



SPESIFIKASI TEKNIS



PEMERINTAH DAERAH KABUPATEN KARANGANYAR

INSPEKTORAT DAERAH

PROGRAM : PENUNJANG URUSAN PEMERINTAHAN DAERAH KABUPATEN/KOTA
KEGIATAN : PEMELIHARAAN BARANG MILIK DAERAH PENUNJANG URUSAN
PEKERJAAN : PENYUSUNAN DED PEMBANGUNAN GEDUNG KANTOR
LOKASI : KANTOR INSPEKTORAT DAERAH KARANGANYAR
KABUPATEN : KARANGANYAR
TAHUN : 2024

NO	NAMA BAHAN	MERK/TIPE/SPEKIFIKASI	KETERANGAN
1	Semen	Gresik	Gresik
2	Batu Belah	Lokal	Lokal
3	Batu Bata	Lokal	Lokal
4	Pasir Pasang	Merapi	Merapi
5	Pasir Beton	Merapi	Merapi
6	Pasir Urug	Lokal	Lokal
7	Sirtu	Lokal	Lokal
8	Split/Kerikil	Lokal	Lokal
9	Besi Tulangan/Besi Beton	Standar SNI, U 24 < D10, U42> D10 Master Steel (MS), Lautan Steel (LS)	Master Steel (MS)
10	Baja Profil	Standar SNI, Jenis Baja SS400, Tegangan Putus =400Mpa, Tegangan Leleh =245 Mpa, Gunung Garuda (GG)	Gunung Garuda (GG)
11	Beton Ready mix	K-300, K-275, K-175, K-100	K-300, K-275, K-175, K-100
12	Rangka Baja Profil	Standar SNI, Jenis Baja SS400, Tegangan Putus =400Mpa, Tegangan Leleh =245 Mpa, Gunung Garuda	Gunung Garuda (GG)
13	Rangka Baja ringan "Z"	Galva Pro	Galva Pro
14	Penutup Atap	M Class Glazur	M Class Glazur
15	Penutup Atap Kanopi	Onduline	Onduline
16	Angkur	Standar SNI, D 19 dan D22, U42, A325	Standar SNI
17	Baut Baja	HTB A325 Dia 19mm	HTB A325 Dia 19mm
18	Keramik/ Penutup Lantai	Granite Tile 60x60 Polished	Indogress
		Granite Tile 60x60 Unpolished	Indogress
		Keramik 30x30 Polished Platinum	Platinum
		Keramik 30x30 Unpolished Platinum	Platinum
19	Keramik/Penutup Dinding	Keramik 30x60 Polished Platinum, Big Slab 80x80 Polished White Marble, Indogress	Platinum Indogress
20	Papan Gypsum Board	Elephant	Elephant
21	Papan GRC Board	Kalci Board	Kalci Board
22	Kusen Aluminium Pintu & Jendela	Alexindo	Alexindo

23	Kaca	Asahimas	Asahimas
24	Penggantung & Pengunci	Dekson	Dekson
25	Cat Dinding	Jotun, Dulux Weathershield	Dulux Weathershield
26	Waterproofing	Sika, Fosroc	Sika
27	Aluminium Composte	Seven	Seven
28	Plumbing & Sanitasi		
29	-Pipa PVC Air Bersih	PVC tipe AW, Wavin/Rucika	Rucika
	-Pipa PVC Air Bekas, Kotor, Hujan	PVC tipe AW, Wavin/Rucika	Rucika
	-Gate Valve, Check Valve	Kitz, Toyo	Toyo
	-Tangki Air Stainless Steel	Penguin	Penguin
	-Kran Air/Floor Drain	TOTO	TOTO
	-Washtafel, Closed Duduk, closed Jongkok	TOTO	TOTO
	-Pompa (transfer/booster)	Grundfos	Grundfos
	-Bio Septic tank	Biomac, Biofil	Biofil
	Pekerjaan Elektrikal		
30	-Kabel BCC,NYA,NYY,NYM	Supreme	Supreme
	-Tidos, Condukt, Klem	Boss, Legrand	Boss
	-Saklar, Stop Kontak,	Schneider	Schneider
	-Box Panel	Global Teknindo, Nata Ultima	Nata Ultima
	-Komponen Panel	Schneider	Schneider
	-MCCB, MCB	Schneider	Schneider
	-Ceiling Exhaust Fan	KDK, CKE	CKE
31	Fire Extinguisher	Newvo, Bravvo	Bravvo

OUTLINE SPESIFIKASI TEKNIS PEKERJAAN MEKANIKAL

N O	JENIS MATERIAL	SPESIFIKASI	MERK / PEMBUAT	MERK YANG DIPILIH
A.	PEKERJAAN PLUMBING			
1	Pipa dan Peralatan			
	Air Bersih	Poly Propylene-10 (PPR-PN 10) - Class 10kg/cm ² atau PN 10 yang memenuhi standar ISO 4065, ISO 4427 dan atau DIN 8075 Poly Propylene-16 (PPR-PN 16) - Class 16kg/cm ² atau PN 16 yang memenuhi standar ISO 4065, ISO 4427 dan atau DIN 8075	ATP Toro, Rucika, Agrusan	Rucika
	Air Bekas Kotor & Drainase	Poly Vinyl Carbonat-AW (PVC- AW) Class-AW, 10 kg/cm ² . Standard : SNI 06-0084-2002	Rucika, Vinilon, Wavin	Rucika
	Saluran Drainase	- Saluran Drainase U-Ditch uk. 40x40x120 cm dgn Tutup Beton - Saluran Drainase U-Ditch uk. 40x40x120 cm dgn Tutup Grill Besi	Asiacon, KH Beton	KH Beton
	Fitting	Fitting Pipa Air Bersih, Air Bekas, Air Kotor, Air Hujan	Rucika, Vinilon, Wavin	Rucika
	Valves dan Peralatan	Gate Valves, Check Valve dan Y- Strainer - Untuk ukuran ϕ 15 mm s/d 50 mm : Thread connection, Bronze, 10 kg/cm ² . Standard : JIS 10 K	Toyo, Kitz	Kitz

		Floating Valve - Untuk ukuran $\phi 15$ mm s/d 50 mm : BSPT Thread, Brass or Bronze, Working Pressure, min : 4 kg/cm ² .	Kitz	Kitz
		Standard : JIS 10 K		
	Floor drain	Stainless Stell dia 2"	Toto, San-Ei	Toto
	Clean Out	Stainless Stell dia 2", 4", 6"	San-Ei, Rucika	Rucika
2	Reservoir			
	Roof Tank Air Bersih	- Material : Silinder Stainless Steel Tank - Thickness : sesuai ketentuan pabrikan - Jumlah 1(satu) unit - Kapasitas : @1000 liter, total 2000 liter (2 m ³) - Pipe Connection : Flange connection - Structure Support & Base Frame	Penguin, Excel	Penguin
	Tanki Air Bersih Tanam	- Material : FRP (fiber) - Thickness : sesuai ketentuan pabrikan - Jumlah 1(satu) unit - Kapasitas : @1000 liter, total 1000 liter (1 m ³) - Pipe Connection : Flange connection	Penguin, Excel	Penguin
	Bio Septic Tank	- Body = Fiberglass (FRP) - Pipa = PVC	Biomac, Biofil	Biofil
3	Pompa Pompa			

	Pompa Transfer	Technical: - Pump type: Jet Pump Grundfos JPD 5-61 PT-V - Rated flow : 4,6 m3/jam - Rated head : 60 meter - Quantity : 1 unit Electrical data: - Power Input : 1,1 kW - Mains frequency : 50 Hz - Rated voltage : 220-240 V	Grundfos, Ebara	Grundfos
		- Enclosure class (IEC 34-5) : IP54 - Level Switch Operation		
	Pompa Booster	Technical: - Pump type : Auto, Booster dgn Pressure Manager Grundfos PM1 - Rated flow : 100 lpm - Rated head : 23 meter - Quantity : 1 unit Electrical data: - Power Input : 0,37 kW - Mains frequency : 50 Hz - Rated voltage : 220-240 V - Enclosure class (IEC 34-5) : IP54 - Automatic Operation - Lengkap dengan Pressure Manager PM1	Grundfos, Ebara	Grundfos

4	Fire Extinguisher	- Material : Silinder Baja - Jenis Kebakaran : ABC (Media terbakar : Kayu, Kain, Kertas, Minyak, gas, trafo, instalasi listrik, dsb). - Agent : AF11 Liquid Gas bersih non halon - Kapasitas : 3 kg	Bravvo, Ice Blue, Newvo	Bravvo
5	Exhaust Fan	- Jenis : Sirocco Fan - Kapasitas : 120 cmh - Lengkap dengan alumunium anodized louvre & ducting pipa PVC	KDK, CKE	CKE

OUTLINE SPEC PEKERJAAN ELEKTRIKAL

NO	JENIS MATERIAL	SPESIFIKASI	MERK / PEMBUAT	MEREK YANG DIPILIH
A.	PEKERJAAN LISTRIK ARUS KUAT			
1	Peralatan Utama			
	Panel Tegangan Rendah - MDP+ATS, Panel Sub	Box Panel - Wall mounted cubicle, steel sheet metal (1,6 mm min), cat bakar . Komponen sesuai gambar	Global Teknindo, Nata Ultima	Nata Ultima
	Modul ATS	• MODUL COS MOTORIZED 4P 160 A FORT • Tipe GGLD-160 • Pole : 4P • I : 160 A • Select Position: ON-OFF-ON / I-O-I • Change position: Auto & Manual	FORT	FORT
	Power Meter Digital PM 2120 series	• Mengukur parameter kelistrikan standar (Arus, Tegangan, Frekuensi, • Faktor Daya, Daya, dan Energi). • Dilengkapi dengan LED atau LCD untuk memudahkan pembacaan. • Dimensi : 96 x 96, cutout : 92 x 92 • Adjustable CT & PT Ratio	Schneider	Schneider
	Pengaman - MCCB, - MCB - Kontaktor	MCCB 3P/4P : • Aplikasi untuk instalasi listrik dengan kapasitas	Schneider	Schneider

		pemutusan rendah. • Kapasitas Pemutusan : 7.5 kA s/d 30 kA pada 380/415 VAC. • Thermal magnetic trip		
		unit, tidak dapat disetel (<i>non adjustable</i>). • Fixed type, front connection. • Satu ukuran (<i>frame size</i>) untuk semua rating. • Memenuhi standar IEC 60947-2. • Rated @ 125V DC (1P) dan @ 250V DC (2P in series) MCB 10kA 1P/3P : • SNI 04-6507.1-2002/Amd1- 2006 (IEC 60898-1): 6 kA, IEC 60947-2: 10 kA • Kurva C (magnetis trip antara 5 dan 10 In). • Lebar modul per kutub = 18 mm. MCB 6kA 1P/3P : • SNI 04-6507.1-2002/Amd1- 2006 (IEC 60898-1): 6 kA • Kurva C (magnetis		

		trip antara 5 dan 10 In). • Lebar modul per kutub = 18 mm. MCB 4,5kA 1P/3P : • SNI 04-6507.1-2002/Amd1- 2006 (IEC 60898-1): 4.5 kA • Kurva C (magnetis trip antara 5 dan 10 In). • Lebar modul per kutub = 18 mm.		
	Asesories - Lampu		Schneider	Schneider
	Indikator - Terminal			
	- Isolasi - Sepatu kabel		Unibell, 3M	3M
2	Fixture Lampu			
	Armatur Lampu	Plat 0,6 mm Zinc Coated White paint	Artolite, Scarto	Scarto
	Lampu TL LED	Tipe : RM armature Reflector standart IP20 - LED 3x9 W, total minimal 3200 lm - LED 4x9 W, total minimal 4300 lm	Artolite, Scarto	Scarto
	Down Light LED	- Downlight inbouw RD125 LED Bulb 8 W - Downlight inbouw RD150 LED Bulb 12 W - Downlight outbouw	Philips, Osram	Philips

		RD150 LED Bulb 12 W		
3	Komponen Lampu			
	Lampu TL-LED	• TL LED 600mm • Wattage : 9W, • Lumen : minimal 1070lm, • Lifetime : 20.000 jam	Artolite, Philips	Philips
	Lampu Bulb LED	- LED Bulb 8 W, 805 lm, E27. - LED Bulb 12 W, 1360 lm, E27.	Philips, Osram	Philips
	Isolasi		3M, Unibel	3M
4	Saklar dan Stopkontak			
	Saklar	Saklar Tunggal Saklar Ganda Saklar Tukar	Schneider, Merten, Legrand	Schneider
	Stop Kontak	Tunggal : Rating 10 Amp	Schneider, Merten,	Schneider
		Ganda : Rating 16 Amp	Legrand	Legrand
5	Kabel dan Cable Tray/Ladder			
	Kabel Tegangan Rendah	NYY, NYM, NYFGBY	Supreme	Supreme
	Kabel Ground	BC	Supreme	Supreme
	Kabel Tahan Api	FRC	Pyrotec	Pyrotec
	Kabel Tray dan Ladder	Finish Galvanis	MegaTray / Traytek	Traytek
6	Catudaya Back Up			
	UPS	Ni Cadmium	Micropack	Micropack

7	Alat Bantu Instalasi			
	Conduit, TeeDoos , Cross Doos dll	HightImpact	Boss, Legrand	Boss
8	Lightning Protection			
	Air Terminal dan Air Termination Network	Type Early Streamer Emission (ESE), non radiation, minimal 50 m protection radius	Kurn, Pulsar	Kurn
	Down Conductor/ Konduktor Penghubung	- BC 50 mm2 - Disesuaikan dengan kebutuhan product Air Terminal		
	Electroda Pembumian	Polymer Inspection Pits / BakKontrol 5/8" rod coupling 5/8" x 1800mm extensible copperbond rod Rod ro cable clamp 5/8" driving stud	Lokal	Lokal
B.	PEKERJAAN LISTRIK ARUS LEMAH			
1	Pekerjaan Data LAN			
	Cable UTP (horizontal)	- Menggunakan cable UTP category-6 dan siap untuk running Fast Ethernet up to Gigabit Ethernet - Tipe kabel Unshielded Twisted Pair (UTP) 4 pair category-6. Memiliki separator pada masing-masing pair (cat-6), jacket isolasi PVC sesuai standard EIA/TIA 568. - Kabel UTP 4 pair tersebut di atas, dapat digunakan untuk data dengan kecepatan minimal Fast Ethernet	AMP Commscope	AMP Commscope

		(100 MBps) • Kabel UTP 4 pair tersebut di atas dipasang sesuai topology star dari IDF tiap lantai menuju ke workstation. • Pemasangan kabel UTP secara keseluruhan harus terlindungi oleh PVC conduit atau cable protector dan tidak diperkenankan adanya sambungan. • Panjang kabel horizontal maksimum yang diinstall tidak boleh lebih dari 90 m (295 ft). • Panjang total kabel jumper maksimum 10 m (33 ft). • Conduit yang dipasang oleh tidak diijinkan terdapat lebih dari dua bengkokan bersudut 90°		
	Kabel FO	Cable fiber Optic Single Mode	AMP Commscope	AMP Commscope
	Komputer Server	• MSI MINI PC PRO DP130 i3-10105/8GB/SSD 256GB/WIN 11 • FHD MONITOR 22" MSI LED PRO MP223	MSI	MSI

		• WIRED MOUSE & KEYBOARD COMBO LOGITECH MK 120	Logitech	Logitech
	Outlet Data	Outlet data dipasang secara "flush mounted" pada dinding ruang	Schneider, Panasonic	Schneider
	Wireless Access Point	Wireless Access Point TP-LINK EAP653 AX 3000 - Wireless Standards IEEE 802.11ax/ac/n/g/b/a - Frequency 2.4 GHz and 5 GHz - Signal Rate 5 GHz: Up to 2402 Mbps 2.4 GHz: Up to 574 Mbps - Interface : 1 x Gigabit Ethernet (RJ-45) Port - Button Reset - Power Supply 802.3at PoE 12V DC - Power Consumption EU: 13.07 W - Antenna Type Internal Omni 2.4 GHz: 2× 4 dBi 5 GHz: 2× 5 dBi - Mounting Ceiling /Wall Mounting (Kits included) Junction Box Mounting	Tp Link	Tp Link
	Switch System	• TP-LINK TL-SG2428P SMART SWITCH OMADA • TP-LINK TL-SG2218 SMART SWITCH OMADA • TP-LINK OC200 OMADA HARDWARE CONTROLLER	Tp Link	Tp Link
	UPS	• UPS MICROPACK 3000 VA MFU-3kVA	Micropack	Micropack

	PVC Conduit	High Impact Conduit	Legrand, Boss	Boss
	Racking	• WALLMOUNT RACK 19" 10U DEPT 600MM • WALLMOUNT RACK 19" 15U DEPT 700MM	Indorack, ABBA	Indorack
	Kabel	UTP PATCH CORD CAT-6 (3 & 15 m)	Vention	Vention
		Kabel power UPS : NYY 3x2,5 mm ²	Supreme	Supreme
2	Pekerjaan CCTV			

Panel Kontrol Utama	Network Video Recorder (NVR) System 16 CHANNEL TP-LINK VIGI NVR1016H - Protocol : TCP/IP, DHCP, DNS, NTP, UPnP - Incoming Bandwidth : 80 Mbps - Outgoing Bandwidth : 60 MBps - Package content : VIGI Network Video Recorder, Power Adapter, HDD Screws, Mouse, Quick Installation Guide - Network Interface : 1 RJ-45 10/100 Mbps Self-Adaptive Ethernet Interface - USB Interface : 2× USB 2.0 - SATA : 1 SATA Interface up to 10 TB - Synchronous Playback : 16- Channel - Video Input : 16-Channel IP Video Input, up to 8 MP Resolution - Recording Resolution : 8 MP/5 MP/ 4 MP/3 MP/1080p/UXGA /720p/VGA/4CIF/DCIF/2CIF/CIF /QCIF - HDMI Output Resolution : 1 Channel, Resolution: 3840x2160/30Hz,1920x1080/60 Hz, 1680x1050/60Hz, 1440x900/60Hz, 1280x1024/60Hz, 1280x720/60Hz	Tp Link	Tp Link
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		- VGA Output Resolution : 1 Channel, Resolution: 1920x1080/60Hz, 1680x1050/60 Hz, 1440x900/60Hz, 1280x1024/60Hz, 1280x720/60Hz - Decoding Format : H.265+/H.265/ H.264+/H.264 - Live View/Playback Resolution : 8 MP/5 MP/ 4 MP/3 MP/1080p/UXGA/ 720p/VGA/4CIF/DCIF/2CIF/CIF / QCIF - Capability: 2-ch @ 8MP, 4-ch @ 4MP, 8-ch @ 2MP		
	Dome Camera	TP-LINK VIGI C240 - 1/3" Progressive Scan CMOS Image Sensor - 4mm Lens - Aperture : F1.6 - Lens Mount: M12 - Viewing Angle (H,V,D): FOV: 79.7°, FOV: 42.9°, FOV: 93.9° - Day/Night Mechanism: IR Cut Filter - IR Working Distance: 30m - Minimum Illumination: Color: 0.1 Lux@F2.0; 0 Lux with IR - Digital Noise Reduction: 3D DNR - DWDR	Tp Link	Tp Link
	LED Monitor	Led Monitor Msi Pro MP223 21.45" FHD 100Hz 1Ms Fhd Hdmi D-Sub - MP 223 Input VGA, HDMI	MSI	MSI
	UPS	3000 VA	Micropack	Micropack
	Kabel	UTP Cat-6	AMP Commscope	AMP Commscope
		UTP PATCH CORD CAT-6 (3 & 15 m)	Vention	Vention

		Kabel power UPS : NYY 3x2,5 mm2	Supreme	Supreme
	Conduit	PVC High Impact	Legrand, Boss	Boss

3	Sistem Telepon			
	Central Unit	IP-PBX YEASTAR S20 20 SIP - SIP Ext.: max. 20 - Concurrent call: max. 10 - Analog Ports: max. 4 FXS/FXO ports - BRI Ports: max. 4 BRI ports - Storage: Build-in TF Card - Expand Slot: Not support	Yeastar	Yeastar
	Telephone Unit	ENTRY LEVEL IP-PHONE YEALINK SIP-T30 - Yealink HD Voice - 2.3" 132x64-pixel graphical LCD - Two-port 10/100M Ethernet Switch - Opus codec support - One SIP account - Local 5-way conferencing - Support EHS Wireless Headset - Unified Firmware - Support YDMP/YMCS - Stand with 2 adjustable angles - Wall mountable	Yealink	Yealink
	Outlet Telephone	Outlet telepon dipasang secara "flush mounted" pada dinding ruang	Schneider, Panasonic, Legrand	Panasonic
	Conduit & Junction	Pipa conduit telepon adalah terbuat dari bahan PVC.	Legrand, Boss	Boss

Yogyakarta, 04 Maret 2024
CV WAHYU JATI PRATAMA



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