

## SPECIFIC REGISTRATION REQUIREMENTS FOR MECHANICAL & ELECTRICAL WORKHEAD (ME)

Workhead	Title	Description
ME01	Air-conditioning, Refrigeration & Ventilation Works	The installation, commissioning, maintenance and repairs of air-conditioning, refrigeration, cold rooms, cooling towers, heating and ventilation systems.
ME02	Building Automation, Industrial & Process Control Systems	Installation and maintenance of microprocessor or computer based building control systems (e.g. integrated environmental control, fire and security computer control system), industrial process control systems. Firms involved in supply of control instruments and equipment should register themselves under SY05.
ME03	Solar PV and System Integration	Installation, testing, commissioning, maintenance and repair of ground / building-mounted grid-connected solar PV systems for electricity generation.
ME04	Communication & Security Systems	(a) Installation and maintenance of communications system (e.g. intercom & wireless radio) and security systems (e.g. CCTV, security alarm, car park security control and card access system). (b) Installation and maintenance of Central Antenna Television (CATV) systems.
ME05	Electrical Engineering	The installation, testing, commissioning, maintenance and repair of electrical based systems such as switchgears, transformers and large generators. It also includes the electrical installations (e.g. lightings) in building and marine vessels. Suppliers should register under the relevant SY04 or SY05.
ME06	Fire Prevention & Protection Systems	Installation and maintenance of fire alarm, prevention and protection systems. This head may include the supply of fire extinguishers and fire hoses if these items are part and parcel of the system installation or maintenance contract. Supplier of fire extinguishers and fire hoses should register under Government Supplier Registration at <a href="https://www.gebiz.gov.sg/">https://www.gebiz.gov.sg/</a>
ME07	High & Low Tension Overhead Line Installation	(a) Installation and maintenance of low and high-tension overhead cables. (b) Installation and maintenance of street lighting. (c) Installation and maintenance of poles for overhead cable and street lighting.
ME08	Internal Telephone Wiring for Telecommunications	Wiring work within a building for telecommunications purposes. Applicants must possess a valid IDA telecommunication wiring contractor's licence.
ME09	Lift & Escalator Installation and maintenance	This covers the installation, commissioning and maintenance of lifts, escalators and travellers. Applicants carrying out installation, commissioning and maintenance of lifts or escalators are also required to obtain RW02 (Lift Contractors) or RW03 (Escalator Contractors) respectively.
ME10	Line Plant Cabling/ Wiring for Telecommunications	Laying of underground telecommunication cables.
ME11	Mechanical Engineering	The installation, commissioning, maintenance and repair of mechanical plant, machinery and systems. It includes the installation and maintenance of power generation and turbine systems. Suppliers should register under SY08 or SY09.
ME12	Plumbing & Sanitary Works	Installation, repairs and servicing of water and gas pipes, sanitary works and plumbing fixtures. Applicants must possess either a valid PUB Plumber Licence or EMA Gas Service Worker Licence.
ME13	Traffic Light Systems	Installation and maintenance of traffic light systems.
ME15	Integrated Building Services	The installation, commissioning, maintenance and repairs of building services (including prefabricated MEP modules), which include some or all of the following: ME01, ME02, ME04, ME05, ME06, ME08, ME11, and ME12. <i>(please refer to the registration requisites in Appendix B, Table B3)</i>

ME SRR – Oct 2019 Edition

**TABLE B1**
**REGISTRATION REQUIREMENTS**

Grade (Note 8)	Financial (Notes 1-2)	Track Record (past 3 years) (Notes 3-5)	Personnel / Licence (Note 6) Management & Development (Note 7)			
			All except ME09	ME09	All	ME01, ME02, ME05, ME06, ME11 and ME12
L6	\$1.5m	\$30.0m of which -\$7.5m PS -\$3.0m MC and -\$3.0m SP	2RP/P, both with at least 5 years of relevant experience	2RP/P, both with at least 5 years of relevant experience	At least one RP/P with SDCP/CCPP ME07, ME13 – at least one RP/P/T with BCCPE	BizSAFE Level 3 / ICQA
L5	\$500,000	\$10.0m of which -\$1.0m SP	1RP/P or 2T, one with at least 8 years of relevant experience	1RP/P or 2T, one with at least 8 years of relevant experience	At least one RP/P/T with BCCPE	BizSAFE Level 3 / ICQA
L4	\$250,000	\$5.0m of which -\$500,000 SP	2T, one with at least 5 years of relevant experience	2T, one with at least 5 years of relevant experience	At least one RP/P/T with BCCPE	BizSAFE Level 3 / ICQA
L3	\$150,000	\$3.0m	2T	2T	At least one RP/P/T with BCCPE	BizSAFE Level 3 / ICQA
L2	\$50,000	\$1.0m	1T with 3 years of relevant experience	1T with 3 years of relevant experience	At least one RP/P/T with BCCPE	BizSAFE Level 3 / ICQA
L1	\$10,000  \$50,000 (for ME09)	\$100,000 (except ME08 & ME12)	1T	1T with 3 years of relevant experience	At least one RP/P/T with BCCPE	

m stands for million, min stands for minimum

**Notes for Table B1**
**Financial**

- Both minimum paid-up capital and minimum net worth must be met separately. All L1 firms are required to submit the latest management accounts (not more than 12 months old).
- L6 firms are required to submit the audited accounts annually (not more than 4 months for SGX listed companies and not more than 6 months for non-SGX listed companies from the accounts closing date) and meet the financial requirement in order to retain the L6 grade.

**Track Record**

- Completed projects in the past three years for all cases. Ongoing projects are acceptable for renewal and L1.
- Contractors are expected to complete:
  - PS - minimum projects executed in Singapore
  - MC - minimum main contracts (nominated sub-contracts may be included)
  - SP - minimum size single main contract or sub-contract.
- New companies with insufficient track record for L1 (except ME08 & ME12) will have to send its technical personnel to BCA HQ for an interview before submitting its application. You can book an e-appointment for interview at [www.bca.gov.sg/eBACS](http://www.bca.gov.sg/eBACS).

**Personnel**

- Please refer to definition of RP/P/T/CCPP/SDCP/BCCPE in Table B2 and required licenses in Table B4.

**Management & Development**

- BizSAFE Level 3 issued by WSHC (<https://www.wshc.sg/bizSAFE>), ISO45001 or OHSAS 18001. ICQA (Integrated Construction Quality Assurance) is an alternative certification by BCA to meet ISO 9001:2008, ISO 14001 and ISO 45001/OHSAS 18001/BizSAFE Level 3 requirement. Please refer to <https://www.bca.gov.sg/Professionals/IQUAS/IQUAS/StaticPages/icqa.aspx>

**Others**

- For the tendering limits, please refer to [www.bca.gov.sg/ContractorsRegistry/contractors\\_tendering\\_limits.html](http://www.bca.gov.sg/ContractorsRegistry/contractors_tendering_limits.html)

**TABLE B2**
**PERSONNEL QUALIFICATION & LICENCE**

Workhead	Title	Description, Personnel Qualifications and Licences
ME01*	Air-Conditioning, Refrigeration & Ventilation Works	<p>“RP” shall mean a minimum Professional qualification with a degree in Mechanical or Electrical/Electronics Engineering recognized by Professional Engineers Board (PEB)</p> <p><a href="https://www.peb.gov.sg/Downloads/PE%20(Appeared%20Qualifications)%20Notification%202009.pdf">https://www.peb.gov.sg/Downloads/PE%20(Appeared%20Qualifications)%20Notification%202009.pdf</a>, or equivalent qualifications approved by BCA <a href="#">List of Acceptable Qualifications for RE Accreditation.pdf</a> .</p>
ME02*	Building Automation, Industrial & Process Control Systems	<p>“P” shall mean a Professional qualification with a recognised degree in Mechanical or Electrical/Electronics Engineering or equivalent.</p>
ME03*	Solar PV and System Integration	<p>“T” shall mean a minimum Technical qualification with a polytechnic diploma in Mechanical, Electrical/Electronics Engineering or equivalent awarded by BCA Academy, Nanyang Polytechnic, Ngee Ann Polytechnic, Republic Polytechnic, Singapore Polytechnic, Temasek Polytechnic or such other diplomas or qualifications as approved by BCA from time to time.</p>
ME04*	Communications & Security Systems	
ME05*	Electrical Engineering	
ME06*	Fire Prevention & Protection Systems	<p>For ME05, an EMA electrician can be considered as one of the “T” for grades L1 and L2 only. An EMA electrical engineer/technician can be considered as one of the “T” for grades L3 to L5.</p>
ME07	High & Low Tension Overhead Line Installation	<p>For ME08, one of the technical personnel with NTC2 in electrical trade can be considered for L1 to L5.</p>
ME08	Internal Telephone Wiring for Telecommunications	<p>For ME10, a holder of NTC2 in electrical trade can be considered for L1. Two holders of NTC2 in electrical trade can be considered for L2.</p>
ME09	Lift & Escalator Installation and maintenance	<p>“CCPP” Certified Construction Productivity Professional</p>
ME10	Line Plant Cabling/Wiring for Telecommunications	<p>“SDCP” shall mean Specialist Diploma in Construction Productivity conducted by BCA Academy (for all L6 except ME07 and ME13)</p>
ME11	Mechanical Engineering	<p>“BCCPE” shall mean Basic Concept in Construction Productivity Enhancement (Certificate of Attendance) conducted by BCA Academy. A director with BCCPE (Certificate of Attendance) is acceptable for one company only (for L5 to L1 including ME07-L6 and ME13-L6)</p>
ME13	Traffic Light Systems	
ME12*	Plumbing & Sanitary Works	<p>For ME12, a valid plumber licence issued by PUB or EMA can be considered as a “T” for grades L1 and L2 only.</p>
ME15	Integrated Building Services	<p>Please refer to Table B3 for more detailed requirements.</p>

Notes for Table B2:

\* For ME01, ME02, ME03, ME04, ME05, ME06 and ME12, Certificate in M&E Coordination (CITI/BCAA) is acceptable as an approved technical qualification for Grades L1 to L5.

ME SRR – Oct 2019 Edition

## TABLE B3

### ME15 – INTEGRATED BUILDING SERVICES

To be registered under this workhead, firms must already be registered at L2 & above under ME01, ME05 and at least one other \*ME workhead registered in ME02, ME04, ME06, ME08, ME11 or ME12.

Registration grade will be pegged at the higher grade of the compulsory M&E workheads (i.e. ME01 & ME05) subject to a maximum of 2 grades higher than that of the lower workhead. The lowest registration grade shall be L2.

Firms must also possess a valid IDA telecommunication wiring contractor's licence.

Personnel requirements are listed in the table below:

Grade	Minimum ME Requirements	Minimum Personnel Requirement
L6	ME01 = L6, ME05 ≥ L4 and one other *ME workhead ≥ L2 OR ME01 ≥ L4, ME05 = L6 and one other *ME workhead ≥ L2	2P, both with at least 5 years of relevant experience, one of whom must hold a MEC or 2P, both with at least 5 years of relevant experience + 1MEC
L5	ME01 ≥ L5, ME05 ≥ L3 and one other *ME workhead ≥ L2 OR ME01 ≥ L3, ME05 ≥ L5 and one other *ME workhead ≥ L2	1P who also holds a MEC or 1P +1MEC  OR 2T, one of whom must have at least 8 years of relevant experience and either one holding a MEC
L4	ME01 ≥ L4, ME05 ≥ L2 and one other *ME workhead ≥ L2 OR ME01 ≥ L2, ME05 ≥ L4 and one other *ME workhead ≥ L2	2T, one of whom must have at least 5 years of relevant experience and either one holding a MEC
L3	ME01 ≥ L3, ME05 ≥ L2 and one other *ME workhead ≥ L2 OR ME01 ≥ L2, ME05 ≥ L3 and one other *ME workhead ≥ L2	1T + 1MEC
L2	ME01 ≥ L2, ME05 ≥ L2 and one other *ME workhead ≥ L2	1MEC

#### Notes for Table B3

For 'P' and 'T', refer to Table B2 for definition.

MEC refers to a full-time personnel with either of the following qualifications:

- BCA Academy: Advanced National Building Qualification in i) Supervision & Coordination in M&E Works ii) Green Building Operations & Maintenance / Certificate or Specialist Dip in M&E Coordination / Dip in Mechanical Engineering (Green Building Technology)
- Ngee Ann Polytechnic: Dip in i) Building Services Engineering ii) Technology (Building Services) iii) Technology (Building Services & Fire Safety) iv) Engineering (Building Services & Fire Safety)
- Temasek Polytechnic: Dip in i) Green Building & Sustainability ii) Intelligent Building Technology

**TABLE B4  
LICENCE**

Workhead	Title	License Required
ME08	Internal Telephone Wiring for Telecommunications	Applicants must possess a valid IDA telecommunication wiring contractor's licence.
ME12	Plumbing & Sanitary Works	Applicants must employ a full-time employee who either has a valid PUB Plumber Licence or EMA Gas Service Worker Licence.
ME15	Integrated Building Services	Applicant must possess a valid IDA telecommunication wiring contractor's licence.