



심사결과 통지서

신청인	사업장명	(주)KITO	사업장관리번호	2010E110010
	사업자등록번호	010-E1-10010	대 표자 성명	KIT0 YOSHI0
	소재지	2000,Tsui j i a r a i ,Showa-Cho,Nakakoma-Gun,Yamanashi ,Japan		

안전인증대상기계・기구명				호이스트
형식(규격)	KM-ER2-030		용량(등급)	3 ton

「산업안전보건법」 제34조 및 같은 법 시행규칙 제58조의4제4항에 따라 실시한

☐ 예비심사

☒ 서면심사

☐ 기술능력 및 생산체계 심사

결과가 ☒ 적 합 함을 통지합니다.
☐ 부적합

☐ 개별 제품심사

☐ 형식별 제품심사

2012년 05월 25일

인증심사원

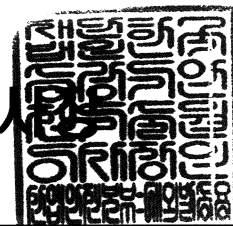
최 창 일

최창일 (인)

오 태 화

오태화 (인)

한국승강기안전기술원 이사





제 CA-2012-0026 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):	KM-ER2-030(3 ton)	_____
_____ 인증번호 :	12-CA4AC-0026	_____
_____ 인증기준 :	위험기계·기구 의무안전인증기준 (고용노동부고시 제2011-39호)	_____
_____ 인증조건 :	산업안전보건법 "제34조 준수"	_____

2012년 11월 30일

한국승강기안전기술원 이사장



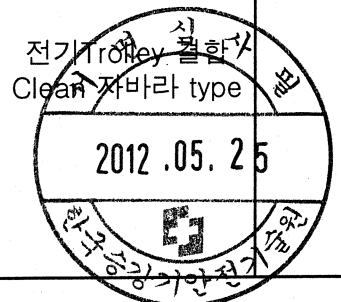
【별지 제4호서식】

동 일 형 식 일 랑 표

사업장명	KITO CORP.	개정일자 및 번호	2012.05.2	인증번호		
형식 및 모델번호		동일형식 항목 및 내역			비고	
형식번호	모델번호	동일형식 항목1	동일형식 항목2	동일형식 항목3		
KM-ER2-030	KITO-ER2-030S	Lift max 30m 권상모타 3.5kW .S : 5.3m/min .IS: 5.2/0.9m/min Inverter control	횡행모타 없음	Trolley고정형		
	KITO-ER2-030IS			Trolley 있음		
	KITO-ER2SP030S			Trolley + 수동체인		
	KITO-ER2SP030IS					
	KITO-ER2SG030S					
	KITO-ER2SG030IS					
	KITO-ER2M030S-S		횡행모터 0.4kW .S : 24m/min .L: 12m/min .IS:24/4m/min .IL:12/2m/min	전기Trolley 결합 type		
	KITO-ER2M030S-L					
	KITO-ER2M030S-IS					
	KITO-ER2M030S-IL					
	KITO-ER2M030IS-S					
	KITO-ER2M030IS-L					
	KITO-ER2M030IS-IS					
	KITO-ER2M030IS-IL					
	KITO-C-ER2M030S-S			전기Trolley 결합 Clean type		
	KITO-C-ER2M030S-L					
	KITO-C-ER2M030S-IS					
	KITO-C-ER2M030S-IL					
	KITO-C-ER2M030IS-S					
	KITO-C-ER2M030IS-L					
	KITO-C-ER2M030IS-IS					
	KITO-C-ER2M030IS-IL					
	KITO-CZ-ER2M030S-S			전기Trolley 결합 Clean 자바라 type		
	KITO-CZ-ER2M030S-L					
	KITO-CZ-ER2M030S-IS					
	KITO-CZ-ER2M030S-IL					
	KITO-CZ-ER2M030IS-S					
	KITO-CZ-ER2M030IS-L					
	KITO-CZ-ER2M030IS-IS					
	KITO-CZ-ER2M030IS-IL					

전기Trolley 결합 Clean 자바라 type

2012 .05. 25



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

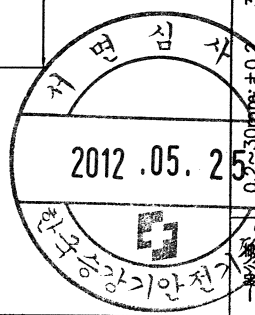
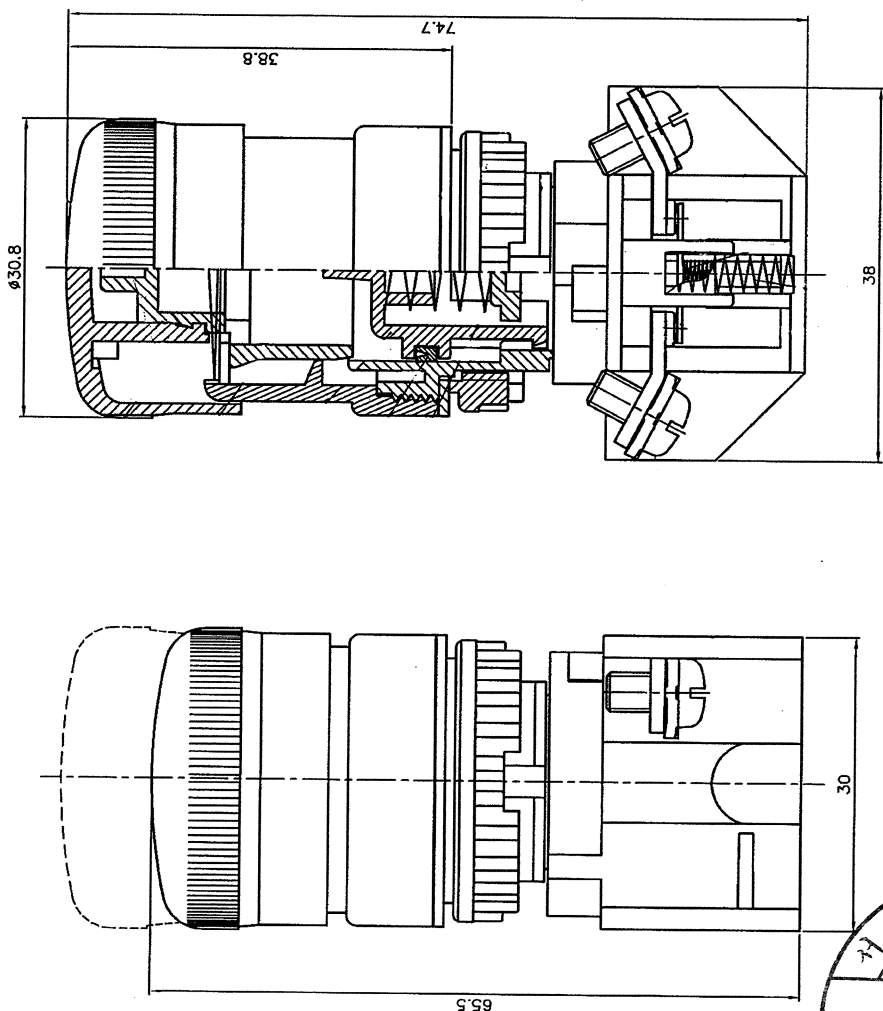
아래 주소에서 생산되는 제품에 한함.

정호엔지니어링, 경기도 광명시 노온사동 440-5

2012년 06월 11일

한국산업안전보건공단 이사장



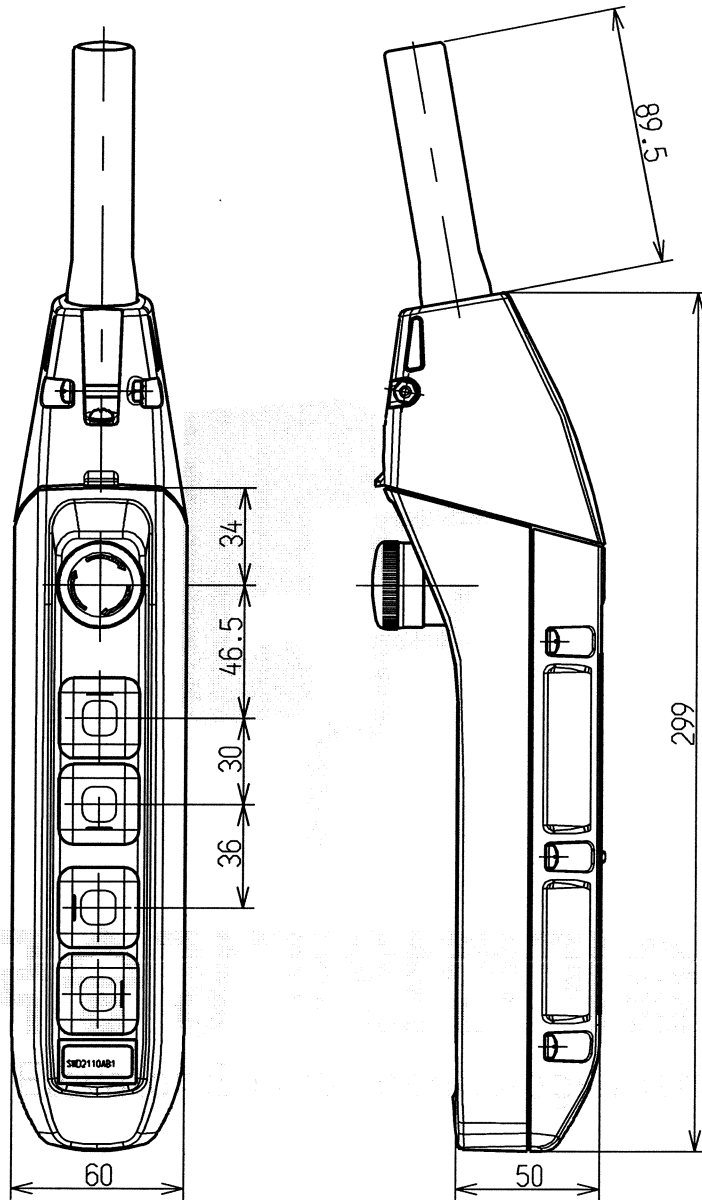


0.2~30mm:±0.2	30.1~60mm:±0.3	60.1~300mm:±0.5	模具材質	研審部 95.05.24 鍾健廷	校對	研審部 95.05.24 周家祥	繪圖	設計課 95.05.24 吳宗達	單位 比例 投影法	材質 表面處理 顏色	圖號	T2-BKH
品保	品保	品保	核准	研審部 95.05.24 鍾健廷	校對	研審部 95.05.24 周家祥	繪圖	設計課 95.05.24 吳宗達	單位 比例 投影法	材質 表面處理 顏色	品名	T2 BKH 連鎖開關
最新修正	最新修正	最新修正	核准	研審部 95.05.24 鍾健廷	校對	研審部 95.05.24 周家祥	繪圖	設計課 95.05.24 吳宗達	單位 比例 投影法	材質 表面處理 顏色	品名	T2 BKH 連鎖開關

圖序:A

H

Revision	Incidence	Description	Date	Charge	Approved



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

⑥	
⑤	
④	
③	
②	
①	
Date issued	

NOTE

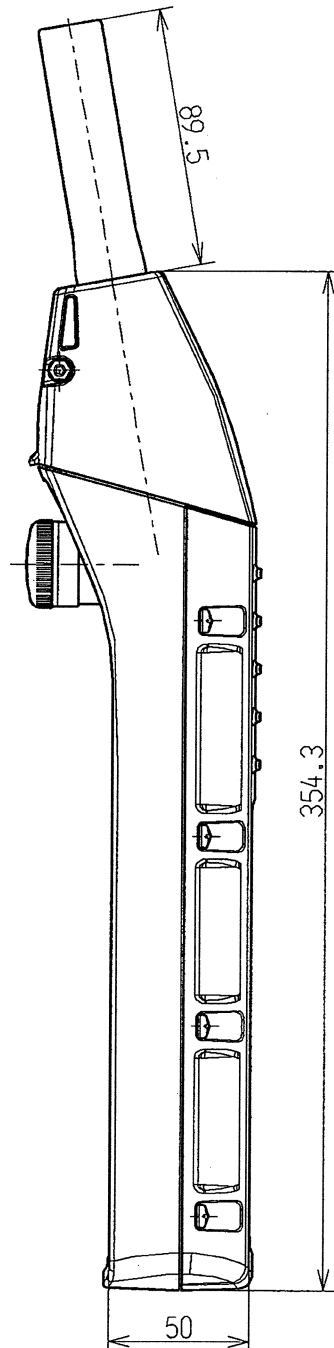
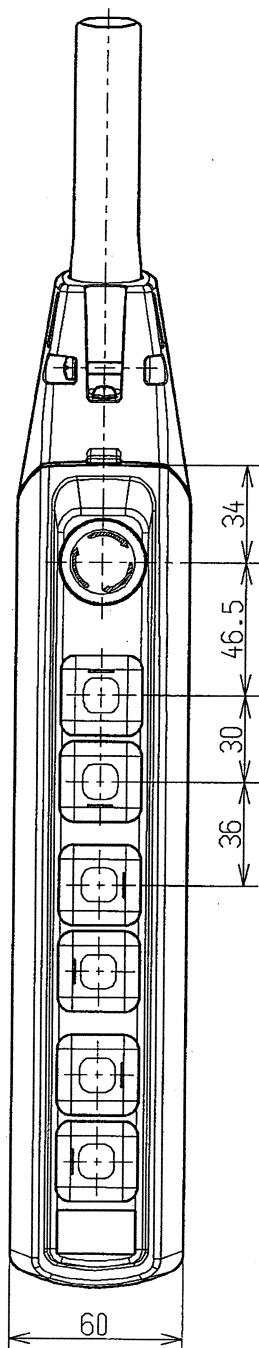
APPROVED	H.FURIYA	CHECKED	T.HATANO	DESIGNED	KOBAYASHI	DRAWN	KOBAYASHI	SCALE	-
	09.04.21		09.04.21		09.04.21		09.04.21		

DWG. NO.	SWD2XX0
NOS./UNIT MATERIAL	

NAME	CODE
5pqr	2012.05.25
control station MXX	
subassembly	

Revision	Incidence	Description	Date	Change	Approved

E
W
S
N



NOTE

APPROVED

ISHIKAWA
08.02.08

CHECKED
FURIYA
08.02.08

DESIGNED
KOBAYASHI
08.02.08

DRAWN
KOBAYASHI
08.02.08

SCALE
-

DWG. NO.

NOS./UNIT

MATERIAL

NAME CODE

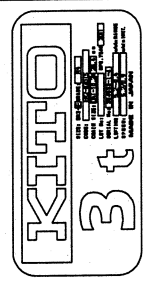
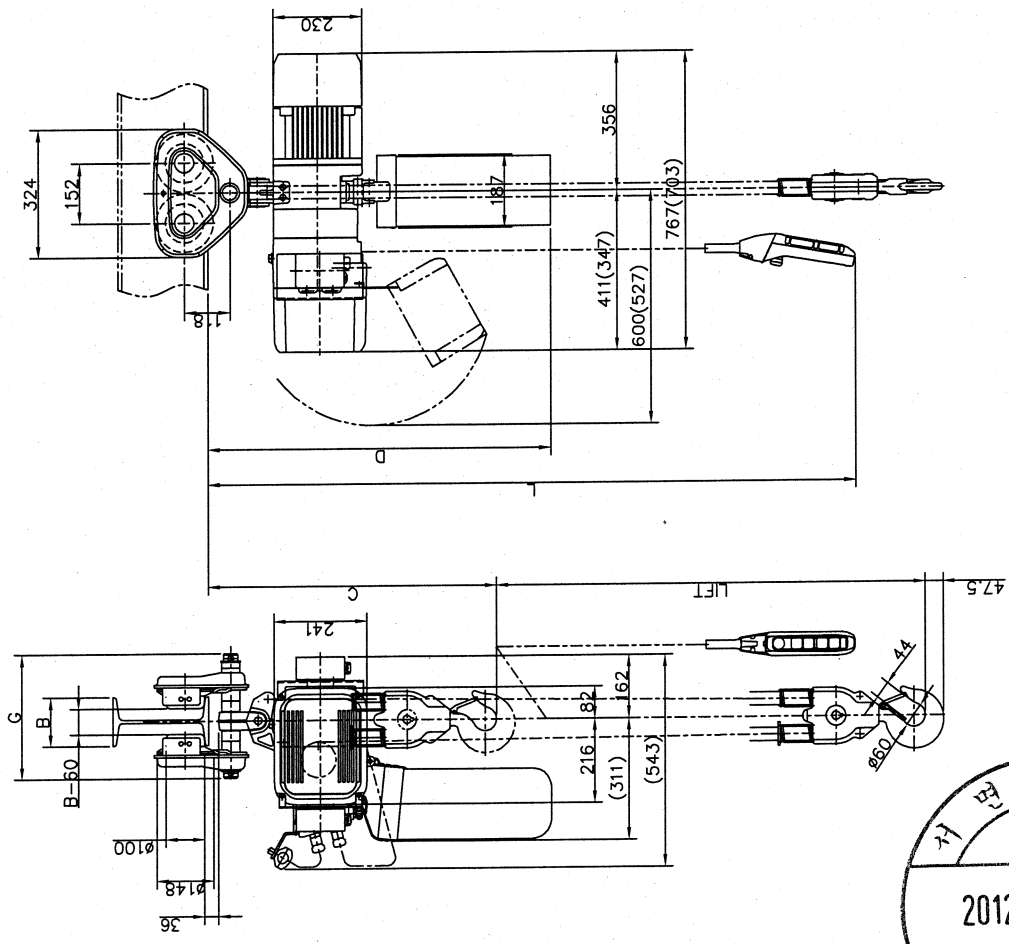
2012.08.25
control station XXXX
subassembly

⑥
⑤
④
③
②
①

Date issued

1 2 3 4 5 6 7 8 9

형식번호 : KM-ER2-030
 Model number.
 KITO-ER2SP030S
 KITO-ER2SP030IS



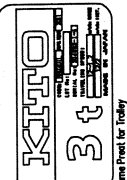
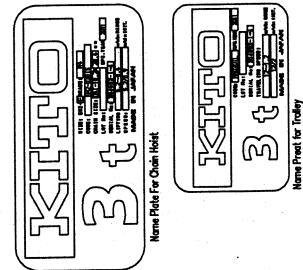
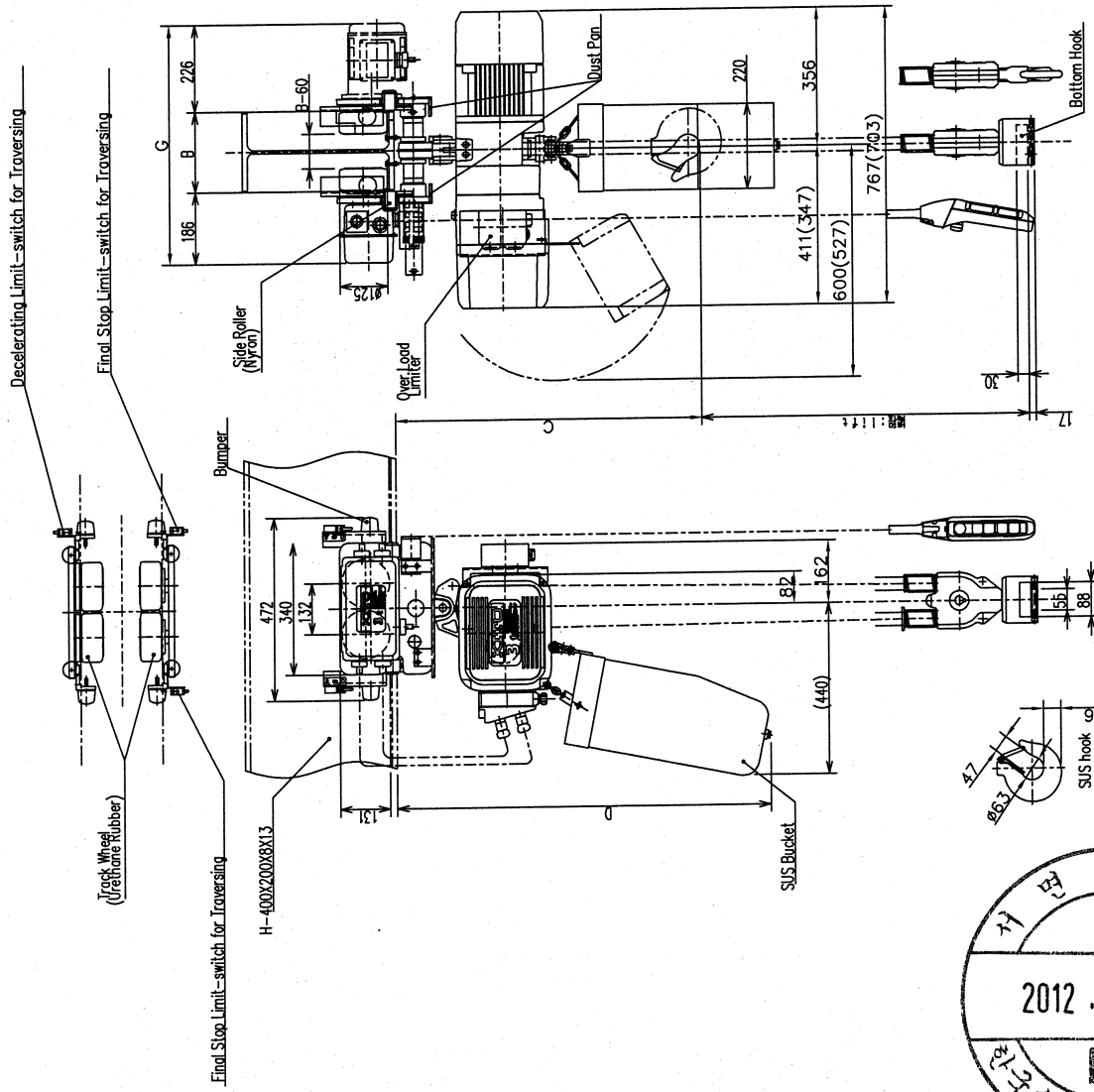
note
 1. 자바라는 용선 사양임
 2. () 첫수는 1속형임

基本仕様		Particulars	
基本仕様	基本仕様	基本仕様	基本仕様
定 格	定 格	定 格	定 格
Nominal Capacity	Nominal Capacity	Nominal Capacity	Nominal Capacity
3t	3t	3t	3t
リフト	リフト	リフト	リフト
3m(max 30m)	3m(max 30m)	3m(max 30m)	3m(max 30m)
チェーンサイズ	チェーンサイズ	チェーンサイズ	チェーンサイズ
φ102 x 2	φ102 x 2	φ102 x 2	φ102 x 2
ローラー下面よりフックまでの最小距離	ローラー下面よりフックまでの最小距離	ローラー下面よりフックまでの最小距離	ローラー下面よりフックまでの最小距離
Min. Headroom	Min. Headroom	Min. Headroom	Min. Headroom
780mm	780mm	780mm	780mm
相 電 圧	相 電 圧	相 電 圧	相 電 圧
3φ 220(208)V 60Hz	3φ 220(208)V 60Hz	3φ 220(208)V 60Hz	3φ 220(208)V 60Hz
モーター出力・反巻定格	モーター出力・反巻定格	モーター出力・反巻定格	モーター出力・反巻定格
Motor Output	Motor Output	Motor Output	Motor Output
3.5kW 4P	3.5kW 4P	3.5kW 4P	3.5kW 4P
モーター出力・反巻定格	モーター出力・反巻定格	モーター出力・反巻定格	モーター出力・反巻定格
Motor Output	Motor Output	Motor Output	Motor Output
3.5kW 4P	3.5kW 4P	3.5kW 4P	3.5kW 4P
巻上速度	巻上速度	巻上速度	巻上速度
5.2/0.9 m/min	5.2/0.9 m/min	5.2/0.9 m/min	5.2/0.9 m/min
リフト速度	リフト速度	リフト速度	リフト速度
5.3 m/min	5.3 m/min	5.3 m/min	5.3 m/min
押しボタンコード長さ	押しボタンコード長さ	押しボタンコード長さ	押しボタンコード長さ
2.8 m(max 29.8m)	2.8 m(max 29.8m)	2.8 m(max 29.8m)	2.8 m(max 29.8m)
ケーブル長さ	ケーブル長さ	ケーブル長さ	ケーブル長さ
1.0 m	1.0 m	1.0 m	1.0 m
ローラー下面よりチェーン	ローラー下面よりチェーン	ローラー下面よりチェーン	ローラー下面よりチェーン
Chain Container Distance from Bottom of Beam	Chain Container Distance from Bottom of Beam	Chain Container Distance from Bottom of Beam	Chain Container Distance from Bottom of Beam
910 mm	910 mm	910 mm	910 mm
最小半径	最小半径	最小半径	最小半径
82~178mm	82~178mm	82~178mm	82~178mm
適用ローラー	適用ローラー	適用ローラー	適用ローラー
Flange Width	Flange Width	Flange Width	Flange Width
320mm	320mm	320mm	320mm
質量	質量	質量	質量
Approx 128kg	Approx 128kg	Approx 128kg	Approx 128kg
塗装色	塗装色	塗装色	塗装色
Munsell 7.5R7/14	Munsell 7.5R7/14	Munsell 7.5R7/14	Munsell 7.5R7/14
塗装色	塗装色	塗装色	塗装色
Munsell 7.5R7/14	Munsell 7.5R7/14	Munsell 7.5R7/14	Munsell 7.5R7/14

名 称		TITLE	
3t ER2SP SERIES ELECTRIC CHAIN HOIST		WITH PLAIN TROLLEY	
製造番号	製造番号	製造番号	製造番号
CODE	CODE	CODE	CODE
図番	図番	図番	図番
DWG. NO.	DWG. NO.	DWG. NO.	DWG. NO.
尺 度	尺 度	尺 度	尺 度
SCALE	SCALE	SCALE	SCALE
変置回数	変置回数	変置回数	変置回数
REV.	REV.	REV.	REV.
0	0	0	0



형식번호 : KM-ER2-030
 Model number.
 KITO-C-ER2M030S-S
 KITO-C-ER2M030S-L
 KITO-C-ER2M030S-IS
 KITO-C-ER2M030S-IL
 KITO-C-ER2M030S-S
 KITO-C-ER2M030S-S
 KITO-C-ER2M030S-L
 KITO-C-ER2M030S-IS
 KITO-C-ER2M030S-IL



Particulars	Particulars
基本本体 Size	ER2-E
定格荷重 Nominal Capacity	3t
リフト Lift	5m(max 30m)
チェーンサイズ Chain size	φ10.2 x 2
レール下面よりフックまでの最小距離 Min. Headroom	775mm
相数・電圧 Phase・Voltage	3φ 220(208)V 60Hz 380,440V 60Hz
モーター出力・定格 Motor Output ・定格 Motor Output Classification	IS ₁ S IL ₁ IS JL ₁ S
巻上速度 Lifting Speed	IS 5.2/0.9 m/min 1속형 S 5.3 m/min
横行速度 Traversing Speed	IS 12/2 m/min IS 24/4 m/min L 12 m/min S 24 m/min
オシボタコード長さ : L Push Button Cord	4.8 m(max 29.8m)
ケーブル長さ Length of Power Supply Cable	1.0 m
レール下面よりチェーン チェーンコンテナまでの寸法 Chain Container Distance from Bottom of Beam	D (max) 1000mm
最小半径 R Min. Radius for Curve	B 108~358mm
フロア幅 Floor Width	G 520~770mm
質量 Mass	Approx 200kg
塗装色 Painting Color	マゼンタ 7, 5YR7/14 Munsell 7.5YR7/14

note
 1. 자바라는 옵션 사양임
 2. () 첫수는 1속형임
 3. Dust Pan - option

品名 TITLE	3t ER2M SERIES ELECTRIC CHAIN HOIST WITH MOTORIZED TROLLEY(CLEAN)
製造番号 CODE	ER2-M-C
図番 DWG.NO.	KM-ER2-030-005
尺度 SCALE	NOT
変更回数 REV.	0

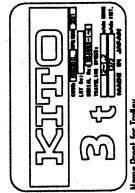
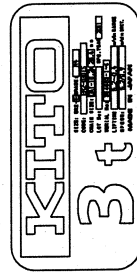
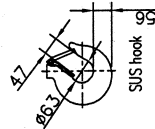
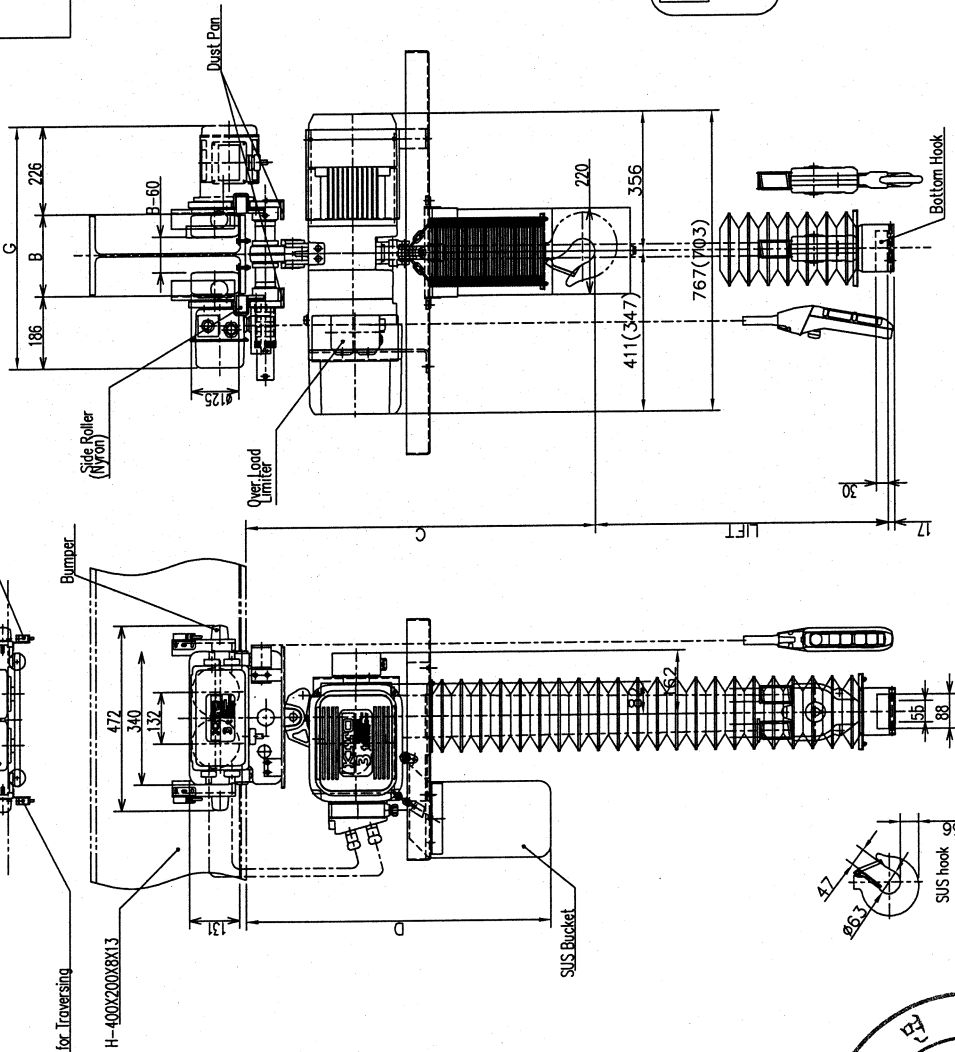
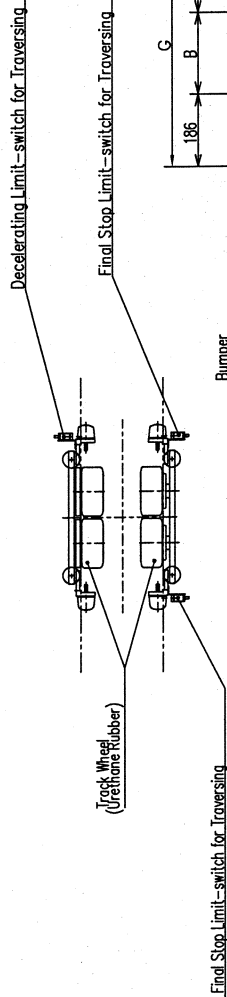
単位 : mm
 形式 N25P-19

承認 APPROVED	検査 CHECKED	設計 DESIGNED	図面 DRAWN
承認者 H. Saito	検査者 K. Nakamura	設計者 S. Unishihara	図面者 S. Unishihara
11.25	11.25	11.25	11.25
承認 APPROVED	検査 CHECKED	設計 DESIGNED	図面 DRAWN
承認者 H. Saito	検査者 K. Nakamura	設計者 S. Unishihara	図面者 S. Unishihara
11.25	11.25	11.25	11.25

年・月・日 DATE	担当 DRAWN	承認 APPROVED

数量 QTY	内容 CONTENTS

형식번호 : KM-ER2-030
 Model number.
 KITO-CZ-ER2M030S-S
 KITO-CZ-ER2M030S-L
 KITO-CZ-ER2M030S-IS
 KITO-CZ-ER2M030S-IL
 KITO-CZ-ER2M030S-S
 KITO-CZ-ER2M030S-L
 KITO-CZ-ER2M030S-IS
 KITO-CZ-ER2M030S-IL



REV.	QTY	CONTENTS	DATE	APPROVED	DESIGNED	CHECKED	APPROVED	NAME
01	1							
02	1							
03	1							
04	1							
05	1							
06	1							
07	1							
08	1							
09	1							
10	1							
11	1							
12	1							
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99	1							
100	1							

REV.	QTY	CONTENTS	DATE	APPROVED	DESIGNED	CHECKED	APPROVED	NAME
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97	1							
98	1							
99	1							
100	1							

note
 1. () 치수는 1속형임
 2. Dust Pan - option

名 称 TITLE		3t ER2M SERIES ELECTRIC CHAIN HOIST WITH MOTORIZED TROLLEY(CLEAN)	
标准代号 CODE	图 号 DWG.NO.	尺 度 SCALE	NOT
ER2-M-J	KM-ER2-030-006	实 数 REV.	0

LOAD SUMMARY 1 – INVERTER사양

*POWER SOURCE : AC 3Φ 220(208)V

OBJECT	HOISTING	TRAVERSING	CONTROL CIRCUIT
MOTOR OUTPUT	3.5KW x 4P	0.4KW x 4P	
FULL LOAD CURRENT	18.7 (A)	3 (A)	0.5 (A)

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

*** NOMAL 전류값 ***

권상과 횡행시 : HOISTING + TRAVERSING + CONTROL CIRCUIT = 22.2 A

*** PEAK 전류값 ***

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

NOMAL 전류값 * K = 22.2 * 1.25 = 27.7 A

*POWER SOURCE : AC 3Φ 380(440)V

OBJECT	HOISTING	TRAVERSING	CONTROL CIRCUIT
MOTOR OUTPUT	3.5KW x 4P	0.4KW x 4P	
FULL LOAD CURRENT	9.2 (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 = 12.2 A

*** PEAK 전류값 ***

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

NOMAL 전류값 * K = 12.2 * 1.25 = 15.2 A



LOAD SUMMARY 2 – INVERTER 사양

*POWER SOURCE : AC 3Φ 220(208)V

OBJECT	HOISTING	TRAVERSING	CONTROL CIRCUIT
MOTOR OUTPUT	3.5KW x 4P	-	
FULL LOAD CURRENT	18.7 (A)	0 (A)	0.5 (A)

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

*** NOMAL 전류값 ***

권상시 : HOISTING + CONTROL CIRCUIT = 19.2 A

*** PEAK 전류값 ***

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

NOMAL 전류값 * K = 19.2 * 1.25 = 24 A

*POWER SOURCE : AC 3Φ 380(440)V

OBJECT	HOISTING	TRAVERSING	CONTROL CIRCUIT
MOTOR OUTPUT	3.5KW x 4P	-	
FULL LOAD CURRENT	9.2 (A)	0 (A)	0.5 (A)

*크레인 하중상태를 HOIST의 정격 LOAD의 100(%)를 사용했을때를 기준으로 작성하 0

*** NOMAL 전류값 ***

권상시 : HOISTING + CONTROL CIRCUIT = 9.7 A

*** PEAK 전류값 ***

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

NOMAL 전류값 * K = 9.7 * 1.25 = 12.1 A



LOAD SUMMARY 3 – 1속형사양

*POWER SOURCE : AC 3Φ 220(208)V

OBJECT	HOISTING	TRAVERSING	CONTROL CIRCUIT
MOTOR OUTPUT	3.5KW x 4P	0.4KW x 4P	
FULL LOAD CURRENT	16.9 (A)	3 (A)	0.5 (A)

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

*** NOMAL 전류값 ***

권상과 횡행시 : HOISTING + TRAVERSING + CONTROL CIRCUIT = 20.4 A

*** PEAK 전류값 ***

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

NOMAL 전류값 * K = 20.4 * 1.25 = 25.5 A

*POWER SOURCE : AC 3Φ 380(440)V

OBJECT	HOISTING	TRAVERSING	CONTROL CIRCUIT
MOTOR OUTPUT	3.5KW x 4P	0.4KW x 4P	
FULL LOAD CURRENT	8.7 (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 = 11.4 A

*** PEAK 전류값 ***

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

NOMAL 전류값 * K = 11.4 * 1.25 = 14.2 A



LOAD SUMMARY 4 - 1속형사양

*POWER SOURCE : AC 3Φ 220(208)V

OBJECT	HOISTING	TRAVERSING	CONTROL CIRCUIT
MOTOR OUTPUT	3.5KW x 4P	-	
FULL LOAD CURRENT	16.9 (A)	0 (A)	0.5 (A)

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

*** NOMAL 전류값 ***

권상시 : HOISTING + CONTROL CIRCUIT = 17.4 A

*** PEAK 전류값 ***

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

NOMAL 전류값 * K = 17.4 * 1.25 = 21.7 A

*POWER SOURCE : AC 3Φ 380(440)V

OBJECT	HOISTING	TRAVERSING	CONTROL CIRCUIT
MOTOR OUTPUT	3.5KW x 4P	-	
FULL LOAD CURRENT	8.7 (A)	0 (A)	0.5 (A)

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

*** NOMAL 전류값 ***

권상시 : HOISTING + CONTROL CIRCUIT = 9.2 A

*** PEAK 전류값 ***

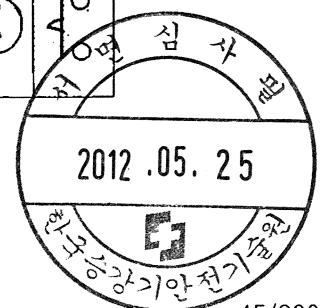
K= NAMAL 전류치가 50A미만일때 1.25, 50A이상일때 1.1적용

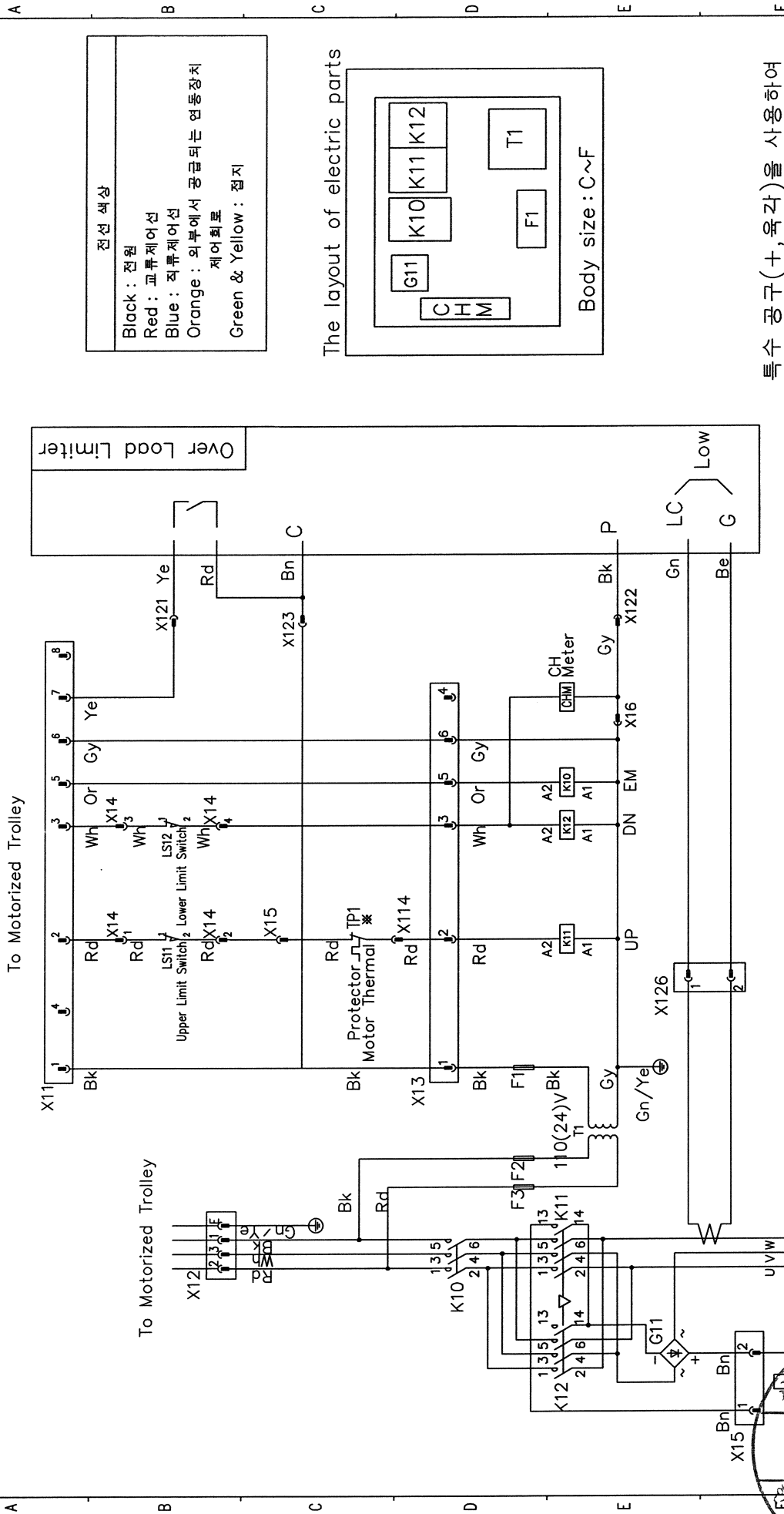
NOMAL 전류값 * K = 9.2 * 1.25 = 11.5 A



SYMBOL LIST

	CIRCUIT PROTECTOR		THERMAL b
	CONTACTOR COIL		TRANS
	CONTACTOR a		FUSE
	CONTACTOR b		LIMIT SWITCH b
	TERMINAL BLOCK		EARTH
	CONNECTOR		SURGE ABSORBER
	LAMP		THERMAL(DETECTOR)
	P/B SWITCH a		TRANS
	P/B SWITCH b		LIMIT SWITCH a
	PROXIMITY SWITCH		
	PHOTO SWITCH		
	TIMER a		



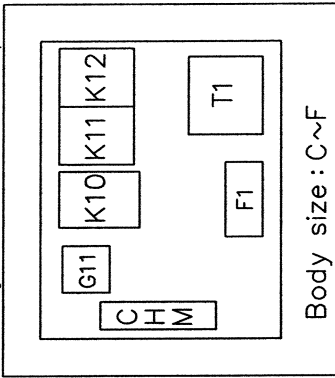


Over Load Limiter

To Motorized Trolley

To Motorized Trolley

The layout of electric parts

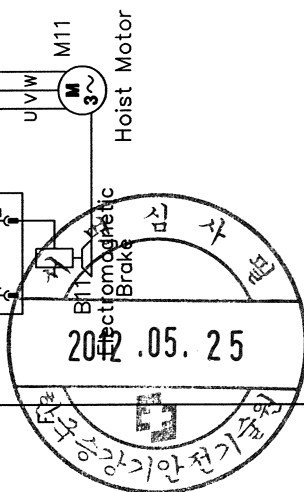


전선 색상
Black : 전선
Red : 교류제어선
Blue : 직류제어선
Orange : 외부에서 공급되는 연동장치 제어 회로
Green & Yellow : 접지

특수 공구(+, 육각)을 사용하여
개방구 쪽은 제외

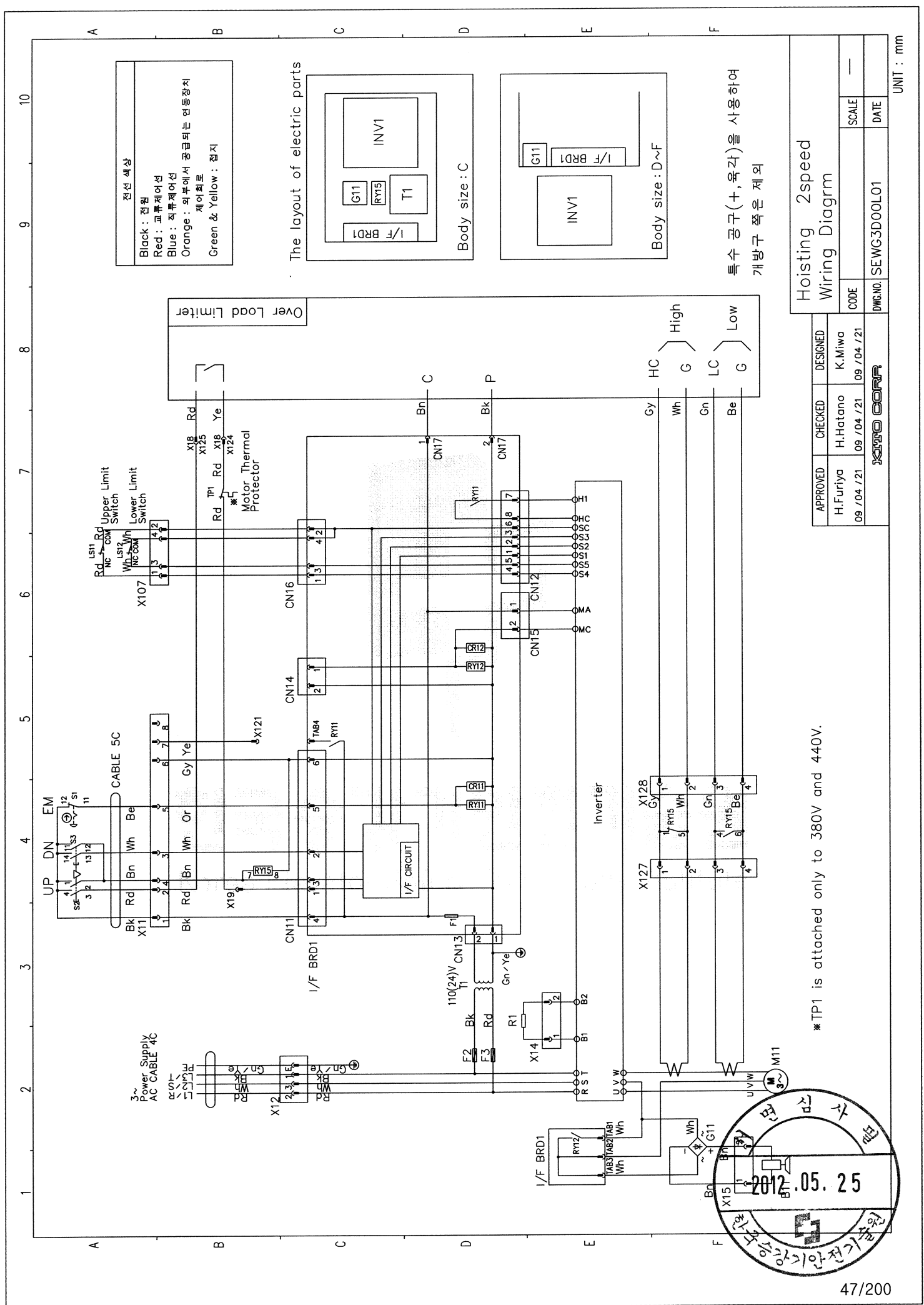
For MR connection

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

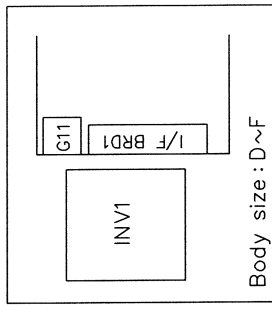
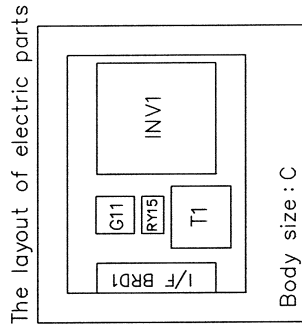


APPROVED		CHECKED	DESIGNED	Hoisting 1speed Traversing Wiring Diagram	
H.Furiya		T.Hatano	K.Miwa		
09 /04 /21		09 /04 /21	09 /04 /21	CODE	SCALE
				DWG.NO. SEWC3100L01_MR	DATE

UNIT : mm



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



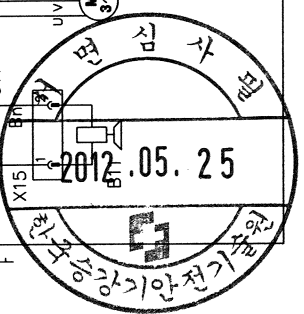
특수 공구(+, 육각)를 사용하여
개방구 쪽은 제외

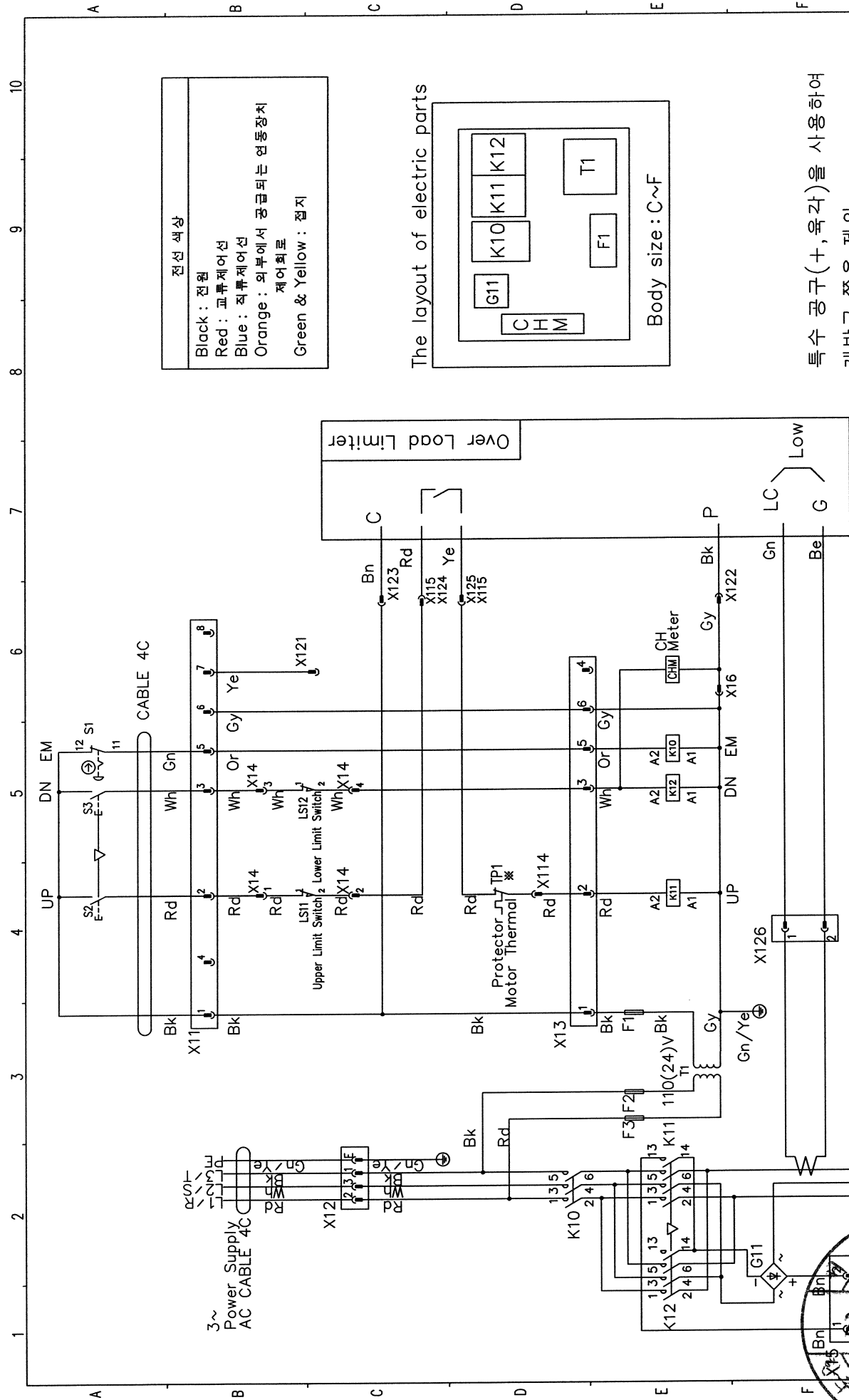
Hoisting 2speed Wiring Diagram

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

CODE	SCALE	DATE
—	—	—

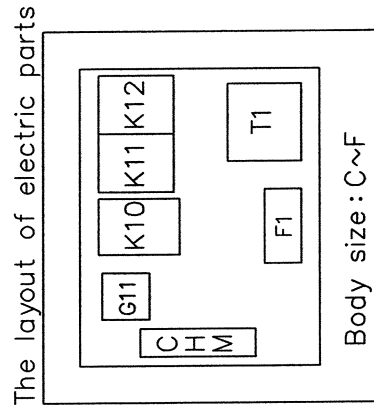
* TP1 is attached only to 380V and 440V.





전선 색상

Black : 전원
Red : 정류제어선
Blue : 역류제어선
Orange : 외부에서 공급되는 연동장치 제어회로
Green & Yellow : 접지

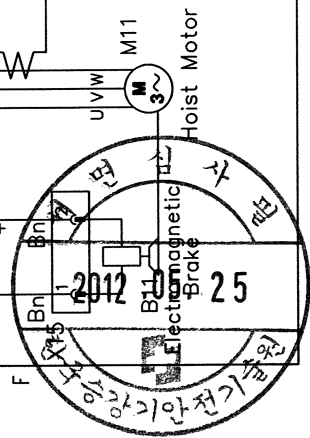


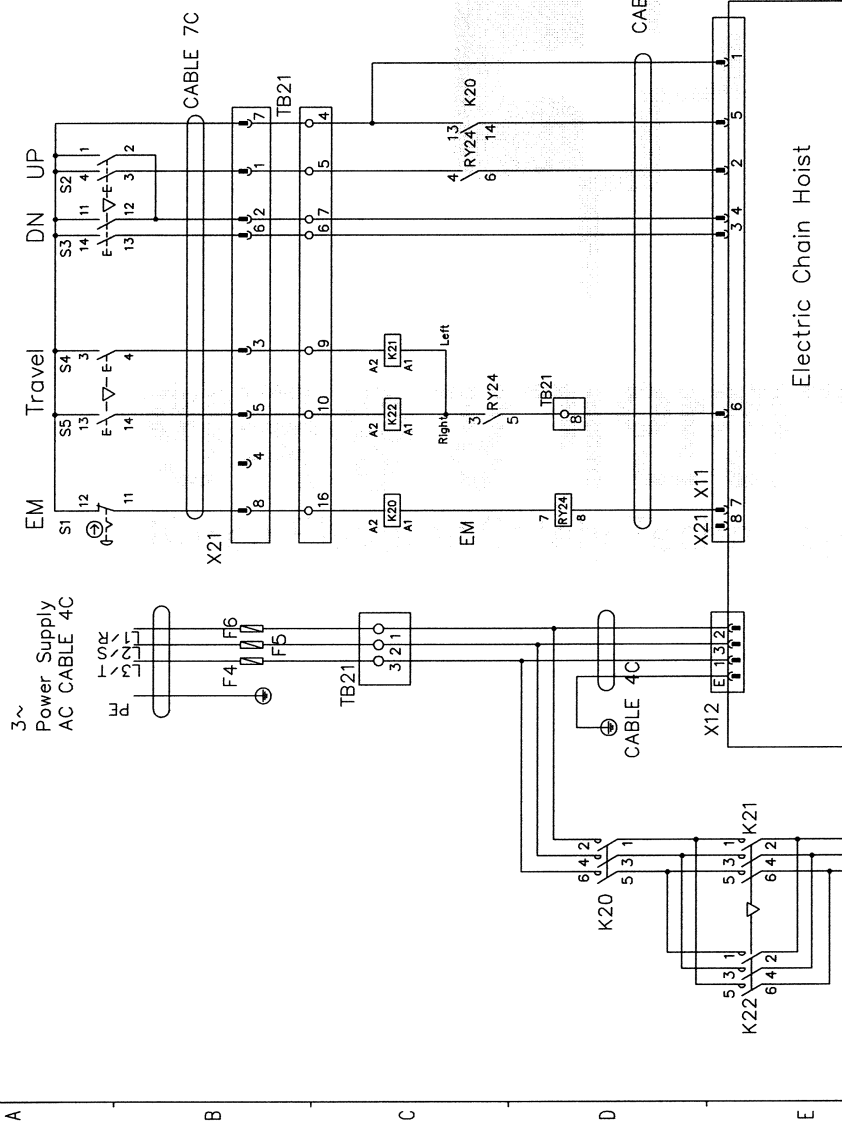
특수 공구(+, 육각)를 사용하여
개방구 쪽은 제외

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

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

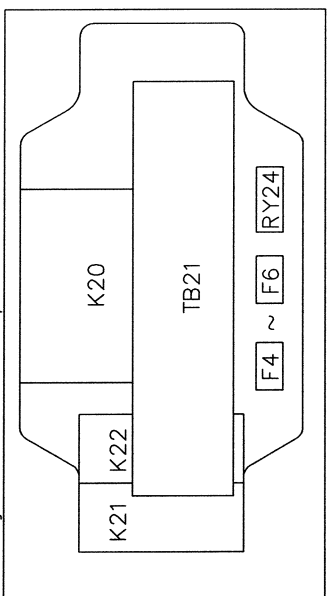
UNIT : mm





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

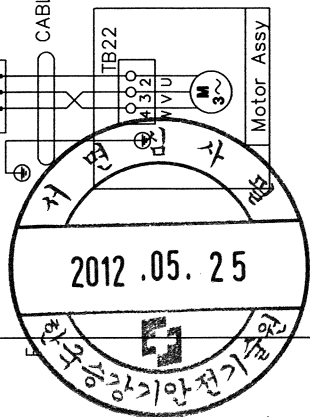
APPROVED	CHECKED	DESIGNED
H.Furiya	H.Hatano	K.Miwa
09 / 04 / 21	09 / 04 / 21	09 / 04 / 21

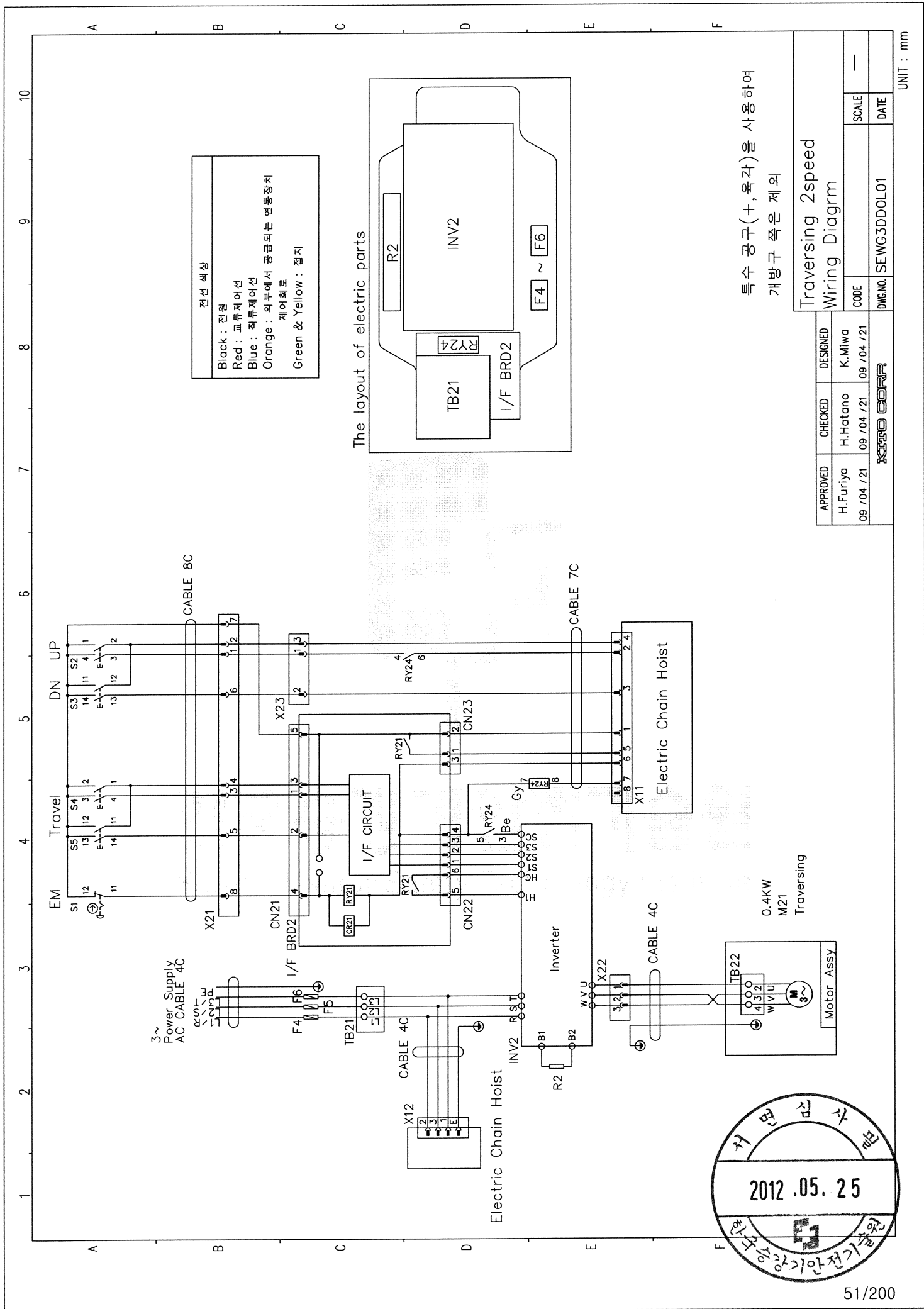
CODE	SCALE
—	—

DWG.NO.	DATE
SEWG3DD0L01	

ISTO CORP

UNIT : mm





CABLE 구성도 및 사양 - 권상 용량 3.5kw

CABLE SPECIFICATION FOR ER2M

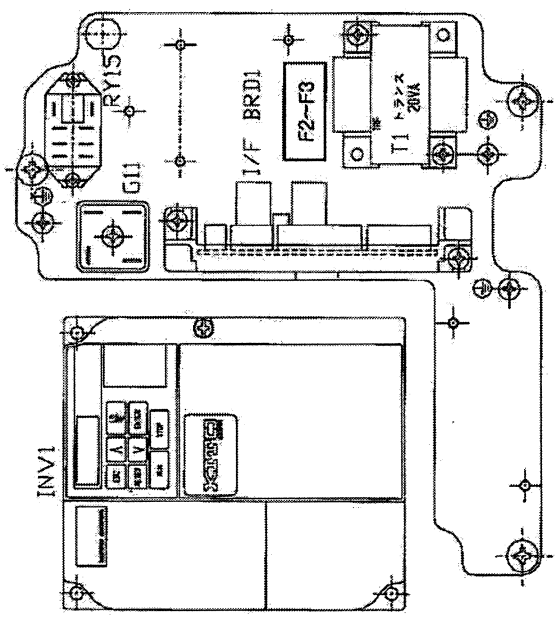
NO	ITEM	TYPE	ER2M30
			SIZE
①	Power Line	VCT	3.5sq x 4C
②	Push Button Switch	VCT	1.25sq x 8C
③	Loas Limit	VCT	0.75sq x 8C
④	Power Line for ER	VCT	2sq x 4C
⑤	Control Line for ER	VCT	1.25sq x 6C
⑥	Traversing Motor With Earth	VCT	1.25sq x 4C

(3Φ 220(208)V / 380V / 440V 60Hz)

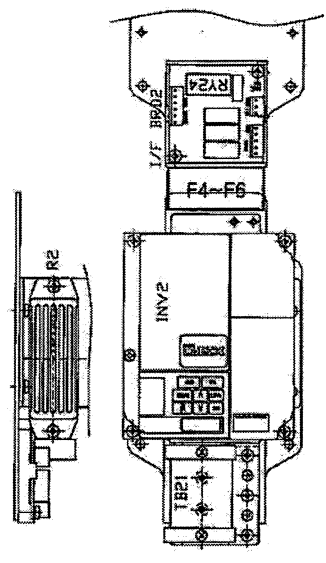


. 호이스트 CONTROL BOX 배치도

HOISTING CONTROL BOX

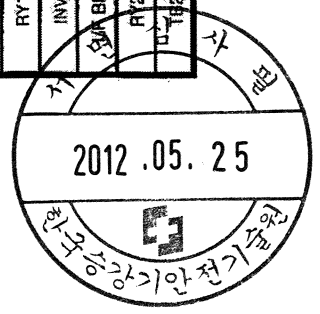


TRAVERSING CONTROL BOX



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	
1/F BRD1	INTERFACE BOARD	10~15A	10~15A	10~15A	1	KITO	
F2~F3	GLASS FUSE	10A	10A	10A	2	FUJII	
F4~F6	GLASS FUSE	30A	30A	30A	3	FUJII	
RY15	RELAY	110V	110V	110V	1	OMRON	HIGH/LOW
INV2	INVERTER	V1000	V1000	V1000	1	YASKAWA	RIGHT/LEFT
1/F BRD2	INTERFACE BOARD	10~15A	10~15A	10~15A	1	KITO	
RY24	RELAY	110V	110V	110V	1	OMRON	EMERGENCY STOP
T1, T2, T3	TERMINAL BOARD 21	10~15A	10~15A	10~15A	1	KITO	



CABLE or TROLLEY BAR

POWER SOURCE : AC 208V/220V/380V/440V/3PH/60Hz

점지설비 시공방법

- 전동기의 외형, 제어반 등은 점지를 해야 하며 그 점지처형은 다음의 규정을 따른다

점지공사		
3중 점지공사	400V 이하	100Ω이하
특3중 점지공사	400V 이상	10Ω이하

단, 방폭지역은 전압관계없이 10Ω 이하일것

- 점지전용 Trolley Duct 및 전선은 당해 전기기기, 기구에 대하여 충분한 용량과 전기적, 기계적인 강도를 가져야 함.
- 점지선이 외상을 받을 우려가 있는 경우는 전선관, 합성수지관 등과 함께 사용한다
- 점지공사는 지표면에서 최저 75cm이상의 깊이에 점지봉을 박고 점지봉에는 점지동반을 연결한다.

TRaversing PANEL

HOISTING PANEL

MAIN SWITCH BOX
User Scope

CABLE 종류 및 굵기

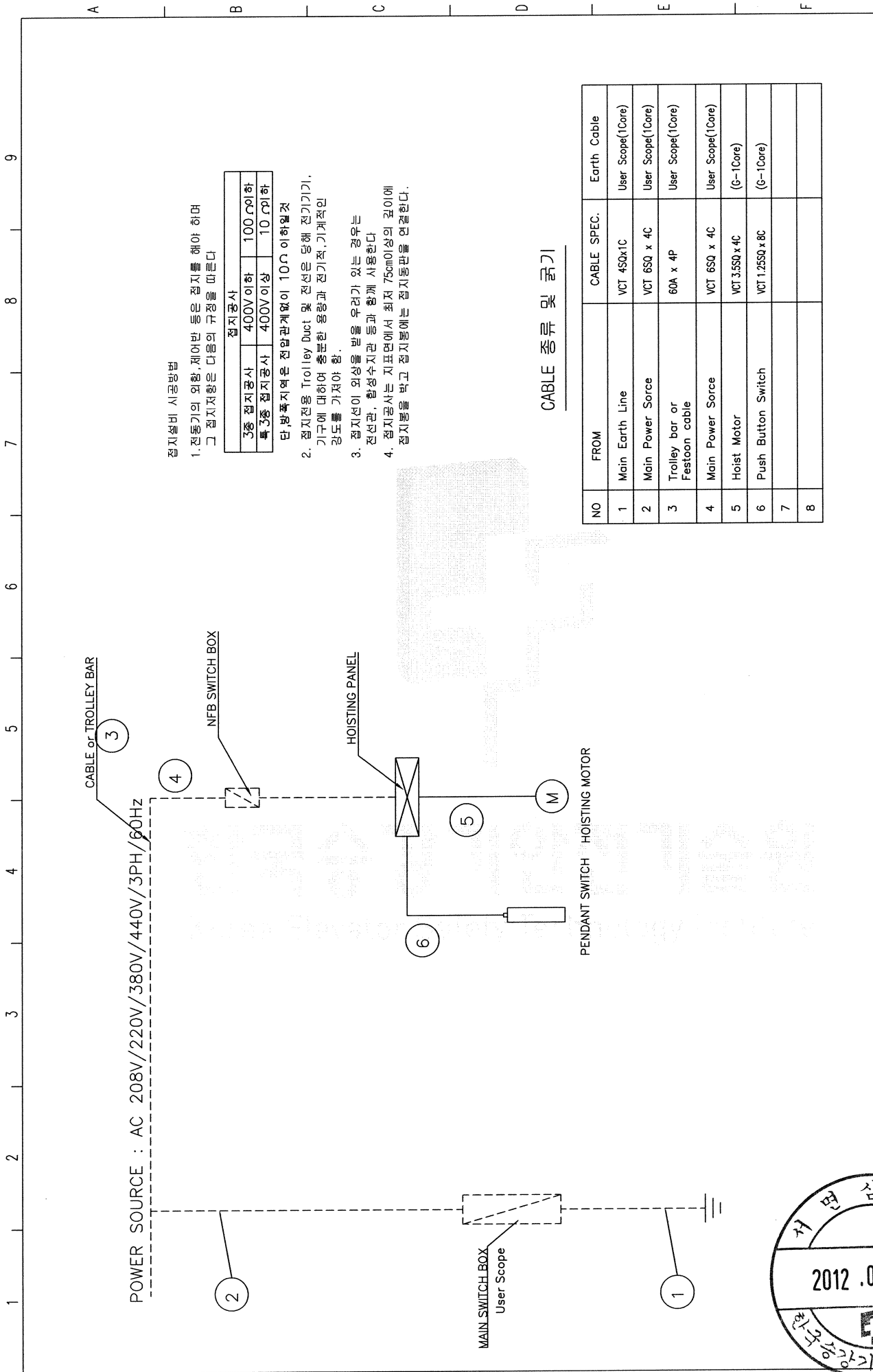
NO	FROM	CABLE SPEC.	Earth Cable
1	Main Earth Line	VCT 450x1C	User Scope(1Core)
2	Main Power Sorce	VCT 65Q x 4C	User Scope(1Core)
3	Trolley bar or Festoon cable	60A x 4P	User Scope(1Core)
4	Main Power Sorce	VCT 65Q x 4C	User Scope(1Core)
5	Traversing Motor	VCT 1.25SQ x 6C	(G-1Core)
6	Hoist Motor	VCT 3.5SQ x 4C	(G-1Core)
7	Push Button Switch	VCT 1.25SQ x 8C	(G-1Core)
8			

TRaversing MOTOR

PENDANT SWITCH HOISTING MOTOR



REV. QTY		CONTENTS		DATE	DRAWN	APPROVED	APPROVED	CHECKED	DESIGNED	DRAWN	TITLE	
											3t MOTORIZED-4점식	
											케이블 구성도 및 점지계통도	
											MDL.	942513
											DWG. NO.	3NNU942513
											SCALE	NOT
											REV.	0



접지설비 시공방법

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

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

- 단, 방폭지역은 전압관계없이 10Ω 이하일 것
- 접지 전용 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 굵기

NO	FROM	CABLE SPEC.	Earth Cable
1	Main Earth Line	VCT 4SQx1C	User Scope(1Core)
2	Main Power Sorce	VCT 6SQ x 4C	User Scope(1Core)
3	Trolley bar or Festoon cable	60A x 4P	User Scope(1Core)
4	Main Power Sorce	VCT 6SQ x 4C	User Scope(1Core)
5	Hoist Motor	VCT 3.5SQ x 4C	(6-1Core)
6	Push Button Switch	VCT 1.25SQ x 8C	(6-1Core)
7			
8			

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



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".

Korea Elevator Safety Technology Institute

Technical Control Group

Test Certificate

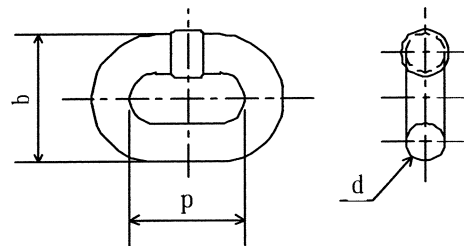
Messrs.

Commodity: NC Load Chain

C o d e : KER102

Lot No. : —

Quantity: — line(s)



1. Material: Manganese Alloy Steel

2. Dimensions

	d	p	b
Specified	10.2mm ± 0.4	28.4mm $\begin{smallmatrix} +0.56 \\ 0 \end{smallmatrix}$	Max. 35.7mm
Result	Good	Good	Good

3. Breaking test

	Breaking load	Total ultimate elongation
Specified	Min. 131 (kN)	Min. 10 (%)
Result	Good	Good

4. Manufacturing Proof force test (Test load: 81.7 kN)

	Permanent elongation
Specified	0.25 (%)
Result	Good

General judgment: Satisfactory



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Quality Assurance Group
Quality Assurance Department
Development & Technology Division

K. Kishimoto (Manager)

Certificate No.: MM080011g

Date of Issue: 2009/3/4

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	3.5kW	4P	60%ED	220V	60Hz

Full load characteristics

Voltage Frequency	220V 60Hz
Load %	100
Current A	16.9
Speed rpm	1670

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



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Quality Assurance Department
Development & Technology Division

M. Ogihara

(Manager)

Certificate No.: MM070011g

Date of Issue: 2008/03/21

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	3.5kW	4P	60%ED	380 - 440V	60Hz

Full load characteristics

Voltage	Frequency	380 - 440V 60Hz
Load	%	100
Current	A	8.7
Speed	rpm	1650

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
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Development & Technology Division

(Manager)

K. Kishimoto

Certificate No.: MM080011h

Date of Issue: 2009/3/4

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	3.5kW	4P	40/20%ED	220V	Speed Control by Inverter

Full load characteristics

Voltage	Frequency	220V	Speed Control by Inverter
Load	%	100	
Current	A	18.7	
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



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Development & Technology Division

M. Ogihara (Manager)

Certificate No.: MM070011h

Date of Issue: 2008/03/21

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	3.5kW	4P	60%ED	380 - 440V	Speed Control by Inverter

Full load characteristics

Voltage	Frequency	380 - 440V	Speed Control by Inverter
Load	%	100	
Current	A	9.2	
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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(Manager)

K. Kishimoto

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Date of Issue: 2009/3/4

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



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M. Ogihara (Manager)

Certificate No.: MM070013a

Date of Issue: 2008/03/21

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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(Manager)

K. Kishimoto

Certificate No.: MM080012b

Date of Issue: 2009/3/4

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



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Development & Technology Division

M. Ogihara

(Manager)

Certificate No.: MM070013b

Date of Issue: 2008/03/21

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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Quality Assurance Group
Quality Assurance Department
Development & Technology Division

(Manager)

K. Kishimoto

1) 과부하 방지장치

