

POWER CIRCUIT  
TRAVELLING POWER SUPPLY SYSTEM

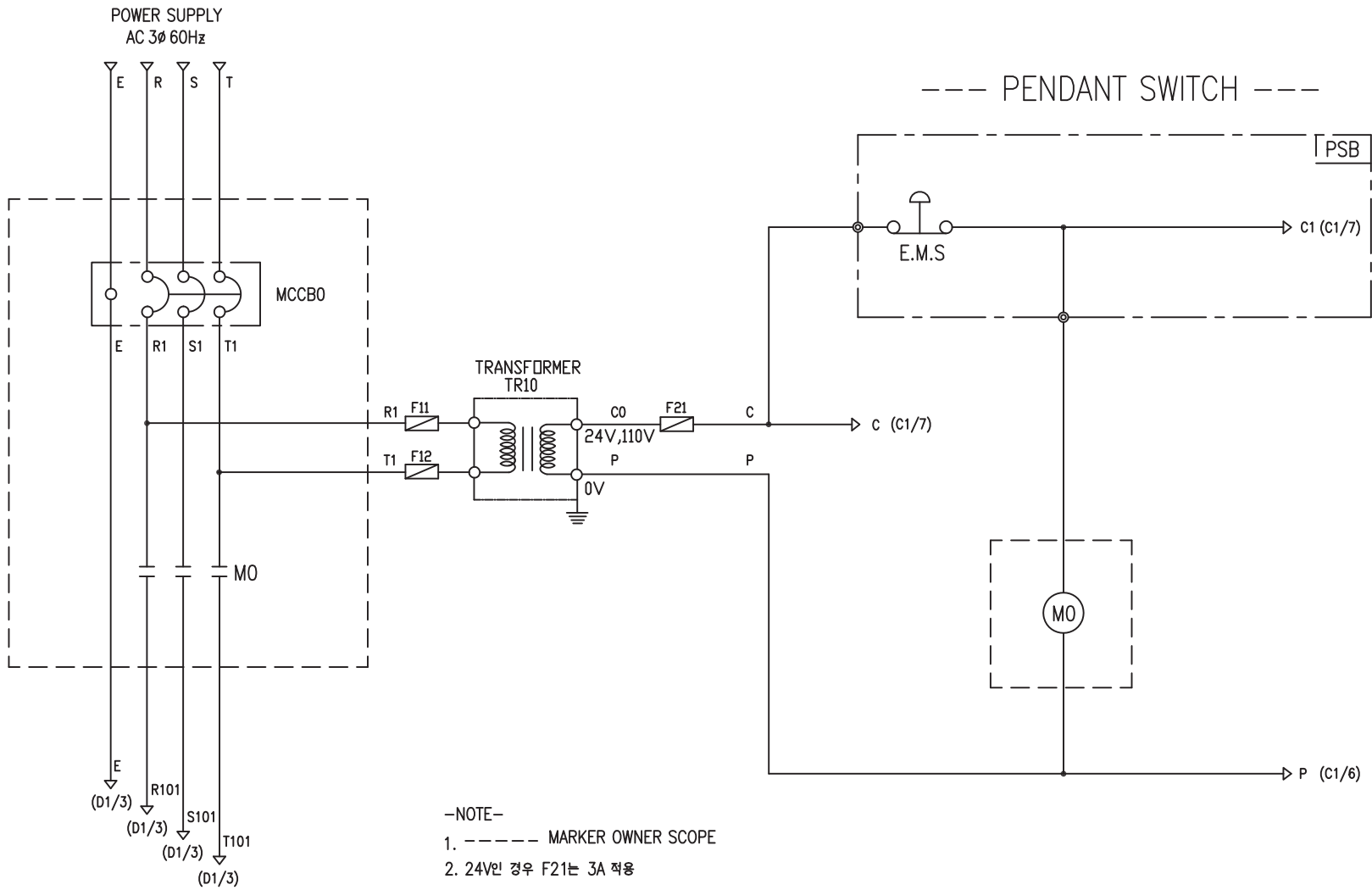
ADDRESS NO.  
A1



-NOTE-

- 1. - - - - MARKED OWNER SCOPE
- 2. ——— MARKED CRANE MAKER SCOPE

|                                      |                    |         |          |                |                     |
|--------------------------------------|--------------------|---------|----------|----------------|---------------------|
| TITLE<br>MAIN POWER CIRCUIT DIAGRAM1 |                    |         |          | PROJECTION<br> |                     |
| WORK NO<br>601                       | WORK NAME<br>DHDBM |         |          | SCALE<br>1/1   | Q' TY<br>1          |
| DRAWN<br>LEE G.H.<br>2010.07.30      |                    | CHECKED | REVIEWED | APPROVED       | DRAWING NO<br>DHDBM |
|                                      |                    |         |          | CODE NO        |                     |
| L K HOIST CO., LTD.                  |                    |         |          |                |                     |



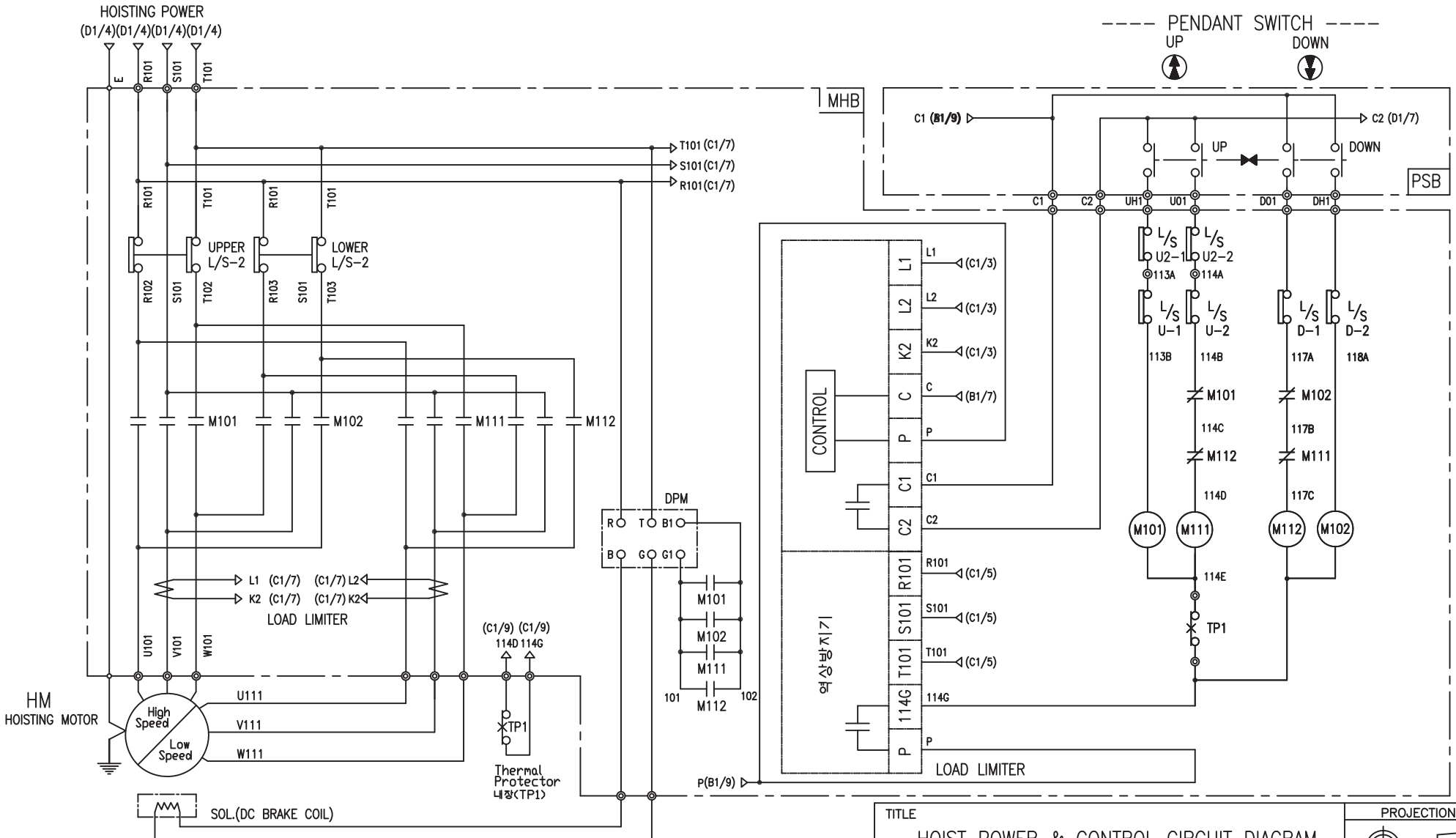
-NOTE-

1. ----- MARKER OWNER SCOPE
2. 24V인 경우 F21는 3A 적용

HOISTING & TRAVERSING  
POWER

| SPECIFICATION | NO FUSE BREAKER | MAGNET CONTACT | TRANSFORMER | FUZE          |      |    |
|---------------|-----------------|----------------|-------------|---------------|------|----|
| SYMBOLS       | MCCB0           | M0             | TR10        | F11, F12, F21 |      |    |
| DESCRIPTION   | 220V            | 50A            | GMC22       | DMC22         | 60VA | 1A |
|               | 380V            | 30A            |             |               |      |    |
|               | 440V            | 30A            |             |               |      |    |
|               | 460V            | 30A            |             |               |      |    |
|               | 480V            | 30A            |             |               |      |    |
| MAKER         | LS              | LS             | DONGA       | LK            | -    |    |

|   |           |          |          |         |       |                |       |
|---|-----------|----------|----------|---------|-------|----------------|-------|
| TITLE<br>MAIN POWER & CONTROL CIRCUIT DIAGRAM |           |          |          |         |       | PROJECTION<br> |       |
| WORK NO                                       | WORK NAME |          |          |         |       | SCALE          | Q' TY |
| 602   | DHDBM     |          |          |         |       | 1/1            | 1     |
| 220V, 380V, 440V, 460V, 480V                  |           |          |          |         |       |                |       |
| DRAWN   | CHECKED   | REVIEWED | APPROVED | MODEL   | DHDBM |                |       |
| LEE.G.H                                       |           |          |          |         |       |                |       |
| 2010.07.30                                    |           |          |          | CODE NO |       |                |       |
| <b>L K HOIST CO., LTD.</b>                    |           |          |          |         |       |                |       |



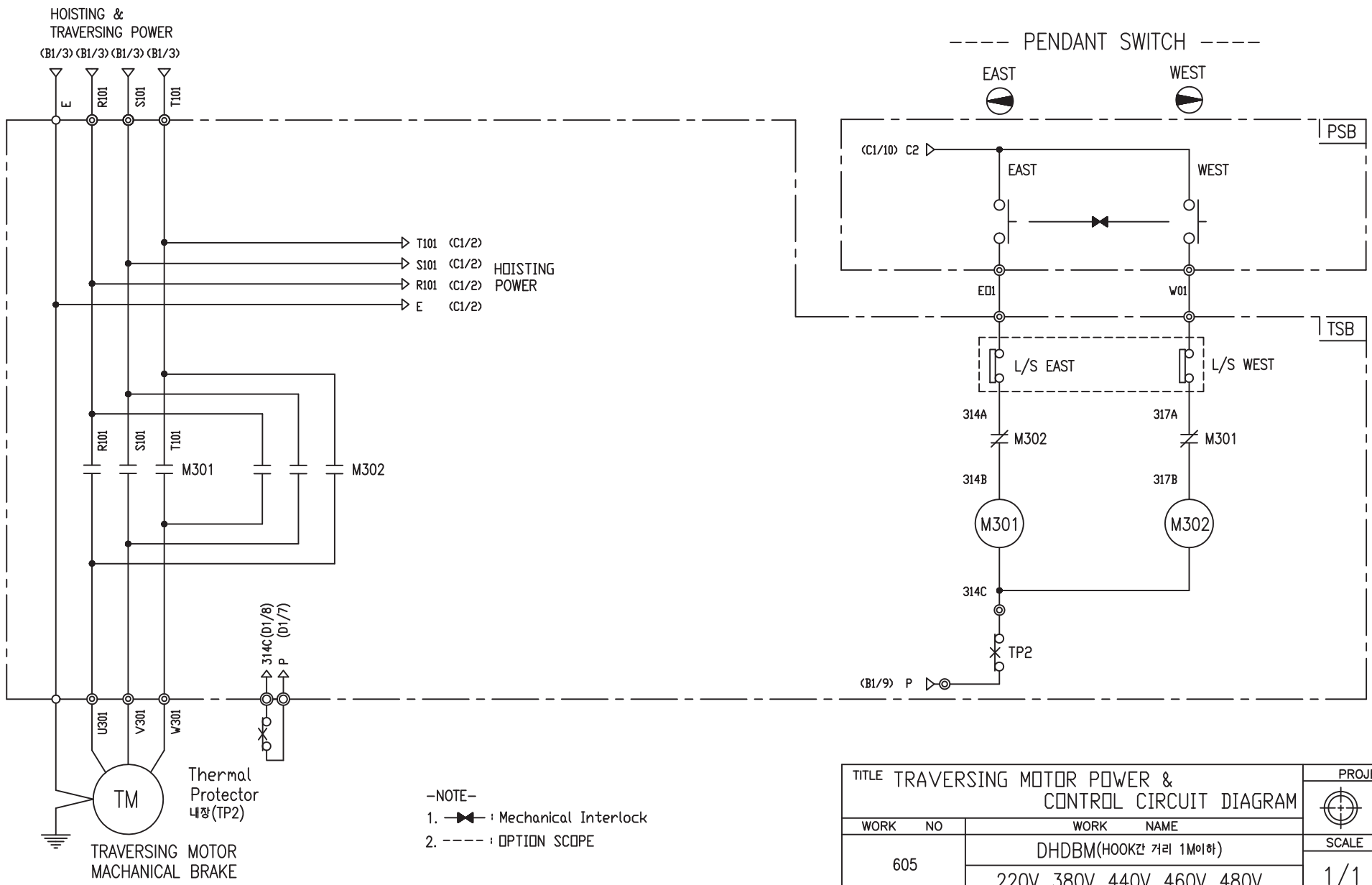
-NOTE-  
1. : Mechanical Interlock

| SPECIFICATION | MAGNET CONTACT           | LOAD LIMITER | SILICON RECTIFIER |        |        |        | Thermal Protector | HOIST MOTOR         |
|---------------|--------------------------|--------------|-------------------|--------|--------|--------|-------------------|---------------------|
|               |                          |              | AC380V            | AC440V | AC460V | AC480V |                   |                     |
| SYMBOLS       | M101, M102<br>M103, M104 | -            | DPM               |        |        |        | TP1               | HM                  |
| DESCRIPTION   | DMC22                    | LKDL-601     | DC171V            | DC198V | DC207V | DC216V | 17AM032           | 4.4Kw * 2P/2.2Kw*6P |
| MAKER         | DONG-A                   | LK           | LK                |        |        |        | Texas Instruments | LK                  |

|  |  |                    |          |          |                |                |            |
|--|--|--------------------|----------|----------|----------------|----------------|------------|
| TITLE<br>HOIST POWER & CONTROL CIRCUIT DIAGRAM |  |                    |          |          |                | PROJECTION<br> |            |
| WORK NO.<br>604                                |  | WORK NAME<br>DHDBM |          |          |                | SCALE<br>1/1   | Q' TY<br>1 |
| DRAWN<br>LEE.G.H                               |  | CHECKED            | REVIEWED | APPROVED | MODEL<br>DHDBM | CODE NO.       |            |
| 2010.07.30                                     |  |                    |          |          |                |                |            |
| <b>L K HOIST CO., LTD.</b>                     |  |                    |          |          |                |                |            |

TRAVERSING POWER CIRCUIT

TRAVERSING CONTROL CIRCUIT

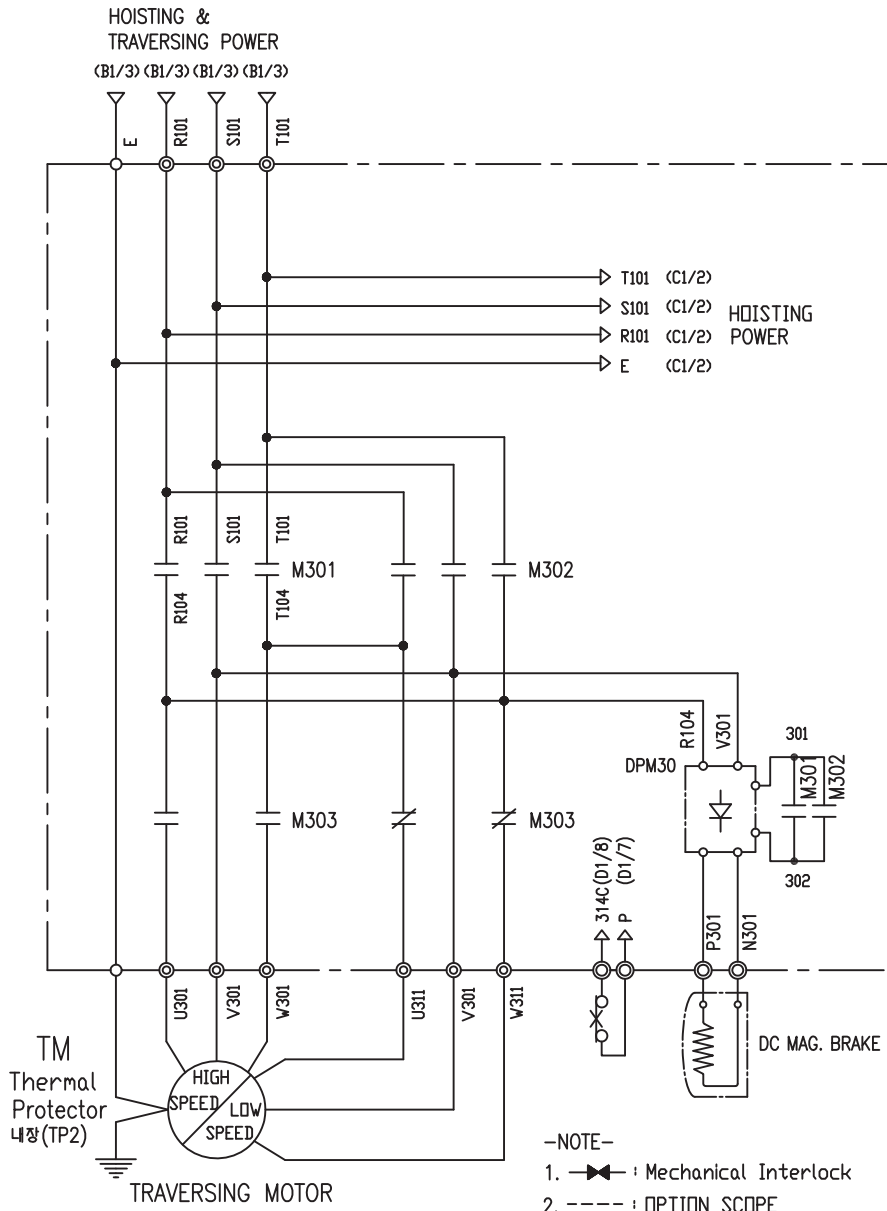


|               |                |                   |                      |
|---------------|----------------|-------------------|----------------------|
| SPECIFICATION | MAGNET CONTACT | Thermal Protector | TRAVERSING MOTOR     |
| SYMBOLS       | M301, M302     | TP2               | TM                   |
| DESCRIPTION   | GMC12 DMC12    | 17AM032           | 0.75KW *4P 0.4KW *6P |
| MAKER         | LS DONGA       | Texas Instruments | LK                   |

|  |         |          |          |         |       |                                |         |
|--|---------|----------|----------|---------|-------|--------------------------------|---------|
| TITLE TRAVERSING MOTOR POWER & CONTROL CIRCUIT DIAGRAM |         |          |          |         |       | PROJECTION                     |         |
| WORK NO 605  |         |          |          |         |       | WORK NAME DHDBM(HOOK간 거리 1M이하) |         |
| 220V, 380V, 440V, 460V, 480V                           |         |          |          |         |       | SCALE 1/1                      | Q' TY 1 |
| DRAWN LEE.G.H  | CHECKED | REVIEWED | APPROVED | MODEL   | DHDBM |                                |         |
| 2010.07.30   |         |          |          | CODE NO |       |                                |         |
| L K HOIST CO., LTD.                                    |         |          |          |         |       |                                |         |

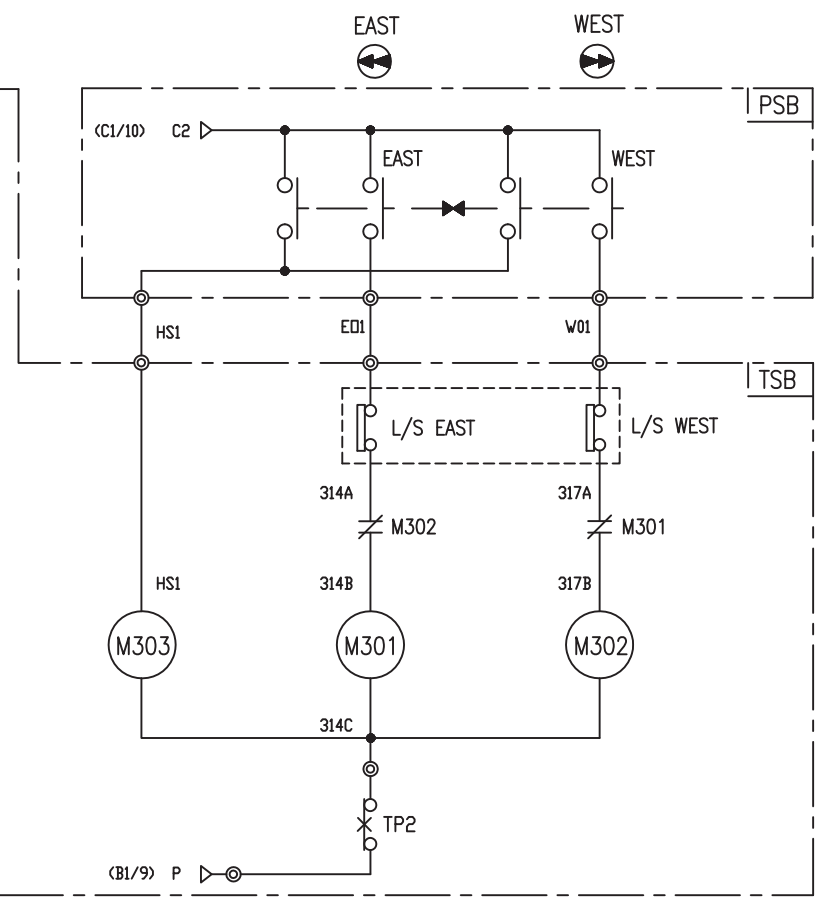
TRAVERSING POWER CIRCUIT

TRAVERSING CONTROL CIRCUIT



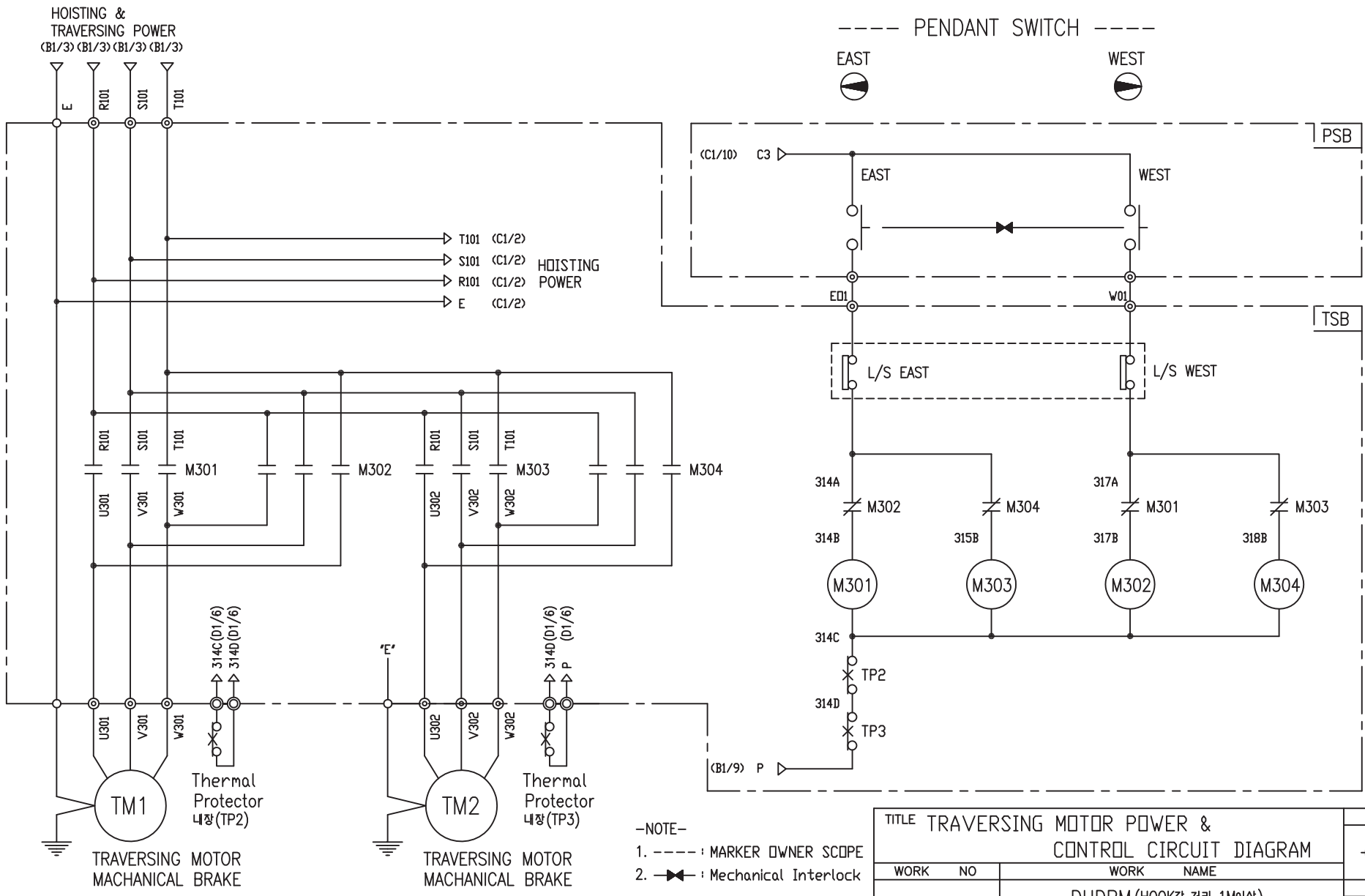
- NOTE-
1. —|> : Mechanical Interlock
  2. - - - - : OPTION SCOPE

----- PENDANT SWITCH -----



|               |                  |                   |                   |        |        |        |        |                  |                    |
|---------------|------------------|-------------------|-------------------|--------|--------|--------|--------|------------------|--------------------|
| SPECIFICATION | MAGNET CONTACT   | Thermal Protector | SILICON RECTIFIER |        |        |        |        | TRAVERSING MOTOR |                    |
| SYMBOLS       | M301, M302, M303 | TP2               | DPM30             |        |        |        |        | TM               |                    |
| DESCRIPTION   | GMC12            | DMC12             | 17AM032           | AC220V | AC380V | AC440V | AC460V | AC480V           | 0.75/0.25KW *4/12P |
|               |                  |                   |                   | DC99V  | DC171V | DC198V | DC207V | DC216V           |                    |
| MAKER         | LS               | DONGA             | Texas Instruments | LK     |        |        |        |                  | LK                 |

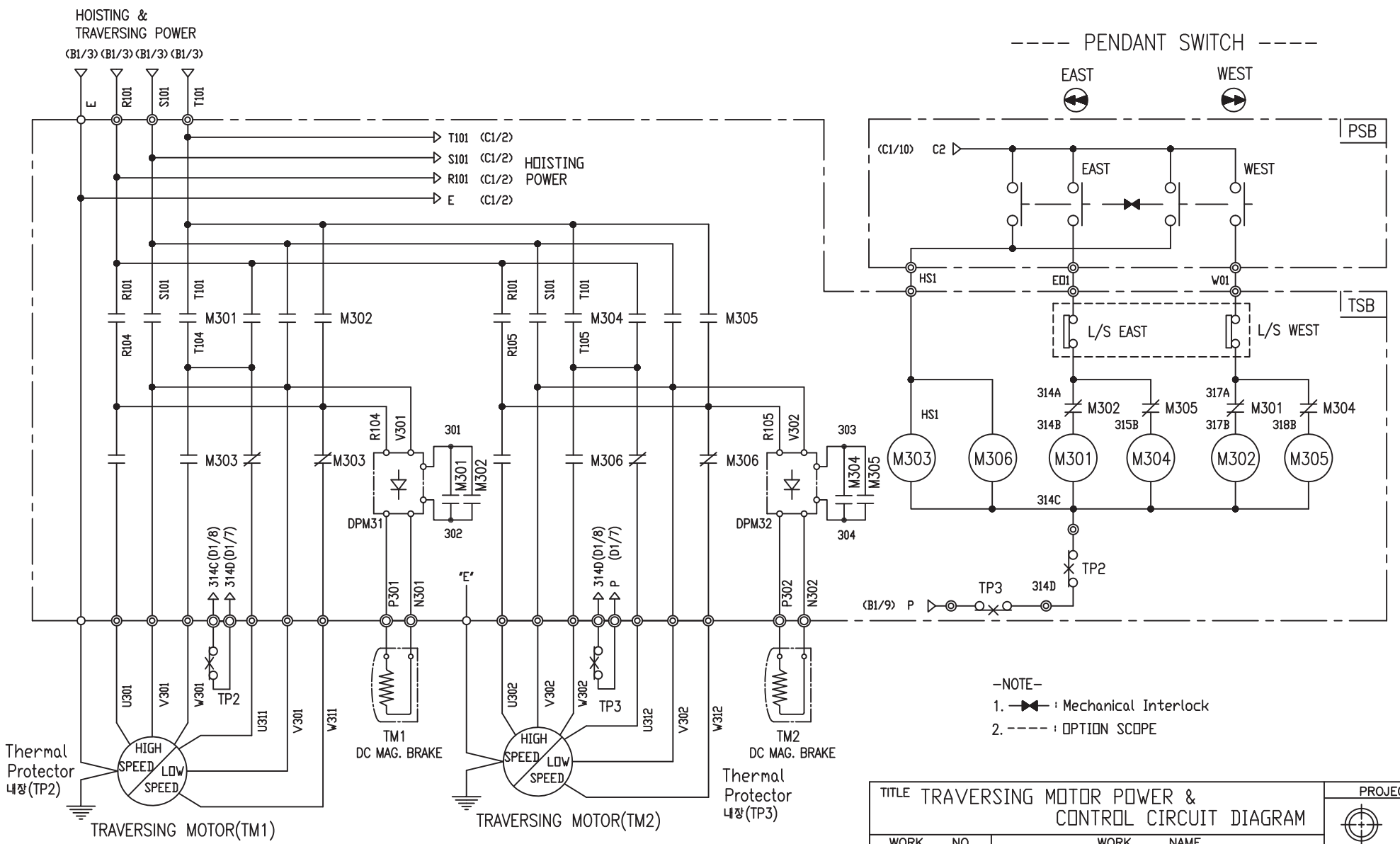
|  |         |                              |          |         |     |            |       |
|--|---------|------------------------------|----------|---------|-----|------------|-------|
| TITLE TRAVERSING MOTOR POWER & CONTROL CIRCUIT DIAGRAM |         |                              |          |         |     | PROJECTION |       |
| WORK NO  |         | WORK NAME                    |          |         |     |            |       |
| 606  |         | DHDBM(HOOK안 거리 1M이하)         |          |         |     | SCALE      | Q' TY |
|  |         | 220V, 380V, 440V, 460V, 480V |          |         |     | 1/1        | 1     |
| DRAWN  | CHECKED | REVIEWED                     | APPROVED | MODEL   | DBM |            |       |
| LEE.G.H  |         |                              |          | CODE NO |     |            |       |
| 2010.07.30   |         |                              |          |         |     |            |       |
| <b>L K HOIST CO., LTD.</b>                             |         |                              |          |         |     |            |       |



—NOTE—  
 1. ----- : MARKER OWNER SCOPE  
 2. —|—|— : Mechanical Interlock

|  |         |                              |          |       |       |            |  |
|--|---------|------------------------------|----------|-------|-------|------------|--|
| TITLE TRAVERSING MOTOR POWER & CONTROL CIRCUIT DIAGRAM |         |                              |          |       |       | PROJECTION |  |
| WORK NO  |         | WORK NAME                    |          |       |       |            |  |
| 607  |         | DHDBM (HOOK간 거리 1M이상)        |          |       |       | SCALE      |  |
|  |         | 220V, 380V, 440V, 460V, 480V |          |       |       | Q' TY      |  |
|  |         |                              |          |       |       | 1/1        |  |
|  |         |                              |          |       |       | 1          |  |
| DRAWN  | CHECKED | REVIEWED                     | APPROVED | MODEL | DHDAM |            |  |
| LEE.G.H  |         |                              |          |       |       | CODE NO    |  |
| 2010.07.30   |         |                              |          |       |       |            |  |
| <b>L K HOIST CO., LTD.</b>                             |         |                              |          |       |       |            |  |

|               |                        |                   |                   |                 |
|---------------|------------------------|-------------------|-------------------|-----------------|
| SPECIFICATION | MAGNET CONTACT         | Thermal Protector | TRAVERSING MOTOR  |                 |
| SYMBOLS       | M301, M302, M303, M304 | TP2, TP3          | TM1, TM2          |                 |
| DESCRIPTION   | GMC12                  | DMC12             | 0.75KW *4P(2set)  | 0.4KW *6P(2set) |
| MAKER         | LS                     | DONGA             | Texas Instruments |                 |
|               |                        |                   | LK                |                 |



-NOTE-

1. ——— : Mechanical Interlock
2. - - - - : OPTION SCOPE

|               |                                      |                   |                   |        |        |        |        |                  |                              |
|---------------|--------------------------------------|-------------------|-------------------|--------|--------|--------|--------|------------------|------------------------------|
| SPECIFICATION | MAGNET CONTACT                       | Thermal Protector | SILICON RECTIFIER |        |        |        |        | TRAVERSING MOTOR |                              |
| SYMBOLS       | M301, M302, M303<br>M304, M305, M306 | TP2, TP3          | DPM31, DPM32      |        |        |        |        | TM1, TM2         |                              |
| DESCRIPTION   | GMC12                                | DMC12             | 17AM032           | AC220V | AC380V | AC440V | AC460V | AC480V           | 0.75/0.25Kw *4/12P<br>(2set) |
|               |                                      |                   |                   | DC99V  | DC171V | DC198V | DC207V | DC216V           |                              |
| MAKER         | LS                                   | DONGA             | Texas Instruments | LK     |        |        |        |                  | LK                           |

|  |         |                              |          |         |       |            |  |
|--|---------|------------------------------|----------|---------|-------|------------|--|
| TITLE TRAVERSING MOTOR POWER & CONTROL CIRCUIT DIAGRAM |         |                              |          |         |       | PROJECTION |  |
| WORK NO  |         | WORK NAME                    |          |         |       |            |  |
| 608  |         | DHDBM (HOOK간 거리 1M이상)        |          |         |       | SCALE      |  |
|  |         | 220V, 380V, 440V, 460V, 480V |          |         |       | Q' TY      |  |
|  |         | 1/1                          |          |         |       | 1          |  |
| DRAWN  | CHECKED | REVIEWED                     | APPROVED | MODEL   | DHDAM |            |  |
| LEE.G.H  |         |                              |          | CODE NO |       |            |  |
| 2010.07.30   |         |                              |          |         |       |            |  |
| <b>L K HOIST CO., LTD.</b>                             |         |                              |          |         |       |            |  |

## SCHEDULE OF TECHNICAL DATA

|   |                             |
|---|-----------------------------|
| 1. SERVICE                                  | HOISTING                    |
| 2. MANUFACTURE                              | LK HOIST CO. LTD            |
| 3. MOTOR MODEL NO                           | 4.4/2.2 - 2/6 - 48          |
| 4. RATED POWER                              | 4.4/2.2 KW × 2/6 P          |
| 5. RATED VOLTAGE AND FREQUENCY              | 480 V      60HZ             |
| 6. MOTOR TYPE                               | SQUIRREL CAGE ROTOR TYPE    |
| 7. RATING                                   | 30 MIN                      |
| 8. LOCATION                                 | OUTDOOR                     |
| 9. INSULATION CLASS                         | B                           |
| 10. DESIGN TEMPERATURE RISE (BY RESISTANCE) | 80℃                         |
| 11. FULL LOAD SPEED                         | 3440/1140 RPM               |
| 12. FULL LOAD CURRENT                       | 10.5/5.1 A                  |
| 13. STARTING CURRENT AT RATED VOLTAGE       | 51/25 A                     |
| 14. MINIMUM STARTING VOLTAGE                | 432 V                       |
| 15. EFFICIENCY AT 100% RATED LOAD           | 73/73 %                     |
| 16. POWER FACTOR AT 100% RATED LOAD         | 71/71 %                     |
| 17. STARTING TORQUE                         | 242 %                       |
| 18. TYPE OF ENCLOSURE                       | 전폐형                         |
| 19. TYPE OF BEARING                         | PL : 6205DD    OPL : 6008ZZ |
| 20. MOUNTING                                | VERTICAL                    |
| 21. MAXIMUM AMBIENT TEMPURE                 | 40℃                         |
| 22. BEARING LUBRICATION                     | GREASE                      |
| 23. STARTING METHOD                         | FULL VOLTAGE                |

## SCHEDULE OF TECHNICAL DATA

|   |                             |
|---|-----------------------------|
| 1. SERVICE                                  | TRAVERSING                  |
| 2. MANUFACTURE                              | LK HOIST CO. LTD            |
| 3. MOTOR MODEL NO                           | 0.75 - 4 - 48               |
| 4. RATED POWER                              | 0.75 KW × 4 P               |
| 5. RATED VOLTAGE AND FREQUENCY              | 480 V      60HZ             |
| 6. MOTOR TYPE                               | SQUIRREL CAGE ROTOR TYPE    |
| 7. RATING                                   | 15 MIN                      |
| 8. LOCATION                                 | OUTDOOR                     |
| 9. INSULATION CLASS                         | B                           |
| 10. DESIGN TEMPERATURE RISE (BY RESISTANCE) | 100℃                        |
| 11. FULL LOAD SPEED                         | 1670 RPM                    |
| 12. FULL LOAD CURRENT                       | 2.2 A                       |
| 13. STARTING CURRENT AT RATED VOLTAGE       | 12.1 A                      |
| 14. MINIMUM STARTING VOLTAGE                | 432 V                       |
| 15. EFFICIENCY AT 100% RATED LOAD           | 65 %                        |
| 16. POWER FACTOR AT 100% RATED LOAD         | 63 %                        |
| 17. STARTING TORQUE                         | 250 %                       |
| 18. TYPE OF ENCLOSURE                       | 전폐형                         |
| 19. TYPE OF BEARING                         | PL : 6008DD    OPL : 6207ZZ |
| 20. MOUNTING                                | VERTICAL                    |
| 21. MAXIMUM AMBIENT TEMPURE                 | 40℃                         |
| 22. BEARING LUBRICATION                     | GREASE                      |
| 23. STARTING METHOD                         | FULL VOLTAGE                |

## SCHEDULE OF TECHNICAL DATA

|   |                             |
|---|-----------------------------|
| 1. SERVICE                                  | TRAVERSING                  |
| 2. MANUFACTURE                              | LK HOIST CO. LTD            |
| 3. MOTOR MODEL NO                           | 0.4 - 6 - 48                |
| 4. RATED POWER                              | 0.4 KW × 6 P                |
| 5. RATED VOLTAGE AND FREQUENCY              | 480 V      60HZ             |
| 6. ROTOR TYPE                               | SQUIRREL CAGE ROTOR TYPE    |
| 7. RATING                                   | 15 MIN                      |
| 8. LOCATION                                 | OUTDOOR                     |
| 9. INSULATION CLASS                         | B                           |
| 10. DESIGN TEMPERATURE RISE (BY RESISTANCE) | 100℃                        |
| 11. FULL LOAD SPEED                         | 1140 RPM                    |
| 12. FULL LOAD CURRENT                       | 1.47 A                      |
| 13. STARTING CURRENT AT RATED VOLTAGE       | 8.1 A                       |
| 14. MINIMUM STARTING VOLTAGE                | 432 V                       |
| 15. EFFICIENCY AT 100% RATED LOAD           | 65 %                        |
| 16. POWER FACTOR AT 100% RATED LOAD         | 63 %                        |
| 17. STARTING TORQUE                         | 249 %                       |
| 18. TYPE OF ENCLOSURE                       | 전폐형                         |
| 19. TYPE OF BEARING                         | PL : 6008DD    OPL : 6207ZZ |
| 20. MOUNTING                                | VERTICAL                    |
| 21. MAXIMUM AMBIENT TEMPERATURE             | 40℃                         |
| 22. BEARING LUBRICATION                     | GREASE                      |
| 23. STARTING METHOD                         | FULL VOLTAGE                |

## SCHEDULE OF TECHNICAL DATA

|   |                             |
|---|-----------------------------|
| 1. SERVICE                                  | TRAVERSING                  |
| 2. MANUFACTURE                              | LK HOIST CO. LTD            |
| 3. MOTOR MODEL NO                           | 0.75/0.25 - 4/12 - 48       |
| 4. RATED POWER                              | 0.75/0.25 KW × 4/12 P       |
| 5. RATED VOLTAGE AND FREQUENCY              | 480 V      60HZ             |
| 6. MOTOR TYPE                               | SQUIRREL CAGE ROTOR TYPE    |
| 7. RATING                                   | 15 MIN                      |
| 8. LOCATION                                 | OUTDOOR                     |
| 9. INSULATION CLASS                         | B                           |
| 10. DESIGN TEMPERATURE RISE (BY RESISTANCE) | 100℃                        |
| 11. FULL LOAD SPEED                         | 1670 / 550 RPM              |
| 12. FULL LOAD CURRENT                       | 2.2 / 1.38 A                |
| 13. STARTING CURRENT AT RATED VOLTAGE       | 12.1 / 7.6 A                |
| 14. MINIMUM STARTING VOLTAGE                | 432 V                       |
| 15. EFFICIENCY AT 100% RATED LOAD           | 65 / 48 %                   |
| 16. POWER FACTOR AT 100% RATED LOAD         | 63 / 45 %                   |
| 17. STARTING TORQUE                         | 250 / 245 %                 |
| 18. TYPE OF ENCLOSURE                       | 전폐형                         |
| 19. TYPE OF BEARING                         | PL : 6008DD    OPL : 6207ZZ |
| 20. MOUNTING                                | VERTICAL                    |
| 21. MAXIMUM AMBIENT TEMPURE                 | 40℃                         |
| 22. BEARING LUBRICATION                     | GREASE                      |
| 23. STARTING METHOD                         | FULL VOLTAGE                |