



제 2012 - 25969 호

안 전 인 증 서

(사업장명)

극동호이스트(주)

(소재지) 제425-833 경기도 안산시 성곡동 630-2 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.

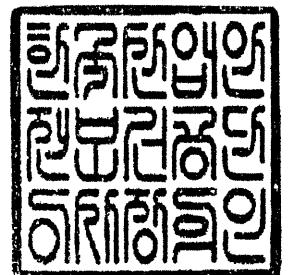
_____ 품 목 _____
호이스트

_____ 형식,모델(용량,등급)/인증번호 _____
KDW1-2.0T (2(1+1)Ton) / 12-AQ2AC-02976

_____ 인 증 기 준 _____
고용노동부 고시 제2011 - 39호 (위험기계,기구 의무안전인증 고시)

_____ 인 증 조 건 _____

2012년 07월 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)		KDW1-2.0T (C121)	용량 (등급)	2(1+1) 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.

2012년 07월 27일

인증심사원

김흥태

김 (서명 또는)

한국산업안전보건공단 경기서부지도원장





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)		KDW1-2.0T	용량 (등급)	2 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 ☒ 적합
☐ 부적합

합을 통지합니다.

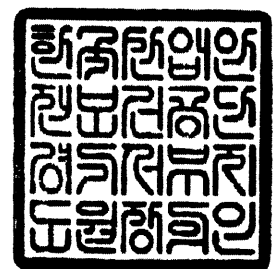
2012년 07월 20일

인증심사원

강성두 변명수

(서명 또는 인)

한국산업안전보건공단 경기서부지도원장



한국산업안전보건공단

크레인제작기준.안전기준 및 검사기준에 의한
전동 체인호이스트 서면심사

형식번호 : KDW1-2.0T

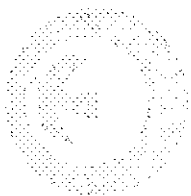


극동호이스트 주식회사

(주소 : 경기도 안산시 단원구 성곡동 630-2, 반월공단 607B-14L)

(전화 : 031-491-5311/4, 전송:031-494-5315)

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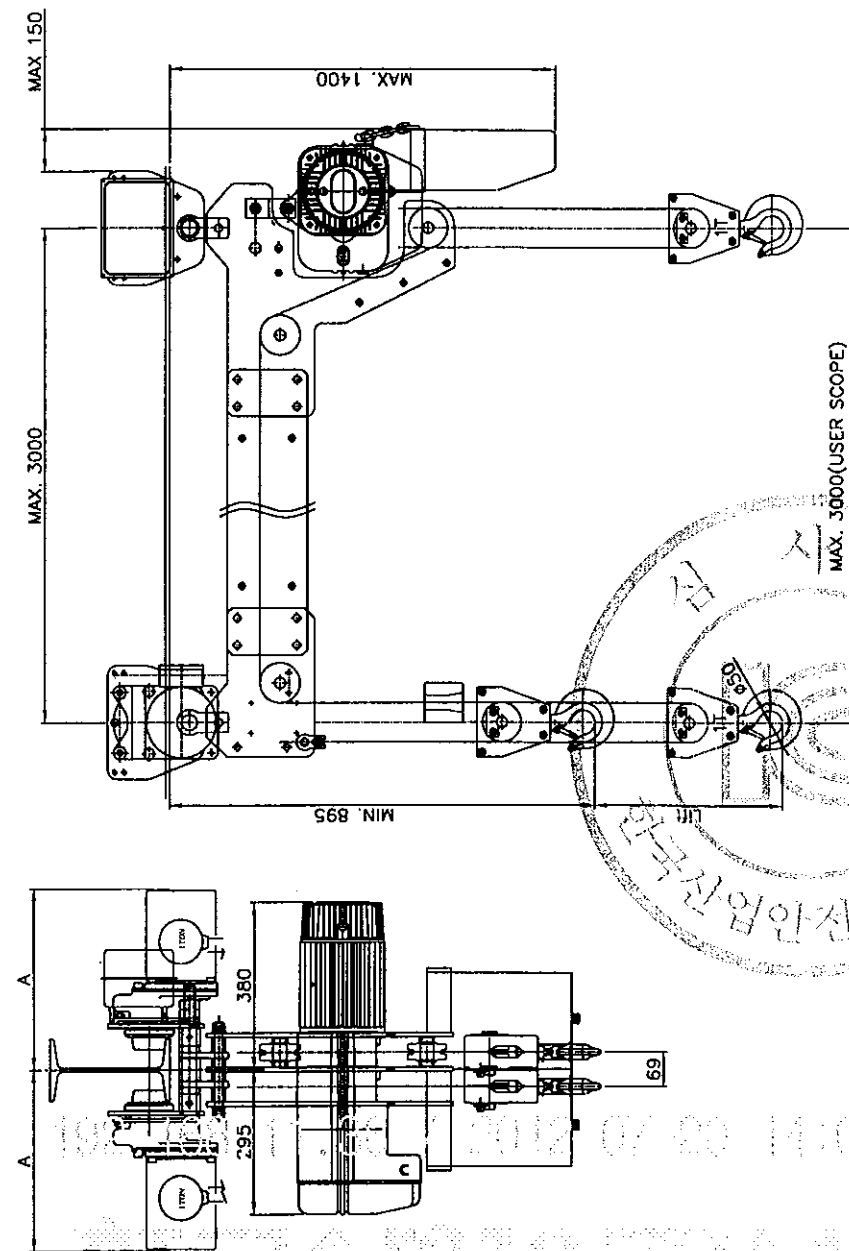
한국산업안전보건공단

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동 일 형 식 일 랑 표

형식	형식 및 모델	동 일 형 식 인 정 범 위 및 내 역				비 고
		관상속도 (m/min)	회행속도 (m/min)	양정 (m)	회행방식	
KDW1-2.0T	KDW-1-2.0T-L20	4.0 (m/min)	-	20	정지식	
	KDTW-1-2.0T-L20	4.0/1.0 (m/min)	-	20	정지식	
		4.0/1.0 (m/min)	-	20	정지식	
	KDW-1M-2.0T-L20	4.0 (m/min)	12 (m/min)	20	Motor 구동식	
			12/6 (m/min)	20	Motor 구동식	
			2~12 (m/min)	20	Motor 구동식	INVERTER 방식
	KDW-1M-2.0T-L20-H	4.0 (m/min)	위와 같이 동일	20	Motor 구동식	HINGE TYPE
	KDTW-1M-2.0T-L20	4.0/1.0 (m/min)	12 (m/min)	20	Motor 구동식	
			12/6 (m/min)	20	Motor 구동식	
			2~12 (m/min)	20	Motor 구동식	INVERTER 방식
	KDTW-1M-2.0T-L20-H	4.0/1.0 (m/min)	위와 같이 동일	20	Motor 구동식	HINGE TYPE
		4.0/1.0 (m/min)		20	Motor 구동식	
KDW1-2.0T	KDW-1P-2.0T-L20	4.0 (m/min)	-	20	Manual 구동식	
	KDTW-1P-2.0T-L20	4.0/1.0 (m/min)	-	20	Manual 구동식	
		4.0/1.0 (m/min)	-	20	Manual 구동식	
		4.0/1.0 (m/min)	-	20	Manual 구동식	

HOOK 간 거리 최대 3000 (OWNER SCOPE) 외형도 참조



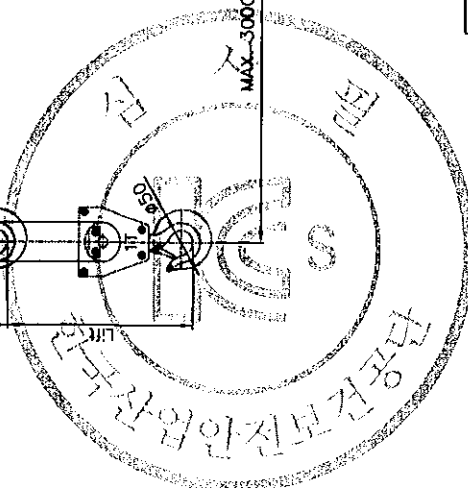
MODEL	KDTW-1M-2.0T-L20
CAPACITY	1T + 1T (2Ton)
TEST LOAD	2.5 Ton
LIFT	MAX. 20m
HOISTING	MOTOR 1.5/0.5kw x 4/12P SPEED 4/1 m/min MOTOR 1.5/0.38kw x 2/8P SPEED 4/1 m/min MOTOR 2 x (0.4kw x 4P) SPEED 12 m/min MOTOR 2 x (0.4/0.2kw x 4/8P) SPEED 12/6 m/min MOTOR 2 x (0.4kw x 4P) SPEED 2~12 m/min(INVERTER)
TRAVERSING	DC ELECTRO MAGNETIC BRAKE AC SELF BRAKE DC BRAKE(INVERTER)
POWER SOURCES	AC 3ø 220/380/440 460/480V 60Hz
CONTROL VOLTAGE	AC 1ø 48/110/120V 60Hz
OPERATION METHOD	PUSH BUTTON SWITCH TYPE ON FL
LOAD CHAIN	2 x ø7.1 x P21.2mm x 2fall
PAINT COLOR	0.4 PB 4.2/5.6
I-BEAM	100,125,150
NET WEIGHT	Max. 360 kg

* SPAN 1000mm 이하는 Traversing motor 1Unit 적용

제1차 기종	제2차 기종	제3차 기종	제4차 기종	제5차 기종	제6차 기종	제7차 기종	제8차 기종	제9차 기종	제10차 기종	제11차 기종	제12차 기종	제13차 기종	제14차 기종	제15차 기종	제16차 기종	제17차 기종	제18차 기종	제19차 기종	제20차 기종	제21차 기종	제22차 기종	제23차 기종	제24차 기종	제25차 기종	제26차 기종	제27차 기종	제28차 기종	제29차 기종	제30차 기종	제31차 기종	제32차 기종	제33차 기종	제34차 기종	제35차 기종	제36차 기종	제37차 기종	제38차 기종	제39차 기종	제40차 기종	제41차 기종	제42차 기종	제43차 기종	제44차 기종	제45차 기종	제46차 기종	제47차 기종	제48차 기종	제49차 기종	제50차 기종	제51차 기종	제52차 기종	제53차 기종	제54차 기종	제55차 기종	제56차 기종	제57차 기종	제58차 기종	제59차 기종	제60차 기종	제61차 기종	제62차 기종	제63차 기종	제64차 기종	제65차 기종	제66차 기종	제67차 기종	제68차 기종	제69차 기종	제70차 기종	제71차 기종	제72차 기종	제73차 기종	제74차 기종	제75차 기종	제76차 기종	제77차 기종	제78차 기종	제79차 기종	제80차 기종	제81차 기종	제82차 기종	제83차 기종	제84차 기종	제85차 기종	제86차 기종	제87차 기종	제88차 기종	제89차 기종	제90차 기종	제91차 기종	제92차 기종	제93차 기종	제94차 기종	제95차 기종	제96차 기종	제97차 기종	제98차 기종	제99차 기종	제100차 기종
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BEAM WIDTH	A
100	340
125	365
150	390





- * SPAN 1000mm 이하는 Traversing motor 1Unit 적용
- * 디스크레인 타입

BEAM WIDTH	A
100	237.5
125	250
150	262.5

ELECTRICAL SYMBOL LIST

NAME	SYMBOL	NAME	SYMBOL
3 PHASE SQUIRREL CAGE ROTOR INDUCTION MOTOR		PUSH BUTTON SWITCH	
3 PHASE WOUND ROTOR INDUCTION MOTOR		PUSH BUTTON SWITCH (1BUTTON 2STEP TYPE)	
DC ELECTRO MAGNETIC BRAKE		EMERGENCY BUTTON SWITCH	
AC SOLENOID BRAKE		TOGGLE SWITCH	
OVER LOAD PROTECTOR (=LOAD LIMITER)		SELECTOR SWITCH	
ELECTRONIC OVER CURRENT RELAY		KEY SWITCH	
MOLDED CASE CIRCUIT BREAKER		FOOT SWITCH	
ELECTRIC LEAKAGE BREAKER		BIMETAL	
TRANSFORMER		PLUG	
FUSE		PILOT LAMP	
MAGNETIC CONTACTOR COIL		WIRING SIREN	
MAGNETIC CONTACTOR		BUZZER	
THERMAL RELAY		RECEPTACLE (콘센트)	
THERMAL RELAY CONTACTOR		3로 SWITCH	
LIMIT SWITCH		RECTIFIER	
CAM SWITCH		CURRENT TRANSFORMER	

< Electrical Specification 1 >

1. Power source : AC 3ø 220V, 380V, 440V, 460V, 480V 60Hz
2. Control source : AC 1ø 48, 110, 120V 60Hz

OBJECT	MOTOR OUTPUT	220V		380V		440V		460V		480V		BRAKE	REMARK
		STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE		
MAIN HOIST	1.5/0.38Kw x 2/8P	7.0/3.5A	4.0sq	4.1/2.1A	4.0sq	3.5/1.8A	4.0sq	3.34/1.72A	4.0sq	3.2/1.65A	4.0sq	DC MAG. BRAKE	1 DRIVE
TRAVERSING	0.4Kw x 4P	2.6A	2.5sq	1.5A	2.5sq	1.3A	2.5sq	1.24A	2.5sq	1.19A	2.5sq	AC SELF BRAKE	1 DRIVE
CONTROL CURRENT		2A	2.5sq	1A	2.5sq	1A	2.5sq	1A	2.5sq	1A	2.5sq		
LIGHTING & ACC'Y CIRCUIT													
SUB TOTAL (NORMAL LOAD)		11.6/8.1A	4.0sq	6.6/4.6A	4.0sq	5.8/4.1A	4.0sq	5.58/3.96A	4.0sq	5.39/3.84A	4.0sq	I(A)=M/H+T/S+ASS'Y	
SUB TOTAL (PEAK LOAD)		14.5/10.12A	-	8.25/5.75A	-	7.25/5.12A	-	6.97/4.95A	-	6.73/4.8A	-	I(A)=(M/H+T/S+ASS'Y) X1.25	

< Electrical Specification 2 >

1. Power source : AC 3ø 220V, 380V, 440V, 460V, 480V 60Hz
2. Control source : AC 1ø 48, 110, 120V 60Hz

OBJECT	220V		380V		440V		460V		480V		BRAKE	REMARK
	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE		
MAIN HOIST 1.5/0.38Kw x 2/8P	7.0/3.5A	4.0sq	4.1/2.1A	4.0sq	3.5/1.8A	4.0sq	3.34/1.72A	4.0sq	3.2/1.65A	4.0sq	DC MAG. BRAKE	1 DRIVE
TRAVERSING 2x(0.4Kw x 4P)	2.6A	2.5sq	1.5A	2.5sq	1.3A	2.5sq	1.24A	2.5sq	1.19A	2.5sq	AC SELF BRAKE	2 DRIVE
CONTROL CURRENT	2A	2.5sq	1A	2.5sq	1A	2.5sq	1A	2.5sq	1A	2.5sq		
LIGHTING & ACCY CIRCUIT												
SUB TOTAL (NORMAL LOAD)	14.2/10.7A	4.0sq	8.1/6.1A	4.0sq	7.1/5.4A	4.0sq	6.82/5.2A	4.0sq	6.58/5.03A	4.0sq	I(A)=M/H+T/S+ASSY	
SUB TOTAL (PEAK LOAD)	17.8/13.4A	-	10.1/7.63A	-	8.88/6.75A	-	8.53/6.5A	-	8.23/6.29A	-	I(A)=(M/H+T/S+ASSY) X1.25	

< Electrical Specification 3>

1. Power source : AC 3ø 220V, 380V, 440V, 460V, 480V 60Hz
2. Control source : AC 1ø 48, 110, 120V 60Hz

OBJECT	MOTOR OUTPUT	220V		380V		440V		460V		480V		BRAKE	REMARK
		STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE		
	MAIN HOIST 11.5/0.38Kw x 2/8P	7.0/3.5A	4.0sq	4.1/2.1A	4.0sq	3.5/1.8A	4.0sq	3.34/1.72A	4.0sq	3.2/1.65A	4.0sq	DC MAG. BRAKE	1 DRIVE
	TRAVERSING 0.4/0.2Kw x 4/8P	2.78/2.73A	2.5sq	1.61/1.58A	2.5sq	1.39/1.36A	2.5sq	1.33/1.31A	2.5sq	1.28/1.25A	2.5sq	AC SELF BRAKE	1 DRIVE
	CONTROL CURRENT	2A	2.5sq	1A	2.5sq	1A	2.5sq	1A	2.5sq	1A	2.5sq		
	LIGHTING & ACCY CIRCUIT												
	SUB TOTAL (NORMAL LOAD)	11.78/8.23A	4.0sq	6.71/4.68A	4.0sq	5.89/4.16A	4.0sq	5.67/4.03A	4.0sq	5.48/3.9A	4.0sq	I(A)=M/H+T/S+ASS'Y	
	SUB TOTAL (PEAK LOAD)	14.72/10.28A	-	8.38/5.85A	-	7.36/5.2A	-	7.08/5.03A	-	6.85/4.87A	-	I(A)=(M/H+T/S+ASS'Y) X1.25	

< Electrical Specification 4>

1. Power source : AC 3ø 220V, 380V, 440V, 460V, 480V 60Hz
2. Control source : AC 1ø 48, 110, 120V 60Hz

OBJECT	MOTOR OUTPUT	220V		380V		440V		460V		480V		BRAKE	REMARK
		STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE		
MAIN HOIST	1.5/0.38Kw x 2/8P	7.0/3.5A	4.0sq	4.1/2.1A	4.0sq	3.5/1.8A	4.0sq	3.34/1.72A	4.0sq	3.2/1.65A	4.0sq	DC MAG. BRAKE	1 DRIVE
TRAVERSING	2x(0.4/0.2Kw x 4/8P)	2.78/2.73A	2.5sq	1.61/1.58A	2.5sq	1.39/1.36A	2.5sq	1.33/1.31A	2.5sq	1.28/1.25A	2.5sq	AC SELF BRAKE	2 DRIVE
CONTROL CURRENT		2A	2.5sq	1A	2.5sq	1A	2.5sq	1A	2.5sq	1A	2.5sq		
LIGHTING & FCC'Y CIRCUIT													
SUB TOTAL (NORMAL LOAD)		14.6/10.96A	4.0sq	8.32/6.26A	4.0sq	7.28/5.52A	4.0sq	7.0/5.34A	4.0sq	6.76/5.15A	4.0sq	I(A)=M/H+T/S+ASS'Y	
SUB TOTAL (PEAK LOAD)		18.3/13.7A	-	10.4/7.83A	-	9.1/6.9A	-	8.75/6.68A	-	8.45/6.44A	-	I(A)=(M/H+T/S+ASS'Y) X1.25	

< Electrical Specification 5 >

1. Power source : AC 3ø 220V, 380V, 440V, 460V, 480V 60Hz
2. Control source : AC 1ø 48, 110, 120V 60Hz

OBJECT	MOTOR OUTPUT	220V		380V		440V		460V		480V		BRAKE	REMARK
		STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE		
MAIN HOIST	1.5/0.5Kw x 4/12P	6.3/4.1A	4.0sq	3.62/2.42A	4.0sq	3.13/2.1A	4.0sq	2.99/2A	4.0sq	2.87/1.92A	4.0sq	DC MAG. BRAKE	1 DRIVE
TRAVERSING	0.4Kw x 4P	2.6A	2.5sq	1.5A	2.5sq	1.3A	2.5sq	1.24A	2.5sq	1.19A	2.5sq	AC SELF BRAKE	1 DRIVE
CONTROL CURRENT		2A	2.5sq	1A	2.5sq	1A	2.5sq	1A	2.5sq	1A	2.5sq		
LIGHTING & ACC'Y CIRCUIT													
SUB TOTAL (NORMAL LOAD)		10.9/8.78A	4.0sq	6.12/4.92A	4.0sq	5.43/4.4A	4.0sq	5.23/4.24A	4.0sq	5.06/4.11A	4.0sq	I(A)=M/H+T/S+ASS'Y	
SUB TOTAL (PEAK LOAD)		13.62/10.97A	-	7.65/6.15A	-	6.78/5.5A	-	6.53/5.3A	-	6.32/5.13A	-	I(A)=(M/H+T/S+ASS'Y) X1.25	

< Electrical Specification 6 >

1. Power source : AC 3ø 220V, 380V, 440V, 460V, 480V 60Hz
2. Control source : AC 1ø 48, 110, 120V 60Hz

OBJECT	MOTOR OUTPUT	220V		380V		440V		460V		480V		BRAKE	REMARK
		STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE		
MAIN HOIST	1.5/0.5Kw x 4/12P	6.3/4.1A	4.0sq	3.62/2.42A	4.0sq	3.13/2.1A	4.0sq	2.99/2A	4.0sq	2.87/1.92A	4.0sq	DC MAG. BRAKE	1 DRIVE
TRAVERSING	2x(0.4Kw x 4P)	2.6A	2.5sq	1.5A	2.5sq	1.3A	2.5sq	1.24A	2.5sq	1.19A	2.5sq	AC SELF BRAKE	2 DRIVE
CONTROL CURRENT		2A	2.5sq	1A	2.5sq	1A	2.5sq	1A	2.5sq	1A	2.5sq		
LIGHTING & ACCY CIRCUIT													
SUB TOTAL (NORMAL LOAD)		13.5/11.38A	4.0sq	7.62/6.42A	4.0sq	6.73/5.7A	4.0sq	6.47/5.48A	4.0sq	6.25/5.3A	4.0sq	I(A)=M/H+T/S+ASS'Y	
SUB TOTAL (PEAK LOAD)		16.88/14.2A		9.53/8.03A		8.41/7.13A		8.08/6.85A		7.81/6.62A		I(A)=(M/H+T/S+ASS'Y) X1.25	

< Electrical Specification 7 >

1. Power source : AC 3ø 220V, 380V, 440V, 460V, 480V 60Hz
2. Control source : AC 1ø 48, 110, 120V 60Hz

OBJECT	MOTOR OUTPUT	220V		380V		440V		460V		480V		BRAKE	REMARK
		STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE		
MAIN HOIST	1 5/0.5Kw x 4/12P	6.3/4.18A	4.0sq	3.62/2.42A	4.0sq	3.13/2.1A	4.0sq	2.99/2.0A	4.0sq	2.87/1.92A	4.0sq	DC MAG. BRAKE	1 DRIVE
TRAVERSING	0.4/0.2Kw x 4/8P	2.78/2.73A	2.5sq	1.61/1.58A	2.5sq	1.39/1.36A	2.5sq	1.33/1.31A	2.5sq	1.28/1.25A	2.5sq	AC SELF BRAKE	1 DRIVE
CONTROL CURRENT		2A	2.5sq	1A	2.5sq	1A	2.5sq	1A	2.5sq	1A	2.5sq		
LIGHTING & ACC'Y CIRCUIT													
SUB TOTAL (NORMAL LOAD)		11.12/8.91A	4.0sq	6.23/5.1A	4.0sq	5.52/4.46A	4.0sq	5.32/4.31A	4.0sq	5.15/4.17A	4.0sq	I(A)=M/H/T/S+ASS'Y	
SUB TOTAL (PEAK LOAD)		13.9/11.13A	-	7.78/6.37A	-	6.9/5.57A	-	6.65/5.38A	-	6.43/5.21A	-	I(A)=(M/H/T/S+ASS'Y) X1.25	

< Electrical Specification 8 >

1. Power source : AC 3ø 220V, 380V, 440V, 460V, 480V 60Hz
2. Control source : AC 1ø 48, 110, 120V 60Hz

OBJECT	MOTOR OUTPUT	220V		380V		440V		460V		480V		BRAKE	REMARK
		STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE		
MAIN HOIST	1.5/0.5Kw x 4/12P	6.3/4.18A	4.0sq	3.62/2.42A	4.0sq	3.13/2.1A	4.0sq	2.99/2.0A	4.0sq	2.87/1.92A	4.0sq	DC MAG. BRAKE	1 DRIVE
TRAVERSING	2x(0.4/0.2Kw x 4/8P)	2.78/2.73A	2.5sq	1.61/1.58A	2.5sq	1.39/1.36A	2.5sq	1.33/1.31A	2.5sq	1.28/1.25A	2.5sq	AC SELF BRAKE	1 DRIVE
CONTROL CURRENT		2A	2.5sq	1A	2.5sq	1A	2.5sq	1A	2.5sq	1A	2.5sq		
LIGHTING & ACC'Y CIRCUIT													
SUB TOTAL (NORMAL LOAD)		13.9/11.6A	4.0sq	7.84/6.68A	4.0sq	6.91/6.06A	4.0sq	6.65/5.62A	4.0sq	6.43/5.42A	4.0sq	I(A)=M/H/T/S+ASS'Y	
SUB TOTAL (PEAK LOAD)		17.3/14.6A	-	9.8/8.35A	-	8.64/7.58A	-	8.3/7.02A	-	8.03/6.78A	-	I(A)=(M/H+T/S+ASS'Y) X1.25	

< Electrical Specification 9>

1. Power source : AC 3ø 220V, 380V, 440V, 460V, 480V 60Hz
2. Control source : AC 1ø 48, 110, 120V 60Hz

OBJECT	MOTOR OUTPUT	220V		380V		440V		460V		480V		BRAKE	REMARK
		STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE		
MAIN HOIST	1.5/0.38Kw x 2/8P	7.0/3.5A	4.0sq	4.1/2.1A	4.0sq	3.5/1.8A	4.0sq	3.34/1.72A	4.0sq	3.2/1.65A	4.0sq	DC MAG. BRAKE	1 DRIVE
TRAVERSING	0.4Kw x 4P	2.6A	2.5sq	1.5A	2.5sq	1.3A	2.5sq	1.24A	2.5sq	1.19A	2.5sq	DC MAG. BRAKE	1 DRIVE
CONTROL CURRENT		2A	2.5sq	1A	2.5sq	1A	2.5sq	1A	2.5sq	1A	2.5sq		
LIGHTING & ACC'Y CIRCUIT													
SUB TOTAL (NORMAL LOAD)		11.6/8.1A	4.0sq	6.6/4.6A	4.0sq	5.8/4.1A	4.0sq	5.58/3.96A	4.0sq	5.39/3.84A	4.0sq	I(A)=M/H+T/S+ASS'Y	
SUB TOTAL (PEAK LOAD)		14.5/10.12A	-	8.25/5.75A	-	7.25/5.12A	-	6.97/4.95A	-	6.73/4.8A	-	I(A)=(M/H+T/S+ASS'Y) X1.25	

< Electrical Specification 10 >

1. Power source : AC 3ø 220V, 380V, 440V, 460V, 480V 60Hz
2. Control source : AC 1ø 48, 110, 120V 60Hz

OBJECT	MOTOR OUTPUT	220V		380V		440V		460V		480V		BRAKE	REMARK
		STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE		
MAIN HOIST	1.5/0.38Kw x 2/8P	7.0/3.5A	4.0sq	4.1/2.1A	4.0sq	3.5/1.8A	4.0sq	3.34/1.72A	4.0sq	3.2/1.65A	4.0sq	DC MAG. BRAKE	1 DRIVE
TRAVERSING	2x(0.4Kw x 4P)	2.6A	2.5sq	1.5A	2.5sq	1.3A	2.5sq	1.24A	2.5sq	1.19A	2.5sq	DC MAG. BRAKE	2 DRIVE
CONTROL CURRENT		2A	2.5sq	1A	2.5sq	1A	2.5sq	1A	2.5sq	1A	2.5sq		
LIGHTING & ACC'Y CIRCUIT													
SUB TOTAL (NORMAL LOAD)		14.2/10.7A	4.0sq	8.1/6.1A	4.0sq	7.1/5.4A	4.0sq	6.82/5.2A	4.0sq	6.58/5.03A	4.0sq	I(A)=M/H+T/S+ASS'Y	
SUB TOTAL (PEAK LOAD)		17.7/13.4A	-	10.1/7.63A	-	8.87/6.75A	-	8.53/6.5A	-	8.23/6.29A	-	I(A)=(M/H+T/S+ASS'Y) X1.25	

< Electrical Specification 11 >

1. Power source : AC 3ø 220V, 380V, 440V, 460V, 480V 60Hz
2. Control source : AC 1ø 48, 110, 120V 60Hz

OBJECT	MOTOR OUTPUT	220V		380V		440V		460V		480V		BRAKE	REMARK
		STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE		
MAIN HOIST	1.5/0.5Kw x 4/12P	6.3/4.1A	4.0sq	3.62/2.42A	4.0sq	3.13/2.1A	4.0sq	2.99/2A	4.0sq	2.87/1.92A	4.0sq	DC MAG. BRAKE	1 DRIVE
TRAVERSING	0.4Kw x 4P	2.6A	2.5sq	1.5A	2.5sq	1.3A	2.5sq	1.24A	2.5sq	1.19A	2.5sq	DC MAG. BRAKE	1 DRIVE
CONTROL CURRENT		2A	2.5sq	1A	2.5sq	1A	2.5sq	1A	2.5sq	1A	2.5sq		
LIGHTING & ACCY CIRCUIT													
SUB TOTAL (NORMAL LOAD)		10.9/8.78A	4.0sq	6.12/4.92A	4.0sq	5.43/4.4A	4.0sq	5.23/4.24A	4.0sq	5.06/4.11A	4.0sq	I(A)=M/H+T/S+ASSY	
SUB TOTAL (PEAK LOAD)		13.62/10.97A		7.65/6.15A	-	6.78/5.5A	-	6.53/5.3A	-	6.32/5.13A	-	I(A)=(M/H+T/S+ASSY) X1.25	

< Electrical Specification 12 >

1. Power source : AC 3ø 220V, 380V, 440V, 460V, 480V 60Hz
2. Control source : AC 1ø 48, 110, 120V 60Hz

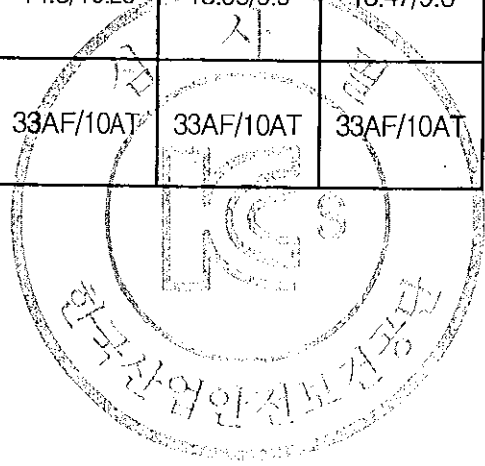
OBJECT	MOTOR OUTPUT	220V		380V		440V		460V		480V		BRAKE	REMARK
		STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE	STATOR CURRENT	1st CABLE SIZE		
MAIN HOIST	1.5/0.5Kw x 4/12P	6.3/4.1A	4.0sq	3.62/2.42A	4.0sq	3.13/2.1A	4.0sq	2.99/2A	4.0sq	2.87/1.92A	4.0sq	DC MAG. BRAKE	1 DRIVE
TRAVERSING	2x(0.4Kw x 4P)	2.6A	2.5sq	1.5A	2.5sq	1.3A	2.5sq	1.24A	2.5sq	1.19A	2.5sq	DC MAG. BRAKE	2 DRIVE
CONTROL CURRENT		2A	2.5sq	1A	2.5sq	1A	2.5sq	1A	2.5sq	1A	2.5sq		
LIGHTING & ACCY CIRCUIT													
SUB TOTAL (NORMAL LOAD)		13.5/11.38A	4.0sq	7.62/6.42A	4.0sq	6.73/5.7A	4.0sq	6.47/5.48A	4.0sq	6.25/5.3A	4.0sq	I(A)=M/H+T/S+ASS'Y	
SUB TOTAL (PEAK LOAD)		16.8/14.2A	-	9.53/8.03A	-	8.41/7.13A	-	8.09/6.85A	-	7.81/6.63A	-	I(A)=(M/H+T/S+ASS'Y) X1.25	

■ 배선용 차단기의 정격전류 용량 계산

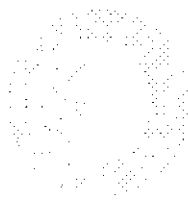
♣ 규격 : 차단기의 차단용량이 해당 전동기 등의 정격전류에 대하여 250% 이하일 것. (안전인증 절차 및 안전인증 55항목 전기관계) ◆ $I_B \leq 2.5 \times (I_M + I_L)$ I_B : 배선용 차단기의 정격전류 I_M : 전동기 정격전류 I_L : 전동기 이외의 부하전류

전압 부품		220V	380V	440V	460V	480V
2.0 TON (1.5/0.38KW x 2/8P)	권상 전동기	7.0/3.5	4.1/2.1	3.5/1.8	3.34/1.72	3.2/1.65
	횡행전동기	2.6	1.5	1.3	1.24	1.19
	CONTROL	2	1	1	1	1
합 계		11.6/8.1	6.6/4.6	5.8/4.1	5.58/3.96	5.39/3.84
배선용 차단기 적용 계산값		29/20.25	16.5/11.5	14.5/10.25	13.95/9.9	13.47/9.6
배선용 차단기 적용 용량		33AF/15AT	33AF/10AT	33AF/10AT	33AF/10AT	33AF/10AT

횡행전동기(0.4KW)



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한국산업안전보건공단
안전보건
한국산업안전보건공단
안전보건

192.168.11.38 / 2012-07-20 14:00:34

■ 배선용 차단기의 정격전류 용량 계산

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

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

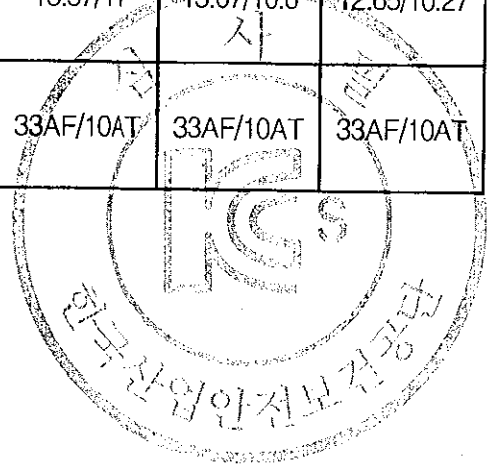
I_B : 배선용 차단기의 정격전류

I_M : 전동기 정격전류

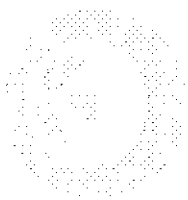
I_L : 전동기 이외의 부하전류

전압 부품		220V	380V	440V	460V	480V
2.0 TON (1.5/0.5Kw x 4/12P)	권상 전동기	6.3/4.18	3.62/2.42	3.13/2.1	2.99/2.0	2.87/1.92
	횡행전동기	2.6	1.5	1.3	1.24	1.19
	CONTROL	2	1	1	1	1
합 계		10.9/8.78	6.12/4.92	5.43/4.4	5.23/4.24	5.06/4.11
배선용 차단기 적용 계산값		27.25/21.95	15.3/12.3	13.57/11	13.07/10.6	12.65/10.27
배선용 차단기 적용 용량		33AF/15AT	33AF/10AT	33AF/10AT	33AF/10AT	33AF/10AT

횡행전동기(0.4KW)



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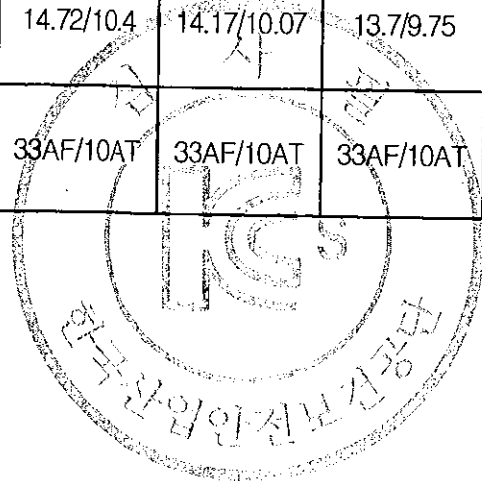
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■ 배선용 차단기의 정격전류 용량 계산

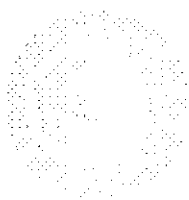
◆ 규격 : 차단기의 차단용량이 해당 전동기 등의 정격전류에 대하여 250% 이하일 것. (안전인증 절차 및 안전인증 55항목 전기관계)	
◆ $I_B \leq 2.5 \times (I_M + I_L)$	
I_B : 배선용 차단기의 정격전류	
I_M : 전동기 정격전류	
I_L : 전동기 이외의 부하전류	

전압 부품		220V	380V	440V	460V	480V
2.0 TON (1.5/0.38Kw x 2/8P)	권상 전동기	7.0/3.5	4.1/2.1	3.5/1.8	3.34/1.72	3.2/1.65
	횡행전동기	2.78/2.73	1.61/1.58	1.39/1.36	1.33/1.31	1.28/1.25
	CONTROL	2	1	1	1	1
합 계		11.78/8.23	6.71/4.68	5.89/4.16	5.67/4.03	5.48/3.9
배선용 차단기 적용 계산값		29.45/20.57	16.77/11.7	14.72/10.4	14.17/10.07	13.7/9.75
배선용 차단기 적용 용량		33AF/15AT	33AF/10AT	33AF/10AT	33AF/10AT	33AF/10AT

횡행전동기(0.4/0.2KW)



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한국전기안전협회

192.168.11.38 / 2012-07-20 14:00:34

■ 배선용 차단기의 정격전류 용량 계산

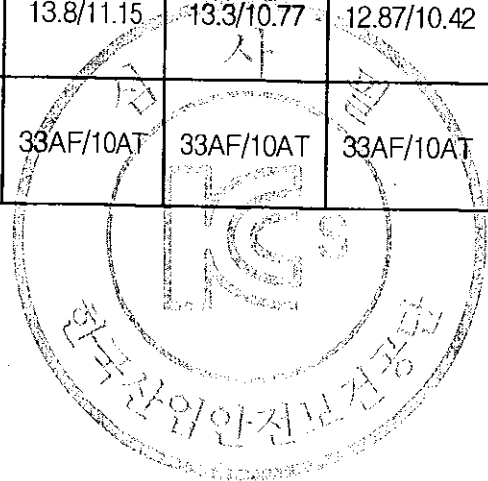
◆ 규격 : 차단기의 차단용량이 해당 전동기 등의 정격전류에 대하여 250% 이하일 것.
(안전인증 절차 및 안전인증 55항목 전기관계)

◆ $I_B \leq 2.5 \times (I_M + I_L)$

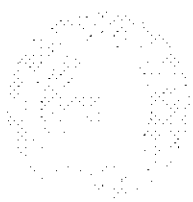
I_B : 배선용 차단기의 정격전류
 I_M : 전동기 정격전류
 I_L : 전동기 이외의 부하전류

전압 부품		220V	380V	440V	460V	480V
2.0 TON (1.5/0.5Kw x 4/12P)	권상 전동기	6.3/4.18	3.62/2.42	3.13/2.1	2.99/2.0	2.87/1.92
	횡행전동기	2.78/2.73	1.61/1.58	1.39/1.36	1.33/1.31	1.28/1.25
	CONTROL	2	1	1	1	1
합 계		11.08/8.91	6.24/5.0	5.52/4.46	5.32/4.31	5.15/4.17
배선용 차단기 적용 계산값		27.7/22.27	15.6/12.5	13.8/11.15	13.3/10.77	12.87/10.42
배선용 차단기 적용 용량		33AF/15AT	33AF/10AT	33AF/10AT	33AF/10AT	33AF/10AT

횡행전동기(0.4/0.2KW)



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한국산업안전보건공단 (KOSHA) 관련 문서

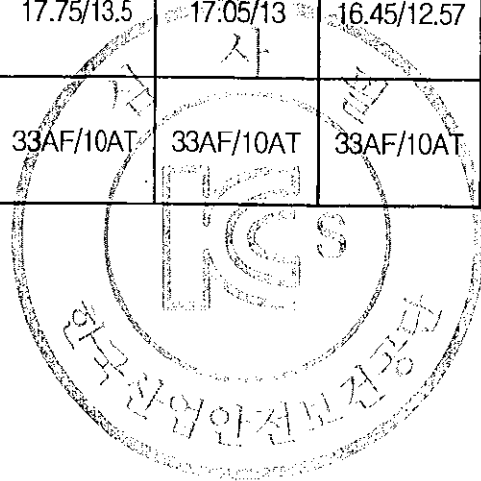
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■ 배선용 차단기의 정격전류 용량 계산

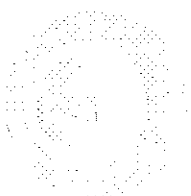
♣ 규격 : 차단기의 차단용량이 해당 전동기 등의 정격전류에 대하여 250% 이하일 것. (안전인증 절차 및 안전인증 55항목 전기관계) ◆ $I_B \leq 2.5 \times (I_M + I_L)$ I_B : 배선용 차단기의 정격전류 I_M : 전동기 정격전류 I_L : 전동기 이외의 부하전류

전압 부품		220V	380V	440V	460V	480V
2.0 TON (1.5/0.38KW x 2/8P)	권상 전동기	7.0/3.5	4.1/2.1	3.5/1.8	3.34/1.72	3.2/1.65
	횡행전동기	2x2.6	2x1.5	2x1.3	2x1.24	2x1.19
	CONTROL	2	1	1	1	1
합 계		14.2/10.7	8.1/4.6	7.1/5.4	6.82/5.2	6.58/5.03
배선용 차단기 적용 계산값		35.5/26.75	20.25/11.5	17.75/13.5	17.05/13	16.45/12.57
배선용 차단기 적용 용량		33AF/20AT	33AF/10AT	33AF/10AT	33AF/10AT	33AF/10AT

횡행전동기(0.4KW-2UNITS)



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■ 배선용 차단기의 정격전류 용량 계산

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

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

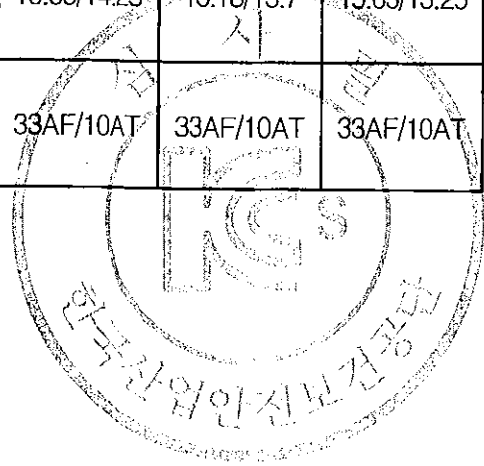
I_B : 배선용 차단기의 정격전류

I_M : 전동기 정격전류

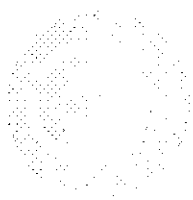
I_L : 전동기 이외의 부하전류

전압 부품		220V	380V	440V	460V	480V
2.0 TON (1.5/0.5Kw x 4/12P)	권상 전동기	6.3/4.18	3.62/2.42	3.13/2.1	2.99/2.0	2.87/1.92
	횡행전동기	2x2.6	2x1.5	2x1.3	2x1.24	2x1.19
	CONTROL	2	1	1	1	1
합 계		13.5/11.38	7.62/6.42	6.73/5.7	6.47/5.48	6.25/5.3
배선용 차단기 적용 계산값		33.75/28.45	19.05/16.05	16.83/14.25	16.18/13.7	15.63/13.25
배선용 차단기 적용 용량		33AF/20AT	33AF/10AT	33AF/10AT	33AF/10AT	33AF/10AT

횡행전동기(0.4KW-2UNITS)



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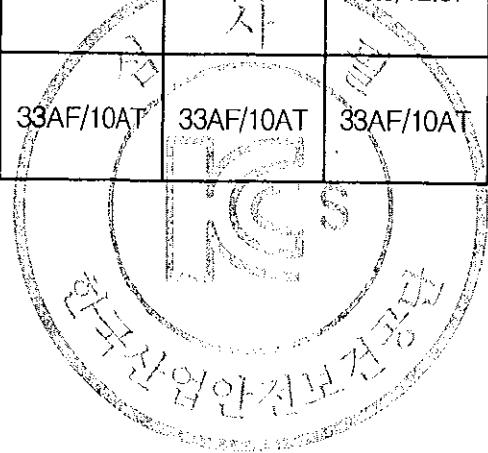
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■ 배선용 차단기의 정격전류 용량 계산

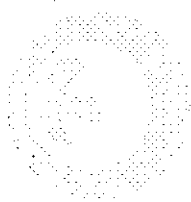
♣ 규격 : 차단기의 차단용량이 해당 전동기 등의 정격전류에 대하여 250% 이하일 것. (안전인증 절차 및 안전인증 55항목 전기관계)	
◆ $I_B \leq 2.5 \times (I_M + I_L)$	
I_B : 배선용 차단기의 정격전류	
I_M : 전동기 정격전류	
I_L : 전동기 이외의 부하전류	

전압 부품		220V	380V	440V	460V	480V
2.0 TON (1.5/0.38Kw x 2/8P)	권상 전동기	7.0/3.5	4.1/2.1	3.5/1.8	3.34/1.72	3.2/1.65
	횡행전동기	2x(2.78/2.73)	2x(1.61/1.58)	2x(1.39/1.36)	2x(1.33/1.31)	2x(1.28/1.25)
	CONTROL	2	1	1	1	1
합 계		14.6/10.96	8.32/6.26	7.28/5.52	7.0/5.34	6.76/5.15
배선용 차단기 적용 계산값		36.5/27.4	20.8/16.65	18.2/13.8	17.5/13.35	16.9/12.87
배선용 차단기 적용 용량		33AF/20AT	33AF/10AT	33AF/10AT	33AF/10AT	33AF/10AT

횡행전동기(0.4/0.2KW-2UNITS)



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■ 배선용 차단기의 정격전류 용량 계산

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

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

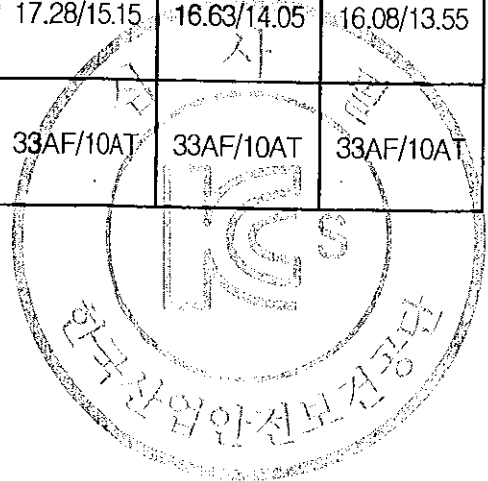
I_B : 배선용 차단기의 정격전류

I_M : 전동기 정격전류

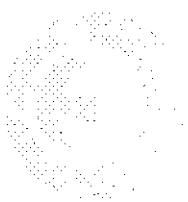
I_L : 전동기 이외의 부하전류

전압 부품		220V	380V	440V	460V	480V
2.0 TON (1.5/0.5Kw x 4/12P)	권상 전동기	6.3/4.18	3.62/2.42	3.13/2.1	2.99/2.0	2.87/1.92
	횡행전동기	2x(2.78/2.73)	2x(1.61/1.58)	2x(1.39/1.36)	2x(1.33/1.31)	2x(1.28/1.25)
	CONTROL	2	1	1	1	1
합 계		13.9/11.6	7.84/6.68	6.91/6.06	6.65/5.62	6.43/5.42
배선용 차단기 적용 계산값		34.75/29	19.6/16.7	17.28/15.15	16.63/14.05	16.08/13.55
배선용 차단기 적용 용량		33AF/20AT	33AF/10AT	33AF/10AT	33AF/10AT	33AF/10AT

횡행전동기(0.4/0.2KW-2UNITS)



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과부하 방지장치 전류 조정 기준치

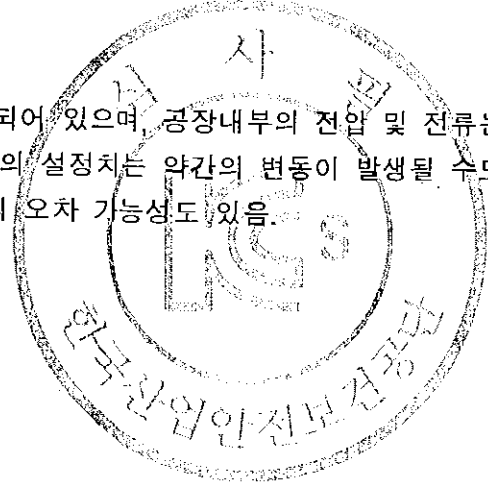
1. 내부 조작반의 전류 조정버튼으로 설정한다.

2. 전류 설정범위 도표

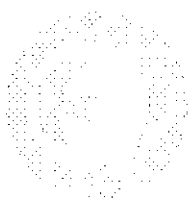
구 분	전동기 용량	범위	공급전압 별 전류 설정값	
			공급전압[V]	전류 설정값[A]
권 상	1.5/0.38Kw] x 2/8P	100%	220V	7.0/3.5
			380V	4.1/2.1
			440V	3.5/1.8
			460V	3.34/1.72
			480V	3.2/1.65
		110%	220V	7.7/3.85
			380V	4.51/2.31
			440V	3.85/1.98
			460V	3.67/1.89
			480V	3.52/1.81

3. 과부하 방지장치의 전류설정은 하중110%에 대한 전류 값을 전류 조정버튼으로 조정한다.

4. 상기 정격전류는 극동제품에 맞게 설정되어 있으며, 공장내부의 전압 및 전류는 변동이 발생할 수 있기 때문에 정격전류의 설정치는 약간의 변동이 발생할 수도 있음. 또한, 전동기의 제조 특성상 $\pm 5\%$ 범위의 오차 가능성도 있음.



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과부하 방지장치 전류 조정 기준치

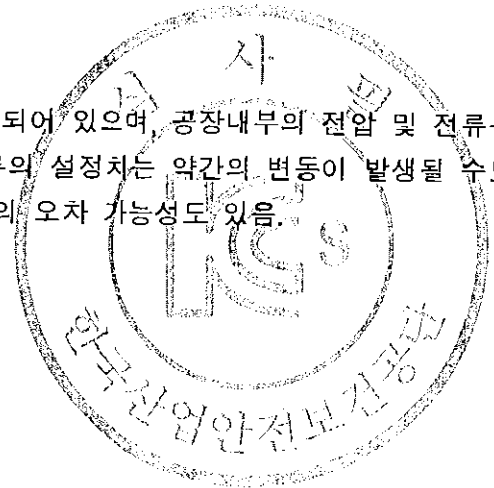
1. 내부 조작반의 전류 조정버튼으로 설정한다.

2. 전류 설정범위 도표

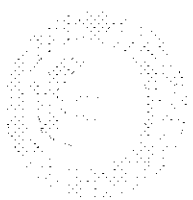
구 분	전동기 용량	범위	공급전압 별 전류 설정값	
			공급전압[V]	전류 설정값[A]
권 상	1.5/0.5Kw] x 4/12P	100%	220V	6.3/4.18
			380V	3.62/2.42
			440V	3.13/2.1
			460V	2.99/2.0
			480V	2.87/1.92
		110%	220V	6.93/4.59
			380V	3.98/2.66
			440V	3.44/2.31
			460V	3.28/2.2
			480V	3.15/2.11

3. 과부하 방지장치의 전류설정은 하중110%에 대한 전류 값을 전류 조정버튼으로 조정한다.

4. 상기 정격전류는 극동제품에 맞게 설정되어 있으며, 공장내부의 전압 및 전류는 변동이 발생할 수 있기 때문에 정격전류의 설정치는 약간의 변동이 발생할 수도 있음. 또한, 전동기의 제조 특성상 $\pm 5\%$ 범위의 오차 가능성도 있음.



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한국산업안전보건공단 (KOSHA) - Korea Occupational Safety and Health Agency

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EOCR 전류 조정 기준치

1. 전류 설정범위 도표

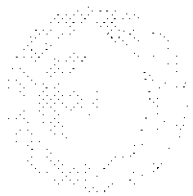
구 분	전동기 용량	범위	공급전압 별 전류 설정값	
			공급전압[V]	전류 설정값[A]
권 상	1.5/0.38Kw] x 2/8P	100%	220V	7.0/3.5
			380V	4.1/2.1
			440V	3.5/1.8
			460V	3.34/1.72
			480V	3.2/1.65
		110%	220V	7.7/3.85
			380V	4.51/2.31
			440V	3.85/1.98
			460V	3.67/1.89
			480V	3.52/1.81

2. EOCR 전류설정은 실 인가 전류의 110%에 설정한다.

3. 상기 정격전류는 극동제품에 맞게 설정되어 있으며, 공장내부의 전압 및 전류는 변동이 발생할 수 있기 때문에 정격전류의 설정치는 약간의 변동이 발생할 수도 있음.
또한, 전동기의 제조 특성상 $\pm 5\%$ 범위의 오차 가능성도 있음.



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EOCR 전류 조정 기준치

1. 전류 설정범위 도표

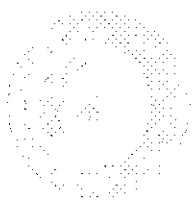
구 분	전동기 용량	범위	공급전압 별 전류 설정값	
			공급전압[V]	전류 설정값[A]
권 상	1.5/0.5Kw] x 4/12P	100%	220V	6.3/4.18
			380V	3.62/2.42
			440V	3.13/2.1
			460V	2.99/2.0
			480V	2.87/1.92
		110%	220V	6.93/4.59
			380V	3.98/2.66
			440V	3.44/2.31
			460V	3.28/2.2
			480V	3.15/2.11

2. EOCR 전류설정은 실 인가 전류의 110%에 설정한다.

3. 상기 정격전류는 극동제품에 맞게 설정되어 있으며, 공장내부의 전압 및 전류는 변동이 발생할 수 있기 때문에 정격전류의 설정치는 약간의 변동이 발생할 수도 있음.
또한, 전동기의 제조 특성상 $\pm 5\%$ 범위의 오차 가능성도 있음.

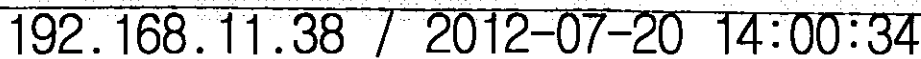


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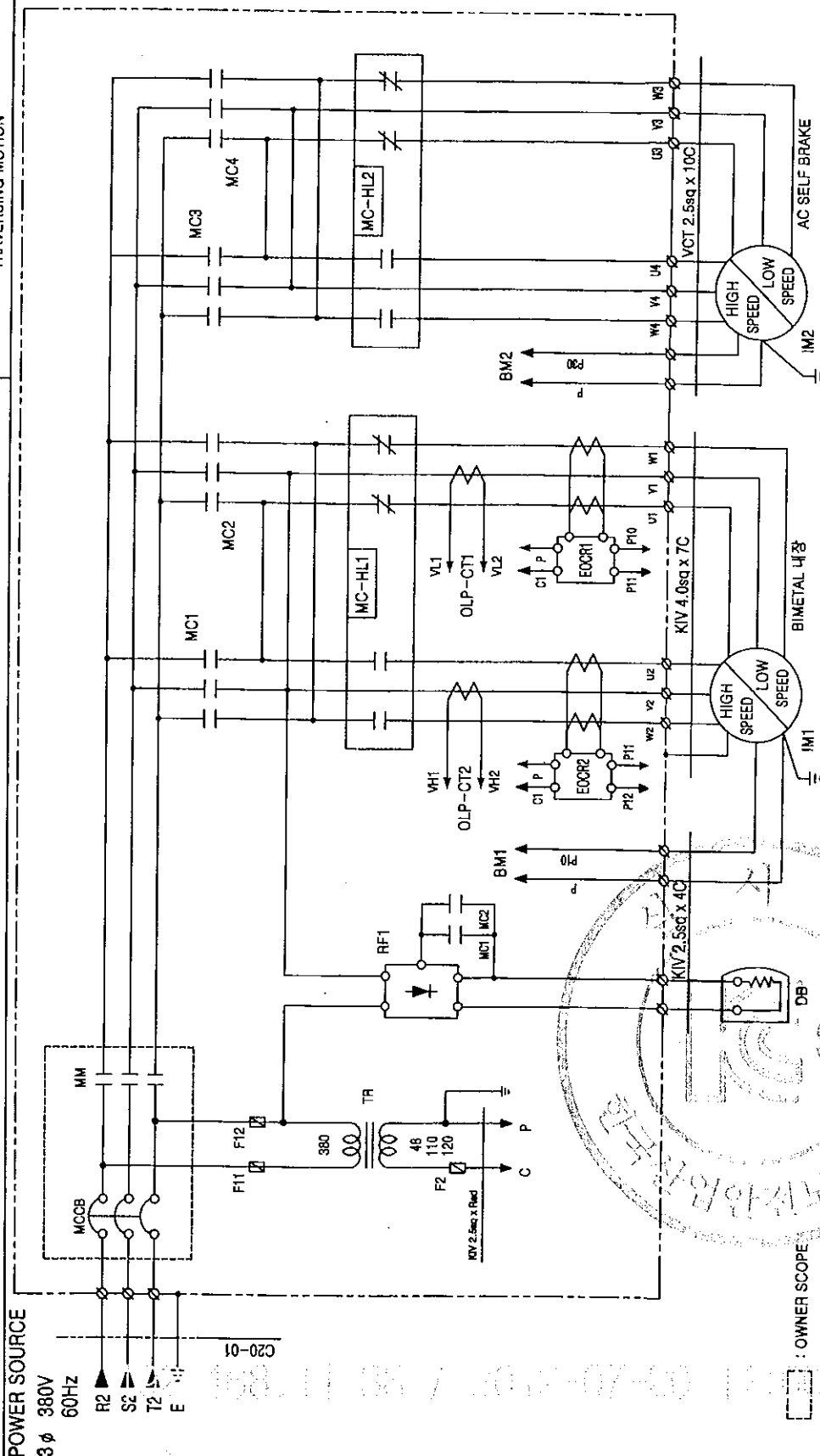
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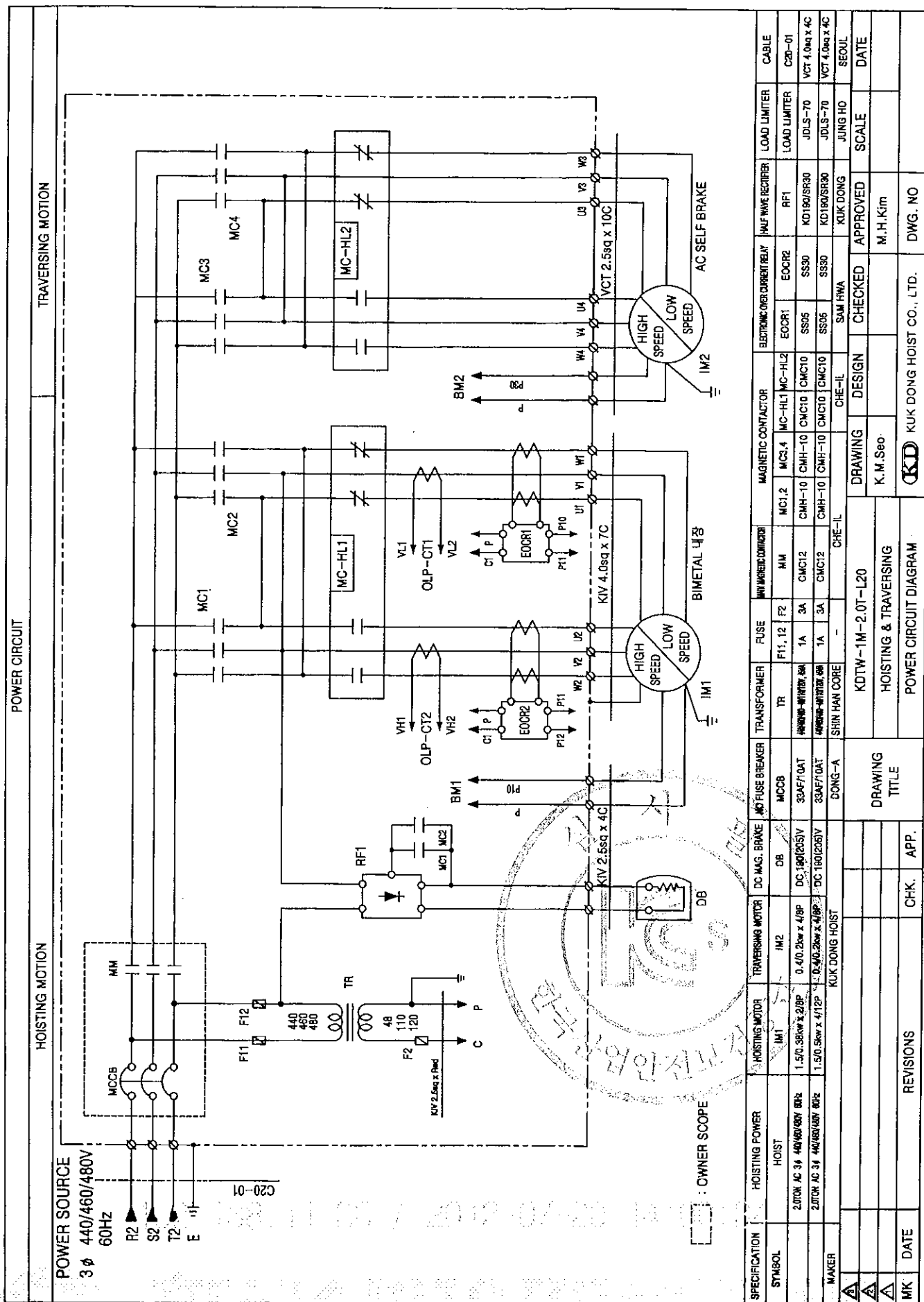


HOISTING MOTION

TRAVERSING MOTION

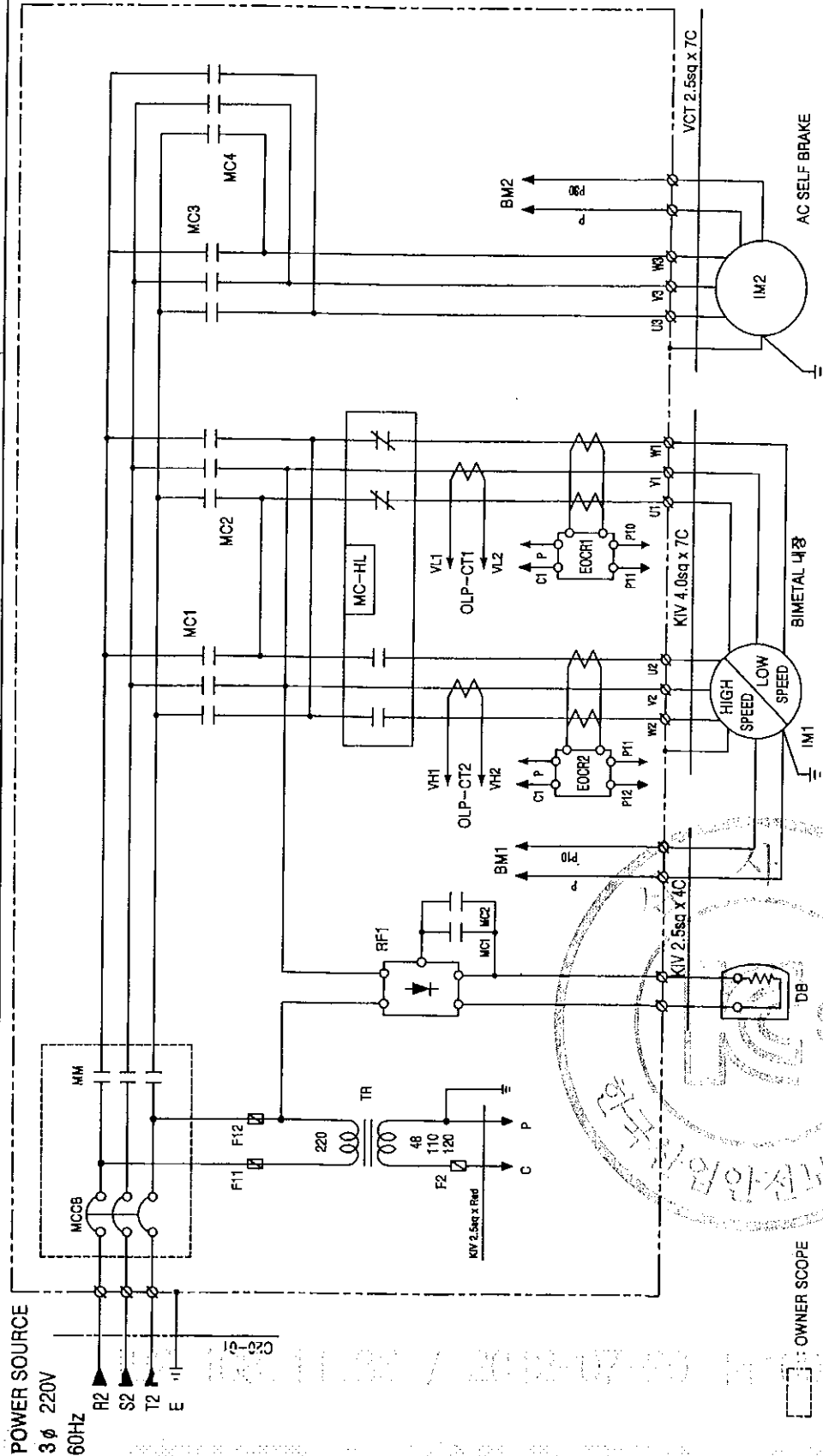


SPECIFICATION	HOISTING POWER	HOISTING MOTOR	TRAVERSING MOTOR	DC MAG. BRAKE	NQ FUSE BREAKER	TRANSFORMER	FUSE	WIRE INSULATED CONDUCTOR	MAGNETIC CONTACTOR	ELECTRONIC OVER CURRENT RELAY	HALF WAVE RECTIFIER	LOAD LIMITER	CABLE
SYMBOL	HOIST	IM2	IM2	DB	MCGB	TR	F11, 12 F2	MM	MC1.2 MC3.4 MC-HL1 MC-HL2	EOCR1 EOCR2	RFI	LOAD LIMITER	C20-01
	2.0TOW AC 3 ϕ 380V 60Hz	1.5/0.38kw x 2/8P	0.4/0.2kw x 4/8P	DC 190V	33AF/TDAT	3B-4H/102W, 6VA	1A 3A	CMC12	CMH-10 CMH-10 CMC10 CMC10	SS30 SS30	KD180/SR30	JOLS-70	VCT 4, Dwg x 4C
	2.0TOW AC 3 ϕ 380V 60Hz	1.5/0.5kw x 4/7BP	0.4/0.2kw x 4/8P	DC 190V	33AF/TDAT	3B-4H/102W, 6VA	1A 3A	CMC12	CMH-10 CMH-10 CMC10 CMC10	SS30 SS30	KD180/SR30	JOLS-70	VCT 4, Dwg x 4C
MAKER		KUK DONG HOIST											
Δ					DONG-A	SHIN HAN CORE	-	CHE-IL	CHE-IL	SAM HWA	KUK DONG	JUNG HO	SEOJUL
Δ					DRAWING TITLE			KDTW-1M-2 OT-L20		CHECKED	APPROVED	SCALE	DATE
Δ					DRAWING TITLE			HOISTING & TRAVERSING		K. M. Seo		M.H.Kim	
M/K	DATE	REVISIONS	CHK.	APP.	POWER CIRCUIT DIAGRAM			KDD KUK DONG HOIST CO., LTD.		DWG. NO			

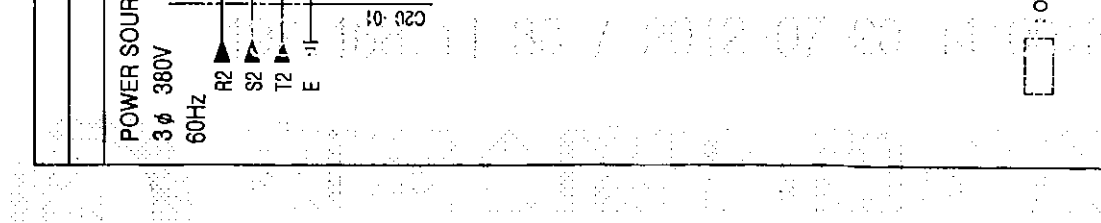


POWER CIRCUIT

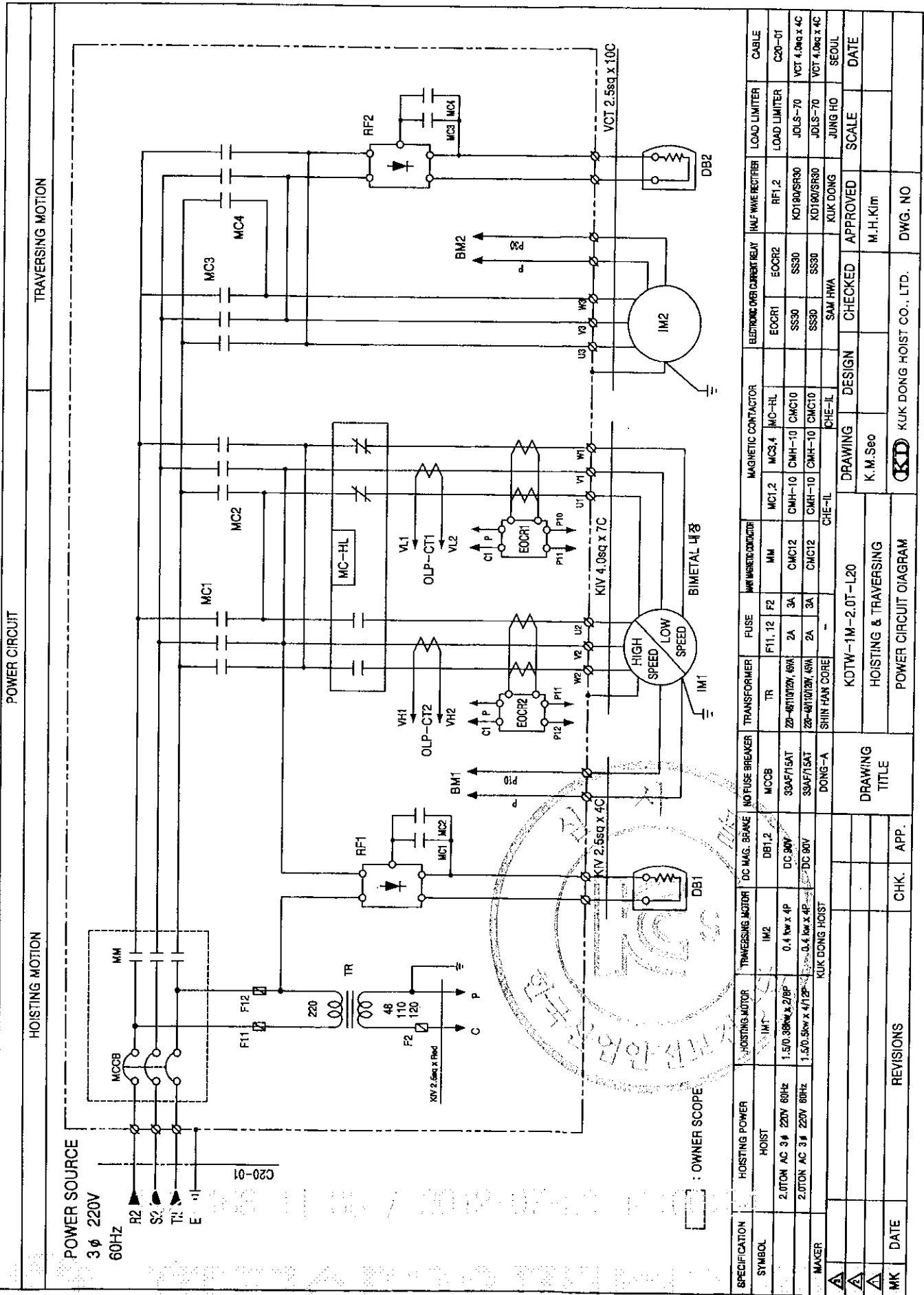
HOISTING MOTION



SPECIFICATION	HOISTING POWER	HOISTING MOTOR	TRAVERSING MOTOR	DC MAG. BREAK	NO FUSE BREAKER	TRANSFORMER	FUSE	WIRE SIZE (CONDUCTOR)	MAGNETIC CONTACTOR	ELECTRONIC OVER CURRENT RELAY	HALF WAVE RECTIFIER	LOAD LIMITER	CABLE
SYMBOL	HOIST	IM1	IM2	DB	MCCB	TR	F1, 12	MM	MC1, 2	EOCR1	RF1	LOAD LIMITER	C20-01
	2.0TON AC 3φ 220V 60Hz	1.5/0.38kw x 2/8P	0.4 kw x 4P	DC 90V	30A/71SAT	ZB-40/100W, 40A	2A	CMC12	CMH-10	SS30	KD190/SS30	JOLS-70	VCT 4.0sq x 4C
	2.0TON AC 3φ 220V 60Hz	1.5/0.5kw x 4/12P	0.4 kw x 4P	DC 90V	30A/71SAT	ZB-40/100W, 40A	3A	CMC12	CMH-10	SS30	KD190/SS30	JOLS-70	VCT 4.0sq x 4C
MAKER			KUK DONG HOIST		DONG-A	SHIN HAN CORE			CHE-IL	SAM HWA	KUK DONG	JUNG HO	SEOUL
REVISIONS													
DATE													
CHK.													
APP.													
DRAWING TITLE	KOTW-1M-2.0T-L20												
POWER CIRCUIT DIAGRAM	HOISTING & TRAVERSING												
DWG. NO.	KUK DONG HOIST CO., LTD.												





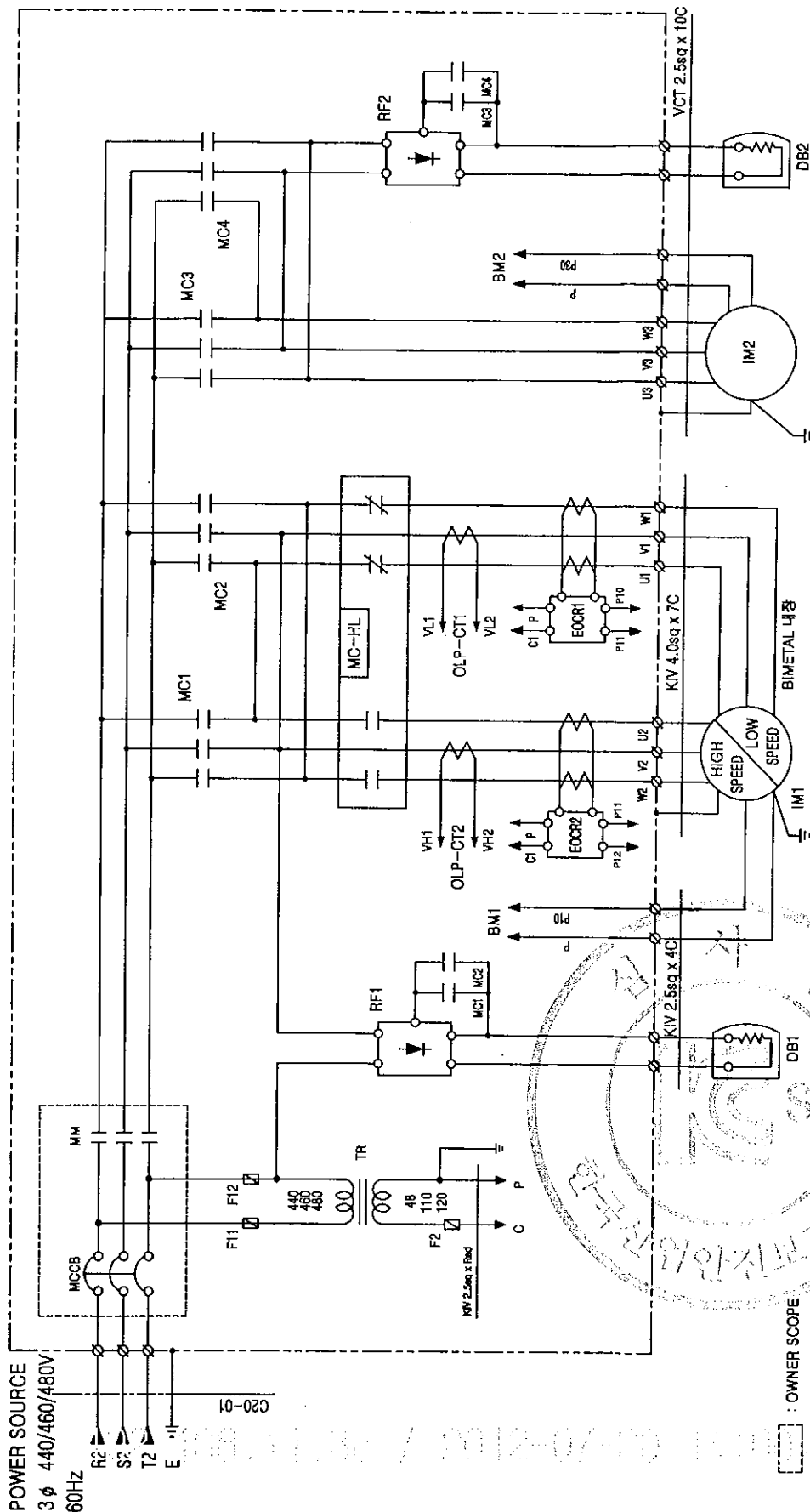




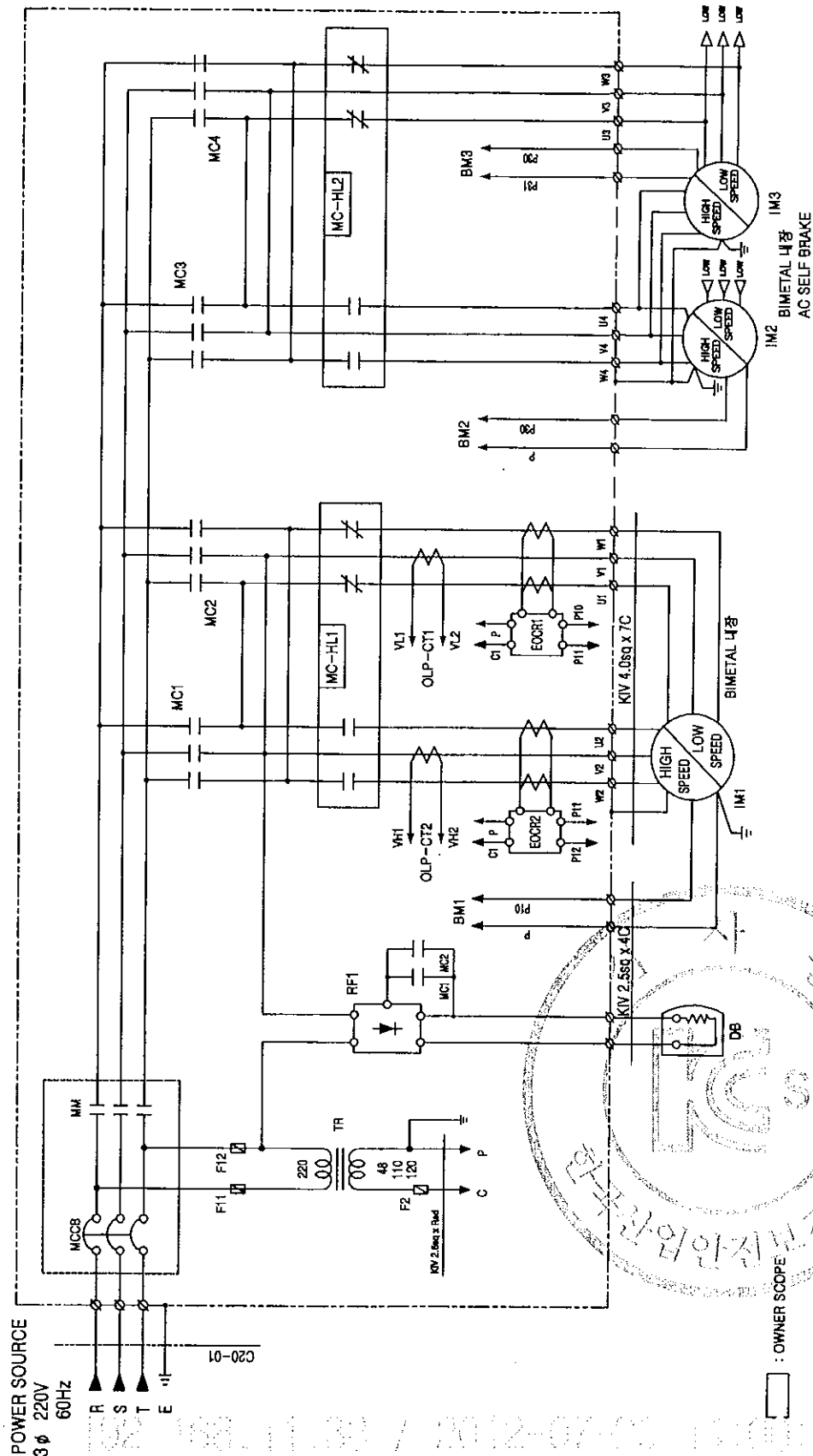
POWER CIRCUIT

HOISTING MOTION

TRaversing MOTION



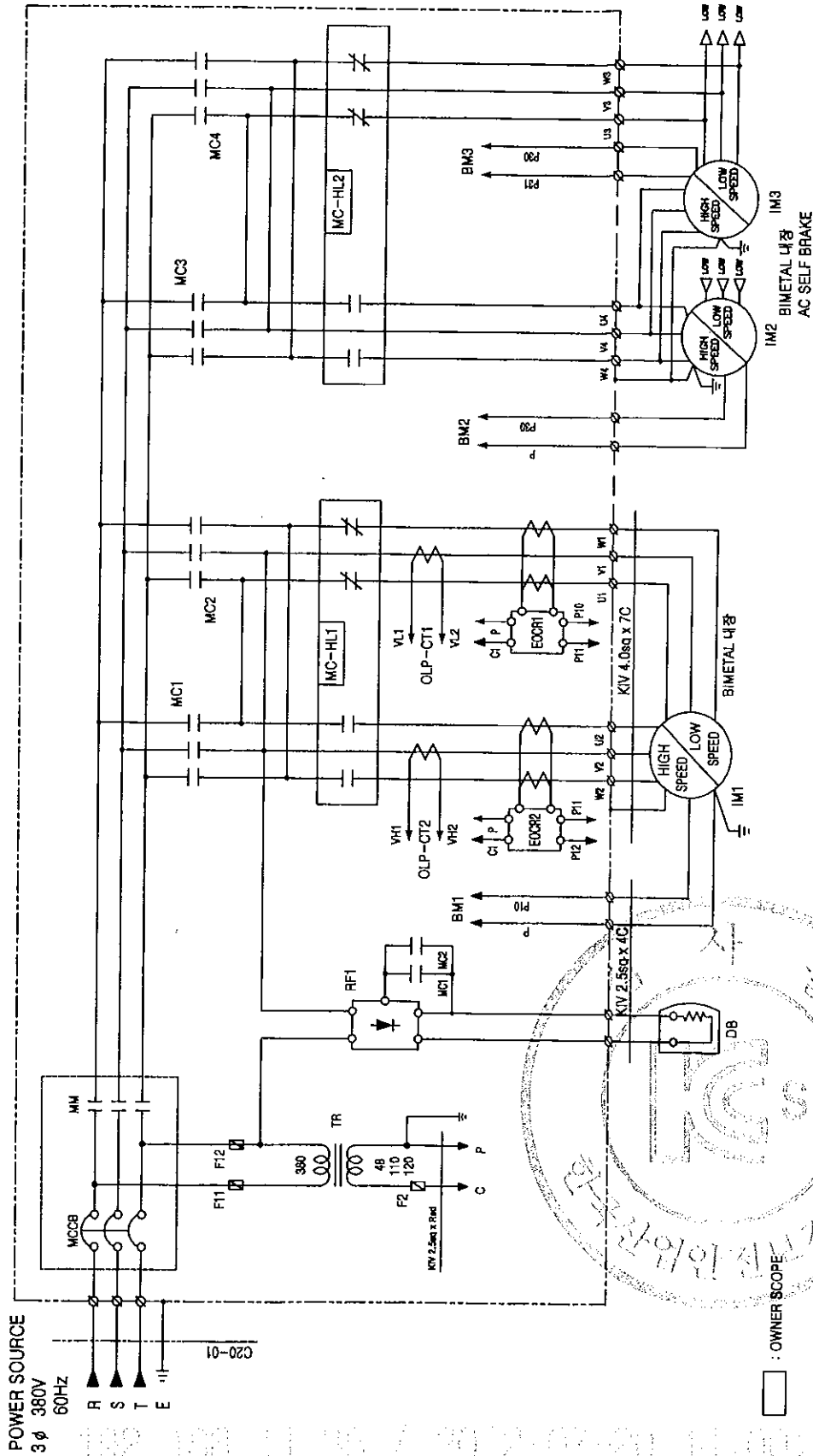
SPECIFICATION	HOISTING POWER	HOISTING MOTOR	TRaversing MOTOR	DC MAG. BRK	FUSE BREAKER	TRANSFORMER	FUSE	MIN. MAGNETIC CONTINCTION	MAGNETIC CONTACTOR	ELECTRONIC OVER CURRENT RELAY	LOAD LIMITER	CABLE
SYMBOL	HOIST	IM1	IM2	DB1, DB2	MCCB	TR	F1, F2	MM	MC1.2, MC3.4, MC-HL	EOCR1, EOCR2	RF1.2	C20-01
	2.0TON AC 3φ 440V/460V 60Hz	1.5/0.38kW x 20P	0.4 kW x 4P	DC 180V/250V	33AF/10AT	440V/460V/480V 50A	1A	3A	CMC12, CMH-10, CMH-10	SS30	KD180/SR30	VCT 4.0sq x 4C
	2.0TON AC 3φ 440V/460V 60Hz	1.5/0.50kW x 4/12P	0.4 kW x 4P	DC 180V/250V	33AF/10AT	440V/460V/480V 50A	1A	3A	CMC12, CMH-10, CMH-10	SS30	KD180/SR30	VCT 4.0sq x 4C
MAKER			KUK DONG HOIST		DONG-A	SHIN HAN CORP.			CHE-IL	SAM HWA	KUK DONG	SEOUL
DATE												
REVISIONS												
CHK.												
APP.												
DWG. NO												
DATE												
SCALE												
APPROVED												
DESIGN												
CHECKED												
DRAWING												
HOISTING & TRaversing												
POWER CIRCUIT DIAGRAM												
KUK DONG HOIST CO., LTD.												

[illegible]

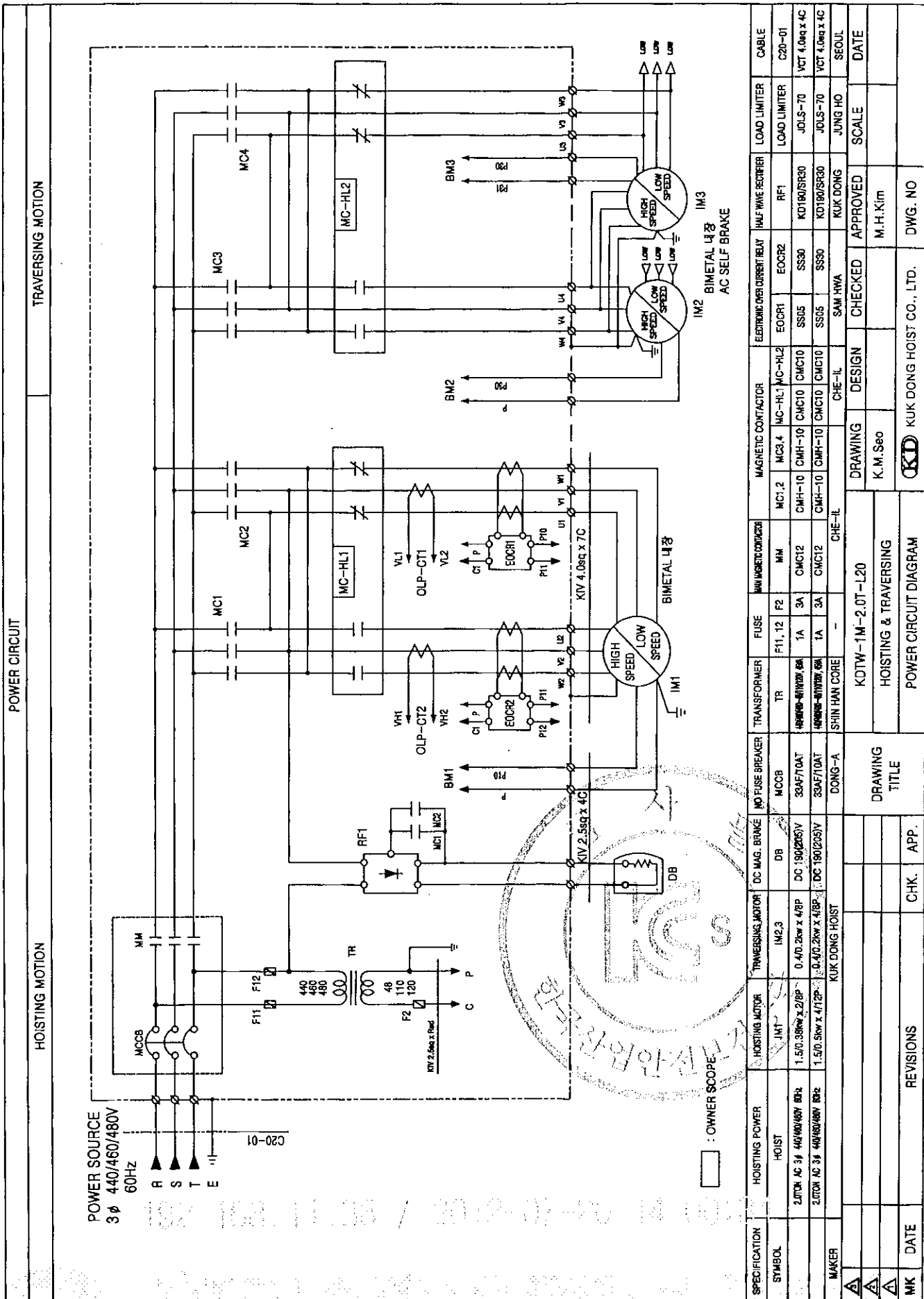
POWER CIRCUIT

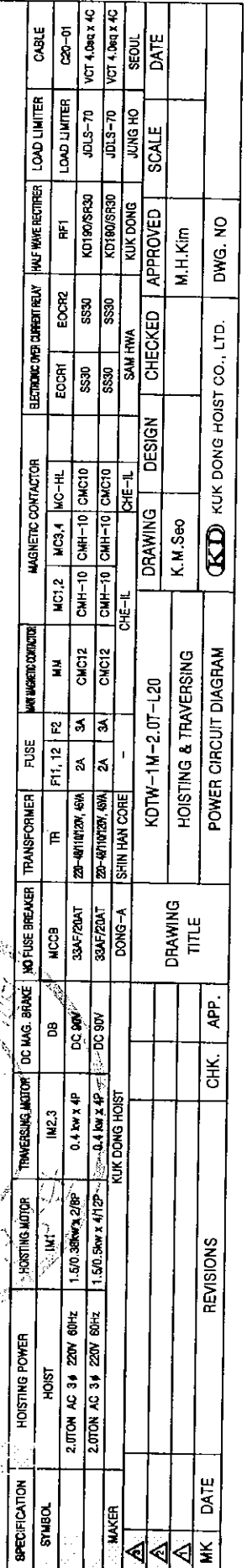
HOISTING MOTION

TRAVERSING MOTION



SPECIFICATION	HOISTING POWER	HOISTING MOTOR	TRAVERSING MOTOR	DC MAG. BRK	NO FUSE BREAKER	TRANSFORMER	FUSE	WIRING DIAGRAM	MAGNETIC CONTACTOR	ELECTRONIC OVER CURRENT RELAY	HALF WAVE RECTIFIER	LOAD LIMITER	CABLE
SYMBOL	HOIST	IM1	IM2,3	DB	MCCB	TR	F1, 12	MM	MC1,2	MC3,4	MC-HL1	MC-HL2	C20-01
	2.0TON AC 3 380V 60Hz	1.5/0.38kw x 2/8P	0.4/0.2kw x 4/8P	DC 180V	33AF10AT	380-480/10/20/40V	1A	3A	CMC12	CMH-10	CMH-10	CMC10	VCT 4.0sq x 4C
	2.0TON AC 3 380V 60Hz	1.5/0.5kw x 4/12P	0.4/0.2kw x 4/8P	DC 180V	33AF10AT	380-480/10/20/40V	1A	3A	CMC12	CMH-10	CMH-10	CMC10	VCT 4.0sq x 4C
MAKER		KUK DONG HOIST			DONG-A	SHIN HAN COPE			CHE-IL	CHE-IL	SAM HWA	KUK DONG	SEUL
DATE													
REVISIONS													
CHK.													
APP.													
DRAWING TITLE	KDTW-1M-2.0T-L20				HOISTING & TRAVERSING				POWER CIRCUIT DIAGRAM				
DRAWING	K.M. Seo				DESIGN				CHECKED				
APPROVED	M.H. Kim				JUNG HO				DATE				
DWG. NO	KUK DONG HOIST CO., LTD.												

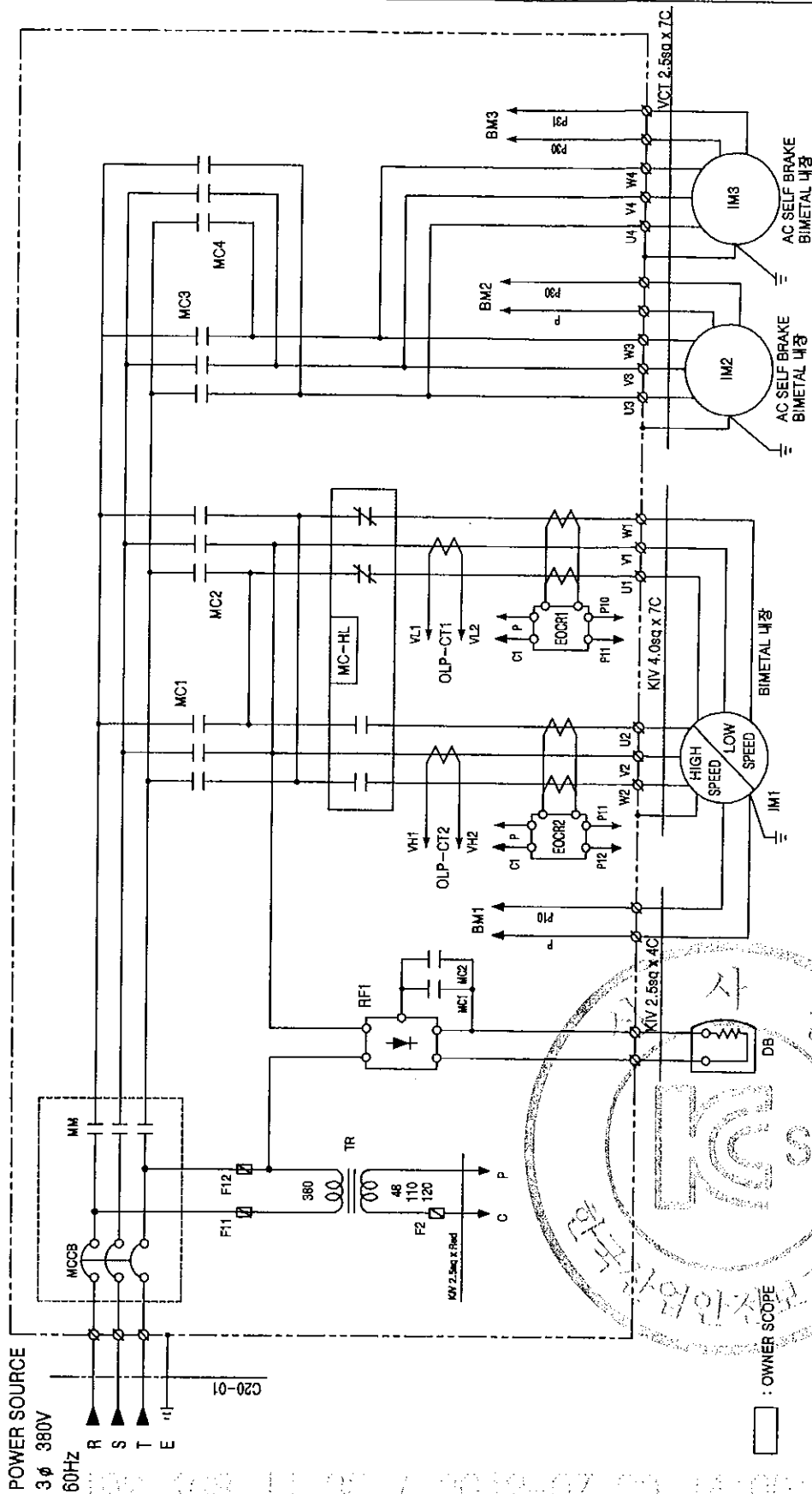




POWER CIRCUIT

HOISTING MOTION

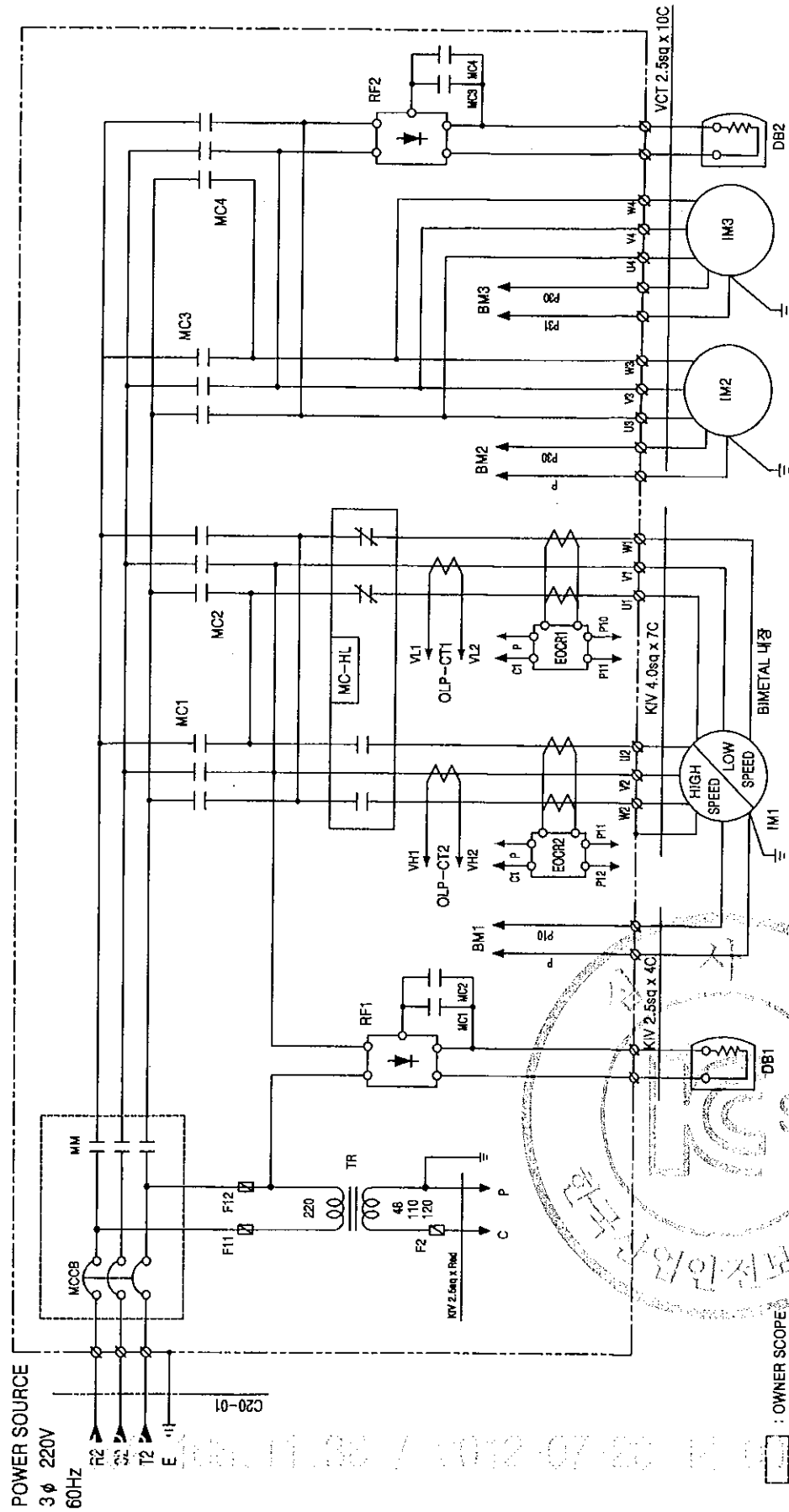
TRAVERING MOTION



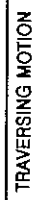
SPECIFICATION	HOISTING POWER	HOISTING MOTOR	TRAVERING MOTOR	DC MAG. BREAKER	TRANSFORMER	FUSE	WIRING	MAGNETIC CONTACTOR	ELECTRIC OVER CURRENT RELAY	HALF WAVE RECTIFIER	LOAD LIMITER	CABLE
SYM/SOL	HOIST	IM1	IM2,3	DC 180V	TR	F1, 12	MM	MC1,2	EOR2	RF1	LOAD LIMITER	C30-01
	2.0TON AC 3φ 380V 60Hz	1.50.38kW x 2/3P	0.4 kw x 4P	DC 180V	30-40/10/20V, 60A	1A	3A	CMH-10	SS30	KD190/SR30	JULS-70	VCT 4.0sq x 4C
	2.0TON AC 3φ 380V 60Hz	1.50.38kW x 4/12P	0.4 kw x 4P	DC 180V	30-40/10/20V, 60A	1A	3A	CMH-10	SS30	KD190/SR30	JULS-70	VCT 4.0sq x 4C
MAKER		KUK DONG HOIST		DONG-A	SHIN HAN CORE	-	-	CHE-IL	SAM HWA	KUK DONG	JUNG HO	SEOUL
DATE												
REVISIONS												
CHK.												
APP.												
DWG. NO												

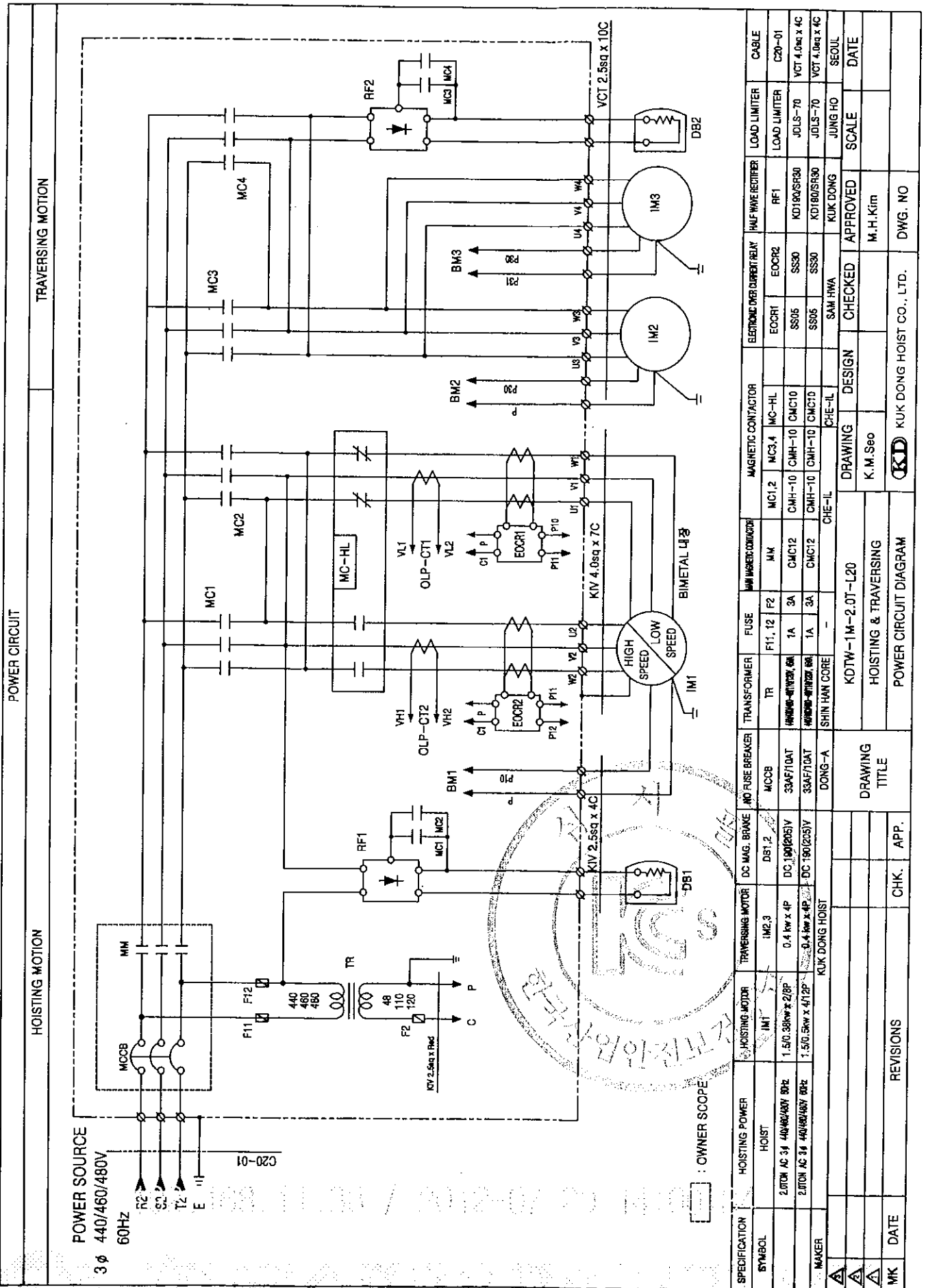
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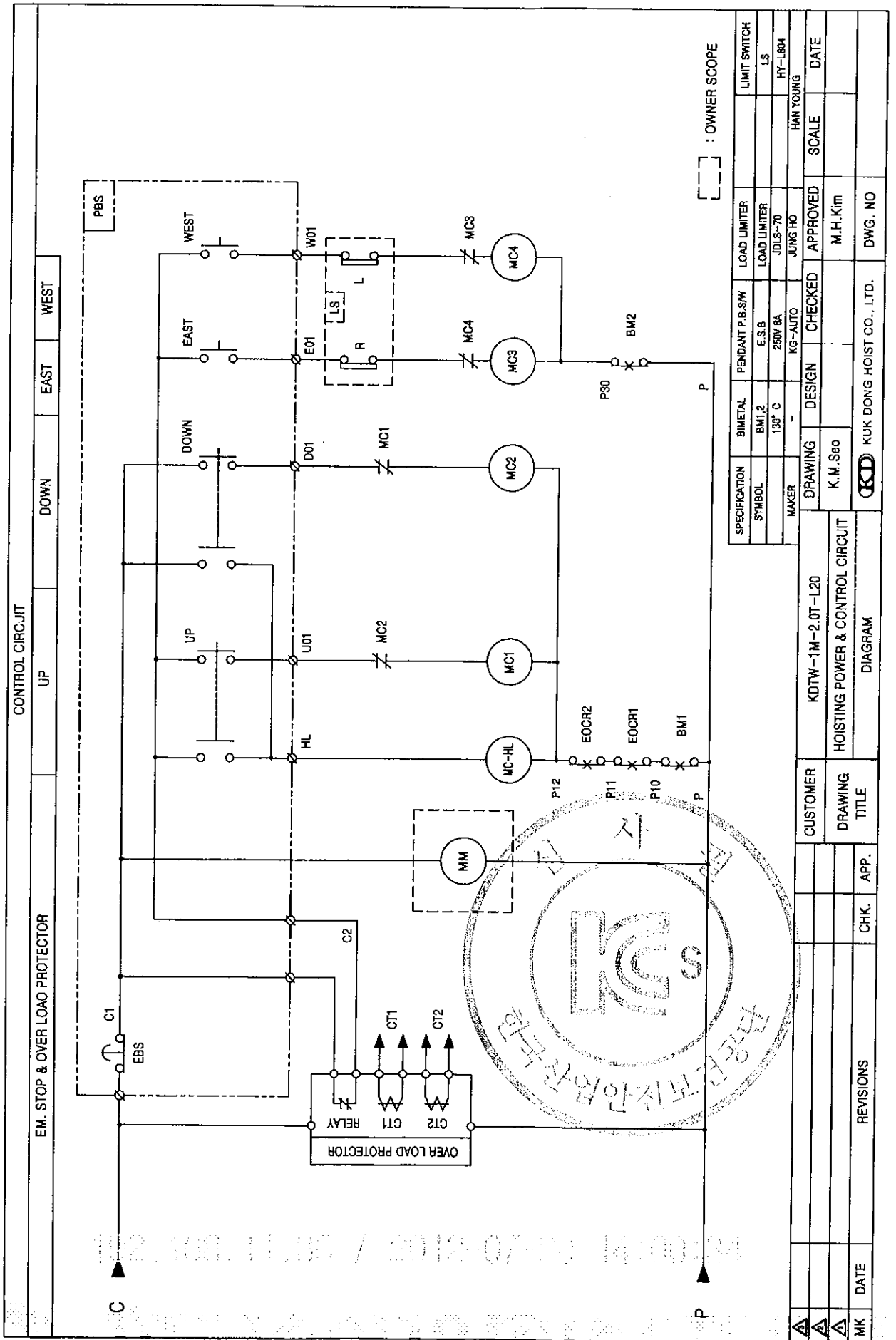
TRAVERSING MOTION



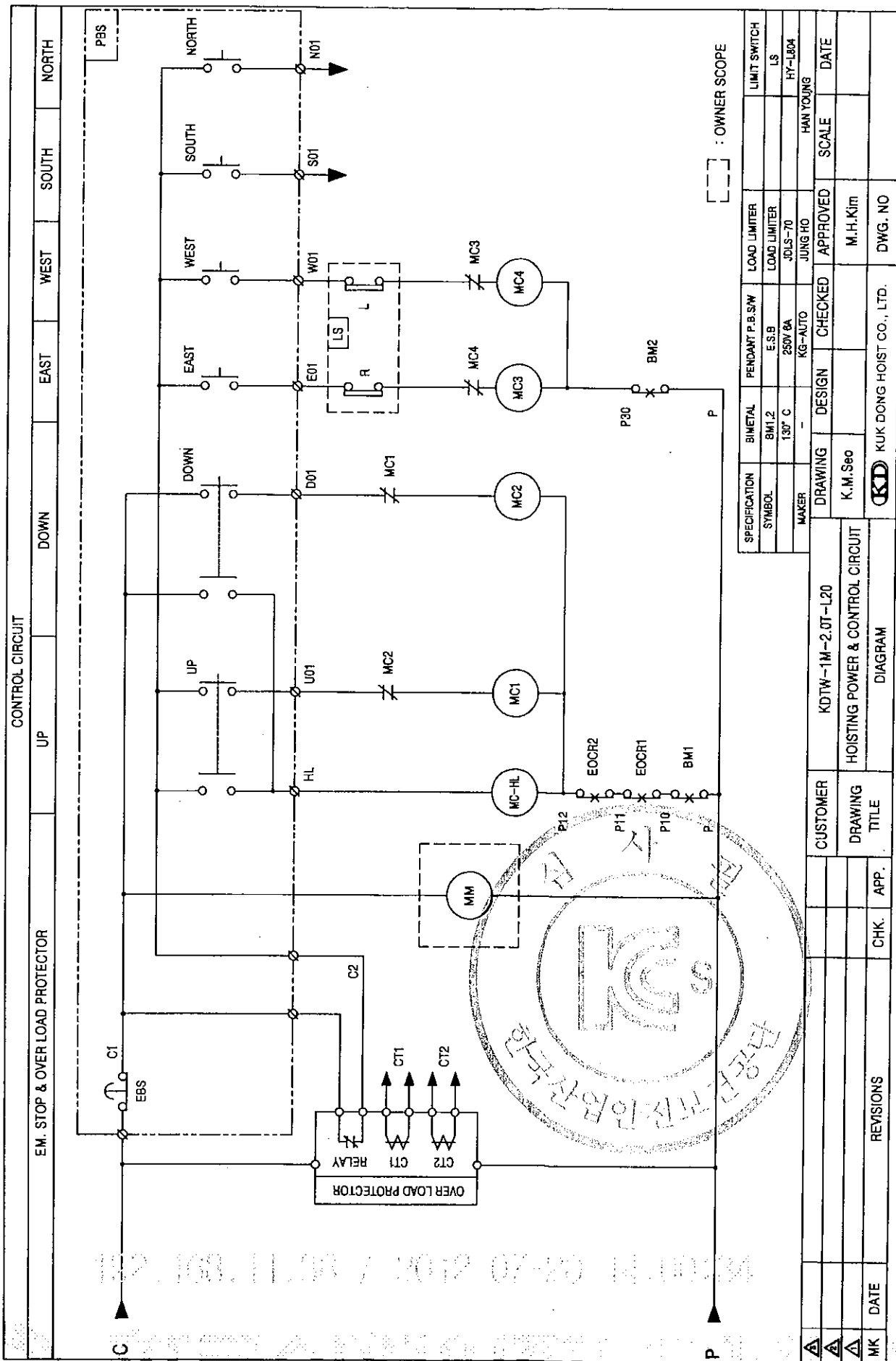
SPECIFICATION	HOISTING POWER	HOISTING MOTOR	TRAVELING MOTOR	DC MAG. BRAKE	NO FUSE BREAKER	TRANSFORMER	FUSE	MAGNETIC CONDUCTOR	MAGNETIC CONTACTOR	ELECTRONIC OVER CURRENT RELAY	HALF WAVE RECTIFIER	LOAD LIMITER	CABLE
SYMBOL	HOIST	IM1	IM2,3	DB1,2	MCGB	TR	F11, 12 F2	MM	MC1,2 MC3-4 MC-HL	EOCR1 EOCR2	RF1	LOAD LIMITER	CABO-01
	2.0TON AC 3 φ 220V 60Hz	1.5/0.38kw x 2/BP	0.4 kw x 4 φ	DC 90V	33AF/23AT	23-48T/10T2N, 6VA	2A 3A	CMC12	CMH-10 CMH-10 CMC10	SS30	KD190/SFS300	JDL5-70	VCT 4.0sq x 4C
	2.0TON AC 3 φ 220V 60Hz	1.5/0.5kw x 4/T2P	0.4 kw x 4 φ	DC 90V	33AF/22AT	23-48T/10T2N, 6VA	2A 3A	CMC12	CMH-10 CMH-10 CMC10	SS30	KD190/SFS30	JDL5-70	VCT 4.0sq x 4C
MAKER					DONG-A	SHIN HAN CORE	-		CHE-I/L CHE-II/L	SAM HWA	KUK DONG	JUNG HO	SEOL
							KDTW-1M-2.0T-L20		DRAWING DESIGN	CHECKED	APPROVED	SCALE	DATE
					DRAWING TITLE		HOISTING & TRAVERSING		K.M.Seo		M.H.Kim		
MK	DATE		REVISIONS	CHK.	APP.		POWER CIRCUIT DIAGRAM			KUK DONG HOIST CO., LTD.	DWG. NO		



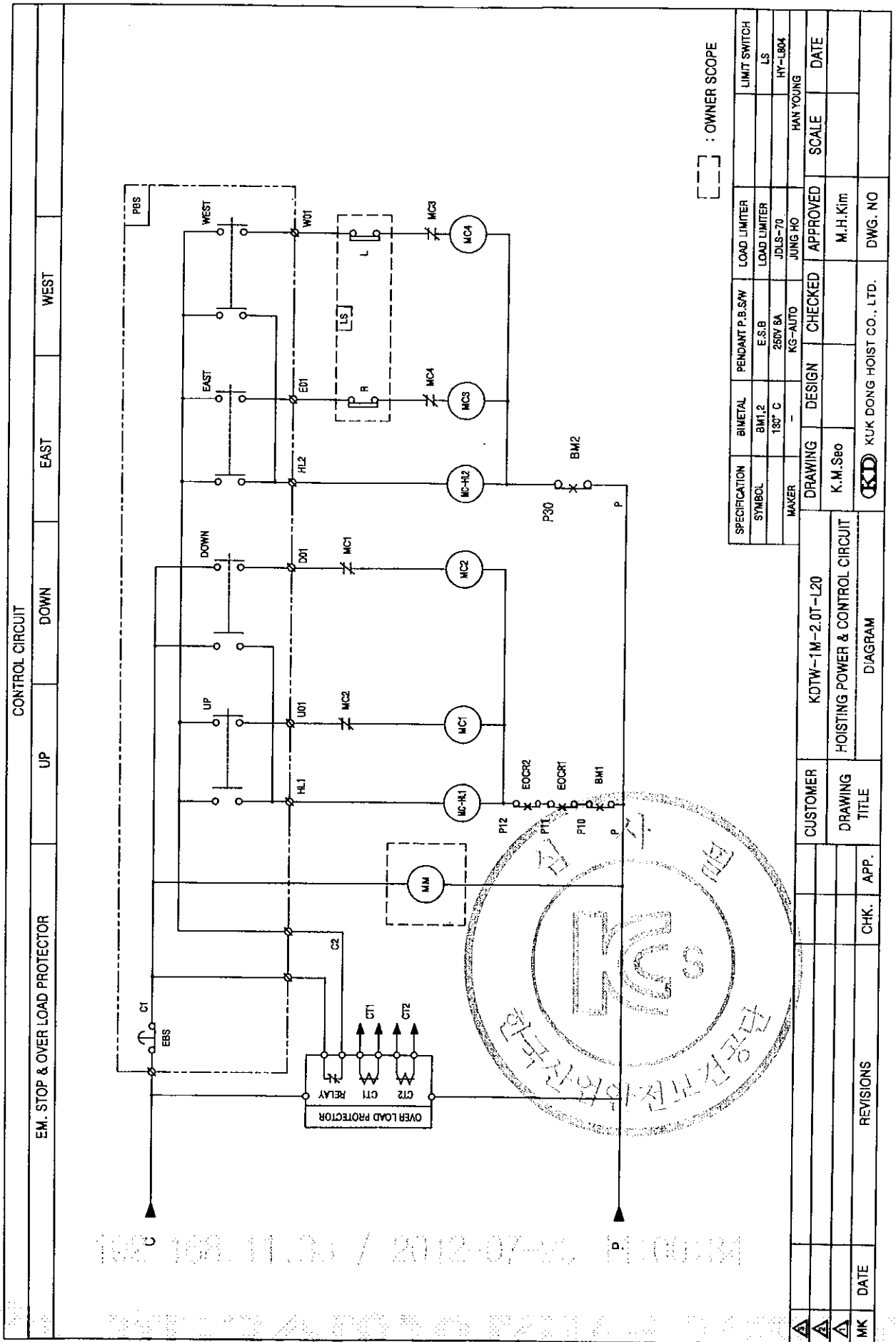


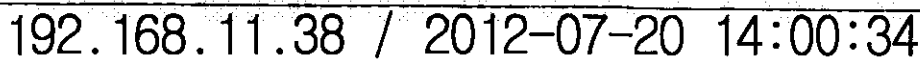


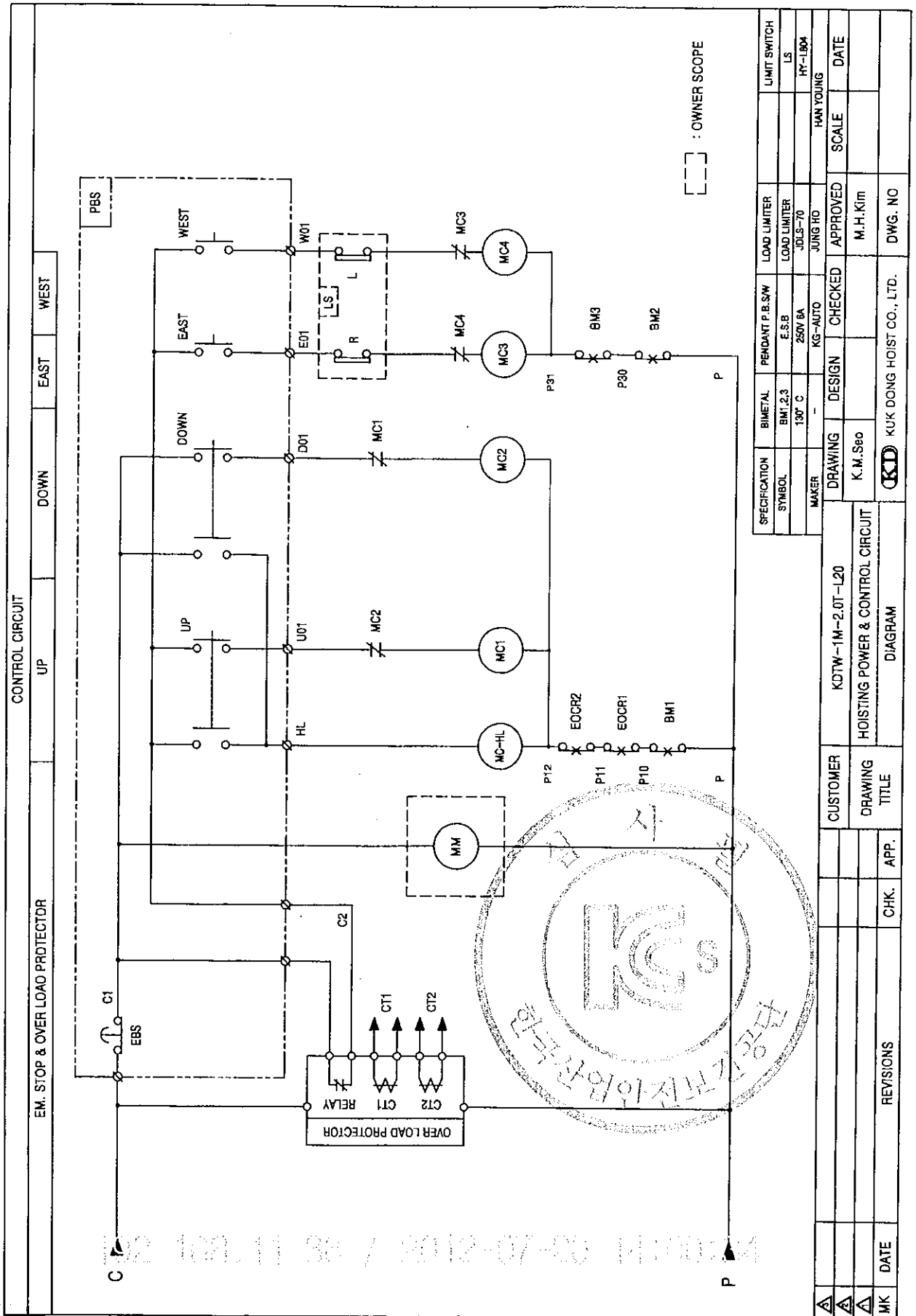
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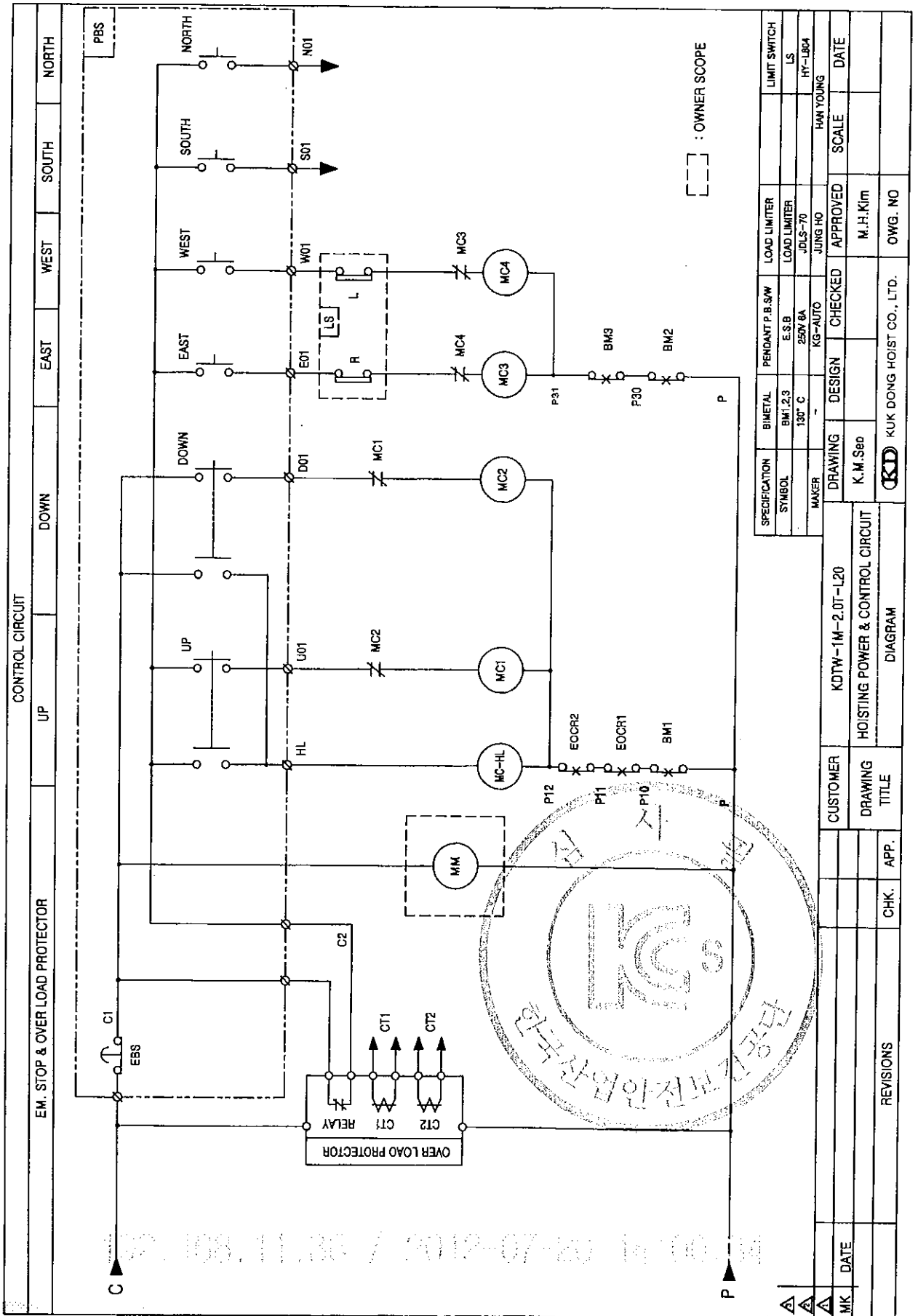


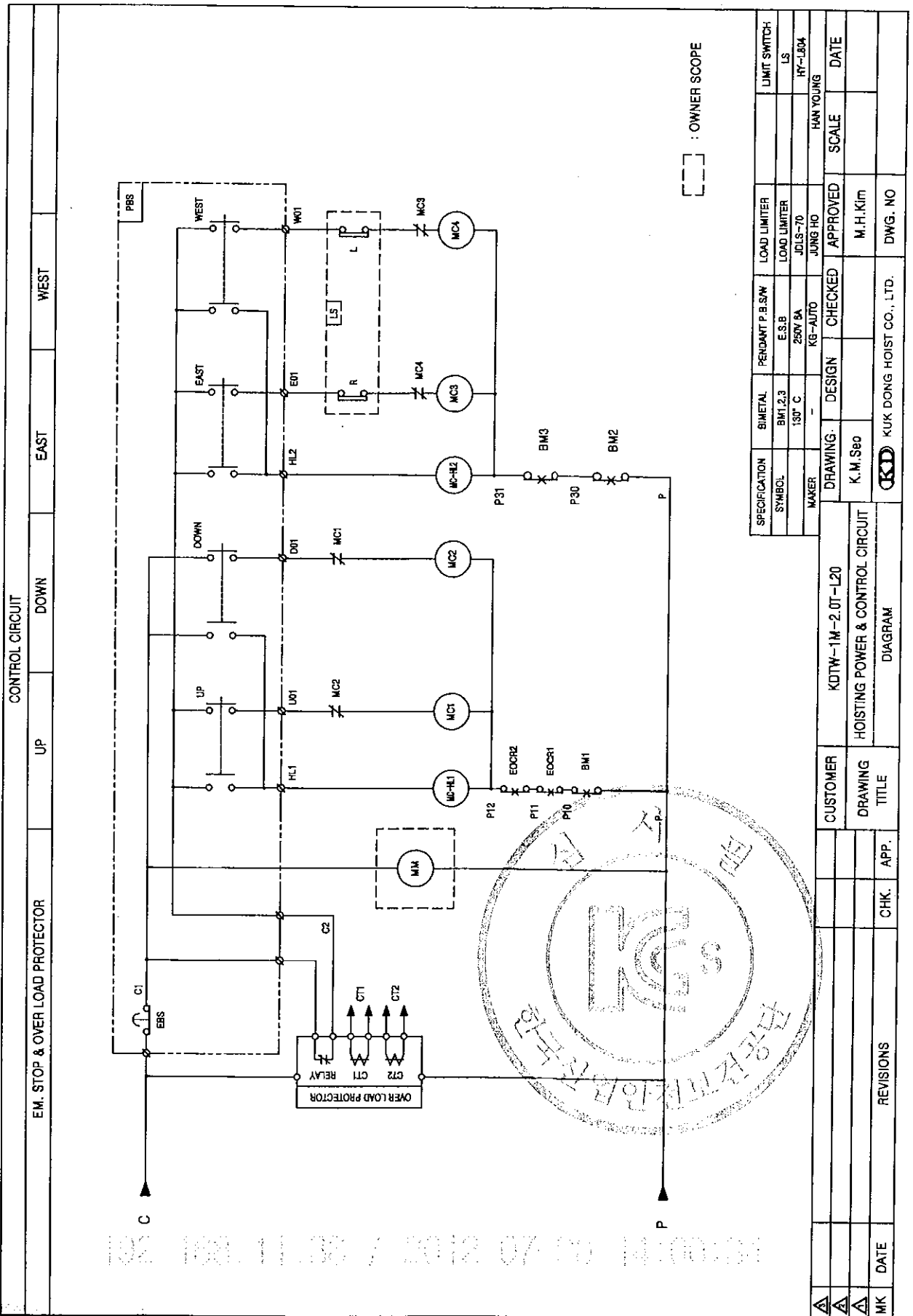
192.168.11.38 / 2012-07-20 14:00:34

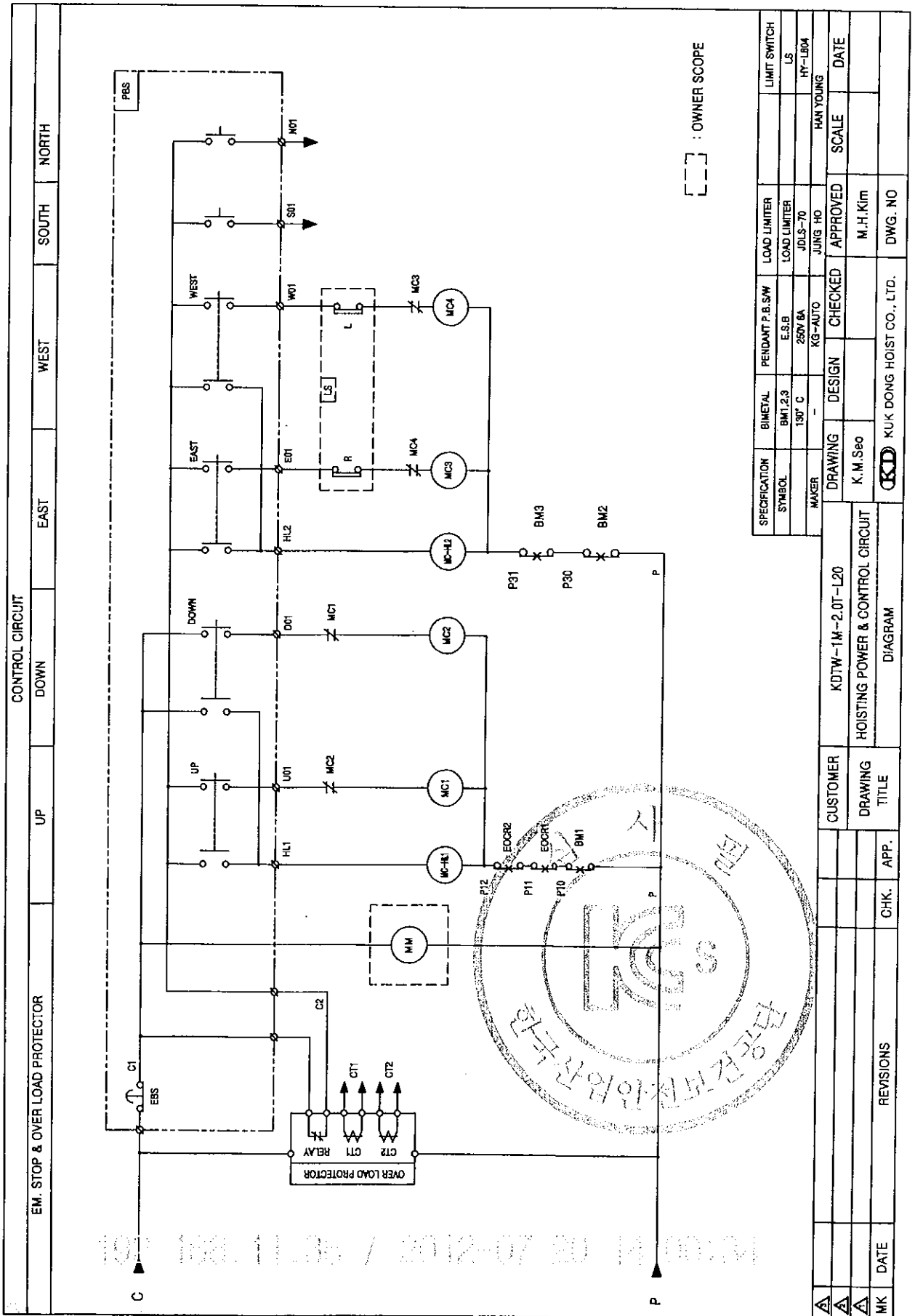








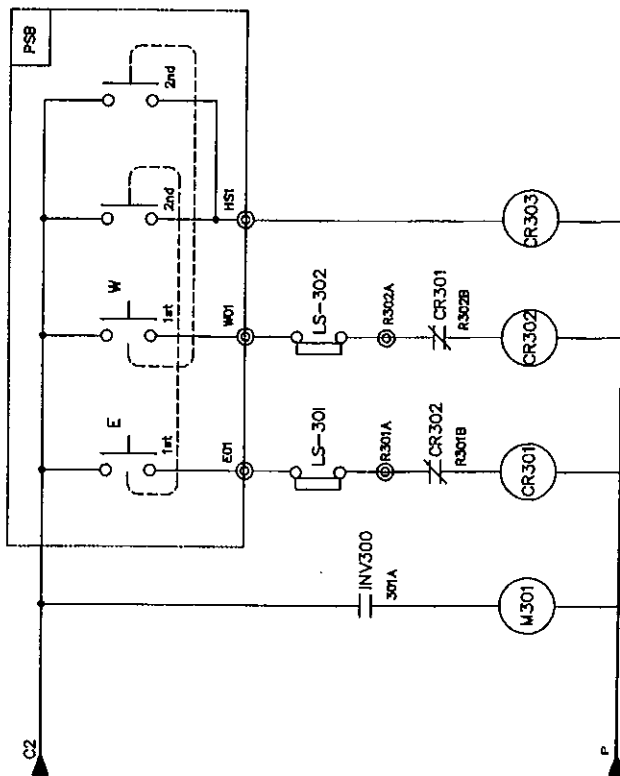




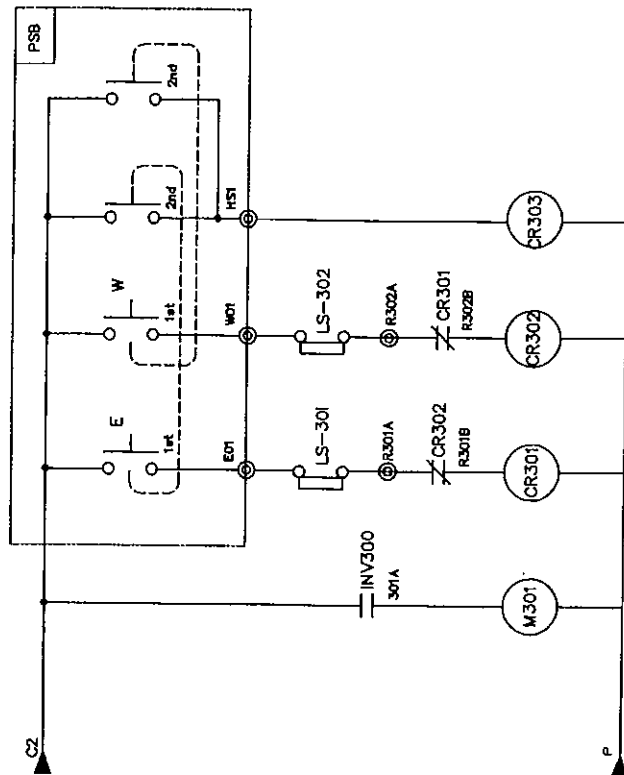
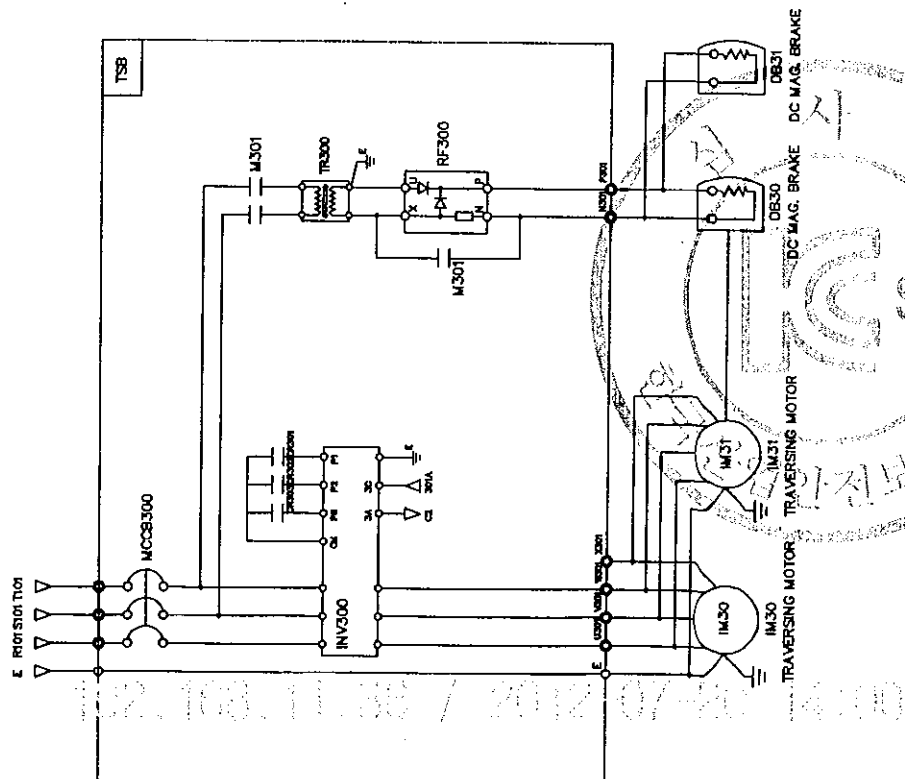
2	속판	SS400	1							
1	T/S BOX	PUR	1							
NO.	DESCRIPTION	MTL	SUB	TOTAL	SUB	TOTAL	REMARKS.			
			QTY		WEIGHT(Kg)					
PROJECT					DATE		DIM			
							mm			
TITLE		T/S CONTROL PANEL(INVERTER)			SCALE		PROJECTION			
					A3/3		3rd			
DRAWN	DESIGNED	CHECKED	APPROVED	REF.		DRAWING				
 굿동호이스트 주식회사 KUK DONG HOIST CO., LTD.		SHEET No.		DWG No.		KD02E1001				

11	EARTH BUS BAR	PUR	1		
10	DUCT	PUR	1		
9	TERMINAL BLOCK	PUR	1		
8	INVERTER	PUR	1		
7	TR	PUR	1		
6	RELAY & SCKKET	PUR	1		
5	RF	PUR	1		
4	MC	PUR	1		
3	MCCB	PUR	1		

R1	S1	T1	03894301E30	03904301E30	C2	P	E01	Z00H4	M01	Z00Z4	H51
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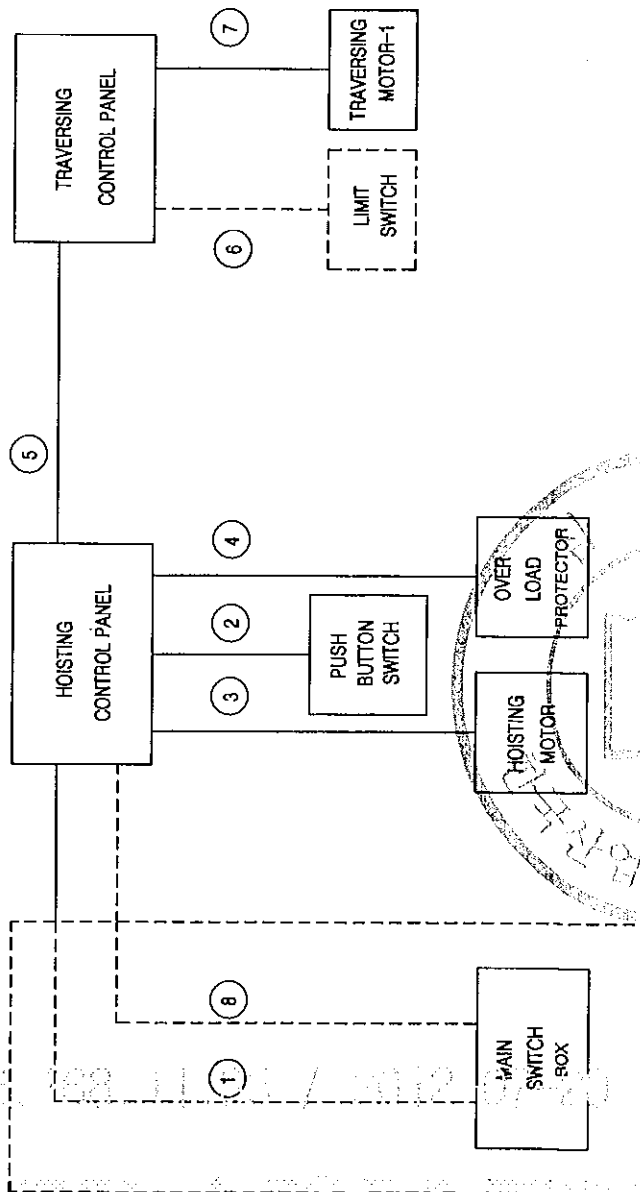
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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
POWER CIRCUIT DIAGRAM										CONTROL CIRCUIT DIAGRAM										ADR'S NO.	
TRAVERSING MOTION										HIGH SPEED											
BRAKE										EAST					WEST						



SPECIFICATION SYMBOLS DESCRIPTION	TRAVERSING POWER		TRAVERSING MOTOR	DC MAG. BRAKE	NO FUSE BREAKER	TRANSFORMER	BRAKE MAGNET	CONTROL RELAY	INVERTER	SILICON RECTIFIER
	AC 3PH 220V 60Hz		IM 30,31	DB30,31	MCCB300	TR 300	M301	CR301,302,303	INV300	RF300
	AC 3PH 380(440,460,480)V 60Hz		0.4KW x 4P	DC 100V	ABE-53AF/30AT	220/220V,300VA	DM-22C	MINI 4a4b(Coil AC110V)	SV022IG5A-2	SR-30
	AC 3PH 380(440,460,480)V 60Hz		0.4KW x 4P	DC 100V	ABE-33AF/30AT	380(440,480,480)/220V,300VA	DM-22C	MINI 4a4b(Coil AC110V)	SV022IG5A-4	SR-30
SELECTION	KUK DONG HOIST									
MAKER										
				INVERTER CONTROL						
				TRAVERSING POWER & CONTROL CIRCUIT						
				DRAWING TITLE						

KD



NO.	CABLE SPEC.
1	220/380 V
	VCT 4.0sq x 4C
2	440/460/480 V
	VCT 4.0sq x 4C
3	220/380V
	KIV 4.0sq x 7C
4	440/460/480V
	KIV 4.0sq x 4C
5	VCT 0.75sq x 8C
6	VCT 2.5sq x 7C
7	VCT 1.5sq x 2C x 2EA
8	VCT 2.5sq x 7C or 10C
	VCT 2.5sq x 7C or 10C

* 제어용 전선은 KIV 2.5SQ 이상을 사용한다.

* 1번 CABLE은 제작시 1M를 인출하고,
나머지 길이에 대해서는 OWNER SCOPE임.

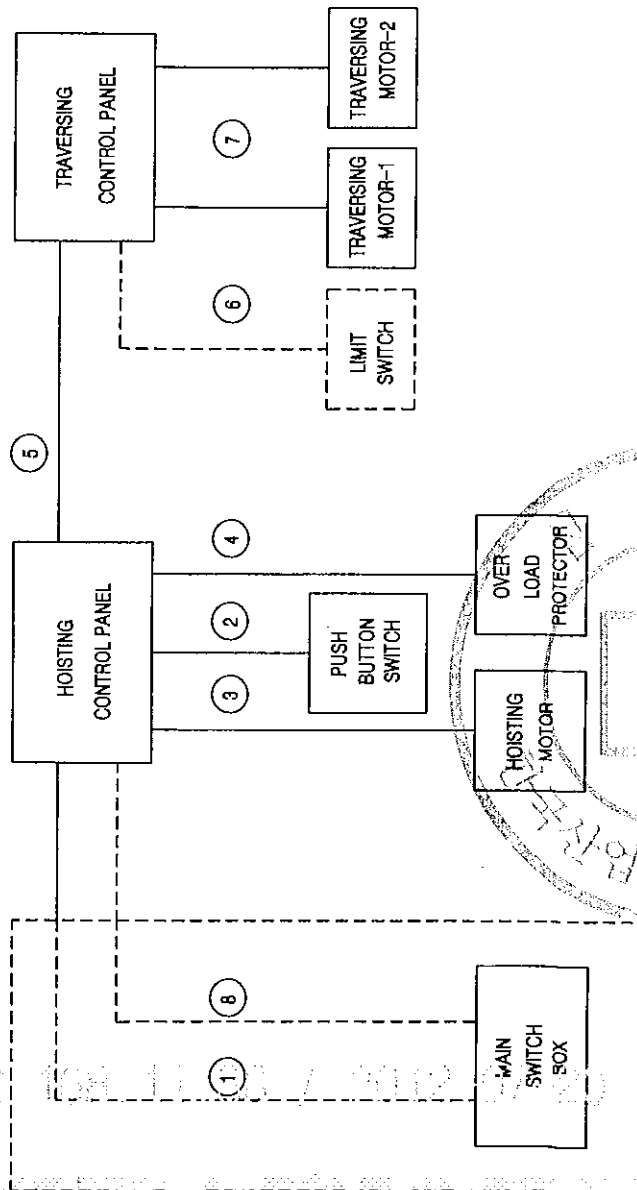
* 3번선은 HOIST BODY를 관통하여 HOIST CONTROL
PANEL로 가는 선으로 외부로 인출되어 있지 않기
때문에 CABLE이 아니라 KIV 전선을 사용함

NO	PARTS NAME	MATERIAL	QTY	SIZE	WEIGHT	REMARK
DESIGNED	CHECKED	APPROVED	CABLE CONNECTION DIAGRAM			
SCALE	NS	K.M.Soo	TITLE			
PRO-SECTION		M.H.Kim	KDTW-1M-2.0T-L20			
			3φ 220/380/440/460/480V 60Hz			
(KD) KUK DONG HOIST CO., LTD.			DWG NO.			

OWNER SCOPE

KD

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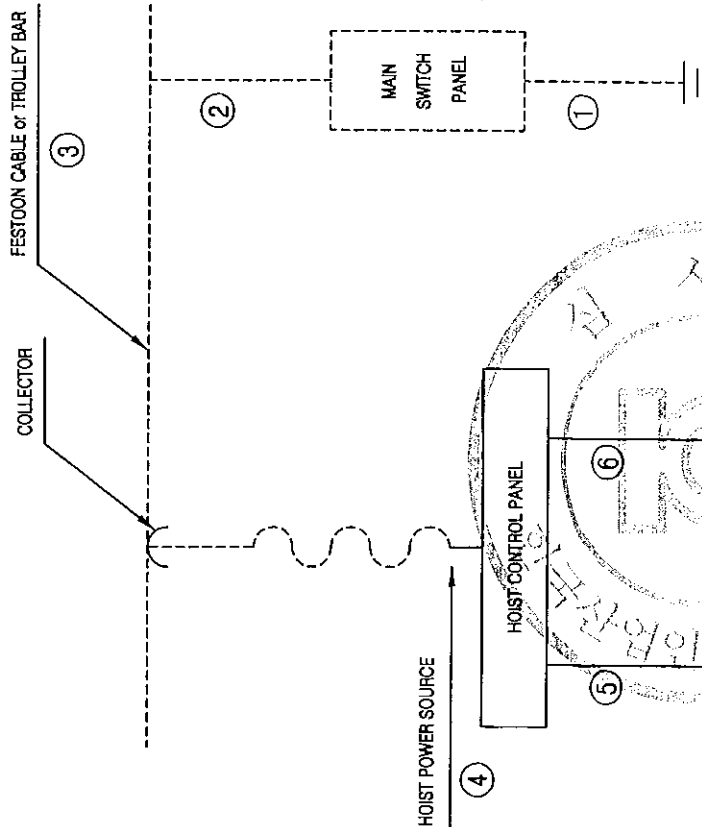
NO.	CABLE SPEC.
1	220/380 V
	VCT 4.0sq x 4C
2	440/460/480 V
	VCT 4.0sq x 4C
3	220/380V
	KIV 4.0sq x 7C
4	440/460/480V
	KIV 4.0sq x 4C
5	VCT 0.75sq x 8C
6	VCT 2.5sq x 7C
7	VCT 1.5sq x 2C x 2EA
8	VCT 2.5sq x 7C or 10C x 2EA
	VCT 2.5sq x 7C or 10C

- * 제어용 전선은 KIV 2.5SQ 이상을 사용한다.
- * 1번 CABLE은 제작시 1M를 인출하고,
나머지 길이에 대해서는 OWNER SCOPE임.
- * 3번선은 HOIST BODY를 관통하여 HOIST CONTROL
PANEL로 가는 선으로 외부로 인출되어 있지 않기
때문에 CABLE이 아니라 KIV 전선을 사용함

NO	PARTS NAME	MATERIAL	QTY	SIZE	WEIGHT	REMARK
SCALE	DESIGNED	CHECKED	APPROVED	CABLE CONNECTION DIAGRAM		
PRO-SECTION	NS	K.M.S80	M.H.Kim	TITLE		
				KDTW-1M-2.0T-L20		
				3φ 220/380/440/460/480V 60Hz		
KUK DONG HOIST CO., LTD.				DWG. NO.		

OWNER SCOPE

KD



NO.	DESCRIPTION	CABLE SPEC.	REMARK
1	MAIN EARTH LINE	GV 4.0sq x 1C	OWNER SCOPE
2	MAIN POWER SOURCE	CV 4.0sq x 1C	OWNER SCOPE
3	FESTOON CABLE	VCT 4.0sq x 1C	OWNER
	or TROLLEY BAR	VCT 4.0sq x 1C	OWNER
4	HOIST POWER SOURCE	80A x 1 LINE	OWNER SCOPE
5	HOISTING MOTOR	VCT 4.0sq x 1C	
6	TRaversing MOTOR	VCT 2.5sq x 1C	

※ 설치공사 시별 방법

1. 전동기의 브레이크, 제어반 등은 전기를 받아야 하는 규정을 따른다.

설치 장소	전선 규격
제어반 설치	400V 이하 100%를 사용
전동기 전원 설치	400V 이하 100%를 사용

2. 전동기를 브레이크 및 전선은 다른 전선과 가깝게 배치하여 화재 위험을 방지한다. 기계적 강도를 고려하여 한다.

3. 설치위치의 폭을 고려하여 있는 경우에는 전선, 케이블 등도 함께 사용한다.

4. 전동기는 지면에서 최대 75cm 이하의 높이로 설치한다. 전선은 전선관을 사용한다.

동전위 설치

1. 전기장비와 기계의 노출된 모든 도선부는 보호단위회로에 연결되어야 하며 특별한 설치요구사항이 없는 한이어야 한다.

2. 보호단위회로는 기계가, 국전류보호장치가 부착되지 않아야 한다.

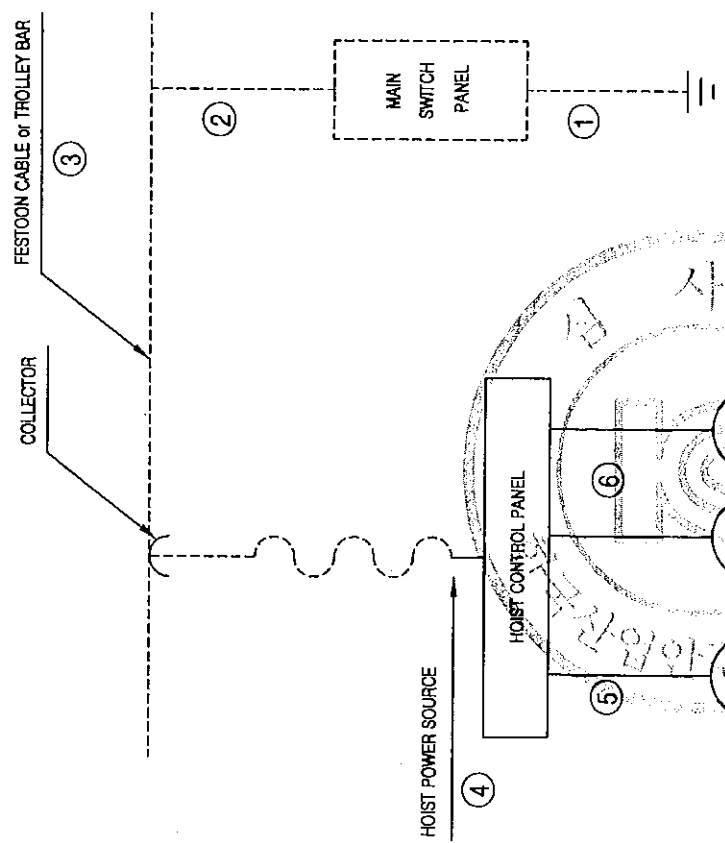
시정대상 전선의 최소 유효단면적	최고전압강하(V)
1.0	3.3
1.5	2.6
2.5	1.6
4.0	1.4
>6.0	1.0

NO	PARTS NAME		MATERIAL		QTY	SIZE	WEIGHT	REMARK
SCALE	NS	DESIGNED	CHECKED	APPROVED	GROUND WIRE SYSTEM			
PRO-SECTION		K. M. Seo		M. H. kim				
					TITLE			
KDK KUK DONG HOIST CO., LTD.					DWG NO.			

OWNER SCOPE
KUK DONG SCOPE

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KD



NO.	DESCRIPTION	CABLE SPEC.	REMARK
1	MAIN EARTH LINE	6V 4.0mm ² X 1C	OWNER SCOPE
2	MAIN POWER SOURCE	6V 4.0mm ² X 1C	OWNER SCOPE
3	FESTOON CABLE	WCT 4.0mm ² X 1C	OWNER SCOPE
	or TROLLEY BAR	WCT 4.0mm ² X 1C	OWNER SCOPE
4	HOIST POWER SOURCE	6V 4.0mm ² X 1C	OWNER SCOPE
5	HOISTING MOTOR	6V 4.0mm ² X 1C	OWNER SCOPE
6	TRaversing MOTOR	WCT 2.5mm ² X 1C	OWNER SCOPE

• 설치공사 시정방법

- 전동기의 프레임, 케이블 등은 전기를 위하여 다음의 규격을 따른다.

전 기 용 량	전 기 용 량
400V 이하	100mm ² 이하
400V 초과	100mm ² 이하
- 전기 전동 트롤리 상 및 전선은 전선(가), 가구에 대하여 충분한 용량 및 전압, 기체적 강도를 가져야 한다.
- 전선선과 케이블 등을 위하여 있는 경우에는 전선, 절연수단 등과 함께 사용한다.
- 전선선과 케이블은 지면에서 최소 75cm 이상의 높이로 설치하여 전선과 케이블을 보호한다.

동전위전지

- 전기장비와 기기의 노출된 모든 도선부는 보호복합피복에 연결되어야 하며 특별한 접지연속성 기능이 유지되어야 함.
- 보호복합피복에는 기계적, 화학적 보호장치가 부착되지 않아야 함.

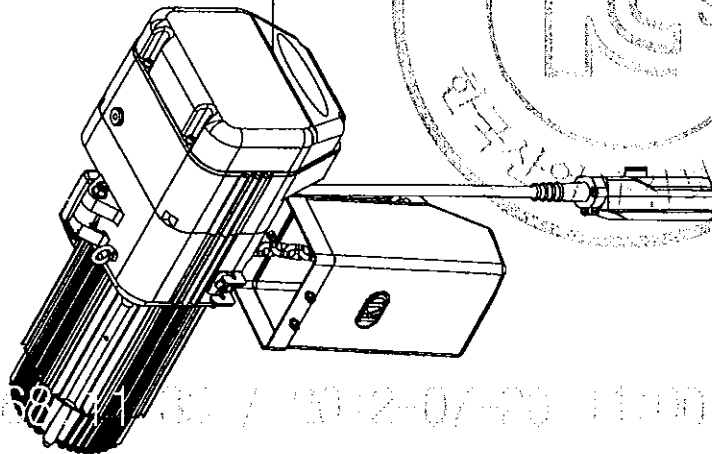
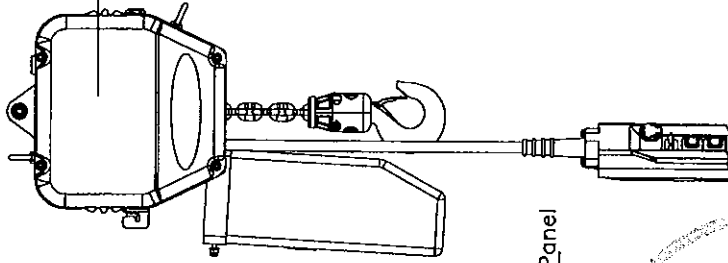
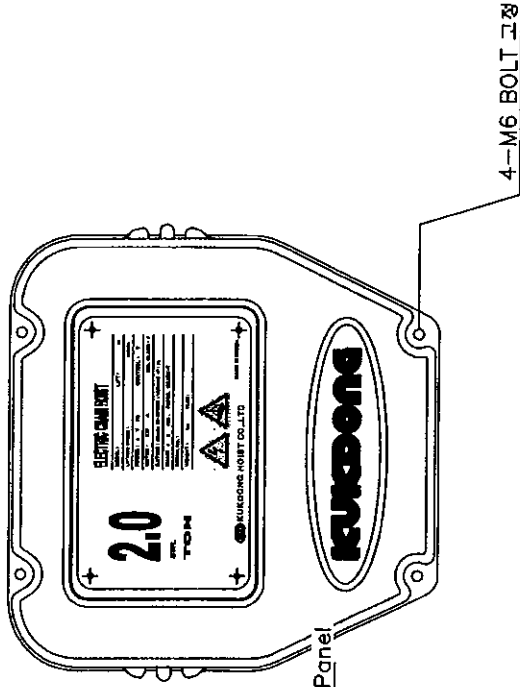
시험대상 전선의 최소 유효단면적	최고전압강하(V)
1.0	3.3
1.5	2.6
2.5	1.6
4.0	1.4
>6.0	1.0

NO	PARTS NAME			MATERIAL	QTY	SIZE	WEIGHT	REMARK
SCALE	NS	DESIGNED	CHECKED	APPROVED	GROUND WIRE SYSTEM			
PRO- JECTION		K.M.Seo		M.H.kim				

OWNER SCOPE
KUK DONG SCOPE

192.168.11.38 / 2012-07-20 14:00:34

192.168.11.38 / 2012-07-20 14:00:34



권상 Control Panel

4-M4 BOLT 고정

* 체인호이스트 외침은 특수구조로만 개방할수 있는 구조임.

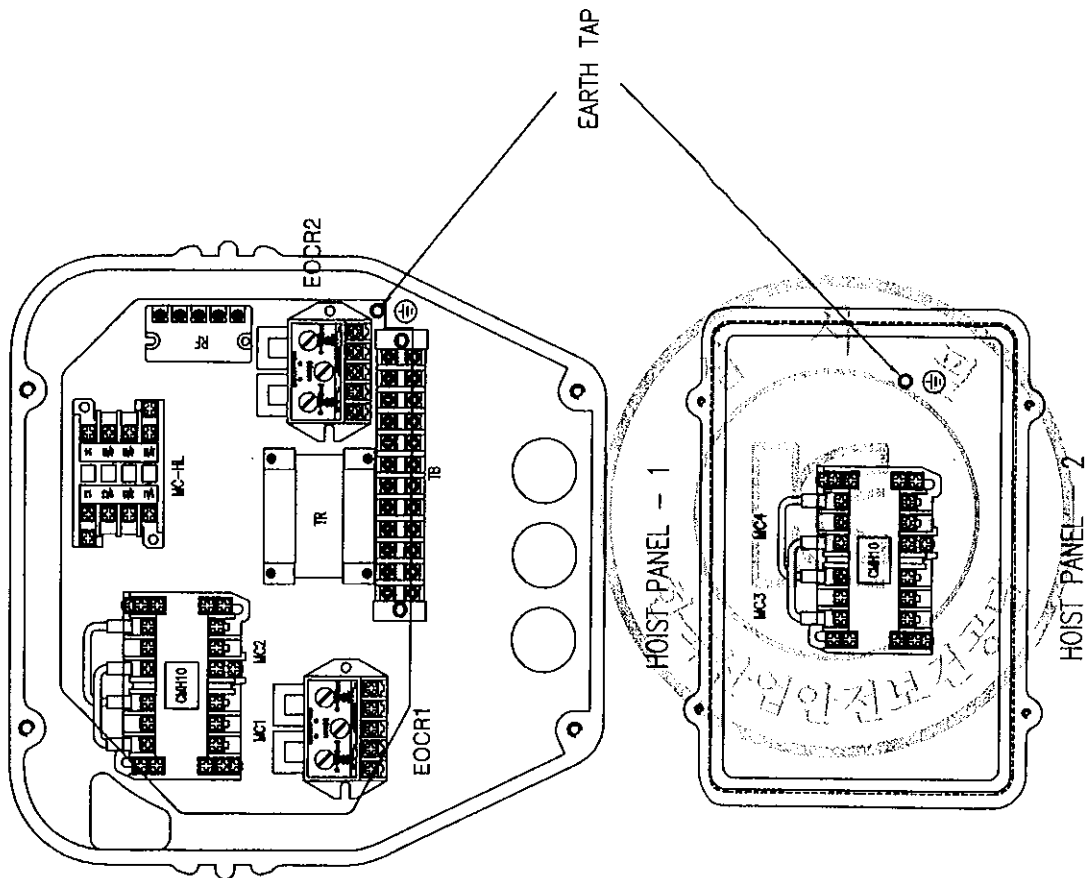
DATE	REVISED	REVISION RECORD	DATE	CHK.	APP.	M.H.Kim
09.03.04						
No.	N/S	Scale	Mass	kg	Tha	
Owner						
KUDONG HOIST CO., LTD.						
KUDONG HOIST CO., LTD.						
ELECTRIC CHAIN HOIST						
Hoist 외형						
KUDONG HOIST CO., LTD.						

192.168.11.38 / 2012-07-20 11:00:34

KD

* PART LIST

MARK	NAME	SPECIFICATION	Q'TY
MC1,2	HOISTING MAGNETIC CONTACTOR	CMH-10	1
MC3,4	TRAVERSING MAGNETIC CONTACTOR	CMH-10	1
MM	MAIN MAGNETIC CONTACTOR	CMC12	1
TR	TRANSFORMER	45VA	1
RF	RECTIFIER	KD-190/SR30	1
TB	TERMINAL BLOCK	20A x 10P	1
F1,2	FUSE	220V 2A	2
		380V 1A	
		440V 1A	
		460V 1A	
F3	FUSE	3A	1
EOCR1	ELECTRONIC OVER CURRENT RELAY	EOCR-30(05)	1
EOCR2	ELECTRONIC OVER CURRENT RELAY	EOCR-30(05)	1
MC-HL	TWO SPEED MAGNETIC CONTACTOR	CMC10	1



Scale	N	S	DISBY	CHKBY	APPRBY	HOIST CONTROL PANEL
Pro-Section	ANGLES	K.M.Seo	M.H.Kim	Title		
More	Kg					
KUK DONG HOIST CO., LTD.						KDTW-1M-2.0T-L20
DWG No.						

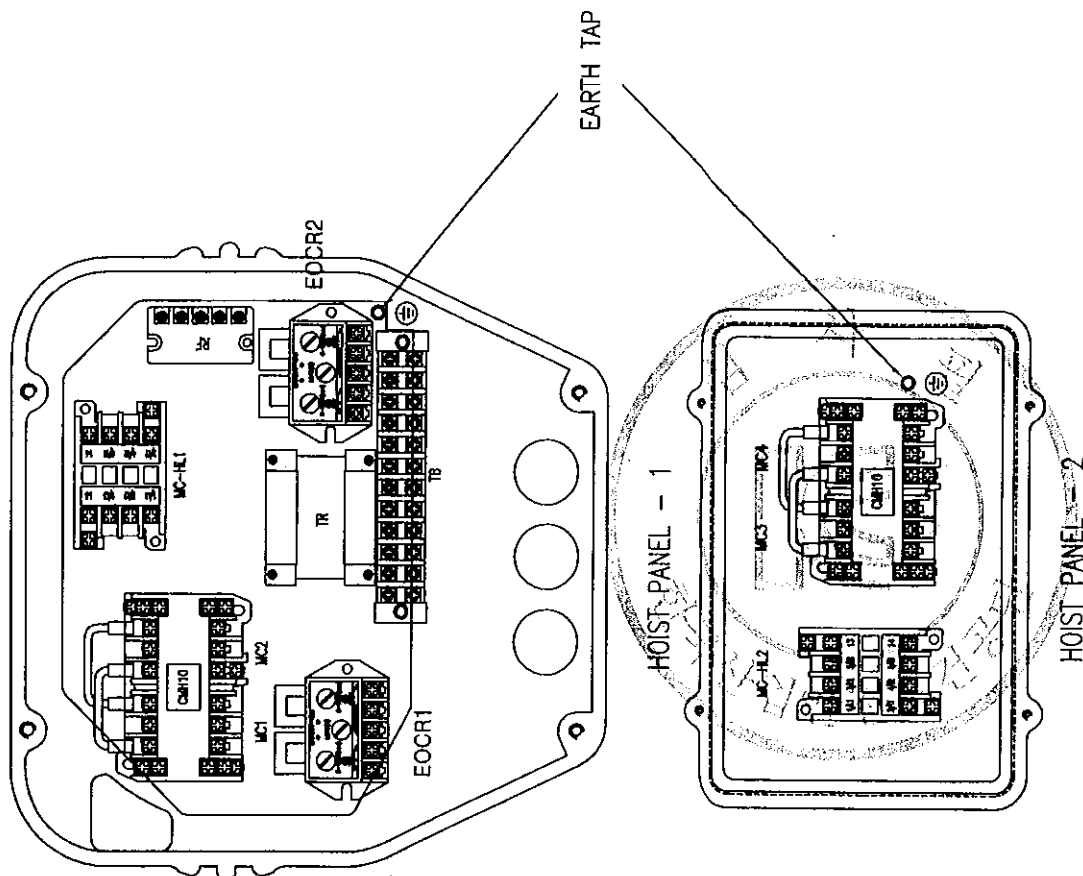
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KD

* PART LIST

MARK	NAME	SPECIFICATION	Q'TY
MC1,2	HOISTING MAGNETIC CONTACTOR	CMH-10	1
MC3,4	TRAVERSING MAGNETIC CONTACTOR	CMH-10	1
MM	MAIN MAGNETIC CONTACTOR	CMC12	1
TR	TRANSFORMER	45VA	1
RF	RECTIFIER	KD-190/SR30	1
TB	TERMINAL BLOCK	20A x 10P	1
F1,2	FUSE	220V 2A	2
		380V 1A	
		440V 1A	
		460V 1A	
F3	FUSE	3A	1
EOCR1	ELECTRONIC OVER CURRENT RELAY	EOCR-30(05)	1
EOCR2	ELECTRONIC OVER CURRENT RELAY	EOCR-30(05)	1
MC-HL1,2	TWO SPEED MAGNETIC CONTACTOR	CMC10	2



Scale		N	S	DISN.BY	CHK.BY	APPR.BY	HOIST CONTROL PANEL
Pro-Section	3-ANGLES			K.M.Soo		M.H.Kim	
Notes			Kg				
 KUK DONG HOIST CO., LTD.							DWG No.

192.168.11.38 / 2012-07-20 14:00:34

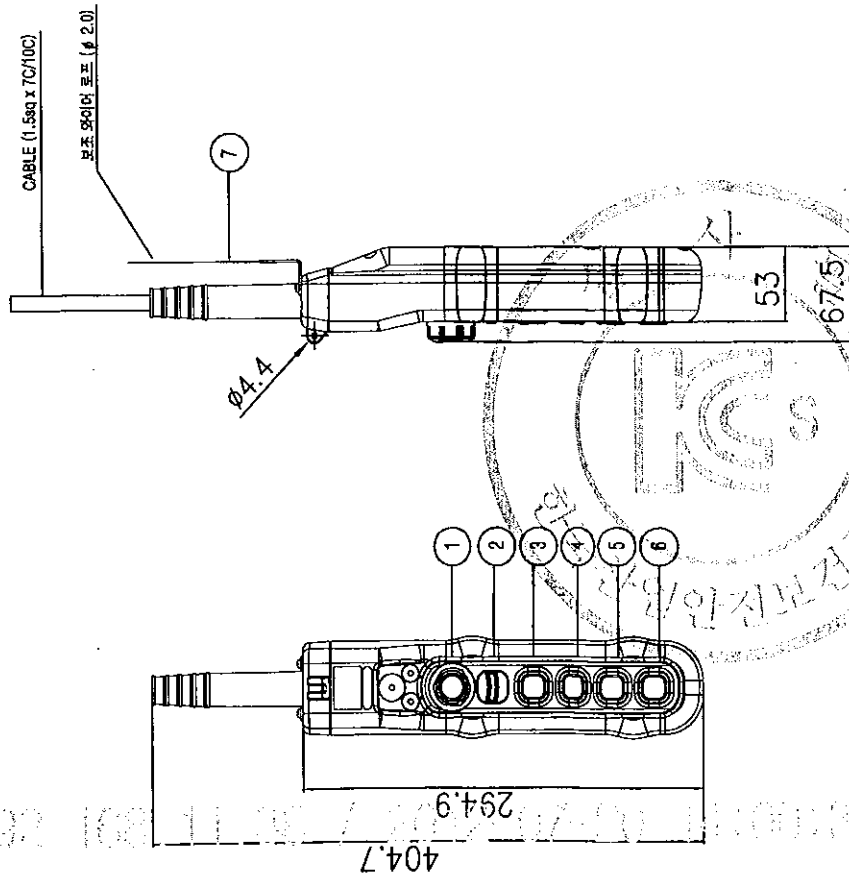
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적색	비상	비상	비상
황색	비정상	비정상	비정상
녹색	정상	정상	정상
청색	의무	의무	의무
흰색, 회색 - 흑색	지정된의미없음		기타

* MATERIAL : POLYCARBONATE(PLASTIC)

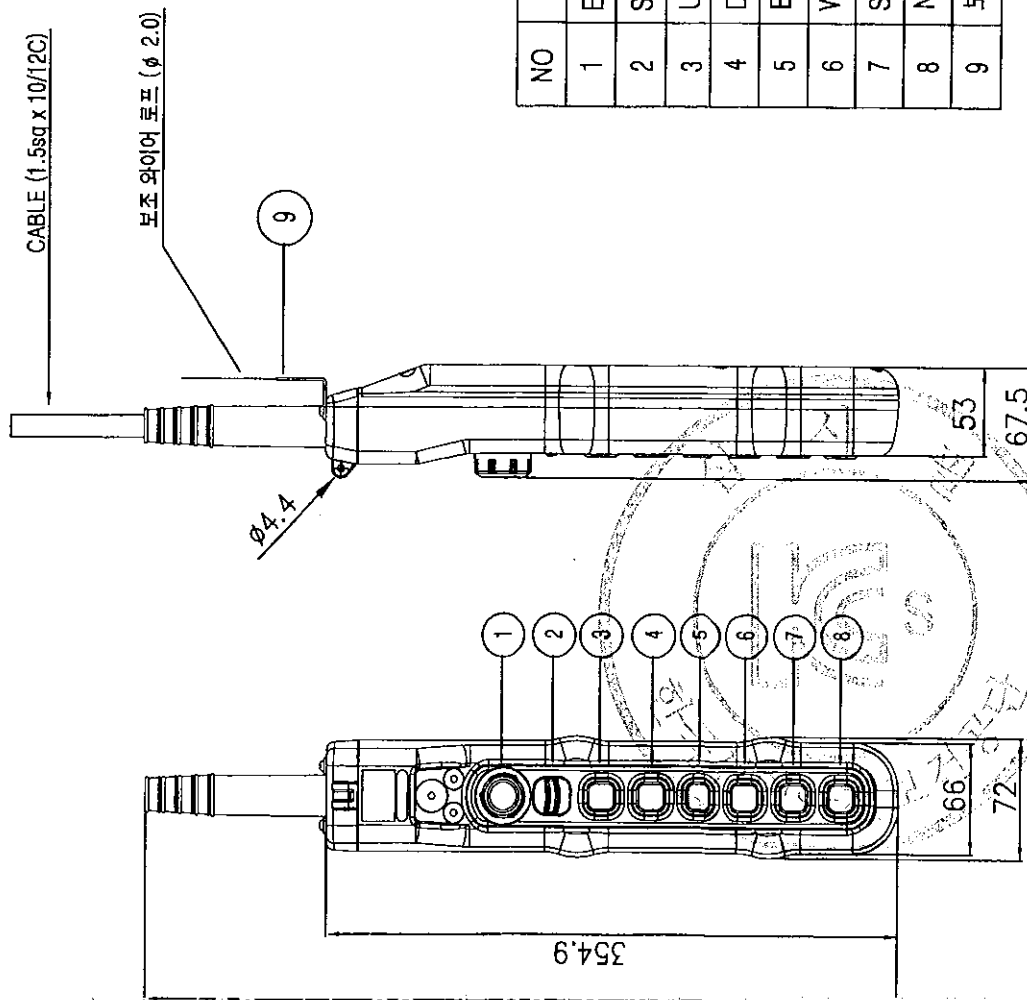
* BODY COLOR : YELLOW, BLACK

* IP : 55 이상

NO	SYMBOL	TYPE	SPEC.	COLOR
1	E.B.S	PUSH LOCK TURN RESET TYPE	250VAC x 6A	RED
2	SPARE			BLACK
3	UP	1PUSH BUTTON 2STEP		
4	DOWN	1PUSH BUTTON 2STEP		
5	EAST	1PUSH BUTTON 1STEP		
6	WEST	1PUSH BUTTON 1STEP		
7	보조 와이어	ø 2.0		



MK	DATE	REVISIONS	CHK.	APP.	CUSTOMER	DRAWING TITLE	PENDANT PUSH BUTTON SWITCH				APPROVED	SCALE	DATE
							LAY OUT						
					</								



구분	조각버튼	표시영
작성	비상	비상
작성	비정상	비정상
작성	정상	정상
작성	이무	이무
작성 - 학생 원칙, 학생	지정된미있음	기타

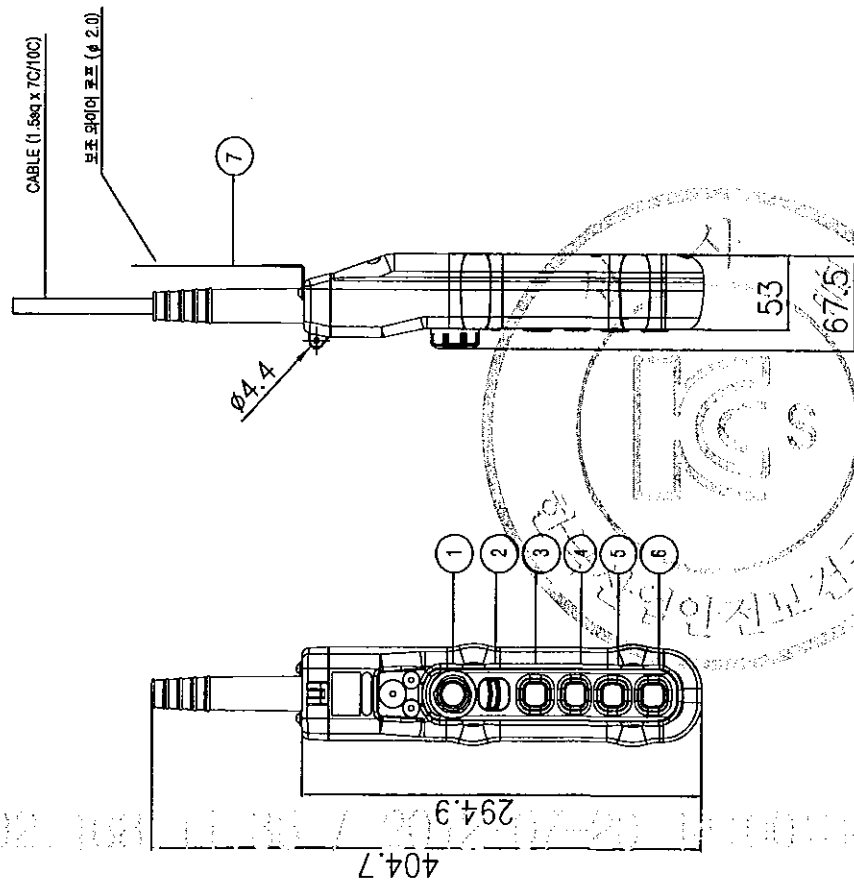
* MATERIAL : POLYCARBOBATE(PLASTIC)

* BODY COLOR : YELLOW, BLACK

IP: 55.018

NO	SYMBOL	TYPE	SPEC.	COLOR
1	E.B.S	PUSH LOCK TURN RESET TYPE	250VAC x 6A	BLACK
2	SPARE			
3	UP	1PUSH BUTTON 2STEP		
4	DOWN	1PUSH BUTTON 2STEP		
5	EAST	1PUSH BUTTON 1STEP		
6	WEST	1PUSH BUTTON 1STEP		
7	SOUTH	1PUSH BUTTON 1STEP		
8	NORTH	1PUSH BUTTON 1STEP		
9	보조 WIRE	ø 2.0		

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



색상	구분	조각버튼	표시등
적색		비상	비상
황색		비정상	비정상
녹색		정상	정상
청색		이무	이무
흰색, 회색, 황색		지정된의미없음	기타

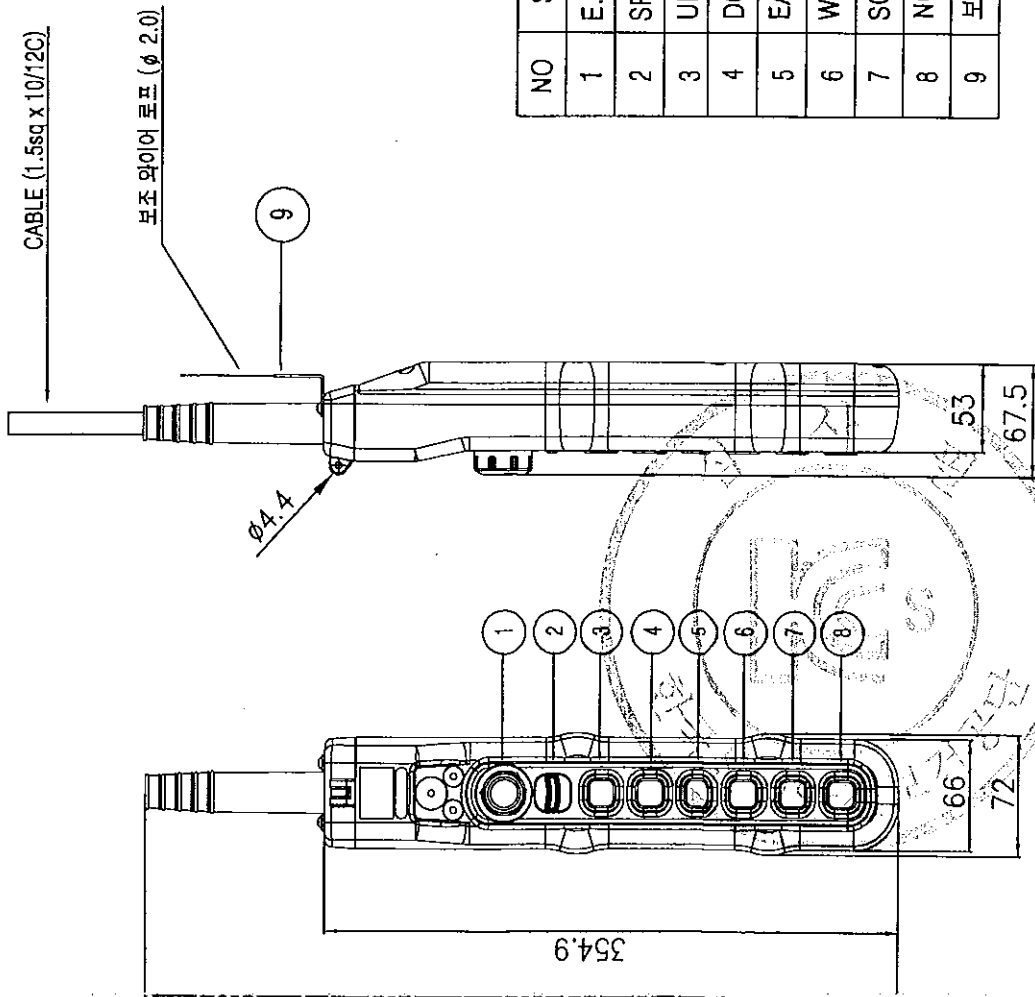
* MATERIAL : POLYCARBOBATE(PLASTIC)

* BODY COLOR : YELLOW, BLACK

* IP : 55.01.58

NO	SYMBOL	TYPE	SPEC.	COLOR
1	E.B.S	PUSH LOCK TURN RESET TYPE	250VAC x 6A	RED
2	SPARE			BLACK
3	UP	1PUSH BUTTON 2STEP		
4	DOWN	1PUSH BUTTON 2STEP		
5	EAST	1PUSH BUTTON 2STEP		
6	WEST	1PUSH BUTTON 2STEP		
7	보조 와이어	ø 2.0		

A			CUSTOMER	PENDANT PUSH BUTTON SWITCH LAYOUT	DRAWING	DESIGN	CHECKED	APPROVED	SCALE	DATE
A										
A										
MK.	REVISIONS	CHK.	APP.	DRAWING TITLE						
					KUK DONG HOIST CO., LTD.					



색상	구분	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)

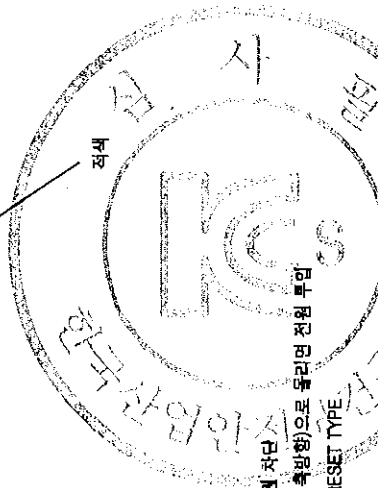
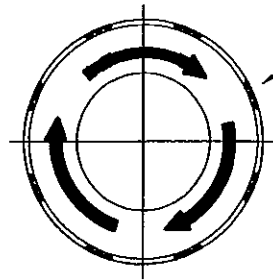
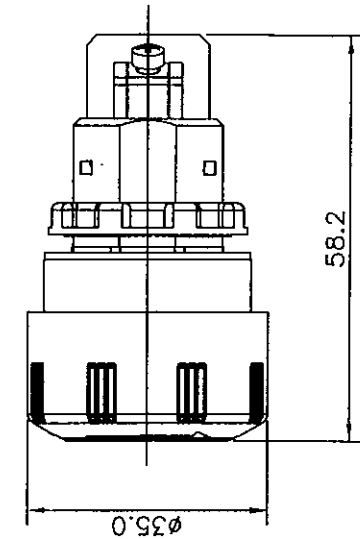
* BODY COLOR : YELLOW, BLACK

* IP : 55 이상

NO	SYMBOL	TYPE	SPEC.	COLOR
1	E.B.S	PUSH LOCK TURN RESET TYPE	250VAC x 6A	RED
2	SPARE			BLACK
3	UP	1PUSH BUTTON 2STEP		
4	DOWN	1PUSH BUTTON 2STEP		
5	EAST	1PUSH BUTTON 2STEP		
6	WEST	1PUSH BUTTON 2STEP		
7	SOUTH	1PUSH BUTTON 1STEP		
8	NORTH	1PUSH BUTTON 1STEP		
9	보조 WIRE	φ 2.0		

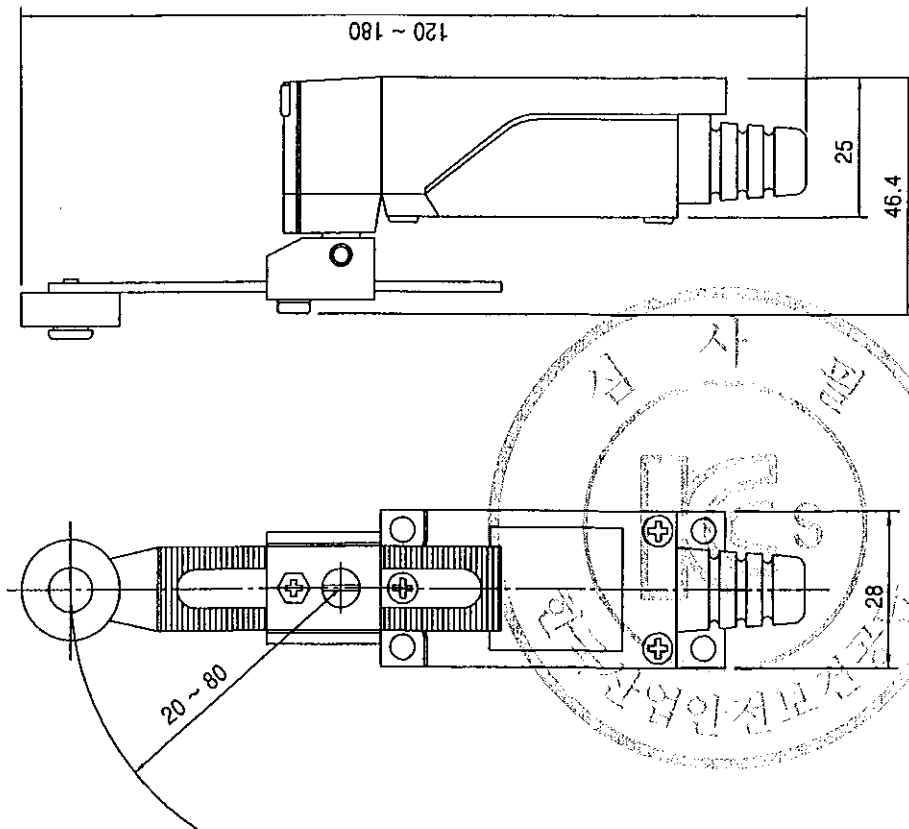
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KD



* 작동원리 : 비상시 누르면 전열 차단
자동차시 우측(우측방향)으로 돌리면 전원 투입
* TYPE : PUSH LOCK TURN RESET TYPE

개폐빈도	기개적	240회 / 분	정기적	20회 / 분	절연저항	총전부간	비출전부간	기개적	정기적	수명	10만회 이상	10만회 이상	점점	정격용량	사용주위습도	45~85%RH 이하 -15°C ~ +45°C	AC 125V / 12A AC 250V / 6A	Scale No. 3ANGLES K.M.S80 Kg 2009.03.17	DWG-BY CHK-BY M.H.Kim	DIGN-BY	Title	SIZE	UNIT	TOTAL WEIGHT(Kg)	REMARK
내전입						AC 1000V 1분간 견딜 (50~60Hz)	AC 1000V 1분간 견딜 (50~60Hz)																		EMERGENCY BUTTON SWITCH KG-E100
수명						50만회 이상	10만회 이상																		KD KUK DONG HOIST CO., LTD. DWG No.



* 附人

수명	기계적	100만회 이상
	전기적	10만회 이상
사용주위온도	-10°C ~ +70°C	
사용주위습도	95% 이하	
용 량	250V 5A	
구성점	1a 1b	
사용점	1b	

* 내장스위치 회로도

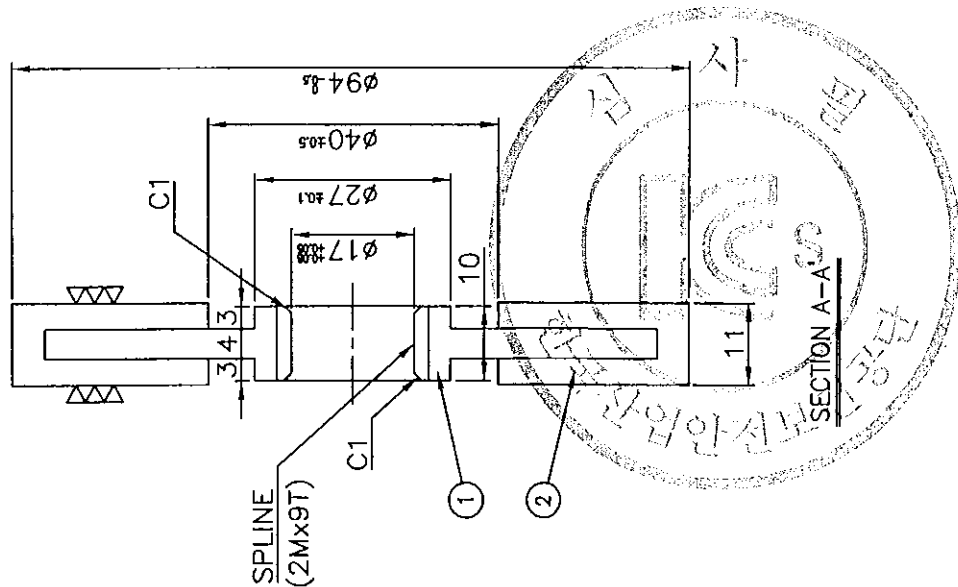
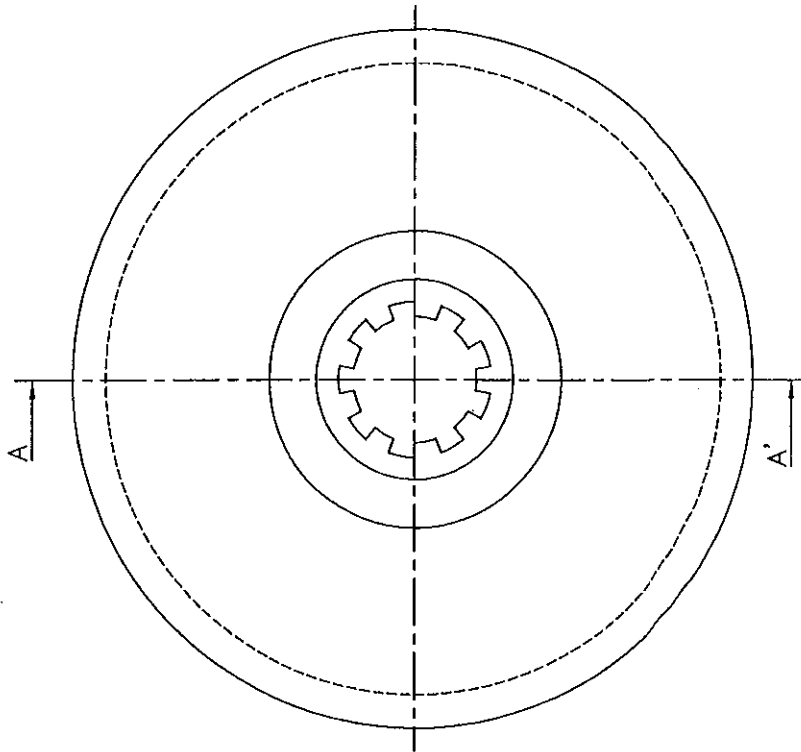


NO	DESCRIPTION	MATERIAL	CITY	SIZE	UNIT	TOTAL WEIGHT(Kg)	REMARK	
Scale	MS 3-ANGLES kg	DWG.	CHK.	APP.	LIMIT SWITCH HY - L804			
Pro-section		K.M.Sao						Title
Mass								
 KUK DONG HOIST CO., LTD.					DWG No.			

SPECIFICATION	
TORQUE	1.5kgf-m or 1.5
VOLTAGE	DC 90/190V
INSULATION CLASS	F ₈

										Re-Drawing										J.E.Loc		H.S.30m		J.E.Loc					
										05.05.24										FIRST ISSUE		DWG.		CHK.		APP.			
										DATE										No.		REVISION RECORD		kg		Title			
										Scale										N/S		Pro- jection		3rd Angle		kg		Title	
										CHECK										No.		REVISION RECORD		kg		Title		Title	
										07.02.05										No.		REVISION RECORD		kg		Title		Title	
										05.05.24										No.		REVISION RECORD		kg		Title		Title	
										07.02.05										No.		REVISION RECORD		kg		Title		Title	
										05.05.24										No.		REVISION RECORD		kg		Title		Title	
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										05.05.24										No.		REVISION RECORD		kg		Title		Title	
										07.02.05										No.		REVISION RECORD		kg		Title		Title	
										05.05.24										No.		REVISION RECORD		kg		Title		Title	
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NO	DESCRIPTION	MATERIAL	QTY	SIZE	REMARK
1	LINING PLATE	SS-41	1	#85x10t	KD-1
2	LINING	Non-ASBESTOS	1	#64x11t	KD-1



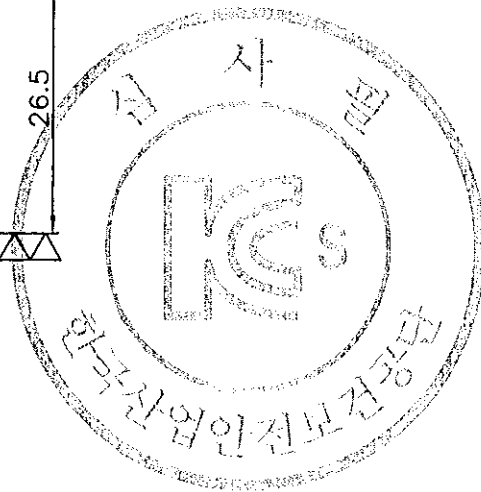
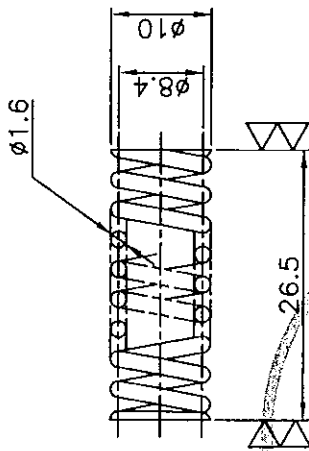
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2	05.05.24	FIRST ISSUE	H.S.Kim	H.S.Kim
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ELECTRIC CHAIN HOIST	
LINING ASSY	
KD-1, DC Brake	
KDDB-DB104	
KUK DONG HOIST CO., LTD.	

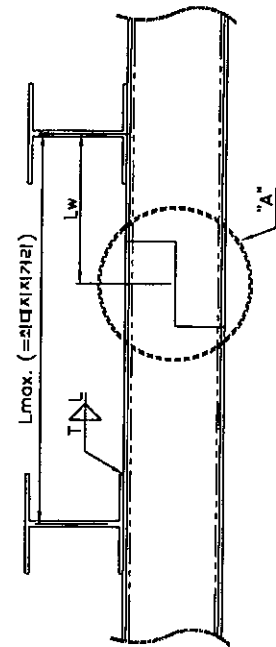
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NO	DESCRIPTION	MATERIAL	QTY	SIZE	REMARK
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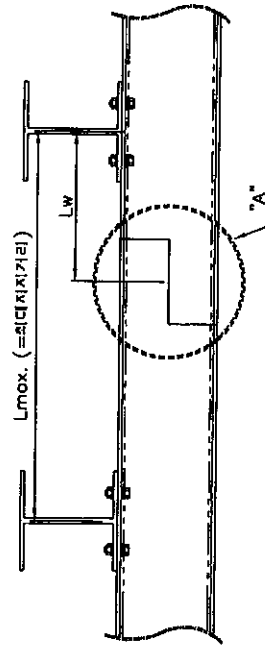
선경	Ø1.6
PCD	Ø8.4
총권수	9
유효권수	7
자유장	26.5
변위량 (압축거리)	6.75
수량	4



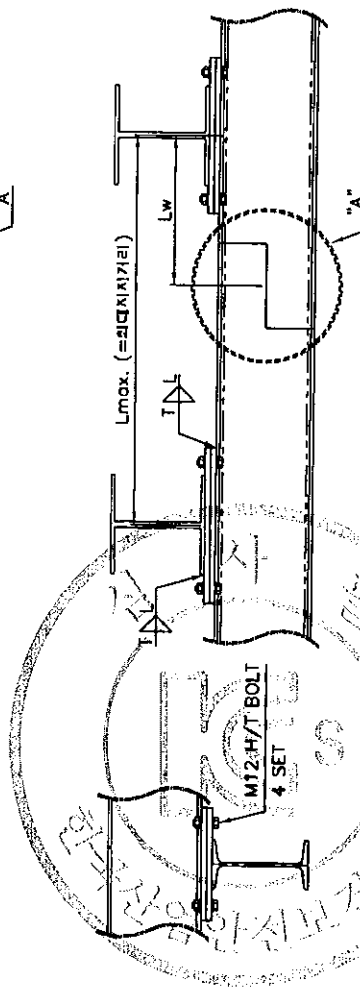
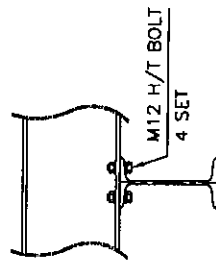
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334			DWG	CHK
335			DWG	CHK
336			DWG	CHK
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381			DWG	CHK
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383			DWG	CHK
384			DWG	CHK
385			DWG	CHK
386			DWG	CHK
387			DWG	CHK
388			DWG	CHK
389			DWG	CHK
390				



용접구조

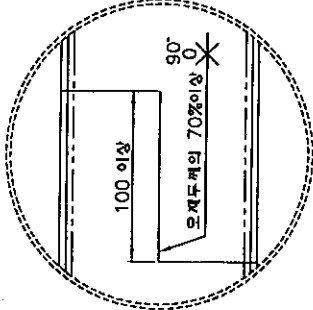


볼트 체결구조

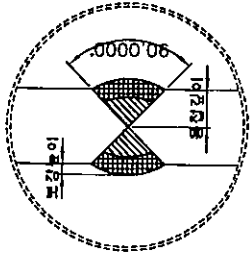


복합구조

M12 H/T BOLT
4 SET



DETAIL "A"



용접이음과 볼트 단면

단면의 두께	보강용접상의 높이
12 이하	1.5
12 ~ 25	2.5
25 초과	3.0

(unit : mm)

NOTE) 1. T = 최소용접두께

2. L = 최소용접길이

3. 용접이음의 허용응력 (FILLET용접효율 포함) : 560kg/cm²

4. FILLET용접효율 : 80%

5. H/T BOLT의 허용 인장응력 : 2500kg/cm²

NO.	DATE	REVISION RECORD	DWG.	CHK.	APP.
Scale	N/S	Pro- jection	Mass	Kg	Title
ELECTRIC CHAIN HOIST					
1-BEAM 고정 받침대 사양					
KUK DONG HOIST CO., LTD.					

■ I-BEAM 최대지지거리

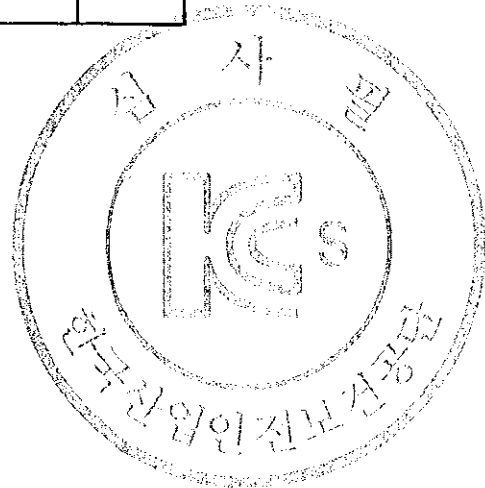
☞ 최대지지거리 판정결과

I-BEAM 규격	최대 지지거리 (cm)	처짐량 판정1 > 800	처짐량 판정2 >1000	굽힘응력(kg/cm ²) < 1159
200×100×t7/10	300	1013.2	1034.2	1108.1
200×150×t9/16	430	978.3	1034.6	764.3
250×125×t7.5/12.5	470	959.9	1005.8	977.7
250×125×t10/19	550	958.7	1036.5	824.4
300×150×t8/13	630	947.8	1024.5	944.1
300×150×t10/18.5	730	906.9	1022.2	835.4
300×150×t11.5/22	790	869.9	1010.3	801.2
350×150×t9/15	800	906	1018.7	1004.8
350×150×t12/24	980	815.2	1000.4	886
400×150×t10/18	1010	849.1	1013.4	1100.7
400×150×t12.5/25	1140	810.8	1046.3	987.5

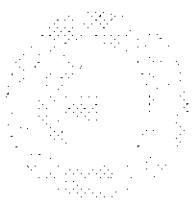
☞ 기본 조건

정격하중 (Kg)	양정 (m)	권상속도 (m/min)	호이스트		작업계수	풍력계수
			자중 (Kg)	풍압면적 (m ²)		
2000	20	4	350	0.5	1.08	1.2

*첨부 강도계산서 참조



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[I-BEAM 최대 지지거리 강도계산서]

1. 굽힘 MOMENT 계산

1-1. 수직하중에 의한 굽힘 MOMENT

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

$$\begin{aligned} \text{※ 작업계수}(\phi) &= 1.08 \\ \text{※ BEAM 자중 (kg)} &= \text{BEAM 단위중량(kg/cm)} \times \text{지지거리(cm)} \end{aligned}$$

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

$$\begin{aligned} \text{※ 이동하중 (kg)} &= \text{정격하중} + \text{호이스트 자중} \\ &= 2000 + 350 = 2350 \quad (\text{kg}) \end{aligned}$$

$$\begin{aligned} \text{※ 충격계수}(\psi) &= 1 + 0.6V \quad (\text{단, } \psi < 1.1 \text{ 이면 } \psi = 1.1, \quad \psi > 1.6 \text{ 이면 } \psi = 1.6 \text{ 으로 한다.}) \\ &= 1 + (0.6 \times 0.067) = 1.0402 \quad \text{----> } 1.1 \end{aligned}$$

$$\text{※ 권상속도}(V) = \frac{4}{60} \quad (\text{m/min}) = 0.067 \quad (\text{m/sec})$$

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

1-2. 풍하중에 의한 굽힘 MOMENT

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

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

$$\text{※ 속도압}(q) = 8.5 \times \sqrt[4]{h} = 18 \quad (\text{h= 양정: 20})$$

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

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

$$\text{※ HOIST의 풍압 면적} \approx 0.5 \quad (\text{m}^2)$$

2. 굽힘 응력 계산

2-1. 수직하중에 의한 굽힘 응력

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

2-2. 풍하중에 의한 굽힘 응력

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

2-3. 수직하중 및 풍하중에 의한 굽힘 응력

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

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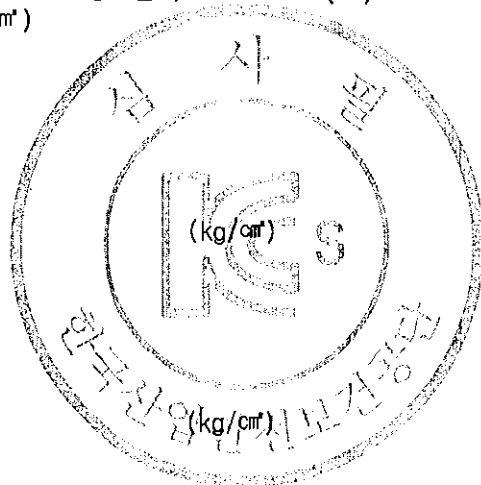
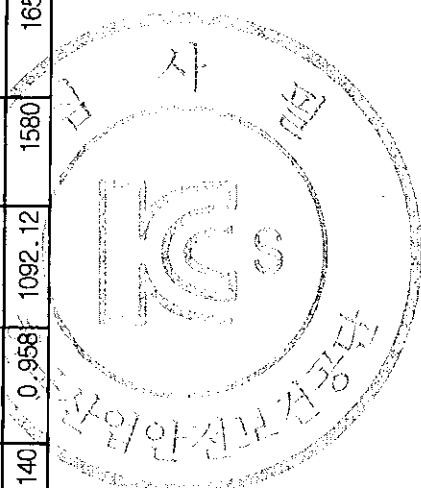


표1. I-BEAM 최대지지거리에 따른 굽힘응력 계산 결과

I-BEAM 규격	최대지지 거리(cm)	I-BEAM		단면계수		Ms (kg · cm)	Md (kg · cm)	Σ MV (kg · cm)	I-BEAM 종단면적 (㎡)	W (kg)	Mw (kg · cm)	σ _v (kg/cm ²)	σ _w (kg/cm ²)
		단위중량 (kg/cm)	지중 (kg)	Zx (cm)	Zy (cm)								
200 × 100 × t7/i0	300	0.26	78	217	27.7	3159.00	209385.00	212544.00	0.60	23.76	3564.00	979.47	128.66
200 × 150 × t9/i6	430	0.504	216.72	446	100	12580.60	300118.50	312699.10	0.86	29.38	6315.84	701.12	63.16
250 × 125 × t7.5/i2.5	470	0.383	180.01	414	53.9	11421.63	328036.50	339458.13	1.18	36.18	8502.30	819.95	157.74
250 × 125 × t10/i9	550	0.555	305.25	585	86	22664.81	383872.50	406537.31	1.38	40.50	11137.50	694.94	129.51
300 × 150 × t8/i3	630	0.483	304.29	632	78.4	25879.86	439708.50	465598.36	1.89	51.62	16261.56	736.69	207.42
300 × 150 × t10/i8.5	730	0.655	478.15	849	118	47121.68	509503.50	556625.18	2.19	58.10	21207.96	655.62	179.73
300 × 150 × t11.5/i22	790	0.768	606.72	978	143	64706.69	551380.50	616087.19	2.37	61.99	24486.84	629.95	171.24
350 × 150 × t9/i5	800	0.585	468	870	93.5	50544.00	558360.00	608904.00	2.80	71.28	28512.00	699.89	304.94
350 × 150 × t12/i24	980	0.872	854.56	1280	158	113058.29	683991.00	797049.29	3.43	84.89	41595.12	622.69	263.26
400 × 150 × t10/i8	1010	0.772	727.2	1200	115	99153.72	704929.50	804083.22	4.04	98.06	49522.32	670.07	430.63
400 × 150 × t12.5/i25	1140	0.958	1092.12	1580	165	168077.27	795663.00	963740.27	4.56	109.30	62298.72	609.96	377.57



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

1. 처짐량 판정 1

판정기준: $L / \sigma > 800$

$$\ast \sigma = \sigma_s + \sigma_d$$

2. 처짐량 판정 2

판정기준: $L / \sigma_d > 1000$

3. 최대굽힘응력 판정

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

$$\ast \sum \sigma = \sigma_v + \sigma_w$$

※ I-BEAM 자중에 의한 처짐 (σ_s)

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

※ 이동하중에 의한 처짐 (σ_d)

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

E = 종탄성계수 (2,100,000 kg/cm²)

I_x = 단면2차MOMENT

판정기준		
> 800	> 1000	≤ 1159

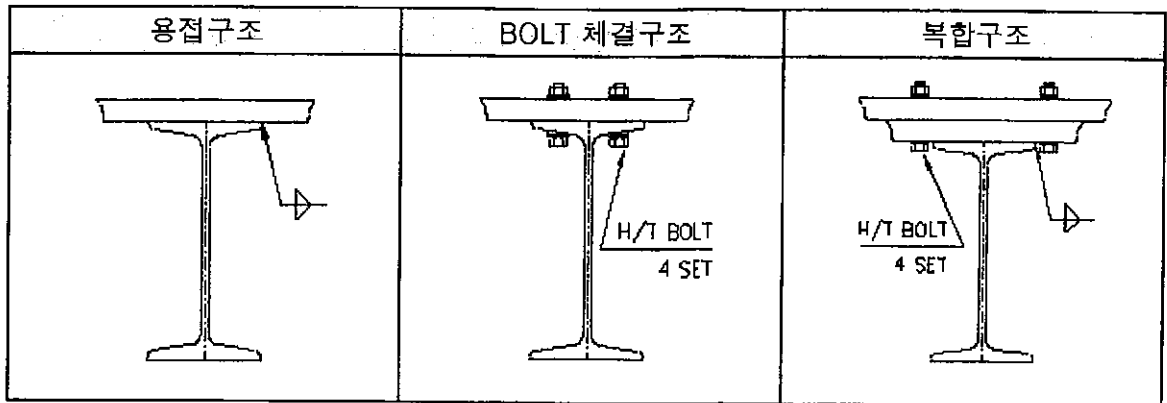
I-BEAM 규격	I _x (cm ⁴)	최대지지 거리(cm)	σ _s (cm)	σ _d (cm)	처짐량판정1	처짐량판정2	Σ σ (kg/cm ²)
200×100×t7/10	2170	300	0.0060	0.2901	1013.2	1034.2	1108.1
200×150×t9/16	4460	430	0.0240	0.4156	978.3	1034.6	764.3
250×125×t7.5/12.5	5180	470	0.0224	0.4673	959.9	1005.8	977.7
250×125×t10/19	7310	550	0.0431	0.5306	958.7	1036.5	824.4
300×150×t8/13	9480	630	0.0498	0.6149	947.8	1024.5	944.1
300×150×t10/18.5	12700	730	0.0908	0.7141	906.9	1022.2	835.4
300×150×t11.5/22	14700	790	0.1262	0.7819	869.9	1010.3	801.2
350×150×t9/15	15200	800	0.0977	0.7853	906	1018.7	1004.8
350×150×t12/24	22400	980	0.2226	0.9796	815.2	1000.4	886
400×150×t10/18	24100	1010	0.1928	0.9967	849.1	1013.4	1100.7
400×150×t12.5/25	31700	1140	0.3165	1.0896	810.8	1046.3	987.5

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I-BEAM의 고정방법 및 사양

1. I-BEAM의 고정방법



2. 기본조건 및 사양

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

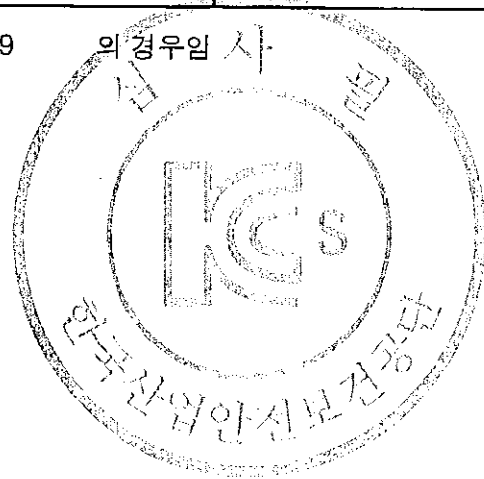
단위: mm

정격하중(Kg)	용접구조		BOLT 체결구조
	최소 용접두께	최소 용접길이	최소 BOLT SIZE
2000	6	125	M12 x 4set

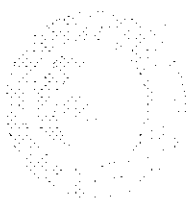
단, 적용 I-BEAM 250×125×t10/19

의경우임 사

※강도계산서 참조



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[I-BEAM 고정볼트 강도 및 용접강도 계산서]

1) I-BEAM 고정방법중 BOLT구조의 강도 계산

[H/T BOLT의 허용인장응력 : 2500 kg/cm²]

☞ 작용하중 계산

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

충격계수 $\psi = 1.1$
 작업계수 $\phi = 1.08$
 정격하중 $Q = 2000$
 HOIST자중 $Q1 = 350$

☞ BOLT 1 개당 인장강도 계산

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

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

BEAM 규격	BEAM자중 (kg)	하중 P(kg)	BOLT 규격	BOLT수	BOLT 단면적 (cm ²)	BOLT강도
150×125×t8.5/14	97.74	2690.6	M12	4	1.13	595.3
180×100×t6/10	61.36	2651.3	M12	4	1.13	586.6
200×100×t7/10	78	2669.2	M12	4	1.13	590.5
200×150×t9/16	216.72	2819.1	M12	4	1.13	623.7
250×125×t7.5/12.5	180.01	2779.4	M12	4	1.13	614.9
250×125×t10/19	305.25	2914.7	M12	4	1.13	644.8
300×150×t8/13	304.29	2913.6	M12	4	1.13	644.6
300×150×t10/18.5	478.15	3101.4	M12	4	1.13	686.2
300×150×t11.5/22	606.72	3240.3	M12	4	1.13	716.9
350×150×t9/15	468	3090.4	M12	4	1.13	683.7
350×150×t12/24	854.56	3507.9	M12	4	1.13	776.1
400×150×t10/18	727.2	3370.4	M12	4	1.13	745.7
400×150×t12.5/25	1092.12	3764.5	M12	4	1.13	832.9

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2) I-BEAM 고정방법중 용접구조의 강도 계산

[용접이음의 허용응력: 560 kg/cm²]

☞ 용접강도 계산

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

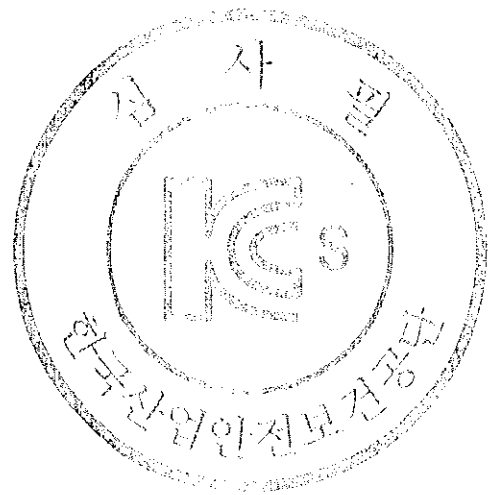
※ 판정기준: $\sigma_w < 560 \text{ kg/cm}^2$

BEAM 규격	하중 P(kg)	용접두께 t(cm)	용접길이 l(cm)	용접강도 $\sigma_w(\text{kg/cm}^2)$
150×125×t8.5/14	2690.6	0.6	12.5	253.7
180×100×t6/10	2651.3	0.6	10	312.5
200×100×t7/10	2669.2	0.6	10	314.6
200×150×t9/16	2819.1	0.6	15	221.5
250×125×t7.5/12.5	2779.4	0.6	12.5	262.1
250×125×t10/19	2914.7	0.6	12.5	274.8
300×150×t8/13	2913.6	0.6	15	228.9
300×150×t10/18.5	3101.4	0.6	15	243.7
300×150×t11.5/22	3240.3	0.6	15	254.6
350×150×t9/15	3090.4	0.6	15	242.8
350×150×t12/24	3507.9	0.6	15	275.6
400×150×t10/18	3370.4	0.6	15	264.8
400×150×t12.5/25	3764.5	0.6	15	295.8

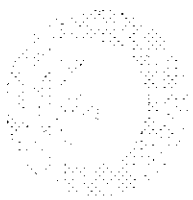
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◆ DATA SHEET OF MOTOR ◆

1	APPLICATION : HOISTING MOTOR			2	MOTOR TYPE : SQUIRREL CAGE INDUCTION MOTOR		
3	OUTPUT : 1.5/0.5 [kw]			4	POLES : 4/12		
5	SPEED : 1715/500 [rpm]			6	INSULATION CLASS : F		
7	STARTING METHOD : ACROSS THE LINE STARTER (FULL VOLTAGE)			8	RATING : 15/5 [min]		
9	POWER SUPPLY	220V AC 3Φ 380V 60Hz 440V 460V 480V		10	NO LOAD CURRENT [A]	220V 380V 440V 460V 480V	3.47/3.96 2.01/2.29 1.74/1.98 1.66/1.89 1.59/1.81
11	FULL LOAD CURRENT [A]	220V 380V 440V 460V 480V	4.0/2.16 2.3/1.25 2.0/1.08 1.9/1.03 1.82/1.0	12	STARTING CURRENT [A]	220V 380V 440V 460V 480V	33.0/7.3 19.0/4.2 16.4/3.63 15.7/3.47 15.0/3.3
13	WINDING CONNECTION	220V 380V 440V 460V 480V	STAR STAR STAR STAR STAR	14	MINIMUM STARTING VOLTAGE [V]	220V 380V 440V 460V 480V	185 320 370 387 404
15	EFFICIENCY : 72.8/45.9 [%]			16	POWER FACTOR : 85.3/768.4 [%]		
17	FULL LOAD TORQUE : 0.85/0.97 [kg · m]			18	STARTING TORQUE : 200/143 [%]		
19	BEARING : OPL – 6206Z , PL – 6304 ZZ			20	NOISE LEVEL : 65/60 [dB]		
21	PAINTING COLOR : 0.4PB 4.2/5.6			22	ROTATION : CCW & CW		
23	ENCLOSURE : TENV			24	NET WEIGHT : 22.0 [kg]		
25	BEARING LUBRICATION : GREASE			26	LOCATION : OUT DOOR		
27	TEMPERATURE RISE AT FULL LOAD : BY RESISTOR METHOD : 80 [°C]						

◆ DATA SHEET OF MOTOR ◆

1	APPLICATION : HOISTING MOTOR			2	MOTOR TYPE : SQUIRREL CAGE INDUCTION MOTOR		
3	OUTPUT : 1.5/0.38 [kw]			4	POLES : 2/8		
5	SPEED : 3510/840 [rpm]			6	INSULATION CLASS : F		
7	STARTING METHOD : ACROSS THE LINE STARTER (FULL VOLTAGE)			8	RATING : 5/15 [min]		
9	POWER SUPPLY	220V AC 3Φ 380V 60Hz 440V 460V 480V		10	NO LOAD CURRENT [A]	220V 380V 440V 460V 480V	5.2/2.5 3.0/1.5 2.6/1.3 2.48/1.24 2.38/1.19
11	FULL LOAD CURRENT [A]	220V 380V 440V 460V 480V	7.0/3.5 4.1/2.1 3.5/1.8 3.34/1.72 3.2/1.65	12	STARTING CURRENT [A]	220V 380V 440V 460V 480V	31.5/14.0 18.5/8.4 15.8/7.2 15.11/6.89 14.48/6.6
13	WINDING CONNECTION	220V 380V 440V 460V 480V	STAR STAR STAR STAR STAR	14	MINIMUM STARTING VOLTAGE [V]	220V 380V 440V 460V 480V	198 342 396 414 432
15	EFFICIENCY : 77.3/67.5 [%]			16	POWER FACTOR : 80.9/60.2 [%]		
17	FULL LOAD TORQUE : 0.42/0.44 [kg · m]			18	STARTING TORQUE : 342/260 [%]		
19	BEARING : OPL – 6206Z , PL – 6205 ZZ			20	NOISE LEVEL : 70/65 [dB]		
21	PAINTING COLOR : 0.4PB 4.2/5.6			22	ROTATION : CCW & CW		
23	ENCLOSURE : TENV			24	NET WEIGHT : 22.0 [kg]		
25	BEARING LUBRICATION : GREASE			26	LOCATION : OUT DOOR		
27	TEMPERATURE RISE AT FULL LOAD : BY RESISTOR METHOD : 90 [°C]						

◆ DATA SHEET OF MOTOR ◆

1	APPLICATION : TRAVERSING MOTOR			2	MOTOR TYPE : SQUIRREL CAGE INDUCTION MOTOR		
3	OUTPUT : 0.4 [kw]			4	POLES : 4		
5	SPEED : 1650 [rpm]			6	INSULATION CLASS : F		
7	STARTING METHOD : ACROSS THE LINE STARTER (FULL VOLTAGE)			8	RATING : 30 [min]		
9	POWER SUPPLY	220V 380V AC 3Φ 440V 60Hz 460V 480V		10	NO LOAD CURRENT [A]	220V 380V 440V 460V 480V	1.8 1.0 0.9 0.86 0.83
11	FULL LOAD CURRENT [A]	220V 380V 440V 460V 480V	2.6 1.5 1.3 1.24 1.19	12	STARTING CURRENT [A]	220V 380V 440V 460V 480V	13.2 7.6 6.6 6.3 6.1
13	WINDING CONNECTION	220V 380V 440V 460V 480V	DELTA STAR STAR STAR STAR	14	MINIMUM STARTING VOLTAGE [V]	220V 380V 440V 460V 480V	198 342 396 414 432
15	EFFICIENCY : 73.0 [%]			16	POWER FACTOR : 72.0 [%]		
17	FULL LOAD TORQUE : 0.23 [kg · m]			18	STARTING TORQUE : 224 [%]		
19	BEARING : OPL – 6204Z , PL – 6202Z			20	NOISE LEVEL : 65 [dB]		
21	PAINTING COLOR : 0.4PB 4.2/5.6			22	ROTATION : CCW & CW		
23	ENCLOSURE : TENV			24	NET WEIGHT : 11.0 [kg]		
25	BEARING LUBRICATION : GREASE			26	LOCATION : OUT DOOR		
27	TEMPERATURE RISE AT FULL LOAD : BY RESISTOR METHOD : 90 [°C]						

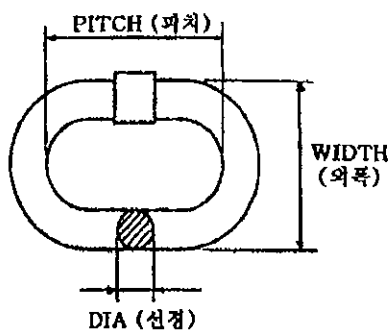
◆ DATA SHEET OF MOTOR ◆

1	APPLICATION : TRAVERSING MOTOR			2	MOTOR TYPE : SQUIRREL CAGE INDUCTION MOTOR		
3	OUTPUT : 0.4/0.2 [kw]			4	POLES : 4/8		
5	SPEED : 1650/860 [rpm]			6	INSULATION CLASS : F		
7	STARTING METHOD : ACROSS THE LINE STARTER (FULL VOLTAGE)			8	RATING : 15/5 [min]		
9	POWER SUPPLY	220V 380V AC 3 ϕ 440V 60Hz 460V 480V		10	NO LOAD CURRENT [A]	220V 380V 440V 460V 480V	2.33/2.8 1.35/1.62 1.17/1.4 1.12/1.34 1.07/1.28
11	FULL LOAD CURRENT [A]	220V 380V 440V 460V 480V	2.78/2.73 1.61/1.58 1.39/1.36 1.33/1.31 1.28/1.25	12	STARTING CURRENT [A]	220V 380V 440V 460V 480V	9.7/6.05 5.8/3.5 4.84/3.02 4.63/2.9 4.5/2.8
13	WINDING CONNECTION	220V 380V 440V 460V 480V	STAR STAR STAR STAR STAR	14	MINIMUM STARTING VOLTAGE [V]	220V 380V 440V 460V 480V	187 322 373 390 425
15	EFFICIENCY : 56.6/36.4 [%]			16	POWER FACTOR : 64.3/52.8 [%]		
17	FULL LOAD TORQUE : 0.222/0.228 [kg.m]			18	STARTING TORQUE : 162/154 [%]		
19	BEARING : OPL - 6204Z , PL - 6203Z			20	NOISE LEVEL : 65/60 [dB]		
21	PAINTING COLOR : 0.4PB 4.2/5.6			22	ROTATION : CCW & CW		
23	ENCLOSURE : TENV			24	NET WEIGHT : 11.1 [kg]		
25	BEARING LUBRICATION : GREASE			26	LOCATION : OUT DOOR		
27	TEMPERATURE RISE AT FULL LOAD : BY RESISTOR METHOD : 80 [°C]						

CERTIFICATE OF INSPECTION AND TEST FOR LOAD CHAIN

KUK DONG Co., Ltd.
극동호이스트(주)

주 소 : 경기도 안산시 성곡동 630-2
T E L : 031-491-5311~4
F A X : 031-492-0473

MESSERS 납 품 처		ORDER NO.		Test Certificate According to KS B 6278				
I T E M 품 명		LOAD CHAIN 7.1 Ø						
CERT No. 검사번호		KDQ-A-071						
Characteristics of the Chain 제 인 치 수	Diameter 선 경(mm)	Pitch 피치(10Link)	Width 외경너비(mm)	Weight 중량(kg/M)				
S P E C. 규 격	7.1	212	23.0	1.06				
Tolerance + 허용오차 -	0 0.1	0.2 0	Max					
Measurement 측 정 치	7.1	212	23.05	1.06				
Material Alloy Steel 재 질 : SAE15B24		Welding Process(용접방법) Butt Resistance Welding			Heat Treatment 열처리 : Hv 600			
Quantity 납품수량		Weight 중량(kg)	Safe Working 안전사용하중(kgf)	Proof Load 시험하중(kgf)	Breaking Load 파단하중(kgf)	Elongation 연신율(%)		
LOT No.	M							
			1,600 kg	3,150 kg	6,300 kg	6 %		
RESULT OF TEST POSITIVE				TEST DATE : 2009. 07. 13 검 사 일 자 KUK DONG CO., LTD SIGNATURE OF TESTER 검사자 서명 : SEO, SANGYEON				
THIS TEST CERTIFICATE MUST BE KEPT FOR THREE YEARS RESP. DURING THE ENTIRE SERVICE LIFE OF THE CHAIN. 본 시험 성적서는 체인의 작업수명인 3년간 보관되어야 합니다.								
※ 로드 체인 사용 시 주의사항 1. 안전사용 하중을 초과하지 말것. 2. 충격을 가하지 말것. 3. 부식으로 부터 보호할것. 4. 체인이 꼬이지 않도록 할것.								

KUK DONG Co., Ltd.