



제 CA-2012-0036 호

안 전 인 증 서

(사업장명) (주)KITO

(소재지) 2000, Tsujiarai, 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): KML-ER2-020(2 ton) | _____ |
| _____ | 인증번호 : 12-CA4AC-0036 | _____ |
| _____ | 인증기준 : 위험기계·기구 의무안전인증기준 (고용노동부고시 제2011-39호) | _____ |
| _____ | 인증조건 : 산업안전보건법 "제34조 준수" | _____ |

2012년 11월 30일

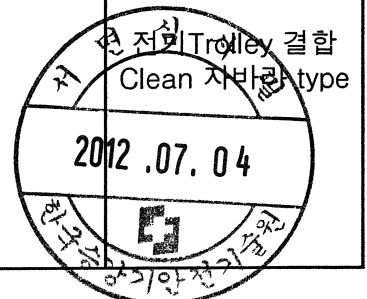
한국승강기안전기술원 이사장



【별지 제4호서식】

동 일 형 식 일 람 표

| | | | | | |
|----------------------|---------------------|----------------------------|-------------|---|----------------------------|
| 사업장명 | KITO CORP. | 개정일자 및 번호 | 2012.05.2 | 인증번호 | |
| 형식 및 모델번호 | | 동일형식 항목 및 내역 | | | |
| 형식번호 | 모델번호 | 동일형식 항목1 | 동일형식 항목2 | 동일형식 항목3 | 동일형식 항목4 |
| KML-ER2-020 | KITO-ER2-020L | Lift max 30m | 권상모타 1.8kW | 횡행모타 없음 | Trolley고정형 |
| | KITO-ER2-020IL | | 권상모타 1.8kW | | Trolley 있음 |
| | KITO-ER2SP020L | | 권상모타 1.8kW | | Trolley + 수동체인 |
| | KITO-ER2SP020IL | | 권상모타 1.8kW | | |
| | KITO-ER2SG020L | | | | |
| | KITO-ER2SG020IL | | | | |
| | KITO-ER2M020L-S | | 권상모타 1.8kW | 횡행모터 0.4kW .S : 24m/min .L: 12m/min .IS:24/4m/min .IL:12/2m/min | 전기Trolley 결합 type |
| | KITO-ER2M020L-L | | | | |
| | KITO-ER2M020L-IS | | | | |
| | KITO-ER2M020L-IL | | | | |
| | KITO-ER2M020IL-S | | 권상모타 1.8kW | | |
| | KITO-ER2M020IL-L | | | | |
| | KITO-ER2M020IL-IS | | | | 전기Trolley 결합 Clean type |
| | KITO-ER2M020IL-IL | | | | |
| | KITO-C-ER2M020L-S | | 권상모타 1.8kW | | |
| | KITO-C-ER2M020L-L | | | | |
| | KITO-C-ER2M020L-IS | | | | |
| | KITO-C-ER2M020L-IL | | | | |
| | KITO-C-ER2M020IL-S | | 권상모타 1.8kW | 전기Trolley 결합 Clean type | |
| | KITO-C-ER2M020IL-L | | | | |
| | KITO-C-ER2M020IL-IS | | | | |
| | KITO-C-ER2M020IL-IL | | | | |
| | KITO-CZ-ER2M020L-S | | 권상모타 1.8kW | | |
| | KITO-CZ-ER2M020L-L | | | | |
| KITO-CZ-ER2M020L-IS | | 전기Trolley 결합 Clean type | | | |
| KITO-CZ-ER2M020L-IL | | | | | |
| KITO-CZ-ER2M020IL-S | 권상모타 1.8kW | | | | |
| KITO-CZ-ER2M020IL-L | | | | | |
| KITO-CZ-ER2M020IL-IS | | | | | |
| KITO-CZ-ER2M020IL-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.

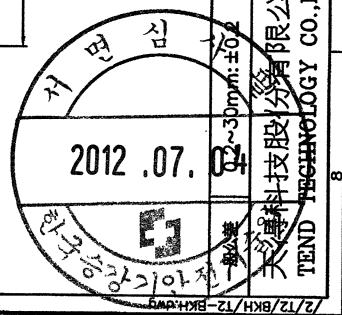
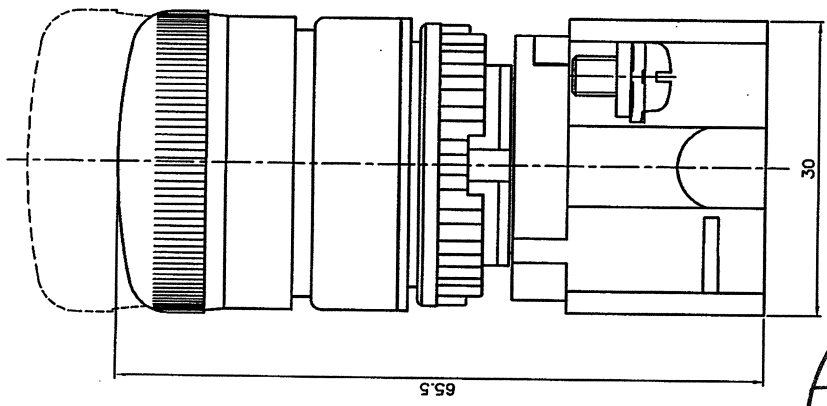
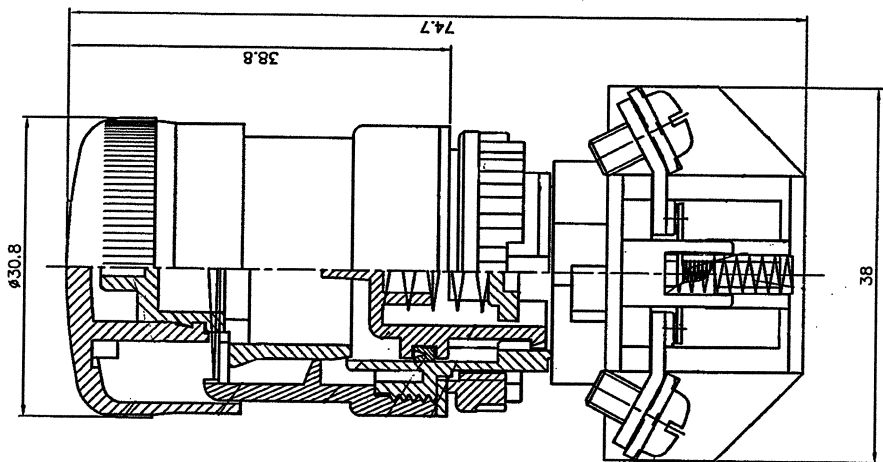
정호엔지니어링, 경기도 광명시 노온사동 440-5

2012년 06월 11일

한국산업안전보건공단 이사장



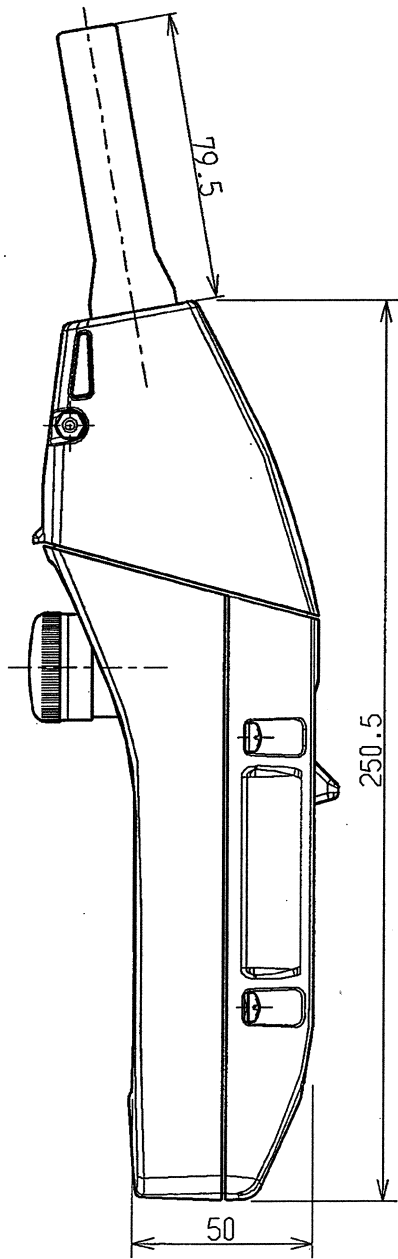
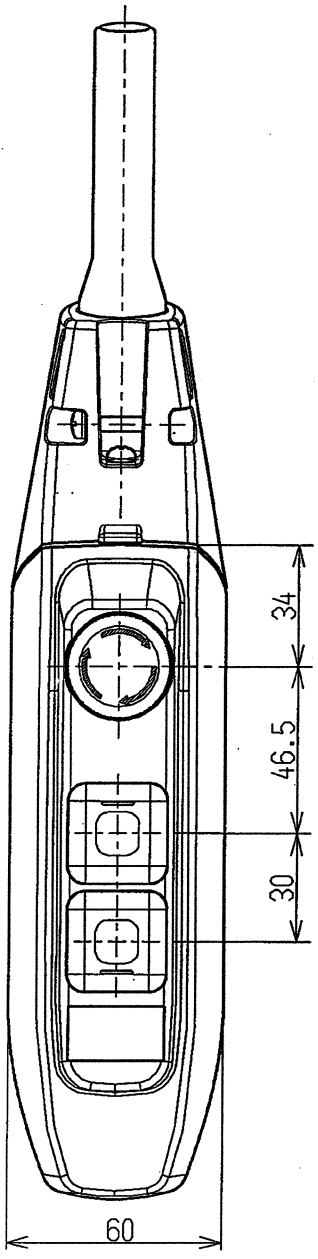
F E D C B A



| | | |
|---|------|---|
| 1 | 圖號 | T2-BKH |
| 2 | 品名 | T2 BKH 連續開關 |
| 3 | 材質 | 表面處理 |
| 3 | 單位 | mm |
| 3 | 比例 | 2:1 |
| 3 | 投影法 | 第一角法 |
| 4 | 繪圖 | 設計課 95.05.24 吳宗達 |
| 4 | 繪圖 | 研發部 95.05.24 周啟祥 |
| 5 | 校對 | 研發部 95.05.24 李健廷 |
| 5 | 核准 | 研發部 95.05.24 林建宏 |
| 6 | 品保 | 品保部 95.05.24 林建宏 |
| 7 | 最新修正 | |
| 7 | 前次修正 | |
| 8 | 備註 | 60.1~300mm: ±0.5 30.1~60mm: ±0.3 0.1~30mm: ±0.2 |

圖號:A

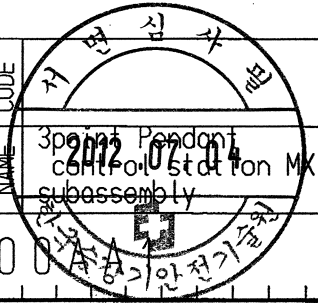
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|----------|-----------|-------------|------|--------|----------|
| | | | | | |



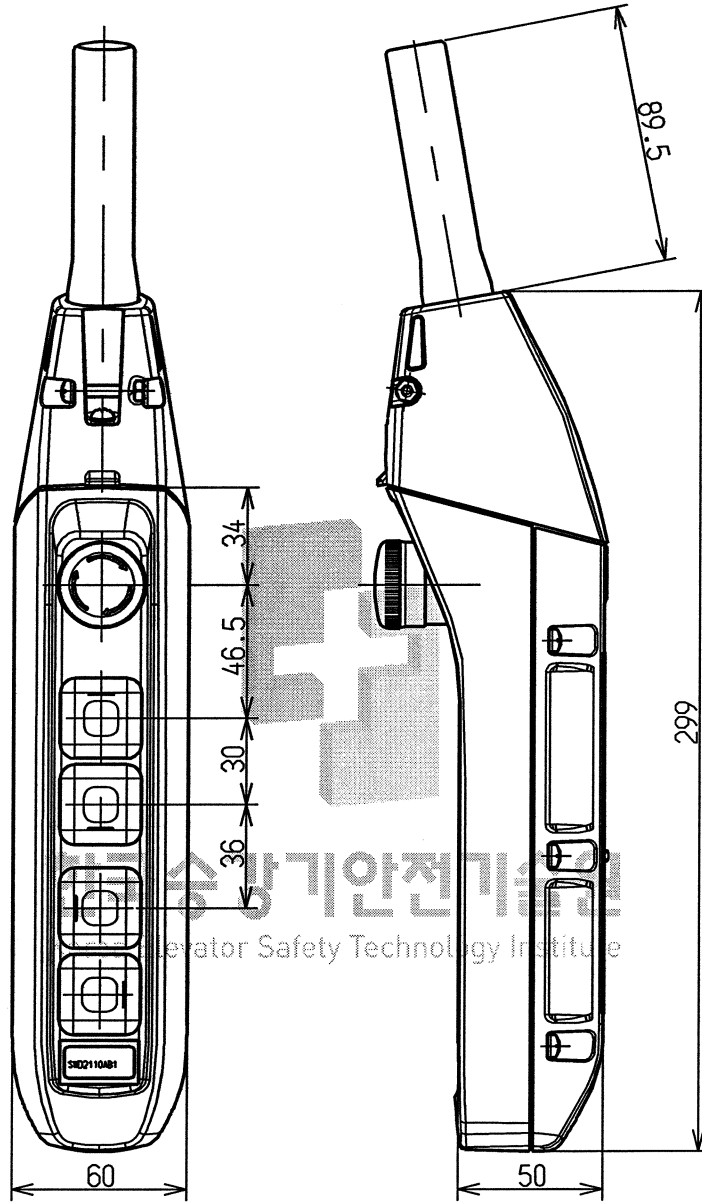
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| ⑤ |
| ④ |
| ③ |
| ② |
| ① |

| | | | | | | | | | | | |
|-------------|----------|---------|----------|----------|-----------|-------|-----------|-------|---|----------|---------|
| N O T E | | | | | | | MATERIAL | | NAME CODE | | |
| | | | | | | | | | 3point Pendant Control Station MK subassembly | | |
| APPROVED | ISHIKAWA | CHECKED | FURIYA | DESIGNED | KOBAYASHI | DRAWN | KOBAYASHI | SCALE | - | DWG. NO. | SWD2X00 |
| Date issued | 08.02.08 | | 08.02.08 | | 08.02.08 | | 08.02.08 | | | | |



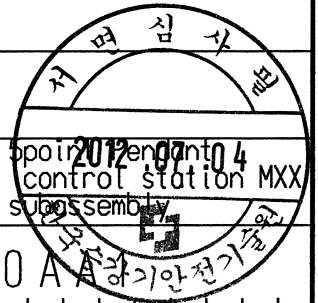
| Revision | Incidence | Description | Date | Charge | Approved |
|----------|-----------|-------------|------|--------|----------|
| | | | | | |



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

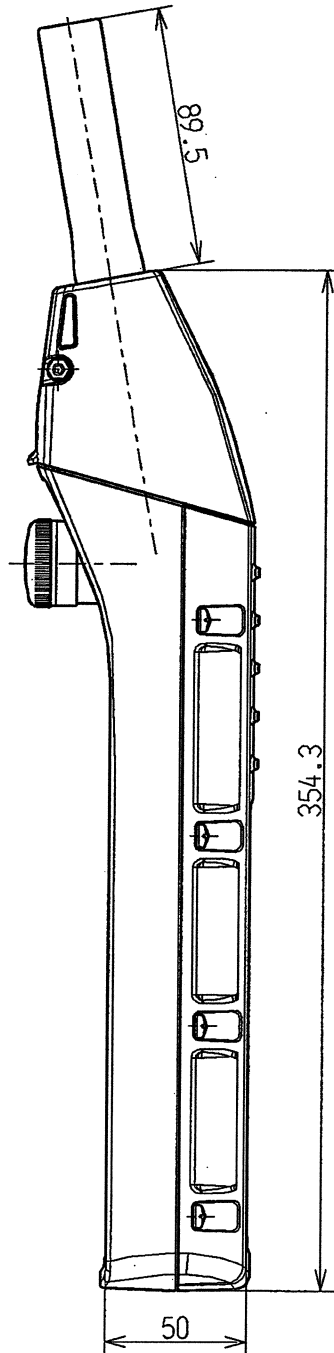
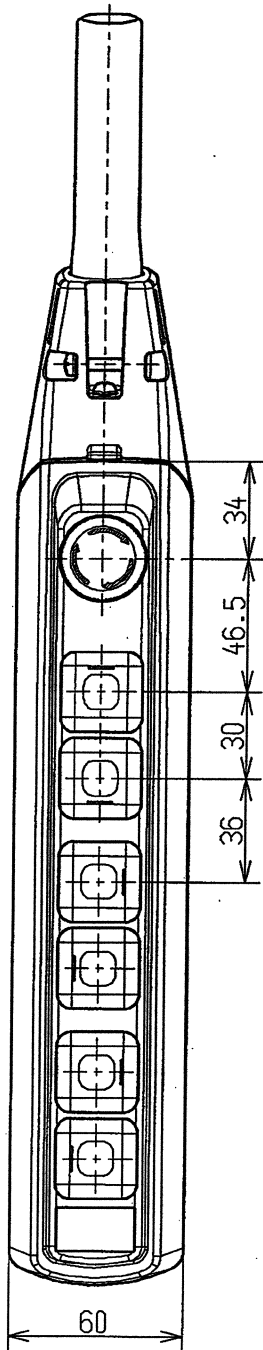
| | |
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| ② | |
| ① | |
| Date issued | |

| | | | | | | | | | | | | | | | |
|----------|----------|---------|----------|----------|-----------|-------|-----------|-------|---|----------|----------|-------------------|--|-----------|--|
| APPROVED | H.FURIYA | CHECKED | T.HATANO | DESIGNED | KOBAYASHI | DRAWN | KOBAYASHI | SCALE | - | DIG. NO. | SWD2XX0A | MS./UNIT MATERIAL | | NAME CODE | 20120907 control station MXX subassembly |
| | | | | | | | | | | | | | | | |



| Revision | Incidence | Description | Date | Charge | Approved |
|----------|-----------|-------------|------|--------|----------|
| | | | | | |

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N

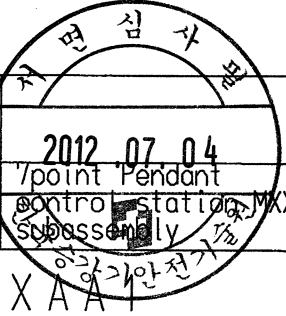


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NOTE

| | | | | | | | | | | | | | | | |
|----------|----------|---------|--------|----------|-----------|-------|-----------|-------|---|----------|------------|-----------|----------|-----------|---|
| APPROVED | ISHIKAWA | CHECKED | FURIYA | DESIGNED | KOBAYASHI | DRAWN | KOBAYASHI | SCALE | - | DWG. NO. | SWD2XXXAA1 | NOS./UNIT | MATERIAL | NAME CODE | 2012 07 04 Point Pendant Control Station Subassembly |
|----------|----------|---------|--------|----------|-----------|-------|-----------|-------|---|----------|------------|-----------|----------|-----------|---|

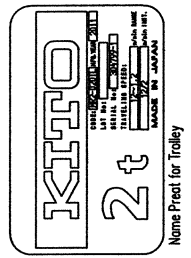
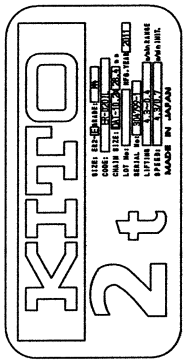
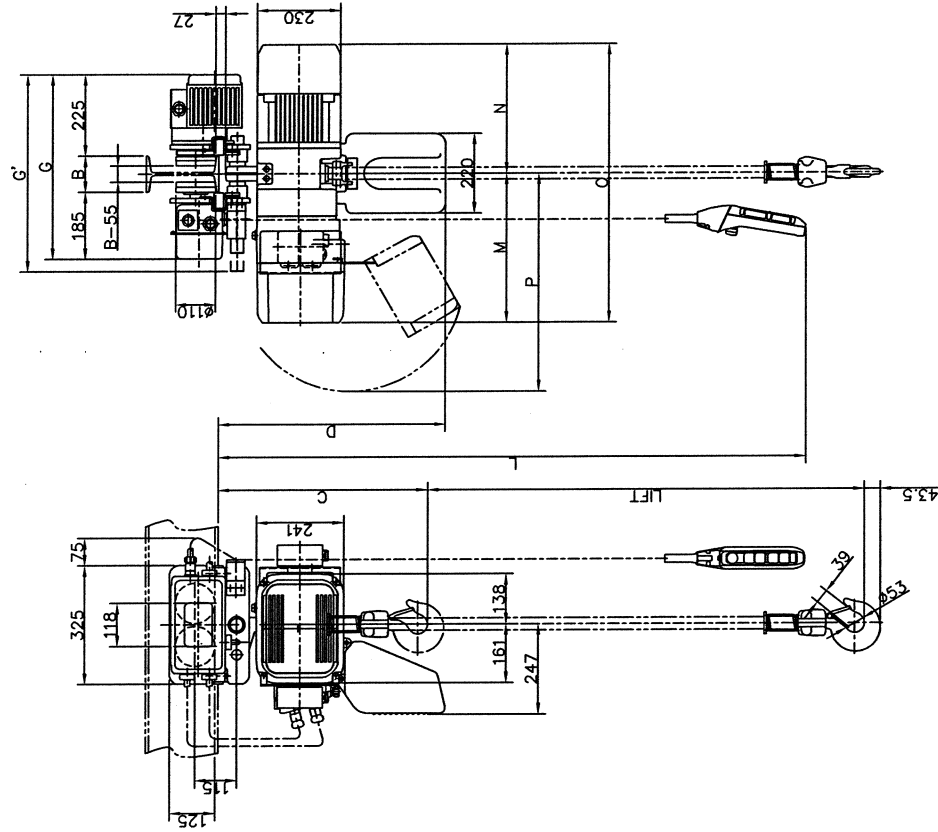


| | | |
|--------------------|---|-------------------------------|
| 型式번호 : KML-ER2-020 | Model number. | KML-ER2-020 |
| 정격 용량 | Normal Capacity | 2t |
| 리프트 높이 | Lift | 4m(max. 30m) |
| 체인 크기 | Chain size | Ø10.2 x 1 |
| 레일 하부 최소 직경 | Min. Headroom | 585mm |
| 상승 전압 | Phase Voltage | 3ø 220(208)V 60Hz |
| 상승 용량 | | 380,440V 60Hz |
| 상승 용량 | | 1.8kW x 4P |
| 상승 용량 | | 1.8kW x 4P |
| 상승 용량 | | 0.4kW 4P |
| 상승 속도 | | 4.3/0.7 m/min |
| 상승 속도 | | 4.4 m/min |
| 상승 속도 | | 12/2 m/min |
| 상승 속도 | | 24/4 m/min |
| 상승 속도 | | 12 m/min |
| 상승 속도 | | 24 m/min |
| 오션 버튼 코드 길이 | Push Button Cord | 3.8 m(max. 29.8m) |
| 케이블 길이 | Cable Length | 1.0 m |
| 레일 하부 거리 | Chain Continer Distance from Bottom of Beam | 630mm(max. 1000) |
| 레일 폭 | Flange Width | 82~178mm |
| 레일 높이 | Max. Dimension of Trolley Width | 587mm |
| 중량 | Mass | 약 133kg |
| 도색 | Painting Color | 7.5YR7/14 Munsell L35R7/14 |

| | | | | |
|--------------------|-----|--------------|--------|-----|
| 형식번호 : KML-ER2-020 | 모델명 | ER2-S | 리얼 스케일 | NOT |
| *자바라는 옵션 사양임 | 도움말 | KJ20L-ER2004 | 변경회차 | 0 |

| | | | |
|--------------------|---------------|-------------|-----|
| 형식번호 : KML-ER2-020 | Model number. | KML-ER2-020 | |
| KITO-ER2M020L-S | M | 0 | P |
| KITO-ER2M020L-L | N | 338 | 488 |
| KITO-ER2M020L-IS | O | 372 | 561 |
| KITO-ER2M020L-IL | | | |
| KITO-ER2M020L-S | | | |
| KITO-ER2M020L-L | | | |
| KITO-ER2M020L-IS | | | |
| KITO-ER2M020L-IL | | | |

| | | | | |
|-------|-----|-----|-----|-----|
| 1속 저속 | 308 | 338 | 646 | 488 |
| 2속 저속 | 372 | 372 | 710 | 561 |



| | | | |
|----------|----------|----------|----------|
| APPROVED | CHECKED | DESIGNED | DRAWN |
| H.SAITO | NAITO | SHIMURA | SHIMURA |
| 10.07.13 | 10.07.13 | 10.07.13 | 10.07.13 |



형식번호 : KML-ER2-020

Model number.

KITO-C-ER2M020L-S
 KITO-C-ER2M020L-L
 KITO-C-ER2M020L-IS
 KITO-C-ER2M020L-IL

KITO-C-ER2M020L-S
 KITO-C-ER2M020L-L
 KITO-C-ER2M020L-IS
 KITO-C-ER2M020L-IL

| Dimensions | M | N | O | P |
|------------|-----|-----|-----|-----|
| 1속 저속 | 308 | 338 | 646 | 488 |
| 2속 저속 | 372 | 710 | 710 | 561 |

基本仕様

定額容量
 Normal Capacity
 5m(max.30m)

チェーンサイズ
 Chain size
 φ10.2 x 1

レール下面よりフックまでの最小距離
 Min. Headroom
 590mm

相数・電圧
 Phase・Voltage
 3φ 220(208)V 60Hz
 380, 440V 60Hz

モーター出力・反巻定格
 Motor Output
 for Lifting
 1.8kW x 4P

モーター出力・反巻定格
 Motor Output
 for Traversing
 1.8kW x 4P

巻上速度
 Lifting Speed
 4.3(0.7) m/min
 4.4 m/min

横行速度
 Traversing Speed
 12/2 m/min
 24/4 m/min

オシボタンコード長さ : L
 Push Button Cord
 4.8 m(max.29.8m)

モーター出力・反巻定格
 Motor Output
 for Traversing
 0.4kW 4P

巻上速度
 Lifting Speed
 4.4 m/min

横行速度
 Traversing Speed
 12/2 m/min

質量
 Mass
 約 130kg

塗装色
 Painting Color
 7色 7色 5YR7/14
 Munsell 7.5R7/14

基本仕様

定額容量
 Normal Capacity
 5m(max.30m)

チェーンサイズ
 Chain size
 φ10.2 x 1

レール下面よりフックまでの最小距離
 Min. Headroom
 590mm

相数・電圧
 Phase・Voltage
 3φ 220(208)V 60Hz
 380, 440V 60Hz

モーター出力・反巻定格
 Motor Output
 for Lifting
 1.8kW x 4P

モーター出力・反巻定格
 Motor Output
 for Traversing
 1.8kW x 4P

巻上速度
 Lifting Speed
 4.3(0.7) m/min
 4.4 m/min

横行速度
 Traversing Speed
 12/2 m/min
 24/4 m/min

オシボタンコード長さ : L
 Push Button Cord
 4.8 m(max.29.8m)

質量
 Mass
 約 130kg

塗装色
 Painting Color
 7色 7色 5YR7/14
 Munsell 7.5R7/14

1. Dust Pan - option.

형식번호 : KML-ER2-020

*자바라는 옵션 사양임

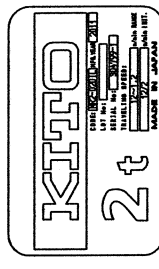
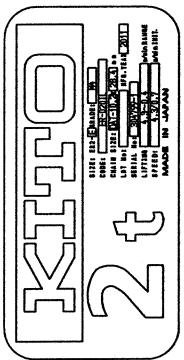
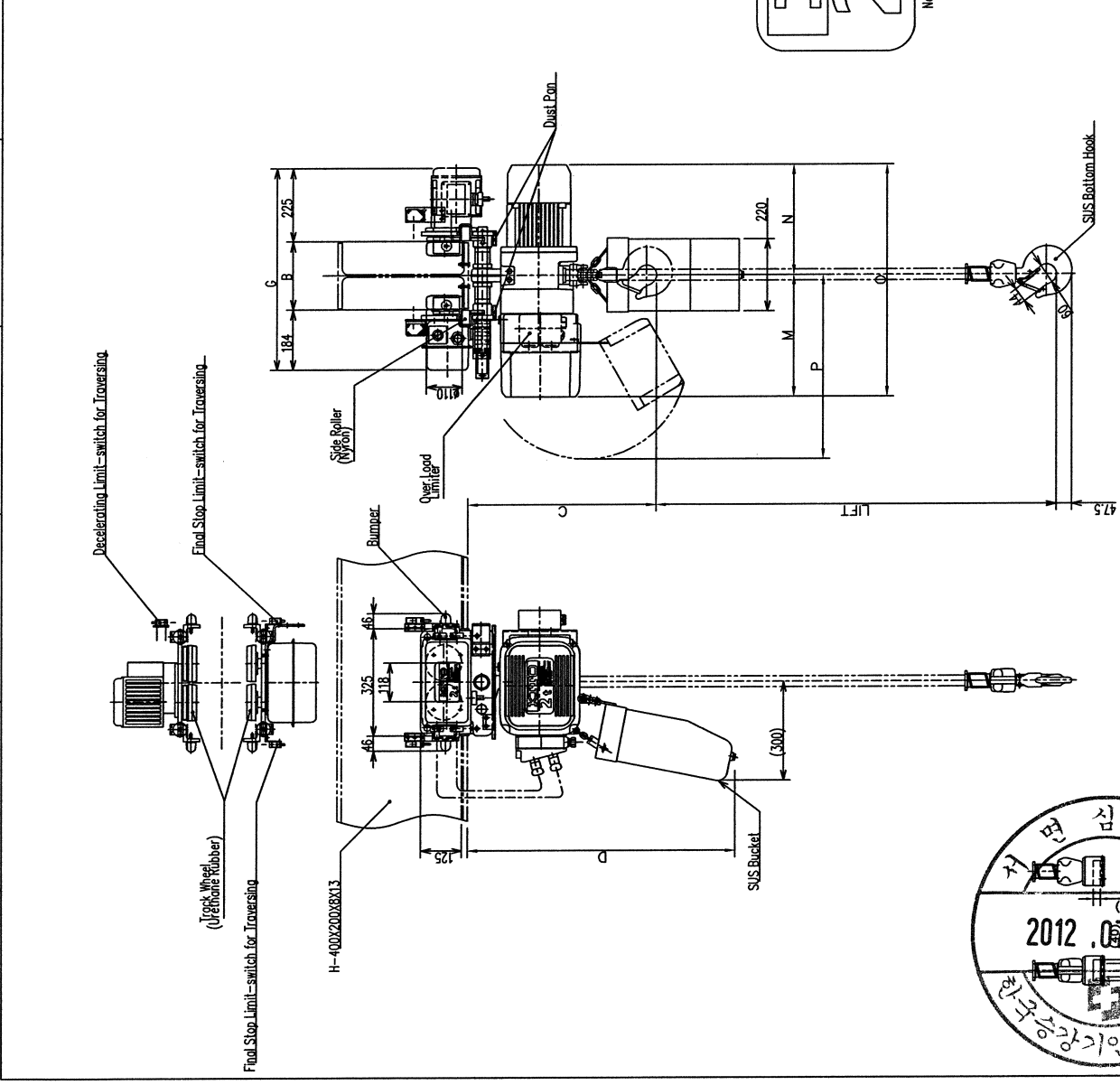
명칭
 TITLE
 21 ER2M SERIES ELECTRIC CHAIN HOIST(CLEAN)
 WITH MOTORIZED TROLLEY

제조번호
 CODE
 ER2-MC

도면번호
 DWG. NO.
 KJ20L-ER2005

리더 스케일
 R. SCALE
 NOT

작성 일자
 DATE
 0



Name Plate For Chain Hoist

APPROVED CHECKED DESIGNED DRAWN

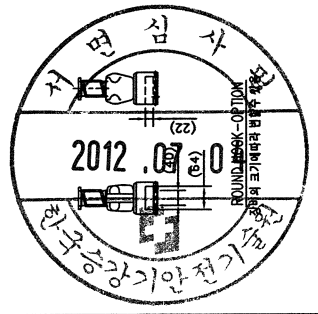
H.SAITO K.SUZUKI K.MAKAMURA K.MAKAMURA

14.Feb'11 14.Feb'11 14.Feb'11 14.Feb'11

株式会社 KITO CORP

REV. QTY 内容 承認 年 月 日 担当 承認

1 1 CONTENTS 審 年 月 日 担当 承認



1 2 3 4 5 6 7 8 9

| 형식번호 : KML-ER2-020 | | Particulars | |
|--|--|-------------------|--|
| Model number. | | ER2-E | |
| KITO-CZ-ER2M020L-S | | 2t | |
| KITO-CZ-ER2M020L-L | | 6m(max 30m) | |
| KITO-CZ-ER2M020L-IS | | φ10.2 x 1 | |
| KITO-CZ-ER2M020L-IL | | 1000mm | |
| KITO-CZ-ER2M020L-S | | 3φ 220(208)V 60Hz | |
| KITO-CZ-ER2M020L-L | | 380,440V 60Hz | |
| KITO-CZ-ER2M020L-IS | | 1.8KW x 4P | |
| KITO-CZ-ER2M020L-IL | | 1.8KW x 4P | |
| | | 0.4KW 4P | |
| Motor Output | | IL,IS | |
| ・定格定額 | | L | |
| ・等級 | | L,S | |
| Motor Output Classification | | L,S | |
| 巻上速度 | | IL 4.3/0.7 m/min | |
| Lifting Speed | | L 4.4 m/min | |
| 横行速度 | | IL 12/2 m/min | |
| Traversing Speed | | IS 24/4 m/min | |
| | | L 12 m/min | |
| | | S 24 m/min | |
| オンボタンスコード長さ : L | | 6 m(max 30m) | |
| Push Button Cord | | | |
| ケーブルタイプや給電ケーブル長さ | | 1.0 m | |
| Length of Power Supply Cable | | | |
| レール下面よりチェーン | | 720mm(max 1000) | |
| ハットまでの寸法 | | | |
| Chain Container Distance from Bottom of Beam | | | |
| 適用レール巾 : B | | 133~258mm | |
| Flange Width | | | |
| トロリ器巾 : G | | 542~667mm | |
| Max. Dimension of Trolley Width | | | |
| 質量 | | 約 160kg | |
| 塗色 | | 7色 7. 5V57/14 | |
| Painting Color | | Munsell 7.5B2/14 | |

| | |
|-----------------------|---|
| 1. Dust Pan - option. | |
| 형식번호 : KML-ER2-020 | |
| 名称 | 2t ER2M SERIES ELECTRIC CHAIN HOIST(CLEAN) WITH MOTORIZED TROLLEY |
| 製造番号 | ER2-MCJ |
| 図番 | KJ20L-ER2006 |
| DWG. NO. | |
| 尺度 | NOT |
| SCALE | |
| 変更回数 | 0 |
| REV. | |

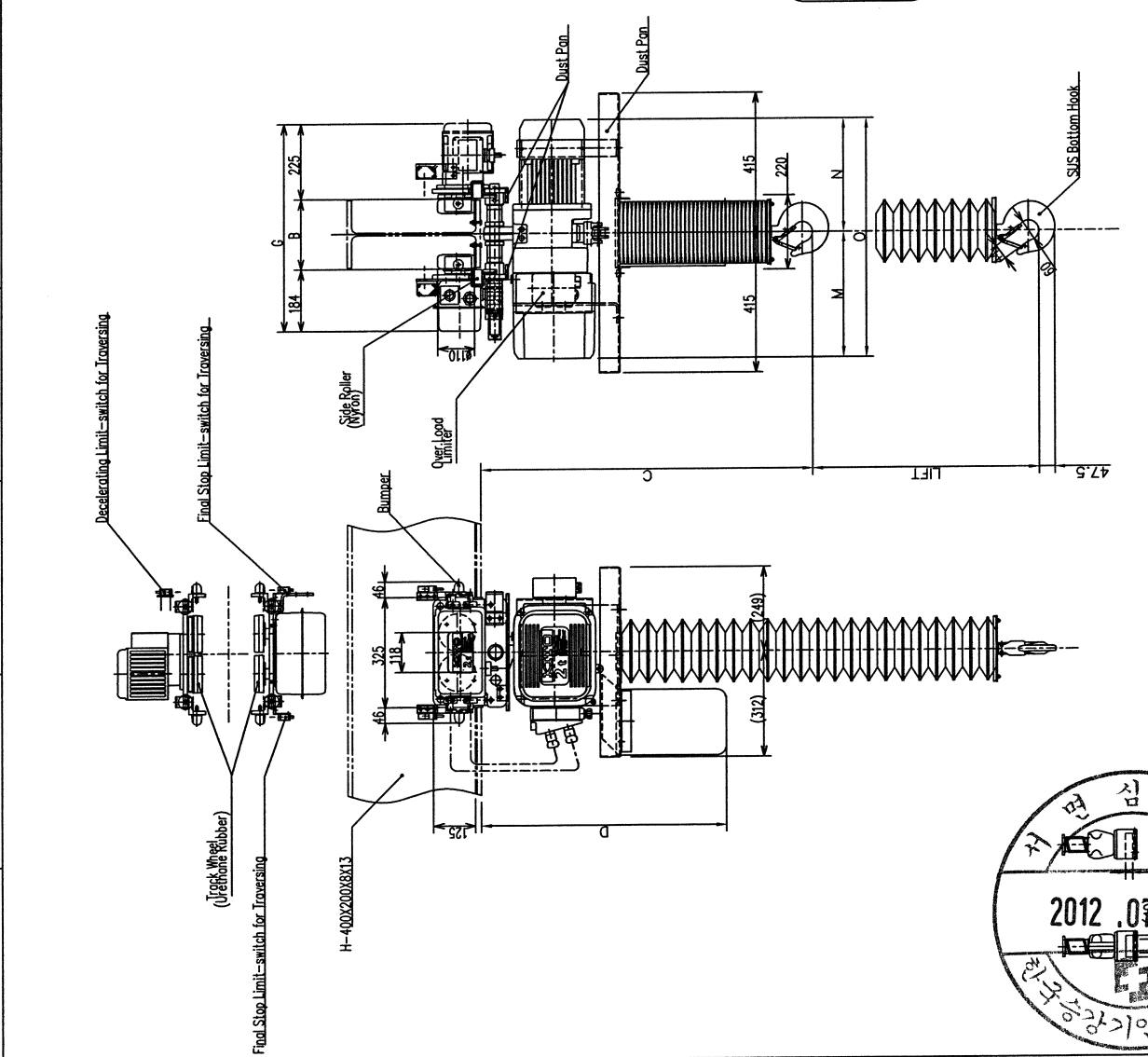
| 형식번호 : KML-ER2-020 | | Dimensions | |
|---------------------|-----|------------|-----|
| Model number. | | M | N |
| KITO-CZ-ER2M020L-S | | 308 | 338 |
| KITO-CZ-ER2M020L-L | | 372 | 710 |
| KITO-CZ-ER2M020L-IS | | | |
| KITO-CZ-ER2M020L-IL | | | |
| KITO-CZ-ER2M020L-S | | | |
| KITO-CZ-ER2M020L-L | | | |
| KITO-CZ-ER2M020L-IS | | | |
| KITO-CZ-ER2M020L-IL | | | |
| 1속 저속 | 308 | 338 | 646 |
| 2속 저속 | 372 | 710 | |

KITTO

2t

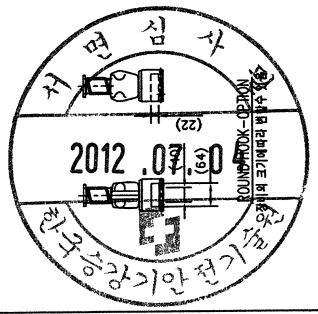
Name Plate For Chain Hoist

1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000
 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012
 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
 MADE IN JAPAN



| 承認 | 検閲 | 設計 | 製図 |
|-----------|-----------|------------|------------|
| APPROVED | CHECKED | DESIGNED | DRAWN |
| H.SAITO | K.SUZUKI | K.NAKAMURA | K.NAKAMURA |
| 14.Feb'11 | 14.Feb'11 | 14.Feb'11 | 14.Feb'11 |

| 訂 | 数 | 年 | 日 | 担当 | 承認 |
|------|-----|------|------|-------|----------|
| REV. | QTY | DATE | DATE | DRAWN | APPROVED |
| | | | | | |



样式 025P-19 三解法 単位 : mm

LOAD SUMMARY 1 – INVERTER사양(저속)

*POWER SOURCE : AC 3Φ 220(208)V

| OBJECT | HOISTING | TRAVERSING | CONTROL CIRCUIT |
|-------------------|-------------|------------|-----------------|
| MOTOR OUTPUT | 1.8KW x 4P | 0.4KW x 4P | |
| FULL LOAD CURRENT | 11.2 (A) | 3 (A) | 0.5 (A) |

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

*** NOMAL 전류값 ***

권상과 횡행시 : HOISTING + TRAVERSING + CONTROL CIRCUIT = 14.7 A

*** PEAK 전류값 ***

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

NOMAL 전류값 * K = 14.7 * 1.25 = 18.3 A

*POWER SOURCE : AC 3Φ 380(440)V

| OBJECT | HOISTING | TRAVERSING | CONTROL CIRCUIT |
|-------------------|------------|------------|-----------------|
| MOTOR OUTPUT | 1.8KW x 4P | 0.4KW x 4P | |
| FULL LOAD CURRENT | 5.1 (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 = 8.1 A

*** PEAK 전류값 ***

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

NOMAL 전류값 * K = 8.1 * 1.25 = 10.125 A



LOAD SUMMARY 1 – INVERTER사양(저속)

*POWER SOURCE : AC 3Φ 220(208)V

| OBJECT | HOISTING | TRAVERSING | CONTROL CIRCUIT |
|-------------------|-------------|------------|-----------------|
| MOTOR OUTPUT | 1.8KW x 4P | 0.4KW x 4P | |
| FULL LOAD CURRENT | 11.2 (A) | 3 (A) | 0.5 (A) |

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

*** NOMAL 전류값 ***

권상과 횡행시 : HOISTING + TRAVERSING + CONTROL CIRCUIT = 14.7 A

*** PEAK 전류값 ***

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

NOMAL 전류값 * K = 14.7 * 1.25 = 18.3 A

*POWER SOURCE : AC 3Φ 380(440)V

| OBJECT | HOISTING | TRAVERSING | CONTROL CIRCUIT |
|-------------------|------------|------------|-----------------|
| MOTOR OUTPUT | 1.8KW x 4P | 0.4KW x 4P | |
| FULL LOAD CURRENT | 5.1 (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 = 8.1 A

*** PEAK 전류값 ***

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

NOMAL 전류값 * K = 8.1 * 1.25 = 10.125 A



LOAD SUMMARY 2 – INVERTER사양(저속)

*POWER SOURCE : AC 3Φ 220(208)V

| OBJECT | HOISTING | TRAVERSING | CONTROL CIRCUIT |
|-------------------|-------------|------------|-----------------|
| MOTOR OUTPUT | 1.8KW x 4P | - | |
| FULL LOAD CURRENT | 11.2 (A) | 0 (A) | 0.5 (A) |

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

*** NOMAL 전류값 ***

권상시 : HOISTING + CONTROL CIRCUIT = 11.7 A

*** PEAK 전류값 ***

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

NOMAL 전류값 * K = 11.7 * 1.25 = 14.6 A

*POWER SOURCE : AC 3Φ 380(440)V

| OBJECT | HOISTING | TRAVERSING | CONTROL CIRCUIT |
|-------------------|------------|------------|-----------------|
| MOTOR OUTPUT | 1.8KW x 4P | - | |
| FULL LOAD CURRENT | 5.1 (A) | 0 (A) | 0.5 (A) |

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

*** NOMAL 전류값 ***

권상시 : HOISTING + CONTROL CIRCUIT = 5.6 A

*** PEAK 전류값 ***

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

NOMAL 전류값 * K = 5.6 * 1.25 = 7 A



LOAD SUMMARY 3 – 1속저속형사양

*POWER SOURCE : AC 3Φ 220(208)V

| OBJECT | HOISTING | TRAVERSING | CONTROL CIRCUIT |
|-------------------|------------|------------|-----------------|
| MOTOR OUTPUT | 1.8KW x 4P | 0.4KW x 4P | |
| FULL LOAD CURRENT | 8.4 (A) | 3 (A) | 0.5 (A) |

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

*** NOMAL 전류값 ***

권상과 횡행시 : HOISTING + TRAVERSING + CONTROL CIRCUIT = 11.9 A

*** PEAK 전류값 ***

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

NOMAL 전류값 * K = 11.9 * 1.25 = 14.8 A

*POWER SOURCE : AC 3Φ 380(440)V

| OBJECT | HOISTING | TRAVERSING | CONTROL CIRCUIT |
|-------------------|------------|------------|-----------------|
| MOTOR OUTPUT | 1.8KW x 4P | 0.4KW x 4P | |
| FULL LOAD CURRENT | 4.6 (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 = 7.3 A

*** PEAK 전류값 ***

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

NOMAL 전류값 * K = 7.3 * 1.25 = 9.125 A



LOAD SUMMARY 4 - 1속 저속형사양

*POWER SOURCE : AC 3Φ 220(208)V

| OBJECT | HOISTING | TRAVERSING | CONTROL CIRCUIT |
|-------------------|------------|------------|-----------------|
| MOTOR OUTPUT | 1.8KW x 4P | - | |
| FULL LOAD CURRENT | 8.4 (A) | 0 (A) | 0.5 (A) |

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

*** NOMAL 전류값 ***

권상시 : HOISTING + CONTROL CIRCUIT = 8.9 A

*** PEAK 전류값 ***

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

NOMAL 전류값 * K = 8.9 * 1.25 = 11.1 A

*POWER SOURCE : AC 3Φ 380(440)V

| OBJECT | HOISTING | TRAVERSING | CONTROL CIRCUIT |
|-------------------|------------|------------|-----------------|
| MOTOR OUTPUT | 1.8KW x 4P | - | |
| FULL LOAD CURRENT | 4.6 (A) | 0 (A) | 0.5 (A) |

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

*** NOMAL 전류값 ***

권상시 : HOISTING + CONTROL CIRCUIT = 5.1 A




*** PEAK 전류값 ***

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





NOMAL 전류값 * K = 5.1 * 1.25 = 6.3 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




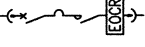
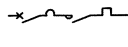
-  POWER CIRCUIT BREAKER, FIXED TYPE
- GCB : SF6 GAS CIRCUIT BREAKER
- VCB : VACUUM CIRCUIT BREAKER
- ACB : AIR CIRCUIT BREAKER
-  POWER CIRCUIT BREAKER, DRAWOUT TYPE























SWITCHES

-  CIRCUIT BREAKER, FIXED TYPE
- MCCB : MOULDED 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
-  DISCONNECTOR SWITCH, SINGLE THROW MANUALLY OPERATED
-  LOAD BREAK SWITCH, SINGLE THROW MANUALLY OPERATED
-  EARTHING SWITCH, SINGLE THROW MANUALLY OPERATED
-  DISCONNECTOR 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)

CONTACTORS AND STARTERS

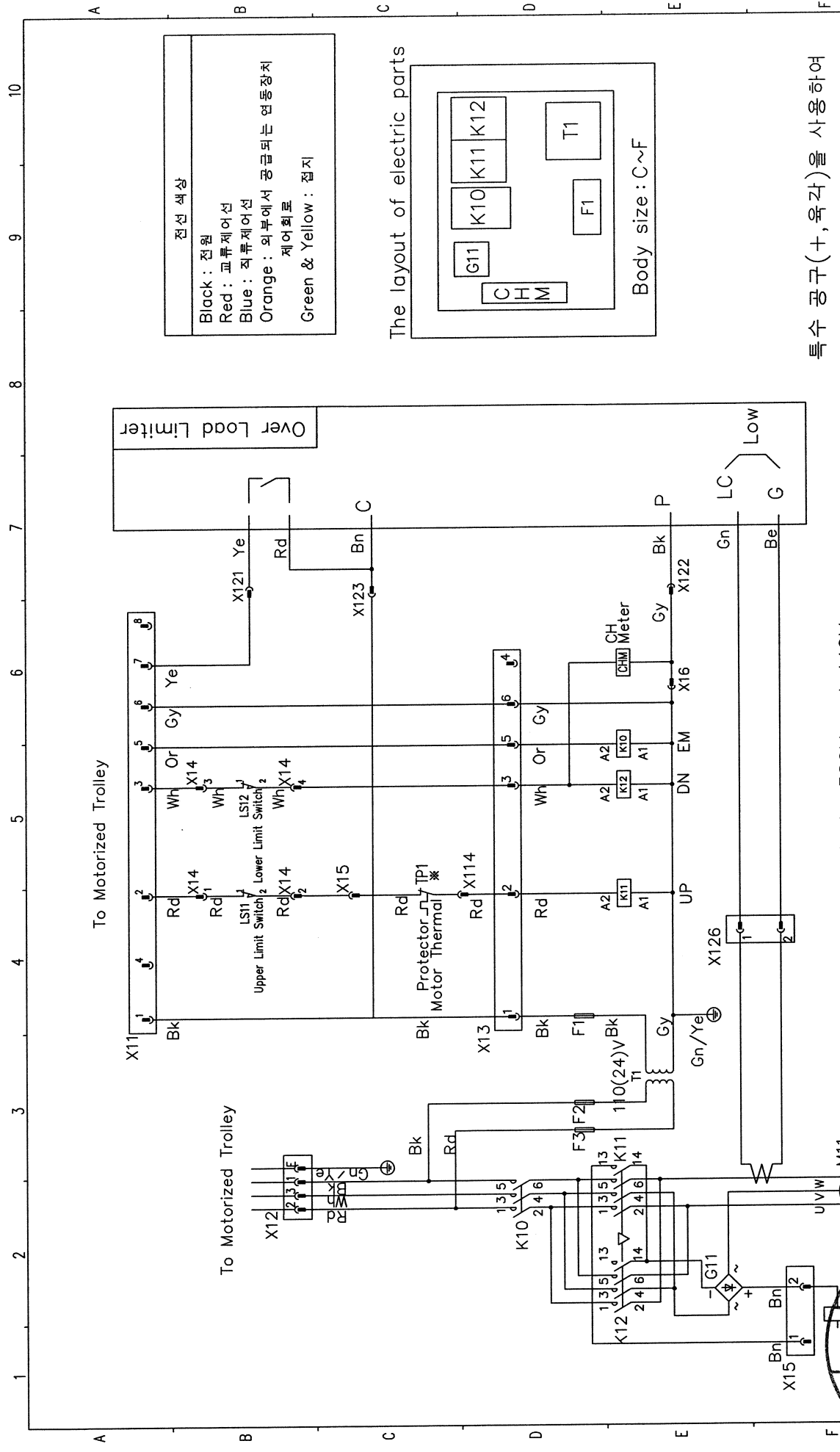
-  AUX. CONTACT, NORMALLY OPEN WHEN MAIN SWITCHING DEVICE IS DE-ENERGIZED
-  AUX. CONTACT, NORMALLY CLOSED WHEN MAIN SWITCHING DEVICE IS DE-ENERGIZED
-  MAGNETIC CONTACTOR, ELECTRICALLY OPERATED
-  COMBINATION STARTER, FULL VOLTAGE, NON-REVERSING, DRAWOUT TYPE, WITH ELECTRICALLY OPERATED CONTACTORS, 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
-  SIGNAL LAMP
- * R = RED
- G = GREEN
- W = WHITE
- C = CYAN
-  CONTROLLED RECTIFIER
-  DC-DC CONVERTER
-  RECTIFIER, BATTERY CHARGER
-  DC-AC INVERTER
-  BATTERY BANK
-  ELECTRIC HEATER, INDICATE 1* OR 3* AND kW RATING, UNLESS OTHERWISE SPECIFIED, TO BE REGARDED AS 1*.
-  EARTHING CONNECTION
-  DISCONNECTION LINK
-  CROSSING OF CONDUCTORS NOT CONNECTED
-  JUNCTION OF CONDUCTORS OR WIRES
-  BUS DUCT
- SPB : SEGREGATED PHASE BUS DUCT
- IPB : ISOLATED PHASE BUS DUCT
-  CABLE HEAD AND CABLE CONNECTION
-  AMMETER SWITCH
-  VOLTMETER SWITCH

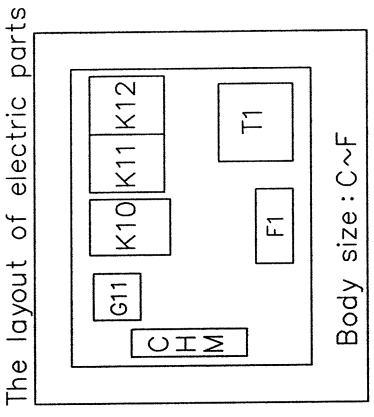
SYMBOL LIST

| | | | | |
|------------|---------|----------|--------|-------------|
| APPROVED | CHECKED | DESIGNED | CODE | SCALE |
| | | | | |
| KOTO CORP. | | | DWGNO. | SYMBOL LIST |
| | | | DATE | |



전선 색상

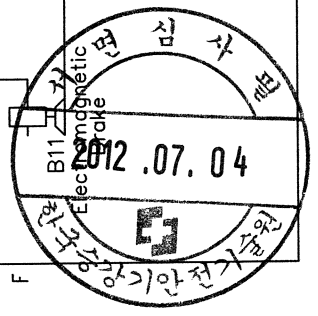
| |
|------------------------------|
| Black : 전원 |
| Red : 교류제어선 |
| Blue : 직류제어선 |
| Orange : 외부에서 공급되는 연동장치 제어회로 |
| Green & Yellow : 접지 |



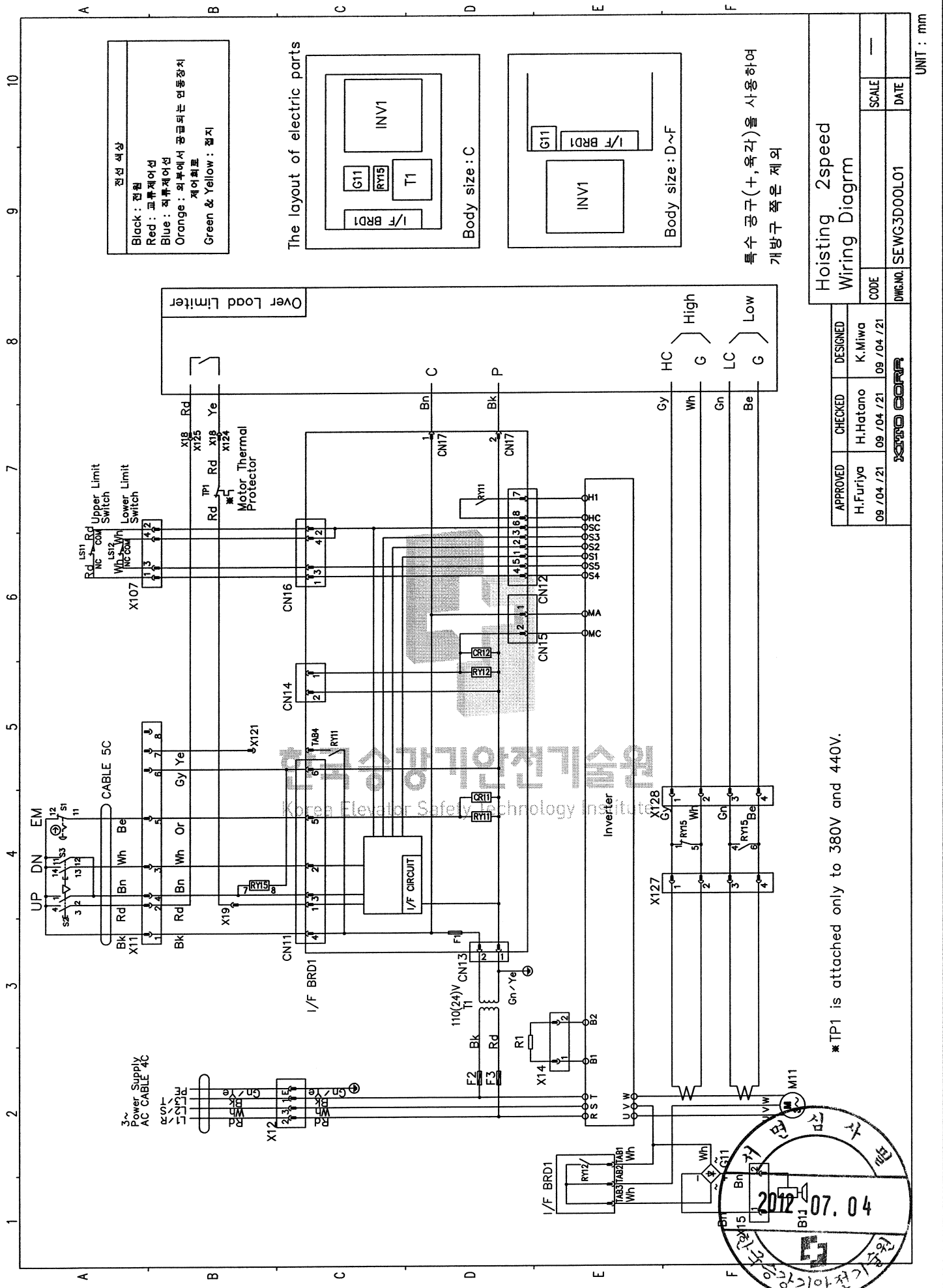
특수 공구(+, 육각)을 사용하여
개방구 쪽은 제외
For MR connection

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

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



UNIT : mm



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

The layout of electric parts
 Body size : C

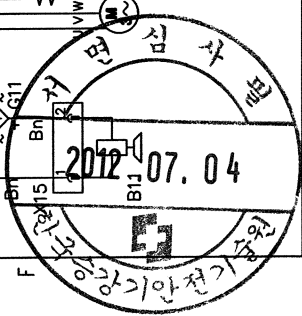
Body size : D~F

특수 공구(+, 육각)을 사용하여
 개방구 쪽은 제외

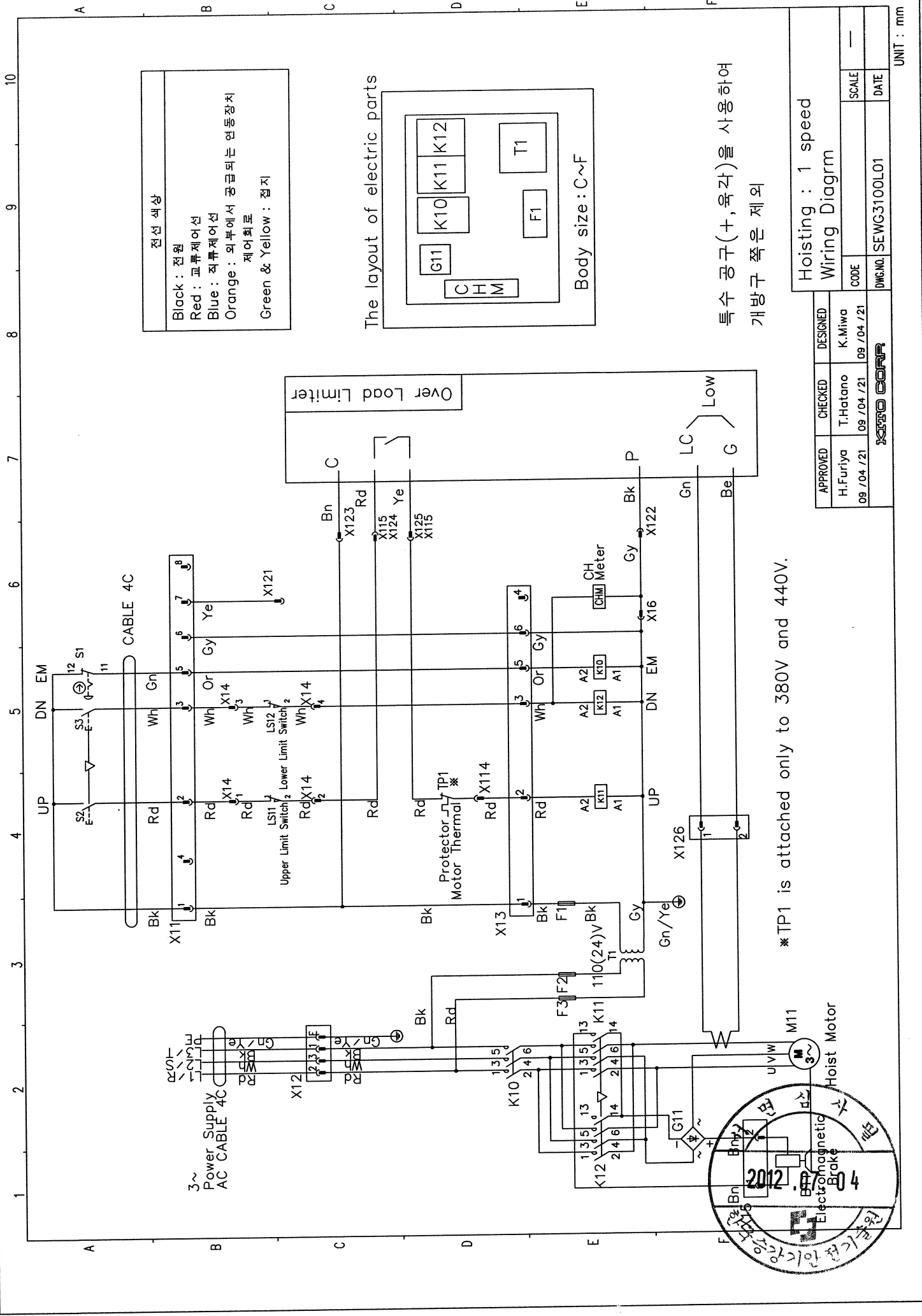
| | | | |
|---------------------|--------------|--------------|--|
| APPROVED | | DESIGNED | |
| H.Furiya | H.Hatano | K.Miwa | |
| 09 / 04 / 21 | 09 / 04 / 21 | 09 / 04 / 21 | |
| CODE | | SCALE | |
| DWG.NO. SEWG3D00L01 | | DATE | |

| | | | |
|-----------------------------------|--|--|--|
| Hoisting 2speed Wiring Diagram | | | |
| KOTO CORP | | | |

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

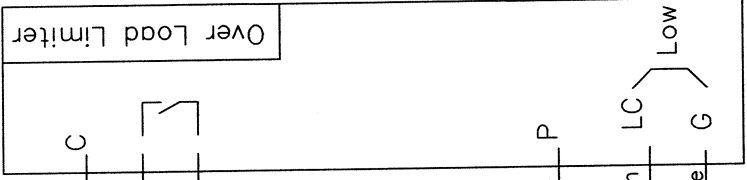


UNIT : mm



전선 색상

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

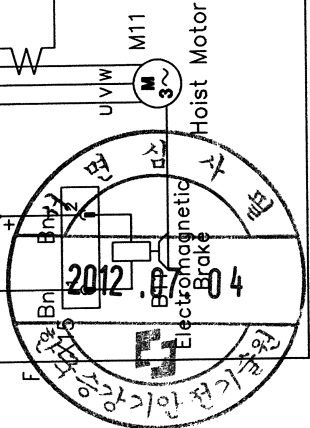


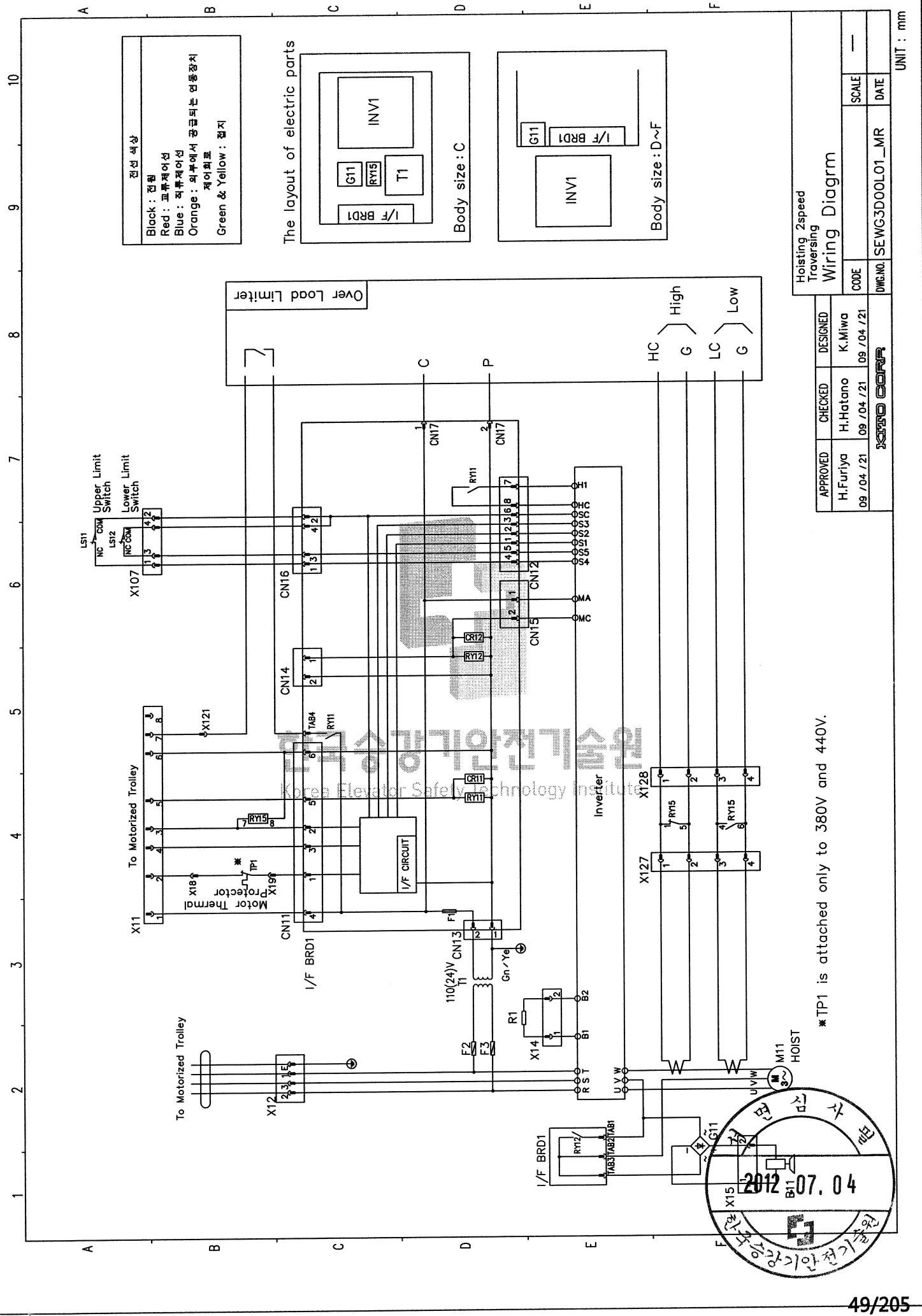
특수 공구(+, 육각)을 사용하여
개방구 쪽은 제외

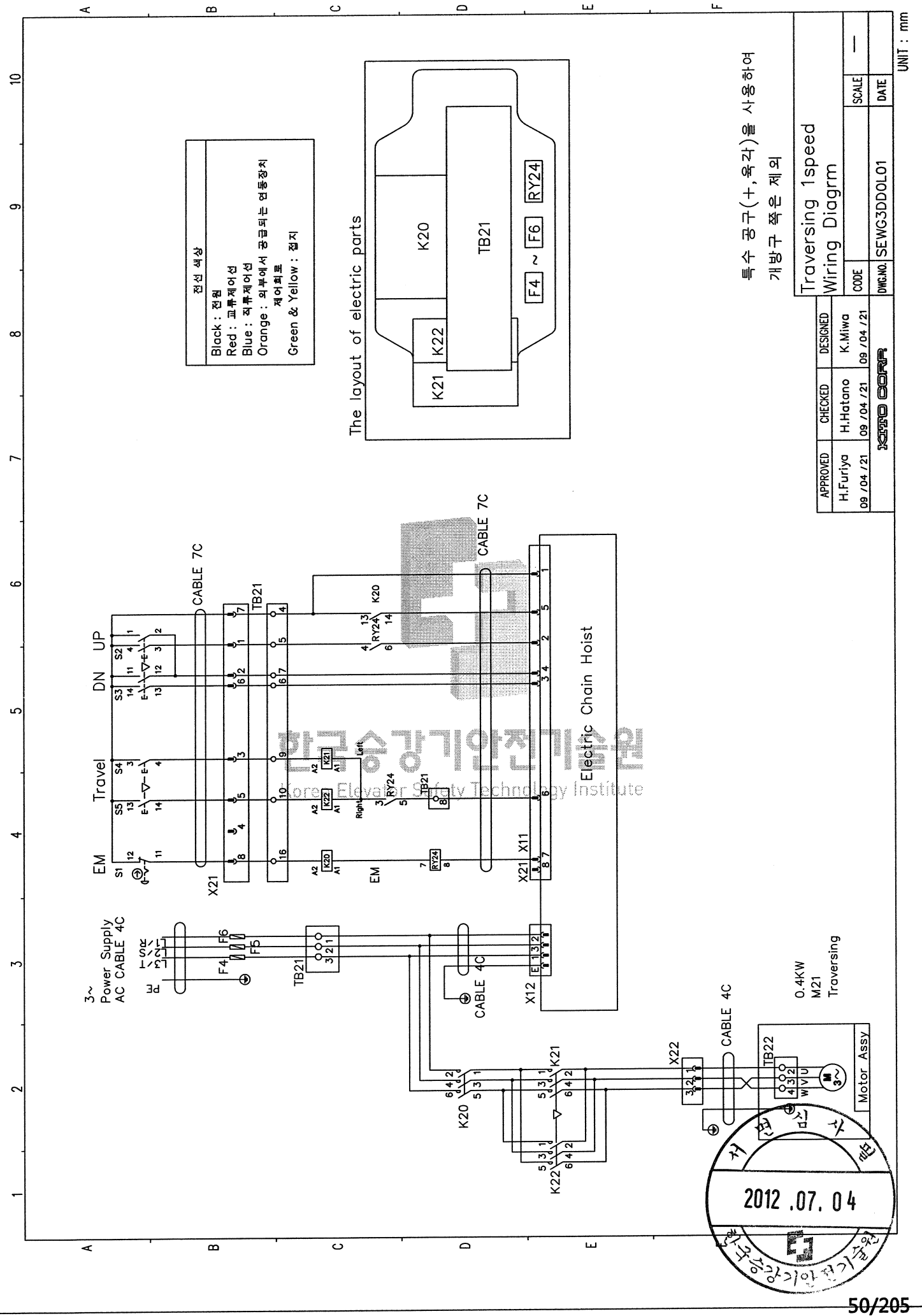
※ TP1 is attached only to 380V and 440V.

| | | |
|--------------------------|--------------------------|------------------------|
| APPROVED | CHECKED | DESIGNED |
| H.Furiya 09 / 04 / 21 | T.Hatano 09 / 04 / 21 | K.Miwa 09 / 04 / 21 |
| ISTO CORP | | |
| Hoisting : 1 speed | | SCALE |
| Wiring Diagram | | DATE |
| Dwg.No. SEWG3100L01 | | |

UNIT : mm

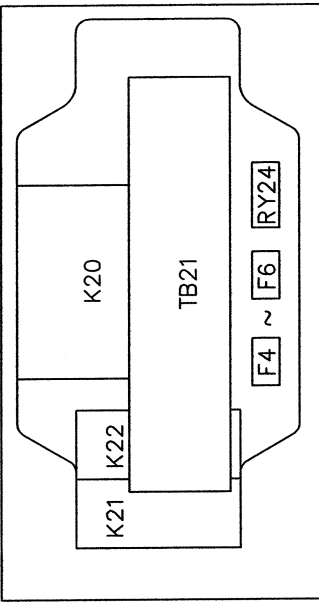






전선 색상
 Black : 접지
 Red : 교류제어선
 Blue : 직류제어선
 Orange : 외부에서 공급되는 연동장치 제어회로
 Green & Yellow : 접지

The layout of electric parts



특수 공구(+, 육각)를 사용하여
 개방구 쪽은 제외

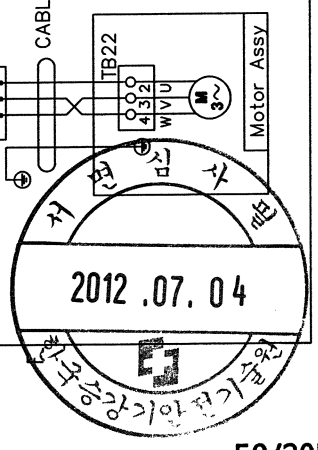
Traversing 1speed
 Wiring Diagram

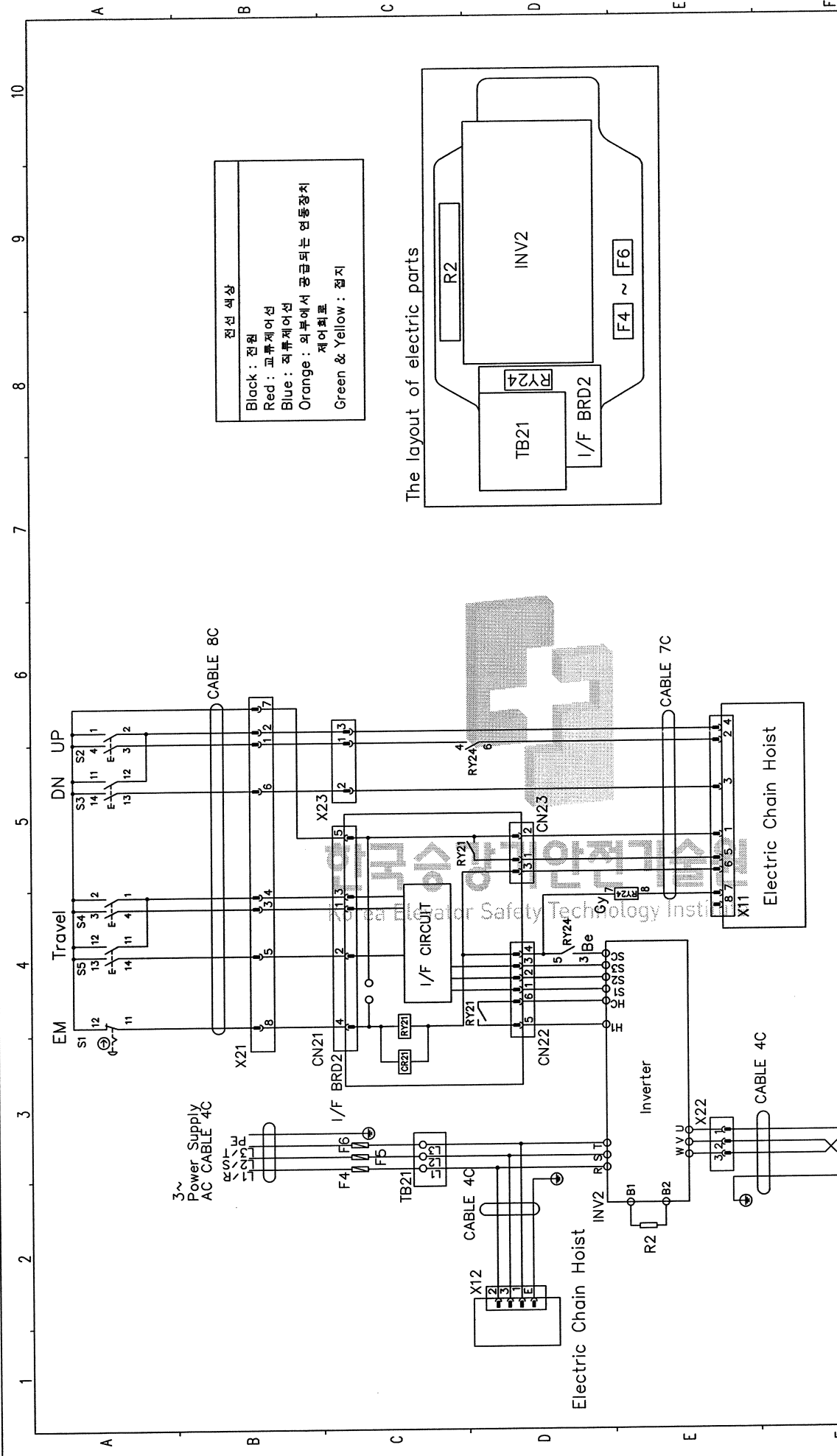
| APPROVED | CHECKED | DESIGNED |
|--------------|--------------|--------------|
| H.Furiya | H.Hatano | K.Miwa |
| 09 / 04 / 21 | 09 / 04 / 21 | 09 / 04 / 21 |

| CODE | SCALE |
|------|-------|
| — | — |

DWG.NO. SEWG3DD0L01

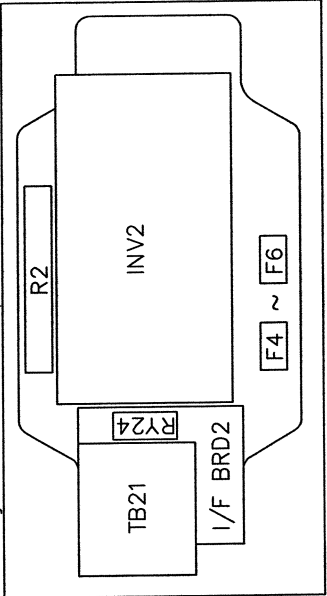
UNIT : mm





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

The layout of electric parts



특수 공구(+, 육각)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 |

| CODE | SCALE | DATE |
|---------------------|-------|------|
| DMG.NO. SEWC3DD0L01 | — | — |

UNIT : mm



CABLE 구성도 및 사양 - 권상 용량 3.5kW

CABLE SPECIFICATION FOR ER2M

| NO | ITEM | TYPE | ER2M20 | |
|----|-----------------------------|------|-------------|--|
| | | | 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 | |

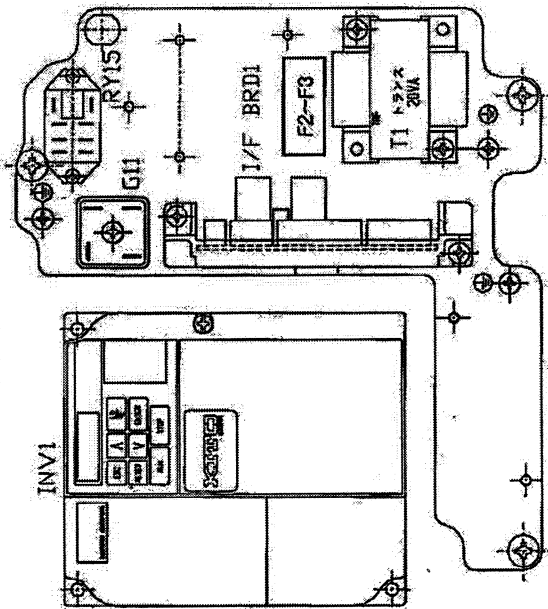
(3Φ 220(208)V / 380V / 440V 60HZ)

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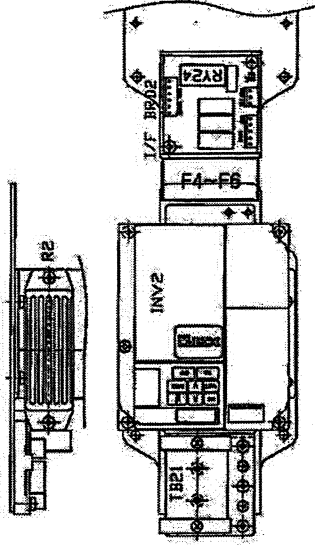


호이스트 CONTROL BOX 배치도

HOISTING CONTROL BOX

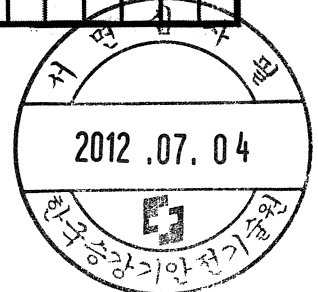


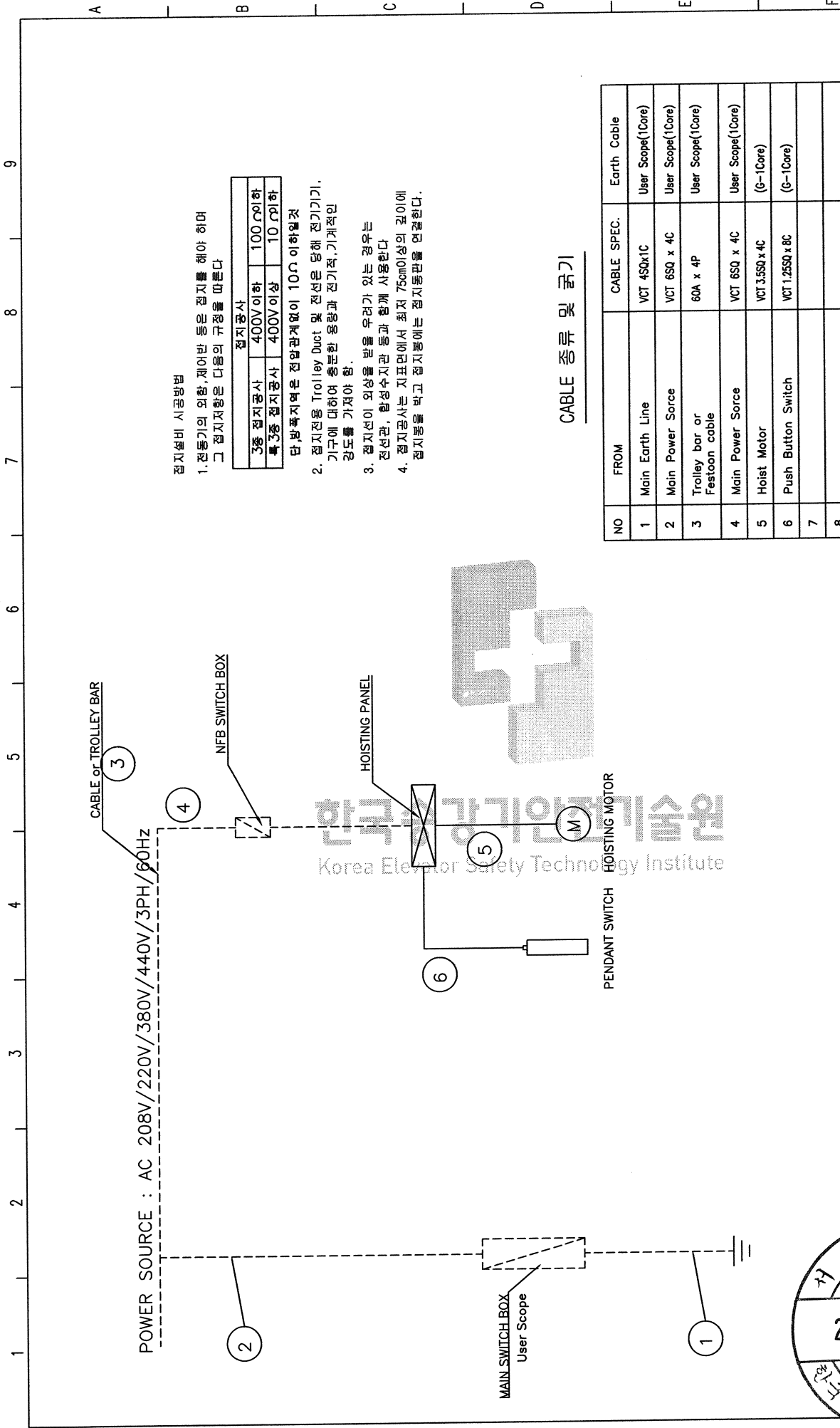
TRAVERSING CONTROL BOX



ENCLOSURE : HOIST BODY - IP55
PUSH BUTTON - IP65

| MARK | DESCRIPTION | TYPE OF MODEL | | | QTY | 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 | 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 |
| 1/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 | |





접지설비 시공방법
 1. 전동기의 외함, 제어반 등은 접지를 해야 하며 그 접지저항은 다음의 규정을 따른다

| 접지공사 | | |
|-----------|--------|--------|
| 3층 접지공사 | 400V이하 | 100Ω이하 |
| 북 3층 접지공사 | 400V이상 | 10Ω이하 |

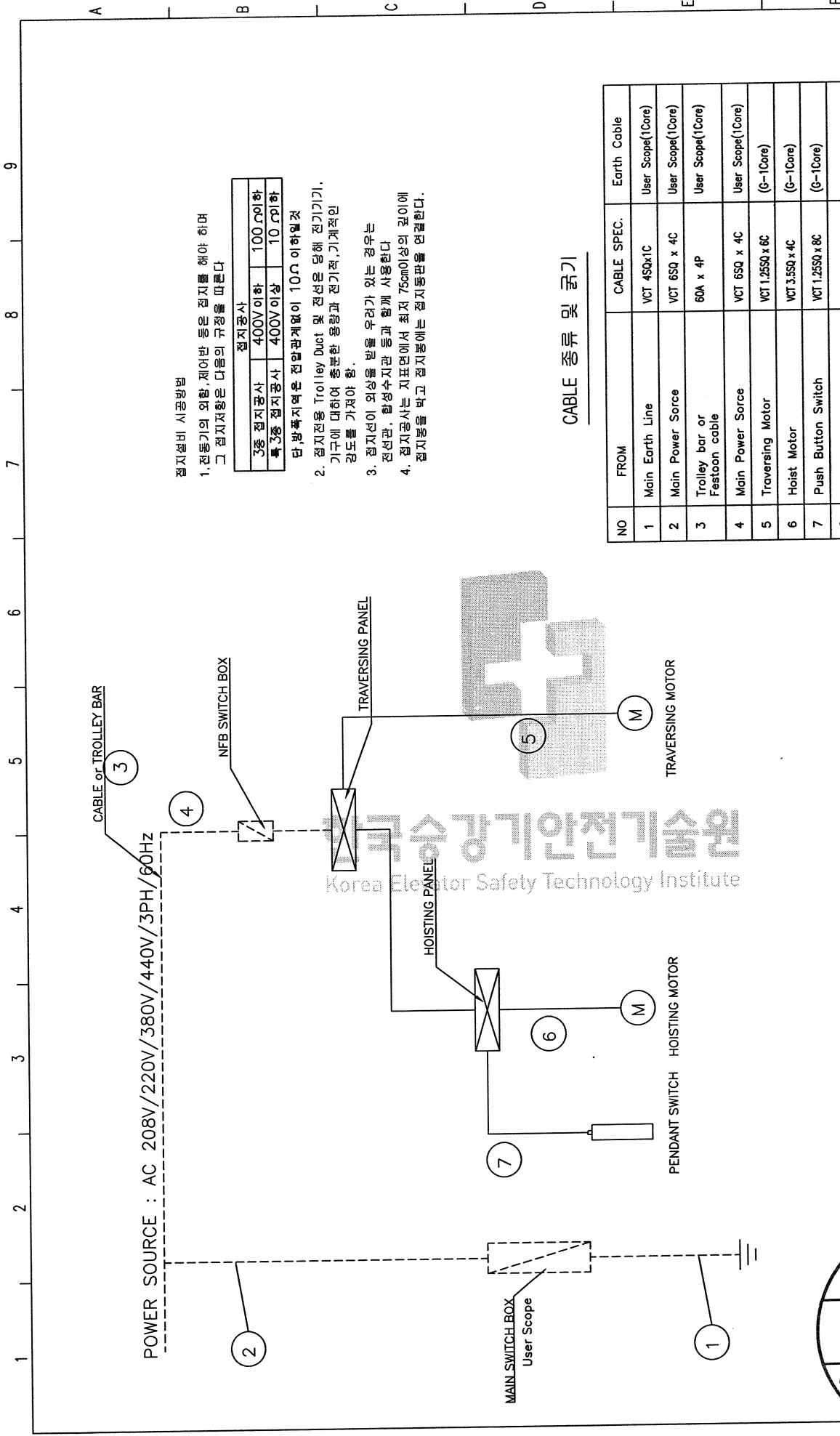
- 단, 방폭지역은 전압관계없이 10Ω 이하일 것
- 접지전용 Trolley Duct 및 전선은 당해 전기기기, 기구에 대하여 충분한 용량과 전기적, 기계적인 강도를 가져야 함.
 - 접지선이 외상을 받을 우려가 있는 경우는 전선관, 합성수지관 등과 함께 사용한다
 - 접지공사는 지표면에서 최저 75cm이상의 깊이에 접지봉을 박고 접지봉에는 접지동판을 연결한다.

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 | Hoist Motor | VCT 3.55Q x 4C | (6-1Core) |
| 6 | Push Button Switch | VCT 1.255Q x 8C | (6-1Core) |
| 7 | | | |
| 8 | | | |

| REV. | QTY | CONTENTS | DATE | DRAWN | APPROVED | DESIGNED | DRAWN | TITLE |
|------|-----|----------|------|-------|------------|-----------|-------|----------------------------------|
| | | | | | | | | 2t MOTORIZED-2점식 케이블 구성도 및 접지계통도 |
| | | | | | M.Fukasawa | A.Shimura | | MDL 942513 |
| | | | | | 11.07.20 | 11.07.20 | | DWG. NO. 3NNU942513 |
| | | | | | | | | SCALE NOT |
| | | | | | | | | REV. 0 |





접지설비 시공방법

1. 전동기의 외함, 제어반 등은 접지를 해야 하며 그 접지저항은 다음의 규정을 따른다

| 접지공사 | |
|-----------|----------------|
| 3층 접지공사 | 400V 이하 10Ω 이하 |
| 특 3층 접지공사 | 400V 이상 10Ω 이하 |

단, 방폭지역은 전압관계없이 10Ω 이하일 것

2. 접지전용 Trolley Duct 및 전선은 당해 전기기기, 기구에 대하여 충분한 용량과 전기적, 기계적인 강도를 가져야 함.
3. 접지선이 외상을 받을 우려가 있는 경우는 전선관, 합성수지관 등과 함께 사용한다
4. 접지공사는 지표면에서 최저 75cm이상의 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 Source | VCT 6SQ x 4C | User Scope(1Core) |
| 3 | Trolley bar or Festoon cable | 60A x 4P | User Scope(1Core) |
| 4 | Main Power Source | VCT 6SQ 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 | | | |

| REV. | QTY | CONTENTS | DATE | DRAWN | APPROVED | CHECKED | DESIGNED | DRAWN | TITLE |
|------|-----|----------|------|-------|----------|---------|----------|-------|-------------------------------------|
| | | | | | | | | | 2t MOTORIZED-4점식 케이블 구성도 및 접지계통도 |
| | | | | | | | | | MDL 942513 |
| | | | | | | | | | DWG. NO. 3NNU942513 |
| | | | | | | | | | SCALE NOT |
| | | | | | | | | | 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".

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Technical Control Group

Test Certificate

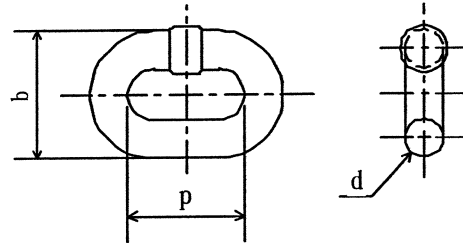
Messrs.

Commodity: NC Load Chain

Code : KER102

Lot No. : -

Quantity: - line(s)



1. Material: Manganese Alloy Steel

2. Dimensions

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

3. Breaking test

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

Korea Elevator Safety Technology Institute

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

| | Permanent elongation |
|-----------|----------------------|
| Specified | 0.25 (%) |
| Result | Good |

General judgment: Satisfactory



2000 Tsuijiarai, 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 | 1.8kW | 4P | 60%ED | 220V | 60Hz |

Full load characteristics

| | | |
|---------|-----------|-----------|
| Voltage | Frequency | 220V 60Hz |
| Load | % | 100 |
| Current | A | 8.4 |
| Speed | rpm | 1620 |

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 Tsuijirai, 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 | 1.8kW | 4P | 40/20%ED | 220V | Speed Control by Inverter |

Full load characteristics

| | | | |
|---------|-----------|------|---------------------------|
| Voltage | Frequency | 220V | Speed Control by Inverter |
| Load | % | 100 | |
| Current | A | 11.2 | |
| 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 Tsuijirai, 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 | 1.8kW | 4P | 60%ED | 380 - 440V | 60Hz |

Full load characteristics

| | | |
|-------------------|-----------------|------|
| Voltage Frequency | 380 - 440V 60Hz | |
| Load | % | 100 |
| Current | A | 4.6 |
| Speed | rpm | 1610 |

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 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 | 1.8kW | 4P | 60%ED | 380 - 440V | Speed Control by Inverter |

Full load characteristics

| | | | |
|---------|-----------|------------|---------------------------|
| Voltage | Frequency | 380 - 440V | Speed Control by Inverter |
| Load | % | 100 | |
| Current | A | 5.1 | |
| 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 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



2000 Tsuijirai, 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 | 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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Quality Assurance Department
Development & Technology Division

M. Ogihara (Manager)

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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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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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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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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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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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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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