



심사결과 통지서

신청인	사업장명	(주)KITO	사업장관리번호	2010E110010
	사업자등록번호	010-E1-10010	대표자 성명	KITO YOSHIO
	소재지	2000, Tsujijarai, Showa-Cho, Nakakoma-Gun, Yamanashi, Japan		
안전인증대상기계 · 기구명 호이스트				
형식(규격)	KMS-ER2-005		용량(등급)	0.5 ton

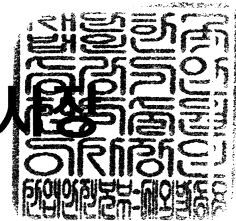
「산업안전보건법」 제34조 및 같은 법 시행규칙 제58조의4제4항에 따라 실시한

- 예비심사
 서면심사
 기술능력 및 생산체계 심사
 개별 제품심사
 형식별 제품심사
- 결과가 적 합
 부적합 함을 통지합니다.

2012년 08월 06일

인증심사원 최 창 일 **최창일**
 오 태 화 **오태화**

한국승강기안전기술원 이사장





제 CA-2012-0030 호

안 전 인 증 서

(사업장명) (주)KITO

(소재지) 2000, Tsuijiarai, Showa-Cho, Nakakoma-Gun, Yamanashi, Japan

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

_____	품 명 : 호이스트	_____
_____	형식(용량): KMS-ER2-005(0.5 ton)	_____
_____	인증번호 : 12-CA4AC-0030	_____
_____	인증기준 : 위험기계·기구 의무안전인증기준 (고용노동부고시 제2011-39호)	_____
_____	인증조건 : 산업안전보건법 "제34조 준수"	_____

2012년 11월 30일

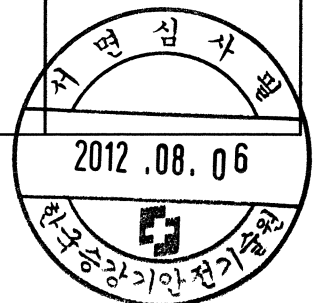
한국승강기안전기술원 이사장



【별지 제4호서식】

동일형식일람표

사업장명	KITO CORP.	개정일자 및 번호	2012.07.25	인증번호	
형식 및 모델번호		동일형식 항목 및 내역			
형식번호	모델번호	동일형식 항목1	동일형식 항목2	동일형식 항목3	동일형식 항목4
KMS-ER2-005	KITO-ER2-005S	Lift max 30m	권상모타 0.9kW	횡행모타 없음	Trolley고정형
	KITO-ER2-005IS		권상모타 0.9kW		Trolley 있음
	KITO-ER2SP005S				권상모타 0.9kW
	KITO-ER2SP005IS		권상모타 0.9kW	횡행모터 0.4kW .S : 24m/min .L: 12m/min .IS:24/4m/min .IL:12/2m/min	
	KITO-ER2SG005S				
	KITO-ER2SG005IS				
	KITO-ER2M005S-S				
	KITO-ER2M005S-L				
	KITO-ER2M005S-IS				
	KITO-ER2M005S-IL				
	KITO-ER2M005IS-S				
	KITO-ER2M005IS-L				
	KITO-ER2M005IS-IS				
	KITO-ER2M005IS-IL				
	KITO-C-ER2M005S-S		권상모타 0.9kW	전기Trolley 결합 Clean type	
	KITO-C-ER2M005S-L				
	KITO-C-ER2M005S-IS				
	KITO-C-ER2M005S-IL				
	KITO-C-ER2M005IS-S		권상모타 0.9kW	전기Trolley 결합 Clean type	
	KITO-C-ER2M005IS-L				
KITO-C-ER2M005IS-IS					
KITO-C-ER2M005IS-IL					



제 2012-BJ-0009 호



안 전 인 증 서

정호엔지니어링

경기도 광명시 노온사동 440-5

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

품 목

양중기용 과부하방지장치

형식·모델/용량·등급/인증번호

형식·모델
JDL-100

용량·등급
J-2

인증번호
12-AV2BJ-0009

인 증 기 준

방호장치 의무안전인증 고시(고용노동부고시 제2010-36호)

인 증 조 건

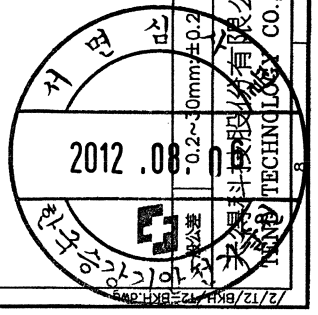
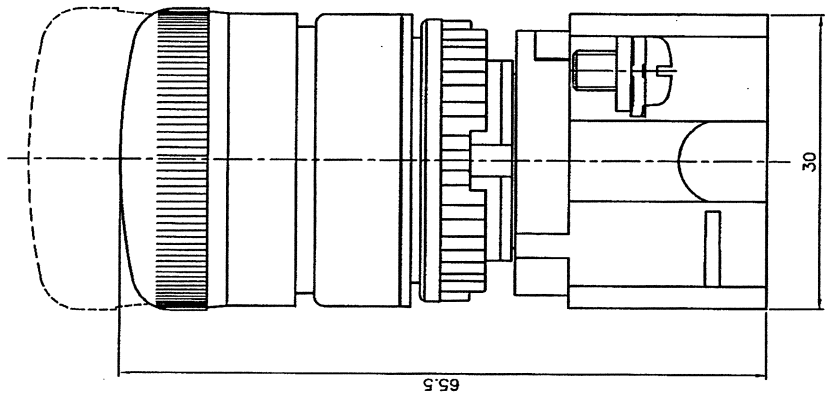
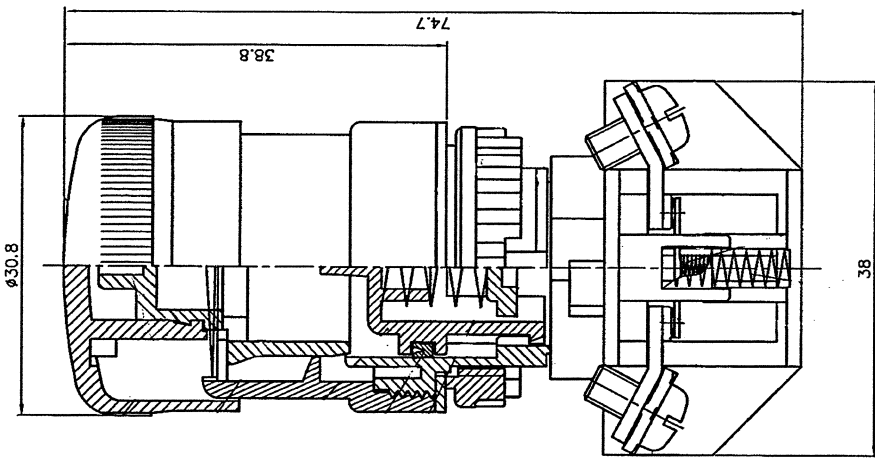
아래 주소에서 생산되는 제품에 한함.

정호엔지니어링, 경기도 광명시 노온사동 440-5

2012년 06월 11일

한국산업안전보건공단 이사장

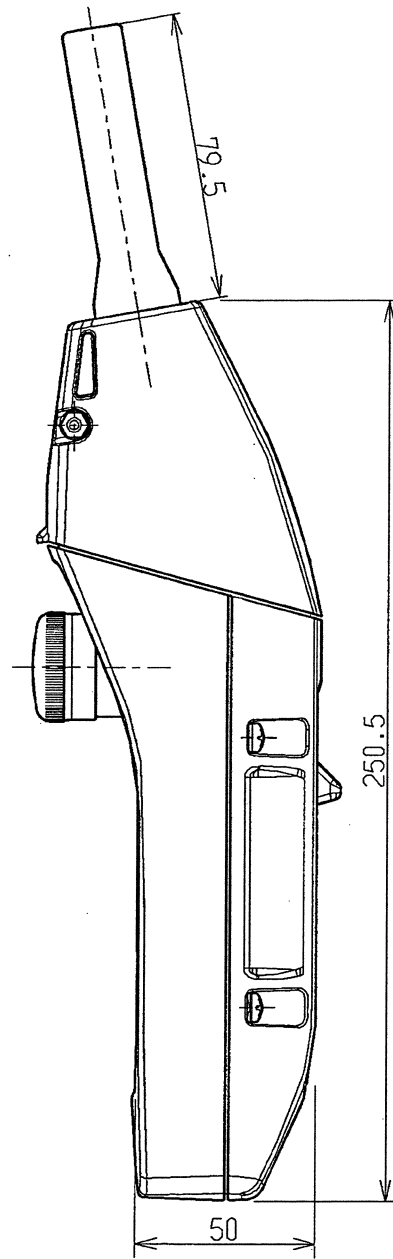
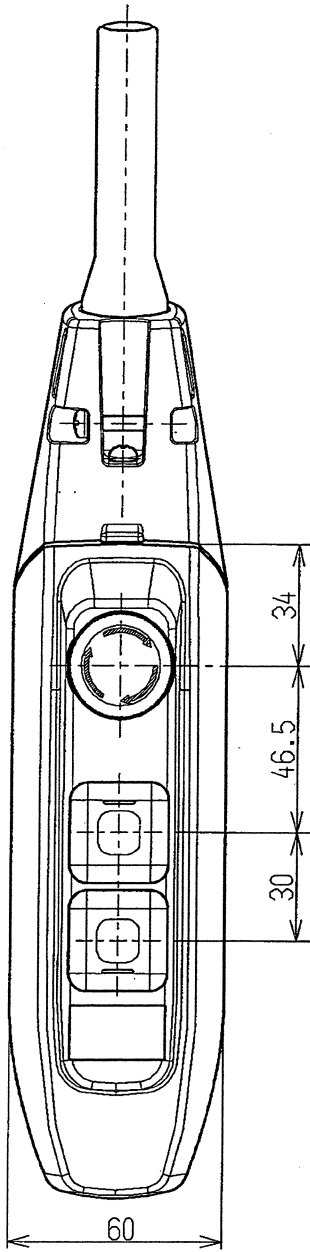




圖號	T2-BKH
品名	T2 BKH 連鎖開關
材質	表面處理 顏色
單位	mm
比例	2:1
投影法	第一角
模具孔數	設計員 95.05.24 李宗達
模具處理	研裝部 95.05.24 周益萍
模具材質	研裝部 95.05.24 鍾健球
品保	品保部 95.05.24 林建宏
最新修正	60.1~300mm: ±0.5
前次修正	30.1~60mm: ±0.3
0.2~30mm: ±0.2	

圖序: A

Revision	Incidence	Description	Date	Change	Approved
1					

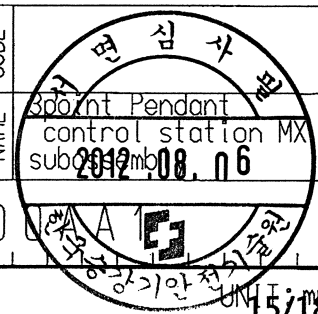


⑥
⑤
④
③
②
①

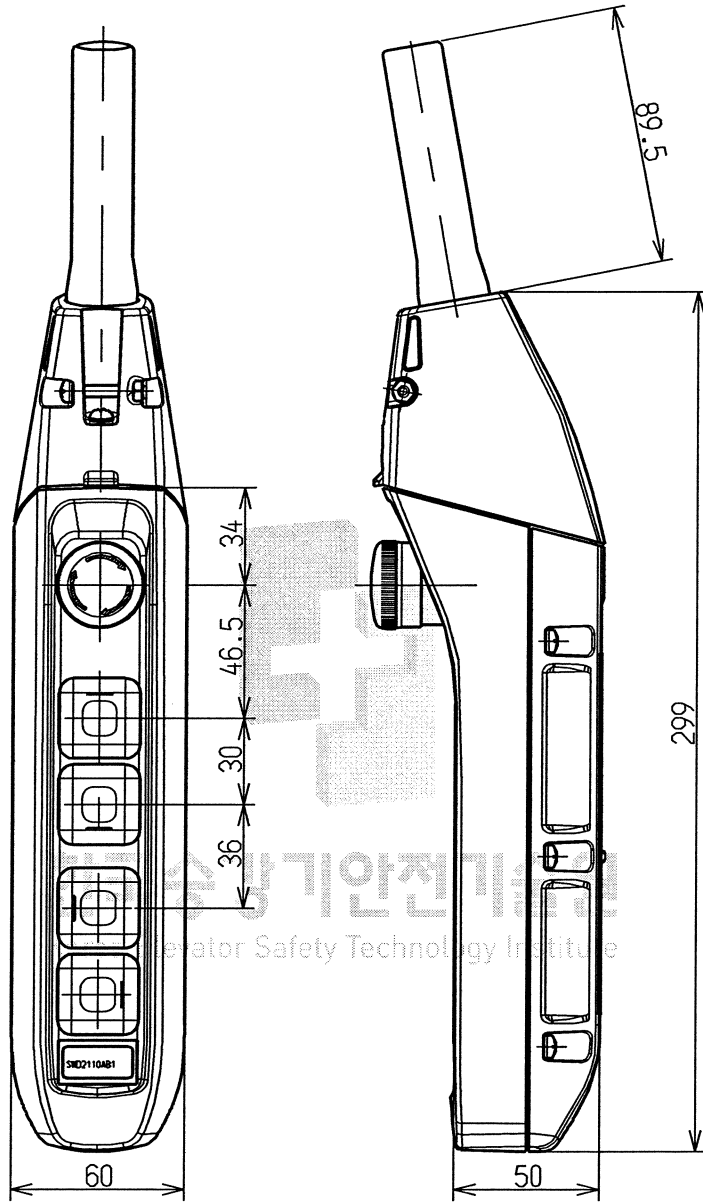
NOTE

APPROVED	ISHIKAWA	CHECKED	FURIYA	DESIGNED	KOBAYASHI	DRAWN	KOBAYASHI	SCALE	-
Date issued	08.02.08		08.02.08		08.02.08		08.02.08		

DWG. NO.	SWD2X0
NOS./UNIT MATERIAL	
NAME	Spot Pendant
CODE	control station MX
	sub 2012.08.06



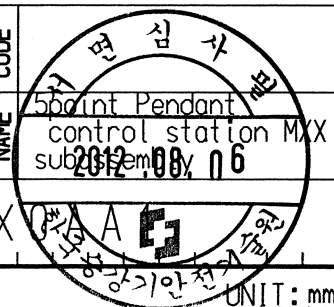
Revision	Incidence	Description	Date	Charge	Approved



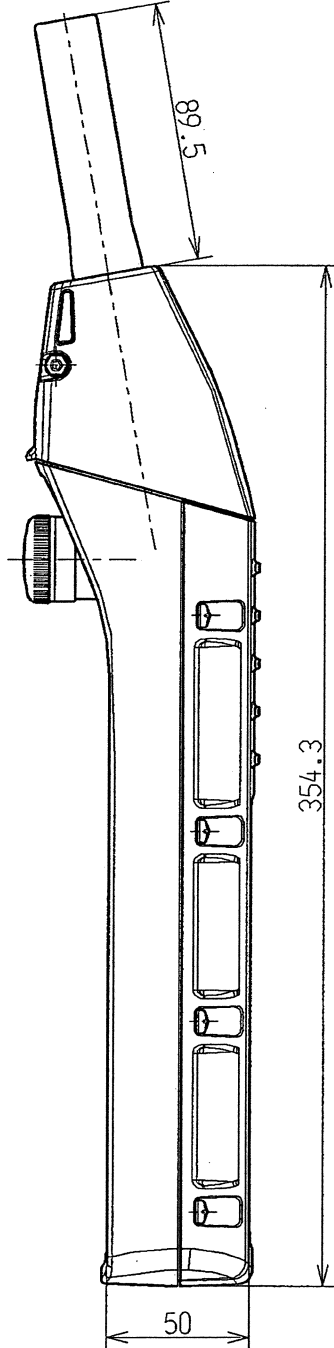
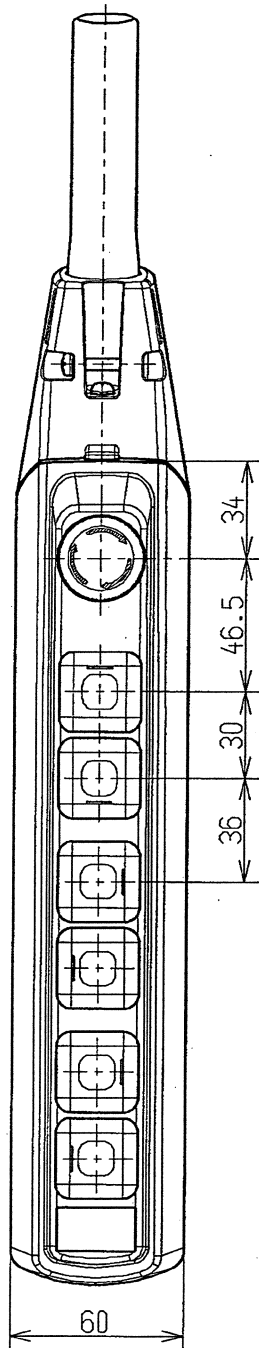
The lifting and lowering push buttons are marked with \updownarrow for single speed or \updownarrow for dual speed.
 The traveling push buttons are marked with E W or N S depending on the installed direction.

⑥
⑤
④
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①
Date issued

APPROVED		H.FURIYA		CHECKED		T.HATANO		DESIGNED		KOBAYASHI		DRAWN		KOBAYASHI		SCALE		-		Dwg. No. SWD2XX		MATERIAL		NAME CODE			
09.04.21		09.04.21		09.04.21		09.04.21		09.04.21		09.04.21		09.04.21		09.04.21		-		-		-		-		-		Pendant control station MXX substation 06	



Revision	Incidence	Description	Date	Charge	Approved



(E)
(W)
(S)
(N)

6
5
4
3
2
1

Date issued

NOTE

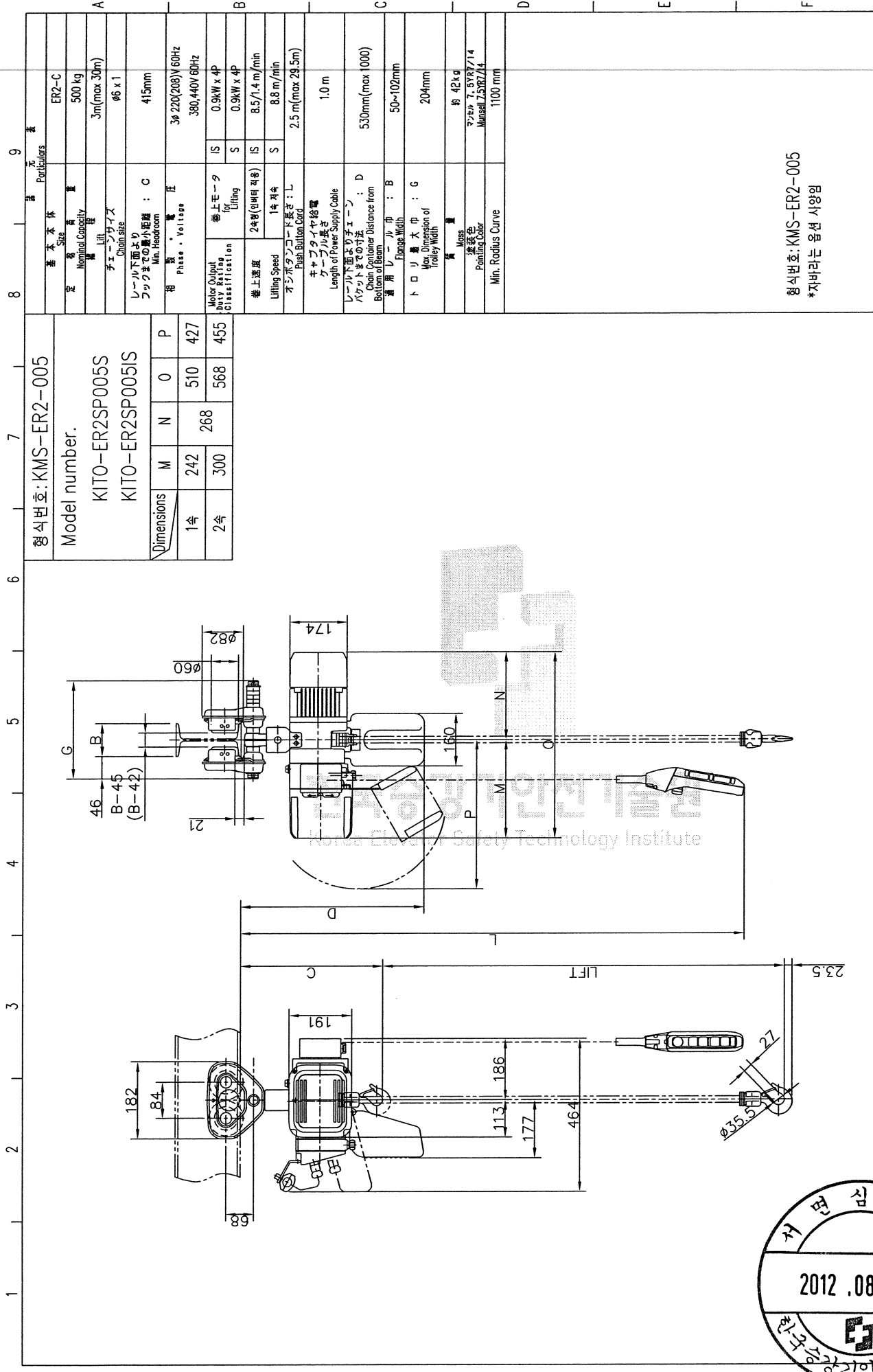
APPROVED	ISHIKAWA	CHECKED	FURIYA	DESIGNED	KOBAYASHI	DRAWN	KOBAYASHI	SCALE	-	DWG. NO.	SWD2XXX
	08.02.08		08.02.08		08.02.08		08.02.08			NOS./UNIT	MATERIAL

NAME CODE

2012.08.06 MXXX

서면검사관

이강기



형식번호: KMS-ER2-005
 Model number.
 KITO-ER2SP005S
 KITO-ER2SP005IS

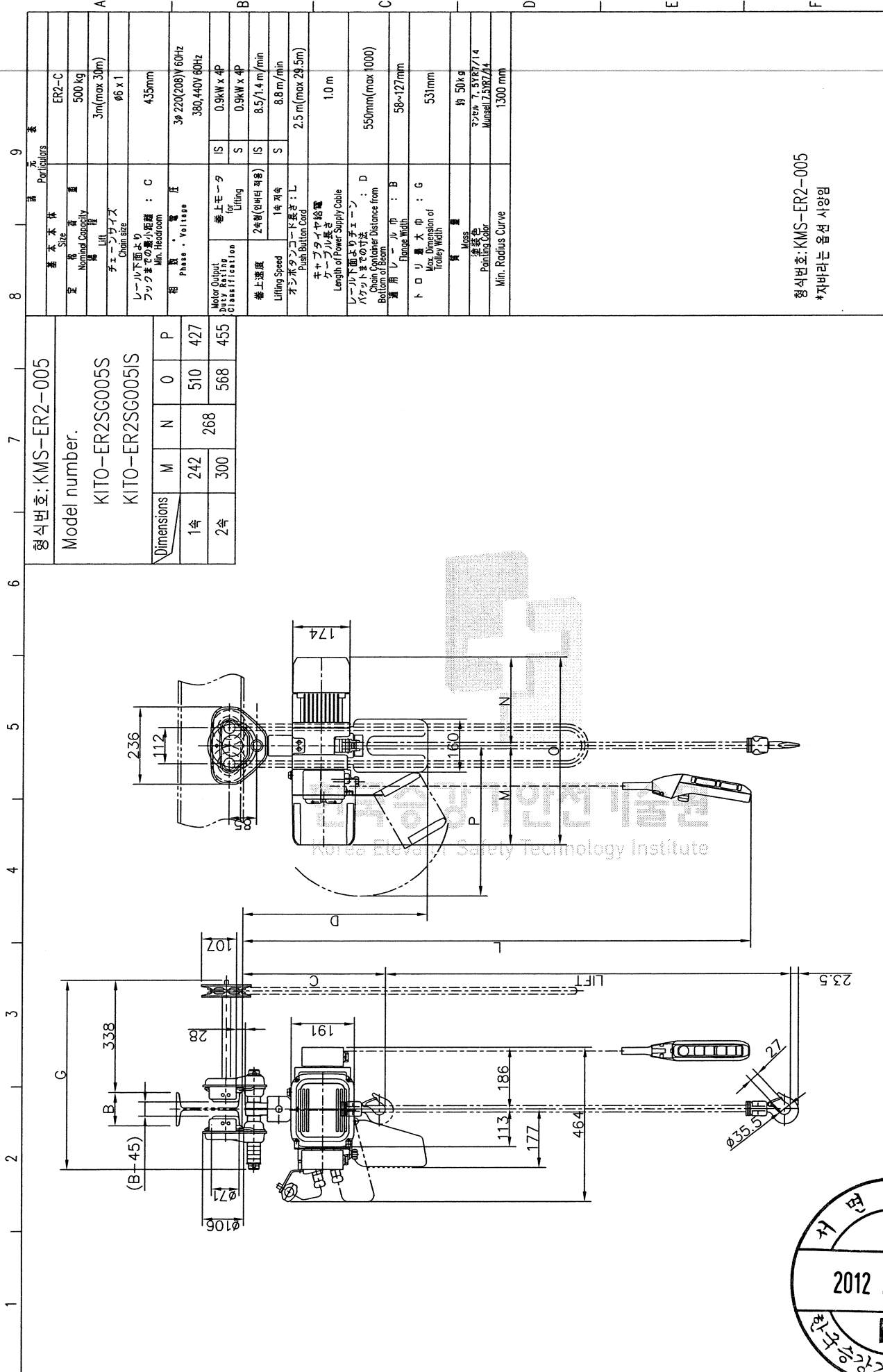
Dimensions		M	N	O	P
1속	242	288	510	427	
2속	300	568	455		

Particulars		Particulars	
基本仕様	ER2-C	基本仕様	ER2-C
定額容量	500 kg	定額容量	500 kg
吊钩行程	3m(max 30m)	吊钩行程	3m(max 30m)
チェーンサイズ	46 x 1	チェーンサイズ	46 x 1
レール下面よりフックまでの最小距離 : C	415mm	レール下面よりフックまでの最小距離 : C	415mm
相電圧	3φ 220(200)V 60Hz	相電圧	3φ 220(200)V 60Hz
巻上速度	0.9kW x 4P	巻上速度	0.9kW x 4P
モーター	0.9kW x 4P	モーター	0.9kW x 4P
巻上速度	8.5/1.4 m/min	巻上速度	8.5/1.4 m/min
リフト速度	8.8 m/min	リフト速度	8.8 m/min
押しボタン距離	2.5 m(max 29.5m)	押しボタン距離	2.5 m(max 29.5m)
ケーブル長さ	1.0 m	ケーブル長さ	1.0 m
チェーンコンテナからの距離	530mm(max 1000)	チェーンコンテナからの距離	530mm(max 1000)
チェーンコンテナからの距離	50~102mm	チェーンコンテナからの距離	50~102mm
トロリ幅	204mm	トロリ幅	204mm
質量	約 42kg	質量	約 42kg
塗装色	7.5YR7/14	塗装色	7.5YR7/14
Min. Radius Curve	1100 mm	Min. Radius Curve	1100 mm

형식번호: KMS-ER2-005
 *자바라는 음션 사양임

REV.	QTY	CONTENTS	DATE	APPROVED	DESIGNED	DRAWN	TITLE
							500kg ER2M SERIES ELECTRIC CHAIN HOIST WITH PLAN TROLLEY
							ER2-SP
							KMS-ER2-005-002





형식번호: KMS-ER2-005
 Model number.
 KITO-ER2SG005S
 KITO-ER2SG005IS

Dimensions	M	N	O	P
1속	242	268	510	427
2속	300	568	455	

Particulars		9	
差本主体	ER2-C		
定容	500 kg		
吊钩行程	3m(max 30m)		
チェーンサイズ	96 x 1		
レール下面よりフックまでの最小距離 : C	435mm		
相電圧	3φ 220(208)V 60Hz		
相電圧	380,440V 60Hz		
モーター出力	0.9kW x 4P	IS	
モーター定格	0.9kW x 4P	S	
モーター分類	IS		
巻上速度	8.5/1.4 m/min		
巻上速度	8.8 m/min		
押しボタン操作	1ヶ所		
押しボタン操作	2ヶ所		
押しボタン操作	2.5m(max 29.5m)		
ケーブル長さ	1.0 m		
ケーブル長さ	550mm(max 1000)		
チェーンコンテナ距離	58~127mm		
チェーンコンテナ距離	531mm		
チェーンコンテナ距離	約 50kg		
チェーンコンテナ距離	7.5YR7/14		
チェーンコンテナ距離	Munsell 7.5YR7/14		
チェーンコンテナ距離	1300 mm		

형식번호: KMS-ER2-005
 *자바라는 음션 사양임

NAME	TITLE	DESIGNED	CHECKED	APPROVED	DATE	REV	QTY
	500kg ER2M SERIES ELECTRIC CHAIN HOIST WITH GEAR TROLLEY						
ER2-SG							
KMS-ER2-005-003							



三協法 単位 : mm
 様式 025P-19

LOAD SUMMARY 1 – INVERTER사양

*POWER SOURCE : AC 3Φ 220(208)V

OBJECT	HOISTING	TRAVERSING	CONTROL CIRCUIT
MOTOR OUTPUT	0.9KW x 4P	0.4KW x 4P	
FULL LOAD CURRENT	5.7 (A)	3 (A)	0.5 (A)

*크레인 하중상태를 HOIST의 정격 LOAD의 100(%)를 사용했을때를 기준으로 작성하였음.

*** NOMAL 전류값 ***

권상과 횡행시 : HOISTING + TRAVERSING + CONTROL CIRCUIT = 9.2 A

*** PEAK 전류값 ***

K= NOMAL 전류치가 50A미만일때 1.25, 50A이상일때 1.1적용

NOMAL 전류값 * K = 9.2 * 1.25 = 11.5 A

*POWER SOURCE : AC 3Φ 380(440)V

OBJECT	HOISTING	TRAVERSING	CONTROL CIRCUIT
MOTOR OUTPUT	0.9KW x 4P	0.4KW x 4P	
FULL LOAD CURRENT	3.6 (A)	2.5 (A)	0.5 (A)

*크레인 하중상태를 HOIST의 정격 LOAD의 100(%)를 사용했을때를 기준으로 작성하였음.

*** NOMAL 전류값 ***

권상과 횡행시 : HOISTING + TRAVERSING + CONTROL CIRCUIT = 6.6 A

*** PEAK 전류값 ***

K= NOMAL 전류치가 50A미만일때 1.25, 50A이상일때 1.1적용

NOMAL 전류값 * K = 6.6 * 1.25 = 8.25 A



LOAD SUMMARY 2 – INVERTER사양

*POWER SOURCE : AC 3Φ 220(208)V

OBJECT	HOISTING	TRAVERSING	CONTROL CIRCUIT
MOTOR OUTPUT	0.9KW x 4P	-	
FULL LOAD CURRENT	5.7 (A)	0 (A)	0.5 (A)

*크레인 하중상태를 HOIST의 정격 LOAD의 100(%)를 사용했을때를 기준으로 작성하였음.

*** NOMAL 전류값 ***

권상시 : HOISTING + CONTROL CIRCUIT = 6.2 A

*** PEAK 전류값 ***

K= NAMAL 전류치가 50A미만일때 1.25, 50A이상일때 1.1적용

NOMAL 전류값 * K = 6.2 * 1.25 = 7.75 A

*POWER SOURCE : AC 3Φ 380(440)V

OBJECT	HOISTING	TRAVERSING	CONTROL CIRCUIT
MOTOR OUTPUT	0.9KW x 4P	-	
FULL LOAD CURRENT	3.6 (A)	0 (A)	0.5 (A)

*크레인 하중상태를 HOIST의 정격 LOAD의 100(%)를 사용했을때를 기준으로 작성하였음.

*** NOMAL 전류값 ***

권상시 : HOISTING + CONTROL CIRCUIT = 4.1 A

*** PEAK 전류값 ***

K= NAMAL 전류치가 50A미만일때 1.25, 50A이상일때 1.1적용

NOMAL 전류값 * K = 4.1 * 1.25 = 5.125 A



LOAD SUMMARY 3 – 1속형사양

*POWER SOURCE : AC 3Φ 220(208)V

OBJECT	HOISTING	TRAVERSING	CONTROL CIRCUIT
MOTOR OUTPUT	0.9KW x 4P	0.4KW x 4P	
FULL LOAD CURRENT	4.7 (A)	3 (A)	0.5 (A)

*크레인 하중상태를 HOIST의 정격 LOAD의 100(%)를 사용했을때를 기준으로 작성하였음.

*** NOMAL 전류값 ***

권상과 횡행시 : HOISTING + TRAVERSING + CONTROL CIRCUIT = 8.2 A

*** PEAK 전류값 ***

K= NAMAL 전류치가 50A미만일때 1.25, 50A이상일때 1.1적용

NOMAL 전류값 * K = 8.2 * 1.25 = 10.25 A

*POWER SOURCE : AC 3Φ 380(440)V

OBJECT	HOISTING	TRAVERSING	CONTROL CIRCUIT
MOTOR OUTPUT	0.9KW x 4P	0.4KW x 4P	
FULL LOAD CURRENT	2.6 (A)	2.2 (A)	0.5 (A)

*크레인 하중상태를 HOIST의 정격 LOAD의 100(%)를 사용했을때를 기준으로 작성하였음.

*** NOMAL 전류값 ***

권상과 횡행시 : HOISTING + TRAVERSING + CONTROL CIRCUIT = 5.3 A

*** PEAK 전류값 ***

K= NAMAL 전류치가 50A미만일때 1.25, 50A이상일때 1.1적용

NOMAL 전류값 * K = 5.3 * 1.25 = 6.625 A



LOAD SUMMARY 4 - 1속 형사양

*POWER SOURCE : AC 3Φ 220(208)V

OBJECT	HOISTING	TRAVERSING	CONTROL CIRCUIT
MOTOR OUTPUT	0.9KW x 4P	-	
FULL LOAD CURRENT	4.7 (A)	0 (A)	0.5 (A)

*크레인 하중상태를 HOIST의 정격 LOAD의 100(%)를 사용했을때를 기준으로 작성하였음.

*** NOMAL 전류값 ***

권상시 : HOISTING + CONTROL CIRCUIT = 5.2 A

*** PEAK 전류값 ***

K= NOMAL 전류치가 50A미만일때 1.25, 50A이상일때 1.1적용

NOMAL 전류값 * K = 5.2 * 1.25 = 6.5 A

*POWER SOURCE : AC 3Φ 380(440)V

OBJECT	HOISTING	TRAVERSING	CONTROL CIRCUIT
MOTOR OUTPUT	0.9KW x 4P	-	
FULL LOAD CURRENT	2.6 (A)	0 (A)	0.5 (A)

*크레인 하중상태를 HOIST의 정격 LOAD의 100(%)를 사용했을때를 기준으로 작성하였음.

*** NOMAL 전류값 ***

권상시 : HOISTING + CONTROL CIRCUIT = 3.1 A

*** PEAK 전류값 ***

K= NOMAL 전류치가 50A미만일때 1.25, 50A이상일때 1.1적용

NOMAL 전류값 * K = 3.1 * 1.25 = 3.875 A



ROTATING MACHINE

- SYNCHRONOUS GENERATOR, 3-PHASE
- AC INDUCTION MOTOR, 3-PHASE
 - * N : NORMAL DUTY
 - S : STAND-BY
- DC MOTOR

LIGHTNING ARRESTERS

- LA : LIGHTNING ARRESTER
- SA : SURGE ARRESTER
- SS : SURGE SUPPRESSOR
- DISCHARGE COUNTER

INSTRUMENT TRANSFORMERS

- CURRENT TRANSFORMER
- ZERO PHASE CURRENT TRANSFORMER
- POTENTIAL TRANSFORMER

CIRCUIT BREAKERS

- POWER CIRCUIT BREAKER, FIXED TYPE
- GCB : SF6 GAS CIRCUIT BREAKER
- VCB : VACUUM CIRCUIT BREAKER
- ACB : AIR CIRCUIT BREAKER
- POWER CIRCUIT BREAKER, DRAWOUT TYPE

SWITCHES

- DISCONNECT SWITCH, SINGLE THROW MANUALLY OPERATED
- LOAD BREAK SWITCH, SINGLE THROW MANUALLY OPERATED
- EARTHING SWITCH, SINGLE THROW MANUALLY OPERATED
- DISCONNECT SWITCH, SINGLE THROW MOTOR OPERATED
- EARTHING SWITCH, SINGLE THROW MOTOR OPERATED
- VACUUM CIRCUIT SWITCH
- FUSED DISCONNECTOR SWITCH
- FUSE-SWITCH
- LIMIT SWITCH (MAKE CONTACT)
- LIMIT SWITCH (BREAK CONTACT)
- PUSH BUTTON, NORMALLY OPEN MOMENTARY CONTACT
- PUSH BUTTON, NORMALLY CLOSED MOMENTARY CONTACT
- PUSH BUTTON, NORMALLY OPEN PUSH TO LOCK, RELEASED BY KEY
- MANUAL SELECTOR SWITCH (LOCKED)

- CIRCUIT BREAKER, FIXED TYPE
- MCCB : MOLDED CASE CIRCUIT BREAKER
- MCB : MINIATURE CIRCUIT BREAKER
- CIRCUIT BREAKER, DRAWOUT TYPE
- WITHDRAWABLE INTERCONNECTOR
- CIRCUIT BREAKER, MANUALLY OPERATED FIXED TYPE WITH THERMAL & MAGNETIC TRIP
- CIRCUIT BREAKER, MANUALLY OPERATED FIXED TYPE WITH MAGNETIC TRIP ONLY
- CIRCUIT BREAKER, MANUALLY OPERATED DRAWOUT TYPE WITH THERMAL & MAGNETIC TRIP
- CIRCUIT BREAKER, MANUALLY OPERATED FIXED TYPE WITH THERMAL & MAGNETIC TRIP AND RESIDUAL CURRENT RELEASE

CONTACTORS AND STARTERS

- AUX. CONTACT, NORMALLY OPEN WHEN MAIN SWITCHING DEVICE IS DE-ENERGIZED
- AUX. CONTACT, NORMALLY CLOSED WHEN MAIN SWITCHING DEVICE IS DE-ENERGIZED
- MAGNETIC CONTACTOR, ELECTRICALLY OPERATED
- COMBINATION STARTER, FULL VOLTAGE, NON-REVERSING, FIXED TYPE, WITH ELECTRICALLY OPERATED CONTACTORS, WITH MAGNETIC MOTOR CIRCUIT BREAKER, BUILT IN ELECTRONIC OVER-CURRENT RELAY WITH ADJUSTABLE TRIP RATING
- COMBINATION STARTER, FULL VOLTAGE, NON-REVERSING, FIXED TYPE, WITH ELECTRICALLY OPERATED CONTACTORS, WITH MAGNETIC MOTOR CIRCUIT BREAKER, BUILT IN THERMAL OVER-CURRENT RELAY WITH ADJUSTABLE TRIP RATING

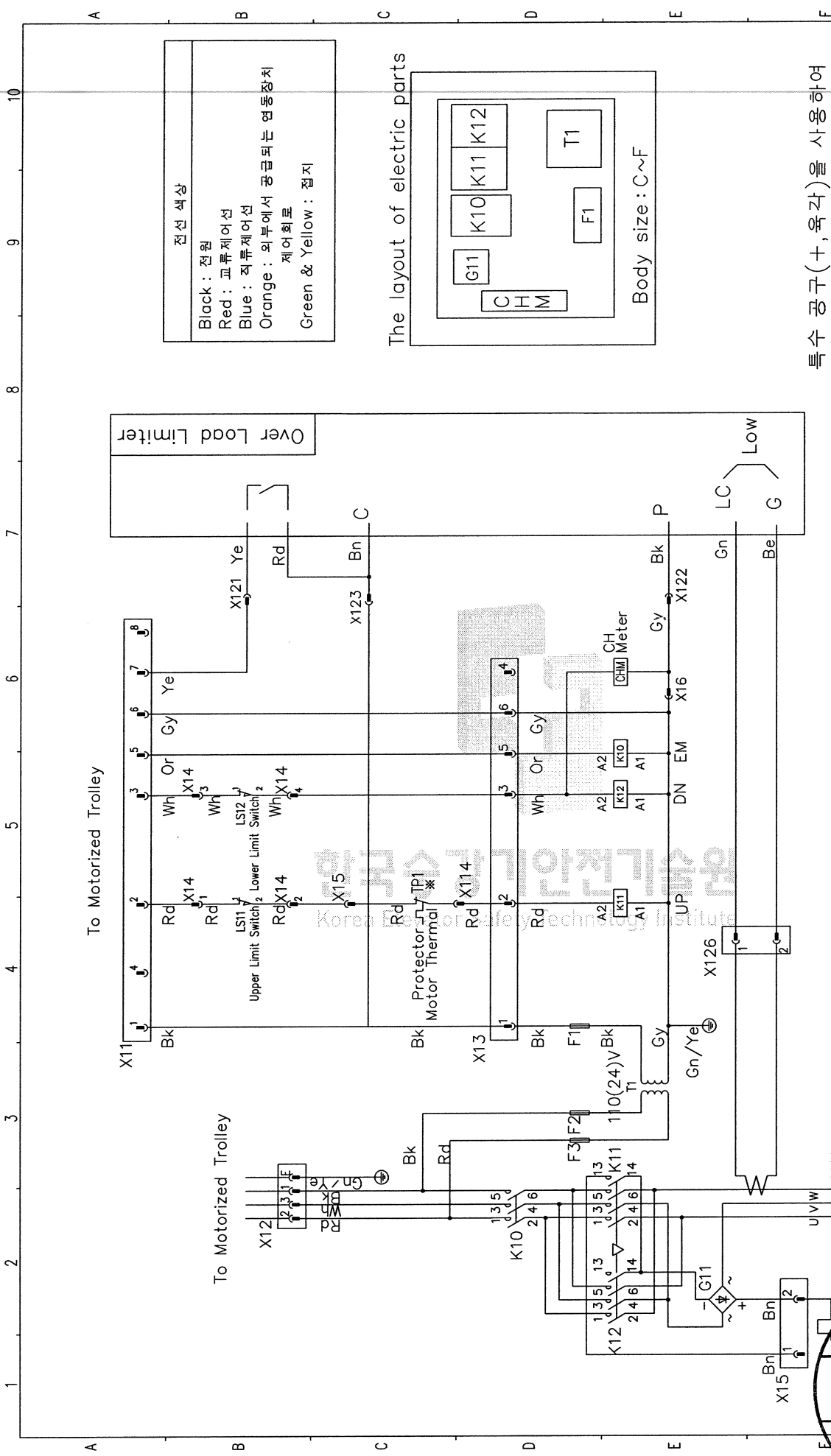
GRAPHIC SYMBOLS

- GENERAL OPERATING COIL
- CAPACITOR
- CAPACITOR VOLTAGE TRANSFORMER(CVT)
- RESISTOR
- DIODE
- BUS DUCT
- SPB : SEGREGATED PHASE BUS DUCT
- IPB : ISOLATED PHASE BUS DUCT
- CABLE HEAD AND CABLE CONNECTION
- AMMETER SWITCH
- VOLTMETER SWITCH
- SIGNAL LAMP
 - * R = RED
 - G = GREEN
 - W = WHITE
 - C = CYAN
 - Y = YELLOW
 - B = BLUE
 - A = AMBER

SYMBOL LIST

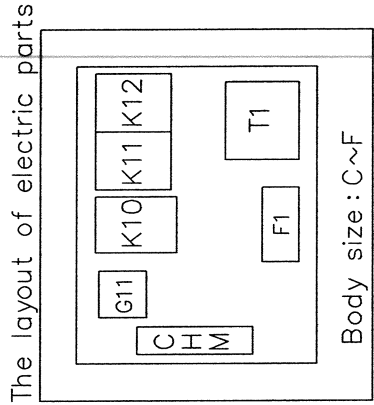
APPROVED	CHECKED	DESIGNED
KOTO CORP		
CODE	SCALE	DATE





전선 색상

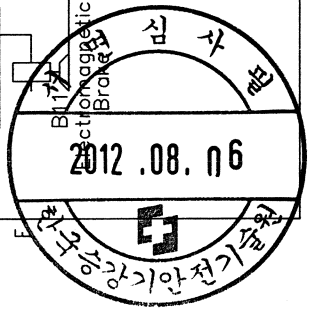
Black : 전원
Red : 교류제어선
Blue : 직류제어선
Orange : 외부에서 공급되는 연동장치 제어회로
Green & Yellow : 접지

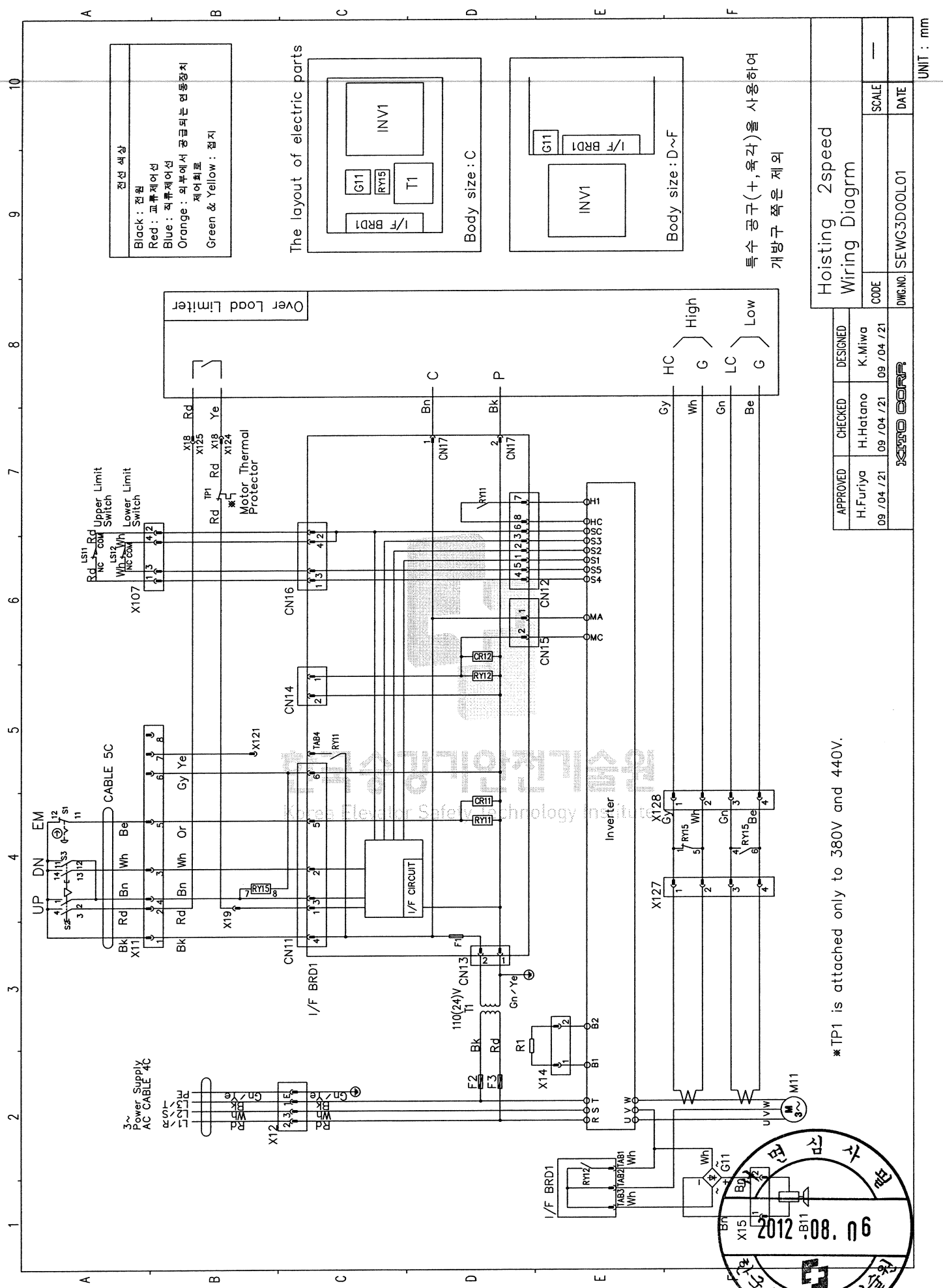


특수 공구(+ , 육각)을 사용하여
 개방구 쪽은 제외
 For MR connection

APPROVED		CHECKED	DESIGNED
H.Furiya		T.Hatano	K.Miwa
09 / 04 / 21		09 / 04 / 21	09 / 04 / 21
Y&T CORP.			
Hoisting 1speed Traversing Wiring Diagram		CODE	SCALE
DWG.NO. SEWG3100L01_MR			DATE

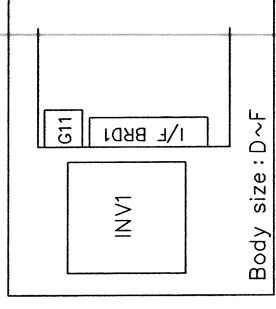
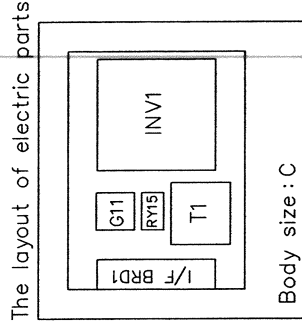
*TP1 is attached only to 380V and 440V.





전선 색상

Black : 전원
Red : 교류제어선
Blue : 직류제어선
Orange : 외부에서 공급되는 연동장치 제어회로
Green & Yellow : 접지



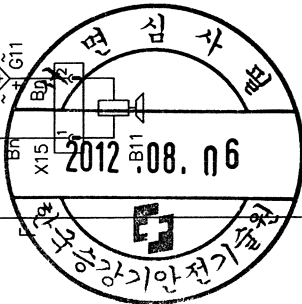
특수 공구(+, 육각)을 사용하여
개방구 쪽은 제외

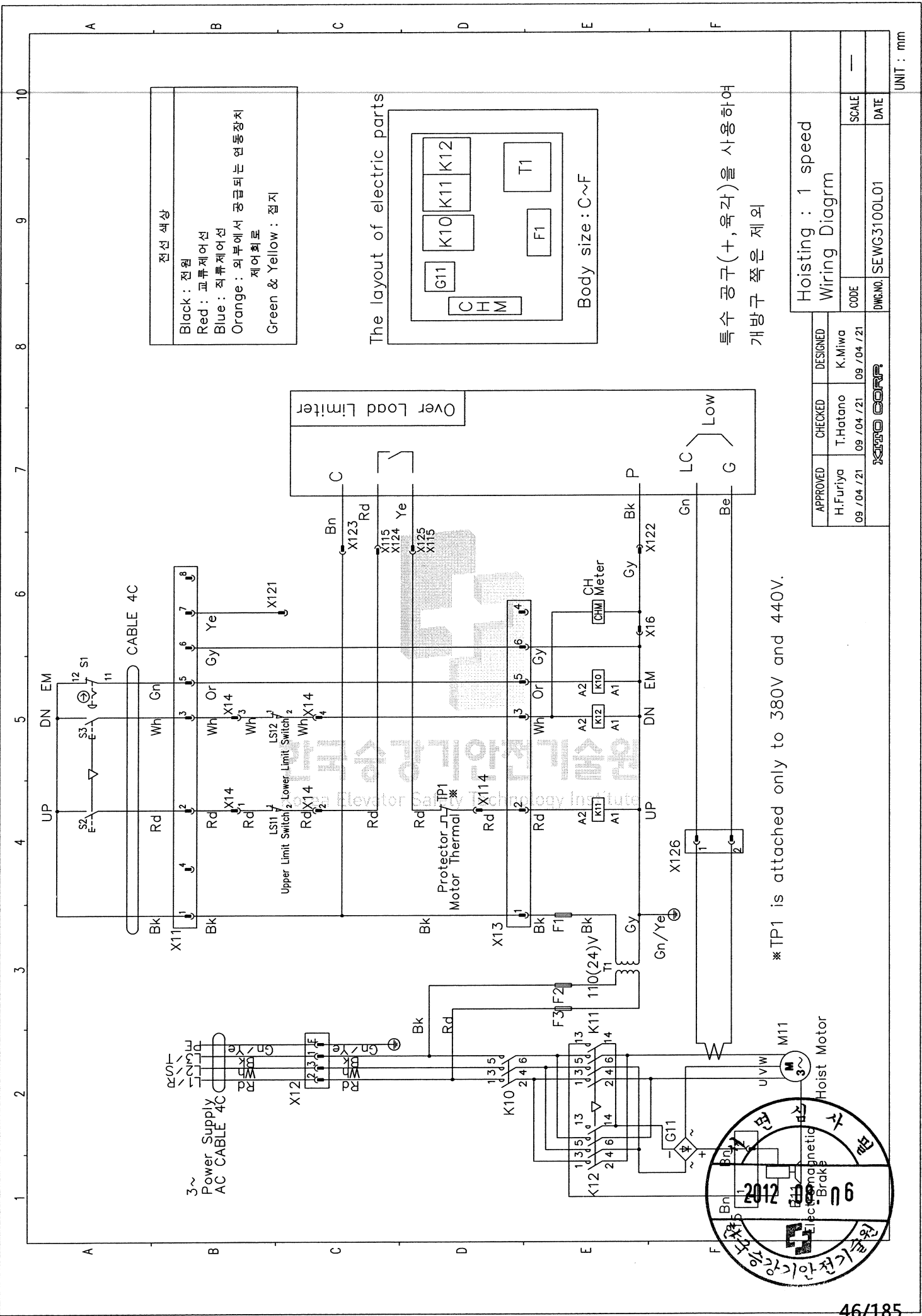
Hoisting 2speed
Wiring Diagram

APPROVED	CHECKED	DESIGNED
H.Furiya 09 / 04 / 21	H.Hatano 09 / 04 / 21	K.Miwa 09 / 04 / 21
CODE		SCALE
DMG.NO. SEWG3D00L01		DATE

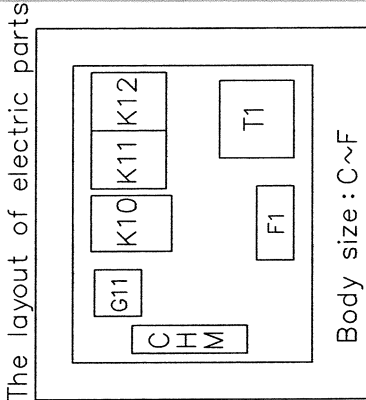
UNIT : mm

* TP1 is attached only to 380V and 440V.





전선 색상
 Black : 잔결
 Red : 교류제어선
 Blue : 직류제어선
 Orange : 외부에서 공급되는 연동장치 제어회로
 Green & Yellow : 접지

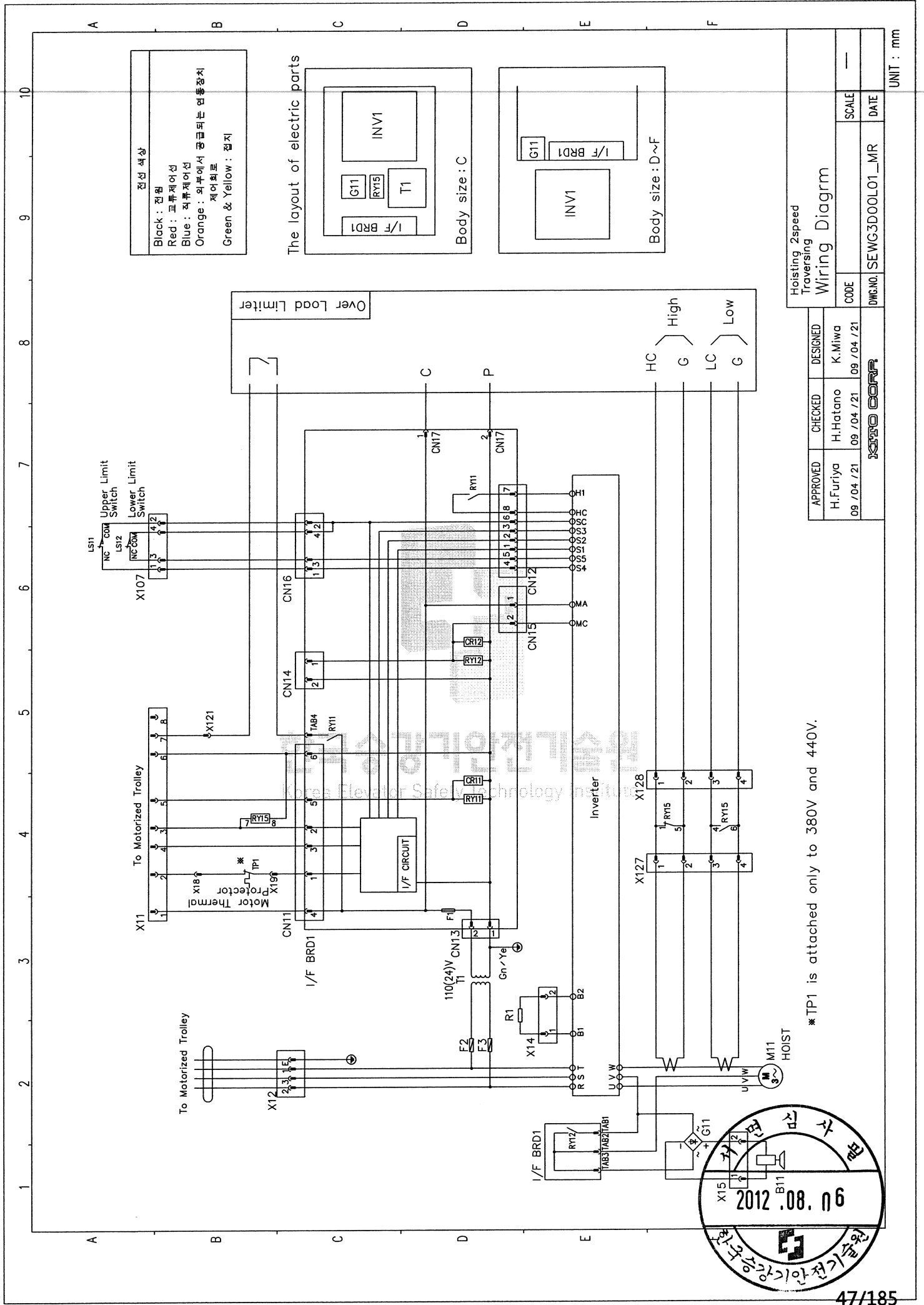


특수 공구(+, 육각)를 사용하여
 개방구 쪽은 제외

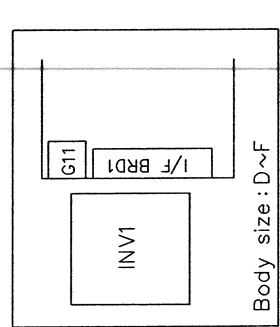
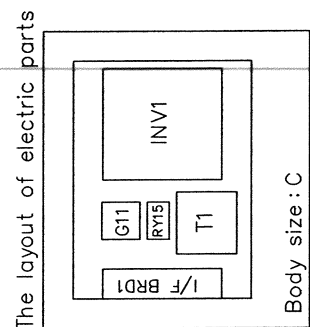
*TP1 is attached only to 380V and 440V.

APPROVED	CHECKED	DESIGNED
H.Furiya	T.Hatano	K.Miwa
09/04/21	09/04/21	09/04/21
YSDO CORP		
Hoisting : 1 speed		
Wiring Diagram		
CODE	SCALE	DATE
DMC.NO. SEWG3100L01	—	—

UNIT : mm



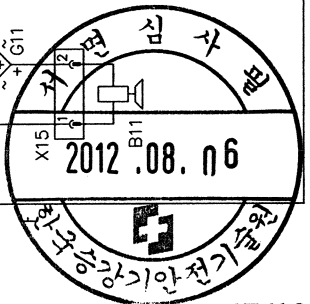
전선 색상
 Black : 전선
 Red : 과부재어선
 Blue : 작부재어선
 Orange : 외부에서 공급되는 연속정지 제어회로
 Green & Yellow : 접지

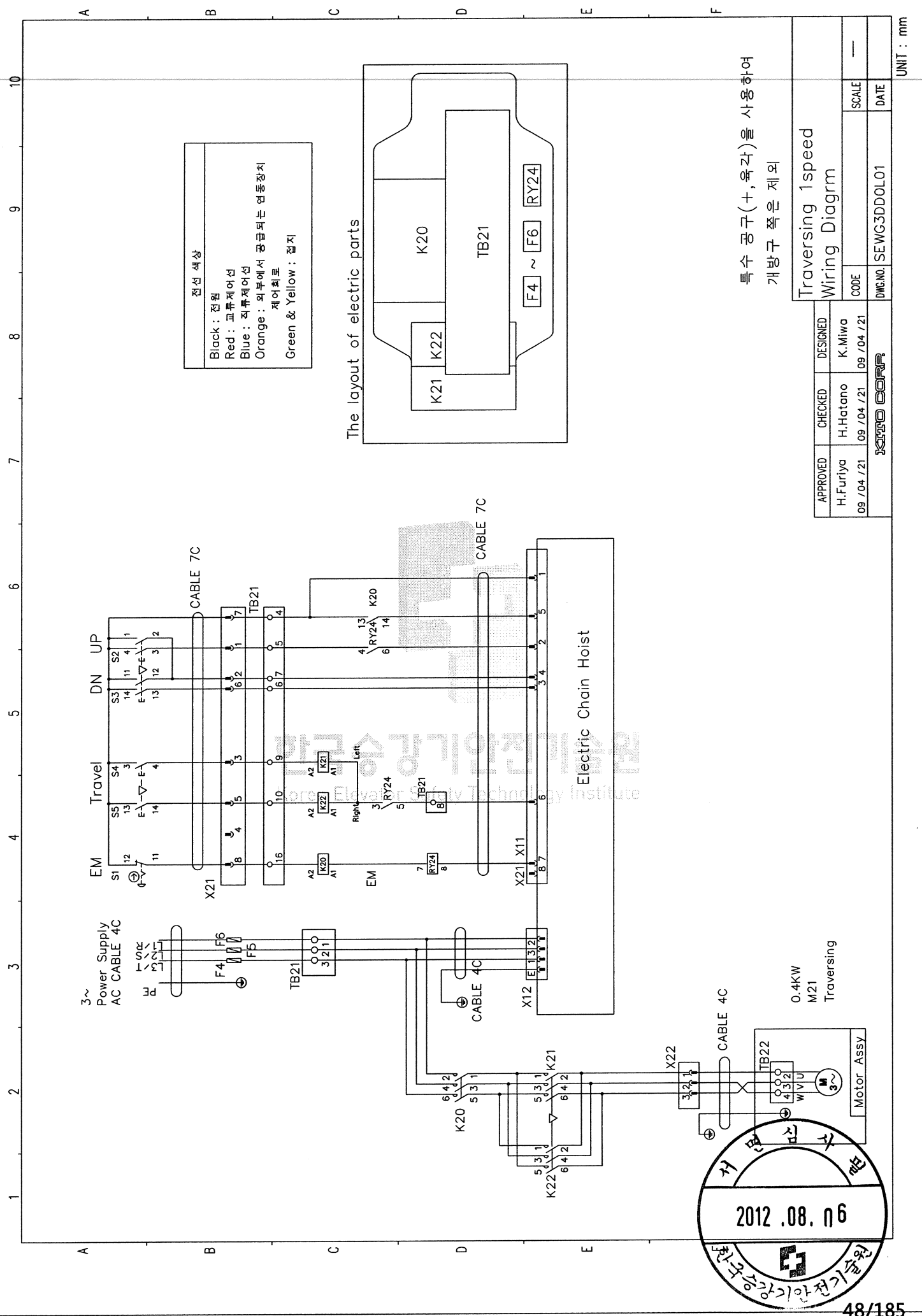


APPROVED		CHECKED	DESIGNED
H.Furiya		H.Hatano	K.Miwa
09 / 04 / 21		09 / 04 / 21	09 / 04 / 21
KATO CORP			
DWGNO.		SEWC3D00L01_MR	
CODE		SCALE	DATE

UNIT : mm

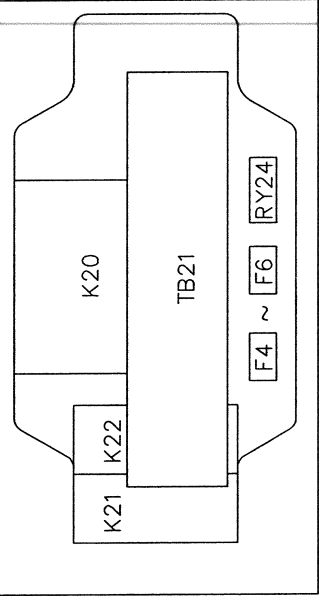
*TP1 is attached only to 380V and 440V.





전선 색상
 Black : 전원
 Red : 교류제어선
 Blue : 직류제어선
 Orange : 외부에서 공급되는 연동장치 제어회로
 Green & Yellow : 접지

The layout of electric parts



특수 공구(+, 육각)을 사용하여
 개방구 쪽은 제외

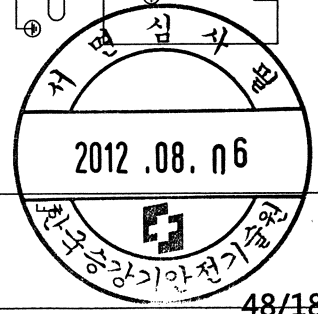
Traversing 1speed
 Wiring Diagram

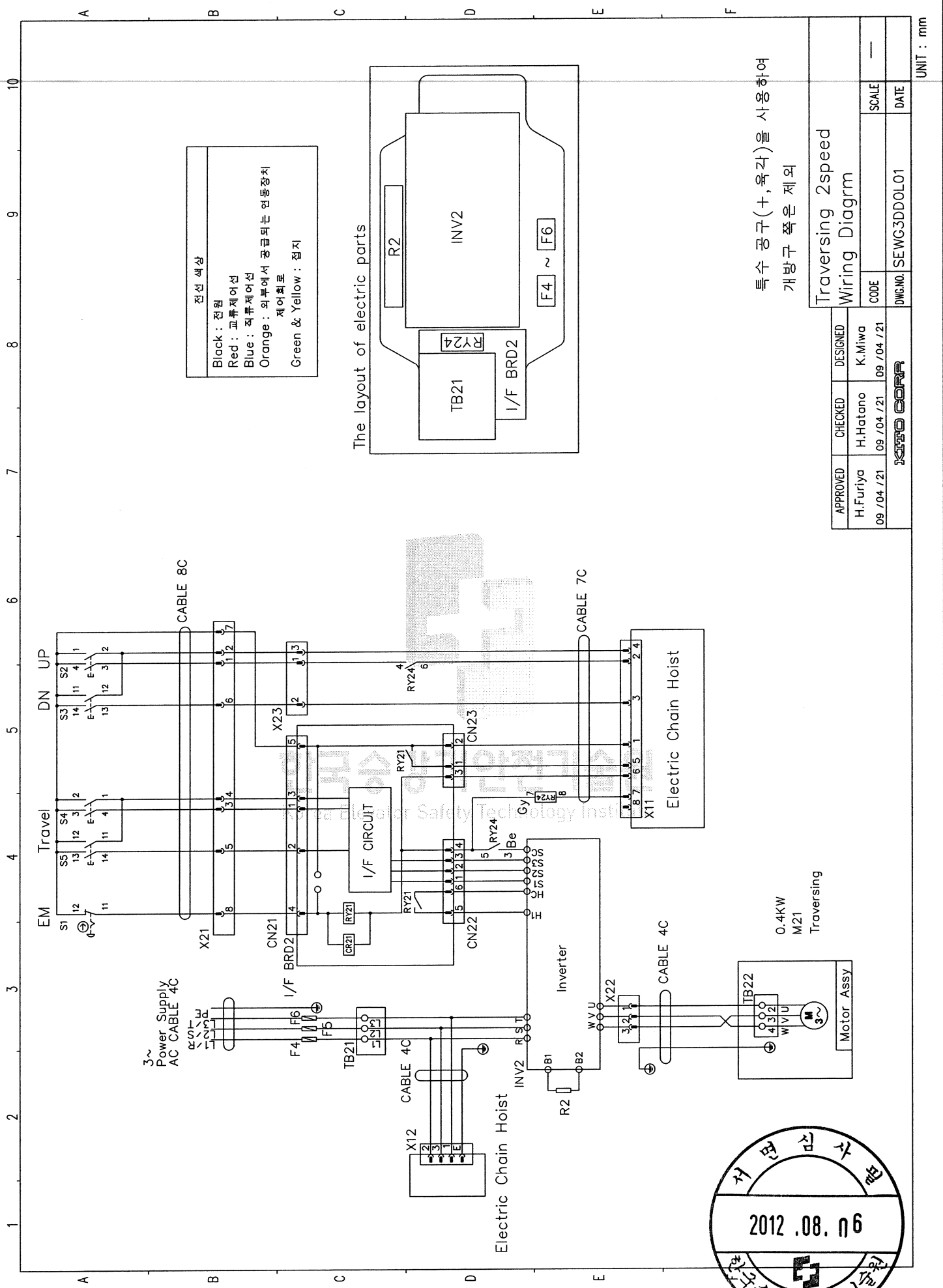
APPROVED	CHECKED	DESIGNED
H.Furiya 09 / 04 / 21	H.Hatano 09 / 04 / 21	K.Miwa 09 / 04 / 21

CODE	SCALE
—	—

DWG.NO.	DATE
SEWG3DDOL01	—

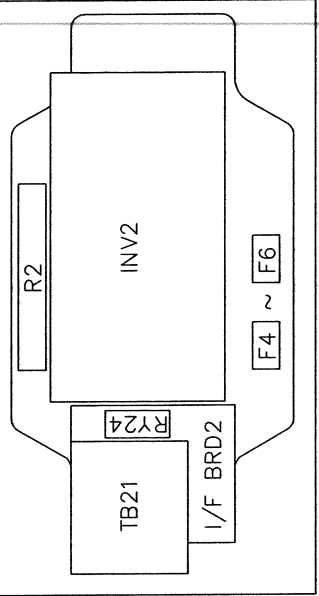
UNIT : mm





전선 색상
 Black : 진권
 Red : 교류제어선
 Blue : 직류제어선
 Orange : 외부에서 공급되는 운동장치 제어회로
 Green & Yellow : 접지

The layout of electric parts



특수 공구(+, 육각)를 사용하여
 개방구 쪽은 제외

Traversing 2speed
 Wiring Diagram

APPROVED	CHECKED	DESIGNED
H.Furiya 09 / 04 / 21	H.Hatano 09 / 04 / 21	K.Miwa 09 / 04 / 21
Y&P CORP		
CODE	SCALE	DATE
DWG.NO. SEWG3DDOL01		

UNIT : mm



CABLE 구성도 및 사양 - 권상 용량 0.9kW

CABLE SPECIFICATION FOR ER2M

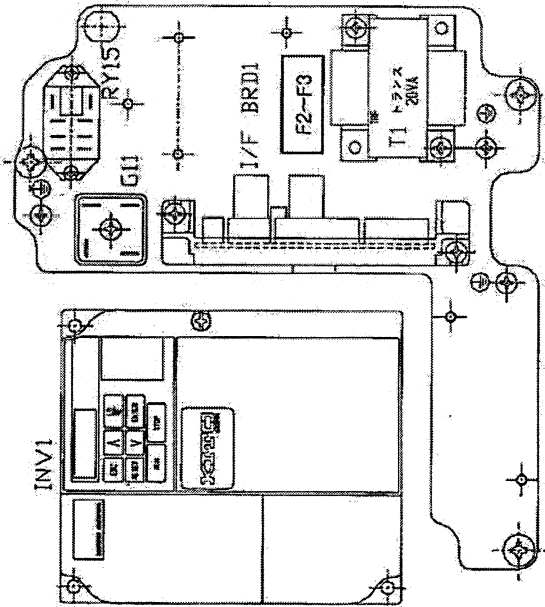
NO	ITEM	TYPE	ER2M10	
			SIZE	
①	Power Line	VCT	4sq x 4C	
②	Push Button Switch	VCT	1.25sq x 8C	
③	Loas Limit	VCT	0.75sq x 8C	
④	Power Line for ER	VCT	2sq x 4C	
⑤	Control Line for ER	VCT	1.25sq x 6C	
⑥	Traversing Motor With Earth	VCT	1.25sq x 4C	

(3Φ 220(208)V / 380V / 440V 60HZ)

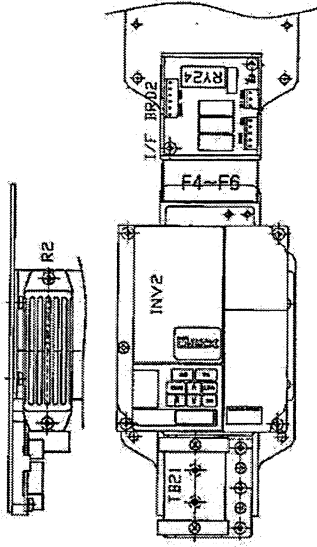


호이스트 CONTROL BOX 배치도

HOISTING CONTROL BOX

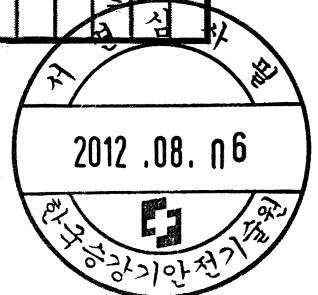


TRAVERSING CONTROL BOX

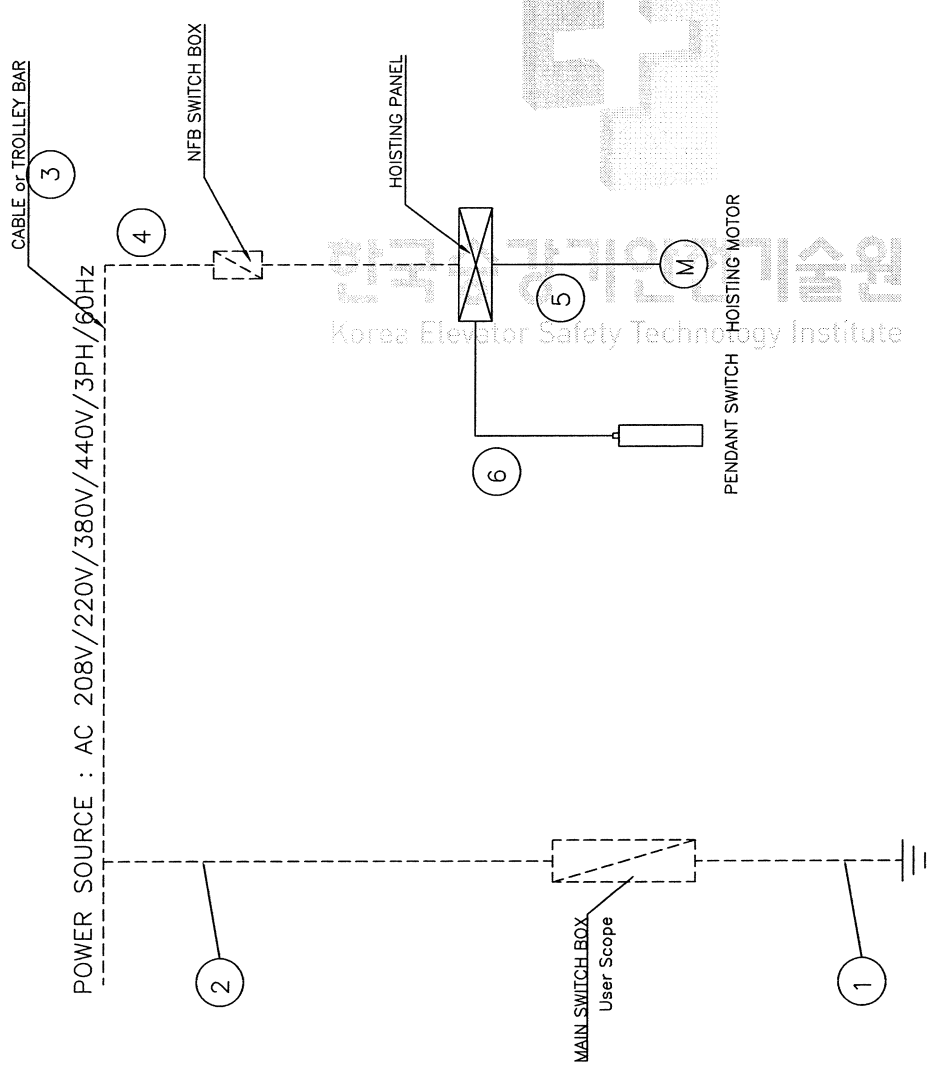


ENCLOSURE : HOIST BODY - IP55
PUSH BUTTON - IP65

MARK	DESCRIPTION	TYPE OF MODEL			Q'TY	MAKER	REMARKS
		220V	380V	440V			
INV1	INVERTER	V1000	V1000	V1000	1	YASKAWA	UP/DOWN
T1	TRANSFORMER	220V/24V(110V) 20VA	380V/24V(110V) 20VA	440V/24V(110V) 20VA	1	KITO	CONTROL CIRCUIT
G11	BRIDGE DIODE	S15VB60	S15VB60	S15VB60	1	SHINDENGEN	
I/F BRD1	INTERFACE BOARD	10~15A	10~15A	10~15A	1	KITO	
F2-F3	GLASS FUSE	10A	10A	10A	2	FUJI	
F4-F6	GLASS FUSE	30A	30A	30A	3	FUJI	
RY15	RELAY	110V	110V	110V	1	OMRON	HIGH/LOW
INV2	INVERTER	V1000	V1000	V1000	1	YASKAWA	RIGHT/LEFT
I/F BRD2	INTERFACE BOARD	10~15A	10~15A	10~15A	1	KITO	
RY24	RELAY	110V	110V	110V	1	OMRON	EMERGENCY STOP
TB21	TERMINAL BOARD 21	10~15A	10~15A	10~15A	1	KITO	



1 2 3 4 5 6 7 8 9



접지설비 시공방법

- 전동기의 외함, 제어반 등은 접지를 해야 하며 그 접지 저항은 다음의 규정을 따른다

접지공사	
3중 접지공사	400V 이하 100Ω 이하
특3중 접지공사	400V 이상 10Ω 이하

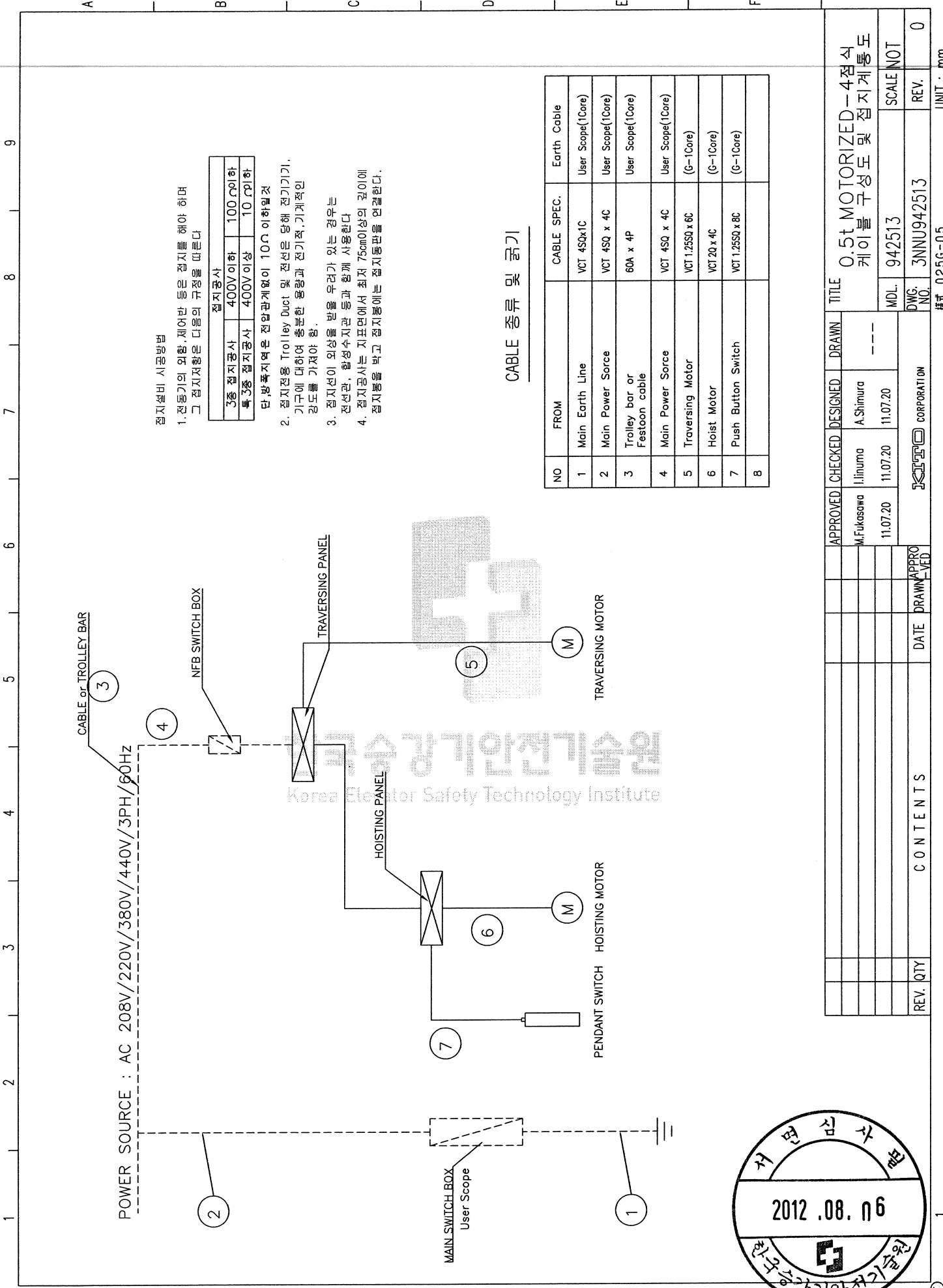
- 단, 방폭지역은 전압관계없이 10Ω 이하일 것
- 접지전용 Trolley Duct 및 전선은 당해 전기기기, 기구에 대하여 충분한 용량과 전기적, 기계적인 강도를 가져야 함.
- 접지선이 외상을 받을 우려가 있는 경우는 전선관, 합성수지관 등과 함께 사용한다
- 접지공사는 지표면에서 최저 75cm 이상의 깊이에 접지봉을 박고 접지봉에는 접지동판을 연결한다.

CABLE 종류 및 규격

NO	FROM	CABLE SPEC.	Earth Cable
1	Main Earth Line	VCT 4S0x1C	User Scope(1Core)
2	Main Power Sorce	VCT 4S0 x 4C	User Scope(1Core)
3	Trolley bar or Festoon cable	60k x 4P	User Scope(1Core)
4	Main Power Sorce	VCT 4S0 x 4C	User Scope(1Core)
5	Hoist Motor	VCT2S0x4C	(G-1Core)
6	Push Button Switch	VCT1.25S0 x 8C	(G-1Core)
7			
8			

REV.	QTY	CONTENTS	DATE	DRAWN	APPROVED	APPROVED	CHECKED	DESIGNED	DRAWN	TITLE
										0.5t MOTORIZED-2점식 케이블 구성도 및 접지계통도
										MDL. 942513
										DWG. NO. 3NNU942513
										SCALE NOT
										REV. 0





CABLE 종류 및 굵기

NO	FROM	CABLE SPEC.	Earth Cable
1	Main Earth Line	VCT 450x1C	User Scope(1Core)
2	Main Power Source	VCT 450 x 4C	User Scope(1Core)
3	Trolley bar or Festoon cable	60A x 4P	User Scope(1Core)
4	Main Power Source	VCT 450 x 4C	User Scope(1Core)
5	Traversing Motor	VCT 1.2550 x 6C	(G-1Core)
6	Hoist Motor	VCT 20 x 4C	(G-1Core)
7	Push Button Switch	VCT 1.2550 x 8C	(G-1Core)
8			



REV.	QTY	CONTENTS	DATE	DRAWN	APPROVED	CHECKED	DESIGNED	DRAWN	TITLE
									0.5t MOTORIZED-4점식 케이블 구성도 및 접지계통도
									MDL 942513
									DWG NO 3INU942513
									SCALE NOT
									REV. 0

UNIT : mm

様式 0256-05

Date: 2009/04/14

Certificate of Compliance

We certify that the ER2 protection degrees conform to the IP rating as follows:

Hoist body - IP55 based on JIS C 4034-5, "Rotating electrical machines – Part5: Classification of degrees of protection provided by enclosures of rotating electrical machines (IP code)".

Push button - IP65 based on JIS C 0920, "Tests to prove protection against ingress of water and degrees of protection against ingress of solid objects for electrical equipment".

Technical Control Group

Test Certificate

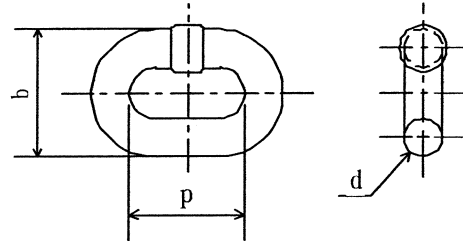
Messrs.

Commodity: NC Load Chain

Code : KER060

Lot No. : -

Quantity: - line(s)



1. Material: Manganese Alloy Steel

2. Dimensions

	d	p	b
Specified	6.0mm ± 0.2	16.7mm $\begin{matrix} +0.33 \\ 0 \end{matrix}$	Max. 21.0mm
Result	Good	Good	Good

3. Breaking test

	Breaking load	Total ultimate elongation
Specified	Min. 45.5 (kN)	Min. 10 (%)
Result	Good	Good

4. Manufacturing Proof force test (Test load: 28.3 kN)

	Permanent elongation
Specified	0.25 (%)
Result	Good

General judgment: Satisfactory



2000 Tsuijirai, Showa-cho,
Nakakoma-gun, Yamanashi, JAPAN

Quality Assurance Group
Quality Assurance Department
Development & Technology Division

K. Kishimoto (Manager)

Messrs. _____

Motor Test Report for Electric Chain Hoist

Motor type : Three phase squirrel cage type induction motor.

Manufacturer : Yasukawa Electric Mfg. Co.

Production No. : -

Rating

Model	Output	Pole	Intermittent Rating	Voltage	Frequency
IBQ	0.9kW	4P	60%ED	220V	60Hz

Full load characteristics

Voltage	Frequency	220V 60Hz
Load	%	100
Current	A	4.7
Speed	rpm	1660

Insulation class E

The above characteristics are obtained from calculation where the motor is assembled with an electric chain hoist and the hoist is subjected to full load



2000 Tsuijiarai, Showa-cho,
Nakakoma-gun, Yamanashi, JAPAN

Quality Assurance Group
Quality Assurance Department
Development & Technology Division

M. Ogihara (Manager)

Messrs. _____

Motor Test Report for Electric Chain Hoist

Motor type : Three phase squirrel cage type induction motor.

Manufacturer : Yasukawa Electric Mfg. Co.

Production No. : -

Rating

Model	Output	Pole	Intermittent Rating	Voltage	Frequency
IBQ	0.9kW	4P	40/20%ED	220V	Speed Control by Inverter

Full load characteristics

Voltage	Frequency	220V	Speed Control by Inverter
Load	%	100	
Current	A	5.7	
Speed	rpm	~	

Insulation class E

The above characteristics are obtained from calculation where the motor is assembled with an electric chain hoist and the hoist is subjected to full load



2000 Tsuijiarai, Showa-cho,
Nakakoma-gun, Yamanashi, JAPAN

Quality Assurance Group
Quality Assurance Department
Development & Technology Division

M. Ogihara (Manager)

Messrs. _____

Motor Test Report for Electric Chain Hoist

Motor type : Three phase squirrel cage type induction motor.

Manufacturer : Yasukawa Electric Mfg. Co.

Production No. :

Rating

Model	Output	Pole	Intermittent Rating	Voltage	Frequency
IBQ	0.9kW	4P	60%ED	380 - 440V	60Hz

Full load characteristics

Voltage	Frequency	380 - 440V	60Hz
Load	%	100	
Current	A	2.6	
Speed	rpm	1640	

Insulation class B

The above characteristics are obtained from calculation where the motor is assembled with an electric chain hoist and the hoist is subjected to full load



2000 Tsuijirai, Showa-cho,
Nakakoma-gun, Yamanashi, JAPAN

Quality Assurance Group
Quality Assurance Department
Development & Technology Division

(Manager)

K. Kishimoto

Messrs. _____

Motor Test Report for Electric Chain Hoist

Motor type : Three phase squirrel cage type induction motor.

Manufacturer : Yasukawa Electric Mfg. Co.

Production No. :

Rating

Model	Output	Pole	Intermittent Rating	Voltage	Frequency
IBQ	0.9kW	4P	60%ED	380 - 440V	Speed Control by Inverter

Full load characteristics

Voltage	Frequency	380 - 440V	Speed Control by Inverter
Load	%	100	
Current	A	3.6	
Speed	rpm	~	

Insulation class B

The above characteristics are obtained from calculation where the motor is assembled with an electric chain hoist and the hoist is subjected to full load



2000 Tsuijiarai, Showa-cho,
Nakakoma-gun, Yamanashi, JAPAN

Quality Assurance Group
Quality Assurance Department
Development & Technology Division

(Manager)

K. Kishimoto

Messrs. _____

Motor Test Report for Electric Trolley

Motor type : Three phase squirrel cage type induction motor.

Manufacturer : Yasukawa Electric Mfg. Co.

Production No. : -

Rating

Model	Output	Pole	Intermittent Rating	Voltage	Frequency
IBQ-T	0.4kW	4P	40%ED	220V	60Hz

Full load characteristics

Voltage Frequency		220V 60Hz
Load	%	100
Current	A	3.0
Speed	rpm	1685

Insulation class E

The above characteristics are obtained from calculation where the motor is assembled with an electric trolley and the trolley is subjected to full load



2000 Tsuijiarai, Showa-cho,
Nakakoma-gun, Yamanashi, JAPAN

Quality Assurance Group
Quality Assurance Department
Development & Technology Division

M. Ogihara (Manager)

Messrs. _____

Motor Test Report for Electric Trolley

Motor type : Three phase squirrel cage type induction motor.

Manufacturer : Yasukawa Electric Mfg. Co.

Production No. : -

Rating

Model	Output	Pole	Intermittent Rating	Voltage	Frequency
IBQ-T	0.4kW	4P	27/13%ED	220V	Speed Control by Inverter

Full load characteristics

Voltage	Frequency	220V	Speed Control by Inverter
Load	%	100	
Current	A	3.0	
Speed	rpm	~	

Insulation class E

The above characteristics are obtained from calculation where the motor is assembled with an electric trolley and the trolley is subjected to full load



2000 Tsuijiarai, Showa-cho,
Nakakoma-gun, Yamanashi, JAPAN

Quality Assurance Group
Quality Assurance Department
Development & Technology Division

M. Ogihara (Manager)

Messrs. _____

Motor Test Report for End Carriage

Motor type : Three phase squirrel cage type induction motor.

Manufacturer : Yasukawa Electric Mfg. Co.

Production No. :

Rating

Model	Output	Pole	Intermittent Rating	Voltage	Frequency
IBQ-T	0.4kW	4P	40%ED	380 - 440V	60Hz

Full load characteristics

Voltage	Frequency	380 - 440V	60Hz
Load	%	100	
Current	A	2.2	
Speed	rpm	1670	

Insulation class B

The above characteristics are obtained from calculation where the motor is assembled with an electric chain hoist and the hoist is subjected to full load



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Quality Assurance Group
Quality Assurance Department
Development & Technology Division

(Manager)

K. Kishimoto

Messrs. _____

Motor Test Report for End Carriage

Motor type : Three phase squirrel cage type induction motor.

Manufacturer : Yasukawa Electric Mfg. Co.

Production No. :

Rating

Model	Output	Pole	Intermittent Rating	Voltage	Frequency
IBQ-T	0.4kW	4P	40%ED	380 - 440V	Speed Control by Inverter

Full load characteristics

Voltage	Frequency	220 - 230V	Speed Control by Inverter
Load	%	100	
Current	A	2.5	
Speed	rpm	~	

Insulation class B

The above characteristics are obtained from calculation where the motor is assembled with an electric chain hoist and the hoist is subjected to full load



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