



제 2013 - 58527 호

안 전 인 증 서

(사업장명)

(주)대산이노텍

(소재지)

(314-821)충남 공주시 정안면 사현리523

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

_____ 품 목 _____
호이스트

_____ 형식,모델(용량,등급)/인증번호 _____
DSHM-2W (2Ton) /13-AG2AC-01679

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

_____ 인 증 조 건 _____
인증유효기간 :

2013년 05월 30일

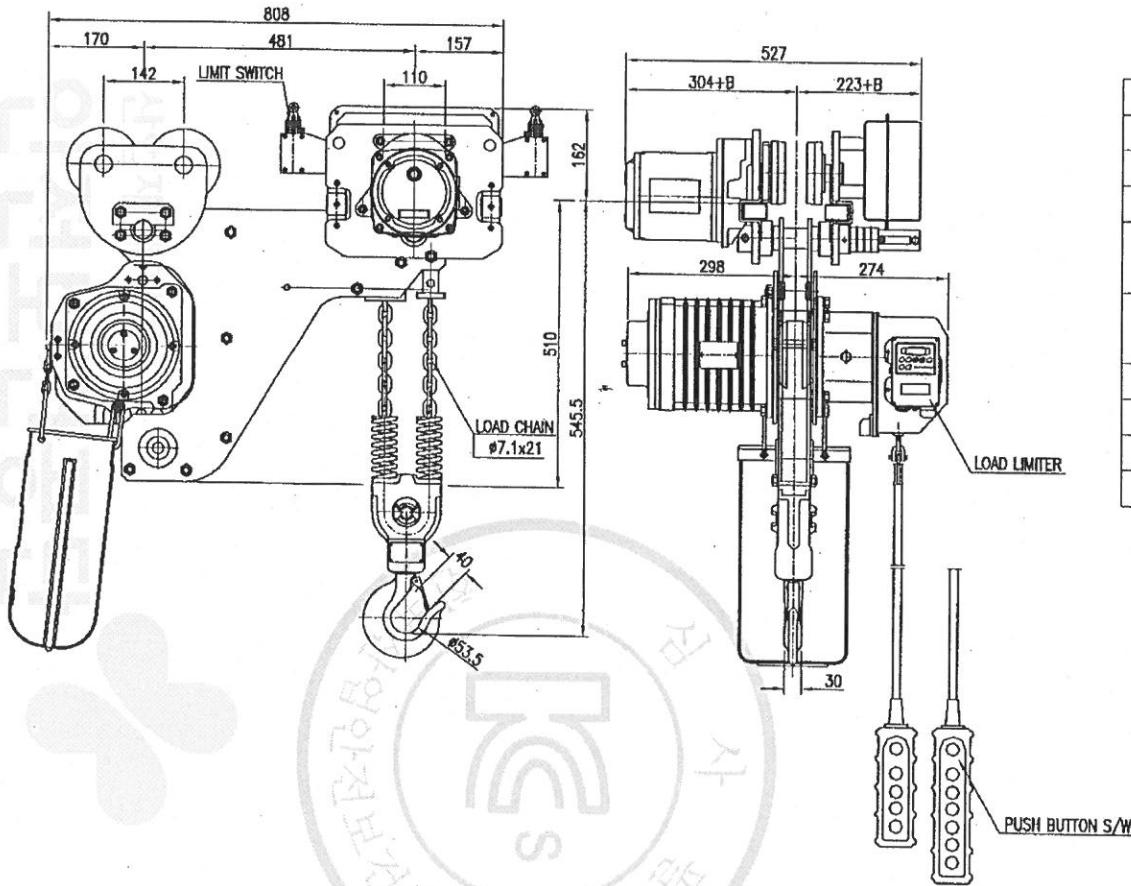
한국산업안전보건공단이사장



TECHNICAL SPECIFICATION

| | | | | |
|-------------------------|--|---------------------------------------|-------|---------------|
| DESCRIPTION | | 2 TON MONORAIL HOIST | | |
| TYPE | | DSHM-2W MONORAIL TYPE | | |
| HOISTING LOAD | | 2 TON | | |
| TESTING LOAD | | 2.5 TON | | |
| LIFT | | 50 M | | |
| SPEED & MOTOR | SPEED | | | |
| | HOISTING | 60 Hz | 4.1 | 1.8KW × 4P |
| | | 50 Hz | 3.4 | |
| | TRAVERSING | 60 Hz | 15.22 | 0.4KW × 4P/6P |
| | | 50 Hz | 12.15 | |
| BRAKE SYSTEM | HOISTING | D.C MAGNET DISC BRAKE | | |
| | TRAVERSING | MECHANICAL BRAKE | | |
| ELECTRIC SPECIFICATION | POWER SOURCE | AC 3Ø 60/50Hz 220V, 380V, 440V, 480V. | | |
| | CONTROL SOURCE | AC 1Ø 50/60Hz 110V | | |
| | LIMIT SWITCH | TWO STEP LIMIT SWITCH | | |
| | OVER LOAD LIMITER | ELECTRICAL TYPE. | | |
| | EM. STOP DEVICE | EMERGENCY STOP BUTTON | | |
| LOAD CHAIN | Ø 7.1 x 21 | | | |
| TRAVERSING POWER SYSTEM | TROLLEY BAR OR FESTOON TYPE | | | |
| MAX AMBIENT TEMPERATURE | 40°C | | | |
| RATING | 30 MIN | | | |
| RATED DUTY | 40%ED, ED = $\frac{\text{motor operation period(min) at maximum duty per hour}}{60\text{min}}$ | | | |
| AREA CLASSIFICATION | INDOOR | | | |
| CONTROL METHOD | BY PENDANT PUSH BUTTON S/W | | | |
| PAINTING COLOR | MUN SELL NO EX8816D YELLOW | | | |

| NO | DESCRIPTION | MAT'L | Q'TY | (kg) | REMARKS |
|----|-------------|-------|------|------|---------|
| | | | | | |



| SPECIFICATION | | |
|------------------|-------------------------------------|----------------------|
| HOISTING LOAD | 2 | TON |
| TESTING LOAD | 2.5 | TON |
| LIFTING HEIGHT | 50 | M |
| HOISTING | SPEED | 4.1 M/MIN |
| | MOTOR | 1.8 KW x 4P x 1 SET |
| TRAVERSING | SPEED | 15/22 M/MIN |
| | MOTOR | 0.4 KW x 4/6P x 1SET |
| POWER SUPPLY | AC 220, 380, 440, 480V x 3φ x 60 Hz | |
| OPERATING METHOD | P.B type ON . FL | |
| WEIGHT | 279 KG | |
| I-BEAM SIZE | 100-150 | |

- * β는 BEAM쪽 지수임.
- * ROLLER DIA : φ110
- * LIMIT SWITCH : OPTION
- * 본 도면은 I-BEAM 100MM 기준임.

| TITLE DSHAM-2W CHAIN HOIST | | | | PROJECTION | |
|-------------------------------------|-----------|------------|------------|------------|------|
| WORK NO | WORK NAME | | | | |
| | | | | SCALE | Q'TY |
| | | | | 1/1 | 1 |
| DRAWN | CHECKED | REVIEWED | APPROVED | DRAWING NO | |
| YOO.M.R | - | LEE. H.J | Y.K | DSHM20W001 | |
| 2012.11.27 | - | 2012.11.27 | 2012.11.27 | | |
| DAESAN INoTEC IND. CO., LTD. | | | | | |

| REV.NO | DATE | REVISION DESCRIPTION | DRAWN | CHECKED | APPROVED |
|--------|------|----------------------|-------|---------|----------|
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출판복제 및 배포금지

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| NO | COMMODITY | CAPACITY | MODEL NO | MAKER |
|----|-----------|----------|----------|-------|
| | | | | |

| ELECTRICAL DRAWING LIST | |
|-------------------------|--|
| DRAWING NO. | DIAGRAM LIST |
| DSHM1000 | ELECTRICAL DRAWING LIST |
| DSHM1001 | ELECTRIC ELEMENTARY DIAGRAM SYMBOL LIST |
| DSHM1002 | ELECTRIC HOIST EQUIPMENT BOARD ASS'Y DRAWING (DSHM-1S,1.9W,2W/220[V],380[V],440[V]) |
| DSHM1003 | ELECTRIC HOIST EQUIPMENT BOARD ASS'Y DRAWING (DSHM-2S,1.9S, 3W,5W/220[V],380[V],440[V]) |
| DSHM1004 | ELECTRIC TROLLEY BOARD ASS'Y DRAWING (DSHM-1S,1.9W,2W,1.9S,2S,3W,5W/220[V],380[V],440[V]) |
| DSHM1005 | INTERLOCK LIST (DSHM-1S,1.9W,2W,1.9S,2S,3W,5W/220[V],380[V],440[V]) |
| DSHM1006 | 접지도면 (DSHM-1S,1.9W,2W/220[V],380[V],440[V]) |
| DSHM1007 | 접지도면 (DSHM-1.9S,2S,3W,5W/220[V],380[V],440[V]) |
| DSHM1008 | 사용전선도면 (DSHM-1S,1.9W,2W/220[V],380[V],440[V]) |
| DSHM1009 | 사용전선도면 (DSHM-1.9S,2S,3W,5W/220[V],380[V],440[V]) |
| DSHM0001 | CONTROL CIRCUIT DIAGRAM (DSHM-1S,1.9W,2W) |
| DSHM0002 | CONTROL CIRCUIT DIAGRAM (DSHM-1.9S,2S,3W,5W) |
| DSHM0003 | POWER CIRCUIT DIAGRAM (DSHM-1S,1.9W,2W/220[V],380[V],440[V]) |
| DSHM0004 | POWER CIRCUIT DIAGRAM (DSHM-1.9S,2S/220[V],380[V],440[V]) |
| DSHM0005 | POWER CIRCUIT DIAGRAM (DSHM-3W,5W/220[V],380[V],440[V]) |
| | 기타 자료 (PART LIST, 감전방지, 접지내용 CHART, 접지 계통도, 전선 허용전류, 차단기 선정 표) |

KOREA OCCUPATIONAL SAFETY & HEALTH AGENCY
 안전보건공단
 한국산업안전보건공단

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물범복제 및 배포금지

| REV. NO | DATE | REVISION DESCRIPTION | DRAWN | CHECKED | APPROVED |
|---------|------|----------------------|-------|---------|----------|
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| TITLE | | | | PROJECTION |
|-----------------------------|-------------------------------|----------|------------|------------|
| CIRCUIT DIAGRAM OF DSHM | | | | |
| WORD NO | WORK NAME | | | |
| | ELECTRIC DRAWING LIST | | | SCALE Q'TY |
| | DSHM-1S,1.9W,2W,1.9S,2S,3W,5W | | | |
| DRAWN | CHECKED | REVIEWED | APPROVED | DRAWING NO |
| E.D | | | Y.K | DSHM1000 |
| 2013.04.03 | | | 2013.04.03 | |
| DAESAN INoTECIND. CO., LTD. | | | | |

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10 9 8 7 6 5 4 3 2 1

| NO | COMMODITY | CAPACITY | MODEL NO | MAKER |
|----|-----------|----------|----------|-------|
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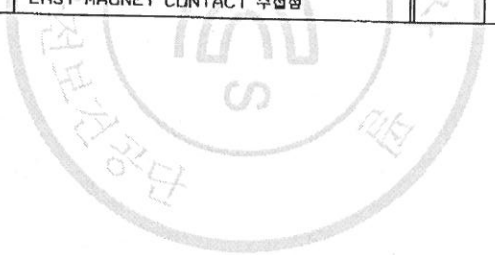
ELECTRIC ELEMENTARY DIAGRAM SYBOL LIST

| 항목 | 기호 | 약호 | 명칭 | 항목 | 기호 | 약호 | 명칭 |
|----|----|------|-------------------------|----|----|-----------|------------------------------------|
| 1 | | | WIRE | 22 | | M302 | WEST MAGNET CONTACT 주접점 |
| 2 | | | WIRE CONNECTED | 23 | | M101 | UP MAGNET CONTACT 보조접점 a접점 |
| 3 | | | TERMINAL | 24 | | M102 | DOWN MAGNET CONTACT 보조접점 a접점 |
| 4 | | | 접지 | 25 | | M101 | UP MAGNET CONTACT 보조접점 b접점 |
| 5 | | | 전원입력 | 26 | | M102 | DOWN MAGNET CONTACT 보조접점 b접점 |
| 6 | | | NONE FUSE BREAKER | 27 | | M301 | EAST MAGNET CONTACT 보조접점 b접점 |
| 7 | | | FUSE | 28 | | M302 | WEST MAGNET CONTACT 보조접점 b접점 |
| 8 | | | 비상스위치 | 29 | | UPPER L/S | UP LIMIT SWITCH b접점 |
| 9 | | | PUSH BUTTON SWITCH a접점 | 30 | | LOWER L/S | DOWN LIMIT SWITCH b접점 |
| 10 | | | TRANSFORMER | 31 | | EAST L/S | 횡행 LIMIT SWITCH b접점 |
| 11 | | | 장류기 | 32 | | WEST L/S | 횡행 LIMIT SWITCH b접점 |
| 12 | | | CURRENT TRANSFORMER | 33 | | TP1 | 관상용 MOTOR 열동계전기 b접점 |
| 13 | | | 관상용 MOTOR | 34 | | TP2 | 횡행 MOTOR 열동계전기 b접점 |
| 14 | | | 횡행 MOTOR | 35 | | SOL | SOLENOID TYPE DC MAGNET BRAKE COIL |
| 15 | | | UP MAGNET CONTACTOR | 36 | | | MAIN MAGNETIC CONTACTOR |
| 16 | | | DOWN MAGNET CONTACTOR | 37 | | M001 | MAIN MAGNETIC CONTACTOR 주접점 |
| 17 | | | EAST MAGNET CONTACTOR | | | | |
| 18 | | | WEST MAGNET CONTACTOR | | | | |
| 19 | | M101 | UP MAGNET CONTACT 주접점 | | | | |
| 20 | | M102 | DOWN MAGNET CONTACT 주접점 | | | | |
| 21 | | M301 | EAST MAGNET CONTACT 주접점 | | | | |

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|-----------------------------|-----------------------------|----------|------------|-------------------------|--|------------|-----|
| TITLE | | | | CIRCUIT DIAGRAM OF DSHM | | PROJECTION | |
| WORD NO | WORK NAME | | | DIAGRAM SYMBOL LIST | | SCALE | QTY |
| | DSHM-1S,19W,2W,19S,2S,3W,5W | | | | | | |
| DRAWN | CHECKED | REVIEWED | APPROVED | DRAWING NO | | | |
| E.D | | | Y.K | DSH-M1001 | | | |
| 2013.04.03 | | | 2013.04.03 | | | | |
| DAESAN INOTECIND. CO., LTD. | | | | | | | |

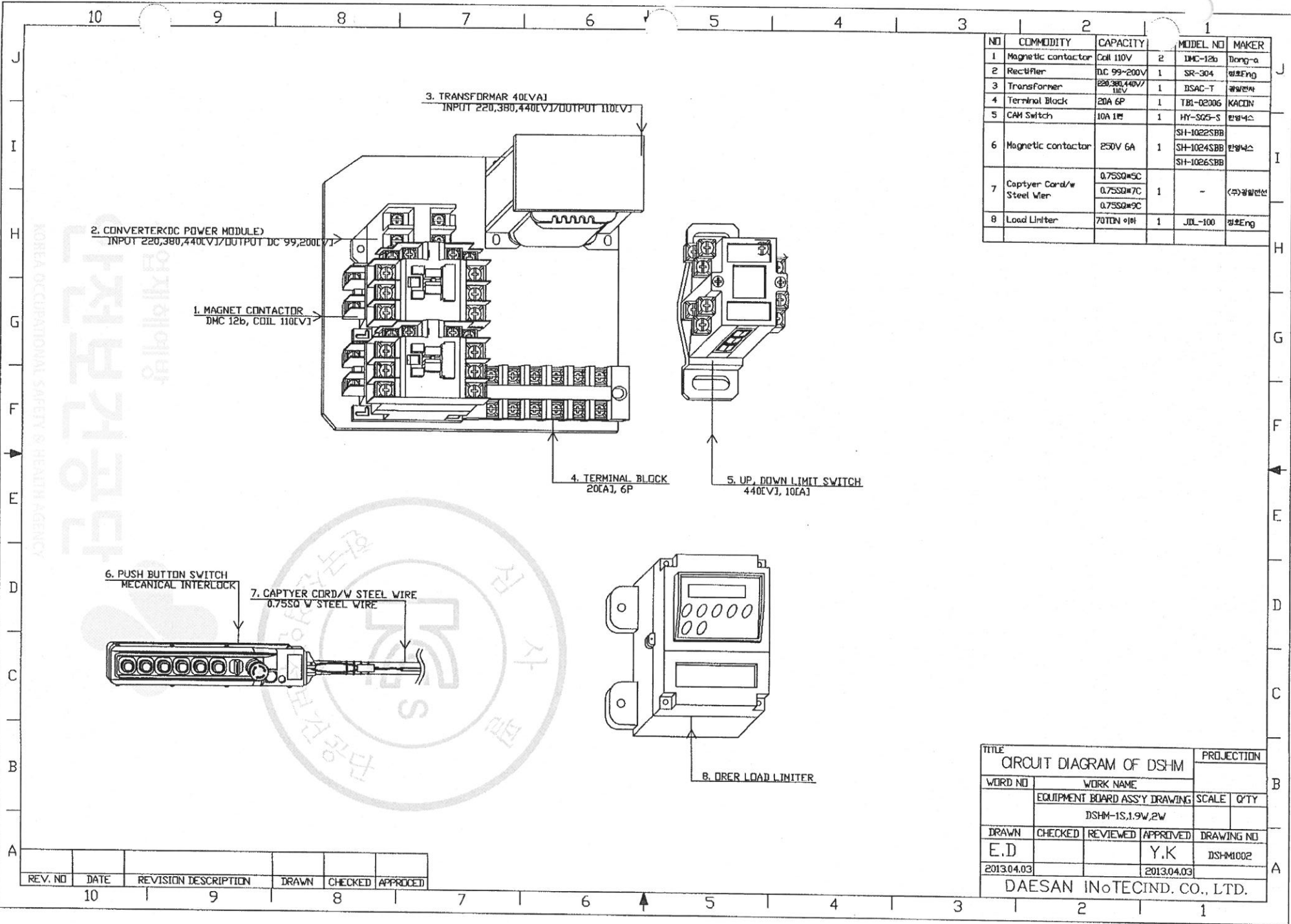
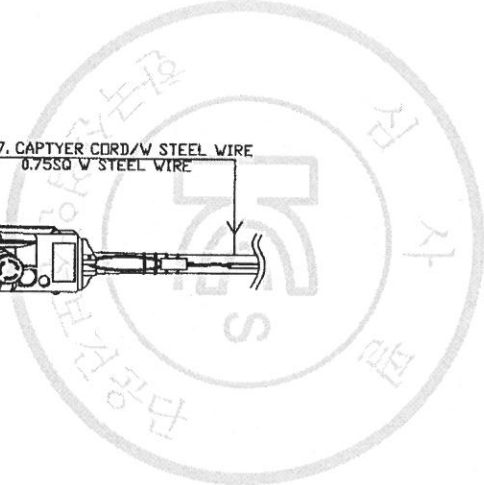
| REV. NO | DATE | REVISION DESCRIPTION | DRAWN | CHECKED | APPROVED |
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안전보건공단
안전보건연구원
안전보건연구소



| NO | COMMODITY | CAPACITY | MODEL NO | MAKER |
|----|---------------------------|-------------------|------------|--------|
| 1 | Magnetic contactor | Coil 110V | DMC-12b | Dong-a |
| 2 | Rectifier | D.C 99~200V | SR-304 | 영호Eng |
| 3 | Transformer | 220,380,440V/110V | DSAC-T | 광일전자 |
| 4 | Terminal Block | 20A 6P | TB1-02006 | KACON |
| 5 | CAM Switch | 10A 1P | HY-SGS-S | 한양나스 |
| 6 | Magnetic contactor | 250V 6A | SH-1022SBB | 한양나스 |
| | | | SH-1024SBB | |
| 7 | Captyer Cord/w Steel Wier | 0.75SQ#5C | - | 한국광일전자 |
| | | 0.75SQ#7C | | |
| | | 0.75SQ#9C | | |
| 8 | Load Limiter | 70TGN #1# | JDL-100 | 영호Eng |

| TITLE | | | | PROJECTION | |
|-----------------------------|-------------------------------|----------|------------|------------|------|
| CIRCUIT DIAGRAM OF DSHM | | | | | |
| WORD NO | WORK NAME | | | SCALE | Q'TY |
| | EQUIPMENT BOARD ASS'Y DRAWING | | | | |
| | DSHM-1S.1.9W,2W | | | | |
| DRAWN | CHECKED | REVIEWED | APPROVED | DRAWING NO | |
| E.D | | | Y.K | DSH-M1002 | |
| 2013.04.03 | | | 2013.04.03 | | |
| DAESAN INoTECIND. CO., LTD. | | | | | |

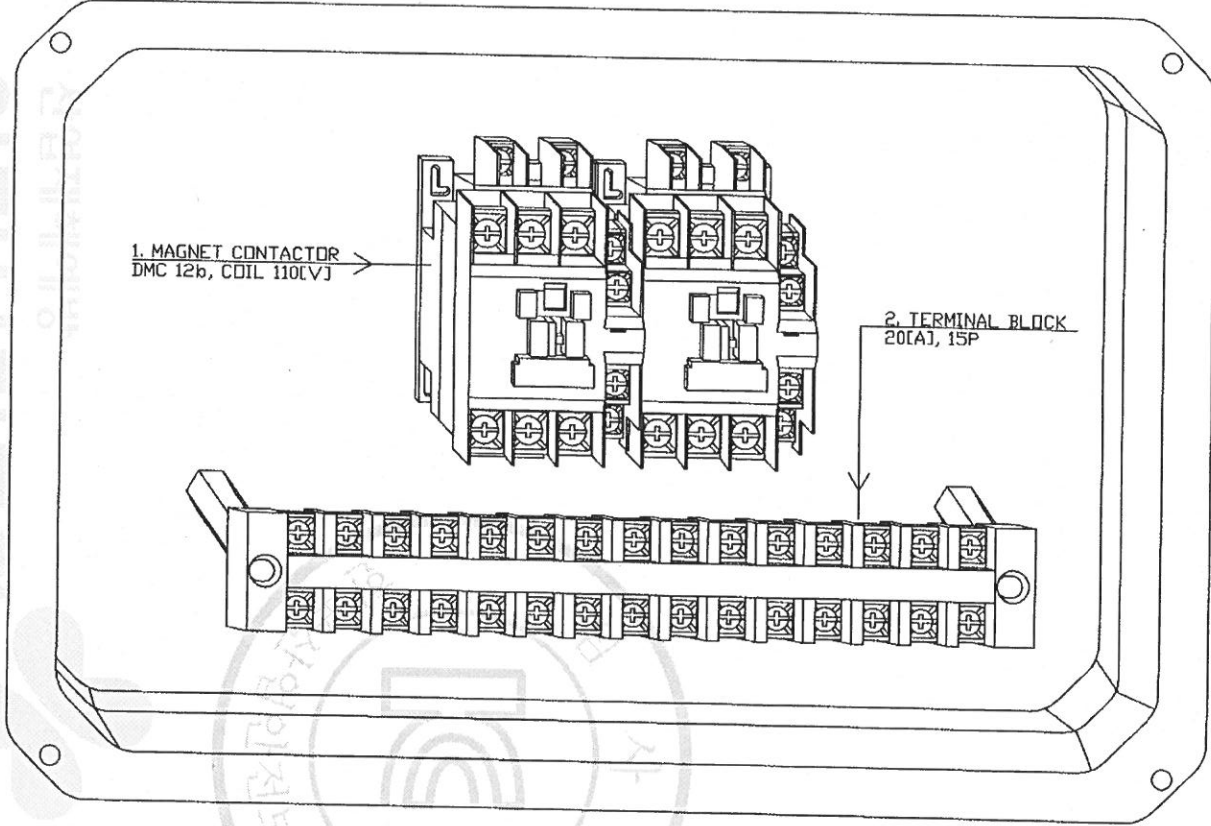
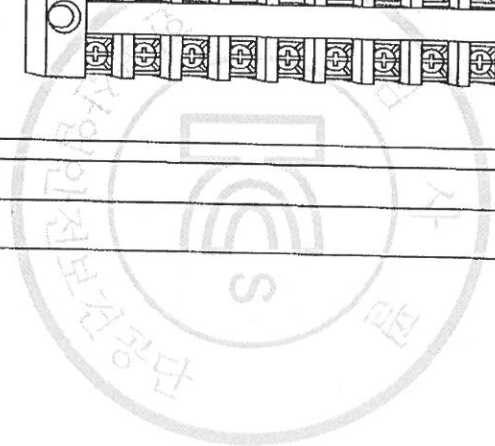
| REV. NO | DATE | REVISION DESCRIPTION | DRAWN | CHECKED | APPROVED |
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1. MAGNET CONTACTOR
DMC 12b, CDIL 110[V]

2. TERMINAL BLOCK
20[A], 15P

| NO | COMMODITY | CAPACITY | MODEL NO | MAKER |
|----|--------------------|-----------|-----------|--------|
| 1 | Magnetic contactor | CDIL 110V | DMC-22b | Dong-a |
| 2 | Terminal Block | 20A 15P | TBI-02006 | KADEN |

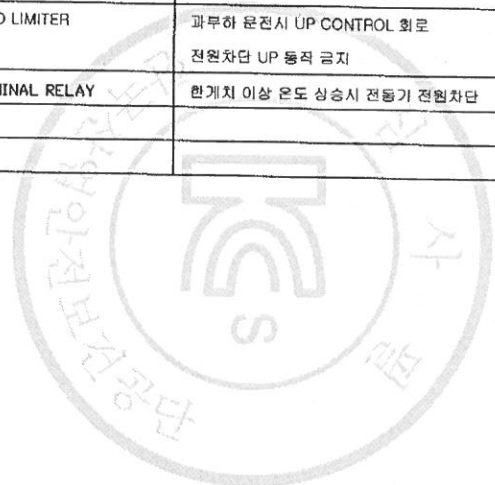
| TITLE | | | | PROJECTION | |
|-----------------------------|-------------------------------------|----------|------------|------------|------|
| CIRCUIT DIAGRAM OF DSHM | | | | | |
| WORD NO | WORK NAME | | | SCALE | Q'TY |
| | ELECTRIC TROLLEY BOARD ASSY DRAWING | | | | |
| | DSHM-1S,1.9W,2W,1.9S,2S,3W,5W | | | | |
| DRAWN | CHECKED | REVIEWED | APPROVED | DRAWING NO | |
| E.D | | | Y.K | DSHM1004 | |
| 2013.04.03 | | | 2013.04.03 | | |
| DAESAN INOTECIND. CO., LTD. | | | | | |

| REV. NO | DATE | REVISION DESCRIPTION | DRAWN | CHECKED | APPROVED |
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물범복제 및 배포금지

| NO | COMMODITY | CAPACITY | MODEL NO | MAKER |
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INTERLOCK LIST

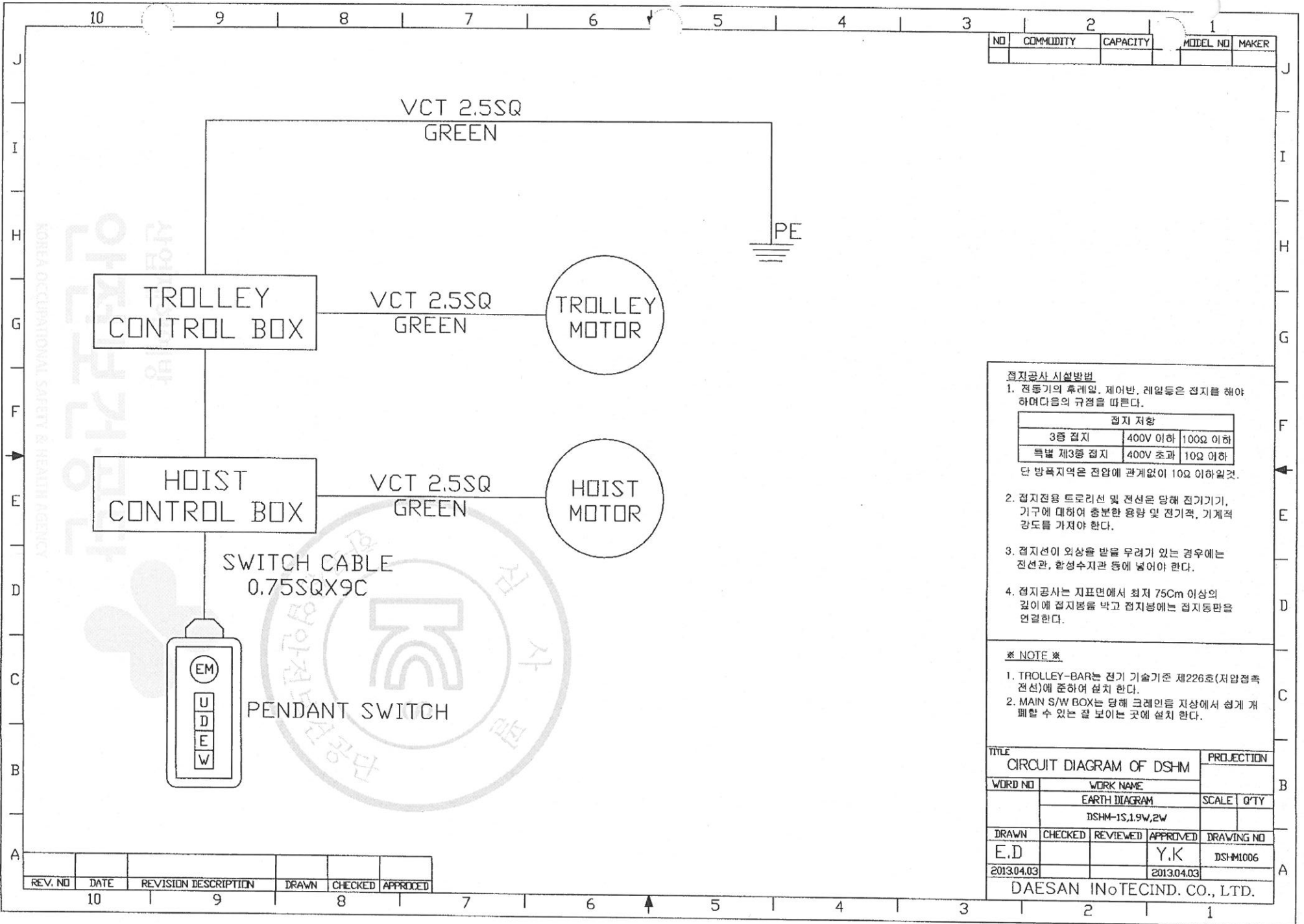
| 순번 | 기호/약어 | 명 칭 | 역 할 | 차 단 범 위 | 차 단 방 법 | 비 고 |
|----|--------------|-------------------|--|------------------|----------------------------|--------|
| 1 | ↔ E/M | 비상정지 스위치 | 비상시 전원차단 | 전동기 및 제어회로의 전원차단 | 마크네트 스위치 주점접 OPEN | |
| 2 | ↑ L/S UP | UP 리미트 스위치 | 한계치 이상 상승시 전동기 전원차단 | 전동기 전원차단 | 마크네트 스위치 주점접 OPEN | |
| 3 | ↓ L/S DOWN | DOWN 리미트 스위치 | 한계치 이상 하강시 전동기 전원차단 | 전동기 전원차단 | 마크네트 스위치 주점접 OPEN | |
| 4 | ↔ L/S EAST | RIGHT 리미트 스위치 | 한계치 이상 RIGHT 이동시 전동기 전원차단 | 전동기 전원차단 | 마크네트 스위치 주점접 OPEN | OPTION |
| 5 | ↔ L/S WEST | LEFT 리미트 스위치 | 한계치 이상 LEFT 이동시 전동기 전원차단 | 전동기 전원차단 | 마크네트 스위치 주점접 OPEN | OPTION |
| 6 | M101 | UP M/C 보조점접 b점접 | UP 동작시 DOWN 동작 금지 | UP/DOWN 동시투입 금지 | M/C 보조점접 b 점접 OPEN | |
| 7 | M102 | DOWN M/C 보조점접 b점접 | DOWN 동작시 UP 동작 금지 | UP/DOWN 동시투입 금지 | M/C 보조점접 b 점접 OPEN | |
| 8 | M301 | EAST M/C 보조점접 b점접 | RIGHT 동작시 LEFT 동작 금지 | UP/DOWN 동시투입 금지 | M/C 보조점접 b 점접 OPEN | |
| 9 | M302 | WEST M/C 보조점접 b점접 | LEFT 동작시 RIGHT 동작 금지 | UP/DOWN 동시투입 금지 | M/C 보조점접 b 점접 OPEN | |
| 10 | 역상방지기 | 역상방지기 | UP/DOWN 역상결선시 CONTROL 회로 전원차단 UP/DOWN 동작 금지 | UP/DOWN 동시투입 금지 | 내부 RELAY 보조점접 b 점접 OPEN | |
| 11 | LOAD LIMITER | LOAD LIMITER | 과부하 운전시 UP CONTROL 회로 전원차단 UP 동작 금지 | 과부하 운전 금지 | UP CONTROL 회로 전원차단 | |
| 12 | ↔ TP | TERMINAL RELAY | 한계치 이상 온도 상승시 전동기 전원차단 | 전동기 전원차단 | TP 내부점접 OPEN | 전동기 내장 |

| REV. NO | DATE | REVISION DESCRIPTION | DRAWN | CHECKED | APPROVED |
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|----------------------------------|-------------------------------|----------|------------|------------|--|
| TITLE CIRCUIT DIAGRAM OF DSHM | | | | PROJECTION | |
| WORD NO | WORK NAME | | | SCALE Q'TY | |
| | INTERLOCK LIST | | | | |
| | DSHM-1S,1.9W,2W,1.9S,2S,3W,5W | | | | |
| DRAWN | CHECKED | REVIEWED | APPROVED | DRAWING NO | |
| E.D | | | Y.K | DSHM1005 | |
| 2013.04.03 | | | 2013.04.03 | | |
| DAESAN INOTECIND. CO., LTD. | | | | | |

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| NO | COMMODITY | CAPACITY | MODEL NO | MAKER |
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| | | | | |

접지공사 시설행법

1. 전동기의 후레일, 제어반, 레일등은 접지를 해야 하며다음의 규정을 따른다.

| 접지 저항 | | |
|-----------|---------|---------|
| 3중 접지 | 400V 이하 | 100Ω 이하 |
| 특별 제3중 접지 | 400V 초과 | 10Ω 이하 |

단 방폭지역은 전압에 관계없이 10Ω 이하일것.

2. 접지전용 드로리선 및 전선은 양해 전기기기, 기구에 대하여 충분한 용량 및 견기력, 기계적 강도를 가져야 한다.
3. 접지선이 외상을 받을 우려가 있는 경우에는 전선관, 합성수지관 등에 넣어야 한다.
4. 접지공사는 지표면에서 최저 75Cm 이상의 길이에 접지봉을 박고 접지봉에는 접지동판을 연결한다.

※ NOTE ※

1. TROLLEY-BAR는 전기 기술기준 제226호(저압점속 전선)에 준하여 설치 한다.
2. MAIN S/W BOX는 당해 크레인용 자장에서 쉽게 개폐할 수 있는 곳 보이는 곳에 설치 한다.

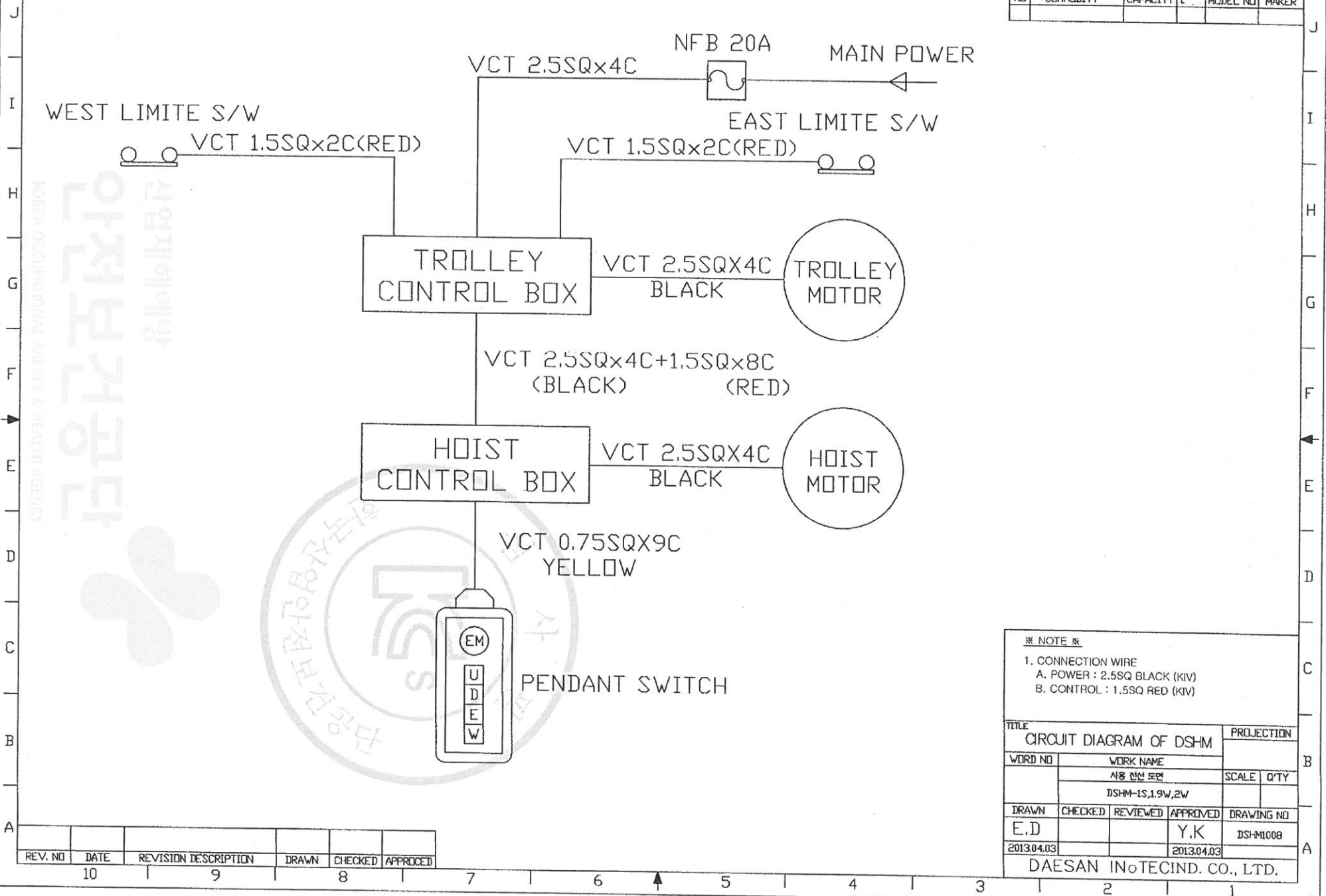
| TITLE | | | | PROJECTION | |
|-----------------------------|-----------------|----------|------------|------------|------|
| CIRCUIT DIAGRAM OF DSHM | | | | | |
| WORD NO | WORK NAME | | | | |
| | EARTH DIAGRAM | | | SCALE | Q'TY |
| | DSHM-1S,1.9W,2W | | | | |
| DRAWN | CHECKED | REVIEWED | APPROVED | DRAWING NO | |
| E.D | | | Y.K | DSHM1006 | |
| 2013.04.03 | | | 2013.04.03 | | |
| DAESAN INoTECIND. CO., LTD. | | | | | |

별첨복제 및 배포금지

| REV. NO | DATE | REVISION DESCRIPTION | DRAWN | CHECKED | APPROVED |
|---------|------|----------------------|-------|---------|----------|
| | | | | | |

10 9 8 7 6 5 4 3 2 1

| NO | COMMODITY | CAPACITY | MODEL NO | MAKER |
|----|-----------|----------|----------|-------|
| | | | | |



※ NOTE ※

- CONNECTION WIRE
 - A. POWER : 2.5SQ BLACK (KIV)
 - B. CONTROL : 1.5SQ RED (KIV)

| TITLE | | | | PROJECTION | |
|-----------------------------|-----------------|----------|------------|------------|-----|
| CIRCUIT DIAGRAM OF DSHM | | | | | |
| WORD NO | WORK NAME | | | SCALE | QTY |
| | 시공 전선 도면 | | | | |
| | DSHM-1S,1.9W,2W | | | | |
| DRAWN | CHECKED | REVIEWED | APPROVED | DRAWING NO | |
| E.D | | | Y.K | DSH-M1008 | |
| 2013.04.03 | | | 2013.04.03 | | |
| DAESAN INoTECIND. CO., LTD. | | | | | |

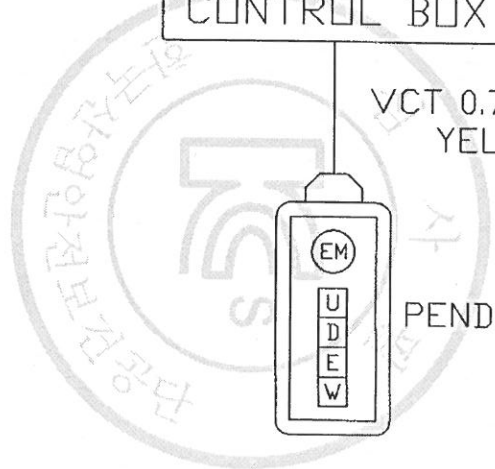
| REV. NO | DATE | REVISION DESCRIPTION | DRAWN | CHECKED | APPROVED |
|---------|------|----------------------|-------|---------|----------|
| | | | | | |

10 9 8 7 6 5 4 3 2 1

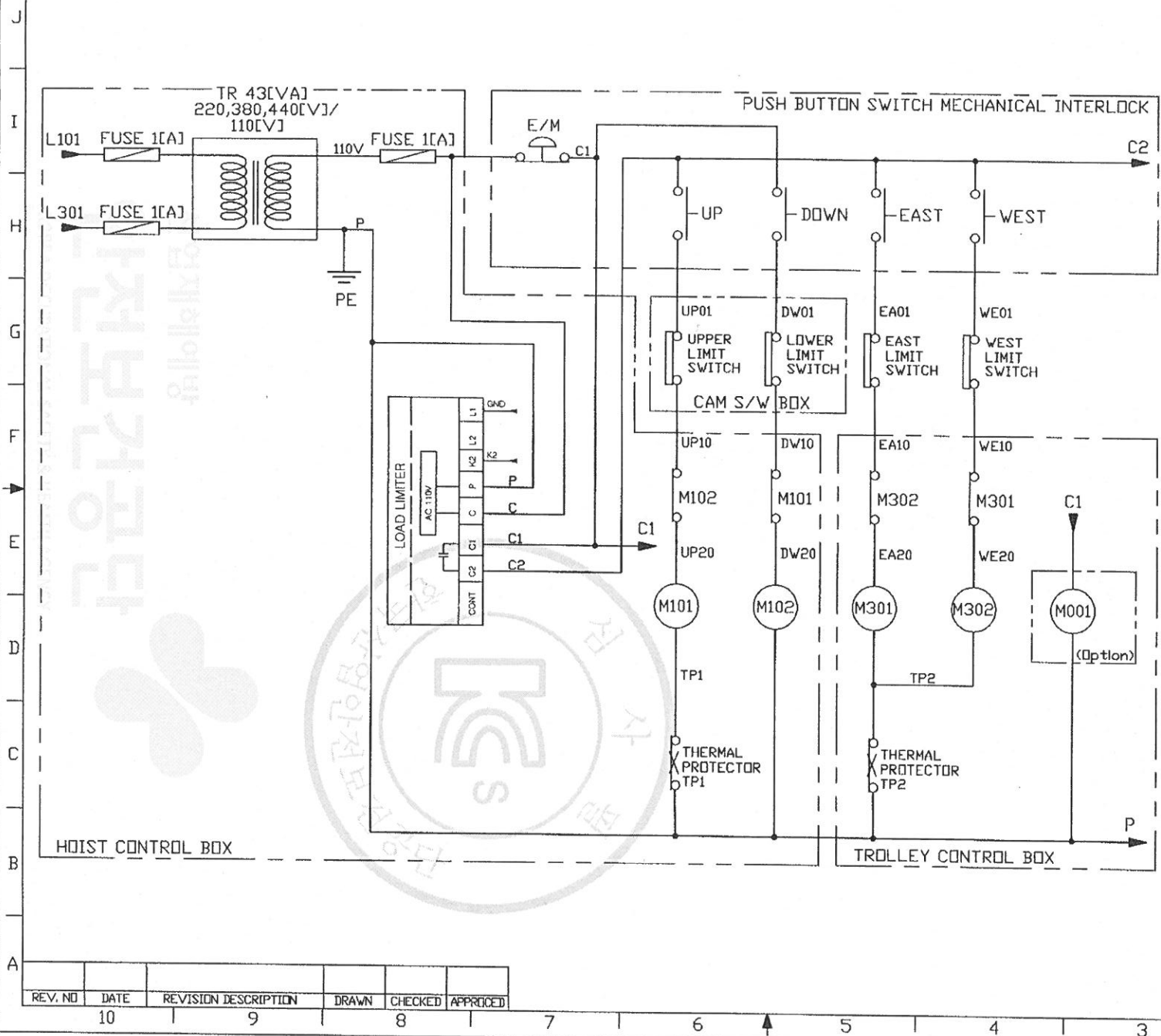
별첨복제 및 배포금지

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KOREA OCCUPATIONAL SAFETY & HEALTH AGENCY
안전보건공단
안전기획연방



10 9 8 7 6 5 4 3 2 1



| NO | COMMODITY | CAPACITY | MODEL NO | MAKER |
|----|--------------------|----------|----------|-------------|
| 1 | MAGNETIC CONTACTOR | 2.2KW | DMC-12b | DONG-A |
| 2 | TRANSFORMER | 43VA | - | DAESAN |
| 3 | PUSH BUTTON S/W | 4POINT | 1024SEB | HANYOUNG |
| 4 | LOAD LIMITER | 70TON | JDL-100 | JUNG-HD |
| 5 | CAM SWITCH | 20A | 2B | HANYOUNG |
| 6 | LIMIT SWITCH | - | HY-M04 | HANYOUNG |
| 7 | FUSE | 1A | - | LITTLE FUSE |
| 8 | FUSE HOLDER | 3P | - | 미성 |
| 9 | TERMINAL BLOCK | 6P | - | KAKIN |

- ※ NOTE ※
- CONTROL WIER
- KM 1.5SQ (RED)
 - PUSH BUTTON SWITCH CABLE
- 0.75SQ * 7C
 - CAM SWITCH CABLE
- VCTF 1.5SQ * 4C
 - MAIN MAGNETIC CONTACTOR (M001)
- (OPTION)
 - EAST, WEST LIMIT SWITCH
- (OPTION)

| TITLE | | | | PROJECTION | |
|---------------------------|-------------------------|----------|------------|------------|------|
| CIRCUIT DIAGRAM OF DSHM | | | | | |
| WORD NO | WORK NAME | | | | |
| | CONTROL CIRCUIT DIAGRAM | | | SCALE | Q'TY |
| | DSH-M-1S,1.9W,2W | | | | |
| DRAWN | CHECKED | REVIEWED | APPROVED | DRAWING NO | |
| E.D | | | Y.K | DSHM0001 | |
| 2013.04.03 | | | 2013.04.03 | | |
| DAESAN INOTECH. CO., LTD. | | | | | |

| REV. NO | DATE | REVISION DESCRIPTION | DRAWN | CHECKED | APPROVED |
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출판복제 및 배포금지

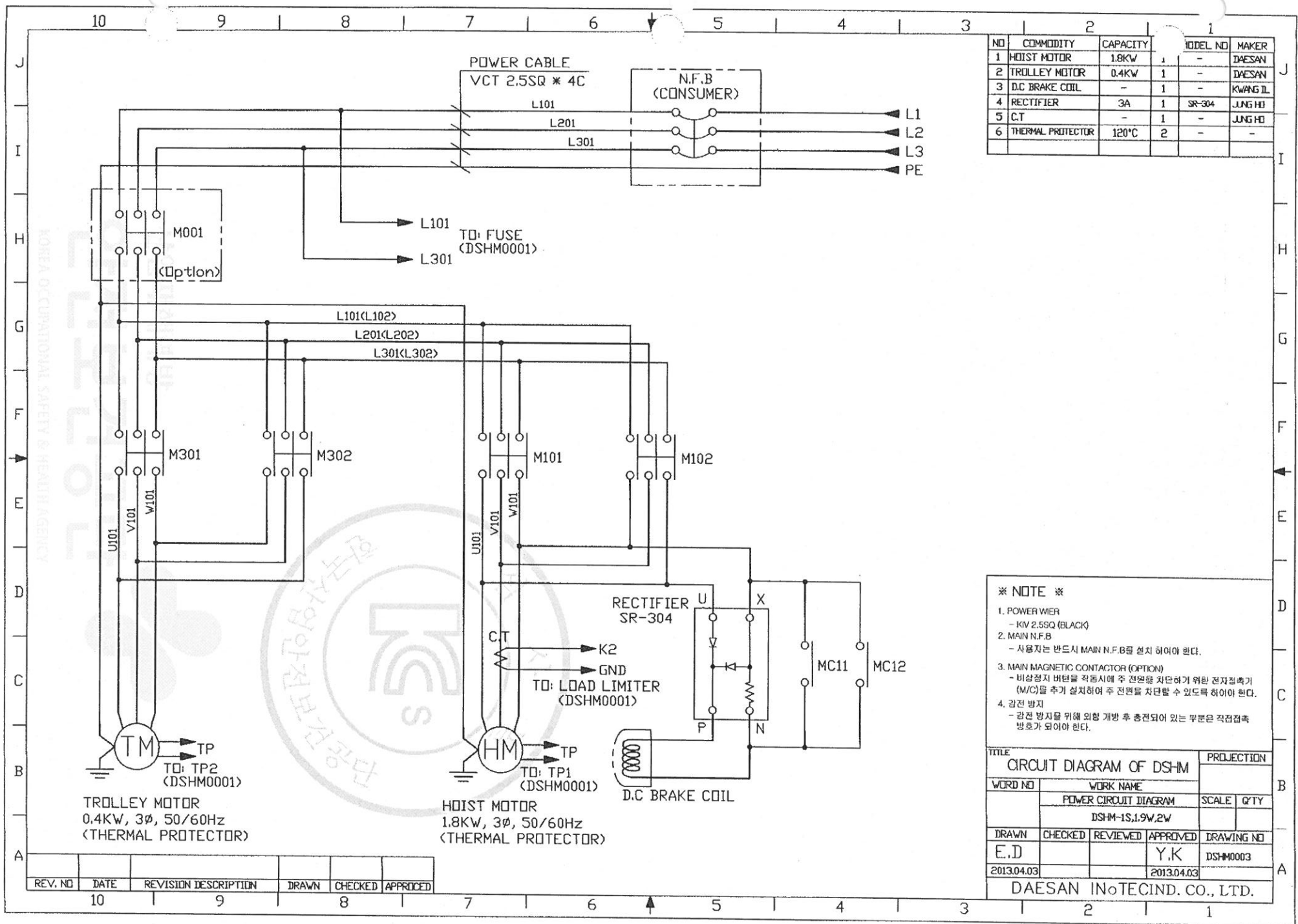
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KOREA OCCUPATIONAL SAFETY & HEALTH AGENCY



불법복제 및 배포금지



| NO | COMMODITY | CAPACITY | MODEL NO | MAKER |
|----|-------------------|----------|----------|----------|
| 1 | HOIST MOTOR | 1.8KW | - | DAESAN |
| 2 | TROLLEY MOTOR | 0.4KW | - | DAESAN |
| 3 | D.C BRAKE COIL | - | - | KWANG IL |
| 4 | RECTIFIER | 3A | SR-304 | JUNG HO |
| 5 | C.T | - | - | JUNG HO |
| 6 | THERMAL PROTECTOR | 120°C | - | - |

※ NOTE ※

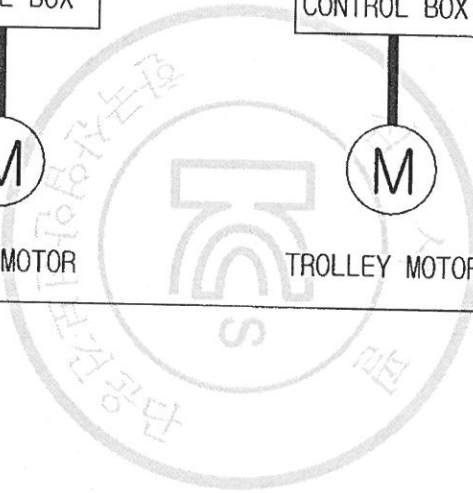
- POWER WIRE
- KIV 2.5SQ (BLACK)
- MAIN N.F.B
- 사용자는 반드시 MAIN N.F.B를 설치하여야 한다.
- MAIN MAGNETIC CONTACTOR (OPTION)
- 비상정지 버튼을 작동시킬 때 주 전원을 차단하기 위한 전자접속기 (M/C)를 추가 설치하여 주 전원을 차단할 수 있도록 하여야 한다.
- 감전 방지
- 감전 방지를 위해 위험 개방 후 충전되어 있는 부분은 직접접촉 방호가 되어야 한다.

| TITLE | | | | PROJECTION |
|-----------------------------|-----------------------|----------|------------|------------|
| CIRCUIT DIAGRAM OF DSHM | | | | |
| WORD NO | WORK NAME | | | |
| | POWER CIRCUIT DIAGRAM | | | SCALE Q'TY |
| | DSHM-1S,1.9W,2W | | | |
| DRAWN | CHECKED | REVIEWED | APPROVED | DRAWING NO |
| E.D | | | Y.K | DSHM0003 |
| 2013.04.03 | | | 2013.04.03 | |
| DAESAN INoTECIND. CO., LTD. | | | | |

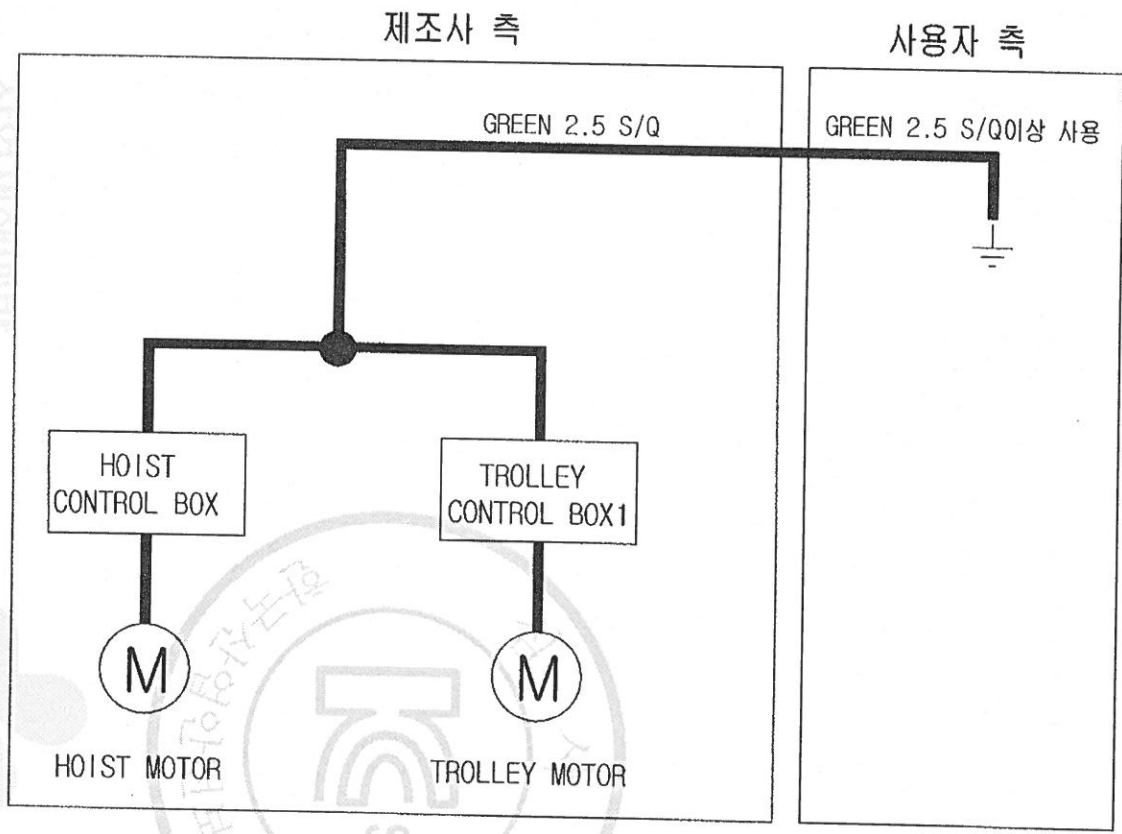
| REV. NO | DATE | REVISION DESCRIPTION | DRAWN | CHECKED | APPROVED |
|---------|------|----------------------|-------|---------|----------|
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| 7 | | | | | |

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KOREA OCCUPATIONAL SAFETY & HEALTH AGENCY
 안전보건공단
 영남대학교



| NO | COMMODITY | CAPACITY | MODEL NO | MAKER |
|----|-----------|----------|----------|-------|
| 1 | | | | |



※ NOTE ※

| | | | | |
|----------------------------------|-----------------|----------|------------|------------|
| TITLE CIRCUIT DIAGRAM OF DSHM | | | | PROJECTION |
| WORD NO | WORK NAME | | | SCALE Q'TY |
| | 전기 개명도 | | | |
| | DSHM-1S.1.9W.2W | | | |
| DRAWN | CHECKED | REVIEWED | APPROVED | DRAWING NO |
| E.D | | | Y.K | |
| 2013.04.03 | | | 2013.04.03 | |
| DAESAN InoTECIND. CO., LTD. | | | | |

| REV. NO | DATE | REVISION DESCRIPTION | DRAWN | CHECKED | APPROVED |
|---------|------|----------------------|-------|---------|----------|
| 10 | | | | | |

물범복제 및 배포금지

DSHM-2T I-BEAM CALCULATION SHEET

| | I-200x100x7/10 | I-250x125x7.5/12.5 | I-300x150x7.5/18.5 |
|-----------------------------|----------------|--------------------|--------------------|
| SPAN L=CM | 280 | 450 | 600 |
| $I_x(\text{Cm}^4)$ | 2170 | 5180 | 12700 |
| $I_y(\text{Cm}^4)$ | 138 | 337 | 886 |
| $Z_x(\text{Cm}^3)$ | 217 | 414 | 849 |
| $Z_y(\text{Cm}^3)$ | 28 | 53.9 | 118 |
| $\sigma A(\text{Kg. Cm}^2)$ | 998.77 | 872.4 | 569.06 |
| $\delta(\text{Cm})$ | 0.233 | 0.417 | 0.396 |
| δ/L | 1/1200 | 1/1080 | 1/1517 |



산업재해예방
안전보건공단
KOSHA OCCUPATIONAL SAFETY & HEALTH AGENCY

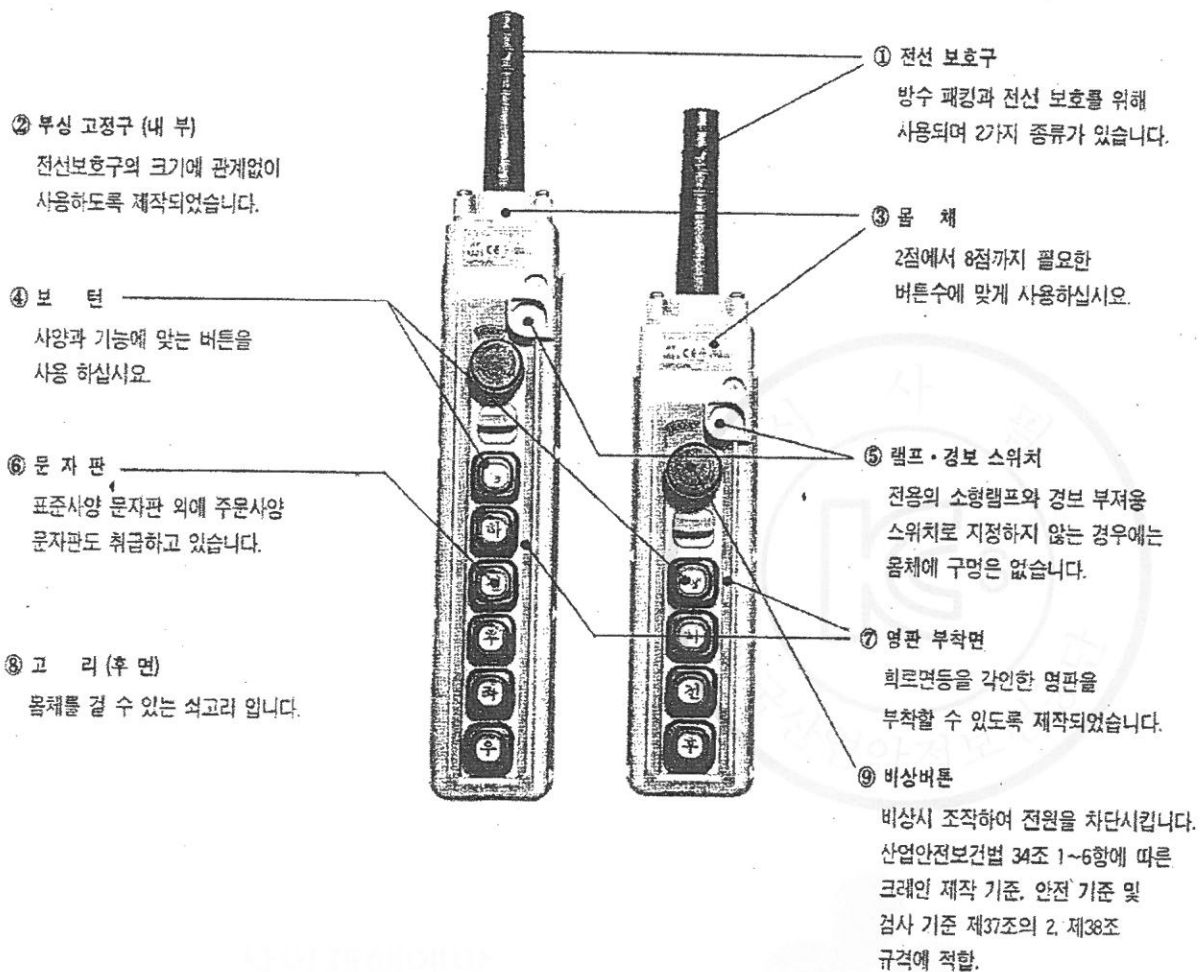
호이스트 스위치

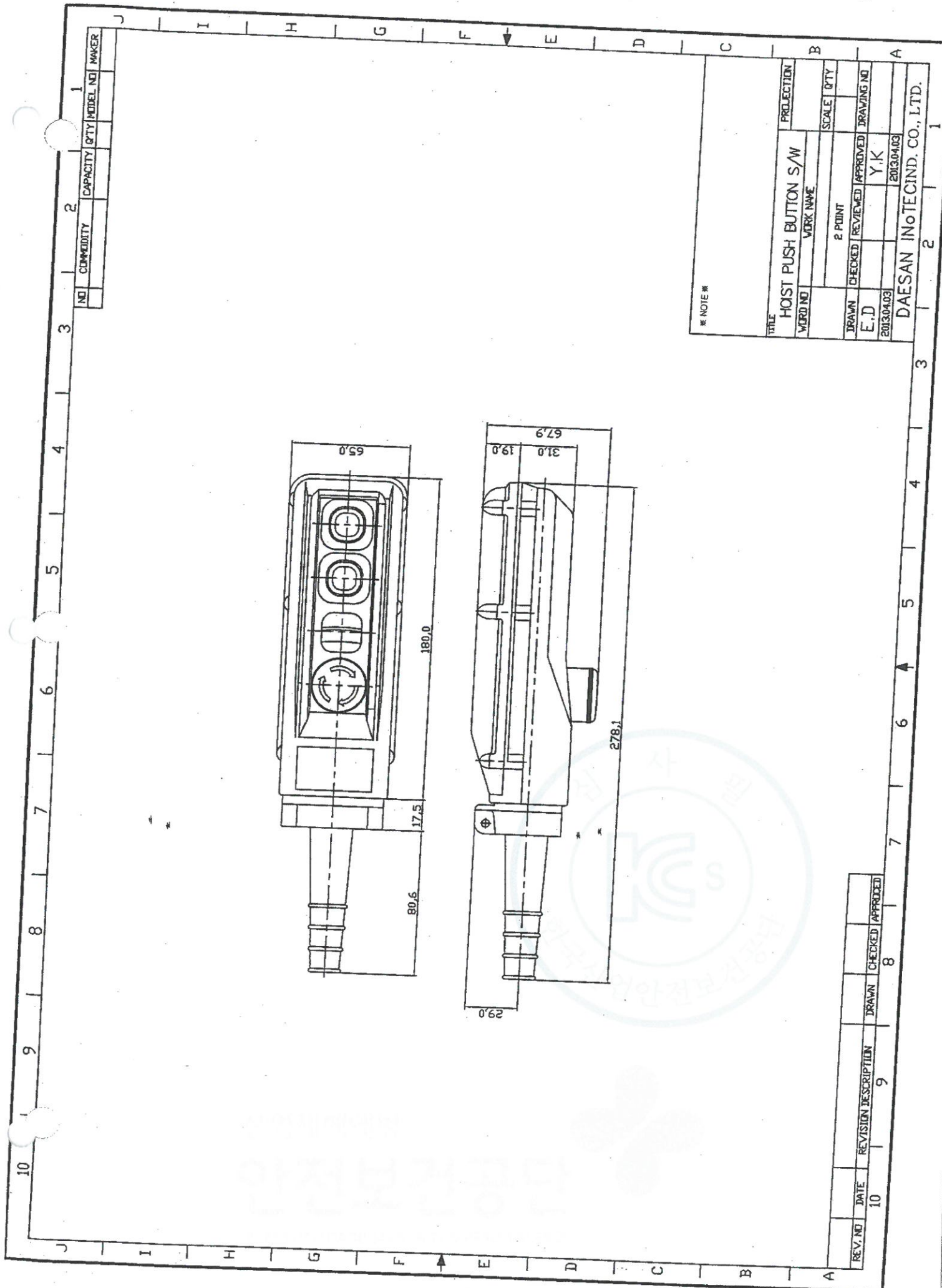
전자 조작용 개폐 스위치 (HOIST SWITCH)

- 전동 HOIST조작용으로 현수식 늘름버튼형 개폐기입니다.
- 방수형의 구조이며 외곽케이스는 기계적 강도 및 전기적 특성이 우수한 수지를 사용하여 가볍고 견고하게 설계되었습니다.
- 스위치 자체에 전원 단절용으로 주회로를 개폐할 수 있는 구조로 되어 있습니다.
- 접점 부분은 1단(1a)이 기본이며, 전동기 속도 제어용에 필요한 2단 접점이 있어 필요 부분에 부착 사용할 수 있도록 설계되어 있습니다.
- 풍부한 버튼 문자판이 준비되어 있어 용도에 맞추어 선택 사용이 용이합니다.
- 소형 및 경량으로 설계되어 경제적입니다.
- 걸고리가 장착되어 사용이 편리합니다.



■ 구조



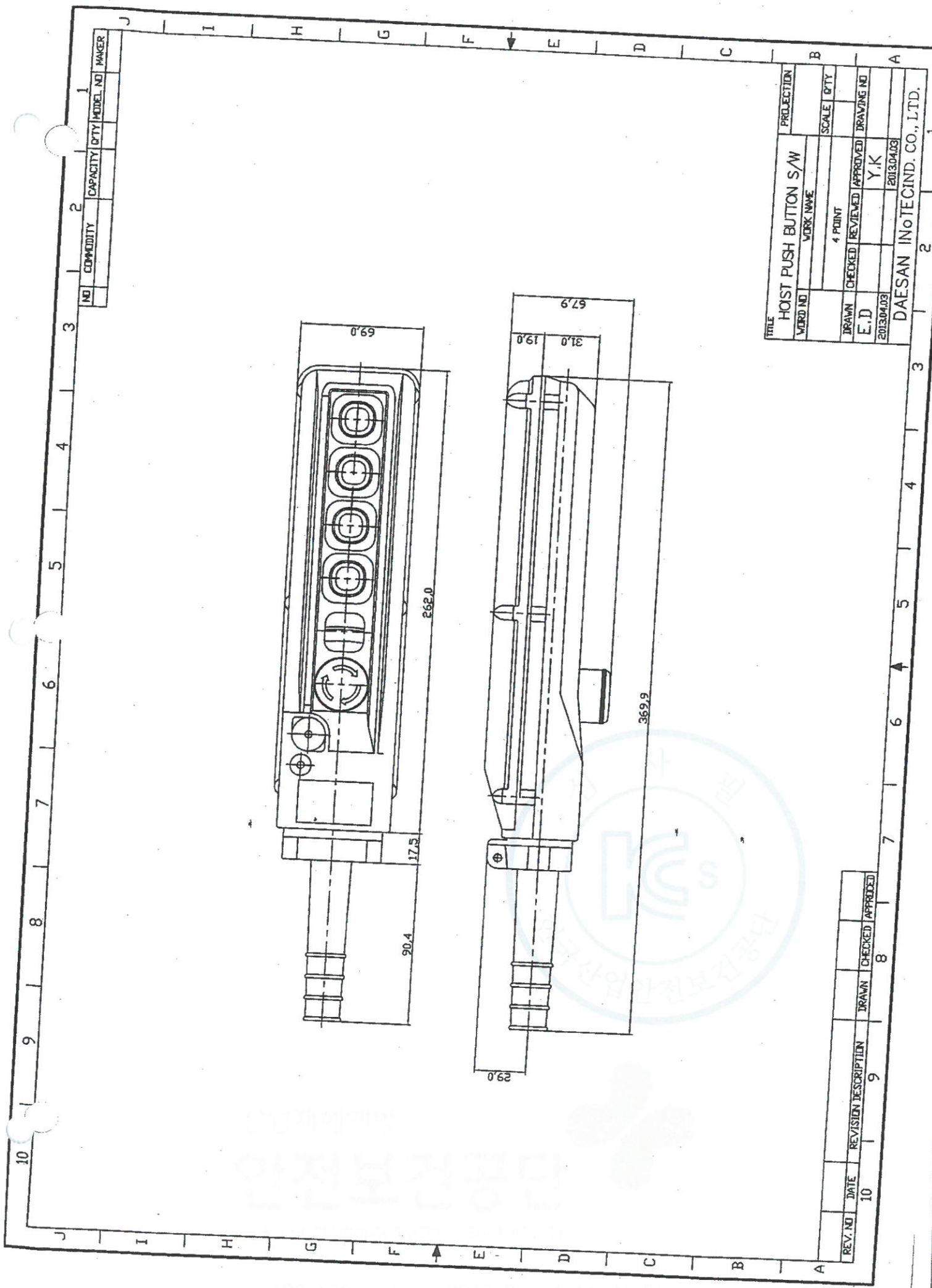


| | | | | | |
|----|-----------|----------|-----|----------|-------|
| NO | COMMODITY | CAPACITY | QTY | MODEL NO | MAKER |
| 1 | | | | | |

| | | | |
|--------------------------------|-----------|------------|------------|
| * NOTE * | | PROJECTION | |
| TITLE HOIST PUSH BUTTON S/W | | | |
| MEMO NO | WORK NAME | SCALE | QTY |
| | | | |
| DRAWN | CHECKED | REVIEWED | APPROVED |
| E.D | | Y.K | |
| 2013.04.03 | | | 2013.04.03 |
| DAESAN INOTECHIND. CO., LTD. | | | |

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|---------|------|----------------------|-------|---------|----------|
| REV. NO | DATE | REVISION DESCRIPTION | DRAWN | CHECKED | APPROVED |
| 10 | | | | 8 | |

불법복제 및 배포금지

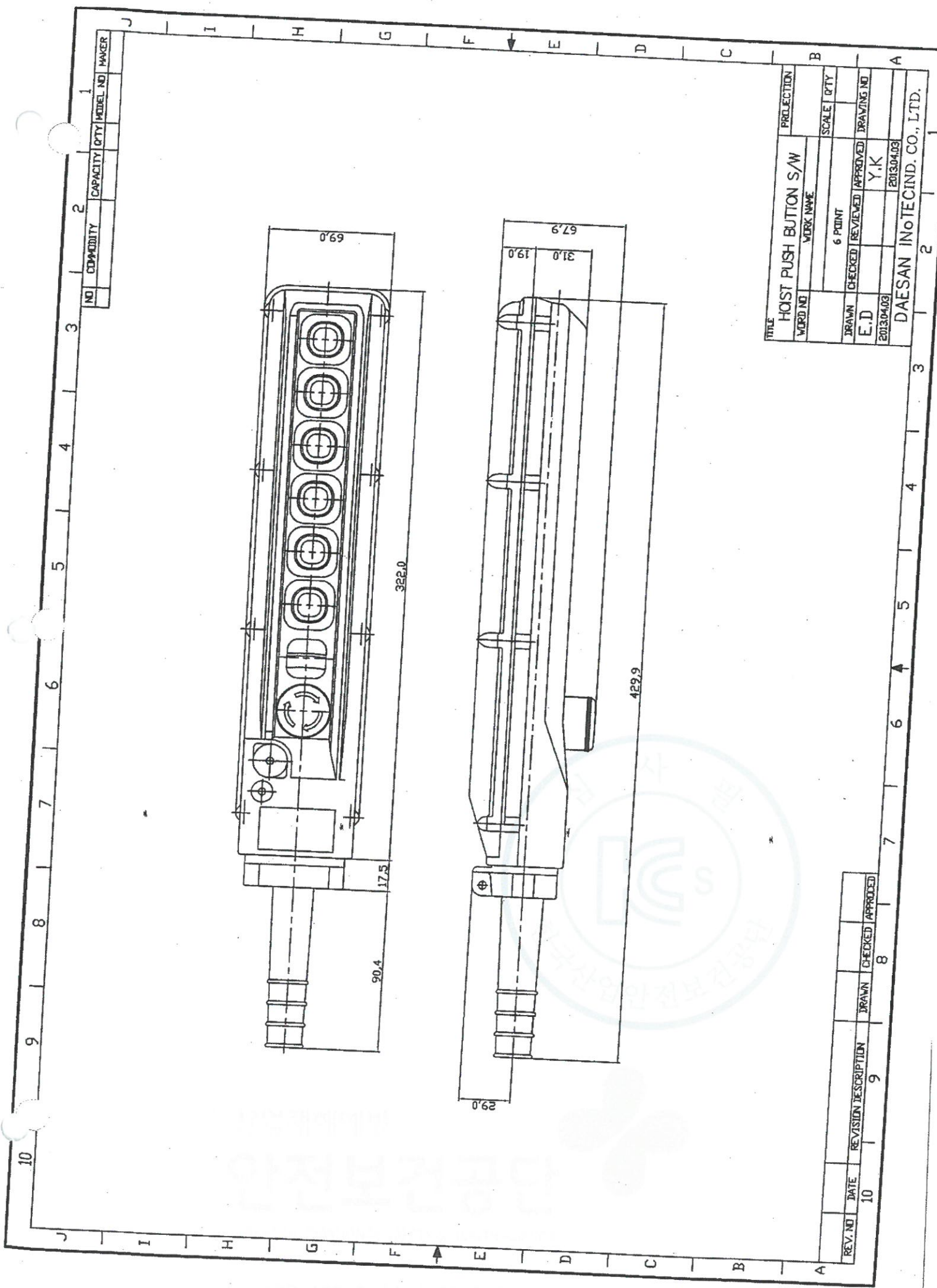


| | | | | | |
|----|-----------|----------|-----|----------|-------|
| NO | COMMODITY | CAPACITY | QTY | MODEL NO | MAKER |
| 1 | | | | | |

| | | | | | |
|------------------------------|-----------|-----------------------|----------|------------|-----|
| TITLE | | HOIST PUSH BUTTON S/W | | PROJECTION | |
| WORD NO | WORK NAME | | | SCALE | QTY |
| | 4 POINT | | | | |
| DRAWN | CHECKED | REVIEWED | APPROVED | DRAWING NO | |
| E.D | | | Y,K | | |
| 2013.04.03 | | | | 2013.04.03 | |
| DAESAN INOTECHIND. CO., LTD. | | | | | |

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|---------|------|----------------------|-------|---------|----------|
| REV. NO | DATE | REVISION DESCRIPTION | DRAWN | CHECKED | APPROVED |
| 10 | | | | | |

불법복제 및 배포금지



| | | | | | |
|----|-----------|----------|-----|----------|-------|
| NO | COMMODITY | CAPACITY | QTY | MODEL NO | MAKER |
| 1 | | | | | |

| | | | |
|------------------------------|-----------------------|------------|------------|
| TITLE | HOIST PUSH BUTTON S/W | | PROJECTION |
| WORD NO | WORK NAME | | |
| DRAWN | CHECKED | REVIEWED | APPROVED |
| E.D | | Y.K | |
| 2013.04.03 | | 2013.04.03 | |
| DAESAN INOTECHIND. CO., LTD. | | | |

| | | | | | |
|---------|------|----------------------|-------|---------|----------|
| REV. NO | DATE | REVISION DESCRIPTION | DRAWN | CHECKED | APPROVED |
| 10 | | | | | |

SCHEDULE OF TECHNICAL DATA

| | |
|---|--------------------------|
| 1. SERVICE | HOISTING |
| 2. MANUFACTURE | DAESAN INOTEC INC. |
| 3. MOTOR MODEL NO. | DSAI - 1S - 220 |
| 4. RATED POWER | 1.8 KW x 4 P |
| 5. RATED VOLTAGE AND FREQUENCY | 220 V 60 HZ |
| 6. MOTOR TYPE | SQUIRREL CAGE ROTOR YPE |
| 7. RATING | 30 MIN |
| 8. LOCATION | IN-DOOR , OUT-DOOR |
| 9. INSULATION CLASS | B |
| 10. DESING TEMPERATURE RISE (BY RESISTANCE) | 80°C |
| 11. FULL LOAD SPEED | 1740 RPM |
| 12. FULL LOAD CURRENT | 9.4 A |
| 13. STARTING CURRENT AT RATED VOLTAGE | 47.0 A |
| 14. MINIMUM STATING VOLTAGE | 198 V |
| 15. EFFICIENCY AT 100% RAGED LOAD | 72.0% |
| 16. POWER FACTOR AT 100% RATED LOAD | 70.0% |
| 17. STARTING TORQUE | 238% |
| 18. TYPE OF ENCLOSURE | 전폐형 |
| 19. TYPE OF BEARING | PL : 6008DD OPL : 6207ZZ |
| 20. MOUNTING | VERTICAL |
| 21. MAXIMUM AMBIENT TEMPURE | 40°C |
| 22. BEARING LUBRICATION | GREASE |
| 23. STARTING METHOD | FULL VOLTAGE |

SCHEDULE OF TECHNICAL DATA

| | |
|---|--------------------------|
| 1. SERVICE | HOISTING |
| 2. MANUFACTURE | DAESAN INOTEC INC. |
| 3. MOTOR MODEL NO. | DSAI - 1S - 380 |
| 4. RATED POWER | 1.8 KW x 4 P |
| 5. RATED VOLTAGE AND FREQUENCY | 380 V 60 HZ |
| 6. MOTOR TYPE | SQUIRREL CAGE ROTOR YPE |
| 7. RATING | 30 MIN |
| 8. LOCATION | IN-DOOR , OUT-DOOR |
| 9. INSULATION CLASS | B |
| 10. DESING TEMPERATURE RISE (BY RESISTANCE) | 80°C |
| 11. FULL LOAD SPEED | 1740 RPM |
| 12. FULL LOAD CURRENT | 5.5 A |
| 13. STARTING CURRENT AT RATED VOLTAGE | 26.8 A |
| 14. MINIMUM STATING VOLTAGE | 342 V |
| 15. EFFICIENCY AT 100% RAGED LOAD | 72.5% |
| 16. POWER FACTOR AT 100% RATED LOAD | 68.8% |
| 17. STARTING TORQUE | 243% |
| 18. TYPE OF ENCLOSURE | 전폐형 |
| 19. TYPE OF BEARING | PL : 6008DD OPL : 6207ZZ |
| 20. MOUNTING | VERTICAL |
| 21. MAXIMUM AMBIENT TEMPURE | 40°C |
| 22. BEARING LUBRICATION | GREASE |
| 23. STARTING METHOD | FULL VOLTAGE |

SCHEDULE OF TECHNICAL DATA

| | |
|---|--------------------------|
| 1. SERVICE | HOISTING |
| 2. MANUFACTURE | DAESAN INOTEC INC. |
| 3. MOTOR MODEL NO. | DSAI - 1S - 440 |
| 4. RATED POWER | 1.8 KW x 4 P |
| 5. RATED VOLTAGE AND FREQUENCY | 440 V 60 HZ |
| 6. MOTOR TYPE | SQUIRREL CAGE ROTOR YPE |
| 7. RATING | 30 MIN |
| 8. LOCATION | IN-DOOR , OUT-DOOR |
| 9. INSULATION CLASS | B |
| 10. DESING TEMPERATURE RISE (BY RESISTANCE) | 80°C |
| 11. FULL LOAD SPEED | 1740 RPM |
| 12. FULL LOAD CURRENT | 4.7 A |
| 13. STARTING CURRENT AT RATED VOLTAGE | 22.8 A |
| 14. MINIMUM STATING VOLTAGE | 396 V |
| 15. EFFICIENCY AT 100% RAGED LOAD | 71.9% |
| 16. POWER FACTOR AT 100% RATED LOAD | 69.8% |
| 17. STARTING TORQUE | 245% |
| 18. TYPE OF ENCLOSURE | 전폐형 |
| 19. TYPE OF BEARING | PL : 6008DD OPL : 6207ZZ |
| 20. MOUNTING | VERTICAL |
| 21. MAXIMUM AMBIENT TEMPURE | 40°C |
| 22. BEARING LUBRICATION | GREASE |
| 23. STARTING METHOD | FULL VOLTAGE |

SCHEDULE OF TECHNICAL DATA

| | |
|---|--------------------------|
| 1. SERVICE | TRAVERSING |
| 2. MANUFACTURE | DAESAN INOTEC INC. |
| 3. MOTOR MODEL NO. | MT - 1 - 220 |
| 4. RATED POWER | 0.4 KW x 6 P |
| 5. RATED VOLTAGE AND FREQUENCY | 220 V 60 HZ |
| 6. MOTOR TYPE | SQUIRREL CAGE ROTOR YPE |
| 7. RATING | 30 MIN |
| 8. LOCATION | IN-DOOR |
| 9. INSULATION CLASS | B |
| 10. DESING TEMPERATURE RISE (BY RESISTANCE) | 100°C |
| 11. FULL LOAD SPEED | 1140 RPM |
| 12. FULL LOAD CURRENT | 3.3 A |
| 13. STARTING CURRENT AT RATED VOLTAGE | 13.9 A |
| 14. MINIMUM STATING VOLTAGE | 198V |
| 15. EFFICIENCY AT 100% RAGED LOAD | 57.5% |
| 16. POWER FACTOR AT 100% RATED LOAD | 54.5% |
| 17. STARTING TORQUE | 249% |
| 18. TYPE OF ENCLOSURE | 전폐형 |
| 19. TYPE OF BEARING | PL : 6202DD OPL : 6204ZZ |
| 20. MOUNTING | VERTICAL |
| 21. MAXIMUM AMBIENT TEMPURE | 40°C |
| 22. BEARING LUBRICATION | GREASE |
| 23. STARTING METHOD | FULL VOLTAGE |

SCHEDULE OF TECHNICAL DATA

| | |
|---|--------------------------|
| 1. SERVICE | TRAVERSING |
| 2. MANUFACTURE | DAESAN INOTEC INC. |
| 3. MOTOR MODEL NO. | MT - 1 - 380 |
| 4. RATED POWER | 0.4 KW x 6 P |
| 5. RATED VOLTAGE AND FREQUENCY | 380 V 60 HZ |
| 6. MOTOR TYPE | SQUIRREL CAGE ROTOR YPE |
| 7. RATING | 30 MIN |
| 8. LOCATION | IN-DOOR |
| 9. INSULATION CLASS | B |
| 10. DESING TEMPERATURE RISE (BY RESISTANCE) | 100°C |
| 11. FULL LOAD SPEED | 1140 RPM |
| 12. FULL LOAD CURRENT | 1.7 A |
| 13. STARTING CURRENT AT RATED VOLTAGE | 9.2 A |
| 14. MINIMUM STATING VOLTAGE | 342V |
| 15. EFFICIENCY AT 100% RAGED LOAD | 53.0% |
| 16. POWER FACTOR AT 100% RATED LOAD | 51.0% |
| 17. STARTING TORQUE | 249% |
| 18. TYPE OF ENCLOSURE | 전폐형 |
| 19. TYPE OF BEARING | PL : 6202DD OPL : 6204ZZ |
| 20. MOUNTING | VERTICAL |
| 21. MAXIMUM AMBIENT TEMPURE | 40°C |
| 22. BEARING LUBRICATION | GREASE |
| 23. STARTING METHOD | FULL VOLTAGE |

SCHEDULE OF TECHNICAL DATA

| | |
|---|--------------------------|
| 1. SERVICE | TRAVERSING |
| 2. MANUFACTURE | DAESAN INOTEC INC. |
| 3. MOTOR MODEL NO. | MT - 1 - 440 |
| 4. RATED POWER | 0.4 KW x 6 P |
| 5. RATED VOLTAGE AND FREQUENCY | 440 V 60 HZ |
| 6. MOTOR TYPE | SQUIRREL CAGE ROTOR YPE |
| 7. RATING | 30 MIN |
| 8. LOCATION | IN-DOOR |
| 9. INSULATION CLASS | B |
| 10. DESING TEMPERATURE RISE (BY RESISTANCE) | 100°C |
| 11. FULL LOAD SPEED | 1140 RPM |
| 12. FULL LOAD CURRENT | 1.5 A |
| 13. STARTING CURRENT AT RATED VOLTAGE | 9.2 A |
| 14. MINIMUM STATING VOLTAGE | 396V |
| 15. EFFICIENCY AT 100% RAGED LOAD | 55.3% |
| 16. POWER FACTOR AT 100% RATED LOAD | 57.2% |
| 17. STARTING TORQUE | 249% |
| 18. TYPE OF ENCLOSURE | 전폐형 |
| 19. TYPE OF BEARING | PL : 6202DD OPL : 6204ZZ |
| 20. MOUNTING | VERTICAL |
| 21. MAXIMUM AMBIENT TEMPURE | 40°C |
| 22. BEARING LUBRICATION | GREASE |
| 23. STARTING METHOD | FULL VOLTAGE |

| | | | |
|--|---|--|--------|
| FEC CHAIN CORPORATION TEL:+81-53-425-4116 , 2162 | | 337 KANAORI-CHO , HAMAMATSU CITY, SHIZUOKA PRE.,435-0026 JAPAN FAX:+81-53-425-5122 | |
| TEST CERTIFICATE | | | |
| Distributor: | code #: 1080 | distributor's name: ASAO & CO., LTD | |
| Coustermer: | | coustermer's name: | |
| Article name: (Application) | Load chain for electric chain hoist | | |
| Spec. standard | <input type="checkbox"/> DIN EN 818-7:2002 , <input type="checkbox"/> JIS B 8812:1999 <input type="checkbox"/> ISO 3077 , <input checked="" type="checkbox"/> FEC | | |
| Material spec.: | SAE15B24(Mn-B steel) | | |
| Finish: | <input type="checkbox"/> temper-colored, <input checked="" type="checkbox"/> electroless nickel-plated, <input type="checkbox"/> coated() <input type="checkbox"/> zinc-phosphated, <input type="checkbox"/> manganese-phosphated <input checked="" type="checkbox"/> oiled, <input type="checkbox"/> no-oiled | | |
| Stamping: | <input type="checkbox"/> FEC standard, <input checked="" type="checkbox"/> coustermer's request → DS, JAPAN , (Lot #), FEC# | | |
| Product code#: | FCD07121 | | |
| description: | φ 7.1*P21 | | |
| quality type | G80/ type-DAT | | |
| Dimention: | | | Result |
| Nominal diameter(dn) | [mm] | 7.1 +0.0/-0.3 | OK |
| Internal width,min.: | [mm] | 8.8 | |
| external width, max.: | [mm] | 23.6 | |
| Nominal pitch 1 t | [mm] | 21.0 +0.3/-0.1 | |
| 5 t | [mm] | - | |
| 11 t | [mm] | 231.0 +0.3/-0.7 | |
| Diameter at the weld(ds), max.: | [mm] | 7.6 | |
| Mechanical properties: | | | OK |
| Working load limit(WLL), max.: | [kg] | 1500 | |
| (drive mechanism g | | | |
| Manufacturing proof force(MPF), min.: | [KN] | 40 | |
| Stress at min. MPF | | - | |
| Guranteed breaking force(BF), min.: | [KN] | 63 | |
| Stress at min. BF | | - | |
| Total ultimate elongation(A), min.: | [%] | 10 | |
| Surface hardness/HV3, min.: | [-] | 500 | |
| /HV5, min.: | [-] | - | |
| Hardness /HRC, min.: | [-] | - | |
| Case depth,min.: | [mm] | 0.14 | |
| Bend deflection(f),min.: | [mm] | - | |
| Fatigue resistance, min.: | [cycle] | - | |
| Packing: | | | |
| Weight per meter: | [kg/m] | 1.1 | |
| Length 1 | [meter] | 200m-1pc | |
| 2 | [meter] | - | |
| Packing | | Steel barrel | |
| I hereby certify above all is true. | | K. Sugimura KAZUYUKI SUGIMURA Quality Assurance Dept., Chief Inspector | |
| issued date: | November 29,2011 | | |
| [Note] | | | |

제 2012-BJ-0009 호



안 전 인 증 서

정호엔지니어링

경기도 광명시 노동사동 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 용량·등급 인증번호
JDL-100 J-2 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 노동사동 440-5

2012년 06월 11일

한국산업안전보건공단 이사장

