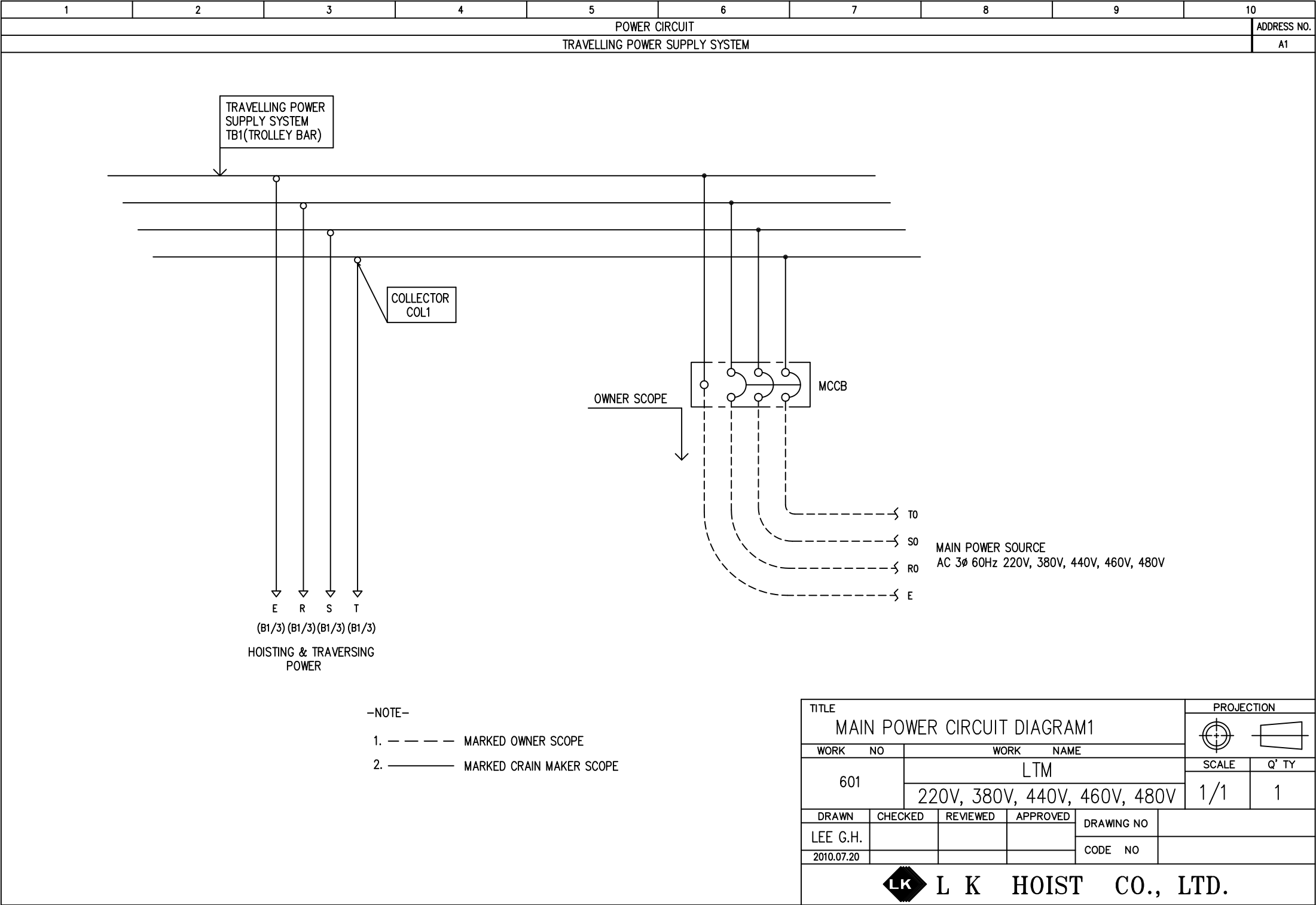
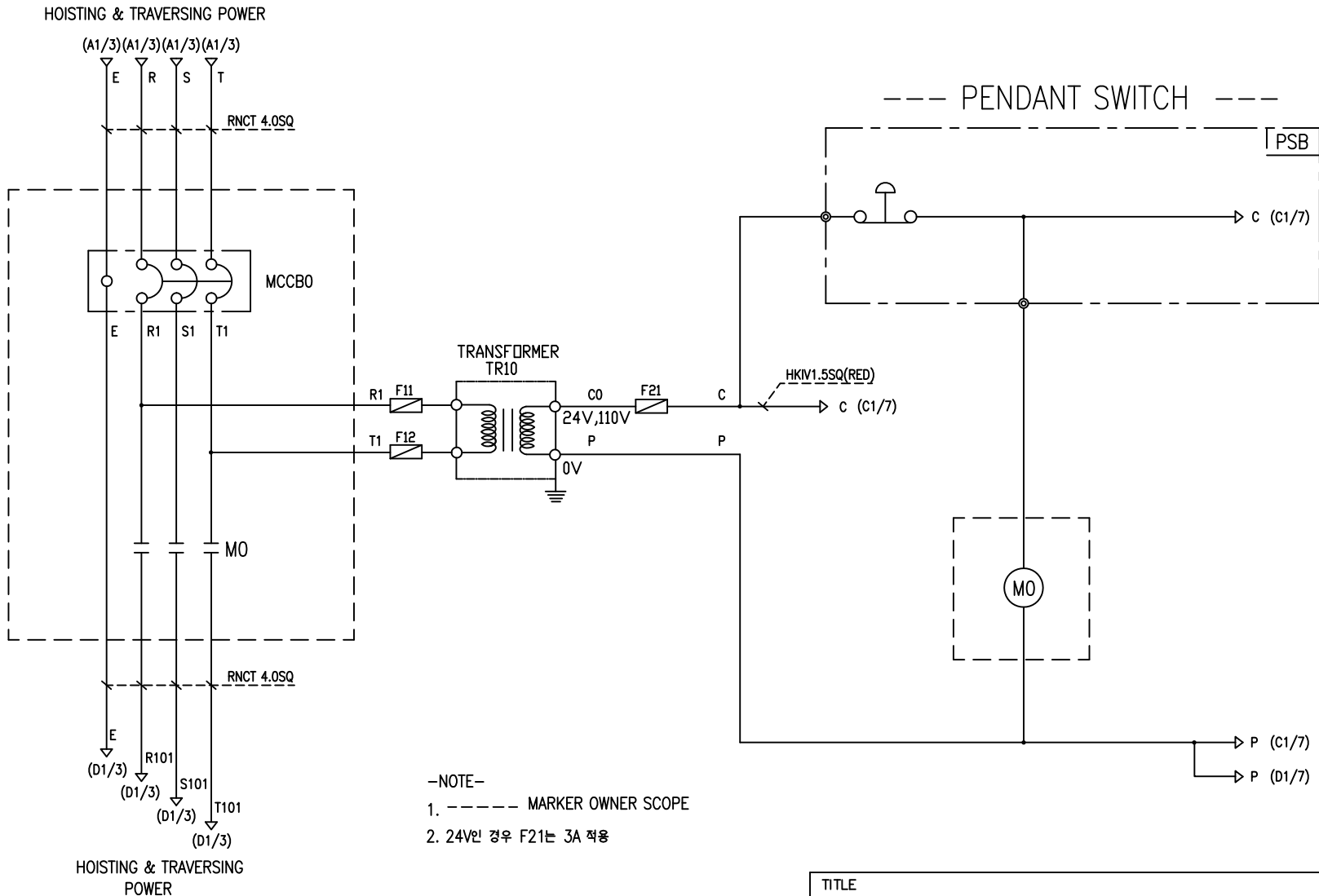
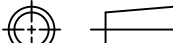


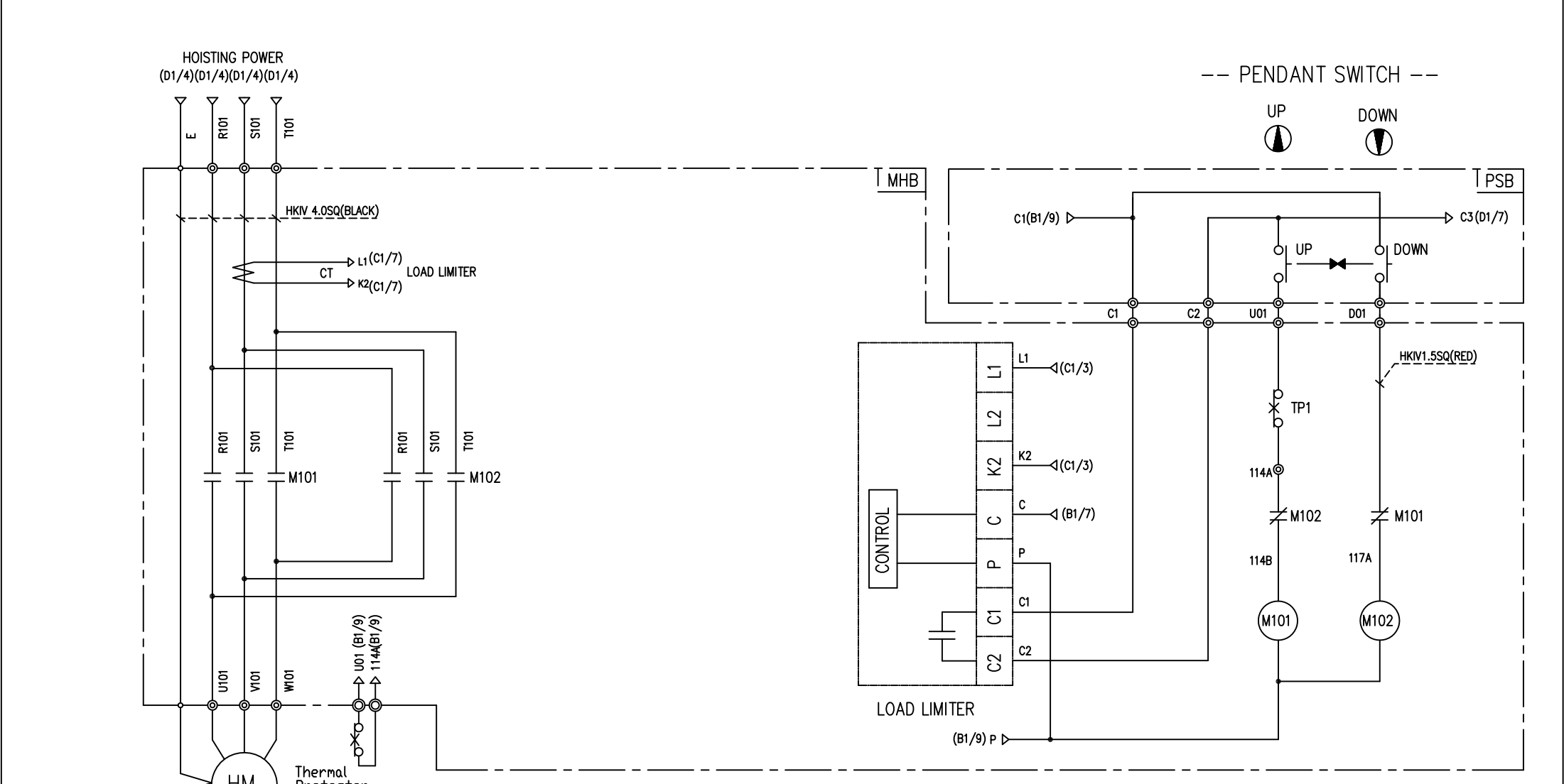


|               |   |   |   |   |                 |   |   |   |    |             |    |
|---------------|---|---|---|---|-----------------|---|---|---|----|-------------|----|
| 1             | 2 | 3 | 4 | 5 | 6               | 7 | 8 | 9 | 10 |             |    |
| POWER CIRCUIT |   |   |   |   | CONTROL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



| SPECIFICATION | NO FUSE BREAKER |     | MAGNET CONTACT |       | TRANSFORMER | FUSE          |
|---------------|-----------------|-----|----------------|-------|-------------|---------------|
| SYMBOLS       | MCCB0           |     | M0             |       | TR10        | F11, F12, F21 |
| DESCRIPTION   | 220V            | 20A | GMC18          | DMC18 | 30VA        | 1A            |
|               | 380V            | 15A |                |       |             |               |
|               | 440V            | 10A |                |       |             |               |
|               | 460V            | 10A |                |       |             |               |
|               | 480V            | 10A |                |       |             |               |
| MAKER         | LS              |     | LS             | DONGA | LK          | —             |

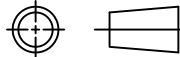
|                                                                                                           |         |                              |          |            |                                                                                       |  |
|-----------------------------------------------------------------------------------------------------------|---------|------------------------------|----------|------------|---------------------------------------------------------------------------------------|--|
| TITLE                                                                                                     |         |                              |          |            | PROJECTION                                                                            |  |
| MAIN POWER & CONTROL CIRCUIT DIAGRAM                                                                      |         |                              |          |            |  |  |
| WORK NO                                                                                                   |         | WORK NAME                    |          |            | SCALE                                                                                 |  |
| 602                                                                                                       |         | LTM                          |          |            | Q' TY                                                                                 |  |
|                                                                                                           |         | 220V, 380V, 440V, 460V, 480V |          |            | 1/1                                                                                   |  |
| DRAWN                                                                                                     | CHECKED | REVIEWED                     | APPROVED | DRAWING NO | LTM                                                                                   |  |
| LEE.G.H                                                                                                   |         |                              |          | CODE NO    |                                                                                       |  |
| 2010.07.20                                                                                                |         |                              |          |            |                                                                                       |  |
|  L K HOIST CO., LTD. |         |                              |          |            |                                                                                       |  |

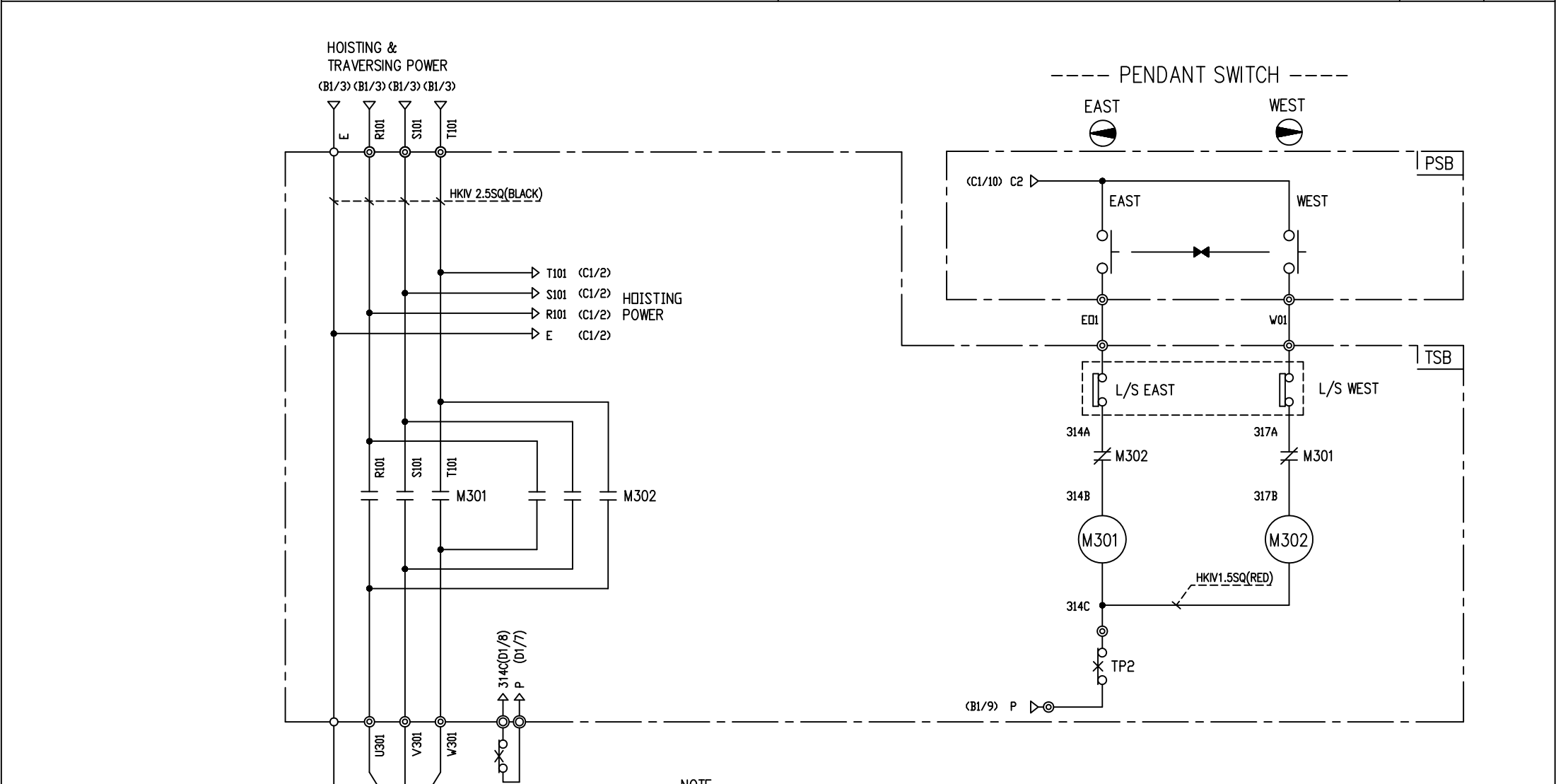


-NOTE-

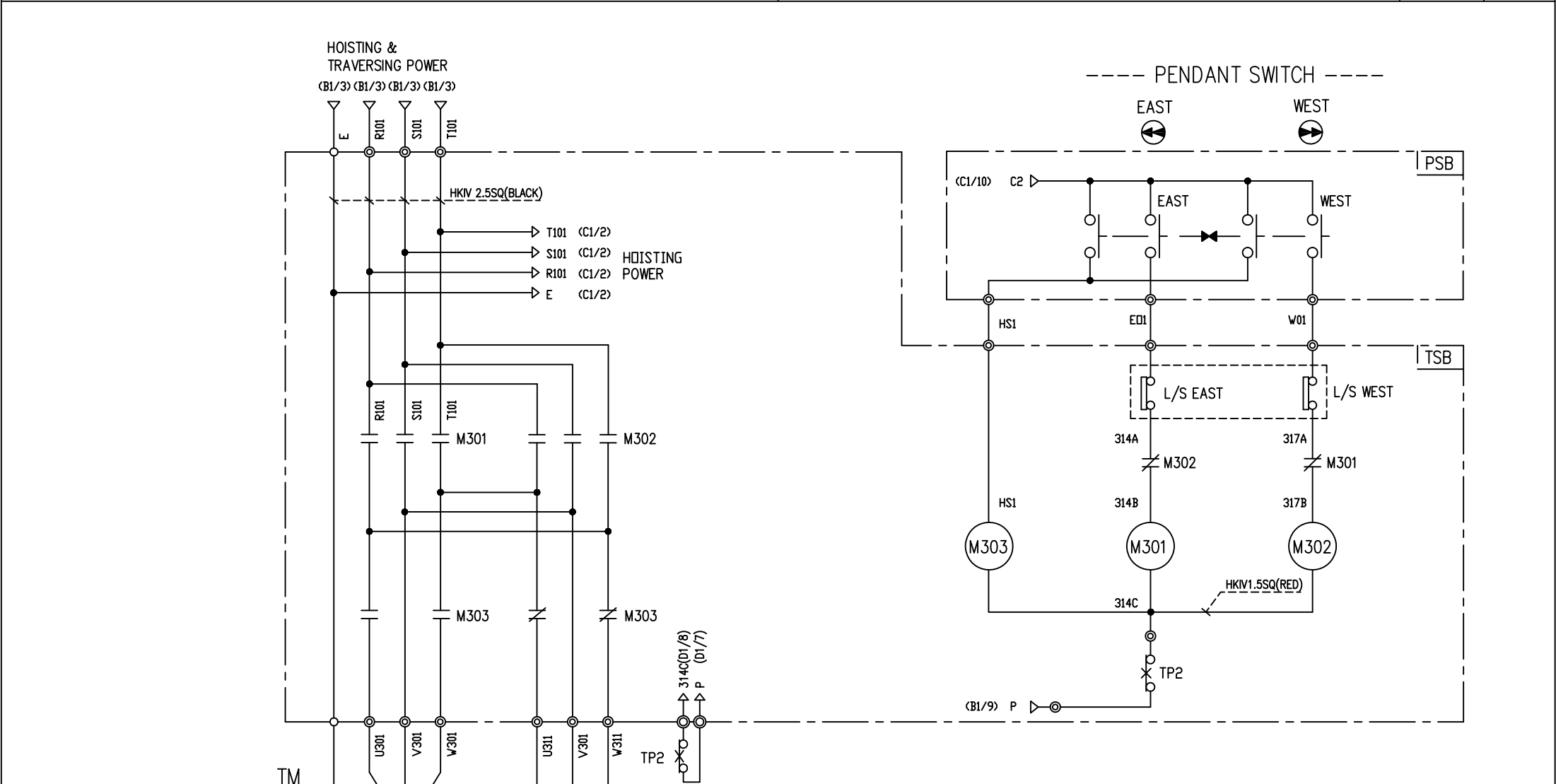
1.  : Mechanical Interlock

| SPECIFICATION | MAGNET CONTACT |       | LOAD LIMITER | Thermal Protector | HOIST MOTOR |            |
|---------------|----------------|-------|--------------|-------------------|-------------|------------|
| SYMBOLS       | M101, M102     |       | -            | TP1               | HM          |            |
| DESCRIPTION   | GMC12          | DMC12 | LKDL-50A     | 17AM032           | 1.8Kw * 4P  | 1.2Kw * 6P |
| MAKER         | LS             | DONGA | YANG-YEONG   | Texas Instruments | LK          |            |

|                                                                                                           |         |                              |          |         |  |                                                                                       |  |
|-----------------------------------------------------------------------------------------------------------|---------|------------------------------|----------|---------|--|---------------------------------------------------------------------------------------|--|
| TITLE                                                                                                     |         |                              |          |         |  | PROJECTION                                                                            |  |
| HOIST POWER & CONTROL CIRCUIT DIAGRAM                                                                     |         |                              |          |         |  |  |  |
| WORK NO                                                                                                   |         | WORK NAME                    |          |         |  | SCALE                                                                                 |  |
| 603                                                                                                       |         | LTM                          |          |         |  | Q' TY                                                                                 |  |
|                                                                                                           |         | 220V, 380V, 440V, 460V, 480V |          |         |  | 1/1                                                                                   |  |
| DRAWN                                                                                                     | CHECKED | REVIEWED                     | APPROVED | MODEL   |  | LTM                                                                                   |  |
| LEE.G.H                                                                                                   |         |                              |          | CODE NO |  |                                                                                       |  |
| 2010.07.20                                                                                                |         |                              |          |         |  |                                                                                       |  |
|  L K HOIST CO., LTD. |         |                              |          |         |  |                                                                                       |  |



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|               |                  |                   |                  |
|---------------|------------------|-------------------|------------------|
| SPECIFICATION | MAGNET CONTACT   | Thermal Protector | TRAVERSING MOTOR |
| SYMBOLS       | M301, M302, M303 | TP2               | TM               |
| DESCRIPTION   | GMC12    DMC12   | 17AM032           | 0.3/0.15KW *2/8P |
| MAKER         | LS        DONGA  | Texas Instruments | LK               |

---NOTE---

1. : Mechanical Interlock

2. ---- : OPTION SCOPE

|                                                        |                              |          |          |            |       |
|--------------------------------------------------------|------------------------------|----------|----------|------------|-------|
| TITLE TRAVERSING MOTOR POWER & CONTROL CIRCUIT DIAGRAM |                              |          |          | PROJECTION |       |
| WORK NO                                                | WORK NAME                    |          |          |            |       |
| 605                                                    | LTM                          |          |          | SCALE      | Q' TY |
|                                                        | 220V, 380V, 440V, 460V, 480V |          |          | 1/1        | 1     |
| DRAWN                                                  | CHECKED                      | REVIEWED | APPROVED | MODEL      | LTM   |
| LEE.G.H                                                |                              |          |          | CODE NO    |       |
| 2010.07.20                                             |                              |          |          |            |       |
|                                                        |                              |          |          |            |       |

|                                             |                             |                 |
|---------------------------------------------|-----------------------------|-----------------|
| 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                           | 1.8 - 4 - 44                |                 |
| 4. RATED POWER                              | 1.8 KW × 4 P                |                 |
| 5. RATED VOLTAGE AND FREQUENCY              | 440 V      60HZ             |                 |
| 6. MOTOR TYPE                               | SQUIRREL CAGE ROTOR TYPE    |                 |
| 7. RATING                                   | 30 MIN                      |                 |
| 8. LOCATION                                 | IN-DOOR , OUTDOOR           |                 |
| 9. INSULATION CLASS                         | B                           |                 |
| 10. DESIGN TEMPERATURE RISE (BY RESISTANCE) | 80℃                         |                 |
| 11. FULL LOAD SPEED                         | 1720 RPM                    |                 |
| 12. FULL LOAD CURRENT                       | 4.3 A                       |                 |
| 13. STARTING CURRENT AT RATED VOLTAGE       | 21.1 A                      |                 |
| 14. MINIMUM STARTING VOLTAGE                | 396 V                       |                 |
| 15. EFFICIENCY AT 100% RATED LOAD           | 69.5 %                      |                 |
| 16. POWER FACTOR AT 100% RATED LOAD         | 66.7 %                      |                 |
| 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℃                         |                 |
| 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                                  | HOISTING                    |                 |
| 2. MANUFACTURE                              | LK HOIST CO. LTD            |                 |
| 3. MOTOR MODEL NO                           | 1.2 - 6 - 44                |                 |
| 4. RATED POWER                              | 1.2 KW × 6 P                |                 |
| 5. RATED VOLTAGE AND FREQUENCY              | 440 V      60HZ             |                 |
| 6. MOTOR TYPE                               | SQUIRREL CAGE ROTOR TYPE    |                 |
| 7. RATING                                   | 30 MIN                      |                 |
| 8. LOCATION                                 | IN-DOOR , OUTDOOR           |                 |
| 9. INSULATION CLASS                         | B                           |                 |
| 10. DESIGN TEMPERATURE RISE (BY RESISTANCE) | 80℃                         |                 |
| 11. FULL LOAD SPEED                         | 1150 RPM                    |                 |
| 12. FULL LOAD CURRENT                       | 4.5 A                       |                 |
| 13. STARTING CURRENT AT RATED VOLTAGE       | 22.5 A                      |                 |
| 14. MINIMUM STARTING VOLTAGE                | 395 V                       |                 |
| 15. EFFICIENCY AT 100% RATED LOAD           | 67.9 %                      |                 |
| 16. POWER FACTOR AT 100% RATED LOAD         | 64.4 %                      |                 |
| 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℃                         |                 |
| 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                           | 0.3 - 2 - 44                |                 |
| 4. RATED POWER                              | 0.3 KW × 2 P                |                 |
| 5. RATED VOLTAGE AND FREQUENCY              | 440 V      60HZ             |                 |
| 6. MOTOR TYPE                               | SQUIRREL CAGE ROTOR TYPE    |                 |
| 7. RATING                                   | 15 MIN                      |                 |
| 8. LOCATION                                 | IN-DOOR , OUTDOOR           |                 |
| 9. INSULATION CLASS                         | B                           |                 |
| 10. DESIGN TEMPERATURE RISE (BY RESISTANCE) | 100℃                        |                 |
| 11. FULL LOAD SPEED                         | 3440 RPM                    |                 |
| 12. FULL LOAD CURRENT                       | 1.3 A                       |                 |
| 13. STARTING CURRENT AT RATED VOLTAGE       | 6.5 A                       |                 |
| 14. MINIMUM STARTING VOLTAGE                | 396 V                       |                 |
| 15. EFFICIENCY AT 100% RATED LOAD           | 56.5 %                      |                 |
| 16. POWER FACTOR AT 100% RATED LOAD         | 55.7 %                      |                 |
| 17. STARTING TORQUE                         | 232 %                       |                 |
| 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                           | 0.2 - 4 - 44                |                 |
| 4. RATED POWER                              | 0.2 KW × 4 P                |                 |
| 5. RATED VOLTAGE AND FREQUENCY              | 440 V                       | 60HZ            |
| 6. MOTOR TYPE                               | SQUIRREL CAGE ROTOR TYPE    |                 |
| 7. RATING                                   | 15 MIN                      |                 |
| 8. LOCATION                                 | IN-DOOR , OUTDOOR           |                 |
| 9. INSULATION CLASS                         | B                           |                 |
| 10. DESIGN TEMPERATURE RISE (BY RESISTANCE) | 100℃                        |                 |
| 11. FULL LOAD SPEED                         | 1690 RPM                    |                 |
| 12. FULL LOAD CURRENT                       | 1.0 A                       |                 |
| 13. STARTING CURRENT AT RATED VOLTAGE       | 4.9 A                       |                 |
| 14. MINIMUM STARTING VOLTAGE                | 396 V                       |                 |
| 15. EFFICIENCY AT 100% RATED LOAD           | 52.2 %                      |                 |
| 16. POWER FACTOR AT 100% RATED LOAD         | 50.3 %                      |                 |
| 17. STARTING TORQUE                         | 232 %                       |                 |
| 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                           | 0.3/0.15 - 2/8 - 44         |                 |
| 4. RATED POWER                              | 0.3/0.15 KW × 2/8 P         |                 |
| 5. RATED VOLTAGE AND FREQUENCY              | 440 V      60HZ             |                 |
| 6. MOTOR TYPE                               | SQUIRREL CAGE ROTOR TYPE    |                 |
| 7. RATING                                   | 15 MIN                      |                 |
| 8. LOCATION                                 | IN-DOOR , OUTDOOR           |                 |
| 9. INSULATION CLASS                         | B                           |                 |
| 10. DESIGN TEMPERATURE RISE (BY RESISTANCE) | 100℃                        |                 |
| 11. FULL LOAD SPEED                         | 3440 / 840 RPM              |                 |
| 12. FULL LOAD CURRENT                       | 1.3 / 1.2 A                 |                 |
| 13. STARTING CURRENT AT RATED VOLTAGE       | 6.7 / 5.7 A                 |                 |
| 14. MINIMUM STARTING VOLTAGE                | 396 V                       |                 |
| 15. EFFICIENCY AT 100% RATED LOAD           | 56.5 / 41.5 %               |                 |
| 16. POWER FACTOR AT 100% RATED LOAD         | 53.6 / 39.5 %               |                 |
| 17. STARTING TORQUE                         | 232 / 234 %                 |                 |
| 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                |                 |