



JKR WILAYAH PERSEKUTUAN PUTRAJAYA



KEMENTERIAN KOMUNIKASI

TAKLIMAT SEBUT HARGA BAGI

KERJA-KERJA PENGGANTIAN 75 UNIT *VARIABLE SPEED DRIVE* (VSD) SERTA KERJA-KERJA LAIN YANG BERKAITAN

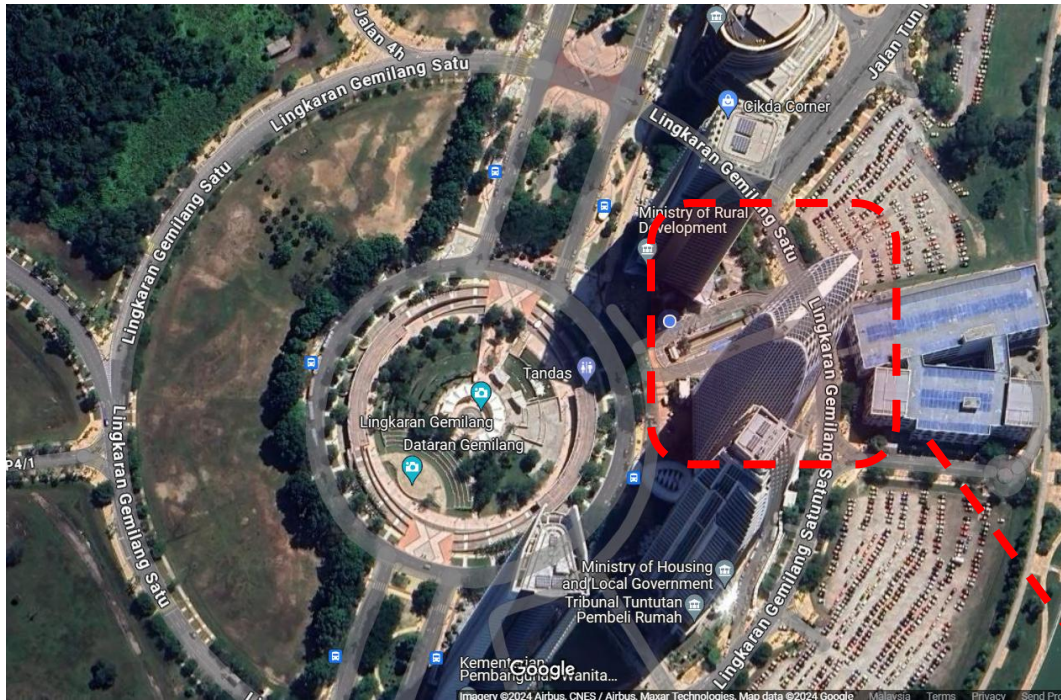
DI KEMENTERIAN KOMUNIKASI, LOT 4G9, PRESINT 4, PUTRAJAYA

NO. TENDER : JKR/WPP/Q/96/2026

DISEDIAKAN OLEH :
JABATAN KERJA RAYA WILAYAH PERSEKUTUAN PUTRAJAYA
BLOK F7, KOMPLEKS F,
PUSAT PENTADBIRAN KERAJAAN PERSEKUTUAN,
62000 PUTRAJAYA

PERINGATAN !!!
DOKUMEN TENDER HARUS DIBACA BERSEKALI DENGAN
SCOPE OF WORK AND TECHNICAL SPECIFICATIONS

PELAN TAPAK DAN LOKASI



**KEMENTERIAN KOMUNIKASI, LOT 4G9
Pusat Pentadbiran Kerajaan Persekutuan, 51
Persiaran Perdana, Presint 4
62100, Wilayah Persekutuan Putrajaya**

Koordinat Lokasi:
2°56'15.3"N, 101°41'12.8"E

KERJA-KERJA PENGANTIAN 75 UNIT *VARIABLE SPEED DRIVE* (VSD) SERTA KERJA-KERJA LAIN YANG BERKAITAN DI KEMENTERIAN KOMUNIKASI, LOT 4G9, PRESINT 4, PUTRAJAYA

NOTIS SEBUT HARGA



JKR WILAYAH PERSEKUTUAN PUTRAJAYA NOTIS SEBUT HARGA

NO. SEBUT HARGA : JKR / WPP / Q / 96 / 2026

KERJA-KERJA PENGANTIAN 75 UNIT *VARIABLE SPEED DRIVE* (VSD) SERTA KERJA-KERJA LAIN YANG BERKAITAN DI KEMENTERIAN KOMUNIKASI, LOT 4G9, PRESINT 4, PUTRAJAYA

1. Sebut Harga adalah dipelawa daripada kontraktor-kontraktor yang berdaftar dengan Lembaga Pembangunan Industri Pembinaan Malaysia (CIDB) di Wilayah Persekutuan Putrajaya, Negeri Selangor (Sepang, Hulu Langat dan Petaling) dan mempunyai Perakuan Pendaftaran Kontraktor (PPK), Sijil Taraf Bumiputera (STB), serta Sijil Perolehan Kerja Kerajaan (SPKK) yang masih sah dalam Gred G3 di bawah kategori ME, Pengkhususan M01 (Sistem hawa dingin dan pengedaran udara).

(Tempoh sah sijil-sijil hendaklah tidak kurang 90 hari dari tarikh tutup iklan ini)

2. Lawatan tapak adalah **TIDAK DIWAJIBKAN**. Surat Kebenaran Khas CIDB adalah tidak dibenarkan.
3. Kontraktor dikehendaki membuat semakan kelayakan melalui pautan <https://s3pk.jkr.gov.my/pc5/IklanDetails.aspx?refNo=PRO260724172816239> atau melalui imbasan QR Kod di bawah bermula dari tarikh 3/8/2026 bermula jam 12:00 tengah malam sehingga 4/8/2026 jam 11:45 malam sahaja. Sila klik butang Berminat untuk mendapatkan Dokumen Sebut Harga.
4. Emel yang mengandungi nombor siri unik akan dihantar melalui **EMEL RASMI SYARIKAT YANG AKTIF SAHAJA** (Emel persendirian tidak dibenarkan). Dokumen Sebut Harga boleh dimuat turun dari laman sesawang S3PK, bermula dari 6/8/2026 sehingga 10/8/2026 setelah menerima emel nombor siri.
5. Dokumen Sebut Harga dalam bentuk salinan cetak (*hardcopy*) yang telah lengkap diisi hendaklah dihantar dengan serahan tangan atau perkhidmatan pos dan dimasukkan ke dalam Peti Tawaran Sebut Harga JKR WPP, Aras 2, Bahagian Kontrak & Ukur Bahan Jabatan Kerja Raya Wilayah Persekutuan Putrajaya, Blok F7, Kompleks F Pusat Pentadbiran Kerajaan Persekutuan, 62000 Putrajaya **TIDAK LEWAT DARI JAM 12.00 tengah hari, hari Selasa, 11/8/2026.**
6. Sebarang pertanyaan sila emel ke mkanwar@jkr.gov.my.



(Ir. SAPARUBIN BIN LOLONG)
Jurutera Elektrik Penguasa Kanan
Bahagian Bangunan Kerajaan 3
JKR Wilayah Persekutuan Putrajaya

Tarikh: 28/7/2026



RINGKASAN SKOP KERJA

The Contractor shall undertake to carry out the following scope of works for the equipment and systems required for the proposed project. The specifications and requirements under this section cover the general scope of works for the whole project:

- I. To supply, install and configure all the new components as stated in Bill of Quantities (BQ) or Ringkasan Sebut Harga.
 - a) To supply and install one (1) unit of variable speed drive (VSD), rated at 4 kW, complete with all necessary accessories.
 - b) To supply and install one (2) unit of variable speed drive (VSD), rated at 5.5 kW, complete with all necessary accessories.
 - c) To supply and install one (12) unit of variable speed drive (VSD), rated at 7.5 kW, complete with all necessary accessories.
 - d) To supply and install one (45) unit of variable speed drive (VSD), rated at 11 kW, complete with all necessary accessories.
 - e) To supply and install one (6) unit of variable speed drive (VSD), rated at 15 kW, complete with all necessary accessories.
 - f) To supply and install one (2) unit of variable speed drive (VSD), rated at 18.5 kW, complete with all necessary accessories.
 - g) To supply and install one (1) unit of variable speed drive (VSD), rated at 22 kW, complete with all necessary accessories.
 - h) To supply and install one (2) unit of variable speed drive (VSD), rated at 37 kW, complete with all necessary accessories.
 - i) To supply and install one (4) unit of variable speed drive (VSD), rated at 90 kW, complete with all necessary accessories.
 - j) To configure LonWorks communication between the new VSDs and Building Control System (BCS).
- II. To dismantle and remove from site all components that are being replaced for the above system.



SPEKIFIKASI TEKNIKAL

ITEM	DESCRIPTION	REQUIREMENT
1	VARIABLE SPEED DRIVE (VSD) 4 kW	
	Type	Variable Speed Drive (VSD)
	Rated Motor Capacity	4 kW
	Rated Output Current	9.5 A
	Application	Air handling unit (AHU), chilled water pump, ventilation fan
	Input Voltage	380–480 VAC (Nominal 415 VAC), 3 Phase
	Input Frequency	50/60 Hz
	Output Frequency	0–500 Hz, adjustable
	Control Method	Sensorless vector control and V/f control
	Motor Compatibility	Suitable for squirrel cage induction motors and PMSM
	System Compatibility	Compatible with existing BMS, PLC, SCADA and HVAC controls
	Display	Backlit LCD displaying frequency, current, voltage, power, status, alarms and faults
	Keypad	Removable multilingual keypad with local/remote operation
	Status Indicator	Power, Ready, Run, Warning, Fault and Communication LEDs
	Functions	PID, Sleep Mode, Flying Start, Auto Restart, Fire Override, Energy Optimizer, Motor Identification, Ramp Control
	Network Communication	Built-in RS485 Modbus RTU; expandable to BACnet, Modbus TCP, EtherNet/IP, PROFINET and PROFIBUS
	Event History	Minimum 100 events with date/time stamp
	User Access	Multi-level password protection
	Programming	Parameter backup, upload/download via keypad or PC
	Remote Device	Support remote keypad and PC commissioning software
	Time Clock	Built-in RTC
	Operating Voltage	Continuous operation within $\pm 10\%$ of rated supply
	Protection	Overcurrent, overload, earth fault, short circuit, phase loss, over/under voltage, overtemperature
	Protection Rating	Minimum IP55
	Environmental	-15°C to +40°C, $\leq 95\%$ RH non-condensing
	EMC	IEC/EN 61800-3 Category C2 or equivalent
	Safety	Integrated Safe Torque Off (STO) SIL3/PLe or equivalent
	Certification	IEC 61800 series, IEC 61000, IEC 60529, CE and RoHS where applicable
	Warranty (years)	To be specified by tenderer

ITEM	DESCRIPTION	REQUIREMENT
2	VARIABLE SPEED DRIVE (VSD) 5.5 kW	
	Type	Variable Speed Drive (VSD)
	Rated Motor Capacity	5.5 kW
	Rated Output Current	12 A
	Application	Air handling unit (AHU), chilled water pump, ventilation fan
	Input Voltage	380–480 VAC (Nominal 415 VAC), 3 Phase
	Input Frequency	50/60 Hz
	Output Frequency	0–500 Hz, adjustable
	Control Method	Sensorless vector control and V/f control
	Motor Compatibility	Suitable for squirrel cage induction motors and PMSM
	System Compatibility	Compatible with existing BMS, PLC, SCADA and HVAC controls
	Display	Backlit LCD displaying frequency, current, voltage, power, status, alarms and faults
	Keypad	Removable multilingual keypad with local/remote operation
	Status Indicator	Power, Ready, Run, Warning, Fault and Communication LEDs
	Functions	PID, Sleep Mode, Flying Start, Auto Restart, Fire Override, Energy Optimizer, Motor Identification, Ramp Control
	Network Communication	Built-in RS485 Modbus RTU; expandable to BACnet, Modbus TCP, EtherNet/IP, PROFINET and PROFIBUS
	Event History	Minimum 100 events with date/time stamp
	User Access	Multi-level password protection
	Programming	Parameter backup, upload/download via keypad or PC
	Remote Device	Support remote keypad and PC commissioning software
	Time Clock	Built-in RTC
	Operating Voltage	Continuous operation within $\pm 10\%$ of rated supply
	Protection	Overcurrent, overload, earth fault, short circuit, phase loss, over/under voltage, overtemperature
	Protection Rating	Minimum IP55
	Environmental	-15°C to +40°C, $\leq 95\%$ RH non-condensing
	EMC	IEC/EN 61800-3 Category C2 or equivalent
	Safety	Integrated Safe Torque Off (STO) SIL3/PLe or equivalent
	Certification	IEC 61800 series, IEC 61000, IEC 60529, CE and RoHS where applicable
	Warranty (years)	To be specified by tenderer



SPEKIFIKASI TEKNIKAL

ITEM	DESCRIPTION	REQUIREMENT
3	VARIABLE SPEED DRIVE (VSD) 7.5 kW	
	Type	Variable Speed Drive (VSD)
	Rated Motor Capacity	7.5 kW
	Rated Output Current	16 A
	Application	Air handling unit (AHU), chilled water pump, ventilation fan
	Input Voltage	380-480 VAC (Nominal 415 VAC), 3 Phase
	Input Frequency	50/60 Hz
	Output Frequency	0-500 Hz, adjustable
	Control Method	Sensorless vector control and V/f control
	Motor Compatibility	Suitable for squirrel cage induction motors and PMSM
	System Compatibility	Compatible with existing BMS, PLC, SCADA and HVAC controls
	Display	Backlit LCD displaying frequency, current, voltage, power, status, alarms and faults
	Keypad	Removable multilingual keypad with local/remote operation
	Status Indicator	Power, Ready, Run, Warning, Fault and Communication LEDs
	Functions	PID, Sleep Mode, Flying Start, Auto Restart, Fire Override, Energy Optimizer, Motor Identification, Ramp Control
	Network Communication	Built-in RS485 Modbus RTU; expandable to BACnet, Modbus TCP, EtherNet/IP, PROFINET and PROFIBUS
	Event History	Minimum 100 events with date/time stamp
	User Access	Multi-level password protection
	Programming	Parameter backup, upload/download via keypad or PC
	Remote Device	Support remote keypad and PC commissioning software
	Time Clock	Built-in RTC
	Operating Voltage	Continuous operation within $\pm 10\%$ of rated supply
	Protection	Overcurrent, overload, earth fault, short circuit, phase loss, over/under voltage, overtemperature
	Protection Rating	Minimum IP55
	Environmental	-15°C to +40°C, $\leq 95\%$ RH non-condensing
	EMC	IEC/EN 61800-3 Category C2 or equivalent
	Safety	Integrated Safe Torque Off (STO) SIL3/PLe or equivalent
	Certification	IEC 61800 series, IEC 61000, IEC 60529, CE and RoHS where applicable
	Warranty (years)	To be specified by tenderer

ITEM	DESCRIPTION	REQUIREMENT
4	VARIABLE SPEED DRIVE (VSD) 11 kW	
	Type	Variable Speed Drive (VSD)
	Rated Motor Capacity	11 kW
	Rated Output Current	25 A
	Application	Air handling unit (AHU), chilled water pump, ventilation fan
	Input Voltage	380-480 VAC (Nominal 415 VAC), 3 Phase
	Input Frequency	50/60 Hz
	Output Frequency	0-500 Hz, adjustable
	Control Method	Sensorless vector control and V/f control
	Motor Compatibility	Suitable for squirrel cage induction motors and PMSM
	System Compatibility	Compatible with existing BMS, PLC, SCADA and HVAC controls
	Display	Backlit LCD displaying frequency, current, voltage, power, status, alarms and faults
	Keypad	Removable multilingual keypad with local/remote operation
	Status Indicator	Power, Ready, Run, Warning, Fault and Communication LEDs
	Functions	PID, Sleep Mode, Flying Start, Auto Restart, Fire Override, Energy Optimizer, Motor Identification, Ramp Control
	Network Communication	Built-in RS485 Modbus RTU; expandable to BACnet, Modbus TCP, EtherNet/IP, PROFINET and PROFIBUS
	Event History	Minimum 100 events with date/time stamp
	User Access	Multi-level password protection
	Programming	Parameter backup, upload/download via keypad or PC
	Remote Device	Support remote keypad and PC commissioning software
	Time Clock	Built-in RTC
	Operating Voltage	Continuous operation within $\pm 10\%$ of rated supply
	Protection	Overcurrent, overload, earth fault, short circuit, phase loss, over/under voltage, overtemperature
	Protection Rating	Minimum IP55
	Environmental	-15°C to +40°C, $\leq 95\%$ RH non-condensing
	EMC	IEC/EN 61800-3 Category C2 or equivalent
	Safety	Integrated Safe Torque Off (STO) SIL3/PLe or equivalent
	Certification	IEC 61800 series, IEC 61000, IEC 60529, CE and RoHS where applicable
	Warranty (years)	To be specified by tenderer



SPEKIFIKASI TEKNIKAL

ITEM	DESCRIPTION	REQUIREMENT
5	VARIABLE SPEED DRIVE (VSD) 15 kW	
	Type	Variable Speed Drive (VSD)
	Rated Motor Capacity	15 kW
	Rated Output Current	32 A
	Application	Air handling unit (AHU), chilled water pump, ventilation fan
	Input Voltage	380–480 VAC (Nominal 415 VAC), 3 Phase
	Input Frequency	50/60 Hz
	Output Frequency	0–500 Hz, adjustable
	Control Method	Sensorless vector control and V/f control
	Motor Compatibility	Suitable for squirrel cage induction motors and PMSM
	System Compatibility	Compatible with existing BMS, PLC, SCADA and HVAC controls
	Display	Backlit LCD displaying frequency, current, voltage, power, status, alarms and faults
	Keypad	Removable multilingual keypad with local/remote operation
	Status Indicator	Power, Ready, Run, Warning, Fault and Communication LEDs
	Functions	PID, Sleep Mode, Flying Start, Auto Restart, Fire Override, Energy Optimizer, Motor Identification, Ramp Control
	Network Communication	Built-in RS485 Modbus RTU; expandable to BACnet, Modbus TCP, EtherNet/IP, PROFINET and PROFIBUS
	Event History	Minimum 100 events with date/time stamp
	User Access	Multi-level password protection
	Programming	Parameter backup, upload/download via keypad or PC
	Remote Device	Support remote keypad and PC commissioning software
	Time Clock	Built-in RTC
	Operating Voltage	Continuous operation within $\pm 10\%$ of rated supply
	Protection	Overcurrent, overload, earth fault, short circuit, phase loss, over/under voltage, overtemperature
	Protection Rating	Minimum IP55
	Environmental	-15°C to +40°C, $\leq 95\%$ RH non-condensing
	EMC	IEC/EN 61800-3 Category C2 or equivalent
	Safety	Integrated Safe Torque Off (STO) SIL3/PLe or equivalent
	Certification	IEC 61800 series, IEC 61000, IEC 60529, CE and RoHS where applicable
	Warranty (years)	To be specified by tenderer

ITEM	DESCRIPTION	REQUIREMENT
6	VARIABLE SPEED DRIVE (VSD) 18.5 kW	
	Type	Variable Speed Drive (VSD)
	Rated Motor Capacity	18.5 kW
	Rated Output Current	38 A
	Application	Air handling unit (AHU), chilled water pump, ventilation fan
	Input Voltage	380–480 VAC (Nominal 415 VAC), 3 Phase
	Input Frequency	50/60 Hz
	Output Frequency	0–500 Hz, adjustable
	Control Method	Sensorless vector control and V/f control
	Motor Compatibility	Suitable for squirrel cage induction motors and PMSM
	System Compatibility	Compatible with existing BMS, PLC, SCADA and HVAC controls
	Display	Backlit LCD displaying frequency, current, voltage, power, status, alarms and faults
	Keypad	Removable multilingual keypad with local/remote operation
	Status Indicator	Power, Ready, Run, Warning, Fault and Communication LEDs
	Functions	PID, Sleep Mode, Flying Start, Auto Restart, Fire Override, Energy Optimizer, Motor Identification, Ramp Control
	Network Communication	Built-in RS485 Modbus RTU; expandable to BACnet, Modbus TCP, EtherNet/IP, PROFINET and PROFIBUS
	Event History	Minimum 100 events with date/time stamp
	User Access	Multi-level password protection
	Programming	Parameter backup, upload/download via keypad or PC
	Remote Device	Support remote keypad and PC commissioning software
	Time Clock	Built-in RTC
	Operating Voltage	Continuous operation within $\pm 10\%$ of rated supply
	Protection	Overcurrent, overload, earth fault, short circuit, phase loss, over/under voltage, overtemperature
	Protection Rating	Minimum IP55
	Environmental	-15°C to +40°C, $\leq 95\%$ RH non-condensing
	EMC	IEC/EN 61800-3 Category C2 or equivalent
	Safety	Integrated Safe Torque Off (STO) SIL3/PLe or equivalent
	Certification	IEC 61800 series, IEC 61000, IEC 60529, CE and RoHS where applicable
	Warranty (years)	To be specified by tenderer



SPEKIFIKASI TEKNIKAL

ITEM	DESCRIPTION	REQUIREMENT
7	VARIABLE SPEED DRIVE (VSD) 22 kW	
	Type	Variable Speed Drive (VSD)
	Rated Motor Capacity	22 kW
	Rated Output Current	45 A
	Application	Air handling unit (AHU), chilled water pump, ventilation fan
	Input Voltage	380–480 VAC (Nominal 415 VAC), 3 Phase
	Input Frequency	50/60 Hz
	Output Frequency	0–500 Hz, adjustable
	Control Method	Sensorless vector control and V/f control
	Motor Compatibility	Suitable for squirrel cage induction motors and PMSM
	System Compatibility	Compatible with existing BMS, PLC, SCADA and HVAC controls
	Display	Backlit LCD displaying frequency, current, voltage, power, status, alarms and faults
	Keypad	Removable multilingual keypad with local/remote operation
	Status Indicator	Power, Ready, Run, Warning, Fault and Communication LEDs
	Functions	PID, Sleep Mode, Flying Start, Auto Restart, Fire Override, Energy Optimizer, Motor Identification, Ramp Control
	Network Communication	Built-in RS485 Modbus RTU; expandable to BACnet, Modbus TCP, EtherNet/IP, PROFINET and PROFIBUS
	Event History	Minimum 100 events with date/time stamp
	User Access	Multi-level password protection
	Programming	Parameter backup, upload/download via keypad or PC
	Remote Device	Support remote keypad and PC commissioning software
	Time Clock	Built-in RTC
	Operating Voltage	Continuous operation within $\pm 10\%$ of rated supply
	Protection	Overcurrent, overload, earth fault, short circuit, phase loss, over/under voltage, overtemperature
	Protection Rating	Minimum IP55
	Environmental	-15°C to +40°C, $\leq 95\%$ RH non-condensing
	EMC	IEC/EN 61800-3 Category C2 or equivalent
	Safety	Integrated Safe Torque Off (STO) SIL3/PLe or equivalent
	Certification	IEC 61800 series, IEC 61000, IEC 60529, CE and RoHS where applicable
	Warranty (years)	To be specified by tenderer

ITEM	DESCRIPTION	REQUIREMENT
8	VARIABLE SPEED DRIVE (VSD) 37 kW	
	Type	Variable Speed Drive (VSD)
	Rated Motor Capacity	37 kW
	Rated Output Current	72 A
	Application	Air handling unit (AHU), chilled water pump, ventilation fan
	Input Voltage	380–480 VAC (Nominal 415 VAC), 3 Phase
	Input Frequency	50/60 Hz
	Output Frequency	0–500 Hz, adjustable
	Control Method	Sensorless vector control and V/f control
	Motor Compatibility	Suitable for squirrel cage induction motors and PMSM
	System Compatibility	Compatible with existing BMS, PLC, SCADA and HVAC controls
	Display	Backlit LCD displaying frequency, current, voltage, power, status, alarms and faults
	Keypad	Removable multilingual keypad with local/remote operation
	Status Indicator	Power, Ready, Run, Warning, Fault and Communication LEDs
	Functions	PID, Sleep Mode, Flying Start, Auto Restart, Fire Override, Energy Optimizer, Motor Identification, Ramp Control
	Network Communication	Built-in RS485 Modbus RTU; expandable to BACnet, Modbus TCP, EtherNet/IP, PROFINET and PROFIBUS
	Event History	Minimum 100 events with date/time stamp
	User Access	Multi-level password protection
	Programming	Parameter backup, upload/download via keypad or PC
	Remote Device	Support remote keypad and PC commissioning software
	Time Clock	Built-in RTC
	Operating Voltage	Continuous operation within $\pm 10\%$ of rated supply
	Protection	Overcurrent, overload, earth fault, short circuit, phase loss, over/under voltage, overtemperature
	Protection Rating	Minimum IP55
	Environmental	-15°C to +40°C, $\leq 95\%$ RH non-condensing
	EMC	IEC/EN 61800-3 Category C2 or equivalent
	Safety	Integrated Safe Torque Off (STO) SIL3/PLe or equivalent
	Certification	IEC 61800 series, IEC 61000, IEC 60529, CE and RoHS where applicable
	Warranty (years)	To be specified by tenderer



SPEKIFIKASI TEKNIKAL

ITEM	DESCRIPTION	REQUIREMENT
9	VARIABLE SPEED DRIVE (VSD) 90 kW	
	Type	Variable Speed Drive (VSD)
	Rated Motor Capacity	90 kW
	Rated Output Current	170 A
	Application	Air handling unit (AHU), chilled water pump, ventilation fan
	Input Voltage	380–480 VAC (Nominal 415 VAC), 3 Phase
	Input Frequency	50/60 Hz
	Output Frequency	0–500 Hz, adjustable
	Control Method	Sensorless vector control and V/f control
	Motor Compatibility	Suitable for squirrel cage induction motors and PMSM
	System Compatibility	Compatible with existing BMS, PLC, SCADA and HVAC controls
	Display	Backlit LCD displaying frequency, current, voltage, power, status, alarms and faults
	Keypad	Removable multilingual keypad with local/remote operation
	Status Indicator	Power, Ready, Run, Warning, Fault and Communication LEDs
	Functions	PID, Sleep Mode, Flying Start, Auto Restart, Fire Override, Energy Optimizer, Motor Identification, Ramp Control
	Network Communication	Built-in RS485 Modbus RTU; expandable to BACnet, Modbus TCP, EtherNet/IP, PROFINET and PROFIBUS
	Event History	Minimum 100 events with date/time stamp
	User Access	Multi-level password protection
	Programming	Parameter backup, upload/download via keypad or PC
	Remote Device	Support remote keypad and PC commissioning software
	Time Clock	Built-in RTC
	Operating Voltage	Continuous operation within $\pm 10\%$ of rated supply
	Protection	Overcurrent, overload, earth fault, short circuit, phase loss, over/under voltage, overtemperature
	Protection Rating	Minimum IP55
	Environmental	-15°C to +40°C, $\leq 95\%$ RH non-condensing
	EMC	IEC/EN 61800-3 Category C2 or equivalent
	Safety	Integrated Safe Torque Off (STO) SIL3/PLe or equivalent
	Certification	IEC 61800 series, IEC 61000, IEC 60529, CE and RoHS where applicable
	Warranty (years)	To be specified by tenderer



LOKASI TERLIBAT

BIL.	LABEL VSD			KUASA	KUANTITI	LOKASI
1	AHU-B1a-1			4 kW	1	Bilik AHU (Aras B1a)
2	AHU-L1-1 AHU-L1-2			5.5 kW	2	Bilik AHU (Aras 1)
3	AHU-GF-1	AHU-L8-2	AHU-L26-2	7.5 kW	12	- Bilik AHU (Aras G, 1, 2, 5, 8, 9, 21, 23, 26, 27) - Bilik CHWP (Aras B1)
	AHU-L1-3	AHU-L9-2	AHU-L27-1			
	AHU-L2-2	AHU-L21-1	CHWP-5			
	AHU-L5-2	AHU-L23-2	CHWP-6			
4	AHU-B1a-2	AHU-L11-1	AHU-L19-2	11 kW	45	Bilik AHU (Aras B1a, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 36, 37)
	AHU-L2-1	AHU-L11-2	AHU-L20-1			
	AHU-L3-1	AHU-L12-1	AHU-L20-2			
	AHU-L3-2	AHU-L12-2	AHU-L21-2			
	AHU-L4-1	AHU-L13-1	AHU-L22-1			
	AHU-L4-2	AHU-L13-2	AHU-L22-2			
	AHU-L5-1	AHU-L14-1	AHU-L23-1			
	AHU-L6-1	AHU-L14-2	AHU-L24-1			
	AHU-L6-2	AHU-L15-1	AHU-L24-2			
	AHU-L7-1	AHU-L15-2	AHU-L25-1			
	AHU-L7-2	AHU-L16-1	AHU-L25-2			
	AHU-L8-1	AHU-L16-2	AHU-L26-1			
	AHU-L9-1	AHU-L18-1	AHU-L27-2			
	AHU-L10-1	AHU-L18-2	AHU-L36-1			
	AHU-L10-2	AHU-L19-1	AHU-L37-1			
5	AHU-L30-1	AHU-L32-1	AHU-L34-1	15 kW	6	Bilik AHU (Aras 30, 31, 32, 33, 34, 35)
	AHU-L31-1	AHU-L33-1	AHU-L35-1			
6	AHU-L28-1 AHU-L29-1			18.5 kW	2	Bilik AHU (Aras 28, 29)
7	SEF-L17-1			22 kW	1	Bilik M&E (Aras 17)
8	FAF-L17-1 FAF-L17-2			37 kW	2	Bilik M&E (Aras 17)
9	CHWP-1	CHWP-2	CHWP-3	90 kW	4	Bilik CHWP (Aras B1)
	CHWP-4					

Senarai peranti VSD di bangunan Kementerian Komunikasi yang akan dilaksanakan untuk penggantian



KEADAAN SEMASA DI TAPAK



Peranti VSD berkuasa 4.0 kW yang telah usang (*obsolete*)
di Bilik AHU 1, Aras B1a

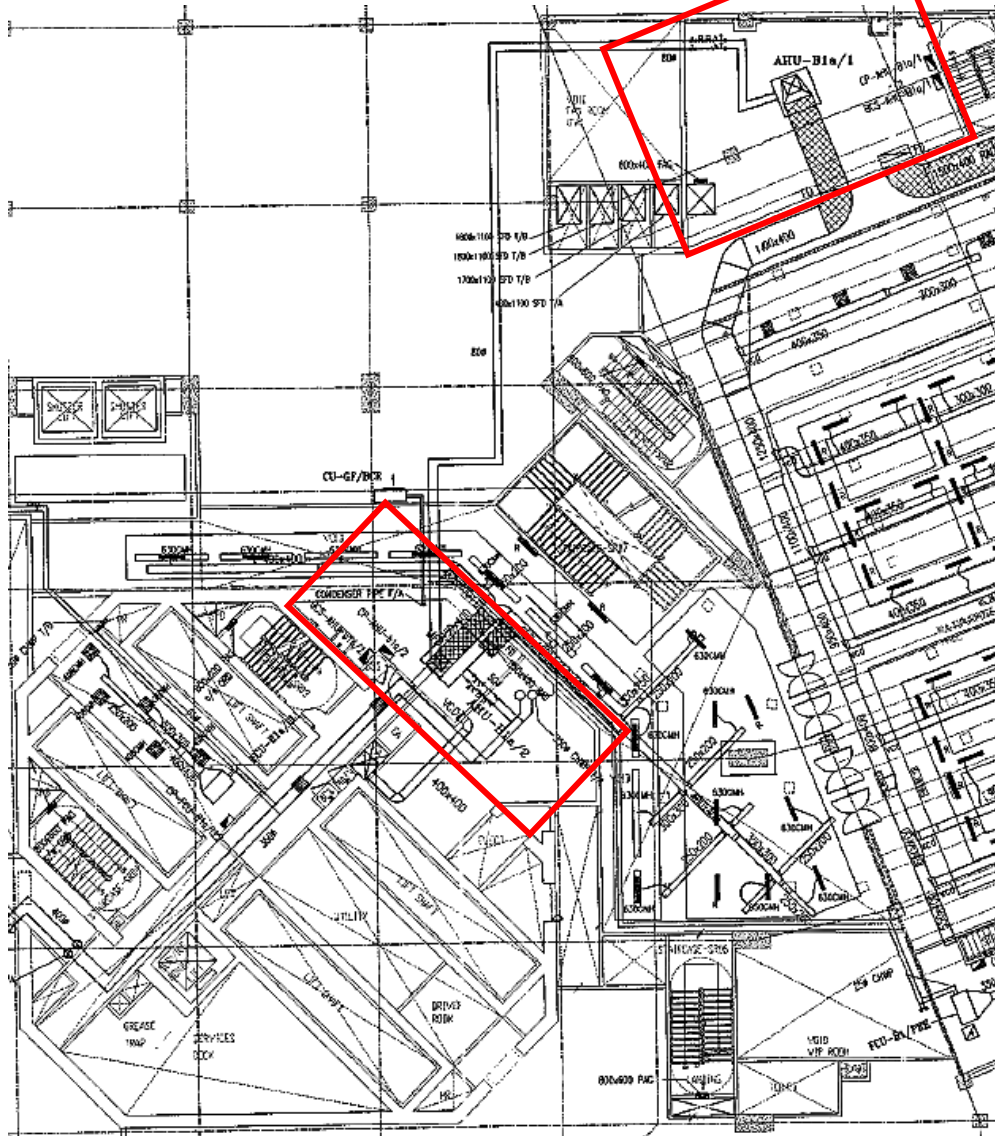


KEADAAN SEMASA DI TAPAK



Peranti VSD berkuasa 11.0 kW yang telah usang (*obsolete*)
di Bilik AHU 2, Aras B1a

KEADAAN SEMASA DI TAPAK



Pelan lantai lokasi peranti VSD berkuasa 4.0 kW di Bilik AHU 1 dan 11.0 kW di Bilik AHU 2 di Aras B1a





JABATAN KERJA RAYA WILAYAH PERSEKUTUAN PUTRAJAYA



KEADAAN SEMASA DI TAPAK



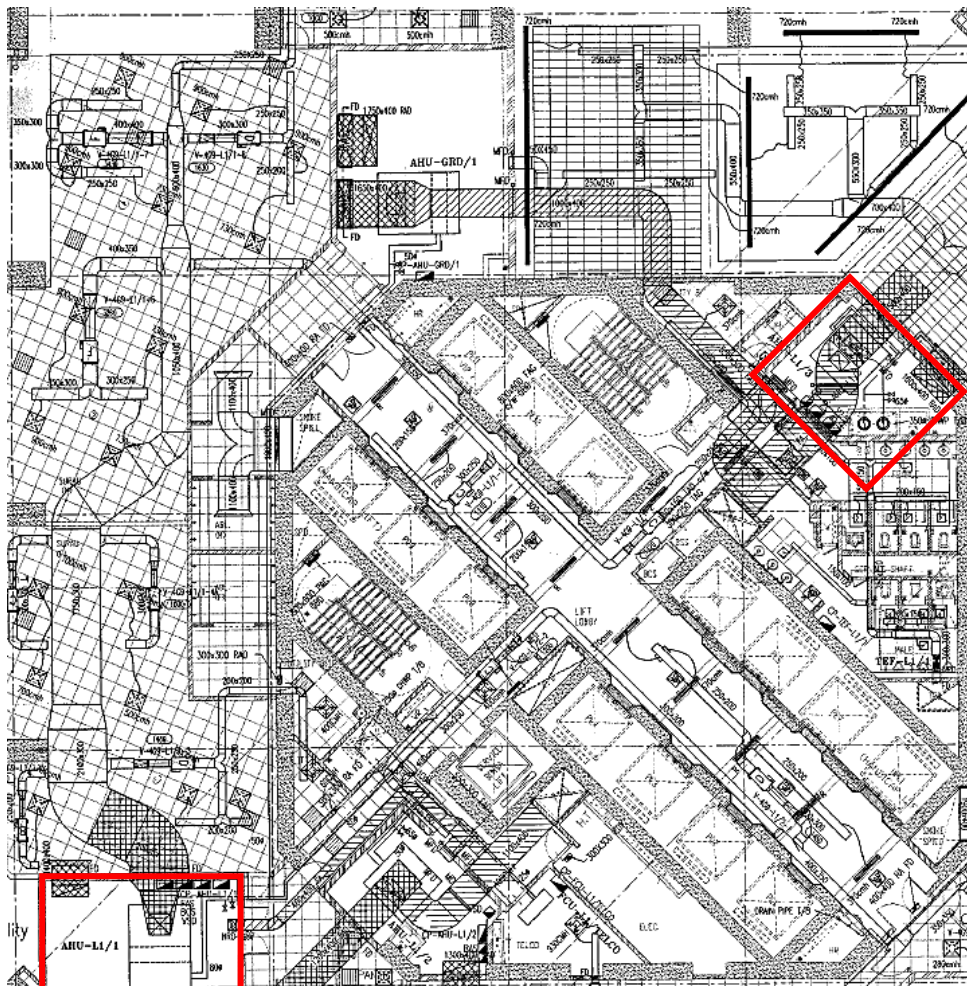
Peranti VSD berkuasa 5.5 kW yang telah usang (*obsolete*)
di Bilik AHU 1, Aras 1

KEADAAN SEMASA DI TAPAK



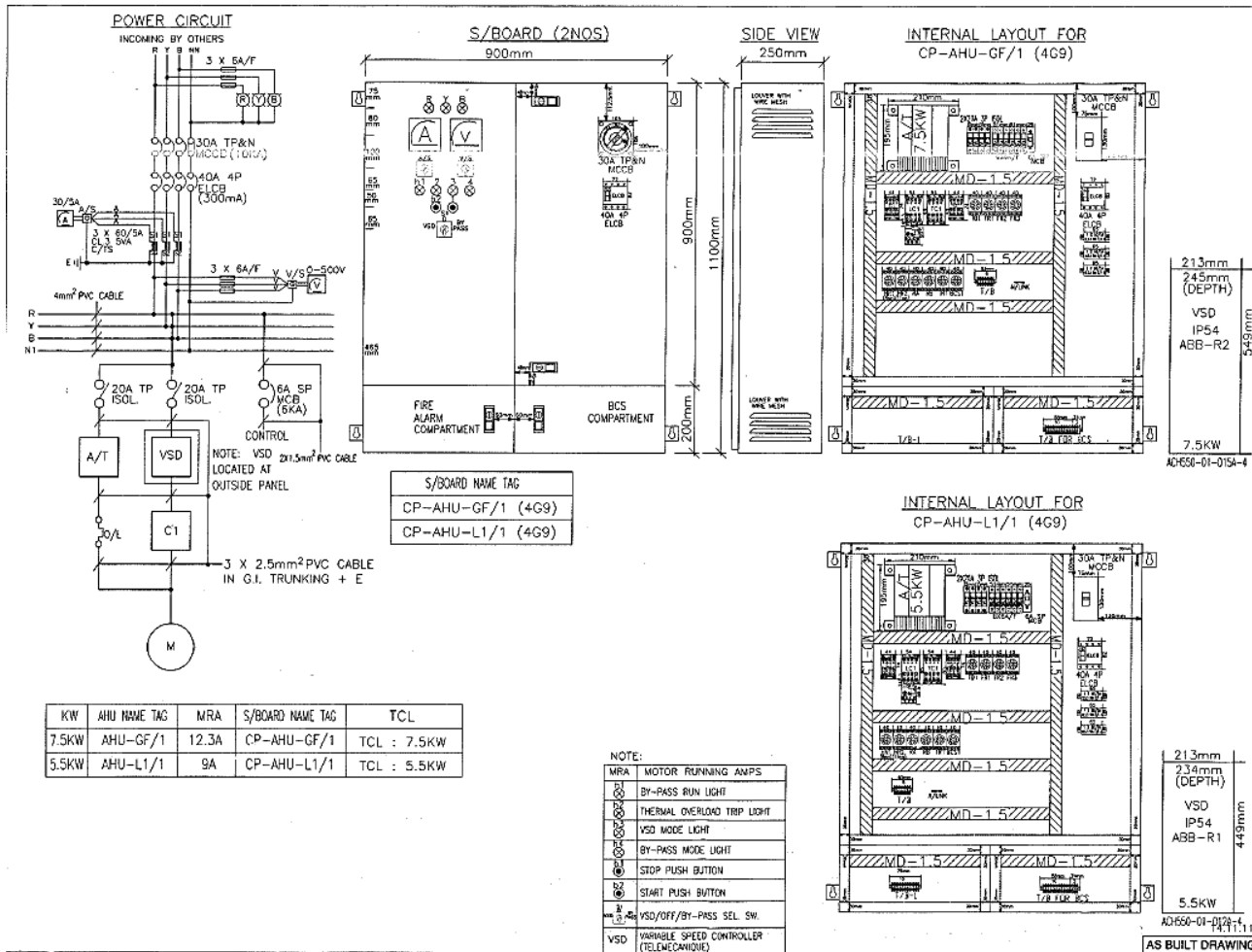
Peranti VSD berkuasa 7.5 kW yang telah usang (*obsolete*)
di Bilik AHU 3, Aras 1

KEADAAN SEMASA DI TAPAK



Pelan lantai lokasi peranti VSD berkuasa 5.5 kW di Bilik AHU 1 dan 7.5 kW di Bilik AHU 3 di Aras 1

KEADAAN SEMASA DI TAPAK



Lukisan skematik bagi VSD berkuasa 5.5 kW di Bilik AHU 1 di Aras 1



KEADAAN SEMASA DI TAPAK



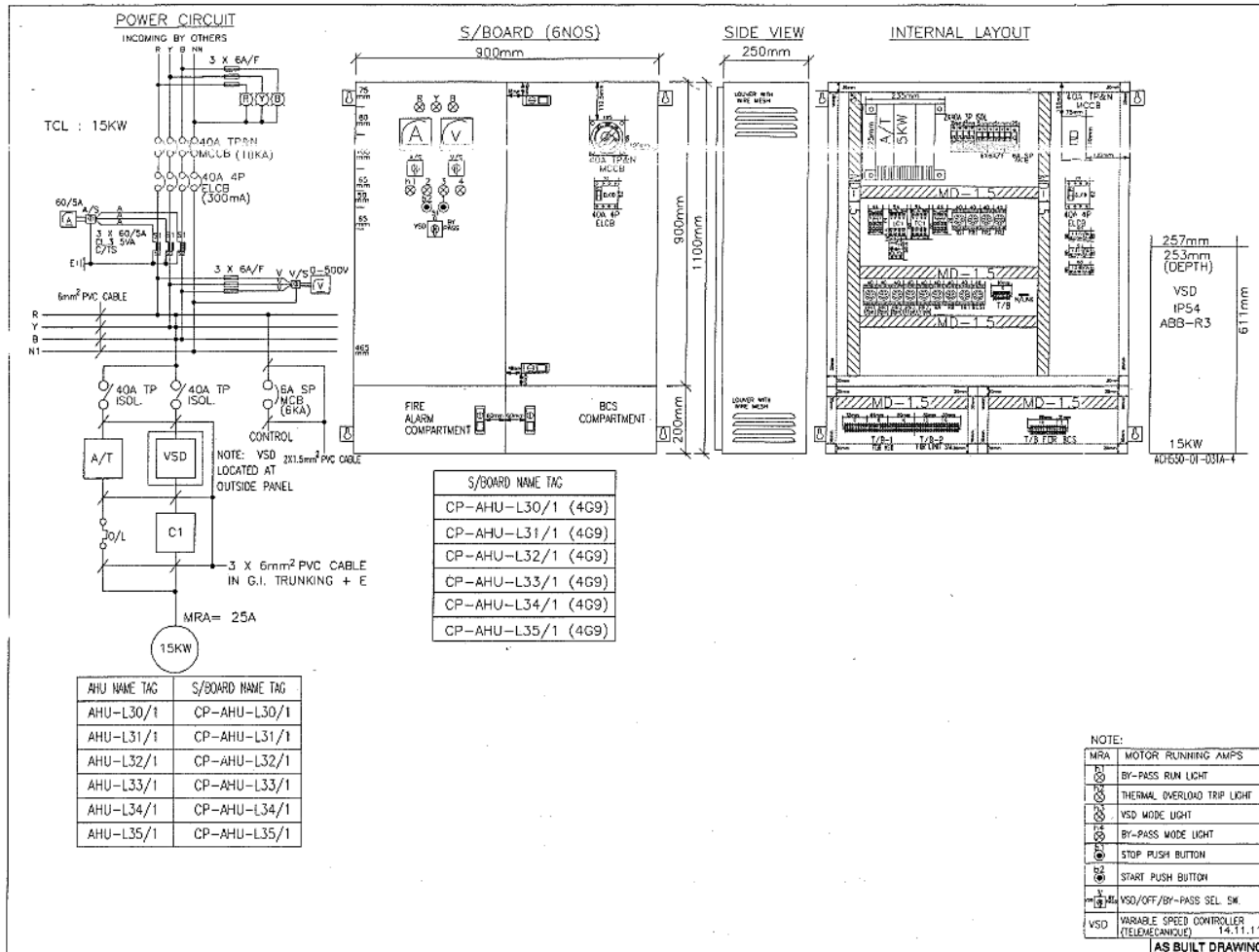
Peranti VSD berkuasa 15.0 kW yang telah usang (*obsolete*) di Bilik AHU, Aras 30

KEADAAN SEMASA DI TAPAK



Pelan lantai lokasi peranti VSD
berkuasa 15.0 kW di Bilik
AHU, Aras 30

KEADAAN SEMASA DI TAPAK



Lukisan skematik bagi VSD berkuasa 15.0 kW di Bilik AHU di Aras 30

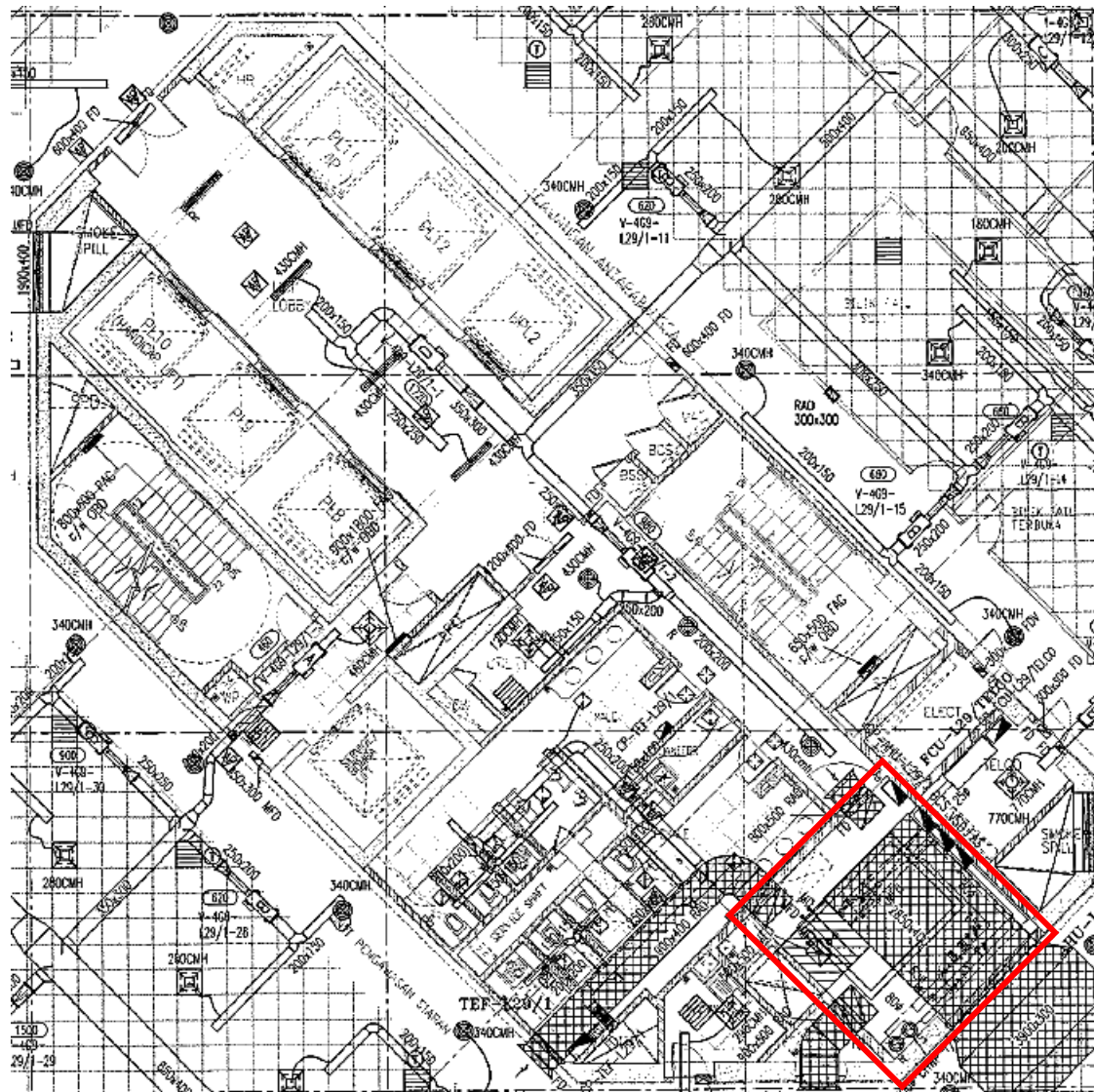


KEADAAN SEMASA DI TAPAK

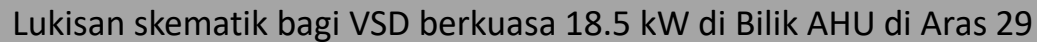


Peranti VSD berkuasa 18.5 kW yang telah usang (*obsolete*)
di Bilik AHU, Aras 29

KEADAAN SEMASA DI TAPAK



Pelan lantai lokasi peranti VSD
berkuasa 18.5 kW di Bilik
AHU, Aras 29

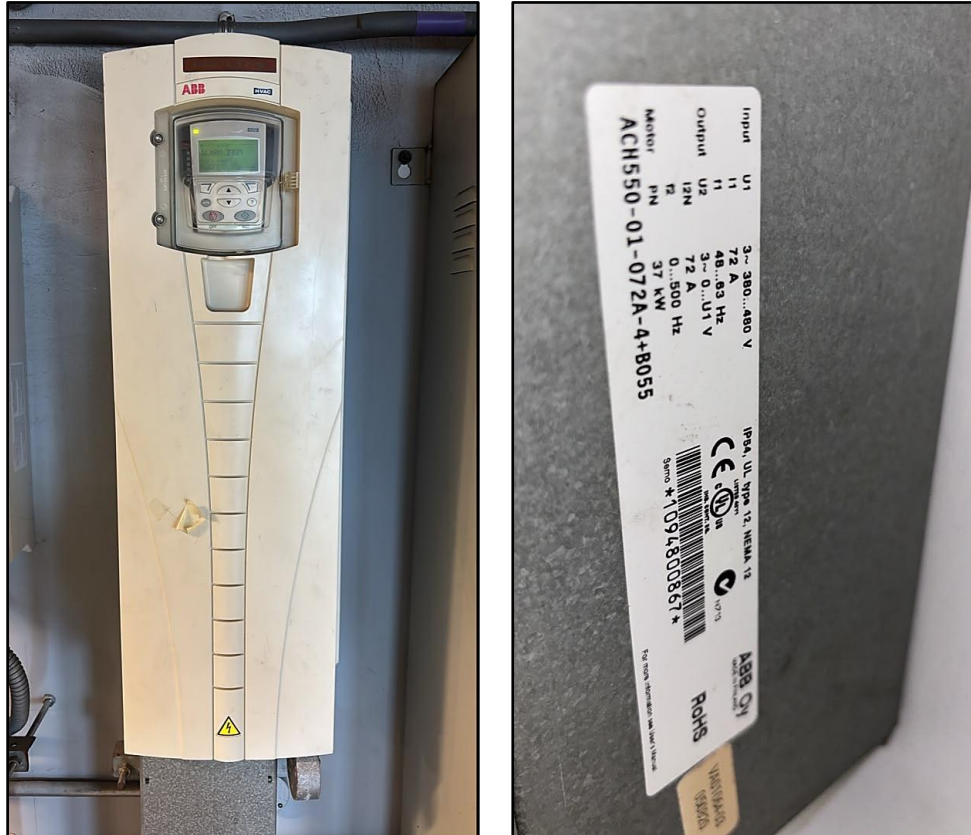


KEADAAN SEMASA DI TAPAK



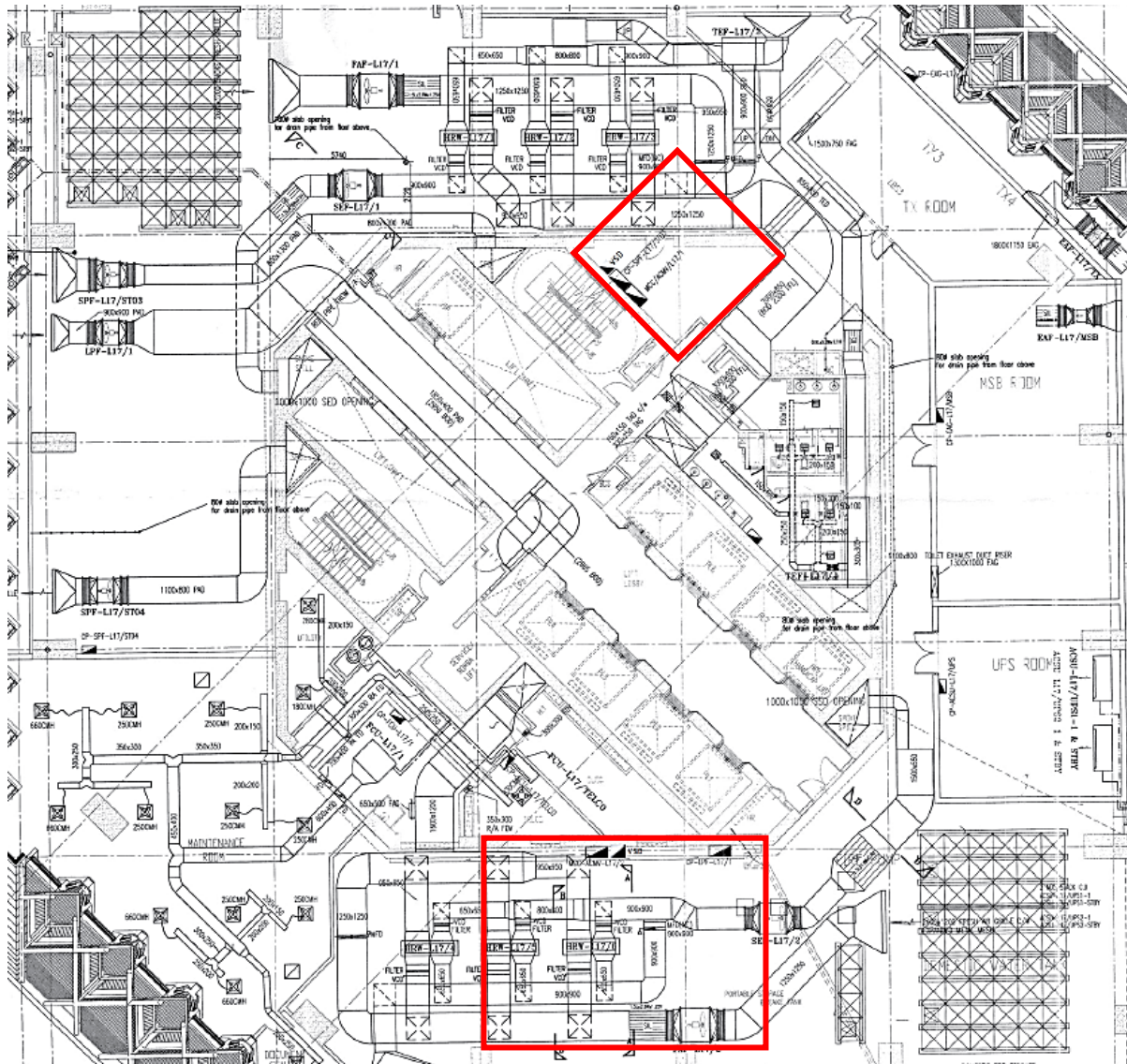
Peranti VSD berkuasa 22.0 kW yang telah usang (*obsolete*)
di Bilik M&E, Aras 17

KEADAAN SEMASA DI TAPAK

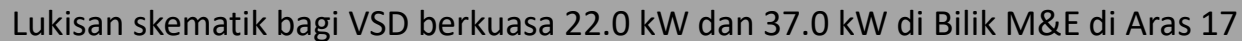


Peranti VSD berkuasa 37.0 kW yang telah usang (*obsolete*)
di Bilik M&E, Aras 17

KEADAAN SEMASA DI TAPAK



Pelan lantai lokasi peranti VSD berkuasa 22.0 kW dan 37.0 kW di Bilik M&E, Aras 17

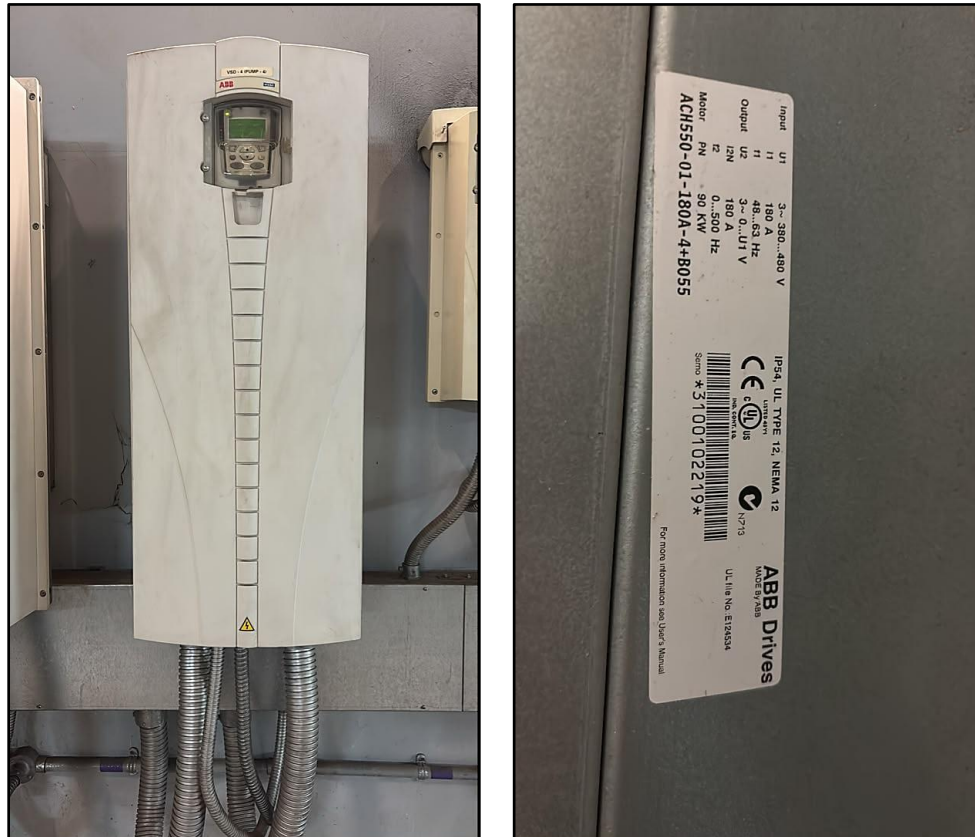


KEADAAN SEMASA DI TAPAK



Peranti VSD berkuasa 7.5 kW yang telah usang (*obsolete*)
di Bilik CHWP, Aras B1

KEADAAN SEMASA DI TAPAK

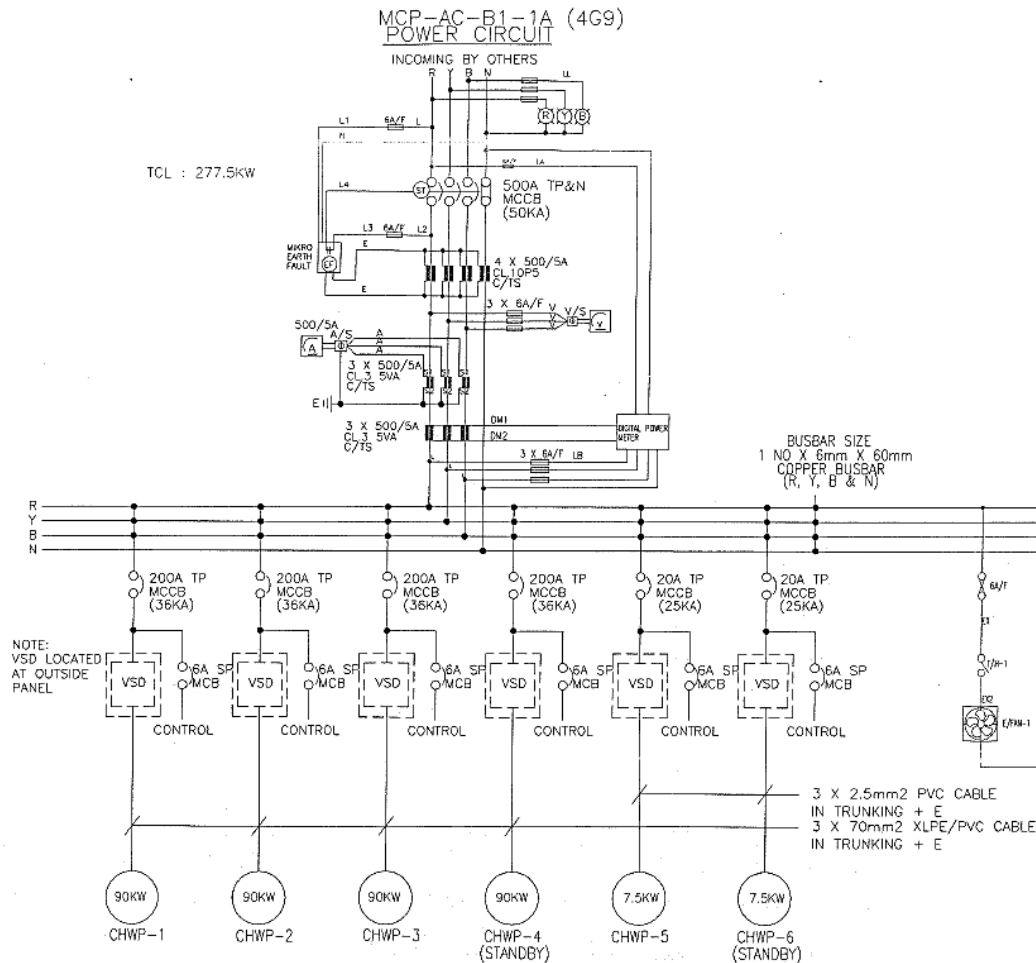


Peranti VSD berkuasa 90.0 kW yang telah usang (*obsolete*)
di Bilik CHWP, Aras B1

[illegible]

Pelan lantai lokasi peranti VSD berkuasa 7.5 kW dan 90.0 kW di Bilik CHWP, Aras B1

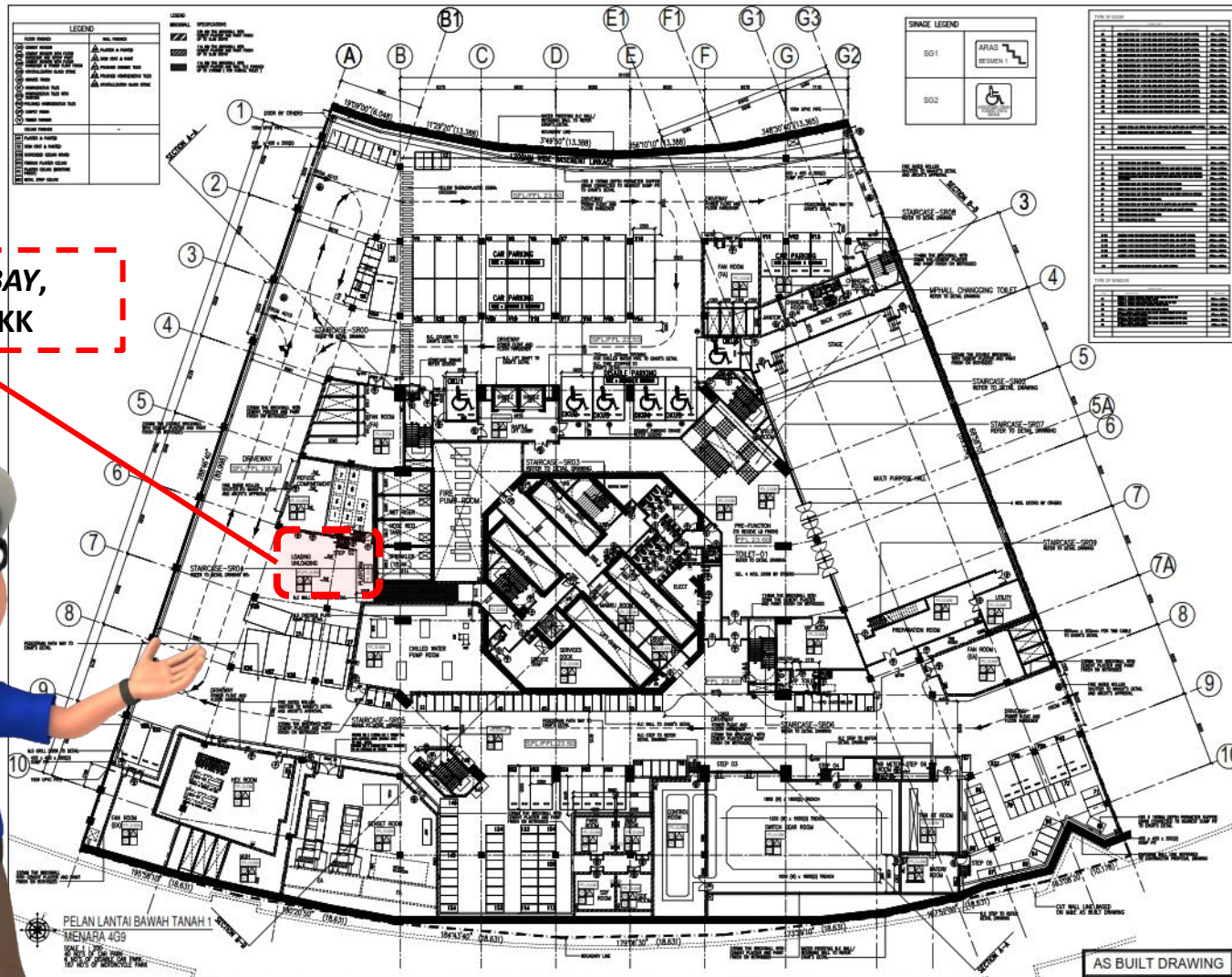
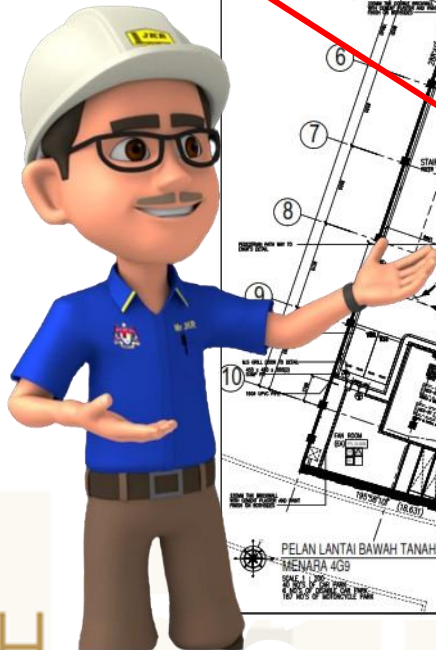
KEADAAN SEMASA DI TAPAK



Lukisan skematik bagi VSD berkuasa 7.5 kW dan 90.0 kW di Bilik CHWP, Aras B1

RUANG LOADING DAN UNLOADING

LOADING BAY,
ARAS B1, KK



INFO TAMBAHAN

SEBARANG PERTANYAAN DAN MAKLUMAT LANJUT
BOLEH HUBUNGI :





JKR
SEKIAN,
TERIMA KASIH

