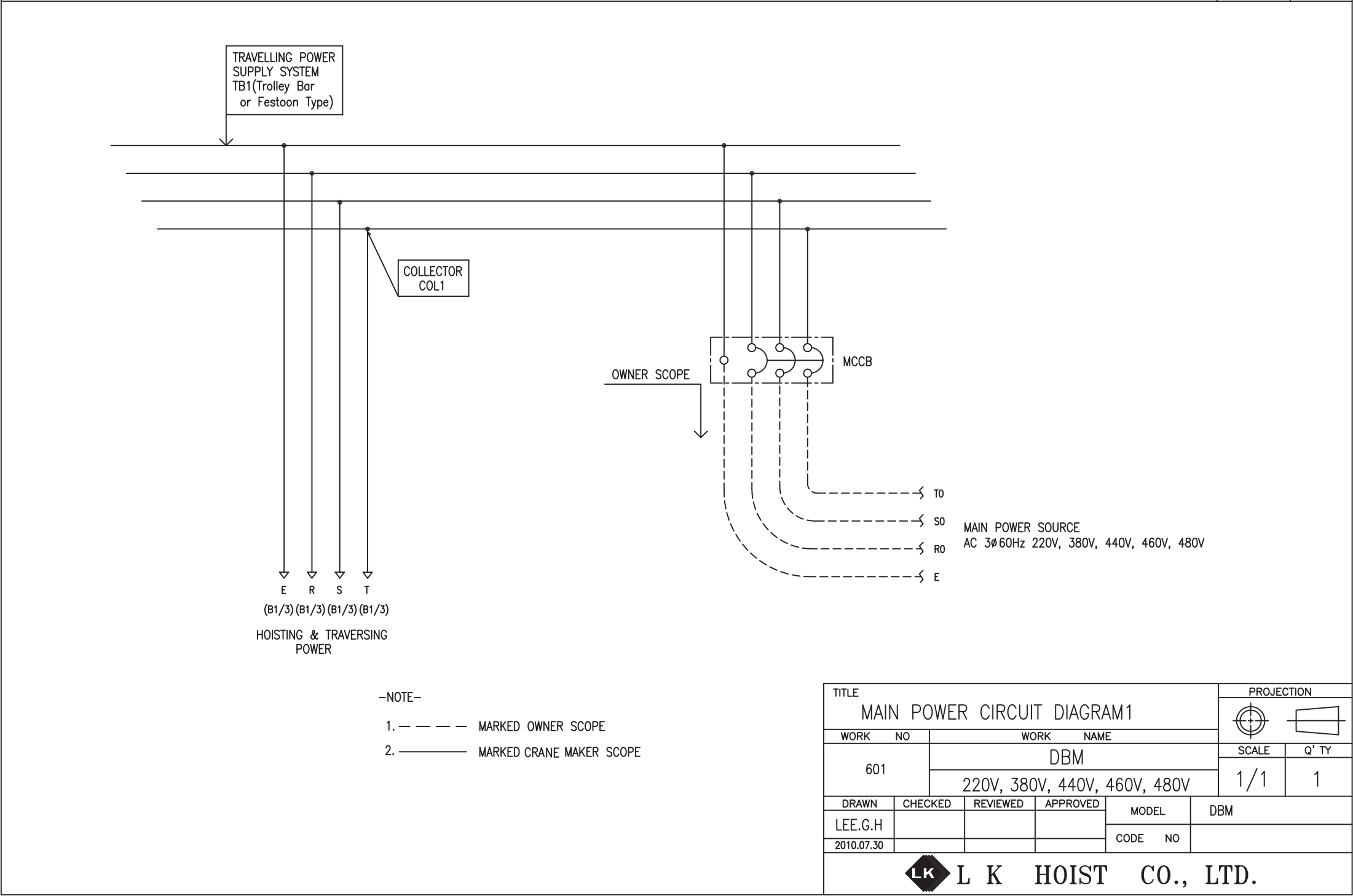
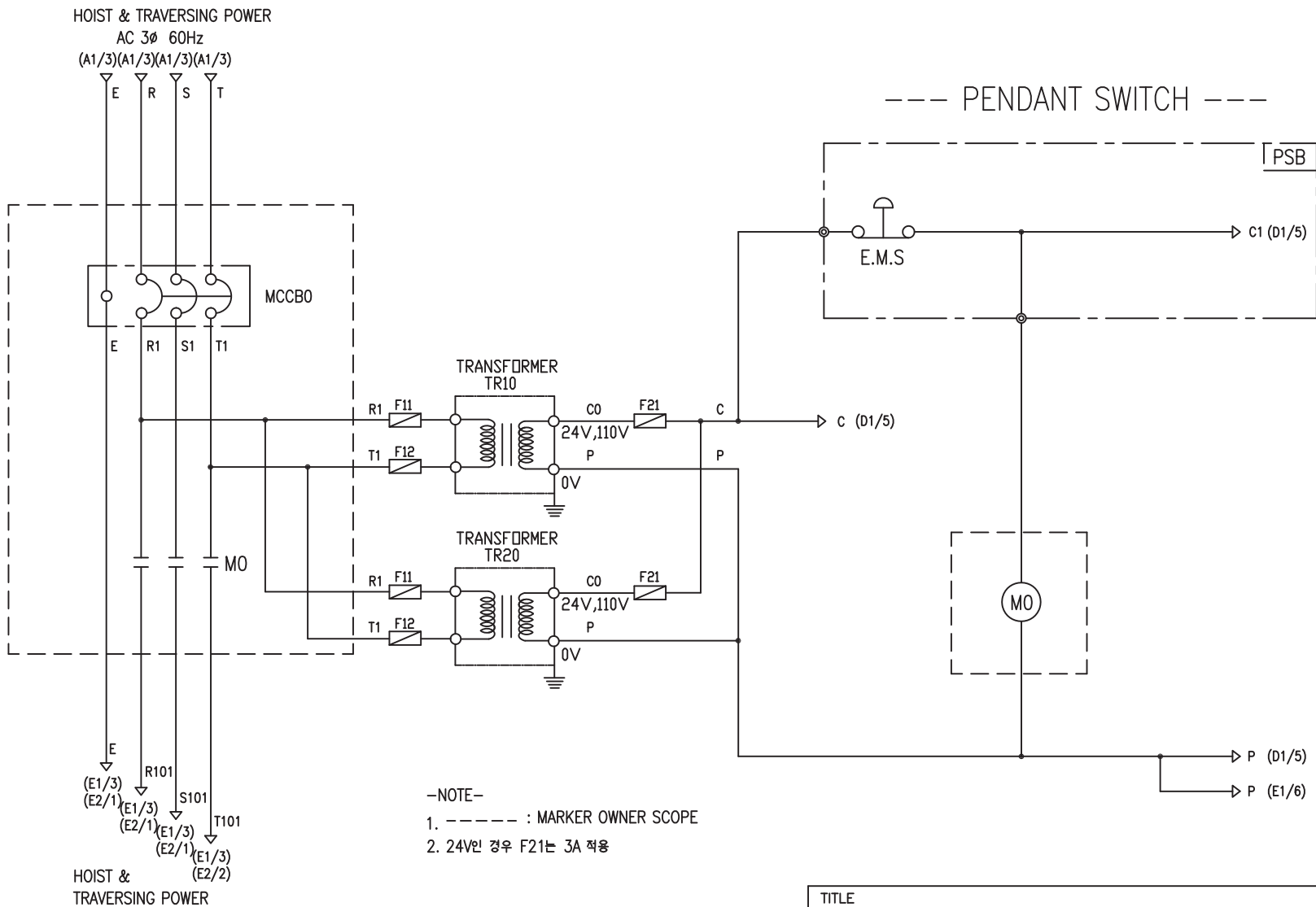
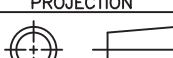


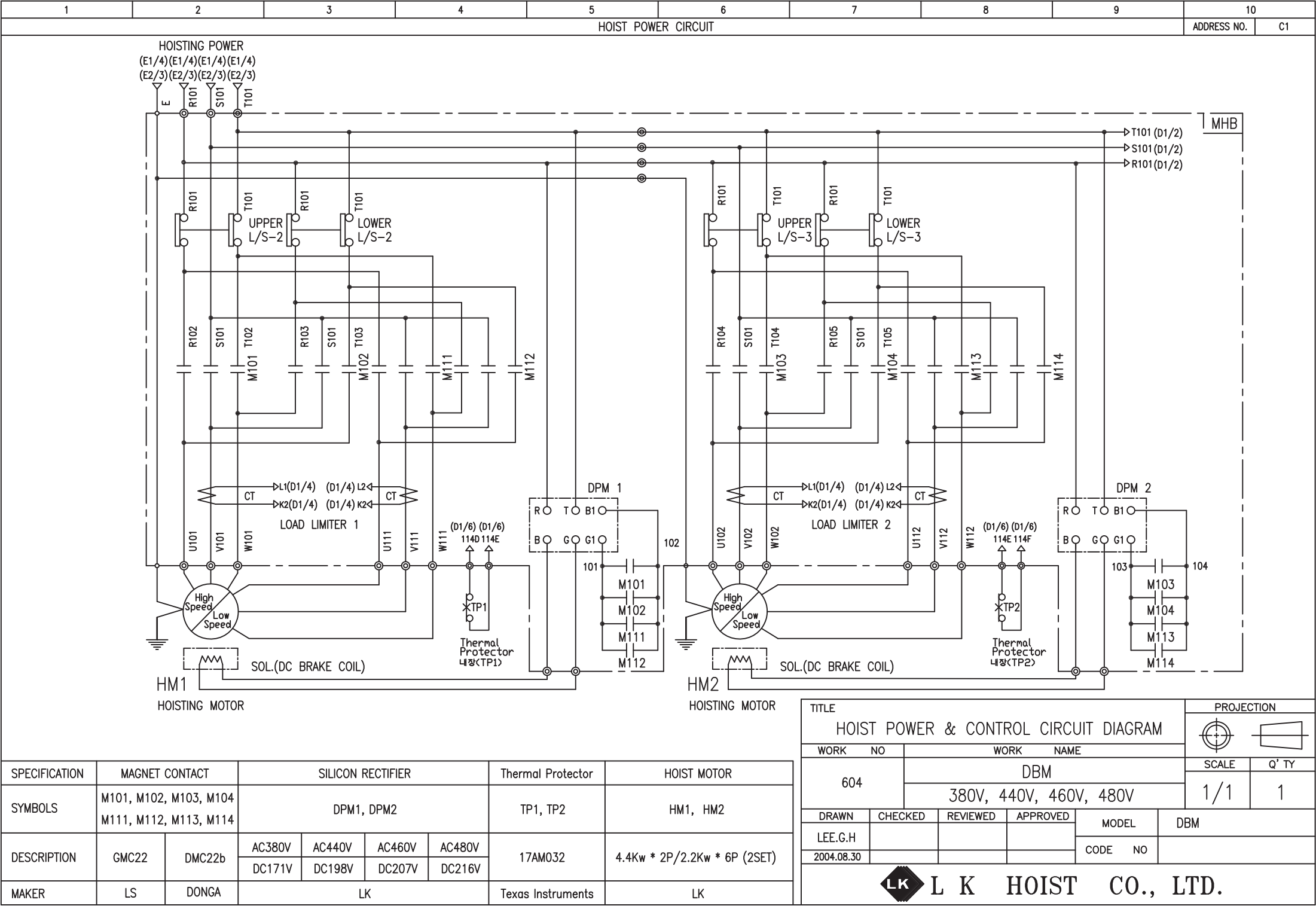


|               |   |   |   |   |                 |   |   |   |    |             |    |
|---------------|---|---|---|---|-----------------|---|---|---|----|-------------|----|
| 1             | 2 | 3 | 4 | 5 | 6               | 7 | 8 | 9 | 10 |             |    |
| POWER CIRCUIT |   |   |   |   | CONTROL CIRCUIT |   |   |   |    | ADDRESS NO. | B1 |

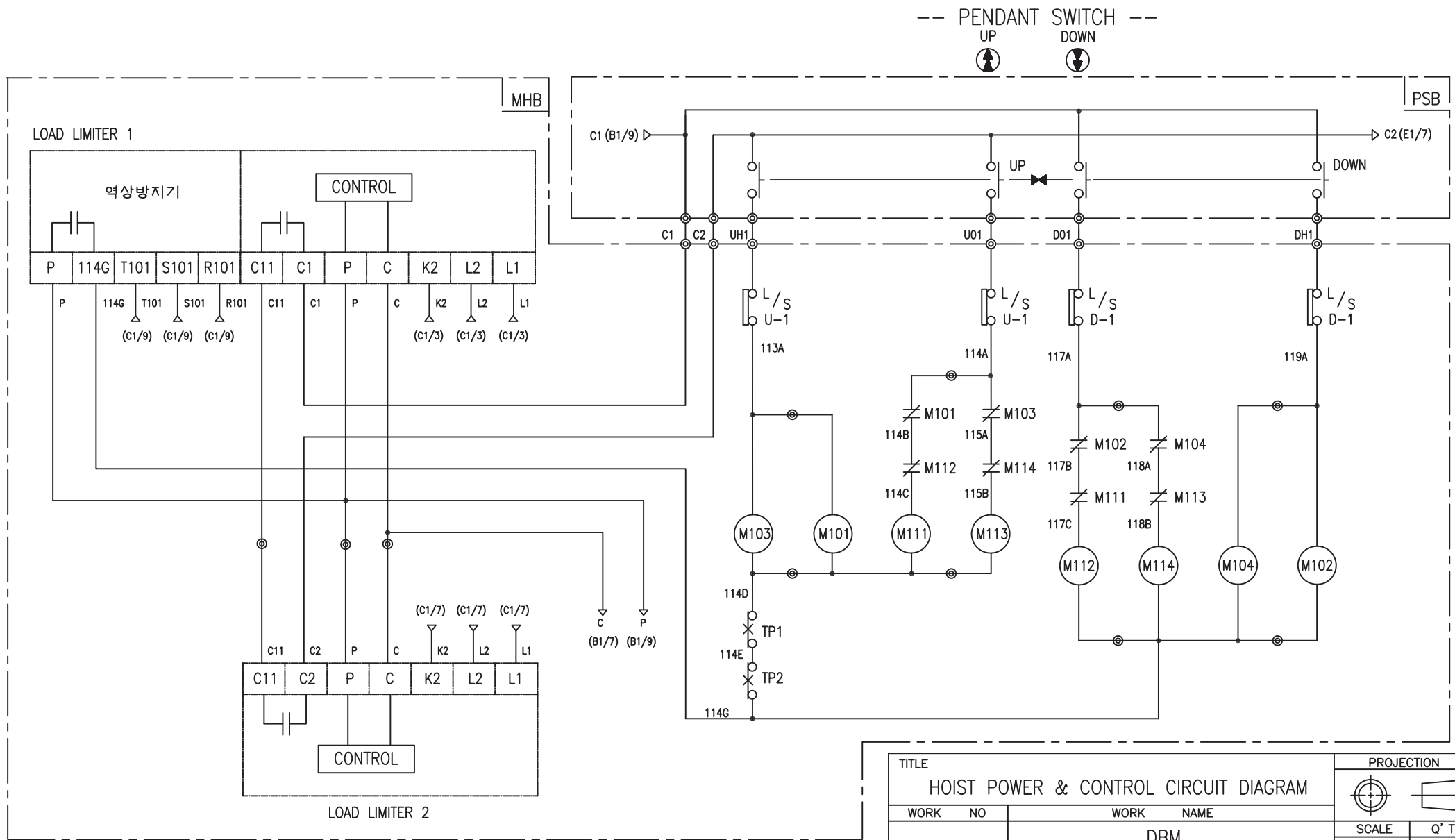


| SPECIFICATION | NO FUSE BREAKER |      | MAGNET CONTACT |        | TRANSFORMER | FUSE          |
|---------------|-----------------|------|----------------|--------|-------------|---------------|
| SYMBOLS       | MCCB0           |      | M0             |        | TR10, TR20  | F11, F12, F21 |
| DESCRIPTION   | 220V            | 100A | GMC40          | DMC40b | 60VA        | 1A            |
|               | 380V            | 75A  |                |        |             |               |
|               | 440V            | 60A  |                |        |             |               |
|               | 460V            | 60A  |                |        |             |               |
|               | 480V            | 60A  |                |        |             |               |
| MAKER         | LS              |      | LS             | DONGA  | LK          | —             |

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



|                       |   |   |   |   |   |   |   |   |             |    |
|-----------------------|---|---|---|---|---|---|---|---|-------------|----|
| 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10          |    |
| HOIST CONTROL CIRCUIT |   |   |   |   |   |   |   |   | ADDRESS NO. | D1 |

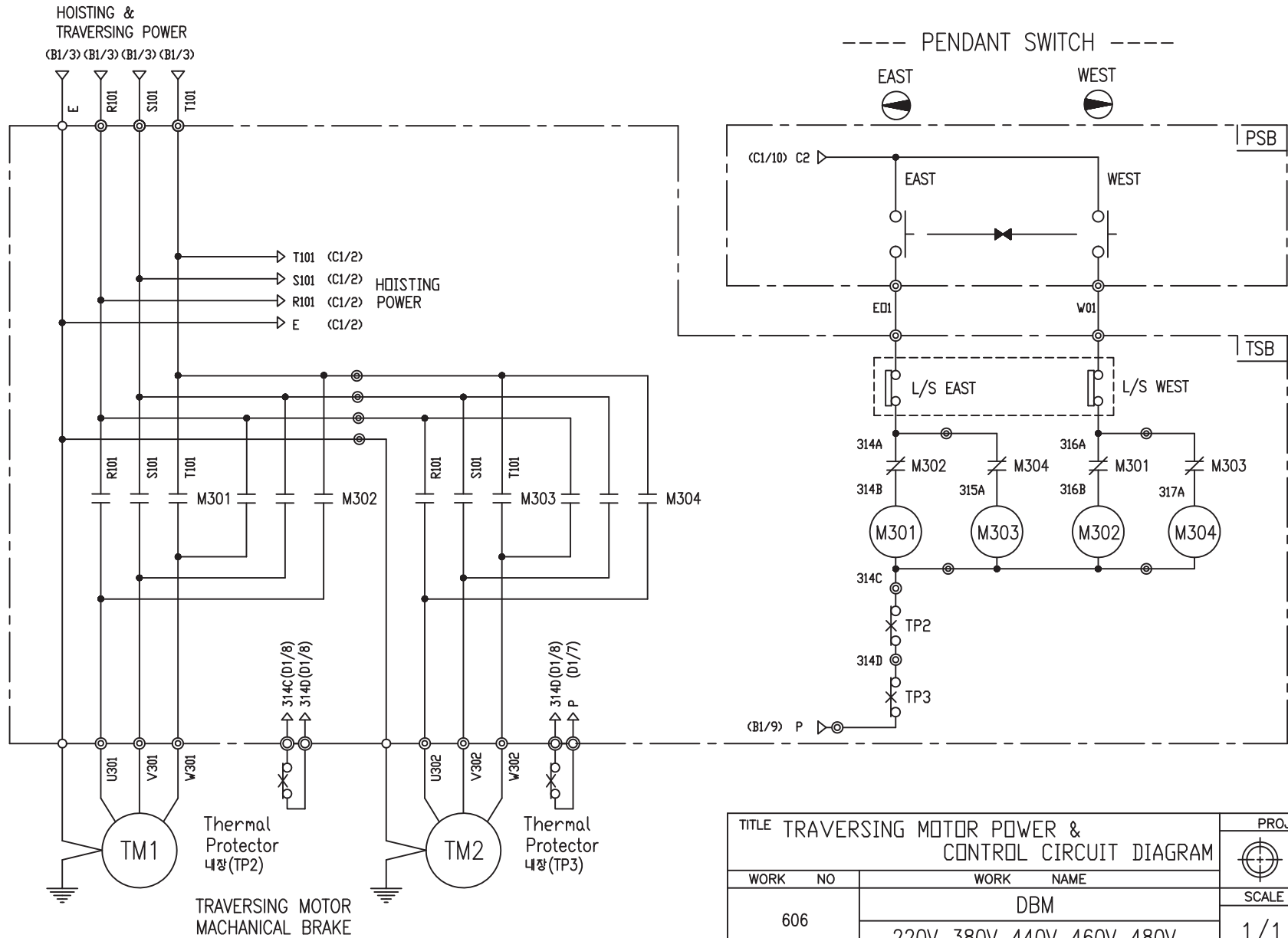


1.  : Mechanical Interlock

| SPECIFICATION | LOAD LIMITER 1 | LOAD LIMITER 2 |
|---------------|----------------|----------------|
| SYMBOLS       | —              | —              |
| DESCRIPTION   | LKDL-601       | LKDL-501       |
| MAKER         | LK             |                |

|                                                                                                                  |         |                              |          |       |                                                                                       |       |
|------------------------------------------------------------------------------------------------------------------|---------|------------------------------|----------|-------|---------------------------------------------------------------------------------------|-------|
| TITLE                                                                                                            |         |                              |          |       | PROJECTION                                                                            |       |
| HOIST POWER & CONTROL CIRCUIT DIAGRAM                                                                            |         |                              |          |       |  |       |
| WORK                                                                                                             | NO      | WORK                         |          |       | NAME                                                                                  |       |
| 605                                                                                                              |         | DBM                          |          |       | SCALE                                                                                 | Q' TY |
|                                                                                                                  |         | 220V, 380V, 440V, 460V, 480V |          |       | 1/1                                                                                   | 1     |
| DRAWN                                                                                                            | CHECKED | REVISED                      | APPROVED | MODEL | DBM10W                                                                                |       |
| LEE.G.H                                                                                                          |         |                              |          | CODE  | NO                                                                                    |       |
| 2010.07.30                                                                                                       |         |                              |          |       |                                                                                       |       |
|  <b>L K HOIST CO., LTD.</b> |         |                              |          |       |                                                                                       |       |

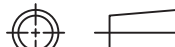
|                          |   |   |   |   |                            |   |   |   |    |             |    |
|--------------------------|---|---|---|---|----------------------------|---|---|---|----|-------------|----|
| 1                        | 2 | 3 | 4 | 5 | 6                          | 7 | 8 | 9 | 10 |             |    |
| TRAVERSING POWER CIRCUIT |   |   |   |   | TRAVERSING CONTROL CIRCUIT |   |   |   |    | ADDRESS NO. | E1 |



|               |                     |       |                   |                  |           |
|---------------|---------------------|-------|-------------------|------------------|-----------|
| SPECIFICATION | MAGNET CONTACT      |       | Thermal Protector | TRAVERSING MOTOR |           |
| SYMBOLS       | M301,M302,M303,M304 |       | TP2, TP3          | TM1, TM2         |           |
| DESCRIPTION   | GMC12               | DMC12 | 17AM032           | 0.75KW *4P       | 0.4KW *6P |
| MAKER         | LS                  | DONGA | Texas Instruments | LK               |           |

1.  : Mechanical Interlock

## 2. ---- : OPTION SCOPE

|                                                                                                                  |         |                              |          |       |     |                                                                                                     |       |
|------------------------------------------------------------------------------------------------------------------|---------|------------------------------|----------|-------|-----|-----------------------------------------------------------------------------------------------------|-------|
| TITLE TRAVERSING MOTOR POWER & CONTROL CIRCUIT DIAGRAM                                                           |         |                              |          |       |     | PROJECTION<br> |       |
| WORK NO                                                                                                          |         | WORK NAME                    |          |       |     |                                                                                                     |       |
| 606                                                                                                              |         | DBM                          |          |       |     | 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> |         |                              |          |       |     |                                                                                                     |       |



|                                             |                             |                 |
|---------------------------------------------|-----------------------------|-----------------|
| SPECIFICATION FOR<br>ELECTRIC MOTORS        | INTERNAL IDENTIFICATION NO. | PAGE :<br>REV : |
| SCHEDULE OF TECHNICAL DATA                  |                             |                 |
| 1. SERVICE                                  | HOISTING                    |                 |
| 2. MANUFACTURE                              | LK HOIST CO. LTD            |                 |
| 3. MOTOR MODEL NO                           | 4.4/2.2 - 2/6 - 44          |                 |
| 4. RATED POWER                              | 4.4/2.2 KW × 2/6 P          |                 |
| 5. RATED VOLTAGE AND FREQUENCY              | 440 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                       | 11.2/5.6 A                  |                 |
| 13. STARTING CURRENT AT RATED VOLTAGE       | 54.9/28.6 A                 |                 |
| 14. MINIMUM STARTING VOLTAGE                | 396 V                       |                 |
| 15. EFFICIENCY AT 100% RATED LOAD           | 73/73 %                     |                 |
| 16. POWER FACTOR AT 100% RATED LOAD         | 71/71 %                     |                 |
| 17. STARTING TORQUE                         | 243 %                       |                 |
| 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                |                 |

|                                             |                             |                 |
|---------------------------------------------|-----------------------------|-----------------|
| SPECIFICATION FOR<br>ELECTRIC MOTORS        | INTERNAL IDENTIFICATION NO. | PAGE :<br>REV : |
| SCHEDULE OF TECHNICAL DATA                  |                             |                 |
| 1. SERVICE                                  | TRAVERSING                  |                 |
| 2. MANUFACTURE                              | LK HOIST CO. LTD            |                 |
| 3. MOTOR MODEL NO                           | 0.75 - 4 - 44               |                 |
| 4. RATED POWER                              | 0.75 KW × 4 P               |                 |
| 5. RATED VOLTAGE AND FREQUENCY              | 440 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                       | 2.4 A                       |                 |
| 13. STARTING CURRENT AT RATED VOLTAGE       | 13.2 A                      |                 |
| 14. MINIMUM STARTING VOLTAGE                | 396 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 TEMPURE                 | 40℃                         |                 |
| 22. BEARING LUBRICATION                     | GREASE                      |                 |
| 23. STARTING METHOD                         | FULL VOLTAGE                |                 |

|                                             |                             |                 |
|---------------------------------------------|-----------------------------|-----------------|
| SPECIFICATION FOR<br>ELECTRIC MOTORS        | INTERNAL IDENTIFICATION NO. | PAGE :<br>REV : |
| SCHEDULE OF TECHNICAL DATA                  |                             |                 |
| 1. SERVICE                                  | TRAVERSING                  |                 |
| 2. MANUFACTURE                              | LK HOIST CO. LTD            |                 |
| 3. MOTOR MODEL NO                           | 0.4 - 6 - 44                |                 |
| 4. RATED POWER                              | 0.4 KW × 6 P                |                 |
| 5. RATED VOLTAGE AND FREQUENCY              | 440 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                       | 1.6 A                       |                 |
| 13. STARTING CURRENT AT RATED VOLTAGE       | 8.8 A                       |                 |
| 14. MINIMUM STARTING VOLTAGE                | 396 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 TEMPERATURE             | 40℃                         |                 |
| 22. BEARING LUBRICATION                     | GREASE                      |                 |
| 23. STARTING METHOD                         | FULL VOLTAGE                |                 |

|                                             |                             |                 |
|---------------------------------------------|-----------------------------|-----------------|
| SPECIFICATION FOR<br>ELECTRIC MOTORS        | INTERNAL IDENTIFICATION NO. | PAGE :<br>REV : |
| SCHEDULE OF TECHNICAL DATA                  |                             |                 |
| 1. SERVICE                                  | TRAVERSING                  |                 |
| 2. MANUFACTURE                              | LK HOIST CO. LTD            |                 |
| 3. MOTOR MODEL NO                           | 0.75/0.25 - 4/12 - 44       |                 |
| 4. RATED POWER                              | 0.75/0.25 KW × 4/12 P       |                 |
| 5. RATED VOLTAGE AND FREQUENCY              | 440 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                       | 2.4 / 1.5 A                 |                 |
| 13. STARTING CURRENT AT RATED VOLTAGE       | 13.2 / 8.25 A               |                 |
| 14. MINIMUM STARTING VOLTAGE                | 396 V                       |                 |
| 15. EFFICIENCY AT 100% RATED LOAD           | 65 / 48 %                   |                 |
| 16. POWER FACTOR AT 100% RATED LOAD         | 63 / 46 %                   |                 |
| 17. STARTING TORQUE                         | 250 / 243 %                 |                 |
| 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                |                 |