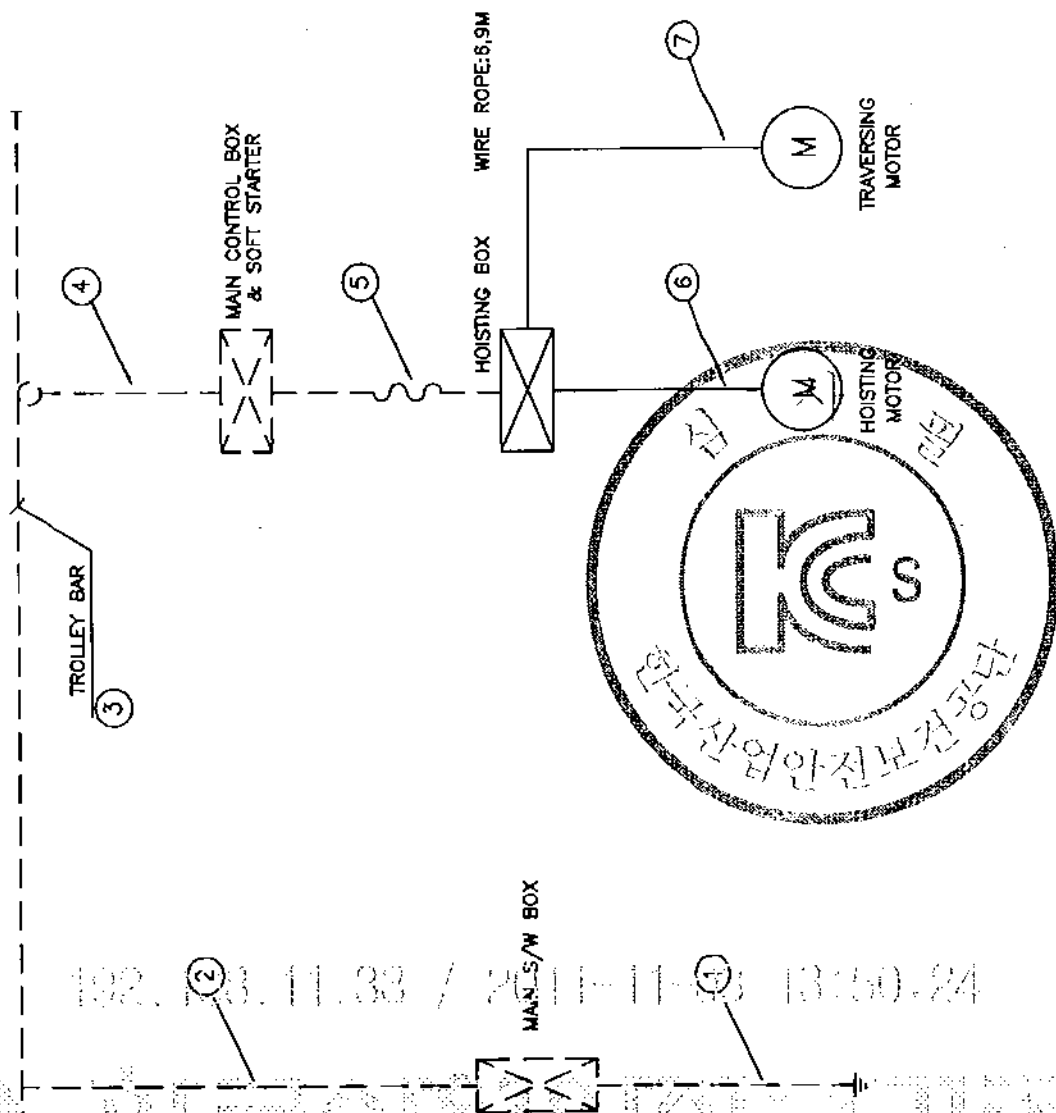
--- USER SCOPE
--- KUKDONG SCOPE

동전위점지

1. 전기장비와 기계의 노출된 모든 도선부는 보호본딩피복에 연결되어야 하여
적절한 접지연속성 기능이 유지되어야함.

2. 보호본딩피복에는 거폐기, 과전류보호장치가 부착되지 않아야 한다.

시험대상 전선의 최소 유효단면적	최고전압강하(V)
1.0	3.3
1.5	2.6
2.5	1.6
4.0	1.4
>6.0	1.0

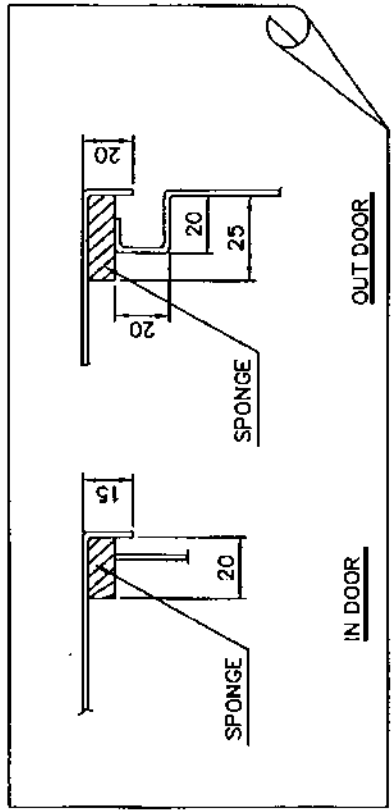
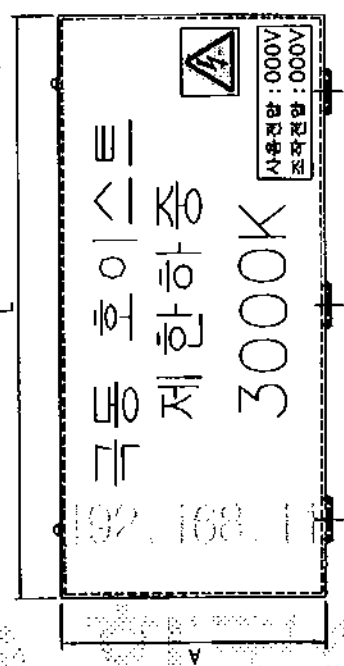
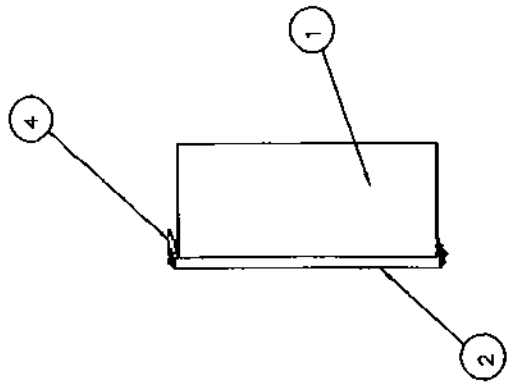


DRAWING	DESIGN	CHECKED	APPROVED	SCALE	DATE	ORDER NO.
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KUKDONG HOIST CO., LTD.						KD3-EC000
KUKDONG HOIST CO., LTD.						
EARTH DETAILS DRAWING						
CUSTOMER						
DRAWING TITLE						
REVISIONS						
CHK. APP.						
DATE						

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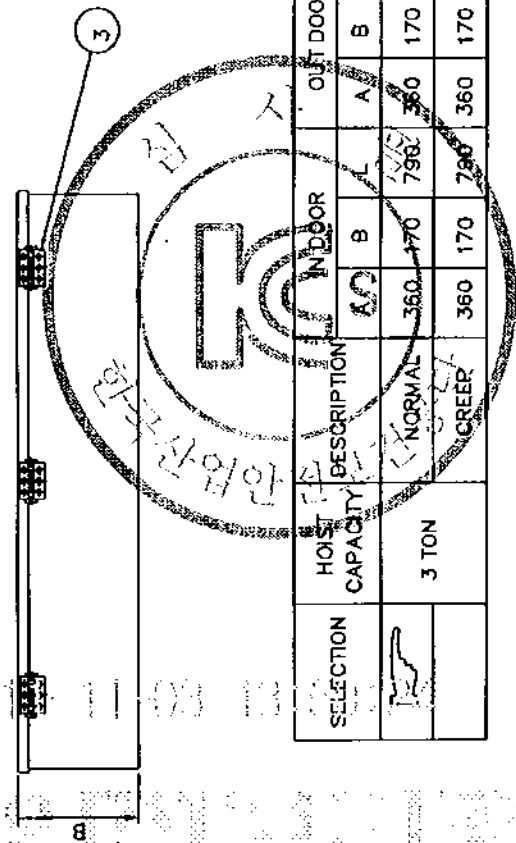
ADR'S NO.

NO	DESCRIPTION	M'TL	REMARKS
1	PANEL CASE	SPC	1.6t
2	PANEL COVER	SPC	1.6t
3	HINGE	PUR'	
4	CLAMP	PUR'	
5	SPONGE	PUR'	



NOTE

- PROTECTION DEGREE :
A. INDOOR TYPE : DUST PROOF
B. OUT DOOR TYPE : SPLASH PROOF
- FINAL PAINTING COLOR (MUNSELL NO.)
A. IN SIDE : 10B 3/5
B. OUT SIDE : 10B 3/5
- PAINTING THICKNESS : ABOVE 40 μ m
- APPLICATION VOLTAGE : 220V, 380V, 440V, 460V, 480V
- 제어용 전선 : 2.5sq KIV, JIV
- 외장 기판 구조는 다음과 같다.
1) 외장 기판시 용접 부분이 차단되도록 한다.
2) 외장 기판 후 충전되어있는 부분은 IP2X 이상의 차단 전속 방호가 되어있을것.



SELECTION	HOIST DESCRIPTION	IN DOOR			OUT DOOR			REMARK
		A	B	L	A	B	L	
3 TON	NORMAL	360	170	790	360	170	810	
	CREER	360	170	790	360	170	810	

DRAWING	DESIGN	CHECKED	APPROVED	SCALE	DATE	ORDER NO.
				NONE		
KDD KUK DONG HOIST CO., LTD.						DWG. NO
HOISTING CONTROL BOX LAY-OUT						KD3EB00
DATE	REVISIONS	CHK.	APP.			



2. EARTH : 제 3종접지 공사(400V 미안전압 : 100 OHM 이하)

북 3중점자 공사(400V 이상전압 : 1D OHM 이상)

- [illegible]

SELECTION	VOLTAGE	FILE	FRS	CCB100
	220V	2A	3A	53AF/40AT
	380V	1A	3A	35AF/20AT
	440V	1A	3A	33AF/20AT
	480V	1A	3A	33AF/20AT
	480V	1A	3A	33AF/20AT

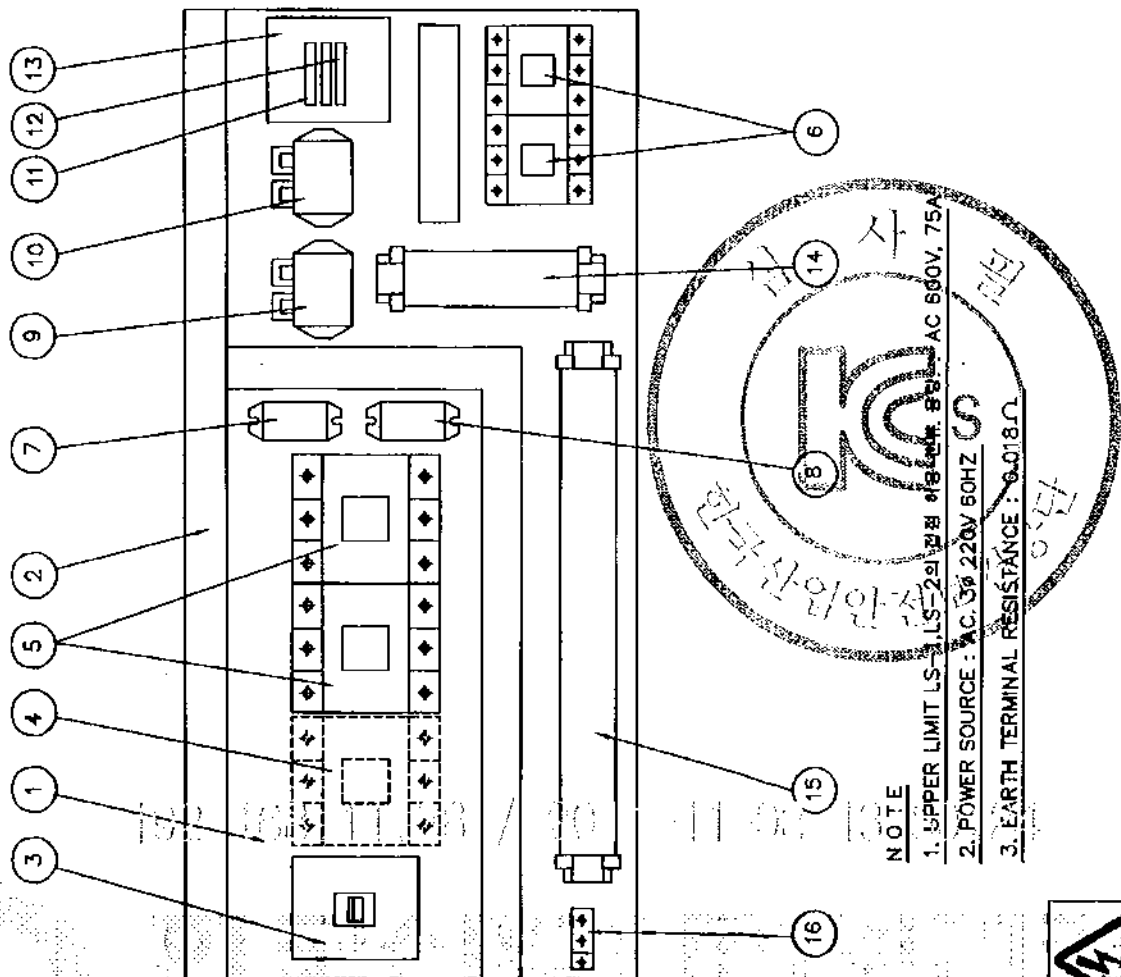
[illegible]

ADR'S NO.

NO	DESCRIPTION	SPECIFICATION	Q'TY	REMARK
1	CHASSIS PLATE		1	아연 도금
2	CABLE DUCT	-	1	
3	N.F.B	53AF/40AT	1	HOISTING
4	MAGNET CONTACTOR	DOC-40P	1	MAIN MAG.
5	MAGNET CONTACTOR	DOC-65P	2	HOISTING
6	MAGNET CONTACTOR	DOC-22P	2	TRAVERSING
7	SIUCON RECTIFIER	SR-60	1	HOISTING
8	SIUCON RECTIFIER	SR-30	1	TRAVERSING
9	E.O.C.R	SS-30	1	HOISTING
10	E.O.C.R	SS-05	1	TRAVERSING
11	FUSE	2 A	2	
12	FUSE	3 A	1	
13	TRANSFORMER	220V/110V, 120V, 100VA	1	
14	UPPER LIMIT	AC 600V/75A	1	
15	TERMINAL BLOCK	60A, 15A		
16	EARTH TERMINAL	3t20x50	1	

NOTE 1. 전선의 색상은 다음과 같다.

- 1) 흑색 : 교류 및 직류 전원선으로 5) 정색 : 직류 제어회로
 - 2) 적색 : 교류제어회로
 - 3) 주황색 : 외부전원에서 공급되는 운동장치 제어회로
 - 4) 녹색 또는 녹색과 황색 혼용 : 접지선
2. CABLE MATERIAL : KIV OR EQUIVALENT
MIN SIZE : 2.5sq
3. 제어용 전선 : 2.5mm KIV/HIV
 4. 제라시 다스 변경 필수있음.
 5. 외함 개방구조는 다음과 같을것.
- 1) 외함 개방시 운전부분이 차단되도록 할것.
 - 2) 외함 개방후 운전되어있는 부분은 IP2X 이상의 차폐 입력 방호가 되어있을것.



DRAWING	DESIGN	CHECKED	APPROVED	SCALE	DATE	ORDER NO.
				NONE		
HOIST CONTROL BOX (조속)						
ARRANGEMENT DRAWING						
CUSTOMER						
DRAWING TITLE						
REVISIONS	CHK	APP.				
DATE						
KUK DONG HOIST CO., LTD.						KD3BA21

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

ADR'S NO.

NO	DESCRIPTION	SPECIFICATION	Q'TY	REMARK
1	CHASSIS PLATE		1	아 연 도 표
2	CABLE DUCT	-	1	
3	N.F.B	33AF/30AT	1	HOISTING
4	MAGNET CONTACTOR	DOC-40P	1	MAIN MAG.
5	MAGNET CONTACTOR	DOC-48P	2	HOISTING
6	MAGNET CONTACTOR	DOC-22P	2	TRAVERSING
7	SILICON RECTIFIER	SR-60	1	HOISTING
8	SILICON RECTIFIER	SR-30	1	TRAVERSING
9	E.O.C.R	SS-30	1	HOISTING
10	E.O.C.R	SS-05	1	TRAVERSING
11	FUSE	2 A	2	
12	FUSE	3 A	1	
13	TRANSFORMER	220V/110V,120V,100VA	1	
14	UPPER LIMIT	AC 600V/75A	1	
15	TERMINAL BLOCK	60A,15A		
16	EARTH TERMINAL	3tx20x50	1	

NOTE 1. 전선의 색상은 다음과 같다.

1) 흑색 : 교류 및 직류 전원선으로 5) 청색 : 직류 제어회로

2) 적색 : 교류 제어회로

3) 주황색 : 외부전원에서 공급되는 선동장치 제어회로

4) 녹색 또는 노색과 황색 혼용 : 접지선

2. CABLE MATERIAL : KIV OR EQUIVALENT

MIN SIZE : 2.5sq

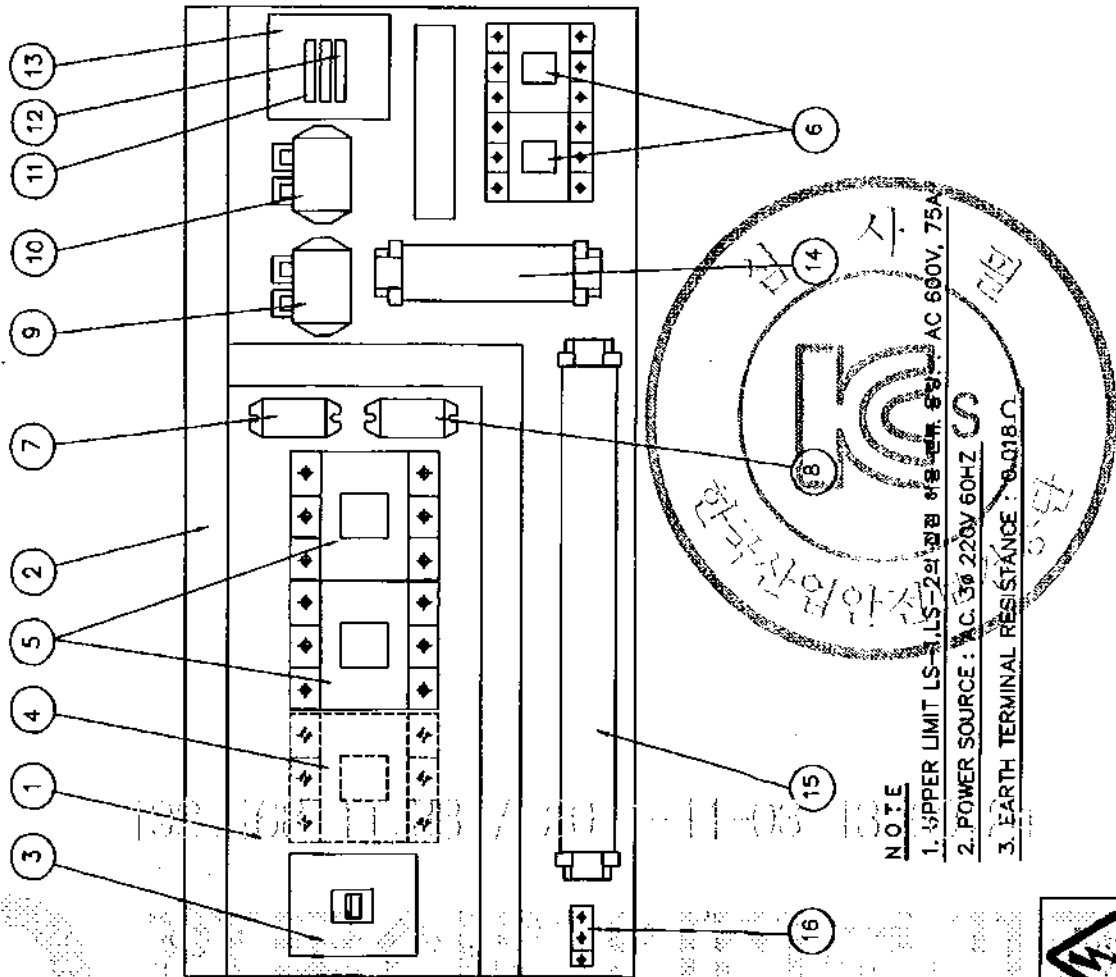
3. 제어용 전선 : 2.5mm KIV/HIV

4. 제라시 디스 변경 필수있음.

5. 외함 개방구는 다음과 같음.

1) 외함 개방시 충전부분이 차단되도록 함.

2) 외함 개방후 충전되어있는 부분은 IP2X 이상의 직접 접촉 방호가 되어있을것.



NOTE

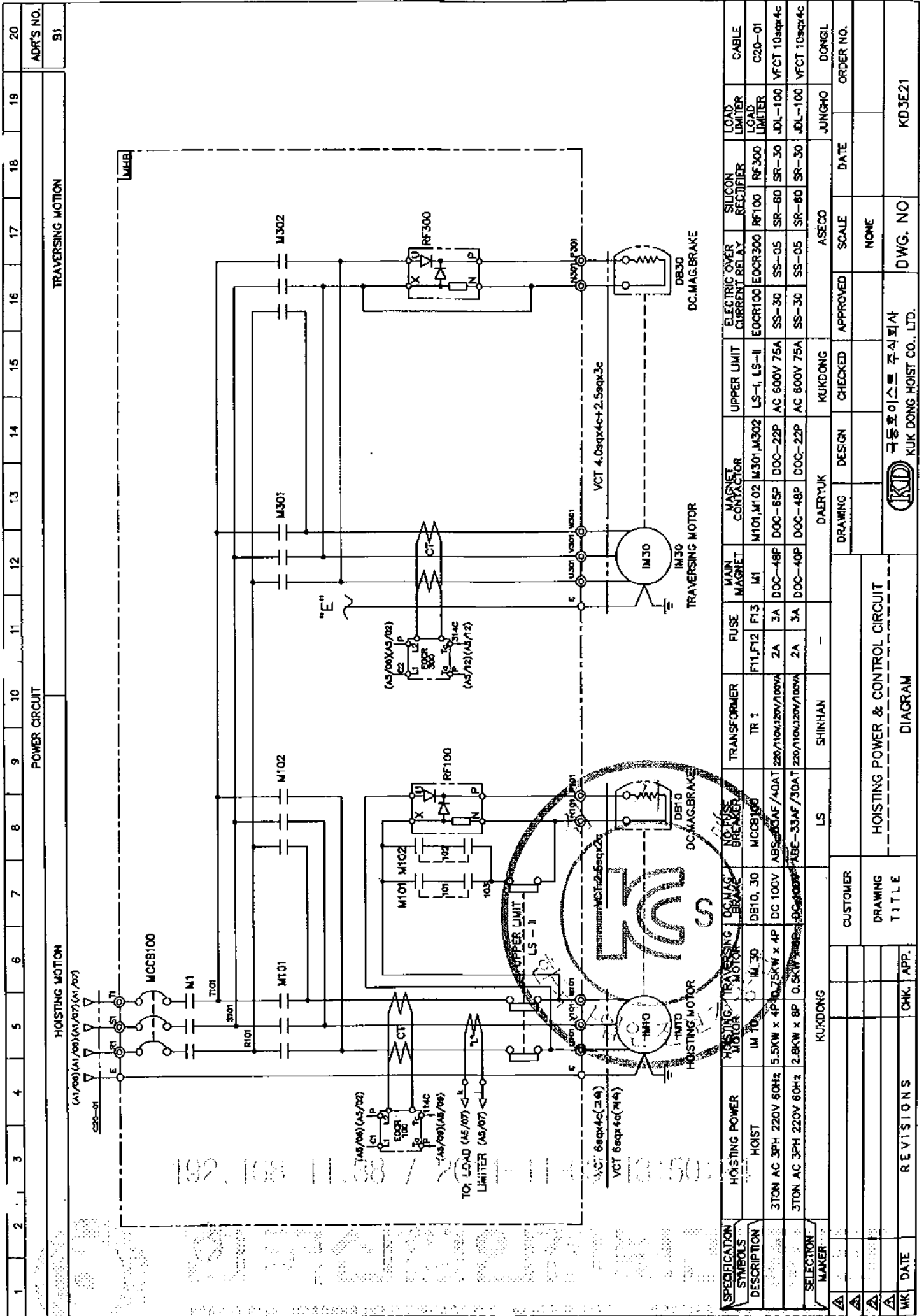
1. UPPER LIMIT LS-LS-2의 점접 허용전압 85% AC 600V, 75A

2. POWER SOURCE : AC 3φ 220V 60HZ SS

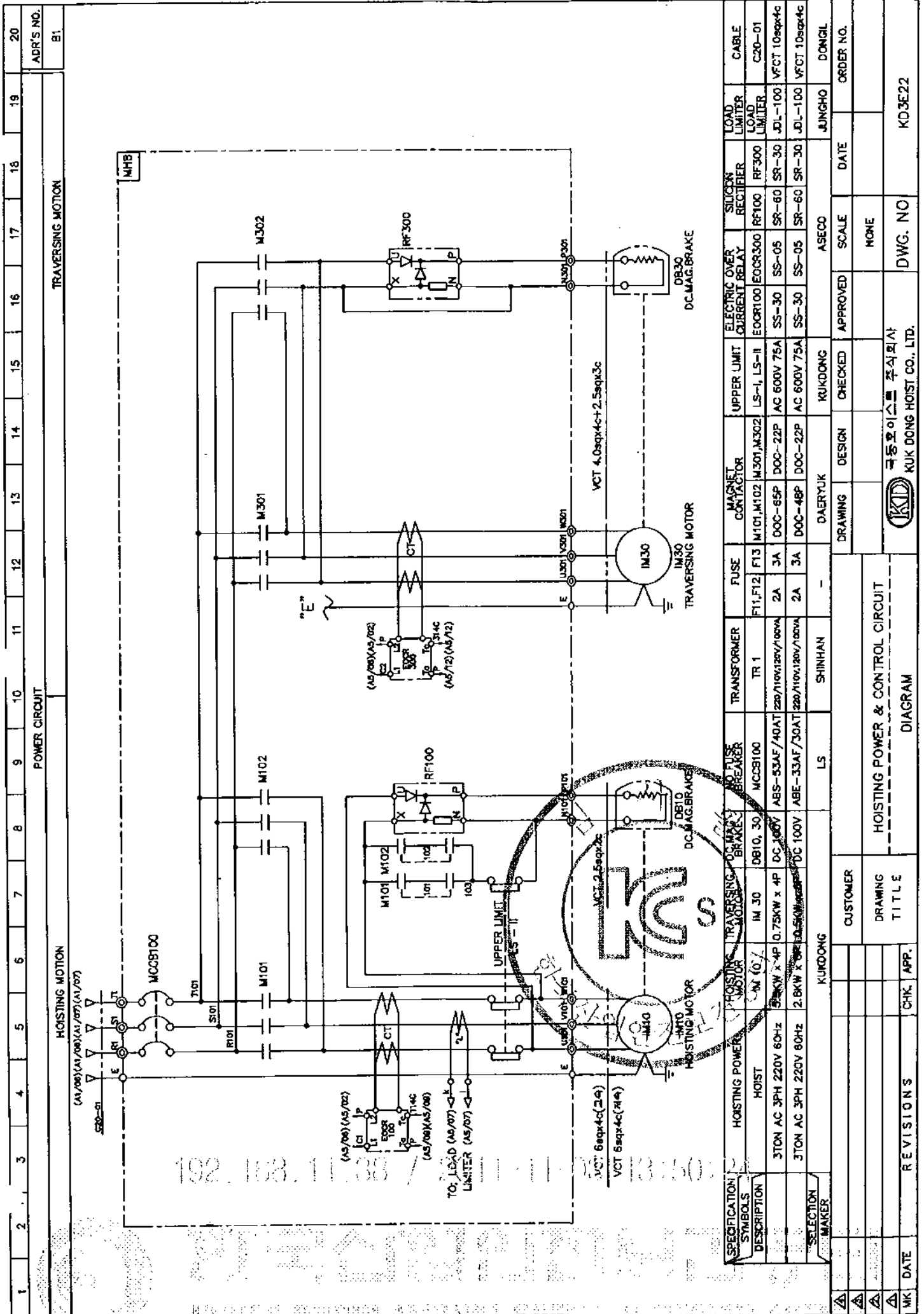
3. EARTH TERMINAL RESISTANCE : 0.018Ω



DRAWING	DESIGN	CHECKED	APPROVED	SCALE	DATE	ORDER NO.
				NONE		
KUK DONG HOIST CO., LTD.						KD38A22
HOIST CONTROL BOX (제4)						
ARRANGEMENT DRAWING						
CUSTOMER						
DRAWING TITLE						
REVISIONS						
CHK APP.						
DATE						

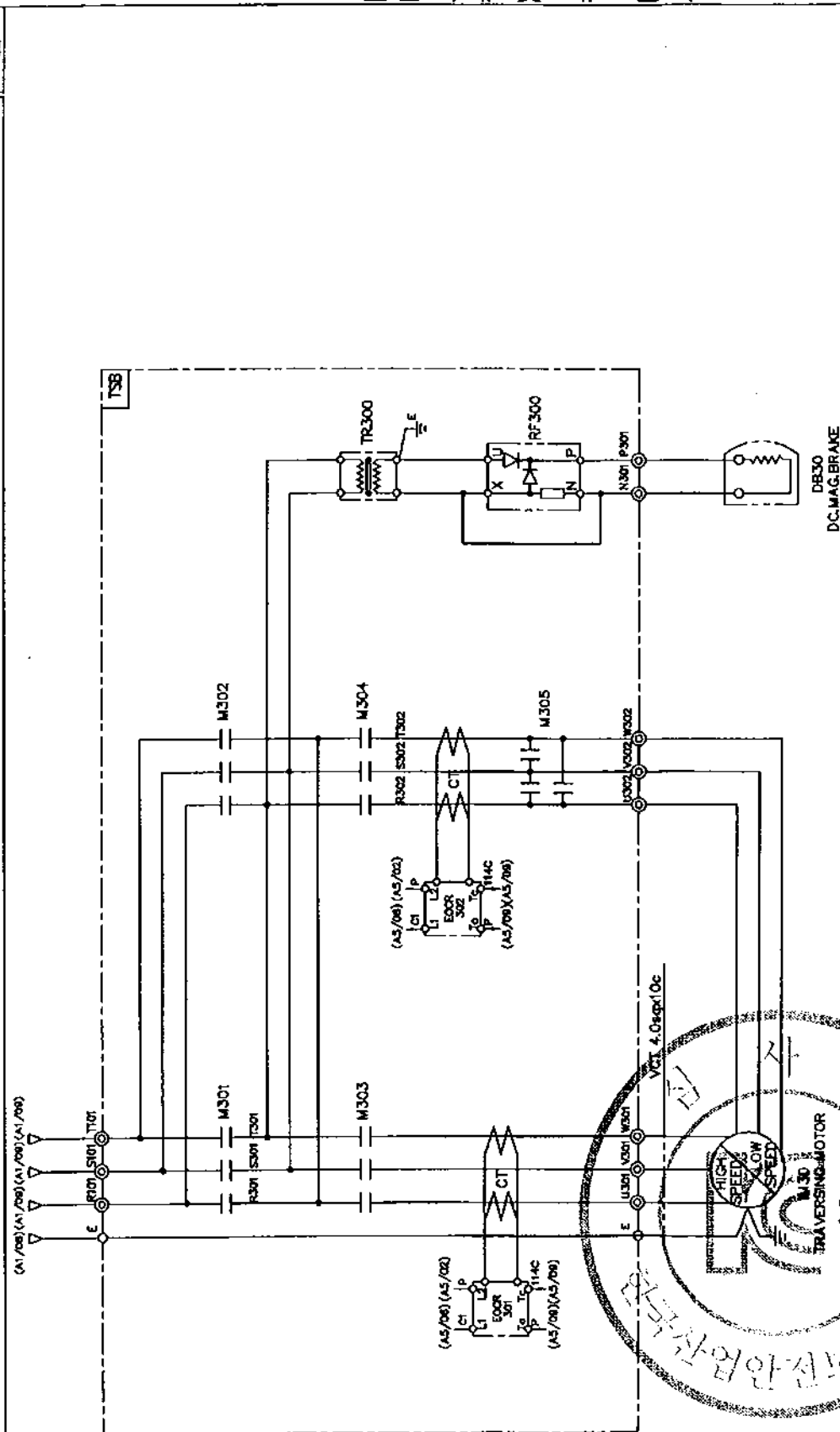


SPECIFICATION SYMBOLS		HOISTING POWER		HOISTING MOTOR		TRAVERSING MOTOR		CABLE	
DESCRIPTION		HOIST		IM 70		IM 30		C20-01	
3TON AC 3PH 220V 60Hz		5.5KW x 4P 10.75KW x 4P		DC 100V		DC 100V		VFCT 10sq44c	
3TON AC 3PH 220V 60Hz		2.8KW x 8P 0.8KW x 8P		DC 100V		DC 100V		VFCT 10sq44c	
SELECTION MARKER		KUKDONG		LS		SHINHAN		JUNGHO	
A				CUSTOMER				ORDER NO.	
A				DRAWING TITLE		HOISTING POWER & CONTROL CIRCUIT		DATE	
A								NONE	
A								DWG. NO	
WK		REVISIONS		CHK.		APP.		KD3E21	
								KUKDONG HOIST CO., LTD.	
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Specification Symbols	Hoisting Power	Traversing Power	DC Motor	Fuse	Magnet Contactor	Upper Limit	Electric Over Current Relay	Silicon Rectifier	Load Limiter	Cable
DESCRIPTION	3TON AC 3PH 220V 60Hz	3TON AC 3PH 220V 60Hz	3TON AC 3PH 220V 60Hz	3TON AC 3PH 220V 60Hz	3TON AC 3PH 220V 60Hz	3TON AC 3PH 220V 60Hz	3TON AC 3PH 220V 60Hz	3TON AC 3PH 220V 60Hz	3TON AC 3PH 220V 60Hz	3TON AC 3PH 220V 60Hz
SELECTION	3TON AC 3PH 220V 60Hz	3TON AC 3PH 220V 60Hz	3TON AC 3PH 220V 60Hz	3TON AC 3PH 220V 60Hz	3TON AC 3PH 220V 60Hz	3TON AC 3PH 220V 60Hz	3TON AC 3PH 220V 60Hz	3TON AC 3PH 220V 60Hz	3TON AC 3PH 220V 60Hz	3TON AC 3PH 220V 60Hz
MAKER										
DATE										
REVISIONS										
CHK.										
APP.										
CUSTOMER	KUKDONG									
DRAWING TITLE	HOISTING POWER & CONTROL CIRCUIT									
DWG. NO.	K03E22									
DATE										
ORDER NO.										

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
POWER CIRCUIT																			
TRAVERING MOTION																			
ADR'S NO.																			C2



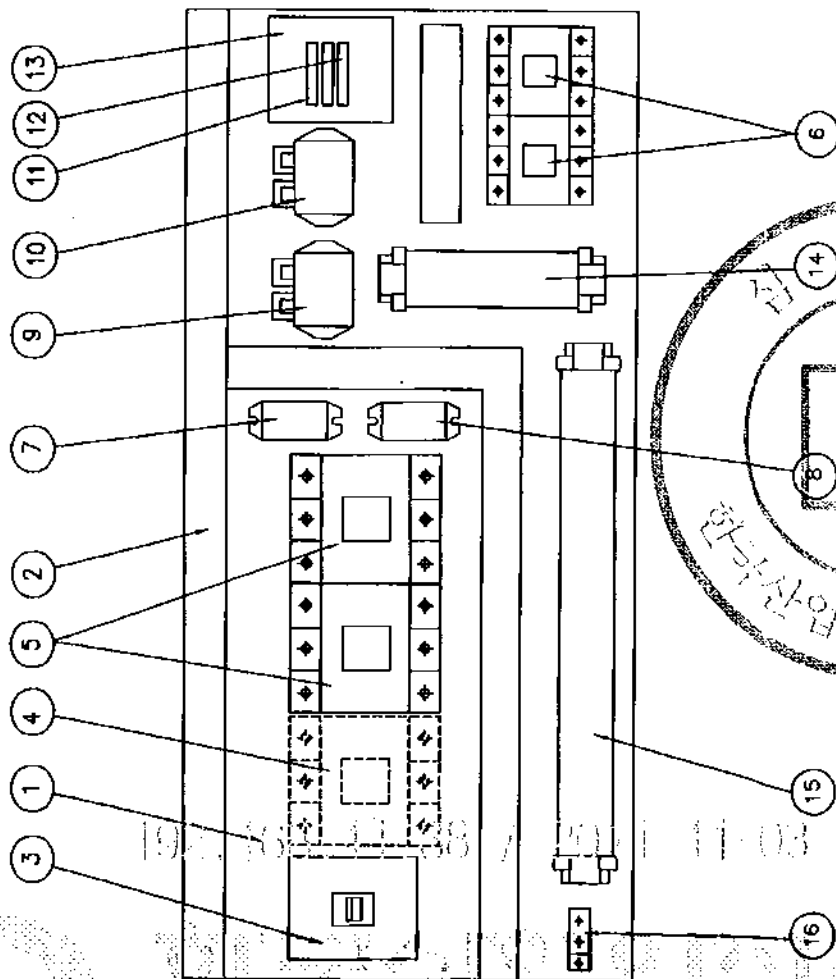
SPECIFICATION		SYMBOLS		DESCRIPTION		MAGNET CONTACTOR		SILICON RECTIFIER		ELECTRIC OVER CURRENT RELAY		TRANSFORMER	
TRAVERING MOTOR		IM 30		0.5/0.25KW/6/8P AC3PH 220V 60Hz		M301, M302, M303		RF 300		EOCR 301,302		TR300	
DC MAG. BRAKE		DB30		DC 100V		DOC-22P		SR-30		SS-05		AC220/220V, 300VA	
SELECTION		KUKDONG		0.5/0.25KW/6/8P AC3PH 220V 60Hz		DOC-22P		SR-30		SS-05		AC220/220V, 300VA	
DRAWING		DAERYUK		DESIGN		CHECKED		APPROVED		SCALE		DATE	
CUSTOMER		KUKDONG		DRAWING		DESIGN		CHECKED		APPROVED		SCALE	
DRAWING TITLE		TRAVERING POWER CONTROL CIRCUIT		DRAWING		DESIGN		CHECKED		APPROVED		SCALE	
CHK. APP.		REVISIONS		DATE		DRAWING		DESIGN		CHECKED		APPROVED	
DWG. NO.		KUKDONG HOIST CO., LTD.		DATE		DRAWING		DESIGN		CHECKED		APPROVED	
ORDER NO.		KUKDONG HOIST CO., LTD.		DATE		DRAWING		DESIGN		CHECKED		APPROVED	
DWG. NO.		KUKDONG HOIST CO., LTD.		DATE		DRAWING		DESIGN		CHECKED		APPROVED	
ORDER NO.		KUKDONG HOIST CO., LTD.		DATE		DRAWING		DESIGN		CHECKED		APPROVED	

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
																			ADR'S NO.

NO	DESCRIPTION	SPECIFICATION	Q'TY	REMARK
1	CHASSIS PLATE		1	아 현 도 금
2	CABLE DUCT	-	1	
3	N.F.B	33AF/20AT	1	HOISTING
4	MAGNET CONTACTOR	DOC-22P	1	MAIN MAG.
5	MAGNET CONTACTOR	DOC-40P	2	HOISTING
6	MAGNET CONTACTOR	DOC-22P	2	TRAVERSING
7	SILICON RECTIFIER	SR-60	1	HOISTING
8	SILICON RECTIFIER	SR-30	1	TRAVERSING
9	E.O.C.R	SS-30	1	HOISTING
10	E.O.C.R	SS-05	1	TRAVERSING
11	FUSE	1 A	2	
12	FUSE	3 A	1	
13	TRANSFORMER	380V/110V, 120V, 100VA	1	
14	UPPER LIMIT	AC 600V/75A	1	
15	TERMINAL BLOCK	60A, 15A		
16	EARTH TERMINAL	3tx20x50	1	



- NOTE 1. 전선의 사양은 다음과 같다.
- 1) 폭 색 : 고무 및 직류 전선선로
 - 2) 직 색 : 교류제어선
 - 3) 주용선 : 외부에서 공급되는 전동장치 제어회로
 - 4) 보조 또는 누설과 용선 : 접지선
2. CABLE MATERIAL : KIV OR EQUIVALENT
MIN SIZE : 2.5sq
3. 제어용 전선 : 2.5mm KIV, H/V
 4. 제직시 다소 변경 될수있음.
 5. 외함 개형구르는 다음과 같을것.
- 1) 외함 개형시 용선부분이 차단되도록 할것.
- 2) 외함 개형후 용선되어있는 부분은 IP2X 이상의 직접 접촉 방호가 되어있을것.

NOTE

1. UPPER LIMIT LS-1LS-2는 전원 허용전류 용량 AC 600V, 75A
2. POWER SOURCE AC-3φ 380V 60HZ
3. EARTH TERMINAL RESISTANCE 0.018Ω



DRAWING	DESIGN	CHECKED	APPROVED	SCALE	DATE	ORDER NO.
				NONE		
HOIST CONTROL BOX (조각)						DWG. NO. KD38A31
ARRANGEMENT DRAWING						
CUSTOMER						
DRAWING TITLE						
REVISIONS	CHK.	APP.				
DATE						



국동호이스트 주식회사
KUK DONG HOIST CO., LTD.

NO	DESCRIPTION	SPECIFICATION	Q'TY	REMARK
1	CHASSIS PLATE		1	아 연 도 금
2	CABLE DUCT	-	1	
3	N.F.B	33AF/20AT	1	HOISTING
4	MAGNET CONTACTOR	DOC-22P	1	MAIN MAG.
5	MAGNET CONTACTOR	DOC-40P	2	HOISTING
6	MAGNET CONTACTOR	DOC-22P	2	TRAVERSING
7	SILICON RECTIFIER	SR-60	1	HOISTING
8	SILICON RECTIFIER	SR-30	1	TRAVERSING
9	E.O.C.R	SS-30	1	HOISTING
10	E.O.C.R	SS-05	1	TRAVERSING
11	FUSE	1 A	2	
12	FUSE	3 A	1	
13	TRANSFORMER	380V/110V,120V, 100VA	1	
14	UPPER LIMIT	AC 600V/75A	1	
15	TERMINAL BLOCK	60A,15A		
16	EARTH TERMINAL	3t×20×50	1	

NOTE 1. 전선의 색상은 다음과 같다.

- 1) 흑 색 : 교류 및 직류 전원선도
- 2) 적 색 : 교류 제어선
- 3) 주황색 : 외부에서 공급되는 연동장치 제어피로
- 4) 녹색 또는 녹색과 황색 혼용 : 접지선

2. CABLE MATERIAL : KIV OR EQUIVALENT

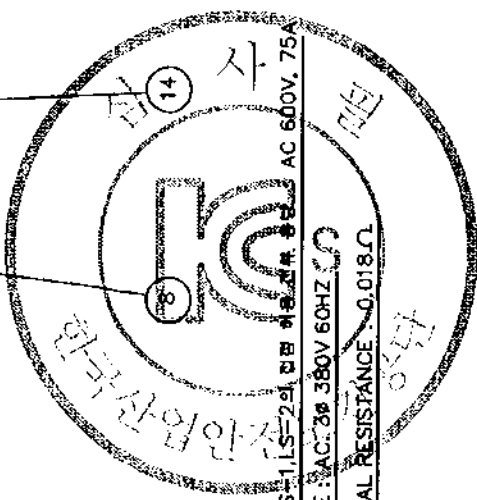
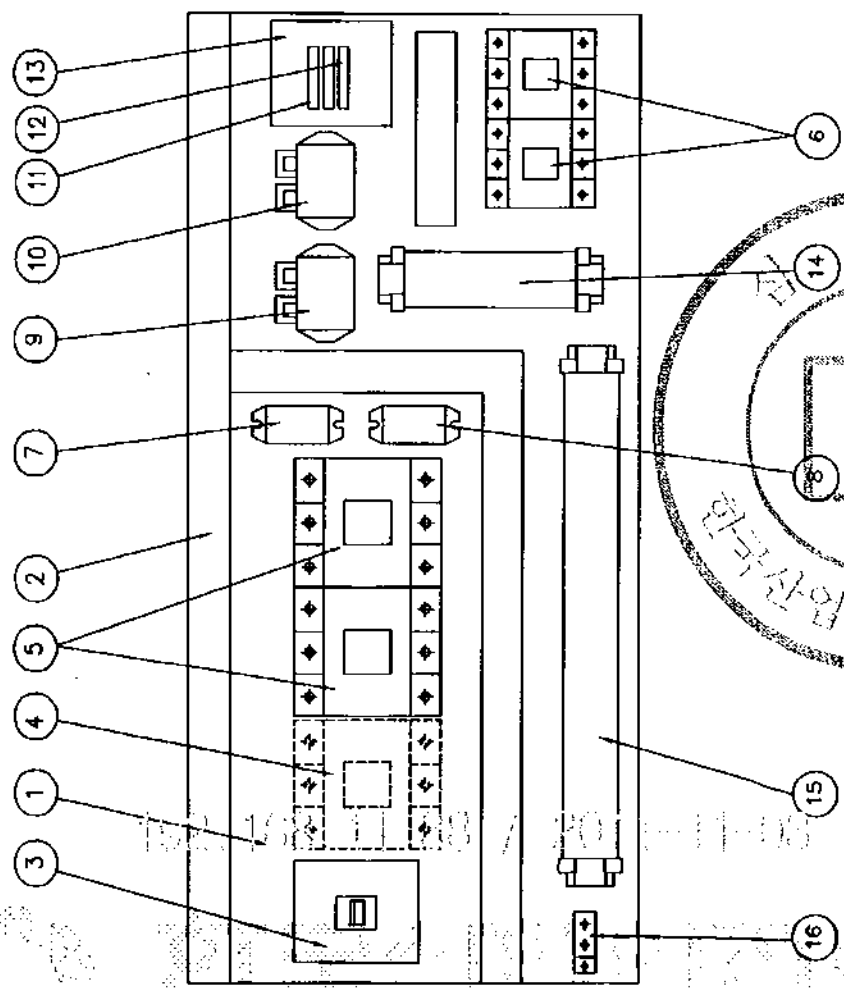
MIN SIZE : 2.5sq

3. 제어용 전선 : 2.5mm KIV/HIV

4. 제라시 다소 변경 될수있음.

5. 외함 기밀구조는 다음과 같음.

- 1) 외함 개방시 승강부분이 차단되도록 함.
- 2) 외함 개방후 승강되어있는 부분은 IP2X 이상의 직접 접촉 방호가 되어있음.



NOTE

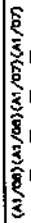
1. UPPER LIMIT LS-1LS-2의 2번 커넥터에 AC 600V, 75A

2. POWER SOURCE : AC 3Φ 380V 50HZ

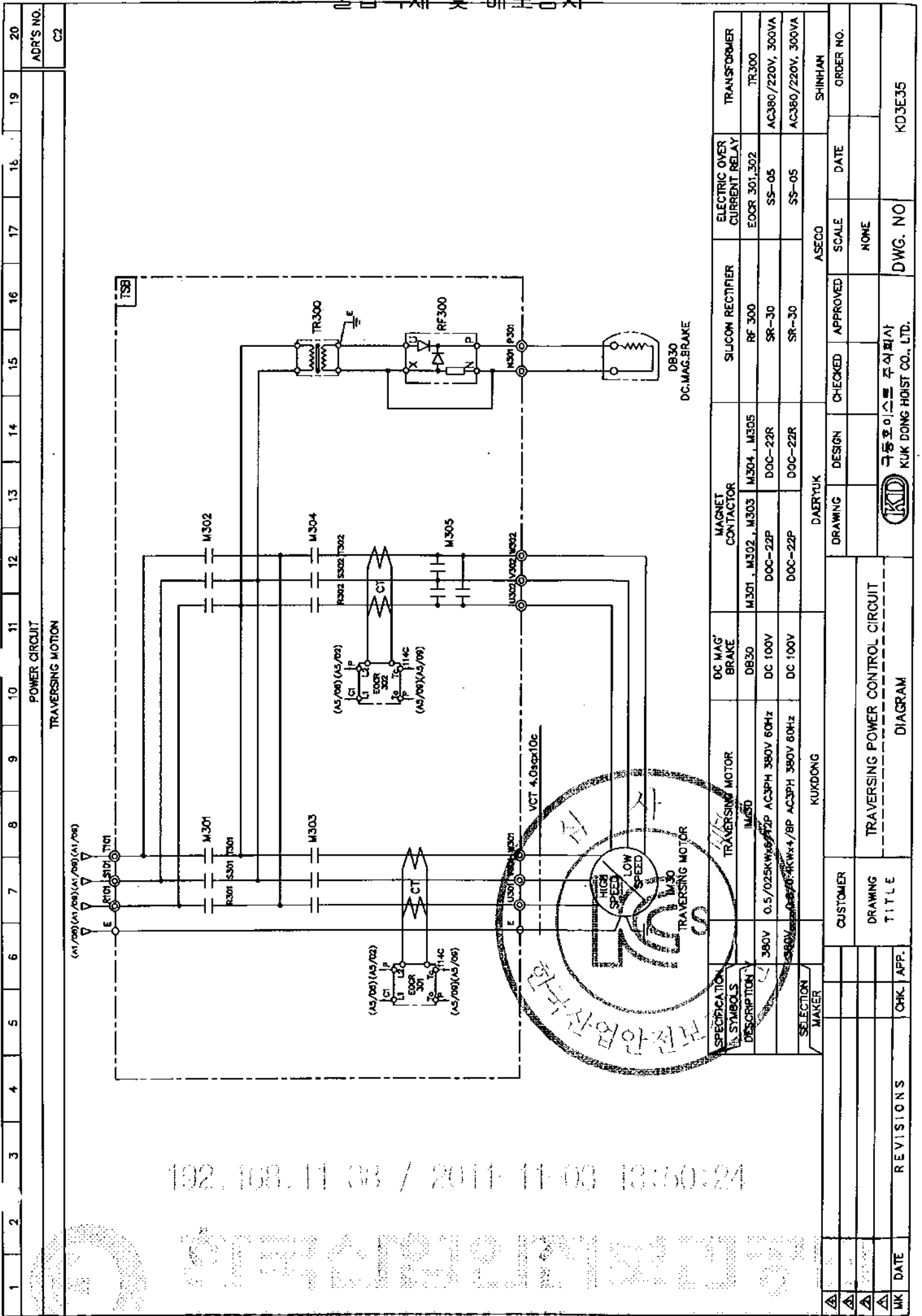
3. EARTH TERMINAL RESISTANCE : 0.018Ω



DRAWING	DESIGN	CHECKED	APPROVED	SCALE	DATE	ORDER NO.
				NONE		
HOIST CONTROL BOX (제출)						
ARRANGEMENT DRAWING						
CUSTOMER						
DRAWING TITLE						
REVISIONS						
CHK. APP.						
DATE						
KUK DONG HOIST CO., LTD.						DWG. NO
						KD3BA32

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ADR'S NO.

NO	DESCRIPTION	SPECIFICATION	Q'TY	REMARK
1	CHASSIS PLATE		1	아연 도금
2	CABLE DUCT	-	1	
3	N.F.B	33AF/20AT	1	HOISTING
4	MAGNET CONTACTOR	DOC-22P	1	MAIN MAG.
5	MAGNET CONTACTOR	DOC-40P	2	HOISTING
6	MAGNET CONTACTOR	DOC-22P	2	TRAVERSING
7	SILICON RECTIFIER	SR-60	1	HOISTING
8	SILICON RECTIFIER	SR-30	1	TRAVERSING
9	E.O.C.R	SS-30	1	HOISTING
10	E.O.C.R	SS-05	1	TRAVERSING
11	FUSE	1 A	2	
12	FUSE	3 A	1	
13	TRANSFORMER	440V/110V, 120V, 100VA	1	
14	UPPER LIMIT	AC 600V/75A	1	
15	TERMINAL BLOCK	60A, 15A		
16	EARTH TERMINAL	3tx20x50	1	

NOTE 1. 전선의 역상은 다음과 같다.

1) 흑 색 : 교류 및 직류 전원선으로 5) 청 색 : 직류 제어회로

2) 적 색 : 교류제어선

3) 주황색 : 외부에서 공급되는 연동장치 제어회로

4) 녹색 또는 노란색 : 접지선

2. CABLE MATERIAL : KIV OR EQUIVALENT

MIN SIZE : 2.5sq

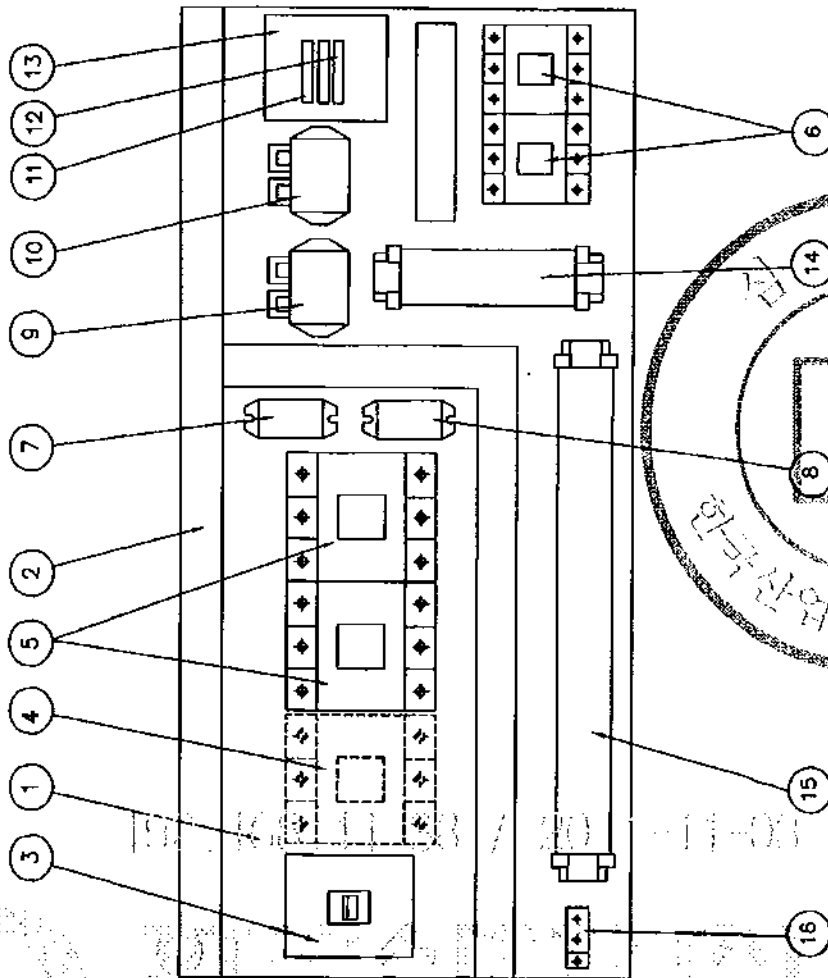
3. 제어용 전선 : 2.5mm KIV/HIV

4. 제라시 디스크 변경 필수임.

5. 외함 기밀구조는 다음과 같을것.

1) 외함 개방시, 승전부분이 차단되도록 함.

2) 외함 개방후 승전되어있는 부분은 IP2X 이상의 직접 접촉 보호가 되어있을것.

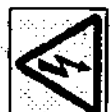


NOTE

1. UPPER LIMIT LSA 1LS-2의 점등 허용전류 : AC 600V, 75A

2. POWER SOURCE : AC 3φ 440V 60HZ/50

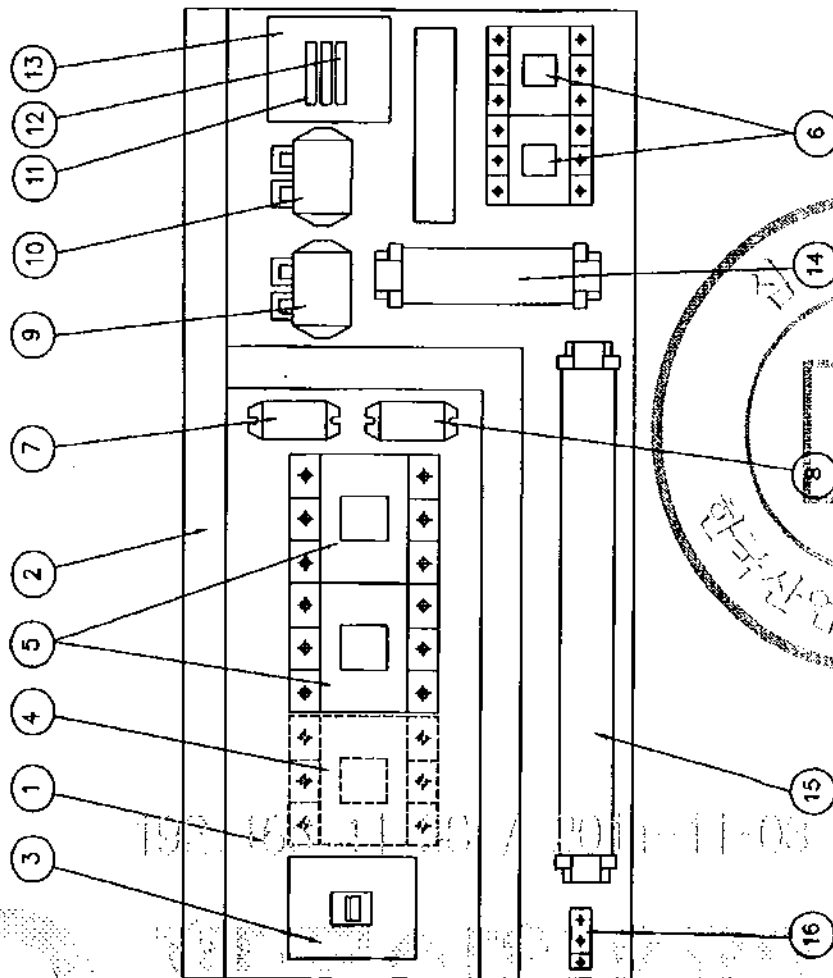
3. EARTH TERMINAL RESISTANCE : 0.018Ω



DRAWING	DESIGN	CHECKED	APPROVED	SCALE	DATE	ORDER NO.
				NONE		
HOIST CONTROL BOX (고속)						
ARRANGEMENT DRAWING						
CUSTOMER						
DRAWING TITLE						
REVISIONS						
DATE						
MK						
KUK DONG HOIST CO., LTD.						KD3BA41

NO	DESCRIPTION	SPECIFICATION	Q'TY	REMARK
1	CHASSIS PLATE		1	아연 도금
2	CABLE DUCT	-	1	
3	N.F.B	33AF/20AT	1	HOISTING
4	MAGNET CONTACTOR	DOC-22P	1	MAIN MAG.
5	MAGNET CONTACTOR	DOC-40P	2	HOISTING
6	MAGNET CONTACTOR	DOC-22P	2	TRAVERSING
7	SILICON RECTIFIER	SR-60	1	HOISTING
8	SILICON RECTIFIER	SR-30	1	TRAVERSING
9	E.O.C.R	SS-30	1	HOISTING
10	E.O.C.R	SS-05	1	TRAVERSING
11	FUSE	1 A	2	
12	FUSE	3 A	1	
13	TRANSFORMER	440V/110V, 120V, 100VA	1	
14	UPPER LIMIT	AC 600V/75A	1	
15	TERMINAL BLOCK	60A, 15A		
16	EARTH TERMINAL	3t x 20 x 50	1	

- NOTE 1. 전선의 색상은 다음과 같다.
- 1) 흑 색 : 교류 및 직류 전선선로
 - 2) 적 색 : 교류 제어선
 - 3) 파랑 색 : 외부에서 공급되는 전동장치 제어회로
 - 4) 녹색 또는 노랑색과 황색 혼합 : 접지선
2. CABLE MATERIAL : KIV OR EQUIVALENT
MIN SIZE : 2.5sq
3. 제어용 전선 : 2.5mm KIV, H/V
 4. 제어시 디스 연결 필수임.
 5. 외함 개방구조는 다음과 같을것.
- 1) 외함 개방시 용전부분이 차단되도록 할것.
 - 2) 외함 개방후 충전되어있는 부분은 IP2X 이상의 외함 접속 방호가 되어있을것.



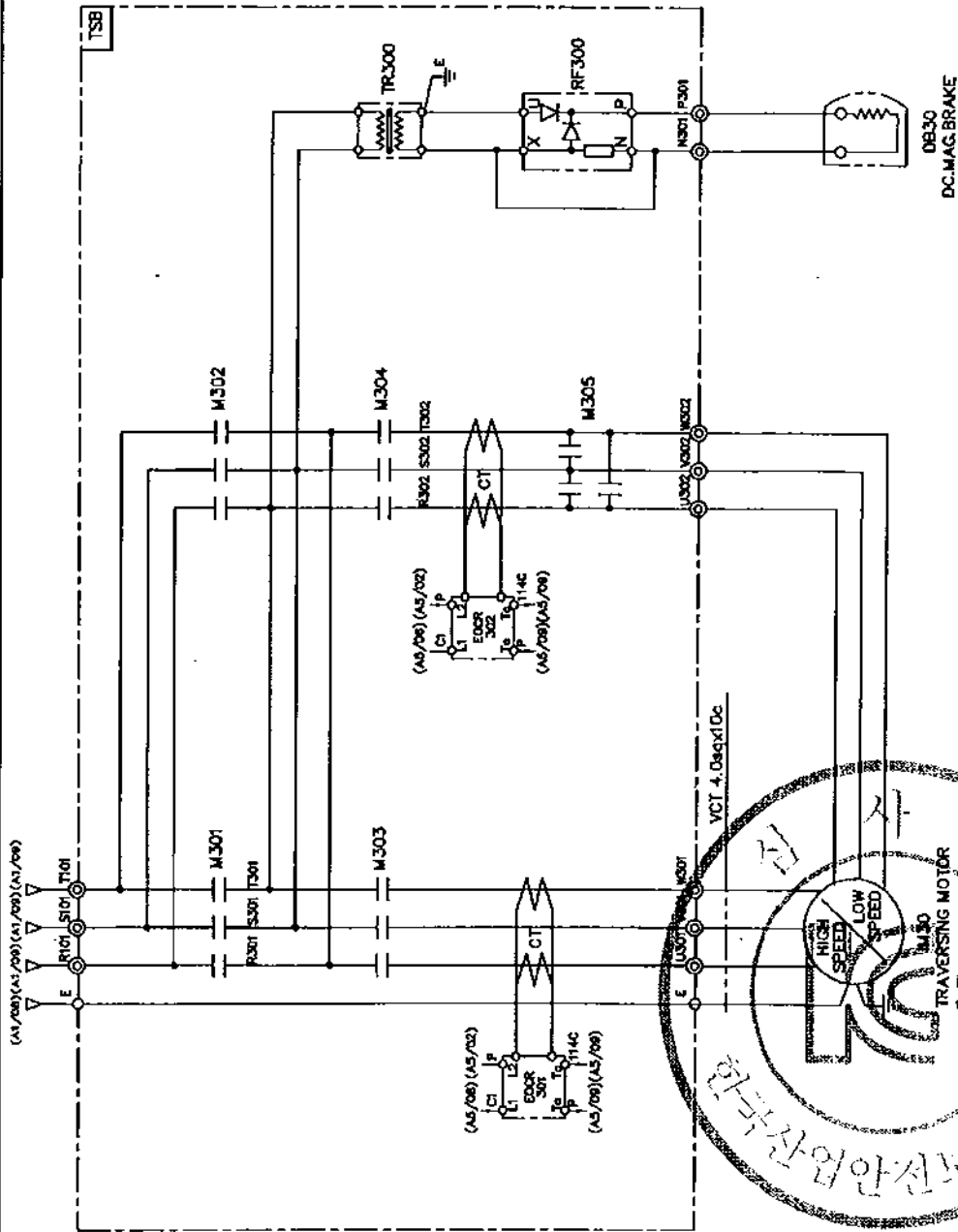
NOTE

UPPER LIMIT LSE-1/LS-2의 전동장치를 제어하는 회로
AC 30 440V 60HZ
EARTH TERMINAL RESISTANCE 0.018Ω



DRAWING	DESIGN	CHECKED	APPROVED	SCALE	DATE	ORDER NO.
				NONE		
HOIST CONTROL BOX (지속)						
ARRANGEMENT DRAWING						
CUSTOMER	KUK DONG HOIST CO., LTD.					
DRAWING TITLE	KUK DONG HOIST CO., LTD.					
REVISIONS	CHK.	APP.				
DATE	DWG. NO. K03BA42					

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
POWER CIRCUIT																			
TRAVERSING MOTION																			
ADR'S NO.																			C2



SPECIFICATION SYMBOLS		TRAVERSING MOTOR		DC MAG. BRAKE		MAGNET CONTACTOR		SILICON RECTIFIER		ELECTRIC OVER CURRENT RELAY		TRANSFORMER							
DESCRIPTION		IM300		DB30		M301, M302, M303, M304, M305		RF 300		EOCR 301, 302		TR300							
440V		0.5/0.25KW/8P AC3PH 440V 60Hz		DC 100V		DOC-22P		SR-30		SS-05		AC440/220V, 300VA							
440V		0.5/0.25KW/8P AC3PH 440V 60Hz		DC 100V		DOC-22P		SR-30		SS-05		AC440/220V, 300VA							
SELECTION MAKER		KUKDONG				DAERYUK		ASECO				SHINHAN							
		CUSTOMER				DRAWING		DESIGN		CHECKED		APPROVED		SCALE		DATE		ORDER NO.	
		DRAWING TITLE		TRAVERSING POWER CONTROL CIRCUIT										NONE					
		REVISIONS		CHK.		APP.		DIAGRAM		KUKDONG HOIST CO., LTD.		DWG. NO.		KD3E45					

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ADR'S NO.

NO	DESCRIPTION	SPECIFICATION	Q'TY	REMARK
1	CHASSIS PLATE		1	아연 도금
2	CABLE DUCT	---	1	
3	N.F.B	33AF/20AT	1	HOISTING
4	MAGNET CONTACTOR	DOC-22P	1	MAIN MAG.
5	MAGNET CONTACTOR	DOC-40P	2	HOISTING
6	MAGNET CONTACTOR	DOC-22P	2	TRAVERSING
7	SILICON RECTIFIER	SR-60	1	HOISTING
8	SILICON RECTIFIER	SR-30	1	TRAVERSING
9	E.O.C.R	SS-30	1	HOISTING
10	E.O.C.R	SS-05	1	TRAVERSING
11	FUSE	1 A	2	
12	FUSE	3 A	1	
13	TRANSFORMER	460V/110V, 120V, 100VA	1	
14	UPPER LIMIT	AC 600V/75A	1	
15	TERMINAL BLOCK	60A, 15A		
16	EARTH TERMINAL	3tx20x50	1	

NOTE 1. 전선의 색상은 다음과 같다.

1) 흑색 : 교류 및 직류 전원선 5) 청색 : 직류 제어선

2) 적색 : 교류 제어선

3) 주황색 : 외부에서 공급되는 전동장치 제어선

4) 녹색 또는 녹색과 황색 혼용 : 접지선

2. CABLE MATERIAL : KIV OR EQUIVALENT

MIN SIZE : 2.5sq

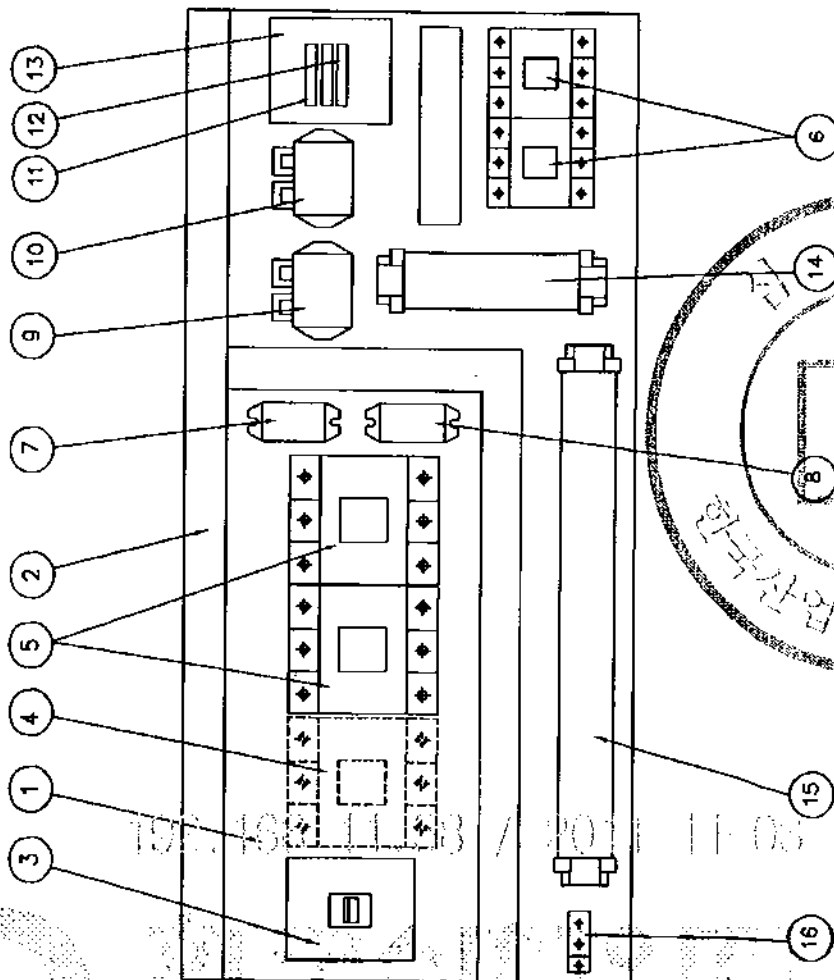
3. 제어용 전선 : 2.5mm KIV, H/V

4. 제작시 다소 변경 될수있음.

5. 외함 개방구조는 다음과 같음.

1) 외함 개방시 승전부분이 차단되도록 함.

2) 외함 개방후 승전되어있는 부분은 IP2X 이상의 외함 방호가 되어있음.



NOTE

1. UPPER LIMIT LS-1, LS-2의 전압 허용범위 : AC 600V, 75A

2. POWER SOURCE : AC 3φ 460V 60HZ

3. EARTH TERMINAL RESISTANCE : 0.018Ω



DRAWING		DESIGN	CHECKED	APPROVED	SCALE	DATE	ORDER NO.
HOIST CONTROL BOX (고속)					NONE		
ARRANGEMENT DRAWING					DWG. NO.	KD3BA51	
CUSTOMER							
DRAWING TITLE							
DATE	REVISIONS	CHK.	APP.				

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	19	20
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ADR'S NO.

NO	DESCRIPTION	SPECIFICATION	Q'TY	REMARK
1	CHASSIS PLATE		1	아연 도금
2	CABLE DUCT	-	1	
3	N.F.B	33AF/20AT	1	HOISTING
4	MAGNET CONTACTOR	DOC-22P	1	MAIN MAG.
5	MAGNET CONTACTOR	DOC-40P	2	HOISTING
6	MAGNET CONTACTOR	DOC-22P	2	TRAVERSING
7	SILICON RECTIFIER	SR-60	1	HOISTING
8	SILICON RECTIFIER	SR-30	1	TRAVERSING
9	E.O.C.R	SS-30	1	HOISTING
10	E.O.C.R	SS-05	1	TRAVERSING
11	FUSE	1 A	2	
12	FUSE	3 A	1	
13	TRANSFORMER	460V/110V, 120V, 100VA	1	
14	UPPER LIMIT	AC 600V/75A	1	
15	TERMINAL BLOCK	60A, 15A		
16	EARTH TERMINAL	3tx20x50	1	

NOTE 1. 전선의 색상은 다음과 같다.

1) 흑 색 : 교류 및 직류 전원선 5) 청 색 : 직류 제어회로

2) 회 색 : 교류 제어선

3) 주황색 : 외부에서 공급되는 연동장치 제어회로

4) 녹색 또는 노색과 황색 혼용 : 접지선

2. CABLE MATERIAL : KIV OR EQUIVALENT

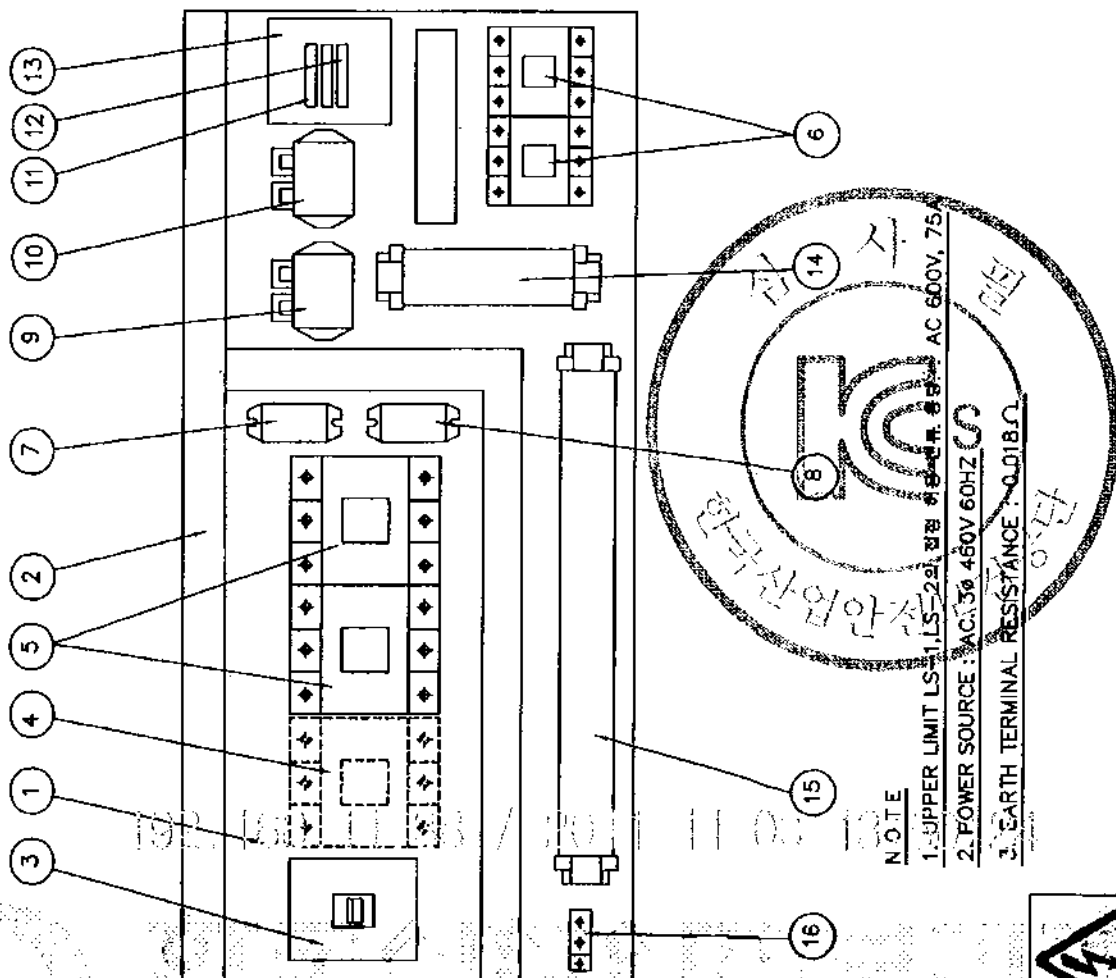
3. 제어용 전선 : 2.5mm KIV, H/V

4. 제작시 다소 변경 될수 있음.

5. 외관 기밀구조는 다음과 같음.

1) 외함 개방시 승전부분이 차단되도록 함.

2) 외함 개방후 응전되어있는 부분은 IP2X 이상의 직접 접촉 방호가 되어있음.



NOTE

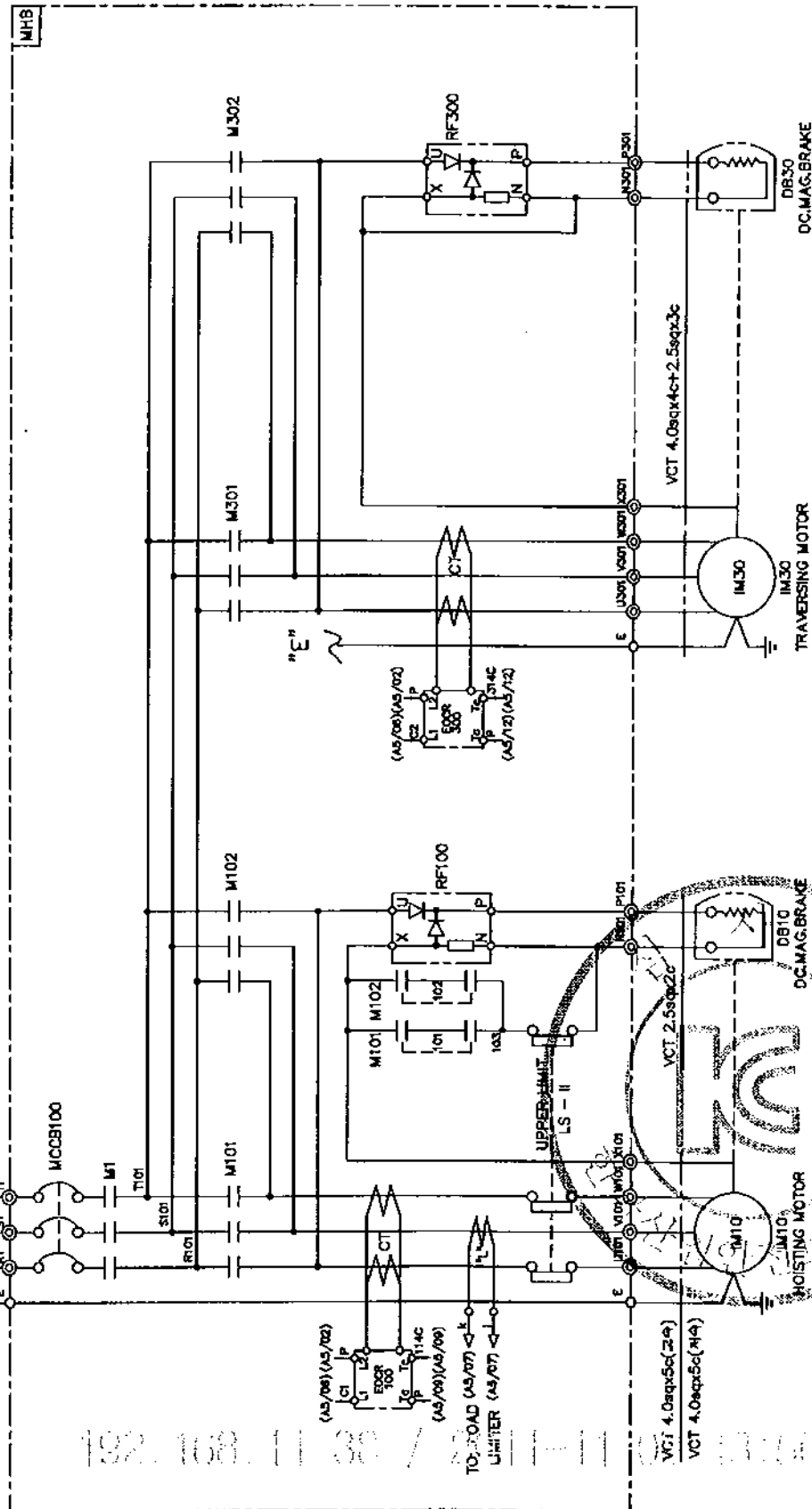
1. UPPER LIMIT LS-1, LS-2의 전압 측정 전류 용량 : AC 600V, 75A

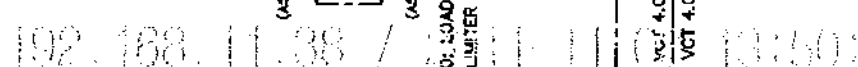
2. POWER SOURCE : 3AC, 3Ø 480V 60HZ

3. EARTH TERMINAL RESISTANCE : 0.018Ω

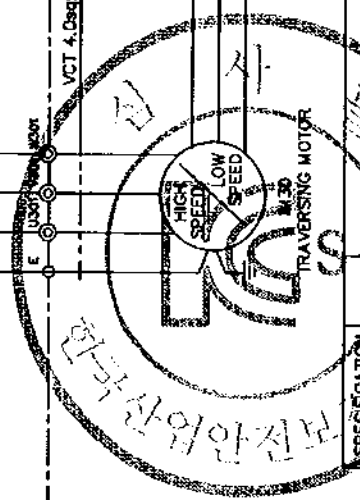


DRAWING	DESIGN	CHECKED	APPROVED	SCALE	DATE	ORDER NO.
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HOIST CONTROL BOX (제어)						
ARRANGEMENT DRAWING						
KUK DONG HOIST CO., LTD.						KD3BA52
DATE	REVISIONS	CHK.	APP.			

[illegible]



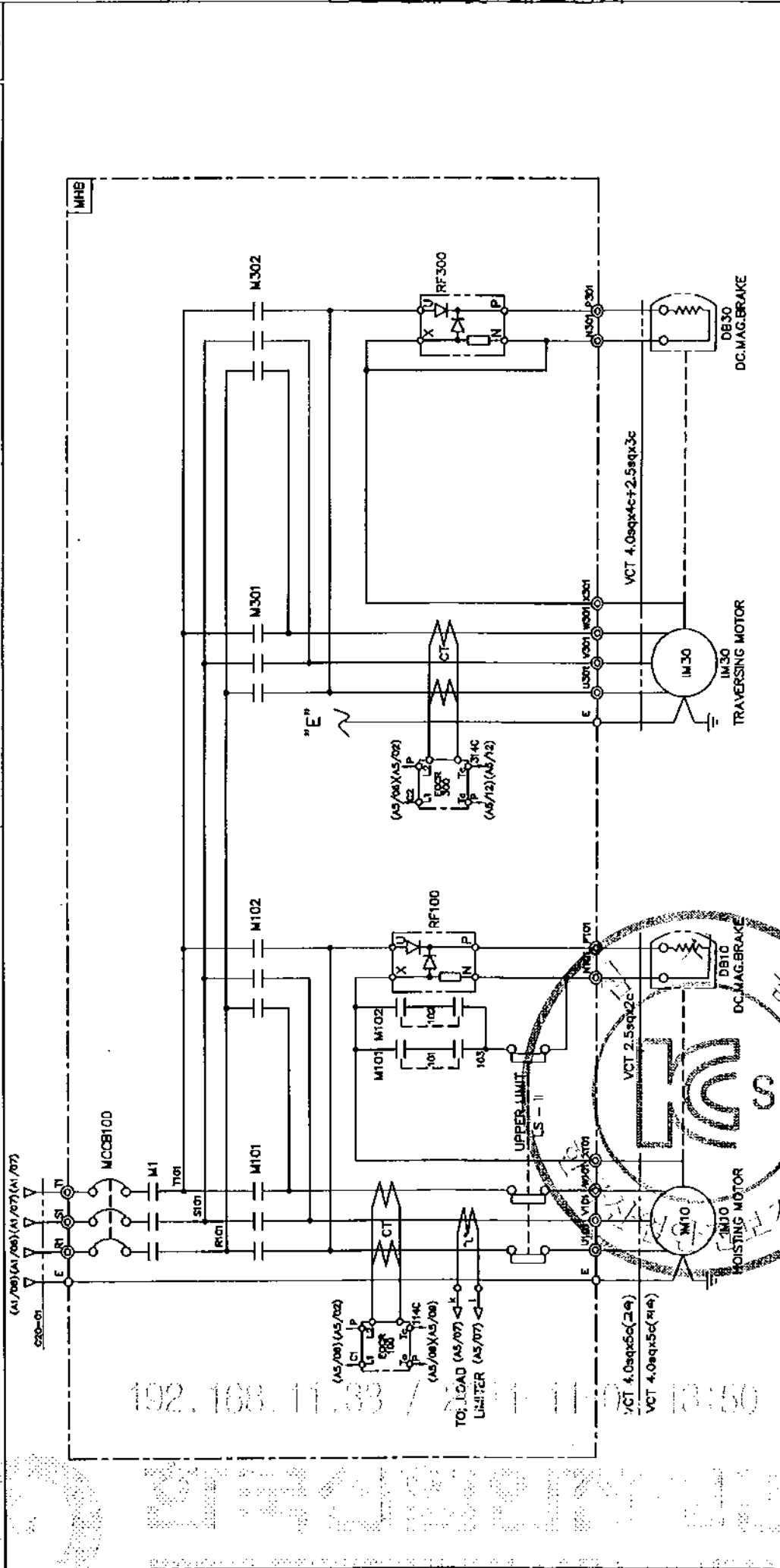
SPECIFICATION SYMBOLS	HOISTING POWER	HOISTING MOTOR	TRAVERSING MOTOR	DC MAIN BREAKER	NO FUSE BREAKER	TRANSFORMER	FUSE	MAGNET CONTACTOR	UPPER LIMIT	ELECTRIC OVER CURRENT RELAY	SILICON RECTIFIER	LOAD LIMITER	CABLE							
	DESCRIPTION	HOIST	IM 30	IM 30	DB10, 300	MC58100	TR 1	F11, F12	F13	M101, M102	M301, M302	LS-I, LS-II	EOCR100	EOCR300	RF100	RF300	JDL-100	JDL-100	VFCT 6.0sqx4c	VFCT 6.0sqx4c
SELECTION MAKER	3TON AC 3PH 460V 60Hz	3.5KW x 4P	0.75KW x 4P	DC 600V	ABE-33AF	20AT	460/110V/120V/100VA	1A	3A	DOC-40P	DOC-22P	AC 600V 75A	SS-30	SS-05	SR-80	SR-30	JDL-100	JDL-100	VFCT 6.0sqx4c	VFCT 6.0sqx4c
	3TON AC 3PH 460V 60Hz	2.8KW x 4P	0.5KW x 4P	DC 100V	ABE-33AF	20AT	460/110V/120V/100VA	1A	3A	DOC-40P	DOC-22P	AC 600V 75A	SS-30	SS-05	SR-60	SR-30	JDL-100	JDL-100	VFCT 6.0sqx4c	VFCT 6.0sqx4c
REVISIONS	DATE	CHK.	APP.	KUKDONG																
				LS																
DATE	CUSTOMER			SHINHAN																
	DRAWING TITLE			DAERYUK																
DATE	DRAWING TITLE			DESIGN																
	DRAWING TITLE			CHECKED																
DATE	DRAWING TITLE			APPROVED																
	DRAWING TITLE			SCALE																
DATE	DRAWING TITLE			DATE																
	DRAWING TITLE			NONE																
DATE	DRAWING TITLE			DWG. NO																
	DRAWING TITLE			KUK DONG HOIST CO., LTD.																
DATE	DRAWING TITLE			KUKDONG																
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DATE	DRAWING TITLE			ORDER NO.																
	DRAWING TITLE			KD3E52																

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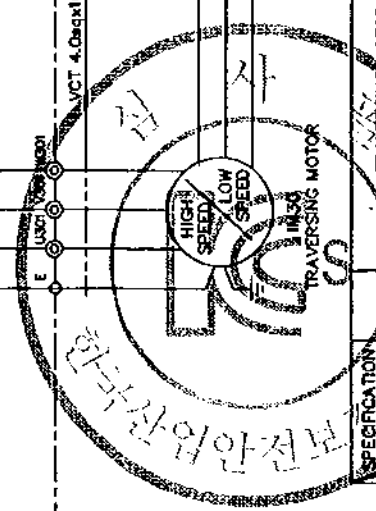
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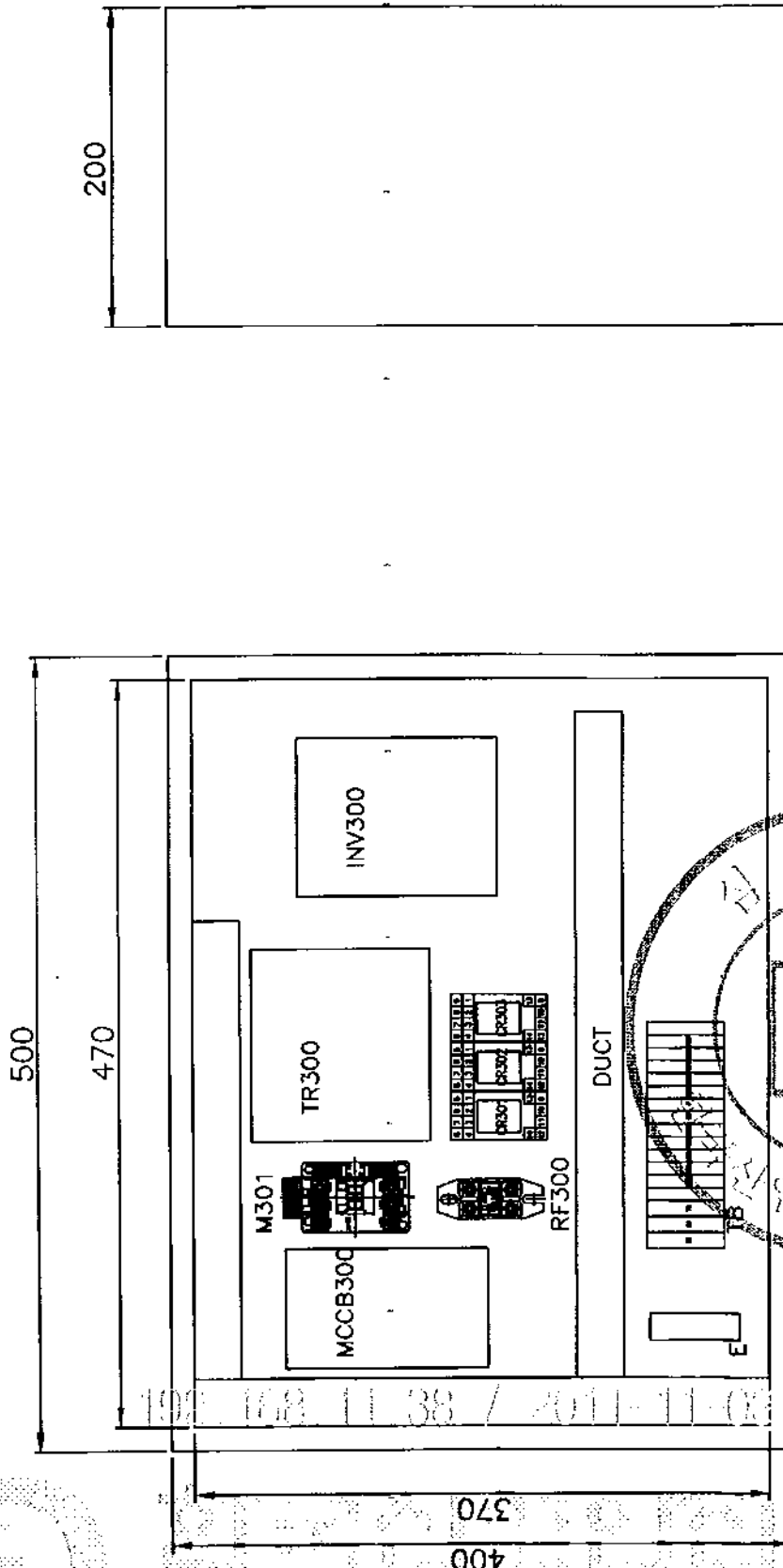
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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
POWER CIRCUIT										TRAVERSING MOTION									
HOISTING MOTION										B1									



SPECIFICATION SYMBOLS	DESCRIPTION	HOISTING POWER	HOISTING MOTOR	TRAVERSING MOTOR	DC MAG. BRAKE	NO. FUSE BREAKERS	TRANSFORMER	FUSE	MAIN MAGNET	MAGNET CONTACTOR	UPPER LIMIT	ELECTRIC OVER CURRENT RELAY	SILICON RECTIFIER	LOAD LIMITER	CABLE
3TON	AC 3PH 480V 60Hz	5.5KW x 4P 0.75KW x 4P	M10	M30	DB10, 30	MCCB100	TR1	F1, F2	M1	M101, M102	LS-I, LS-II	EOCR300	RF100	LDL-100	C20-01
3TON	AC 3PH 480V 60Hz	2.5KW x 8P 0.5KW x 8P	M30	M30	DB30	MCCB100	TR1	F1, F2	M1	M101, M102	AC 600V 75A	SS-05	SR-60	LDL-100	VFCT 6.0sqx4c
3TON	AC 3PH 480V 60Hz	2.5KW x 8P 0.5KW x 8P	M30	M30	DB30	MCCB100	TR1	F1, F2	M1	M101, M102	AC 600V 75A	SS-05	SR-60	LDL-100	VFCT 6.0sqx4c
SELECTION MAKER															
MAKER															
CUSTOMER															
DRAWING TITLE															
REVISIONS															
DATE															
CHK.															
APP.															
DWG. NO.															
ORDER NO.															
DONGIL															
KUK DONG HOIST CO., LTD.															
KD3E61															

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POWER CIRCUIT DIAGRAM										CONTROL CIRCUIT DIAGRAM										ADR'S NO.					
TRAVERING MOTION										BRAKE										EAST		WEST		HIGH SPEED	

TSB

MCCB300

INV300

F300

M301

DB30

DC MAG. BRAKE

P58

F300

TR300

M301

LS-301

LS-302

CR301

CR302

CR303

SPECIFICATION SYMBOLS	TRAVERING POWER MOTOR	TRAVERING MOTOR	DC MAG. BRAKE	NO FUSE BREAKER	TRANSFORMER	BRAKE MAGNET	CONTROL RELAY	INVERTER	SILICON RECTIFIER
AC 3PH 220V 60Hz	0.75KW x 4P	DB30	MCCB300	DBE-33AF/10AT	TR 300	M301	CR301,302,303	INV300	RF300
AC 3PH 380V(440,480V) 60Hz	0.75KW x 4P	DBE-33AF/10AT	DBE-33AF/10AT	DBE-33AF/10AT	220/220V,300VA	DM-22C	MINI 4x45(Coil AC110V)	SV015IG5A-2	SR-30
AC 3PH 220V 60Hz	0.5KW x 6P	DBE-33AF/10AT	DBE-33AF/10AT	DBE-33AF/10AT	380V(440,480,490)/220V,300VA	DM-22C	MINI 4x45(Coil AC110V)	SV015IG5A-4	SR-30
AC 3PH 380V(440,480V) 60Hz	0.5KW x 6P	DBE-33AF/10AT	DBE-33AF/10AT	DBE-33AF/10AT	220/220V,300VA	DM-22C	MINI 4x45(Coil AC110V)	SV008IG5A-2	SR-30
AC 3PH 380V(440,480V) 60Hz	0.5KW x 6P	DBE-33AF/10AT	DBE-33AF/10AT	DBE-33AF/10AT	380V(440,480,490)/220V,300VA	DM-22C	MINI 4x45(Coil AC110V)	SV008IG5A-4	SR-30

KUK DONG HOIST				INVERTER CONTROL				CUSTOMER			
DRAWING				DESIGN				CHECKED			
APPROVED				SCALE				DATE			
ORDER NO.											

192.168.11.38 / 2011-11-03 13:50:24

192.168.11.38 / 2011-11-03 13:50:24

국동호이스트 주식회사

KUK DONG HOIST CO., LTD.

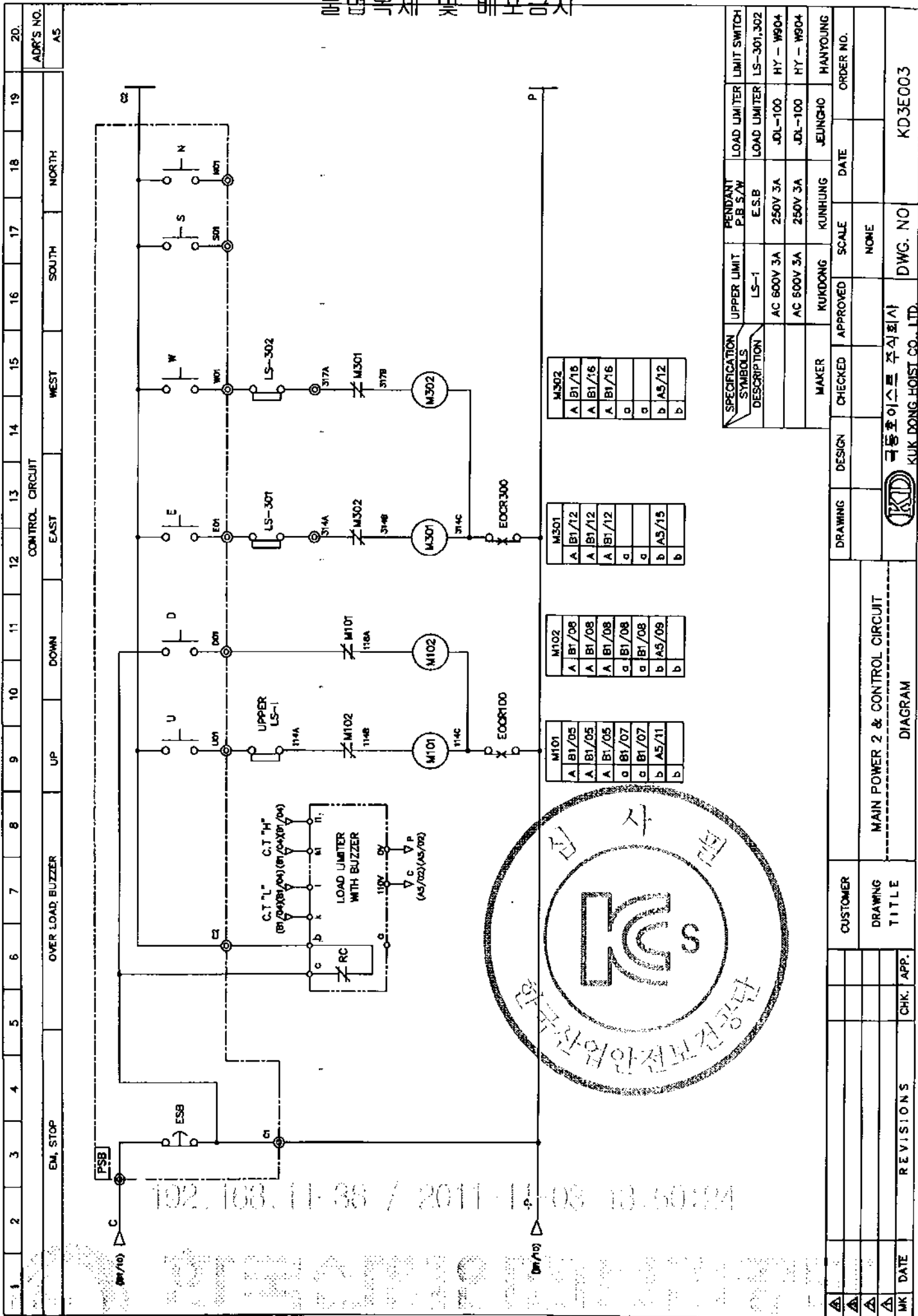
DWG. NO

KD3EI002



MT	
A B1/05	
A B1/06	
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a	
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K03-003

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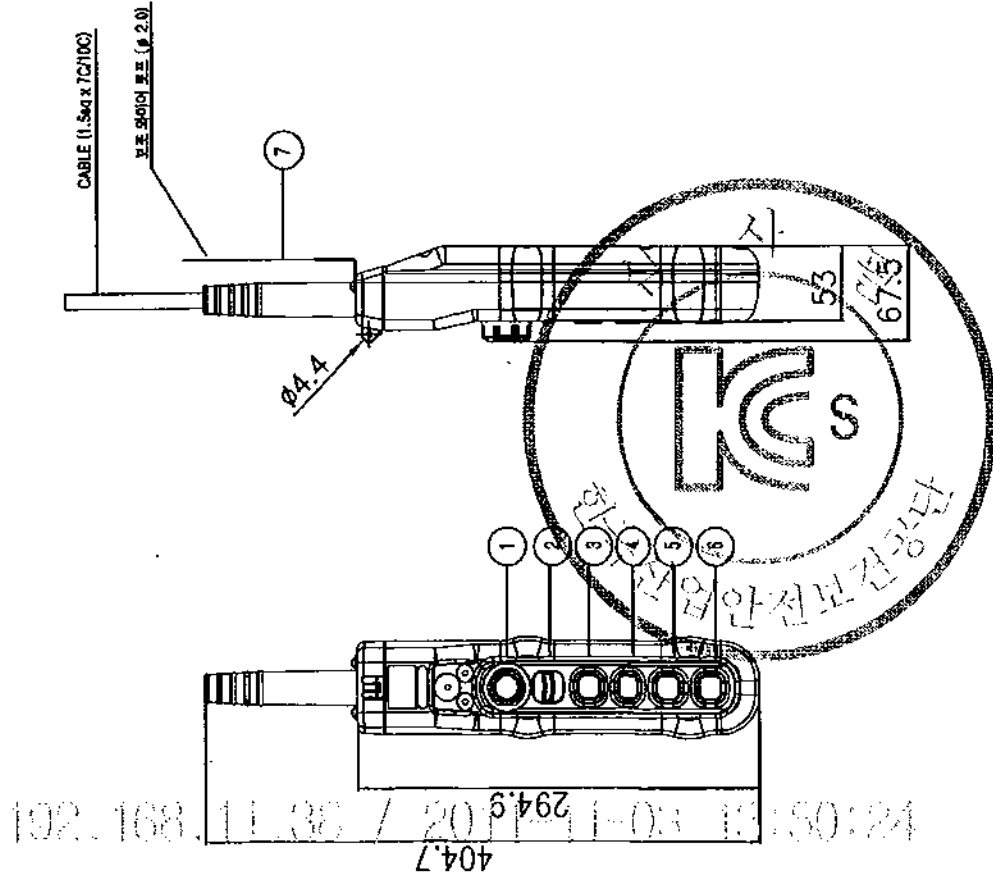
구분	색상	조작버튼	표시등
적색	비상	비상	비상
황색	비정상	비정상	비정상
녹색	정상	정상	정상
청색	의무	의무	의무
흰색, 회색, 흑색	지정된의미없음		기타

* MATERIAL : POLYCARBONATE(PLASTIC)

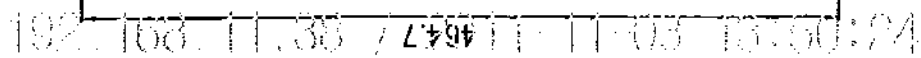
* BODY COLOR : YELLOW, BLACK

* IP : 55 이상

NO	SYMBOL	TYPE	SPEC.	COLOR
1	E.B.S	PUSH LOCK TURN RESET TYPE	250VAC x 6A	RED
2	SPARE			
3	상	1PUSH BUTTON 1STEP		BLACK
4	하	1PUSH BUTTON 1STEP		
5	동(전)	1PUSH BUTTON 1STEP		
6	서(후)	1PUSH BUTTON 1STEP		
7	보조 와이어	φ 2.0		

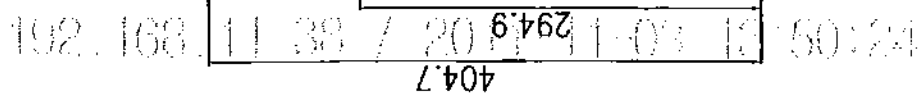


DRAWING	DESIGN	CHECKED	APPROVED	SCALE	DATE
Pendant Push Button Switch					
LAY OUT					
CUSTOMER					
DRAWING TITLE					
CHK.					
APP.					
REVISIONS					
DATE					
KUK DONG HOIST CO., LTD.					
DWG. NO.					



* MATERIAL : POLYCARBONATE(PLASTIC)
* BODY COLOR : YELLOW, BLACK
* IP : 55 이상

					CUSTOMER	PENDANT PUSH BUTTON SWITCH	DRAWING	DESIGN	CHECKED	APPROVED	SCALE	DATE
MK	DATE	REVISIONS	CHK.	APP.	DRAWING TITLE	LAY OUT	KUK DONG HOIST CO., LTD.			DWG. NO		



192.168.1.1 38 / 20 294.9 1-03 19 50 24

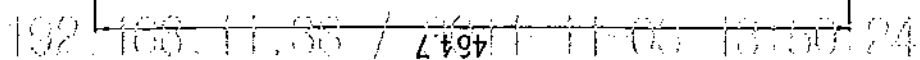
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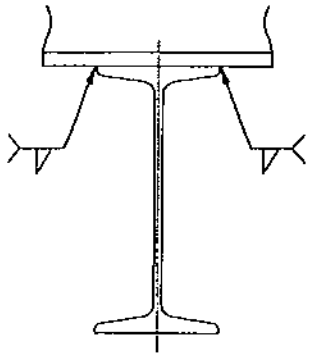
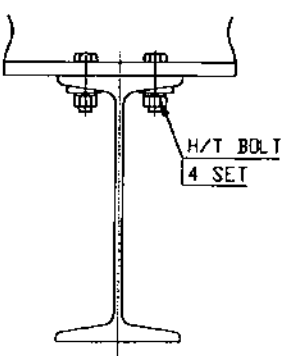
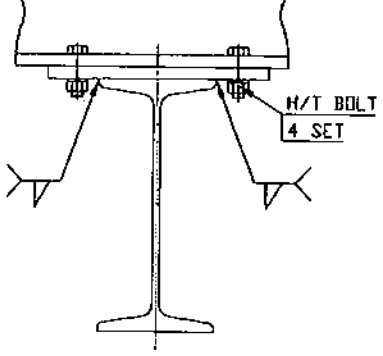


* MATERIAL : POLYCARBONATE(PLASTIC)
* BODY COLOR : YELLOW, BLACK
* IP : 55 이상

A					CUSTOMER	DRAWING TITLE	DRAWING	DESIGN	CHECKED	APPROVED	SCALE	DATE			
	A														
	A														
MK	DATE	REVISIONS	CHK.	APP.	PENDANT PUSH BUTTON SWITCH LAY OUT										
					 KUK DONG HOIST CO., LTD.		DWG. NO								

I-4. I-BEAM의 고정방법 및 사양

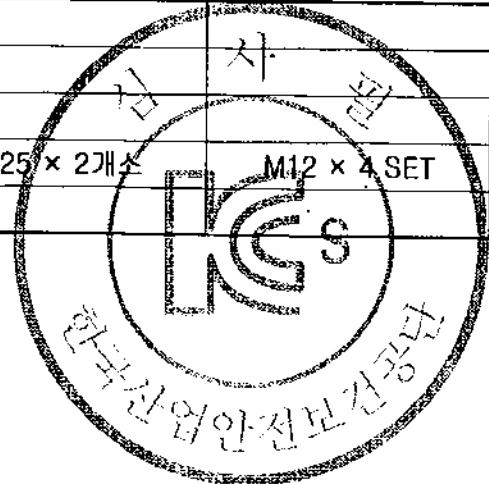
1. I-BEAM의 고정방법

용접구조	BOLT 체결구조	복합구조
	 H/T BOLT 4 SET	 H/T BOLT 4 SET

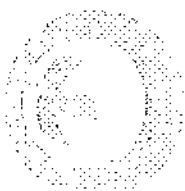
2. 기본조건 및 사양

- * 동하중에 의한 용접이음의 허용응력 (필릿용접 효율 80% 포함) : 560 kg/cm²
- * H/T BOLT의 허용 인장응력 : 2500kg/cm²

정격하중 (TON)	용접구조 (mm)		BOLT 체결구조
	용접두께	최소 용접길이	최소 BOLT SIZE
→ 3.0	6	125 × 2개소	M12 × 4 SET

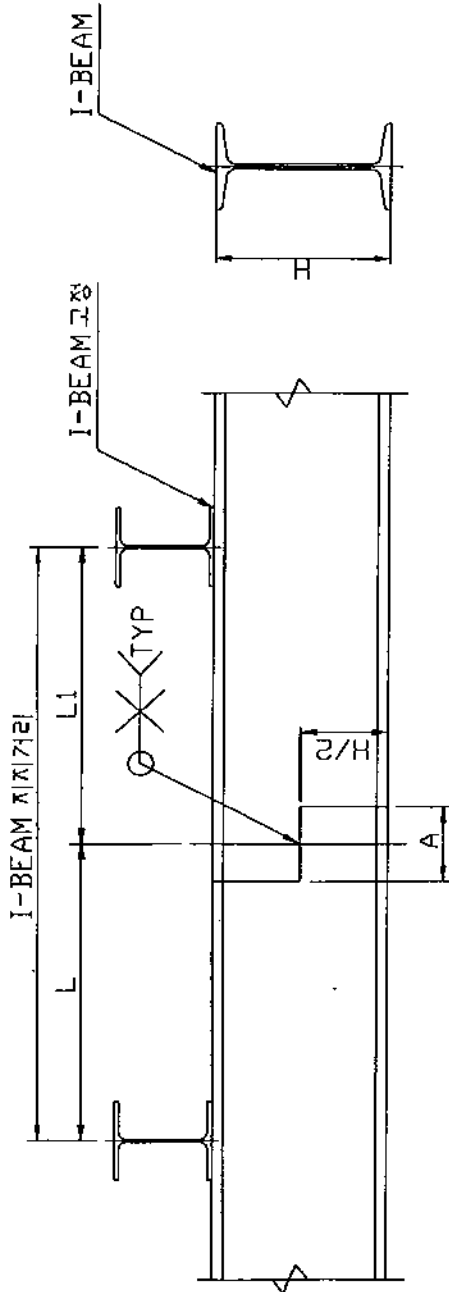


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3. I-BEAM의 연결방법



- * I-BEAM의 용접 연결부위는 I-BEAM 고정 지점과 동일 선상에 위치하지 않도록 한다.
- * 고정 지점 사이 중앙에 용접 연결부위가 일치하지 않도록 한다.

구조 (단위 : mm)



사용 I-BEAM	H/2	최대 지지거리				
		1 T	2 T	2.8 T	3 T	5 T
250×125×7.5/12.5	200					
300×150×10/18.5	300				3700	
350×150×19/15	300				5800	
400×150×10/18	300				6300	
450×175×11/20	300				8000	
					10000	

단, 사용 I-BEAM은 MODEL별 기술사항서의 BEAM 폭을 참조 할 것

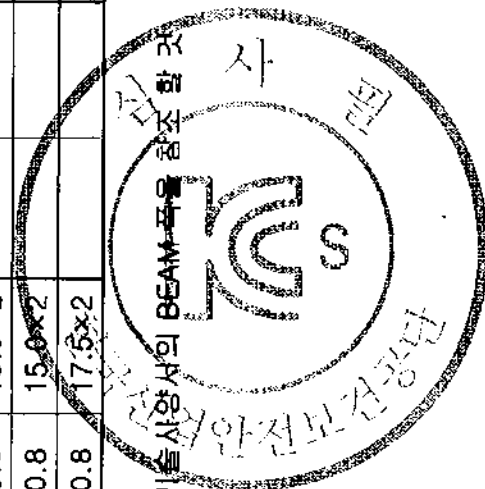
★ I-BEAM 고정 방법 중 용접 구조의 용접 강도

$$\text{용접부 강도 } \sigma = 1.14 \times \frac{\text{I-BEAM 자중} + 1.25 \times (\text{정격하중} + \text{Hoist 자중})}{0.707 \times \text{용접두께} \times \text{용접길이}} \leq 560 \text{ kg/cm}^2$$



I-BEAM 규격	I-BEAM 자중 (kg/m)	용접 두께 (cm)	최소 용접 길이 (cm)	1 T		2 T		2.8 T		3 T		5 T	
				HOIST 자중(kg)	용접강도 (kg/cm ²)	HOIST 자중(kg)	용접강도 (kg/cm ²)	HOIST 자중(kg)	용접강도 (kg/cm ²)	HOIST 자중(kg)	용접강도 (kg/cm ²)	HOIST 자중(kg)	용접강도 (kg/cm ²)
250×125×17.5/12.5	38.3	0.6	12.5×2										
300×150×10/18.5	65.5	0.6	15.0×2							510	475.8		
350×150×19/15	58.5	0.6	15.0×2							510	398.9		
400×150×10/18	72.0	0.8	15.0×2							510	398.3		
450×175×11/20	91.7	0.8	17.5×2							510	399.5		
										510	343.9		

단, 사용 I-BEAM은 MODEL 별 기술사항서의 BEAM-쪽을 참조 함 것



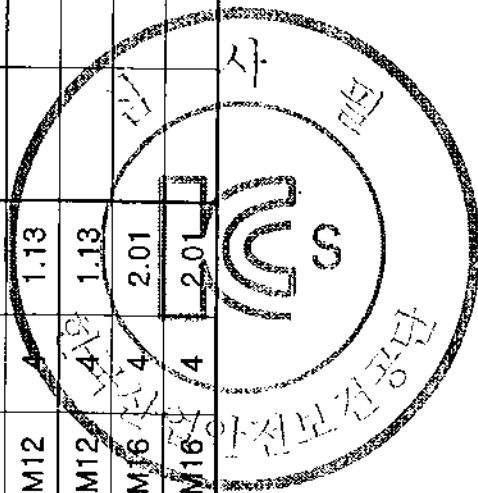
배면복제 및 배포금지

* I-BEAM 고정 방법 중 BOLT 고정 강도

BOLT 강도 $\sigma = 1.14 \frac{I\text{-BEAM 자중} + 1.25 \times (\text{정격하중} + \text{Hoist 자중})}{\text{BOLT 단면적} \times \text{BOLT 수}} \leq 2500 \text{ kg/cm}^2$

↓

I-BEAM 규격	BEAM 자중 (kg/m)	BOLT 규격	BOLT 수	BOLT 단면적 (cm ²)	1 T		2 T		2.8 T		3 T		5 T	
					HOIST 자중 (kg)	BOLT 강도 (kg/cm ²)	HOIST 자중 (kg)	BOLT 강도 (kg/cm ²)	HOIST 자중 (kg)	BOLT 강도 (kg/cm ²)	HOIST 자중 (kg)	BOLT 강도 (kg/cm ²)	HOIST 자중 (kg)	BOLT 강도 (kg/cm ²)
250×125×17.5/12.5	38.3	M12	4	1.13										
300×150×110/18.5	65.5	M12	4	1.13							510	1116.2		
350×150×110/15	58.5	M12	4	1.13							510	1123.1		
400×150×110/18	72.0	M16	4	2.01							510	1121.3		
450×175×11/20	91.7	M16	4	2.01							510	632.3		
											510	635.1		



I-5. I-BEAM의 최대 지지거리

5-1. 굽힘 MOMENT 계산

1. 수직하중에 의한 굽힘 MOMENT

$$\text{BEAM 자중에 의한 MOMENT : } M_s = \frac{M \times \text{I-BEAM 자중} \times (\text{지지거리})^2}{8} \quad \text{kg-cm}$$

$$M_s = \frac{1.05 \times 38.3 \times 370^2}{8} = 6882 \quad \text{kg-cm}$$

$$\text{이동하중에 의한 MOMENT : } M_d = F \times \frac{(\text{정격하중} + \text{호이스트 자중}) \times \text{지지거리}}{4} \quad \text{kg-cm}$$

$$M_d = 1.254 \times \frac{(3000 + 510) \times 370}{4} = 407142 \quad \text{kg-cm}$$

$$\star \text{ 호이스트 자중} = 510 \text{ KG} \quad \text{용 량 : } 3000 \text{ KG}$$

$$\star \text{ DYNAMIC COEFFICIENT : } F = 1.254$$

$$\star \text{ STATIC COEFFICIENT : } M = 1.05$$

$$\text{굽힘 MOMENT 합계 : } \Sigma M_v = M_s + M_d = 6882 + 418742 = 414024 \quad \text{kg-cm}$$

2. 풍하중에 의한 굽힘 MOMENT

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

$$M_w = \frac{32.93 \times 370}{2} = 6560.4 \quad \text{kg-cm}$$

$$\begin{aligned} \text{풍하중 : } W &= \text{속도압}(q) \times \text{속도계수}(C) \times \text{압력을 받는 면적}(A) \quad (\text{kg}) \\ &= 23.66 \times 1.2 \times 1.249 = 35.46 \quad (\text{kg}) \end{aligned}$$

$$\text{속도압 : } q = 8.5 \times \sqrt[4]{h} \quad (\text{kg/m}^2) = 8.5 \times \sqrt[4]{60} = 23.66 \quad (\text{kg/m}^2)$$

$$\text{속도계수 : } C = 1.2 \quad (\text{크레인 제작기준 참조})$$

$$\begin{aligned} \text{풍압을 받는 면적 } A &= \text{I-BEAM의 면적} + \text{HOIST의 면적} \quad (\text{m}^2) \\ &= 0.925 + 0.324 = 1.249 \quad (\text{m}^2) \end{aligned}$$

$$\star \text{ 호이스트의 풍압을 받는 면적 } \approx 0.8 \text{ m}^2$$

I-BEAM 규격	BEAM 자중 (kg/m)	최 대 지지거리 (cm)	M _s (kg-cm)	M _d (kg-cm)	ΣM _v (kg-cm)	W (kg)	M _w (kg-cm)	A (m ²)
250×125×t7.5/12.5	38.3	370	6882	407142	414024	35.46	6560.4	1.25
300×150×t10/18.5	65.5	580	28920	638223	667143	58.60	16994.3	2.064
350×150×t9/15.2	55.5	630	30474	693243	723717	51.11	16098.3	1.87
400×150×t10/18	72.0	800	60480	880308	940788	100.05	40021.4	3.524
450×175×t11/20	91.7	1000	120356	1100385	1220741	75.81	37903.3	2.67

단, 사용 I-BEAM은 MODEL별 기술사양서의 BEAM 폭을 참조 할 것

5-2. 굽힘 응력 계산

1. 수직하중에 의한 굽힘 응력

$$\begin{aligned} \star \sigma_v &= \frac{\text{수직 굽힘 MOMENT 합계 : } \Sigma M_v}{\text{단면 계수 : } Z_x} \quad (\text{kg/cm}^2) \\ &= \frac{414024}{414} = 1000.1 \quad (\text{kg/cm}^2) \end{aligned}$$

2. 풍하중에 의한 굽힘 응력

$$\begin{aligned} \star \sigma_w &= \frac{\text{풍하중에 의한 굽힘 MOMENT : } M_w}{\text{단면 계수 : } Z_y} \quad (\text{kg/cm}^2) \\ &= \frac{6560.4}{53.9} = 121.7 \quad (\text{kg/cm}^2) \end{aligned}$$

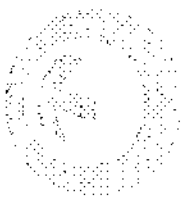
2. 풍하중에 의한 굽힘 응력

$$\star \Sigma \sigma = \sigma_v + \sigma_w \leq 0.8 \times 1449 = 1159 \text{ kg/cm}^2$$

I-BEAM 규격	단면 계수 Zx	단면 계수 Zy	ΣM_v (kg-cm)	Mw (kg-cm)	σ_v (kg/cm ²)	σ_w (kg/cm ²)	$\Sigma \sigma$ (kg/cm ²)
⇒ 250×125×t7.5/12.5	414	53.9	414024	6560.4	1000.1	121.7	1121.8
300×150×t10/18.5	849	118	667143	18994.3	785.8	144.0	929.8
350×150×t9/15	870	93.5	723717	16098.3	831.9	172.2	1004.0
400×150×t10/18	1200	115	940788	40021.4	784.0	348.0	1132.0
450×175×t11/20	1740	173	1220741	68481.5	701.6	218.1	920.7

단, I-BEAM의 사용은 MODEL 별 기술사양서에 따른다.

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5-3. I-BEAM 처짐(DEFLECTION)

1. I-BEAM 자중에 의한 처짐

$$\begin{aligned} * \delta_s &= \frac{5 \times \text{I-BEAM 자중} \times \text{지지거리}^3}{384 \times 2100000 \times I_x} \quad (\text{cm}) \\ &= \frac{5 \times 38.3 \times 370^3}{384 \times 2100000 \times 5180} = 0.0232 \quad (\text{cm}) \end{aligned}$$

2. 이동하중에 의한 처짐 (DEFLECTION)

$$\begin{aligned} * \delta_d &= \frac{(\text{정격하중} + \text{호이스트자중}) \times \text{지지거리}^3}{48 \times 2100000 \times I_x} \quad (\text{cm}) \\ &= \frac{(3000 + 510) \times 370^3}{48 \times 2100000 \times 5180} = 0.341 \quad (\text{cm}) \end{aligned}$$

3. 판 정

1) 이동하중에 의한 처짐판정(하단표기)

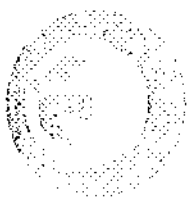
$$\begin{aligned} &\frac{\text{이동하중에 의한 처짐} : \delta_d}{\text{지지거리}} < \frac{1}{1000} \\ &= \frac{0.341}{370} = \frac{1}{1087} < \frac{1}{1000} \end{aligned}$$

2) 처짐량 합계에 의한 처짐판정 (하단표기)

$$\begin{aligned} &\frac{\text{I-BEAM 자중에 의한 처짐} : \delta_s + \text{이동하중에 의한 처짐} : \delta_d}{\text{지지거리}} < \frac{1}{800} \\ &= \frac{0.0232 + 0.35}{370} = \frac{1}{1017} < \frac{1}{800} \end{aligned}$$

I-BEAM 규격	단면2차 MOMENT I _x	BEAM 자중 (kg/m)	δ _s (cm)	δ _d (cm)	이동하중에 의한 처짐 판정	처짐량 합계에 의한 처짐판정
⇒ 250×125×t7.5/12.5	5180	38.3	0.023	0.341	1 / 1087	1 / 1017
300×150×t10/18.5	12700	65.5	0.0624	0.535	1 / 1084	1 / 971
350×150×t9/15	15200	58.5	0.0597	0.573	1 / 1100	1 / 996
400×150×t10/18	24100	72	0.0948	0.740	1 / 1081	1 / 959
450×175×t11/20	39200	91.7	0.145	0.888	1 / 1126	1 / 968

단, I-BEAM의 사용은 MODEL 별 기술사양서에 따른다.



I-6. I-BEAM의 최대 지지거리

6-1. 굽힘 MOMENT 계산

1. 수직하중에 의한 굽힘 MOMENT

$$\text{BEAM 자중에 의한 MOMENT : } M_s = \frac{M \times \text{I-BEAM 자중} \times (\text{지지거리})^2}{8} \quad \text{kg-cm}$$

$$M_s = \frac{1.05 \times 65.5 \times 580^2}{8} = 28920 \quad \text{kg-cm}$$

$$\text{이동하중에 의한 MOMENT : } M_d = F \times \frac{(\text{정격하중} + \text{호이스트 자중}) \times \text{지지거리}}{4} \quad \text{kg-cm}$$

$$M_d = 1.254 \times \frac{(3000 + 510) \times 580}{4} = 638223 \quad \text{kg-cm}$$

$$\star \text{ 호이스트 자중} = 510 \text{ KG} \quad \text{용 량 : } 3000 \text{ KG}$$

$$\star \text{ DYNAMIC COEFFICIENT : } F = 1.254$$

$$\star \text{ STATIC COEFFICIENT : } M = 1.05$$

$$\text{굽힘 MOMENT 합계 : } \Sigma M_v = M_s + M_d = 28920 + 635406 = 667143 \quad \text{kg-cm}$$

2. 풍하중에 의한 굽힘 MOMENT

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

$$M_w = \frac{58.6 \times 580}{2} = 16994.3 \quad \text{kg-cm}$$

$$\begin{aligned} \text{풍하중 : } W &= \text{속도압}(q) \times \text{속도계수}(C) \times \text{압력을 받는 면적}(A) \text{ (kg)} \\ &= 23.66 \times 1.2 \times 2.064 = 58.60 \text{ (kg)} \end{aligned}$$

$$\text{속도압 : } q = 8.5 \times \sqrt[4]{h} \text{ (kg/m}^2\text{)} = 8.5 \times \sqrt[4]{60} = 23.66 \text{ (kg/m}^2\text{)}$$

$$\text{속도계수 : } C = 1.2 \text{ (크레인 제작기준 참조)}$$

$$\begin{aligned} \text{풍압을 받는 면적 } A &= \text{I-BEAM의 면적} + \text{HOIST의 면적 (m}^2\text{)} \\ &= 1.74 + 0.324 = 2.064 \text{ (m}^2\text{)} \end{aligned}$$

$$\star \text{ 호이스트의 풍압을 받는 면적 } \approx 0.8 \text{ m}^2$$

I-BEAM 규격	BEAM 자중 (kg/m)	최 대 지지거리 (cm)	M _s (kg-cm)	M _d (kg-cm)	ΣM _v (kg-cm)	W (kg)	M _w (kg-cm)	A (m ²)
250×125×t7.5/12.5	38.3	370	6882	407142	414024	35.46	6560.4	1.25
300×150×t10/18.5	65.5	580	28920	638223	667143	58.60	16994.3	2.064
350×150×t9/15	58.5	630	30474	693243	723717	51.11	16098.3	1.87
400×150×t10/18	72.0	800	60480	880308	940788	100.50	40200.0	3.524
450×175×t11/20	91.7	1000	120356	1100385	1220741	75.81	37908.3	2.67

단, 사용 I-BEAM은 MODEL별 기술사양서의 BEAM 쪽을 참조 할 것

6-2. 굽힘 응력 계산

1. 수직하중에 의한 굽힘 응력

$$\begin{aligned} * \sigma_v &= \frac{\text{수직 굽힘 MOMENT 합계 : } \Sigma M_v}{\text{단면 계수 : } Z_x} \quad (\text{kg/cm}^2) \\ &= \frac{667143}{849} = 785.8 \quad (\text{kg/cm}^2) \end{aligned}$$

2. 풍하중에 의한 굽힘 응력

$$\begin{aligned} * \sigma_w &= \frac{\text{풍하중에 의한 굽힘 MOMENT : } M_w}{\text{단면 계수 : } Z_y} \quad (\text{kg/cm}^2) \\ &= \frac{16994.3}{118} = 144.0 \quad (\text{kg/cm}^2) \end{aligned}$$

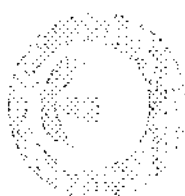
2. 풍하중에 의한 굽힘 응력

$$* \Sigma \sigma = \sigma_v + \sigma_w \leq 0.8 \times 1449 = 1159 \text{ kg/cm}^2$$

I-BEAM 규격	단면 계수 Zx	단면 계수 Zy	ΣMv (kg-cm)	Mw (kg-cm)	σv (kg/cm²)	σw (kg/cm²)	Σσ (kg/cm²)
250×125×t7.5/12.5	414	53.9	414024	5560.4	1000.1	121.7	1121.8
300×150×t10/18.5	849	118	667143	16994.3	785.8	144.0	929.8
350×150×t9/15	870	93.5	723717	16098.3	831.8	172.2	1004.0
400×150×t10/18	1200	115	940788	40200.0	784.0	349.6	1133.6
450×175×t11/20	1740	173	1220741	37903.3	701.6	219.1	920.7

단, I-BEAM의 사용은 MODEL 별 기술사양서에 따른다.

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6-3. I-BEAM 처짐(DEFLECTION)

1. I-BEAM 자중에 의한 처짐

$$\begin{aligned} * \delta_s &= \frac{5 \times \text{I-BEAM 자중} \times \text{지지거리}^3}{384 \times 2100000 \times I_x} \quad (\text{cm}) \\ &= \frac{5 \times 65.5 \times 580^3}{384 \times 2100000 \times 5180} = 0.0624 \quad (\text{cm}) \end{aligned}$$

2. 이동하중에 의한 처짐 (DEFLECTION)

$$\begin{aligned} * \delta_d &= \frac{(\text{정격하중} + \text{호이스트자중}) \times \text{지지거리}^3}{48 \times 2100000 \times I_x} \quad (\text{cm}) \\ &= \frac{(3000 + 510) \times 580^3}{48 \times 2100000 \times 5180} = 0.535 \quad (\text{cm}) \end{aligned}$$

3. 판 정

1) 이동하중에 의한 처짐판정(하단표기)

$$\begin{aligned} &\frac{\text{이동하중에 의한 처짐 : } \delta_d}{\text{지지거리}} < \frac{1}{1000} \\ &= \frac{0.535}{580} = \frac{1}{1084} < \frac{1}{1000} \end{aligned}$$

2) 처짐량 합계에 의한 처짐판정 (하단표기)

$$\begin{aligned} &\frac{\text{I-BEAM 자중에 의한 처짐 : } \delta_s + \text{이동하중에 의한 처짐 : } \delta_d}{\text{지지거리}} < \frac{1}{800} \\ &= \frac{0.0624 + 0.55}{580} = \frac{1}{971} < \frac{1}{800} \end{aligned}$$

I-BEAM 규격	단면2차 MOMENT I _x	BEAM 자중 (kg/m)	δ _s (cm)	δ _d (cm)	이동하중에 의한 처짐 판정	처짐량 합계에 의한 처짐 판정
250×125×t7.5/12.5	5180	38.3	0.023	0.341	1 / 1087	1 / 1017
300×150×t10/18.5	12700	65.5	0.0624	0.535	1 / 1084	1 / 971
350×150×t9/15	15200	58.5	0.0597	0.573	1 / 1100	1 / 996
400×150×t10/18	24100	72	0.0948	0.740	1 / 1081	1 / 959
450×175×t11/20	39200	91.7	0.145	0.888	1 / 1126	1 / 968

단, I-BEAM의 사용은 MODEL 별 기술사양서에 따른다.

I-7. I-BEAM의 최대 지지거리

7-1. 굽힘 MOMENT 계산

1. 수직하중에 의한 굽힘 MOMENT

$$\text{BEAM 자중에 의한 MOMENT : } M_s = \frac{M \times \text{I-BEAM 자중} \times (\text{지지거리})^2}{8} \quad \text{kg-cm}$$

$$M_s = \frac{1.05 \times 58.5 \times 630^2}{8} = 30474 \quad \text{kg-cm}$$

$$\text{이동하중에 의한 MOMENT : } M_d = F \times \frac{(\text{정격하중} + \text{호이스트 자중}) \times \text{지지거리}}{4} \quad \text{kg-cm}$$

$$M_d = 1.254 \times \frac{(3000 + 510) \times 630}{4} = 693243 \quad \text{kg-cm}$$

$$\star \text{ 호이스트 자중} = 510 \text{ KG} \quad \text{용량} : 3000 \text{ KG}$$

$$\star \text{ DYNAMIC COEFFICIENT : } F = 1.254$$

$$\star \text{ STATIC COEFFICIENT : } M = 1.05$$

$$\text{굽힘 MOMENT 합계 : } \sum M_v = M_s + M_d = 30474 + 712993 = 723717 \quad \text{kg-cm}$$

2. 풍하중에 의한 굽힘 MOMENT

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

$$M_w = \frac{51.11 \times 630}{2} = 16098.3 \quad \text{kg-cm}$$

$$\begin{aligned} \text{풍하중 : } W &= \text{속도압}(q) \times \text{속도계수}(C) \times \text{압력을 받는 면적}(A) \text{ (kg)} \\ &= 23.66 \times 1.2 \times 1.8 = 51.11 \text{ (kg)} \end{aligned}$$

$$\text{속도압 : } q = 8.5 \times \sqrt[4]{h} \text{ (kg/m}^2\text{)} = 8.5 \times \sqrt[4]{60} = 23.66 \text{ (kg/m}^2\text{)}$$

$$\text{속도계수 : } C = 1.2 \text{ (크레인 제작기준 참조)}$$

$$\begin{aligned} \text{풍압을 받는 면적 } A &= \text{I-BEAM의 면적} + \text{HOIST의 면적 (m}^2\text{)} \\ &= 1.48 + 0.324 = 1.80 \text{ (m}^2\text{)} \end{aligned}$$

$$\star \text{ 호이스트의 풍압을 받는 면적 } \approx 0.8 \text{ m}^2$$

I-BEAM 규격	BEAM 자중 (kg/m)	최대 지지거리 (cm)	M _s (kg-cm)	M _d (kg-cm)	ΣM _v (kg-cm)	W (kg)	M _w (kg-cm)	A (m ²)
250×125×t7.5/12.5	38.3	370	6882	407142	414024	35.46	6560.4	1.25
300×150×t10/18.5	65.5	580	28920	638223	667143	58.60	16994.3	2.064
→ 350×150×t19/15	58.5	630	30474	693243	723717	51.11	16098.3	1.87
400×150×t10/18	72.0	800	60480	880308	940788	100.05	40021.4	3.524
450×175×t11/20	91.7	1000	120356	1100385	1220741	75.81	37903.3	2.67

단, 사용 I-BEAM은 MODEL별 기술사항서의 BEAM 목록 참조 할 것

7-2. 굽힘 응력 계산

1. 수직하중에 의한 굽힘 응력

$$\begin{aligned} * \sigma_v &= \frac{\text{수직 굽힘 MOMENT 합계 : } \Sigma M_v}{\text{단면 계수 : } Z_x} \quad (\text{kg/cm}^2) \\ &= \frac{723717}{870} = 831.9 \quad (\text{kg/cm}^2) \end{aligned}$$

2. 풍하중에 의한 굽힘 응력

$$\begin{aligned} * \sigma_w &= \frac{\text{풍하중에 의한 굽힘 MOMENT : } M_w}{\text{단면 계수 : } Z_y} \quad (\text{kg/cm}^2) \\ &= \frac{16098.3}{93.5} = 172.2 \quad (\text{kg/cm}^2) \end{aligned}$$

2. 풍하중에 의한 굽힘 응력

$$* \Sigma \sigma = \sigma_v + \sigma_w \leq 0.8 \times 1449 = 1159 \text{ kg/cm}^2$$

I-BEAM 규격	단 면 계 수 Zx	단 면 계 수 Zy	ΣM_v (kg-cm)	Mw (kg-cm)	σ_v (kg/cm ²)	σ_w (kg/cm ²)	$\Sigma \sigma$ (kg/cm ²)
250×125×t7.5/12.5	414	53.9	414024	6560.4	1000.1	121.7	1121.8
300×150×t10/18.5	849	118	667143	16984.3	785.8	144.0	929.8
→ 350×150×t9/15	870	93.5	723717	16098.3	831.9	172.2	1004.0
400×150×t10/18	1200	115	940788	40021.4	784.0	348.0	1132.0
450×175×t11/20	1740	173	1220741	37903.3	701.6	219.1	920.7

단, I-BEAM의 사용은 MODEL 별 기술사양서에 따른다.

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7-3. I-BEAM 처짐(DEFLECTION)

1. I-BEAM 자중에 의한 처짐

$$\begin{aligned} * \delta_s &= \frac{5 \times \text{I-BEAM 자중} \times \text{지지거리}^3}{384 \times 2100000 \times I_x} \quad (\text{cm}) \\ &= \frac{5 \times 58.5 \times 630^3}{384 \times 2100000 \times 15200} = 0.0597 \quad (\text{cm}) \end{aligned}$$

2. 이동하중에 의한 처짐 (DEFLECTION)

$$\begin{aligned} * \delta_d &= \frac{(\text{정격하중} + \text{호이스트자중}) \times \text{지지거리}^3}{48 \times 2100000 \times I_x} \quad (\text{cm}) \\ &= \frac{(3000 + 510) \times 630^3}{48 \times 2100000 \times 15200} = 0.573 \quad (\text{cm}) \end{aligned}$$

3. 판 정

1) 이동하중에 의한 처짐판정(하단표기)

$$\begin{aligned} \frac{\text{이동하중에 의한 처짐} : \delta_d}{\text{지지거리}} &< \frac{1}{1000} \\ &= \frac{0.573}{630} = \frac{1}{1100} < \frac{1}{1000} \end{aligned}$$

2) 처짐량 합계에 의한 처짐판정 (하단표기)

$$\begin{aligned} \frac{\text{I-BEAM 자중에 의한 처짐} : \delta_s + \text{이동하중에 의한 처짐} : \delta_d}{\text{지지거리}} &< \frac{1}{1000} \\ &= \frac{0.0597 + 0.589}{630} = \frac{1}{996} < \frac{1}{800} \end{aligned}$$

I-BEAM 규격	단면2차 MOMENT I _x	BEAM 자중 (kg/m)	δ _s (cm)	δ _d (cm)	이동하중에 의한 처짐 판정	처짐량 합계에 의한 처짐판정
250×125×t7.5/12.5	5180	38.3	0.023	0.341	1 / 1087	1 / 1017
300×150×t10/18.5	12700	65.5	0.0624	0.535	1 / 1084	1 / 971
350×150×t9/15	15200	58.5	0.0597	0.573	1 / 1100	1 / 996
400×150×t10/15	24100	72	0.0948	0.740	1 / 1081	1 / 959
450×175×t11/20	39200	91.7	0.145	0.888	1 / 1126	1 / 968

단, I-BEAM의 사용은 MODEL 별 기술사양서에 따른다.

I-8. I-BEAM의 최대 지지거리

8-1. 굽힘 MOMENT 계산

1. 수직하중에 의한 굽힘 MOMENT

$$\text{BEAM 자중에 의한 MOMENT : } M_s = \frac{M \times \text{I-BEAM 자중} \times (\text{지지거리})^2}{8} \quad \text{kg-cm}$$

$$M_s = \frac{1.05 \times 72 \times 800^2}{8} = 60480 \quad \text{kg-cm}$$

$$\text{이동하중에 의한 MOMENT : } M_d = F \times \frac{(\text{정격하중} + \text{호이스트 자중}) \times \text{지지거리}}{4} \quad \text{kg-cm}$$

$$M_d = 1.254 \times \frac{(3000 + 510) \times 800}{4} = 880308 \quad \text{kg-cm}$$

$$\ast \text{ 호이스트 자중} = 510 \text{ KG} \quad \text{용 량 : } 3000 \text{ KG}$$

$$\ast \text{ DYNAMIC COEFFICIENT : } F = 1.254$$

$$\ast \text{ STATIC COEFFICIENT : } M = 1.05$$

$$\text{굽힘 MOMENT 합계 : } \Sigma M_y = M_s + M_d = 60480 + 880308 = 940788 \quad \text{kg-cm}$$

2. 풍하중에 의한 굽힘 MOMENT

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

$$M_w = \frac{100.5 \times 800}{2} = 40021.4 \quad \text{kg-cm}$$

$$\begin{aligned} \text{풍하중 : } W &= \text{속도압}(q) \times \text{속도계수}(C) \times \text{압력을 받는 면적}(A) \quad (\text{kg}) \\ &= 23.66 \times 1.2 \times 3.524 = 100.05 \quad (\text{kg}) \end{aligned}$$

$$\text{속도압 : } q = 8.5 \times \sqrt[4]{h} \quad (\text{kg/m}^2) = 8.5 \times \sqrt[4]{60} = 23.66 \quad (\text{kg/m}^2)$$

$$\text{속도계수 : } C = 1.2 \quad (\text{크레인 제작기준 참조})$$

$$\begin{aligned} \text{풍압을 받는 면적 } A &= \text{I-BEAM의 면적} + \text{HOIST의 면적} \quad (\text{m}^2) \\ &= 3.2 + 0.324 = 3.524 \quad (\text{m}^2) \end{aligned}$$

$$\ast \text{ 호이스트의 풍압을 받는 면적 } \approx 0.8 \text{ m}^2$$

I-BEAM 규격	BEAM 자중 (kg/m)	최 대 지지거리 (cm)	M _s (kg-cm)	M _d (kg-cm)	ΣM _y (kg-cm)	W (kg)	M _w (kg-cm)	A (m ²)
250×125×t7.5/12.5	38.3	370	6882	407142	414024	35.46	6560.4	1.25
300×150×t10/18.5	65.5	580	28920	638223	667143	58.60	16994.3	2.064
350×150×t9/15	58.5	630	30474	693243	723717	51.11	15098.3	1.87
400×150×t10/18	72.0	800	60480	880308	940788	100.05	40021.4	3.524
450×175×t11/20	91.7	1000	120356	1100385	1220741	75.81	37903.3	2.67

단, 사용 I-BEAM은 MODEL별 기술사양서의 BEAM 폭을 참조 할 것

8-2. 굽힘 응력 계산

1. 수직하중에 의한 굽힘 응력

$$\begin{aligned} * \sigma_v &= \frac{\text{수직 굽힘 MOMENT 합계 : } \Sigma M_v}{\text{단면 계수 : } Z_x} \quad (\text{kg/cm}^2) \\ &= \frac{940788}{1200} = 784.0 \quad (\text{kg/cm}^2) \end{aligned}$$

2. 풍하중에 의한 굽힘 응력

$$\begin{aligned} * \sigma_w &= \frac{\text{풍하중에 의한 굽힘 MOMENT : } M_w}{\text{단면 계수 : } Z_y} \quad (\text{kg/cm}^2) \\ &= \frac{40021.4}{115} = 348.0 \quad (\text{kg/cm}^2) \end{aligned}$$

2. 풍하중에 의한 굽힘 응력

$$* \Sigma \sigma = \sigma_v + \sigma_w \leq 0.8 \times 1449 = 1159 \text{ kg/cm}^2$$

I-BEAM 규격	단면 계수 Zx	단면 계수 Zy	ΣM_v (kg-cm)	M_w (kg-cm)	σ_v (kg/cm ²)	σ_w (kg/cm ²)	$\Sigma \sigma$ (kg/cm ²)
250×125×t7.5/12.5	414	53.9	414024	6560.4	1000.1	121.7	1121.8
300×150×t10/18.5	849	118	667143	16994.3	785.8	144.0	929.8
350×150×t9/15	870	93.5	723717	16098.3	831.9	172.2	1004.0
400×150×t10/18	1200	115	940788	40021.4	784.0	348.0	1132.0
450×175×t11/20	1740	173	1220741	37903.3	701.6	219.1	920.7

단, I-BEAM의 사용은 MODEL 별 기술사양서에 따른다.

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8-3. I-BEAM 처짐(DEFLECTION)

1. I-BEAM 자중에 의한 처짐

$$\begin{aligned} * \delta_s &= \frac{5 \times \text{I-BEAM 자중} \times \text{지지거리}^3}{384 \times 2100000 \times I_x} \quad (\text{cm}) \\ &= \frac{5 \times 72 \times 800^3}{384 \times 2100000 \times 24100} = 0.0948 \quad (\text{cm}) \end{aligned}$$

2. 이동하중에 의한 처짐 (DEFLECTION)

$$\begin{aligned} * \delta_d &= \frac{(\text{정격하중} + \text{호이스트자중}) \times \text{지지거리}^3}{48 \times 2100000 \times I_x} \quad (\text{cm}) \\ &= \frac{(3000 + 510) \times 800^3}{48 \times 2100000 \times 24100} = 0.740 \quad (\text{cm}) \end{aligned}$$

3. 판 정

1) 이동하중에 의한 처짐판정(하단표기)

$$\begin{aligned} \frac{\text{이동하중에 의한 처짐} : \delta_d}{\text{지지거리}} &< \frac{1}{1000} \\ &= \frac{0.740}{800} = \frac{1}{1081} < \frac{1}{1000} \end{aligned}$$

2) 처짐량 합계에 의한 처짐판정 (하단표기)

$$\begin{aligned} \frac{\text{I-BEAM 자중에 의한 처짐} : \delta_s + \text{이동하중에 의한 처짐} : \delta_d}{\text{지지거리}} &< \frac{1}{800} \\ &= \frac{0.0948 + 0.761}{800} = \frac{1}{959} < \frac{1}{800} \end{aligned}$$

I-BEAM 규격	단면2차 MOMENT I_x	BEAM 자중 (kg/m)	δ_s (cm)	δ_d (cm)	이동하중에 의한 처짐 판정	처짐량 합계에 의한 처짐판정
250×125×17.5/12.5	5180	38.3	0.023	0.341	1 / 1087	1 / 1017
300×150×110/18.5	12700	65.5	0.0624	0.535	1 / 1084	1 / 971
350×150×19/15	15200	58.5	0.0597	0.573	1 / 1100	1 / 996
400×150×110/18	24100	72	0.0948	0.740	1 / 1081	1 / 959
450×175×111/20	39200	91.7	0.145	0.888	1 / 1126	1 / 968

단, I-BEAM의 사용은 MODEL 별 기술사항서에 따른다.

I-9. I-BEAM의 최대 지지거리

9-1. 굽힘 MOMENT 계산

1. 수직하중에 의한 굽힘 MOMENT

$$\text{BEAM 자중에 의한 MOMENT : } M_s = \frac{M \times \text{I-BEAM 자중} \times (\text{지지거리})^2}{8} \quad \text{kg-cm}$$

$$M_s = \frac{1.05 \times 91.7 \times 1000^2}{8} = 120356 \quad \text{kg-cm}$$

$$\text{이동하중에 의한 MOMENT : } M_d = F \times \frac{(\text{정격하중} + \text{호이스트 자중}) \times \text{지지거리}}{4} \quad \text{kg-cm}$$

$$M_d = 1.254 \times \frac{(3000 + 510) \times 1000}{4} = 1100385 \quad \text{kg-cm}$$

$$\star \text{ 호이스트 자중} = 510 \text{ KG} \quad \text{용량} : 3000 \text{ KG}$$

$$\star \text{ DYNAMIC COEFFICIENT : } F = 1.254$$

$$\star \text{ STATIC COEFFICIENT : } M = 1.05$$

$$\text{굽힘 MOMENT 합계 : } \Sigma M_v = M_s + M_d = 120356 + 1131735 = 1220741 \quad \text{kg-cm}$$

2. 풍하중에 의한 굽힘 MOMENT

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

$$M_w = \frac{136.96 \times 1000}{2} = 68481.5 \quad \text{kg-cm}$$

$$\begin{aligned} \text{풍하중 : } W &= \text{속도압}(q) \times \text{속도계수}(C) \times \text{압력을 받는 면적}(A) \quad (\text{kg}) \\ &= 23.66 \times 1.2 \times 4.824 = 136.96 \quad (\text{kg}) \end{aligned}$$

$$\text{속도압 : } q = 8.5 \times \sqrt{h} \quad (\text{kg/m}^2) = 8.5 \times \sqrt{60} = 23.66 \quad (\text{kg/m}^2)$$

$$\text{속도계수 : } C = 1.2 \quad (\text{크레인 제작기준 참조})$$

$$\begin{aligned} \text{풍압을 받는 면적 } A &= \text{I-BEAM의 면적} + \text{HOIST의 면적} \quad (\text{m}^2) \\ &= 4.5 + 0.324 = 4.824 \quad (\text{m}^2) \end{aligned}$$

$$\star \text{ 호이스트의 풍압을 받는 면적 } \approx 0.8 \text{ m}^2$$

I-BEAM 규격	BEAM 자중 (kg/m)	최대 지지거리 (cm)	M _s (kg-cm)	M _d (kg-cm)	ΣM _v (kg-cm)	W (kg)	M _w (kg-cm)	A (m ²)
250×125×t7.5/12.5	38.3	370	6882	407142	414024	35.46	6560.4	1.25
300×150×t10/18.5	65.5	580	28920	638223	667143	58.60	16994.3	2.064
350×150×t9/15	58.5	630	30474	693243	723717	51.11	16098.3	1.87
400×150×t10/18	72.0	800	60480	880308	940788	100.05	40021.4	3.524
450×175×t11/20	91.7	1000	120356	1100385	1220741	136.96	68481.5	4.824

단, 사용 I-BEAM은 MODEL별 기술사양서의 BEAM 폭을 참조 할 것

9-2. 굽힘 응력 계산

1. 수직하중에 의한 굽힘 응력

$$\begin{aligned} * \sigma_v &= \frac{\text{수직 굽힘 MOMENT 합계 : } \sum M_v}{\text{단면 계수 : } Z_x} \quad (\text{kg/cm}^2) \\ &= \frac{1220741}{1740} = 701.6 \quad (\text{kg/cm}^2) \end{aligned}$$

2. 풍하중에 의한 굽힘 응력

$$\begin{aligned} * \sigma_w &= \frac{\text{풍하중에 의한 굽힘 MOMENT : } M_w}{\text{단면 계수 : } Z_y} \quad (\text{kg/cm}^2) \\ &= \frac{68481.5}{173} = 395.8 \quad (\text{kg/cm}^2) \end{aligned}$$

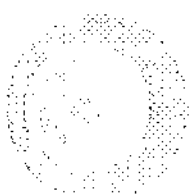
2. 풍하중에 의한 굽힘 응력

$$* \sum \sigma = \sigma_v + \sigma_w \leq 0.8 \times 1449 = 1159 \text{ kg/cm}^2$$

I-BEAM 규격	단 면 계 수 Zx	단 면 계 수 Zy	$\sum M_v$ (kg-cm)	Mw (kg-cm)	σ_v (kg/cm ²)	σ_w (kg/cm ²)	$\sum \sigma$ (kg/cm ²)
250×125×t7.5/12.5	414	53.9	414024	6560.4	1000.7	121.7	1121.8
300×150×t10/18.5	849	118	667143	16994.3	765.8	144.0	929.8
350×150×t9/15	870	93.5	723717	16098.3	831.9	172.2	1004.0
400×150×t10/18	1200	115	940788	40021.4	784.0	348.0	1132.0
⇒ 450×175×t11/20	1740	173	1220741	68481.5	701.6	395.8	1097.4

단, I-BEAM의 사용은 MODEL 별 기술사양서에 따른다.

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9-3. I-BEAM 처짐(DEFLECTION)

1. I-BEAM 자중에 의한 처짐

$$\begin{aligned} * \delta_s &= \frac{5 \times \text{I-BEAM 자중} \times \text{지지거리}^3}{384 \times 2100000 \times I_x} \quad (\text{cm}) \\ &= \frac{5 \times 91.7 \times 1000^3}{384 \times 2100000 \times 39200} = 0.1450 \quad (\text{cm}) \end{aligned}$$

2. 이동하중에 의한 처짐 (DEFLECTION)

$$\begin{aligned} * \delta_d &= \frac{(\text{정격하중} + \text{호이스트자중}) \times \text{지지거리}^3}{48 \times 2100000 \times I_x} \quad (\text{cm}) \\ &= \frac{(3000 + 510) \times 1000^3}{48 \times 2100000 \times 39200} = 0.888 \quad (\text{cm}) \end{aligned}$$

3. 판 정

1) 이동하중에 의한 처짐판정(하단표기)

$$\begin{aligned} \frac{\text{이동하중에 의한 처짐} : \delta_d}{\text{지지거리}} &< \frac{1}{1000} \\ &= \frac{0.888}{1000} = \frac{1}{1126} < \frac{1}{1000} \end{aligned}$$

2) 처짐량 합계에 의한 처짐판정 (하단표기)

$$\begin{aligned} \frac{\text{I-BEAM 자중에 의한 처짐} : \delta_s + \text{이동하중에 의한 처짐} : \delta_d}{\text{지지거리}} &< \frac{1}{1000} \\ &= \frac{0.145 + 0.914}{1000} = \frac{1}{968} < \frac{1}{800} \end{aligned}$$

I-BEAM 규격	단면2차 MOMENT I_x	BEAM 자중 (kg/m)	δ_s (cm)	δ_d (cm)	이동하중에 의한 처짐 판정	처짐량 합계에 의한 처짐판정
250×125×t7.5/12.5	5180	38.3	0.023	0.341	1 / 1087	1 / 1017
300×150×t10/18.5	12700	65.6	0.0625	0.535	1 / 1084	1 / 971
350×150×t9/15	15200	58.5	0.0597	0.573	1 / 1100	1 / 996
400×150×t10/18	24100	72	0.0948	0.740	1 / 1081	1 / 959
450×175×t11/20	39200	91.7	0.145	0.888	1 / 1126	1 / 968

단, I-BEAM의 사용은 MODEL 별 기술사양서에 따른다.

LOAD LIMITER 권고 SETTING치

POWER SOURCE : AC 3Φ 220V 60Hz

극동하이스트(주)

HOIST	MOTOR 용량	LOAD LIMITER 권고 SETTING치			LOAD CURRENT		C.T MODEL	연결단자 NO	C.T 용량	REMARK
		LOAD CURRENT	ADJ START TIME	SHOCK TIME	100%	110%				
0.5 TON	1.2KW x 8P	110%	1 SEC	1 SEC	8.0 A	9.0 A	CT-1	K, L	5 V.A	
	1.5KW x 6P	110%	1 SEC	1 SEC	7.6 A	8.4 A	CT-1	K, L	5 V.A	
	2.4KW x 4P	110%	1 SEC	1 SEC	10 A	11.2 A	CT-1	K, L	5 V.A	
1 TON	1.2KW x 8P	110%	1 SEC	1 SEC	8.0 A	9.0 A	CT-1	K, L	5 V.A	
	1.8KW x 6P	110%	1 SEC	1 SEC	8.6 A	9.4 A	CT-1	K, L	5 V.A	
	2.4KW x 4P	110%	1 SEC	1 SEC	10 A	11.2 A	CT-1	K, L	5 V.A	
2 TON	1.8KW x 8P	110%	1 SEC	1 SEC	11.0 A	12.2 A	CT-1	K, L	5 V.A	
	2.5KW x 6P	110%	1 SEC	1 SEC	12.0 A	13.2 A	CT-1	K, L	5 V.A	
	3.7KW x 4P	110%	1 SEC	1 SEC	16.0 A	17.6 A	CT-1	K, L	5 V.A	
2.8 TON	2.5KW x 8P	110%	1 SEC	1 SEC	17.7 A	19.5 A	CT-1	K, L	5 V.A	
	5.0KW x 4P	110%	1 SEC	1 SEC	22.8 A	25.0 A	CT-1	K, L	5 V.A	
	2.8KW x 8P	110%	1 SEC	1 SEC	17.7 A	19.5 A	CT-1	K, L	5 V.A	
3 TON	5.5KW x 4P	110%	1 SEC	1 SEC	22.8 A	25.0 A	CT-1	K, L	5 V.A	
	4.2KW x 8P	110%	1 SEC	1 SEC	23.0 A	25.3 A	CT-1	K, L	5 V.A	
	5.5KW x 6P	110%	1 SEC	1 SEC	28.2 A	31.0 A	CT-1	K, L	5 V.A	
5 TON	8.5KW x 4P	110%	1 SEC	1 SEC	34.4 A	38.4 A	CT-1	K, L	5 V.A	
	4.2KW x 8P	110%	1 SEC	1 SEC	23.0 A	25.3 A	CT-1	K, L	5 V.A	
	5.5KW x 6P	110%	1 SEC	1 SEC	28.2 A	31.0 A	CT-1	K, L	5 V.A	
7.5 TON	8.5KW x 4P	110%	1 SEC	1 SEC	34.4 A	38.4 A	CT-1	K, L	5 V.A	

NOTE

1. 상기 TABLE의 수치는 권고 SETTING 수치이며 MOTOR의 특성 및 현장 조건에 따라 변경 가능함.

LOAD LIMITER 권고 SETTING치

* POWER SOURCE : AC 3 ϕ 380V 60Hz

극동호이스트(주)

HOIST	MOTOR 용량	LOAD LIMITER 권고 SETTING치			LOAD CURRENT		C.T MODEL	연결단자 NO	C.T 용량	REMARK
		LOAD CURRENT	ADJ START TIME	SHOCK TIME	100%	110%				
0.5 TON	1.2KW x 8P	110%	1 SEC	1 SEC	4.6 A	5.2 A	CT-1	K, L	5 V.A	
	1.5KW x 6P	110%	1 SEC	1 SEC	5.4 A	4.9 A	CT-1	K, L	5 V.A	
	2.4KW x 4P	110%	1 SEC	1 SEC	5.6 A	6.4 A	CT-1	K, L	5 V.A	
1 TON	1.2KW x 8P	110%	1 SEC	1 SEC	4.6 A	5.2 A	CT-1	K, L	5 V.A	
	1.8KW x 6P	110%	1 SEC	1 SEC	5.4 A	4.9 A	CT-1	K, L	5 V.A	
	2.4KW x 4P	110%	1 SEC	1 SEC	5.6 A	6.4 A	CT-1	K, L	5 V.A	
2 TON	1.8KW x 8P	110%	1 SEC	1 SEC	6.4 A	7.1 A	CT-1	K, L	5 V.A	
	2.5KW x 6P	110%	1 SEC	1 SEC	7.0 A	7.7 A	CT-1	K, L	5 V.A	
	3.7KW x 4P	110%	1 SEC	1 SEC	9.3 A	10.3 A	CT-1	K, L	5 V.A	
2.8 TON	2.5KW x 8P	110%	1 SEC	1 SEC	10.3 A	11.4 A	CT-1	K, L	5 V.A	
	5.0KW x 4P	110%	1 SEC	1 SEC	12.2 A	13.5 A	CT-1	K, L	5 V.A	
	2.8KW x 8P	110%	1 SEC	1 SEC	10.3 A	11.4 A	CT-1	K, L	5 V.A	
3 TON	5.5KW x 4P	110%	1 SEC	1 SEC	12.2 A	13.5 A	CT-1	K, L	5 V.A	
	4.2KW x 8P	110%	1 SEC	1 SEC	13.3 A	14.6 A	CT-1	K, L	5 V.A	
	5.5KW x 6P	110%	1 SEC	1 SEC	16.3 A	18.0 A	CT-1	K, L	5 V.A	
5 TON	8.5KW x 4P	110%	1 SEC	1 SEC	19.9 A	23.1 A	CT-1	K, L	5 V.A	
	4.2KW x 8P	110%	1 SEC	1 SEC	13.3 A	14.6 A	CT-1	K, L	5 V.A	
	5.5KW x 6P	110%	1 SEC	1 SEC	19.9 A	23.1 A	CT-1	K, L	5 V.A	
7.5 TON	8.5KW x 4P	110%	1 SEC	1 SEC	16.3 A	18.0 A	CT-1	K, L	5 V.A	

NOTE

1. 상기 TABLE의 수치는 권고 SETTING 수치이며 MOTOR의 특성 및 현장 조건에 따라 변경 가능함.

LOAD LIMITER 권고 SETTING치

★ POWER SOURCE : AC 3Φ 440V 60Hz

극동하이스트㈜

HOIST	MOTOR 용량	LOAD LIMITER 권고 SETTING치			LOAD CURRENT		C.T MODEL	연결단자 NO	C.T 용량	REMARK
		LOAD CURRENT	ADJ START TIME	SHOCK TIME	100%	110%				
0.5 TON	1.2KW x 8P	110%	1 SEC	1 SEC	4.0 A	4.6 A	CT-1	K, L	5 V.A	
	1.5KW x 6P	110%	1 SEC	1 SEC	3.8 A	4.5 A	CT-1	K, L	5 V.A	
	2.4KW x 4P	110%	1 SEC	1 SEC	5.0 A	5.9 A	CT-1	K, L	5 V.A	
1 TON	1.2KW x 8P	110%	1 SEC	1 SEC	4.0 A	4.6 A	CT-1	K, L	5 V.A	
	1.8KW x 6P	110%	1 SEC	1 SEC	4.4 A	4.9 A	CT-1	K, L	5 V.A	
	2.4KW x 4P	110%	1 SEC	1 SEC	5.0 A	5.9 A	CT-1	K, L	5 V.A	
2 TON	1.8KW x 8P	110%	1 SEC	1 SEC	5.5 A	6.1 A	CT-1	K, L	5 V.A	
	2.5KW x 6P	110%	1 SEC	1 SEC	5.8 A	6.4 A	CT-1	K, L	5 V.A	
	3.7KW x 4P	110%	1 SEC	1 SEC	8.0 A	10.8 A	CT-1	K, L	5 V.A	
2.8 TON	2.5KW x 8P	110%	1 SEC	1 SEC	8.9 A	9.8 A	CT-1	K, L	5 V.A	
	5.0KW x 4P	110%	1 SEC	1 SEC	10.5 A	11.6 A	CT-1	K, L	5 V.A	
	2.8KW x 8P	110%	1 SEC	1 SEC	8.9 A	9.8 A	CT-1	K, L	5 V.A	
3 TON	5.5KW x 4P	110%	1 SEC	1 SEC	10.5 A	11.6 A	CT-1	K, L	5 V.A	
	4.2KW x 8P	110%	1 SEC	1 SEC	11.5 A	12.7 A	CT-1	K, L	5 V.A	
	5.5KW x 6P	110%	1 SEC	1 SEC	14.1 A	15.5 A	CT-1	K, L	5 V.A	
5 TON	8.5KW x 4P	110%	1 SEC	1 SEC	16.5 A	20.5 A	CT-1	K, L	5 V.A	
	4.2KW x 8P	110%	1 SEC	1 SEC	11.5 A	12.7 A	CT-1	K, L	5 V.A	
	5.5KW x 6P	110%	1 SEC	1 SEC	14.1 A	15.5 A	CT-1	K, L	5 V.A	
7.5 TON	8.5KW x 4P	110%	1 SEC	1 SEC	16.5 A	20.5 A	CT-1	K, L	5 V.A	

NOTE

1. 상기 TABLE의 수치는 권고 SETTING 수치이며 MOTOR의 특성 및 현장 조건에 따라 변경 가능함.

LOAD LIMITER 권고 SETTING치

* POWER SOURCE : AC 3Φ 460V 60Hz

극동호이스트(주)

HOIST	MOTOR 용량	LOAD LIMITER 권고 SETTING치			LOAD CURRENT		C.T MODEL	연결단자 NO	C.T 용량	REMARK
		LOAD CURRENT	ADJ START TIME	SHOCK TIME	100%	110%				
0.5 TON	1.2KW x 8P	110%	1 SEC	1 SEC	3.8 A	4.4 A	CT-1	K, L	5 V.A	
	1.5KW x 6P	110%	1 SEC	1 SEC	3.6 A	4.1 A	CT-1	K, L	5 V.A	
	2.4KW x 4P	110%	1 SEC	1 SEC	4.8 A	5.2 A	CT-1	K, L	5 V.A	
1 TON	1.2KW x 8P	110%	1 SEC	1 SEC	3.8 A	4.4 A	CT-1	K, L	5 V.A	
	1.8KW x 6P	110%	1 SEC	1 SEC	4.2 A	4.6 A	CT-1	K, L	5 V.A	
	2.4KW x 4P	110%	1 SEC	1 SEC	4.8 A	5.2 A	CT-1	K, L	5 V.A	
2 TON	1.8KW x 8P	110%	1 SEC	1 SEC	5.3 A	5.9 A	CT-1	K, L	5 V.A	
	2.5KW x 6P	110%	1 SEC	1 SEC	5.5 A	6.1 A	CT-1	K, L	5 V.A	
	3.7KW x 4P	110%	1 SEC	1 SEC	7.7 A	8.5 A	CT-1	K, L	5 V.A	
2.8T	2.5KW x 8P	110%	1 SEC	1 SEC	7.7 A	8.5 A	CT-1	K, L	5 V.A	
	5.0KW x 4P	110%	1 SEC	1 SEC	10.0 A	11.5 A	CT-1	K, L	5 V.A	
	2.8KW x 8P	110%	1 SEC	1 SEC	7.7 A	8.5 A	CT-1	K, L	5 V.A	
3TON	5.5KW x 4P	110%	1 SEC	1 SEC	10.0 A	11.5 A	CT-1	K, L	5 V.A	
	5.5KW x 4P	110%	1 SEC	1 SEC	10.0 A	11.5 A	CT-1	K, L	5 V.A	
	4.2KW x 8P	110%	1 SEC	1 SEC	11.0 A	12.2 A	CT-1	K, L	5 V.A	
5 TON	5.5KW x 6P	110%	1 SEC	1 SEC	13.5 A	14.7 A	CT-1	K, L	5 V.A	
	8.5KW x 4P	110%	1 SEC	1 SEC	16.5 A	20.5 A	CT-1	K, L	5 V.A	
	4.2KW x 8P	110%	1 SEC	1 SEC	11.0 A	12.2 A	CT-1	K, L	5 V.A	
7.5 TON	5.5KW x 6P	110%	1 SEC	1 SEC	13.5 A	14.7 A	CT-1	K, L	5 V.A	
	8.5KW x 4P	110%	1 SEC	1 SEC	16.5 A	20.5 A	CT-1	K, L	5 V.A	

NOTE

1. 상기 TABLE의 수치는 권고 SETTING 수치이며 MOTOR의 특성 및 현장 조건에 따라 변경 가능함.

LOAD LIMITER 권고 SETTING치

★ POWER SOURCE : AC 3Φ 480V 60Hz

극동하이스트(주)

HOIST	MOTOR 용량	LOAD LIMITER 권고 SETTING치			LOAD CURRENT		C.T MODEL	연결단자 NO	C.T 용량	REMARK
		LOAD CURRENT	ADJ START TIME	SHOCK TIME	100%	110%				
0.5 TON	1.2KW x 8P	110%	1 SEC	1 SEC	3.6 A	4.2 A	CT-1	K, L	5 V.A	
	1.5KW x 6P	110%	1 SEC	1 SEC	3.5 A	3.9 A	CT-1	K, L	5 V.A	
	2.4KW x 4P	110%	1 SEC	1 SEC	4.6 A	5.1 A	CT-1	K, L	5 V.A	
1 TON	1.2KW x 8P	110%	1 SEC	1 SEC	3.6 A	4.2 A	CT-1	K, L	5 V.A	
	1.8KW x 6P	110%	1 SEC	1 SEC	4.0 A	4.7 A	CT-1	K, L	5 V.A	
	2.4KW x 4P	110%	1 SEC	1 SEC	4.6 A	5.1 A	CT-1	K, L	5 V.A	
2 TON	1.8KW x 8P	110%	1 SEC	1 SEC	5.1 A	5.8 A	CT-1	K, L	5 V.A	
	2.5KW x 6P	110%	1 SEC	1 SEC	5.3 A	6.0 A	CT-1	K, L	5 V.A	
	3.7KW x 4P	110%	1 SEC	1 SEC	7.3 A	8.2 A	CT-1	K, L	5 V.A	
2.8 TON	2.5KW x 8P	110%	1 SEC	1 SEC	7.3 A	8.2 A	CT-1	K, L	5 V.A	
	5.0KW x 4P	110%	1 SEC	1 SEC	9.6 A	11.2 A	CT-1	K, L	5 V.A	
	2.8KW x 8P	110%	1 SEC	1 SEC	7.3 A	8.2 A	CT-1	K, L	5 V.A	
3 TON	5.5KW x 4P	110%	1 SEC	1 SEC	9.6 A	11.2 A	CT-1	K, L	5 V.A	
	4.2KW x 8P	110%	1 SEC	1 SEC	10.5 A	12.0 A	CT-1	K, L	5 V.A	
	5.5KW x 6P	110%	1 SEC	1 SEC	12.9 A	14.2 A	CT-1	K, L	5 V.A	
5 TON	8.5KW x 4P	110%	1 SEC	1 SEC	15.8 A	19.9 A	CT-1	K, L	5 V.A	
	4.2KW x 8P	110%	1 SEC	1 SEC	10.5 A	12.0 A	CT-1	K, L	5 V.A	
	5.5KW x 6P	110%	1 SEC	1 SEC	12.9 A	14.2 A	CT-1	K, L	5 V.A	
7.5 TON	8.5KW x 4P	110%	1 SEC	1 SEC	15.8 A	19.9 A	CT-1	K, L	5 V.A	

NOTE

1. 상기 TABLE의 수치는 권고 SETTING 수치이며 MOTOR의 특성 및 현장 조건에 따라 변경 가능함.

E.O.C.R 권고 SETTING치

국동호이스트(주)

* POWER SOURCE : AC 3Φ 220V 60Hz

HOIST	MOTOR 용량	MOTOR 정격 전류	DRIVE TYPE	E.O.C.R TYPE	권고 SETTING 치			REMARK
					DELAY TIME	OPERATION TIME	CURRENT	
0.5 TON	1.2KW x 8P	8.0 A	1 DRIVE	SS-30	3 SEC	1 SEC	8.0 A	
	1.5KW x 6P	7.6 A	1 DRIVE	SS-30	3 SEC	1 SEC	7.6 A	
	2.4KW x 4P	10.0 A	1 DRAVE	SS-30	3 SEC	1 SEC	10.0 A	
1 TON	1.2KW x 8P	8.0 A	1 DRIVE	SS-30	3 SEC	1 SEC	8.0 A	
	1.8KW x 6P	8.6 A	1 DRIVE	SS-30	3 SEC	1 SEC	8.6 A	
	2.4KW x 4P	10.0 A	1 DRAVE	SS-30	3 SEC	1 SEC	10.0 A	
2 TON	1.8KW x 8P	11.0 A	1 DRAVE	SS-30	3 SEC	1 SEC	11.0 A	
	2.5KW x 6P	12.0 A	1 DRAVE	SS-30	3 SEC	1 SEC	12.0 A	
	3.7KW x 4P	16.0 A	1 DRAVE	SS-30	3 SEC	1 SEC	16.0 A	
2.8 TON	2.5KW x 8P	17.7 A	1 DRAVE	SS-30	3 SEC	1 SEC	17.7 A	
	5.0KW x 4P	22.8 A	1 DRAVE	SS-30	3 SEC	1 SEC	22.8 A	
	2.8KW x 8P	17.7 A	1 DRAVE	SS-30	3 SEC	1 SEC	17.7 A	
3 TON	5.5KW x 4P	22.8 A	1 DRAVE	SS-30	3 SEC	1 SEC	22.8 A	
	4.2KW x 8P	23.0 A	1 DRAVE	SS-30	3 SEC	1 SEC	23.0 A	
	5.5KW x 6P	28.2 A	1 DRAVE	SS-30	3 SEC	1 SEC	28.2 A	
5 TON	8.5KW x 4P	34.4 A	1 DRAVE	SS-30	3 SEC	1 SEC	34.4 A	
	4.2KW x 8P	23.0 A	1 DRAVE	SS-30	3 SEC	1 SEC	23.0 A	
	5.5KW x 6P	28.2 A	1 DRAVE	SS-30	3 SEC	1 SEC	28.2 A	
7.5 TON	8.5KW x 4P	34.4 A	1 DRAVE	SS-30	3 SEC	1 SEC	34.4 A	

NOTE

1. 상기 TABLE의 수치는 권고 SETTING 수치이며 MOTOR의 특성 및 현장 조건에 따라 변경 가능함.

E.O.C.R 권고 SETTING치

* POWER SOURCE : AC 3Φ 380V 60Hz

극동호이스트(주)

HOIST	MOTOR 용량	1 정격 전류	DRIVE TYPE	E.O.C.R TYPE	권고 SETTING 치			REMARK
					DELAY TIME	OPERATION TIME	CURRENT	
2.5 TON	1.2KW x 8P	4.6 A	1 DRIVE	SS-30	3 SEC	1 SEC	4.6 A	
	1.5KW x 6P	5.4 A	1 DRIVE	SS-30	3 SEC	1 SEC	5.4 A	
	2.4KW x 4P	5.6 A	1 DRAVE	SS-30	3 SEC	1 SEC	5.6 A	
4 TON	1.2KW x 8P	4.6 A	1 DRIVE	SS-30	3 SEC	1 SEC	4.6 A	
	1.8KW x 6P	5.4 A	1 DRIVE	SS-30	3 SEC	1 SEC	5.4 A	
	2.4KW x 4P	5.6 A	1 DRAVE	SS-30	3 SEC	1 SEC	5.6 A	
5.2 TON	1.8KW x 8P	6.4 A	1 DRAVE	SS-30	3 SEC	1 SEC	6.4 A	
	2.5KW x 6P	7.0 A	1 DRAVE	SS-30	3 SEC	1 SEC	7.0 A	
	3.7KW x 4P	9.3 A	1 DRAVE	SS-30	3 SEC	1 SEC	9.3 A	
7.5 TON	2.5KW x 8P	10.3 A	1 DRAVE	SS-30	3 SEC	1 SEC	10.3 A	
	5.0KW x 4P	12.2 A	1 DRAVE	SS-30	3 SEC	1 SEC	12.2 A	
	2.8KW x 8P	10.3 A	1 DRAVE	SS-30	3 SEC	1 SEC	10.3 A	
10 TON	5.5KW x 4P	12.2 A	1 DRAVE	SS-30	3 SEC	1 SEC	12.2 A	
	4.2KW x 8P	13.3 A	1 DRAVE	SS-30	3 SEC	1 SEC	13.3 A	
	5.5KW x 6P	16.3 A	1 DRAVE	SS-30	3 SEC	1 SEC	16.3 A	
15 TON	8.5KW x 4P	19.9 A	1 DRAVE	SS-30	3 SEC	1 SEC	19.9 A	
	4.2KW x 8P	13.3 A	1 DRAVE	SS-30	3 SEC	1 SEC	13.3 A	
	5.5KW x 6P	16.3 A	1 DRAVE	SS-30	3 SEC	1 SEC	16.3 A	
20 TON	8.5KW x 4P	19.9 A	1 DRAVE	SS-30	3 SEC	1 SEC	19.9 A	
	4.2KW x 8P	13.3 A	1 DRAVE	SS-30	3 SEC	1 SEC	13.3 A	
	5.5KW x 6P	16.3 A	1 DRAVE	SS-30	3 SEC	1 SEC	16.3 A	

NOTE

1. 상기 TABLE의 수치는 권고 SETTING 수치이며 MOTOR의 특성 및 현장 조건에 따라 변경 가능함.

E.O.C.R 권고 SETTING치

* POWER SOURCE : AC 3Φ 440V 60HZ

극동호이스트(주)

HOIST	MOTOR 용량	MOTOR 정격 전류	DRIVE TYPE	E.O.C.R TYPE	권고 SETTING 치			REMARK
					DELAY TIME	OPERATION TIME	CURRENT	
0.5 TON	1.2KW x 8P	4.0 A	1 DRIVE	SS-06	3 SEC	1 SEC	4.0 A	
	1.5KW x 6P	3.8 A	1 DRIVE	SS-06	3 SEC	1 SEC	3.8 A	
	2.4KW x 4P	5.0 A	1 DRAVE	SS-30	3 SEC	1 SEC	5.0 A	
1 TON	1.2KW x 8P	4.0 A	1 DRIVE	SS-06	3 SEC	1 SEC	4.0 A	
	1.8KW x 6P	4.4 A	1 DRIVE	SS-06	3 SEC	1 SEC	4.4 A	
	2.4KW x 4P	5.0 A	1 DRAVE	SS-30	3 SEC	1 SEC	5.0 A	
2 TON	1.8KW x 8P	5.5 A	1 DRAVE	SS-30	3 SEC	1 SEC	5.5 A	
	2.5KW x 6P	5.8 A	1 DRAVE	SS-30	3 SEC	1 SEC	5.8 A	
	3.7KW x 4P	8.0 A	1 DRAVE	SS-30	3 SEC	1 SEC	8.0 A	
2.8 TON	2.5KW x 8P	8.9 A	1 DRAVE	SS-30	3 SEC	1 SEC	8.9 A	
	5.0KW x 4P	10.5 A	1 DRAVE	SS-30	3 SEC	1 SEC	10.5 A	
	2.8KW x 8P	8.9 A	1 DRAVE	SS-30	3 SEC	1 SEC	8.9 A	
3 TON	5.5KW x 4P	10.5 A	1 DRAVE	SS-30	3 SEC	1 SEC	10.5 A	
	4.2KW x 8P	11.5 A	1 DRAVE	SS-30	3 SEC	1 SEC	11.5 A	
	5.5KW x 6P	14.1 A	1 DRAVE	SS-30	3 SEC	1 SEC	14.1 A	
5 TON	8.5KW x 4P	16.5 A	1 DRAVE	SS-30	3 SEC	1 SEC	16.5 A	
	4.2KW x 8P	11.5 A	1 DRAVE	SS-30	3 SEC	1 SEC	11.5 A	
	5.5KW x 6P	14.1 A	1 DRAVE	SS-30	3 SEC	1 SEC	14.1 A	
7.5 TON	8.5KW x 4P	16.5 A	1 DRAVE	SS-30	3 SEC	1 SEC	16.5 A	

NOTE

1. 상기 TABLE의 수치는 권고 SETTING 수치이며 MOTOR의 특성 및 현장 조건에 따라 변경 가능함.

E.O.C.R 권고 SETTING치

극동호이스트(주)

* POWER SOURCE : AC 3Φ 460V 60Hz

HOIST	MOTOR 용량	MOTOR 정격 전류	DRIVE TYPE	E.O.C.R TYPE	권고 SETTING 치			REMARK
					DELAY TIME	OPERATION TIME	CURRENT	
0.5 TON	1.2KW x 8P	3.8 A	1 DRIVE	SS-06	3 SEC	1 SEC	3.8 A	
	1.5KW x 6P	3.6 A	1 DRIVE	SS-06	3 SEC	1 SEC	3.6 A	
	2.4KW x 4P	4.8 A	1 DRAVE	SS-06	3 SEC	1 SEC	4.8 A	
1 TON	1.2KW x 8P	3.8 A	1 DRAVE	SS-30	3 SEC	1 SEC	3.8 A	
	1.8KW x 6P	4.2 A	1 DRAVE	SS-30	3 SEC	1 SEC	4.2 A	
	2.4KW x 4P	4.8 A	1 DRAVE	SS-30	3 SEC	1 SEC	4.8 A	
2 TON	1.8KW x 8P	5.3 A	1 DRAVE	SS-30	3 SEC	1 SEC	5.3 A	
	2.5KW x 6P	5.5 A	1 DRAVE	SS-30	3 SEC	1 SEC	5.8 A	
	3.7KW x 4P	7.7 A	1 DRAVE	SS-30	3 SEC	1 SEC	7.7 A	
2.8 TON	2.5KW x 8P	7.7 A	1 DRAVE	SS-30	3 SEC	1 SEC	7.7 A	
	5.0KW x 4P	10.0 A	1 DRAVE	SS-30	3 SEC	1 SEC	10.0 A	
	2.8KW x 8P	7.7 A	1 DRAVE	SS-30	3 SEC	1 SEC	7.7 A	
3 TON	5.5KW x 4P	10.0 A	1 DRAVE	SS-30	3 SEC	1 SEC	10.0 A	
	4.2KW x 8P	11.0 A	1 DRAVE	SS-30	3 SEC	1 SEC	11.0 A	
	5.5KW x 6P	13.5 A	1 DRAVE	SS-30	3 SEC	1 SEC	13.5 A	
5 TON	8.5KW x 4P	16.5 A	1 DRAVE	SS-30	3 SEC	1 SEC	16.5 A	
	4.2KW x 8P	11.0 A	1 DRAVE	SS-30	3 SEC	1 SEC	11.0 A	
	5.5KW x 6P	13.5 A	1 DRAVE	SS-30	3 SEC	1 SEC	13.5 A	
7.5 TON	8.5KW x 4P	16.5 A	1 DRAVE	SS-30	3 SEC	1 SEC	16.5 A	

NOTE

1. 상기 TABLE의 수치는 권고 SETTING 수치이며 MOTOR의 특성 및 현장 조건에 따라 변경 가능함.

E.O.C.R 권고 SETTING치

★ POWER SOURCE : AC 3Φ 480V 60Hz

극동하이스트(주)

HOIST	MOTOR 용량	MOTOR 정격 전류	DRIVE TYPE	E.O.C.R TYPE	권고 SETTING 치			REMARK
					DELAY TIME	OPERATION TIME	CURRENT	
0.5 TON	1.2KW x 8P	3.6 A	1 DRIVE	SS-06	3 SEC	1 SEC	3.6 A	
	1.5KW x 6P	3.5 A	1 DRIVE	SS-06	3 SEC	1 SEC	3.5 A	
	2.4KW x 4P	4.6 A	1 DRAVE	SS-06	3 SEC	1 SEC	4.6 A	
1 TON	1.2KW x 8P	3.6 A	1 DRIVE	SS-06	3 SEC	1 SEC	3.6 A	
	1.8KW x 6P	3.5 A	1 DRIVE	SS-06	3 SEC	1 SEC	3.5 A	
	2.4KW x 4P	4.6 A	1 DRAVE	SS-06	3 SEC	1 SEC	4.6 A	
2 TON	1.8KW x 8P	5.1 A	1 DRAVE	SS-30	3 SEC	1 SEC	5.1 A	
	2.5KW x 6P	5.3 A	1 DRAVE	SS-30	3 SEC	1 SEC	5.3 A	
	3.7KW x 4P	7.3 A	1 DRAVE	SS-30	3 SEC	1 SEC	7.3 A	
2.8 TON	2.5KW x 8P	7.3 A	1 DRAVE	SS-30	3 SEC	1 SEC	7.3 A	
	3.0KW x 4P	9.6 A	1 DRAVE	SS-30	3 SEC	1 SEC	9.6 A	
	2.8KW x 8P	7.3 A	1 DRAVE	SS-30	3 SEC	1 SEC	7.3 A	
3 TON	5.5KW x 4P	9.6 A	1 DRAVE	SS-30	3 SEC	1 SEC	9.6 A	
	4.2KW x 8P	10.5 A	1 DRAVE	SS-30	3 SEC	1 SEC	10.5 A	
	5.5KW x 6P	12.9 A	1 DRAVE	SS-30	3 SEC	1 SEC	12.9 A	
5 TON	8.5KW x 4P	15.8 A	1 DRAVE	SS-30	3 SEC	1 SEC	15.8 A	
	4.2KW x 8P	10.5 A	1 DRAVE	SS-30	3 SEC	1 SEC	10.5 A	
	5.5KW x 6P	12.9 A	1 DRAVE	SS-30	3 SEC	1 SEC	12.9 A	
7.5 TON	8.5KW x 4P	15.8 A	1 DRAVE	SS-30	3 SEC	1 SEC	15.8 A	
	4.2KW x 8P	10.5 A	1 DRAVE	SS-30	3 SEC	1 SEC	10.5 A	
	5.5KW x 6P	12.9 A	1 DRAVE	SS-30	3 SEC	1 SEC	12.9 A	
7.5 TON	8.5KW x 4P	15.8 A	1 DRAVE	SS-30	3 SEC	1 SEC	15.8 A	
	4.2KW x 8P	10.5 A	1 DRAVE	SS-30	3 SEC	1 SEC	10.5 A	
	5.5KW x 6P	12.9 A	1 DRAVE	SS-30	3 SEC	1 SEC	12.9 A	

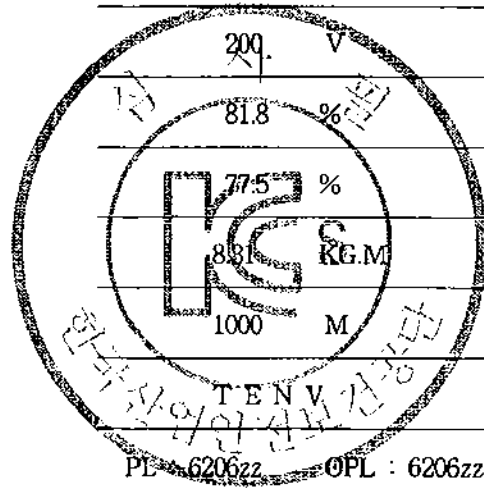
NOTE

1. 상기 TABLE의 수치는 권고 SETTING 수치이며 MOTOR의 특성 및 현장 조건에 따라 변경 가능함.

THREE PHASE INDUCTION MOTOR DATE SHEET

SCHEDULE OF TECHNICAL DATA

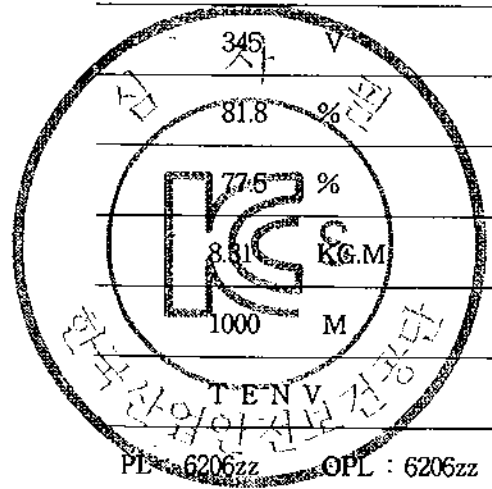
1. SERVICE	HOISTING
2. MANUFACTURE	극동호이스트 (주)
3. FRAME NUMBER	132 S
4. RATED POWER	5.5 KW x 4 P
5. RATED VOLTAGE AND FREQUENCY	220 V 60 Hz
6. MOTOR TYPE	SQUIRREL CAGE ROTOR TYPE
7. SERVICE FACTOR AND RATting	1.0 , 30 MIN
8. LOCATION AND INSULATION CLASS	INDOOR, OUTDOOR, B CLASS
9. DESIGN TRMPERATURE RISE(BY RESISTANCE)	80 ℃
10. FULL LOAD SPEED	1750 RPM
11. FULL LOAD CURRENT	22.8 A
12. LOCKED ROTOR CURRENT	136.6 A
13. MINIMUM STARTING VOLTAGE	200 V
14. EFFICIENCY AT 100% RATED LOAD	81.8 %
15. POWER FACTOR AT 100% RATED LOAD	77.5 %
16. FULL LOAD TORQUE	8.81 K.G.M
17. SITE ALTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	TENV
19. TYPE OF BEARING	PL : 6206zz OPL : 6206zz
20. MOUNTING	HORIZONTAL
21. MAXIMUM AMBIENT TEMPURE	40 ℃
22. BEARING LUBRICATION	GREASE
23. STARTING METHOD	FULL VOLTAGE



THREE PHASE INDUCTION MOTOR DATE SHEET

SCHEDULE OF TECHNICAL DATA

1. SERVICE	HOISTING
2. MANUFACTURE	극동호이스트 (주)
3. FRAME NUMBER	132 S
4. RATED POWER	5.5 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 TRMPERATURE RISE(BY RESISTANCE)	80 ℃
10. FULL LOAD SPEED	1750 RPM
11. FULL LOAD CURRENT	12.2 A
12. LOCKER ROTOR CURRENT	72.9 A
13. MINIMUM STARTING VOLTAGE	345 V
14. EFFICIENCY AT 100% RATED LOAD	81.8 %
15. POWER FACTOR AT 100% RATED LOAD	77.5 %
16. FULL LOAD TORQUE	8.31 K.G.M
17. SITE ALTTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	TENV
19. TYPE OF BEARING	PL : 6206zz OPL : 6206zz
20. MOUNTING	HORIZONTAL
21. MAXIMUM AMBIENT TEMPURE	40 ℃
22. BEARING LUBRICATION	GREASE
23. STARTING METHOD	FULL VOLTAGE

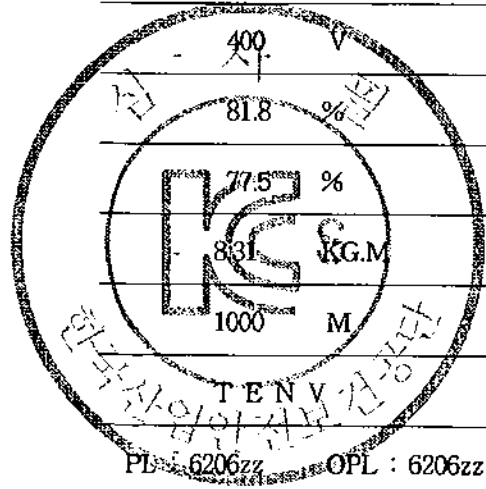


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THREE PHASE INDUCTION MOTOR DATE SHEET

SCHEDULE OF TECHNICAL DATA

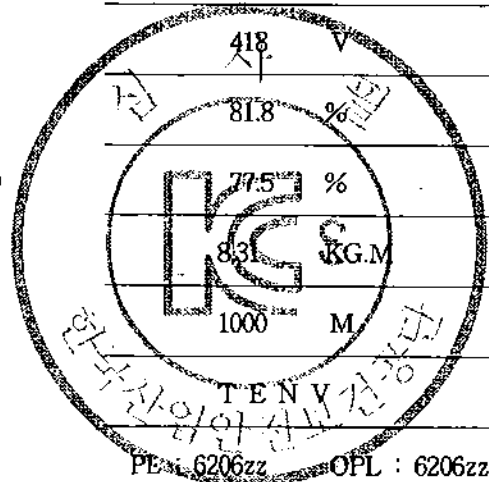
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2. MANUFACTURE	극동호이스트 (주)
3. FRAME NUMBER	132 S
4. RATED POWER	5.5 KW x 4 P
5. RATED VOLTAGE AND FREQUENCY	440 V 60 Hz
6. MOTOR TYPE	SQUIRREL CAGE ROTOR TYPE
7. SERVICE FACTOR AND RATting	1.0 , 30 MIN
8. LOCATION AND INSULATION CLASS	INDOOR, OUTDOOR, B CLASS
9. DESIGN TRMPERATURE RISE(BY RESISTANCE)	80 ℃
10. FULL LOAD SPEED	1750 RPM
11. FULL LOAD CURRENT	10.5 A
12. LOCKER ROTOR CURRENT	63.0 A
13. MINIMUM STARTING VOLTAGE	400 V
14. EFFICIENCY AT 100% RATED LOAD	81.8 %
15. POWER FACTOR AT 100% RATED LOAD	77.5 %
16. FULL LOAD TORQUE	831 KG.M
17. SITE ALTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	TENV
19. TYPE OF BEARING	PL : 6206zz OPL : 6206zz
20. MOUNTING	HORIZONTAL
21. MAXIMUM AMBIENT TEMPURE	40 ℃
22. BEARING LUBRICATION	GREASE
23. STARTING METHOD	FULL VOLTAGE



THREE PHASE INDUCTION MOTOR DATE SHEET

SCHEDULE OF TECHNICAL DATA

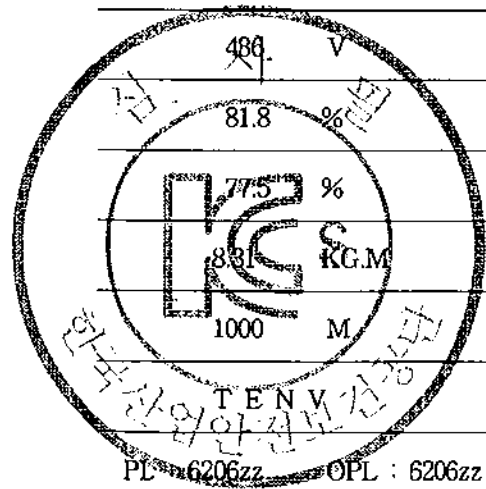
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2. MANUFACTURE	극동호이스트 (주)
3. FRAME NUMBER	132 S
4. RATED POWER	5.5 KW x 4 P
5. RATED VOLTAGE AND FREQUENCY	460 V 60 Hz
6. MOTOR TYPE	SQUIRREL CAGE ROTOR TYPE
7. SERVICE FACTOR AND RATting	1.0 , 30 MIN
8. LOCATION AND INSULATION CLASS	INDOOR, OUTDOOR, B CLASS
9. DESIGN TRMPERATURE RISE(BY RESISTANCE)	80 ℃
10. FULL LOAD SPEED	1750 RPM
11. FULL LOAD CURRENT	10.0 A
12. LOCKER ROTOR CURRENT	60.0 A
13. MINIMUM STARTING VOLTAGE	418 V
14. EFFICIENCY AT 100% RATED LOAD	81.8 %
15. POWER FACTOR AT 100% RATED LOAD	77.5 %
16. FULL LOAD TORQUE	83.1 KG.M
17. SITE ALTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	TENV
19. TYPE OF BEARING	PE 6206zz OPL : 6206zz
20. MOUNTING	HORIZONTAL
21. MAXIMUM AMBIENT TEMPURE	40 ℃
22. BEARING LUBRICATION	GREASE
23. STARTING METHOD	FULL VOLTAGE



THREE PHASE INDUCTION MOTOR DATE SHEET

SCHEDULE OF TECHNICAL DATA

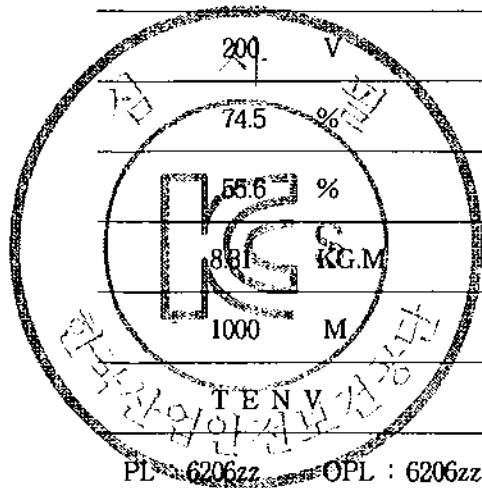
1. SERVICE	HOISTING
2. MANUFACTURE	극동호이스트 (주)
3. FRAME NUMBER	132 S
4. RATED POWER	5.5 KW x 4 P
5. RATED VOLTAGE AND FREQUENCY	480 V 60 Hz
6. MOTOR TYPE	SQUIRREL CAGE ROTOR TYPE
7. SERVICE FACTOR AND RATting	1.0 , 30 MIN
8. LOCATION AND INSULATION CLASS	INDOOR, OUTDOOR, B CLASS
9. DESIGN TRMPERATURE RISE(BY RESISTANCE)	80 ℃
10. FULL LOAD SPEED	1750 RPM
11. FULL LOAD CURRENT	9.6 A
12. LOCKER ROTOR CURRENT	57.5 A
13. MINIMUM STARTING VOLTAGE	480 V
14. EFFICIENCY AT 100% RATED LOAD	81.8 %
15. POWER FACTOR AT 100% RATED LOAD	77.5 %
16. FULL LOAD TORQUE	8.81 K.G.M
17. SITE ALTTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	TENV
19. TYPE OF BEARING	PL : 6206zz OPL : 6206zz
20. MOUNTING	HORIZONTAL
21. MAXIMUM AMBIENT TEMPURE	40 ℃
22. BEARING LUBRICATION	GREASE
23. STARTING METHOD	FULL VOLTAGE



THREE PHASE INDUCTION MOTOR DATE SHEET

SCHEDULE OF TECHNICAL DATA

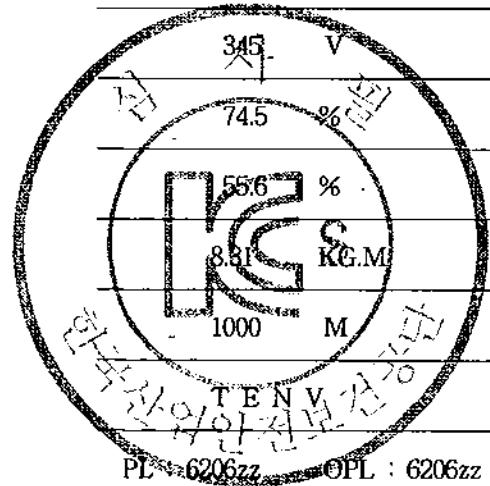
1. SERVICE	HOISTING
2. MANUFACTURE	극동호이스트 (주)
3. FRAME NUMBER	132 S
4. RATED POWER	2.8 KW x 8 P
5. RATED VOLTAGE AND FREQUENCY	220 V 60 Hz
6. MOTOR TYPE	SQUIRREL CAGE ROTOR TYPE
7. SERVICE FACTOR AND RATting	1.0 , 30 MIN
8. LOCATION AND INSULATION CLASS	INDOOR, OUTDOOR, B CLASS
9. DESIGN TRMPERATURE RISE(BY RESISTANCE)	80 ℃
10. FULL LOAD SPEED	860 RPM
11. FULL LOAD CURRENT	17.7 A
12. LOCKED ROTOR CURRENT	92.9 A
13. MINIMUM STARTING VOLTAGE	200 V
14. EFFICIENCY AT 100% RATED LOAD	74.5 %
15. POWER FACTOR AT 100% RATED LOAD	55.6 %
16. FULL LOAD TORQUE	881 K.G.M
17. SITE ALTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	TENV
19. TYPE OF BEARING	PL : 6206zz OPL : 6206zz
20. MOUNTING	HORIZONTAL
21. MAXIMUM AMBIENT TEMPURE	40 ℃
22. BEARING LUBRICATION	GREASE
23. STARTING METHOD	FULL VOLTAGE



THREE PHASE INDUCTION MOTOR DATE SHEET

SCHEDULE OF TECHNICAL DATA

1. SERVICE	HOISTING
2. MANUFACTURE	극동호이스트 (주)
3. FRAME NUMBER	132 S
4. RATED POWER	2.8 KW x 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 TRMPERATURE RISE(BY RESISTANCE)	80 ℃
10. FULL LOAD SPEED	860 RPM
11. FULL LOAD CURRENT	10.3 A
12. LOCKED ROTOR CURRENT	53.9 A
13. MINIMUM STARTING VOLTAGE	345 V
14. EFFICIENCY AT 100% RATED LOAD	74.5 %
15. POWER FACTOR AT 100% RATED LOAD	55.6 %
16. FULL LOAD TORQUE	8.31 KG.M
17. SITE ALTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	TENV
19. TYPE OF BEARING	PL 6206zz OPL : 6206zz
20. MOUNTING	HORIZONTAL
21. MAXIMUM AMBIENT TEMPURE	40 ℃
22. BEARING LUBRICATION	GREASE
23. STARTING METHOD	FULL VOLTAGE

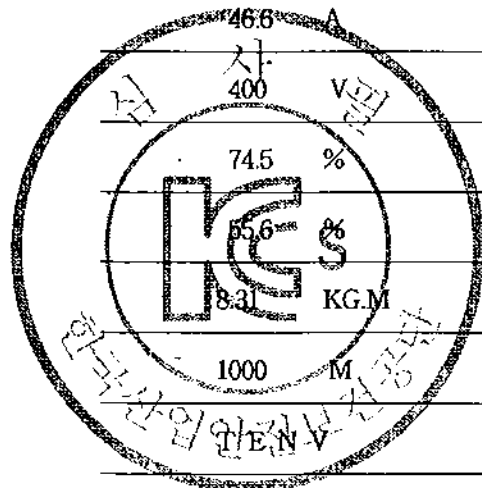


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THREE PHASE INDUCTION MOTOR DATE SHEET

SCHEDULE OF TECHNICAL DATA

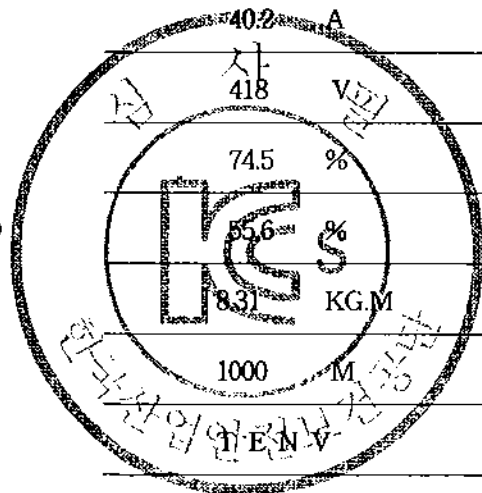
1. SERVICE	HOISTING
2. MANUFACTURE	극동하이스트 (주)
3. FRAME NUMBER	132 S
4. RATED POWER	2.8 KW x 8 P
5. RATED VOLTAGE AND FREQUENCY	440 V 60 Hz
6. MOTOR TYPE	SQUIRREL CAGE ROTOR TYPE
7. SERVICE FACTOR AND RATTING	1.0 , 30 MIN
8. LOCATION AND INSULATION CLASS	INDOOR, OUTDOOR, B CLASS
9. DESIGN TRMPERATURE RISE(BY RESISTANCE)	80 ℃
10. FULL LOAD SPEED	860 RPM
11. FULL LOAD CURRENT	8.9 A
12. LOCKED ROTOR CURRENT	46.8 A
13. MINIMUM STARTING VOLTAGE	400 V
14. EFFICIENCY AT 100% RATED LOAD	74.5 %
15. POWER FACTOR AT 100% RATED LOAD	55.6 %
16. FULL LOAD TORQUE	8.31 KGM
17. SITE ALTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	
19. TYPE OF BEARING	PL : 6206zz OPL : 6206zz
20. MOUNTING	HORIZONTAL
21. MAXIMUM AMEIENT TEMPURE	40 100℃
22. BEARING LUBRICATION	GREASE
23. STARTING METHOD	FULL VOLTAGE



THREE PHASE INDUCTION MOTOR DATE SHEET

SCHEDULE OF TECHNICAL DATA

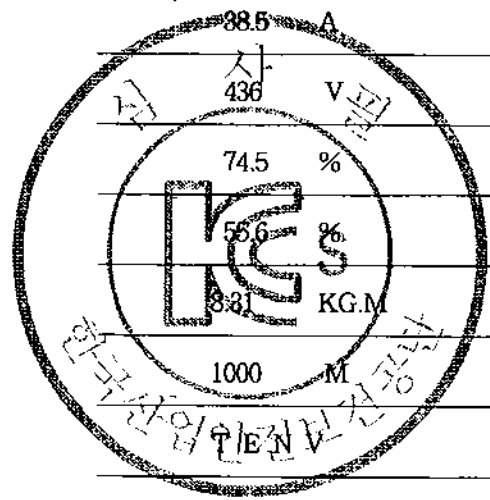
1. SERVICE	HOISTING
2. MANUFACTURE	극동호이스트 (주)
3. FRAME NUMBER	132 S
4. RATED POWER	2.8 KW x 8 P
5. RATED VOLTAGE AND FREQUENCY	460 V 60 Hz
6. MOTOR TYPE	SQUIRREL CAGE ROTOR TYPE
7. SERVICE FACTOR AND RATTING	1.0 , 30 MIN
8. LOCATION AND INSULATION CLASS	INDOOR, OUTDOOR, B CLASS
9. DESIGN TRMPERATURE RISE(BY RESISTANCE)	80 ℃
10. FULL LOAD SPEED	860 RPM
11. FULL LOAD CURRENT	7.7 A
12. LOCKED ROTOR CURRENT	40.2 A
13. MINIMUM STARTING VOLTAGE	418 V
14. EFFICIENCY AT 100% RATED LOAD	74.5 %
15. POWER FACTOR AT 100% RATED LOAD	85.6 %
16. FULL LOAD TORQUE	8.3 KG.M
17. SITE ALTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	TENV
19. TYPE OF BEARING	PL : 6206zz OPL : 6206zz
20. MOUNTING	HORIZONTAL
21. MAXIMUM AMBIENT TEMPERATURE	40.60℃
22. BEARING LUBRICATION	GREASE
23. STARTING METHOD	FULL VOLTAGE



THREE PHASE INDUCTION MOTOR DATE SHEET

SCHEDULE OF TECHNICAL DATA

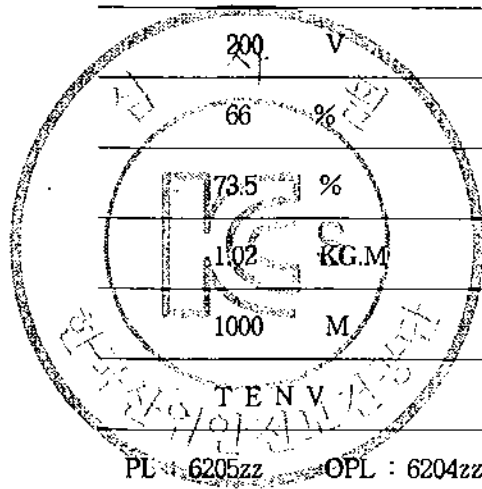
1. SERVICE	HOISTING
2. MANUFACTURE	극동호이스트 (주)
3. FRAME NUMBER	132 S
4. RATED POWER	2.8 KW x 8 P
5. RATED VOLTAGE AND FREQUENCY	480 V 60 Hz
6. MOTOR TYPE	SQUIRREL CAGE ROTOR TYPE
7. SERVICE FACTOR AND RATting	1.0 , 30 MIN
8. LOCATION AND INSULATION CLASS	INDOOR, OUTDOOR, B CLASS
9. DESIGN TRMPERATURE RISE(BY RESISTANCE)	80 ℃
10. FULL LOAD SPEED	860 RPM
11. FULL LOAD CURRENT	7.3 A
12. LOCKED ROTOR CURRENT	38.5 A
13. MINIMUM STARTING VOLTAGE	436 V
14. EFFICIENCY AT 100% RATED LOAD	74.5 %
15. POWER FACTOR AT 100% RATED LOAD	55.6 %
16. FULL LOAD TORQUE	8.31 KG.M
17. SITE ALTTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	
19. TYPE OF BEARING	PL : 6206zz OPL : 6206zz
20. MOUNTING	HORIZONTAL
21. MAXIMUM AMBIENT TEMFURE	2011-11-03 140℃
22. BEARING LUBRICATION	GREASE
23. STARTING METHOD	FULL VOLTAGE



THREE PHASE INDUCTION MOTOR DATE SHEET

SCHEDULE OF TECHNICAL DATA

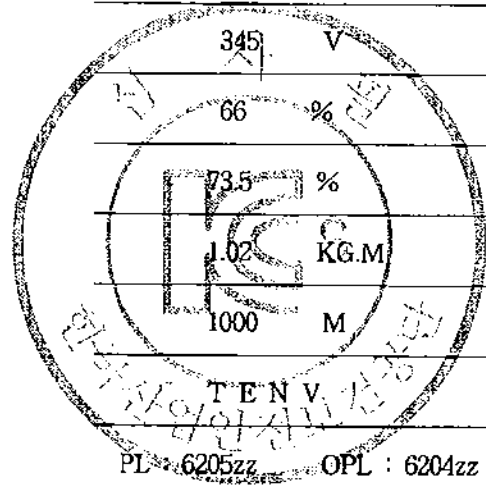
1. SERVICE	TRAVERSING
2. MANUFACTURE	극동호이스트 (주)
3. FRAME NUMBER	90 S
4. RATED POWER	0.75 KW x 4 P
5. RATED VOLTAGE AND FREQUENCY	220 V 60 Hz
6. MOTOR TYPE	SQUIRREL CAGE ROTOR TYPE
7. SERVICE FACTOR AND RATting	1.0 , 30 MIN
8. LOCATION AND INSULATION CLASS	INDOOR, OUTDOOR, B CLASS
9. DESIGN TRMPERATURE RISE(BY RESISTANCE)	80 ℃
10. FULL LOAD SPEED	1760 RPM
11. FULL LOAD CURRENT	4.1 A
12. LOCKED ROTOR CURRENT	22.1 A
13. MINIMUM STARTING VOLTAGE	200 V
14. EFFICIENCY AT 100% RATED LOAD	66 %
15. POWER FACTOR AT 100% RATED LOAD	73.5 %
16. FULL LOAD TORQUE	1.02 KG.M
17. SITE ALTTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	TENV
19. TYPE OF BEARING	PL : 6205zz OPL : 6204zz
20. MOUNTING	HORIZONTAL
21. MAXIMUM AMBIENT TEMPURE	40 ℃
22. BEARING LUBRICATION	GREASE
23. STARTING METHOD	FULL VOLTAGE



THREE PHASE INDUCTION MOTOR DATE SHEET

SCHEDULE OF TECHNICAL DATA

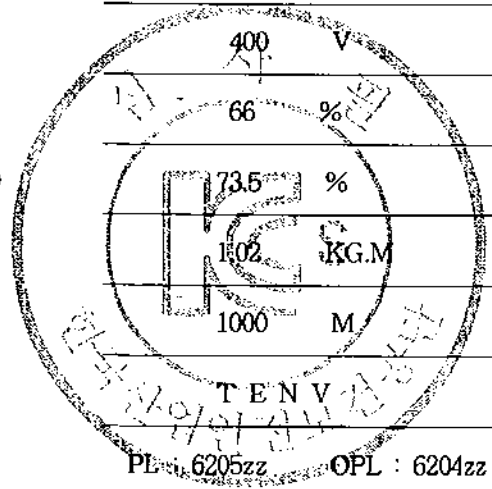
1. SERVICE	TRAVERSING
2. MANUFACTURE	극동호이스트 (주)
3. FRAME NUMBER	90 S
4. RATED POWER	0.75 KW x 4 P
5. RATED VOLTAGE AND FREQUENCY	380 V 60 Hz
6. MOTOR TYPE	SQUIRREL CAGE ROTOR TYPE
7. SERVICE FACTOR AND RATTING	1.0 , 30 MIN
8. LOCATION AND INSULATION CLASS	INDOOR, OUTDOOR, B CLASS
9. DESIGN TRMPERATURE RISE(BY RESISTANCE)	80 ℃
10. FULL LOAD SPEED	1760 RPM
11. FULL LOAD CURRENT	2.4 A
12. LOCKED ROTOR CURRENT	12.8 A
13. MINIMUM STARTING VOLTAGE	345 V
14. EFFICIENCY AT 100% RATED LOAD	66 %
15. POWER FACTOR AT 100% RATED LOAD	73.5 %
16. FULL LOAD TORQUE	1.02 KG.M
17. SITE ALTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	TEN V
19. TYPE OF BEARING	PL: 6205zz OPL: 6204zz
20. MOUNTING	HORIZONTAL
21. MAXIMUM AMBIENT TEMPURE	40 ℃
22. BEARING LUBRICATION	GREASE
23. STARTING METHOD	FULL VOLTAGE



THREE PHASE INDUCTION MOTOR DATE SHEET

SCHEDULE OF TECHNICAL DATA

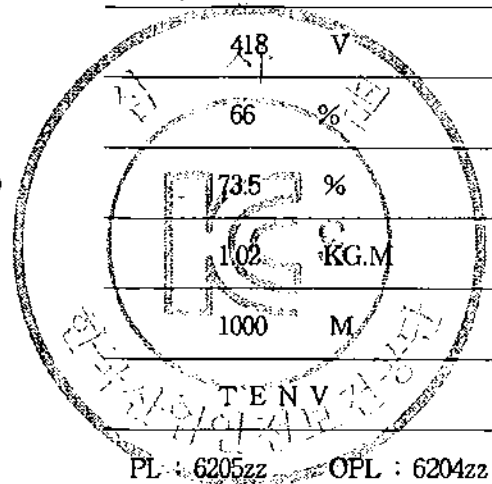
1. SERVICE	TRAVERSING
2. MANUFACTURE	극동호이스트 (주)
3. FRAME NUMBER	90 S
4. RATED POWER	0.75 KW x 4 P
5. RATED VOLTAGE AND FREQUENCY	440 V 60 Hz
6. MOTOR TYPE	SQUIRREL CAGE ROTOR TYPE
7. SERVICE FACTOR AND RATting	1.0 , 30 MIN
8. LOCATION AND INSULATION CLASS	INDOOR, OUTDOOR, B CLASS
9. DESIGN TRMPERATURE RISE(BY RESISTANCE)	80 ℃
10. FULL LOAD SPEED	1760 RPM
11. FULL LOAD CURRENT	2.0 A
12. LOCKED ROTOR CURRENT	11.1 A
13. MINIMUM STARTING VOLTAGE	400 V
14. EFFICIENCY AT 100% RATED LOAD	66 %
15. POWER FACTOR AT 100% RATED LOAD	73.5 %
16. FULL LOAD TORQUE	1.02 KG.M
17. SITE ALTTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	TENV
19. TYPE OF BEARING	PL: 6205zz OPL : 6204zz
20. MOUNTING	HORIZONTAL
21. MAXIMUM AMBIENT TEMPURE	40 ℃
22. BEARING LUBRICATION	GREASE
23. STARTING METHOD	FULL VOLTAGE



THREE PHASE INDUCTION MOTOR DATE SHEET

SCHEDULE OF TECHNICAL DATA

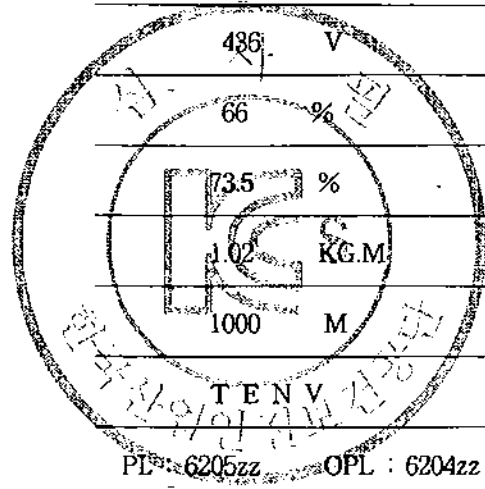
1. SERVICE	TRAVERSING
2. MANUFACTURE	극동호이스트 (주)
3. FRAME NUMBER	90 S
4. RATED POWER	0.75 KW x 4 P
5. RATED VOLTAGE AND FREQUENCY	460 V 60 Hz
6. MOTOR TYPE	SQUIRREL CAGE ROTOR TYPE
7. SERVICE FACTOR AND RATting	1.0 , 30 MIN
8. LOCATION AND INSULATION CLASS	INDOOR, OUTDOOR, B CLASS
9. DESIGN TRMPERATURE RISE(BY RESISTANCE)	80 ℃
10. FULL LOAD SPEED	1760 RPM
11. FULL LOAD CURRENT	2.0 A
12. LOCKED ROTOR CURRENT	10.6 A
13. MINIMUM STARTING VOLTAGE	418 V
14. EFFICIENCY AT 100% RATED LOAD	66 %
15. POWER FACTOR AT 100% RATED LOAD	73.5 %
16. FULL LOAD TORQUE	102 KG.M
17. SITE ALTTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	TENV
19. TYPE OF BEARING	PL : 6205zz OPL : 6204zz
20. MOUNTING	HORIZONTAL
21. MAXIMUM AMBIENT TEMPURE	40 ℃
22. BEARING LUBRICATION	GREASE
23. STARTING METHOD	FULL VOLTAGE



THREE PHASE INDUCTION MOTOR DATE SHEET

SCHEDULE OF TECHNICAL DATA

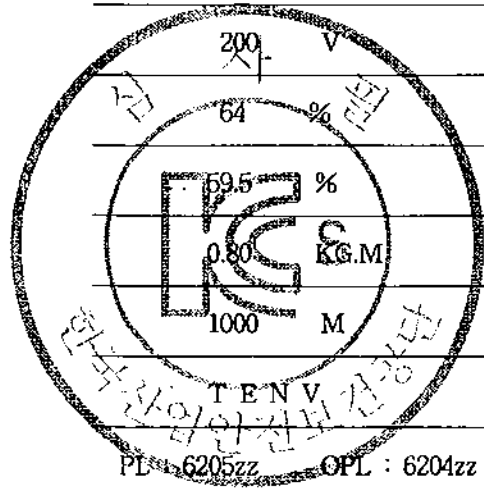
1. SERVICE	TRAVERSING
2. MANUFACTURE	극동호이스트 (주)
3. FRAME NUMBER	90 S
4. RATED POWER	0.75 KW x 4 P
5. RATED VOLTAGE AND FREQUENCY	480 V 60 Hz
6. MOTOR TYPE	SQUIRREL CAGE ROTOR TYPE
7. SERVICE FACTOR AND RATting	1.0 , 30 MIN
8. LOCATION AND INSULATION CLASS	INDOOR, OUTDOOR, B CLASS
9. DESIGN TRMPERATURE RISE(BY RESISTANCE)	80 ℃
10. FULL LOAD SPEED	1760 RPM
11. FULL LOAD CURRENT	1.9 A
12. LOCKED ROTOR CURRENT	10.2 A
13. MINIMUM STARTING VOLTAGE	436 V
14. EFFICIENCY AT 100% RATED LOAD	66 %
15. POWER FACTOR AT 100% RATED LOAD	73.5 %
16. FULL LOAD TORQUE	102 KG.M
17. SITE ALTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	TENV
19. TYPE OF BEARING	PL : 6205zz OPL : 6204zz
20. MOUNTING	HORIZONTAL
21. MAXIMUM AMBIENT TEMPURE	40 ℃
22. BEARING LUBRICATION	GREASE
23. STARTING METHOD	FULL VOLTAGE



THREE PHASE INDUCTION MOTOR DATE SHEET

SCHEDULE OF TECHNICAL DATA

1. SERVICE	TRAVERSING
2. MANUFACTURE	극동호이스트 (주)
3. FRAME NUMBER	90 S
4. RATED POWER	0.5 KW x 6 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 TRMPERATURE RISE(BY RESISTANCE)	80 ℃
10. FULL LOAD SPEED	1160 RPM
11. FULL LOAD CURRENT	3.4 A
12. LOCKED ROTOR CURRENT	16.4 A
13. MINIMUM STARTING VOLTAGE	200 V
14. EFFICIENCY AT 100% RATED LOAD	64 %
15. POWER FACTOR AT 100% RATED LOAD	59.5 %
16. FULL LOAD TORQUE	0.80 K.G.M
17. SITE ALTTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	TENV
19. TYPE OF BEARING	PL : 6205zz OPL : 6204zz
20. MOUNTING	HORIZONTAL
21. MAXIMUM AMBIENT TEMPURE	40 ℃
22. BEARING LUBRICATION	GREASE
23. STARTING METHOD	FULL VOLTAGE

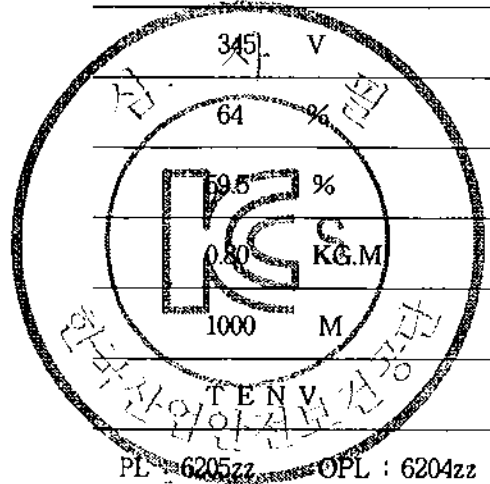


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THREE PHASE INDUCTION MOTOR DATE SHEET

SCHEDULE OF TECHNICAL DATA

1. SERVICE	TRAVERSING
2. MANUFACTURE	극동호이스트 (주)
3. FRAME NUMBER	90 S
4. RATED POWER	0.5 KW x 6 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 TRMPERATURE RISE(BY RESISTANCE)	80 ℃
10. FULL LOAD SPEED	1160 RPM
11. FULL LOAD CURRENT	2.0 A
12. LOCKED ROTOR CURRENT	9.5 A
13. MINIMUM STARTING VOLTAGE	345 V
14. EFFICIENCY AT 100% RATED LOAD	64 %
15. POWER FACTOR AT 100% RATED LOAD	59.5 %
16. FULL LOAD TORQUE	0.80 K.G.M
17. SITE ALTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	TENV
19. TYPE OF BEARING	PL : 6205zz OPL : 6204zz
20. MOUNTING	HORIZONTAL
21. MAXIMUM AMBIENT TEMPURE	40 ℃
22. BEARING LUBRICATION	G-R-E-A-S-E
23. STARTING METHOD	FULL VOLTAGE

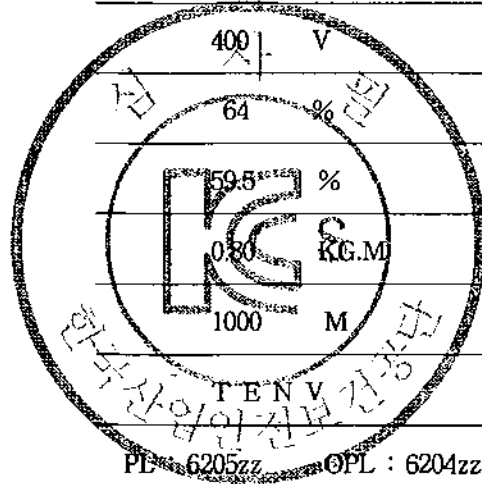


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THREE PHASE INDUCTION MOTOR DATE SHEET

SCHEDULE OF TECHNICAL DATA

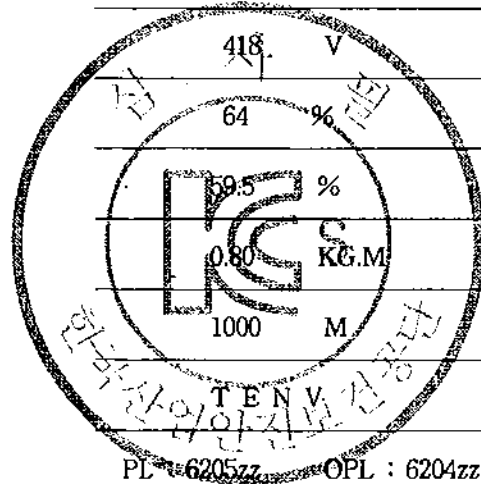
1. SERVICE	TRAVERSING
2. MANUFACTURE	국동호이스트 (주)
3. FRAME NUMBER	90 S
4. RATED POWER	0.5 KW x 6 P
5. RATED VOLTAGE AND FREQUENCY	440 V 60 Hz
6. MOTOR TYPE	SQUIRREL CAGE ROTOR TYPE
7. SERVICE FACTOR AND RATTING	1.0 , 30 MIN
8. LOCATION AND INSULATION CLASS	INDOOR, OUTDOOR, B CLASS
9. DESIGN TRMPERATURE RISE(BY RESISTANCE)	80 ℃
10. FULL LOAD SPEED	1160 RPM
11. FULL LOAD CURRENT	1.7 A
12. LOCKED ROTOR CURRENT	8.2 A
13. MINIMUM STARTING VOLTAGE	400 V
14. EFFICIENCY AT 100% RATED LOAD	64 %
15. POWER FACTOR AT 100% RATED LOAD	59.5 %
16. FULL LOAD TORQUE	0.80 K.G.M
17. SITE ALTTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	TENV
19. TYPE OF BEARING	PL : 6205zz OPL : 6204zz
20. MOUNTING	HORIZONTAL
21. MAXIMUM AMBIENT TEMPURE	40 ℃
22. BEARING LUBRICATION	GREASE
23. STARTING METHOD	FULL VOLTAGE



THREE PHASE INDUCTION MOTOR DATE SHEET

SCHEDULE OF TECHNICAL DATA

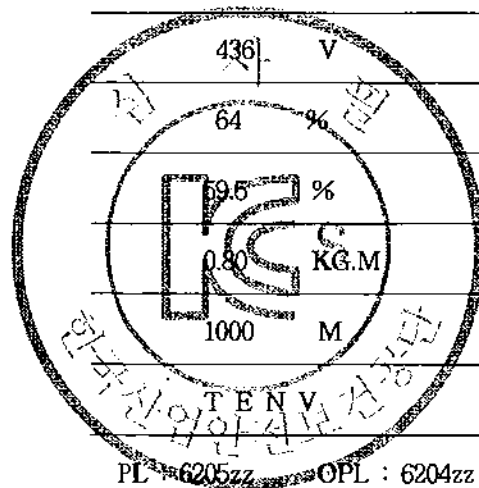
1. SERVICE	TRAVERSING
2. MANUFACTURE	국동호이스트 (주)
3. FRAME NUMBER	90 S
4. RATED POWER	0.5 KW x 6 P
5. RATED VOLTAGE AND FREQUENCY	460 V 60 Hz
6. MOTOR TYPE	SQUIRREL CAGE ROTOR TYPE
7. SERVICE FACTOR AND RATting	1.0 , 30 MIN
8. LOCATION AND INSULATION CLASS	INDOOR, OUTDOOR, B CLASS
9. DESIGN TRMPERATURE RISE(BY RESISTANCE)	80 ℃
10. FULL LOAD SPEED	1160 RPM
11. FULL LOAD CURRENT	1.7 A
12. LOCKED ROTOR CURRENT	7.9 A
13. MINIMUM STARTING VOLTAGE	418 V
14. EFFICIENCY AT 100% RATED LOAD	64 %
15. POWER FACTOR AT 100% RATED LOAD	59.5 %
16. FULL LOAD TORQUE	0.80 K&M
17. SITE ALTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	TENV
19. TYPE OF BEARING	PL : 6205zz OPL : 6204zz
20. MOUNTING	HORIZONTAL
21. MAXIMUM AMBIENT TEMPURE	40 ℃
22. BEARING LUBRICATION	GREASE
23. STARTING METHOD	FULL VOLTAGE



THREE PHASE INDUCTION MOTOR DATE SHEET

SCHEDULE OF TECHNICAL DATA

1. SERVICE	TRAVERSING
2. MANUFACTURE	극동호이스트 (주)
3. FRAME NUMBER	90 S
4. RATED POWER	0.5 KW x 6 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 TRMPERATURE RISE(BY RESISTANCE)	80 ℃
10. FULL LOAD SPEED	1160 RPM
11. FULL LOAD CURRENT	1.6 A
12. LOCKED ROTOR CURRENT	7.5 A
13. MINIMUM STARTING VOLTAGE	436 V
14. EFFICIENCY AT 100% RATED LOAD	64 %
15. POWER FACTOR AT 100% RATED LOAD	59.5 %
16. FULL LOAD TORQUE	0.80 KG.M
17. SITE ALTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	TENV
19. TYPE OF BEARING	PL 6205zz OPL : 6204zz
20. MOUNTING	HORIZONTAL
21. MAXIMUM AMBIENT TEMPURE	40 ℃
22. BEARING LUBRICATION	GREASE
23. STARTING METHOD	FULL VOLTAGE

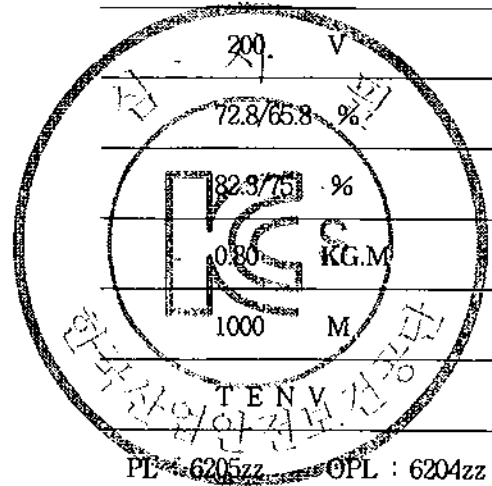


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THREE PHASE INDUCTION MOTOR DATE SHEET

SCHEDULE OF TECHNICAL DATA

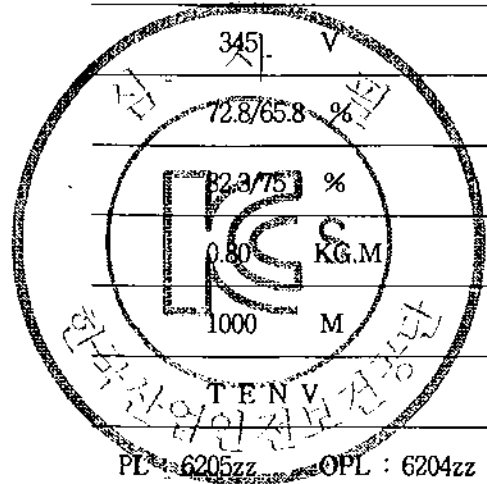
1. SERVICE	TRAVERSING
2. MANUFACTURE	극동호이스트 (주)
3. FRAME NUMBER	90 M
4. RATED POWER	0.8/0.4 KW x 4/8 P
5. RATED VOLTAGE AND FREQUENCY	220 V 60 Hz
6. MOTOR TYPE	SQUIRREL CAGE ROTOR TYPE
7. SERVICE FACTOR AND RATting	1.0 , 30 MIN
8. LOCATION AND INSULATION CLASS	INDOOR, OUTDOOR, B CLASS
9. DESIGN TRMPERATURE RISE(BY RESISTANCE)	80 ℃
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	200 V
14. EFFICIENCY AT 100% RATED LOAD	72.8/65.8 %
15. POWER FACTOR AT 100% RATED LOAD	82.3/75 %
16. FULL LOAD TORQUE	0.80 KG.M
17. SITE ALTTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	TENV
19. TYPE OF BEARING	PE-6205zz OPL : 6204zz
20. MOUNTING	HORIZONTAL
21. MAXIMUM AMBIENT TEMPURE	40 ℃
22. BEARING LUBRICATION	GREASE
23. STARTING METHOD	FULL VOLTAGE



THREE PHASE INDUCTION MOTOR DATE SHEET

SCHEDULE OF TECHNICAL DATA

1. SERVICE	TRAVERSING
2. MANUFACTURE	극동호이스트 (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 TRMPERATURE RISE(BY RESISTANCE)	80 ℃
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	345 V
14. EFFICIENCY AT 100% RATED LOAD	72.8/65.8 %
15. POWER FACTOR AT 100% RATED LOAD	82.3/75 %
16. FULL LOAD TORQUE	0.80 KG.M
17. SITE ALTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	TENV
19. TYPE OF BEARING	PL : 6205zz OPL : 6204zz
20. MOUNTING	HORIZONTAL
21. MAXIMUM AMBIENT TEMPURE	40 ℃
22. BEARING LUBRICATION	G-REASE
23. STARTING METHOD	FULL VOLTAGE

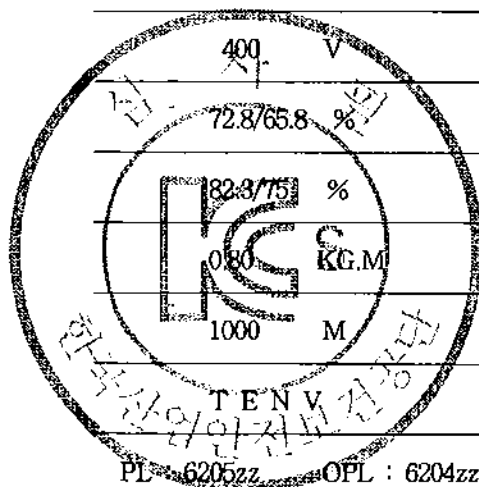


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THREE PHASE INDUCTION MOTOR DATE SHEET

SCHEDULE OF TECHNICAL DATA

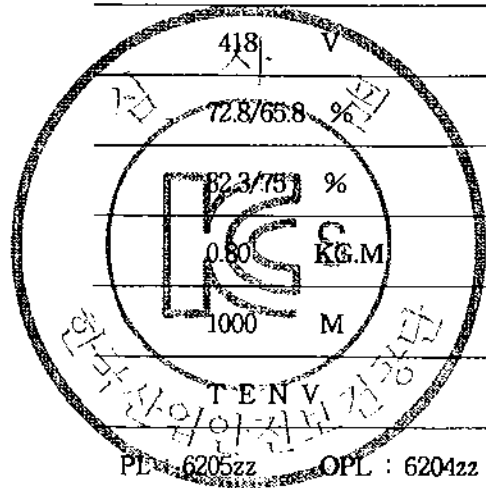
1. SERVICE	TRAVERSING
2. MANUFACTURE	극동호이스트 (주)
3. FRAME NUMBER	90 M
4. RATED POWER	0.8/0.4 KW x 4/8 P
5. RATED VOLTAGE AND FREQUENCY	440 V 60 Hz
6. MOTOR TYPE	SQUIRREL CAGE ROTOR TYPE
7. SERVICE FACTOR AND RATting	1.0 , 30 MIN
8. LOCATION AND INSULATION CLASS	INDOOR, OUTDOOR, B CLASS
9. DESIGN TRMPERATURE RISE(BY RESISTANCE)	80 ℃
10. FULL LOAD SPEED	1750 / 850 RPM
11. FULL LOAD CURRENT	- 2.4/2.27 A
12. LOCKED ROTOR CURRENT	8.6/6.21 A
13. MINIMUM STARTING VOLTAGE	400 V
14. EFFICIENCY AT 100% RATED LOAD	72.8/65.8 %
15. POWER FACTOR AT 100% RATED LOAD	82.3/75 %
16. FULL LOAD TORQUE	0.80 KG.M
17. SITE ALTTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	TENV
19. TYPE OF BEARING	PL-6205zz OPL : 6204zz
20. MOUNTING	HORIZONTAL
21. MAXIMUM AMBIENT TEMPURE	40 ℃
22. BEARING LUBRICATION	GREASE
23. STARTING METHOD	FULL VOLTAGE



THREE PHASE INDUCTION MOTOR DATE SHEET

SCHEDULE OF TECHNICAL DATA

1. SERVICE	TRAVERSING
2. MANUFACTURE	극동호이스트 (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 TRMPERATURE RISE(BY RESISTANCE)	80 ℃
10. FULL LOAD SPEED	1750 / 850 RPM
11. FULL LOAD CURRENT	2.3/2.17 A
12. LOCKED ROTOR CURRENT	8.5/6.18 A
13. MINIMUM STARTING VOLTAGE	418 V
14. EFFICIENCY AT 100% RATED LOAD	72.8/65.8 %
15. POWER FACTOR AT 100% RATED LOAD	82.3/75 %
16. FULL LOAD TORQUE	0.80 K.G.M
17. SITE ALTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	TENV
19. TYPE OF BEARING	PL 6205zz OPL : 6204zz
20. MOUNTING	HORIZONTAL
21. MAXIMUM AMBIENT TEMPURE	40 ℃
22. BEARING LUBRICATION	GREASE
23. STARTING METHOD	FULL VOLTAGE

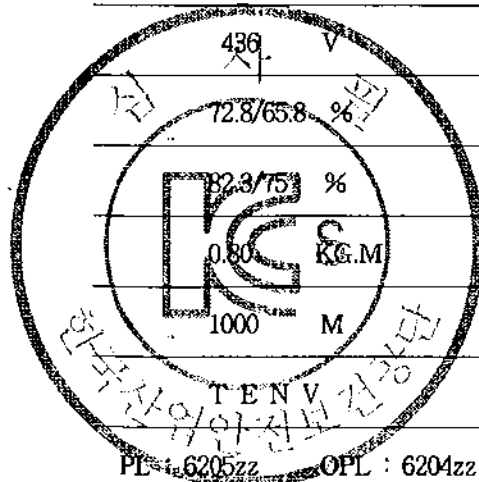


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THREE PHASE INDUCTION MOTOR DATE SHEET

SCHEDULE OF TECHNICAL DATA

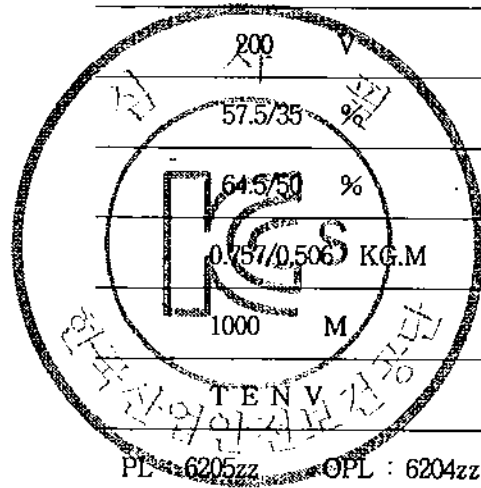
1. SERVICE	TRAVERSING
2. MANUFACTURE	극동호이스트 (주)
3. FRAME NUMBER	90 M
4. RATED POWER	0.8/0.4 KW x 4/8 P
5. RATED VOLTAGE AND FREQUENCY	480 V 60 Hz
6. MOTOR TYPE	SQUIRREL CAGE ROTOR TYPE
7. SERVICE FACTOR AND RATting	1.0 , 30 MIN
8. LOCATION AND INSULATION CLASS	INDOOR, OUTDOOR, B CLASS
9. DESIGN TRMPERATURE RISE(BY RESISTANCE)	80 ℃
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	436 V
14. EFFICIENCY AT 100% RATED LOAD	72.8/65.8 %
15. POWER FACTOR AT 100% RATED LOAD	82.3/75 %
16. FULL LOAD TORQUE	0.80 K.G.M
17. SITE ALTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	TENV
19. TYPE OF BEARING	PL-6205zz OPL : 6204zz
20. MOUNTING	HORIZONTAL
21. MAXIMUM AMBIENT TEMPURE	40 ℃
22. BEARING LUBRICATION	GREASE
23. STARTING METHOD	FULL VOLTAGE



THREE PHASE INDUCTION MOTOR DATE SHEET

SCHEDULE OF TECHNICAL DATA

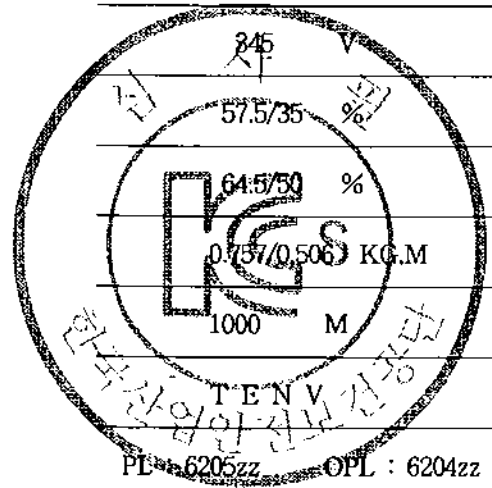
1. SERVICE	TRAVERSING
2. MANUFACTURE	극동하이스트 (주)
3. FRAME NUMBER	90 L
4. RATED POWER	0.5/0.25 KW x 6/12 P
5. RATED VOLTAGE AND FREQUENCY	220 V 60 Hz
6. MOTOR TYPE	SQUIRREL CAGE ROTOR TYPE
7. SERVICE FACTOR AND RATting	1.0 , 30 MIN
8. LOCATION AND INSULATION CLASS	INDOOR, OUTDOOR, B CLASS
9. DESIGN TRMPERATURE RISE(BY RESISTANCE)	- 80 ℃
10. FULL LOAD SPEED	1050/460 RPM
11. FULL LOAD CURRENT	3.2/3.6 A
12. STARTING CURRENT AT RATED VOLTAGE	12.8/10.8 A
13. MINIMUM STARTING VOLTAGE	200 V
14. EFFICIENCY AT 100% RATED LOAD	57.5/35 %
15. POWER FACTOR AT 100% RATED LOAD	64.5/50 %
16. STARTING TORQUE	0.75/0.506 KG.M
17. SITE ALTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	TENV
19. TYPE OF BEARING	PL-6205zz OPL : 6204zz
20. MOUNTING	HORIZONTAL
21. MAXIMUM AMBIENT TEMPURE	40 ℃
22. BEARING LUBRICATION	GREASE
23. STARTING METHOD	FULL VOLTAGE



THREE PHASE INDUCTION MOTOR DATE SHEET

SCHEDULE OF TECHNICAL DATA

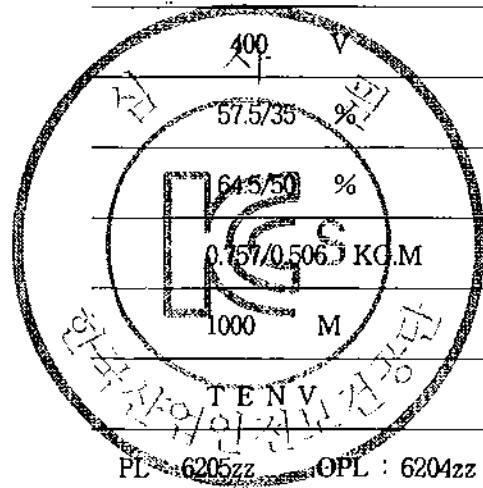
1. SERVICE	TRAVERSING
2. MANUFACTURE	극동호이스트 (주)
3. FRAME NUMBER	90 L
4. RATED POWER	0.5/025 KW x 6/12 P
5. RATED VOLTAGE AND FREQUENCY	380 V 60 Hz
6. MOTOR TYPE	SQUIRREL CAGE ROTOR TYPE
7. SERVICE FACTOR AND RATting	1.0 30 MIN
8. LOCATION AND INSULATION CLASS	INDOOR, OUTDOOR, B CLASS
9. DESIGN TRMPERATURE RISE(BY RESISTANCE)	80 ℃
10. FULL LOAD SPEED	1050/460 RPM
11. FULL LOAD CURRENT	1.85/2.08 A
12. STARTING CURRENT AT RATED VOLTAGE	7.41/6.25 A
13. MINIMUM STARTING VOLTAGE	345 V
14. EFFICIENCY AT 100% RATED LOAD	57.5/35 %
15. POWER FACTOR AT 100% RATED LOAD	64.5/50 %
16. STARTING TORQUE	0.737/0.506 KG.M
17. SITE ALTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	TENV
19. TYPE OF BEARING	PE 6205zz OPL : 6204zz
20. MOUNTING	HORIZONTAL
21. MAXIMUM AMBIENT TEMPURE	40 ℃
22. BEARING LUBRICATION	GREASE
23. STARTING METHOD	FULL VOLTAGE



THREE PHASE INDUCTION MOTOR DATE SHEET

SCHEDULE OF TECHNICAL DATA

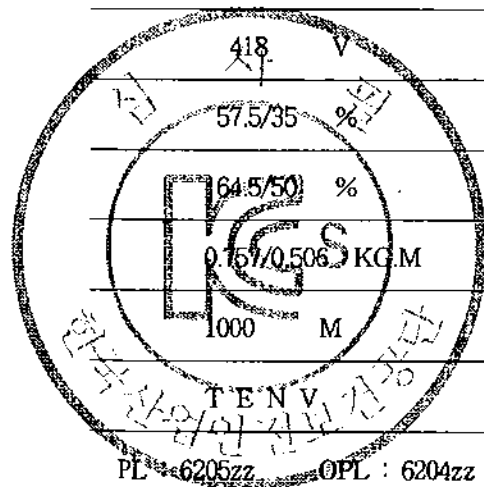
1. SERVICE	TRAVERSING
2. MANUFACTURE	극동호이스트 (주)
3. FRAME NUMBER	90 L
4. RATED POWER	0.5/0.25 KW x 6/12 P
5. RATED VOLTAGE AND FREQUENCY	440 V 60 Hz
6. MOTOR TYPE	SQUIRREL CAGE ROTOR TYPE
7. SERVICE FACTOR AND RATting	1.0 , 30 MIN
8. LOCATION AND INSULATION CLASS	INDOOR, OUTDOOR, B CLASS
9. DESIGN TRMPERATURE RISE(BY RESISTANCE)	80 ℃
10. FULL LOAD SPEED	1050/460 RPM
11. FULL LOAD CURRENT	1.6/1.8 A
12. STARTING CURRENT AT RATED VOLTAGE	6.4/5.4 A
13. MINIMUM STARTING VOLTAGE	400 V
14. EFFICIENCY AT 100% RATED LOAD	57.5/35 %
15. POWER FACTOR AT 100% RATED LOAD	64.5/50 %
16. STARTING TORQUE	0.757/0.506 K.O.M
17. SITE ALTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	TENV
19. TYPE OF BEARING	PL : 6205zz OPL : 6204zz
20. MOUNTING	HORIZONTAL
21. MAXIMUM AMBIENT TEMPURE	40 ℃
22. BEARING LUBRICATION	GREASE
23. STARTING METHOD	FULL VOLTAGE



THREE PHASE INDUCTION MOTOR DATE SHEET

SCHEDULE OF TECHNICAL DATA

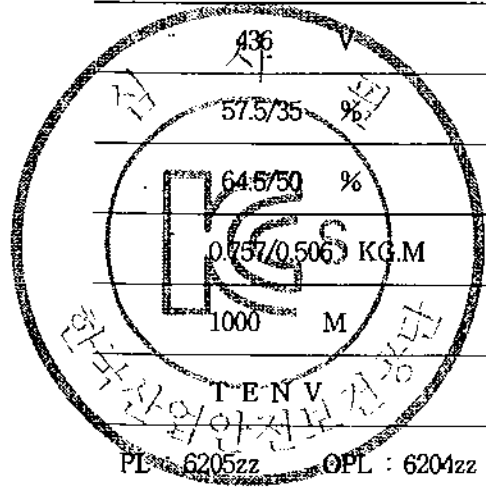
1. SERVICE	TRAVERSING
2. MANUFACTURE	극동호이스트 (주)
3. FRAME NUMBER	90 L
4. RATED POWER	0.5/025 KW x 6/12 P
5. RATED VOLTAGE AND FREQUENCY	460 V 60 Hz
6. MOTOR TYPE	SQUIRREL CAGE ROTOR TYPE
7. SERVICE FACTOR AND RATTING	1.0 , 30 MIN
8. LOCATION AND INSULATION CLASS	INDOOR, OUTDOOR, B CLASS
9. DESIGN TRMPERATURE RISE(BY RESISTANCE)	80 ℃
10. FULL LOAD SPEED	1050/460 RPM
11. FULL LOAD CURRENT	1.5/1.72 A
12. STARTING CURRENT AT RATED VOLTAGE	6.2/5.3 A
13. MINIMUM STARTING VOLTAGE	418 V
14. EFFICIENCY AT 100% RATED LOAD	57.5/35 %
15. POWER FACTOR AT 100% RATED LOAD	64.5/50 %
16. STARTING TORQUE	0.75/0.506 KG.M
17. SITE ALTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	TENV
19. TYPE OF BEARING	PL : 6205zz OPL : 6204zz
20. MOUNTING	HORIZONTAL
21. MAXIMUM AMBIENT TEMPURE	40 ℃
22. BEARING LUBRICATION	GREASE
23. STARTING METHOD	FULL VOLTAGE



THREE PHASE INDUCTION MOTOR DATE SHEET

SCHEDULE OF TECHNICAL DATA

1. SERVICE	TRAVERSING
2. MANUFACTURE	극동호이스트 (주)
3. FRAME NUMBER	90 L
4. RATED POWER	0.5/025 KW x 6/12 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 TRMPERATURE RISE(BY RESISTANCE)	80 ℃
10. FULL LOAD SPEED	1050/460 RPM
11. FULL LOAD CURRENT	1.4/1.6 A
12. STARTING CURRENT AT RATED VOLTAGE	5.82/4.93 A
13. MINIMUM STARTING VOLTAGE	436 V
14. EFFICIENCY AT 100% RATED LOAD	57.5/35 %
15. POWER FACTOR AT 100% RATED LOAD	64.5/50 %
16. STARTING TORQUE	0.757/0.506 KG.M
17. SITE ALTITUDE(UNDER)	1000 M
18. ENCLOSURE & COOLING METHOD	TENV
19. TYPE OF BEARING	PL : 6205zz OPL : 6204zz
20. MOUNTING	HORIZONTAL
21. MAXIMUM AMBIENT TEMPURE	40 ℃
22. BEARING LUBRICATION	GREASE
23. STARTING METHOD	FULL VOLTAGE



ORIGINAL



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ISSUE NO. PW9034

DATE Mar. 29, 2010

MILL TEST CERTIFICATE

THIS IS TO CERTIFY THAT THE MATERIAL DESCRIBED BELOW WAS MANUFACTURED
IN ACCORDANCE WITH KISWIRE LTD SPECIFICATION AND APPLICABLE SECTIONS

OF KSD 3514 (B Grade)

TO MESSRS

MATERIAL DESCRIPTION UNCOALVANIZED STEEL WIRE ROPE

06 X 37 + FC 1000M X 4 REEL

EX NO. PW9034

T/T NO. _____

ORDER NO. _____ REEL NO. 1~4 SAMPLING NO. 1

DIAMETER OF ROPE 9.0 mm TYPE OF CORE Fiber Core

SPECIFIED BREAKING LOAD 45.9 kN SAMPLE BROKE AT 51.6 kN

WT. OF ZINC COATING OF OUTER WIRE MIN. _____ g/m² MAX. _____ g/m²

ROPE LAY RHRL LAY LENGTH 58.2 mm

LUBRICATION A-2

CHEMICAL ANALYSIS OF WIRE ROD

CHARGE NO.	C×100	Si×100	Mn×100	P×1000	S×1000
053358E	70	20	75	16	5

DATE OF SAMPLE TEST Mar. 07, 2010

CHIEF INSPECTOR D.S.NA
KISWIRE QINGDAO LTD.

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