

OUTLINE PRODUK SPESIFIKASI MATERIAL

PEKERJAAN
LOKASI
TAHUN ANGGARAN

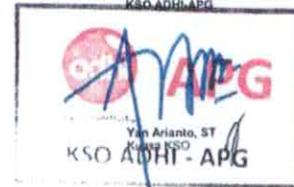
: PEMBANGUNAN GEDUNG (BELANJA JASA KONSTRUKSI PEKERJAAN PEMBANGUNAN MASJID AGUNG JAWA TENGAH DI KAB. MAGELANG)
: Jl. Soekarno Hatta Kel. Sawitan Kec. Mungkid Kab. Magelang Provinsi Jawa Tengah
: 2022 s/d 2023

A. PEKERJAAN ARSITEKTUR

No	JENIS PEKERJAAN	KETERANGAN	MATERIAL/MERK	
			Outline Spes	YANG DI TAWARKAN ADHI KSO APG
STRUKTUR				
1	Batu belah untuk pondasi	Untuk Pondasi Lajur Batu Belah Dinding	Lokal	Lokal
2	Pasir pasang / beton		Lokal	Lokal
3	Spilit 1/2, 2/3, 3/5		Lokal	Lokal
4	Besi :			
a	Besi sirip (BjTS-42)	- Fy = 420MPa (besi ulir)	SNI	HANIL / MS / SNI
b	Besi polos (BjTP-28)	- Fy = 280MPa (besi polos)	SNI	HANIL / MS / SNI
c	High Tension Bolt (HTB)	- Mutu A325		
5	Semen / PC & sejenisnya :			
a	Semen / PC		SNI	Semen Indonesia / 3 Roda / Gresik
b	Semen Instan	Semen instan untuk plesteran premium Untuk Acian pada Plesteran dan Beton Untuk Perekat Bata Ringan Untuk pengisi Nat Karamik / Homogenous Dinding & Lantai Untuk Perekat Homogenous Tile	Mortar Utama/Leichmix/Prime Mortar Mortar Utama/Leichmix/Prime Mortar Mortar Utama/Leichmix/Prime Mortar Mortar Utama/Leichmix/Prime Mortar Mortar Utama/Leichmix/Prime Mortar	GE / MU GE / MU GE / MU GE / MU GE / MU
c	Beton struktural Mutu f'c=30MPa (u/ Pondasi Borepile)	Pondasi Borepile D-120	Ready mix	Kurnia Sejahtera / Varia Beton / SCG
	Mutu f'c=30MPa (u/ Masjid, Plaza)	Kolom, Balok, Plat lantai, Tie beam, Pile cap, Ring balk (Slump ±12)	Ready mix	Kurnia Sejahtera / Varia Beton / SCG
	Mutu f'c=30MPa (u/ Menara)	Dinding Beton, balok (Slump ±12)	Ready mix	Kurnia Sejahtera / Varia Beton / SCG
	Mutu f'c=17MPa (u/ beton praktis)	Kolom, Balok (Slump ±12)	Ready mix	Kurnia Sejahtera / Varia Beton / SCG
6	Baja :			
a	Baja Profil ASTM A36M	- Fu = 400MPa - Fy = 250MPa	SNI SNI	Gunung Garuda / Lautan Steel / SNI Gunung Garuda / Lautan Steel / SNI
ARSITEKTUR				
1	Dinding	- Bata Ringan Ukuran 60x20x10 Cm ber SNI - Semen / PC	FOCON INTERLITE/GE-BLESSCON SNI	GE / FOCON / BLESSCON Semen Indonesia / 3 Roda / Gresik
2	Pelapis Lantai	- Homogenous Tile 60x60 Cm Polished - Homogenous Tile 60x60 Cm Unpolished - Homogenous Tile 60x60 cm Unpolished + Step Tile (Tangga Utama) - Homogenous Tile 120x30 cm + Step Tile Polished (Tangga Plaza, Tangga Masjid) - Homogenous Tile 120x60 Cm Polished (Bordes Tangga) - Keramik Tile 30x30 Cm Unpolished - Floor Hardener Spray System	Valentino Gress/Roman Granite Valentino Gress/Roman Granite Valentino Gress/Roman Granite Valentino Gress/Roman Granite Valentino Gress/Roman Granite Platinum/Roman Penetron/Vandev/Estop	Polish cream ivory ex. Valentino Gress Tropez / Rover ex. Valentino Gress Tropez / Rover ex. Valentino Gress Polish cream ivory ex. Valentino Gress Polish cream ivory ex. Valentino Gress Platinum Fosroc / Penetron
3	Wall Plint	- Homogenous Tile Tinggi 8 cm Polished	Valentino Gress/Roman Granite	Polish cream ivory ex. Valentino Gress
4	Dinding Partisi	- Cubical Toilet Panel Phenolic (Area Toilet) - Dinding Kaca Tempered - Ornamen Cor Beton (Serambi Masjid) - Movable Partition (Ruang Pertemuan)	Arin/SUMAS Asahimas/Mulia Ornamen Cor Beton - PRODUK LOKAL Arin/Daikin	Arin / C-Cube Asahimas/Mulia Ornamen Cor Beton - PRODUK LOKAL Arin / Centra Bina Citra
6	Pelapis Dinding	- Homogenous Tile 60x60 Cm Polished - Homogenous Tile 60x60 Cm UNPolished - Homogenous Tile 60x120 Cm Polished - Dinding Keramik 30x60 Polished	Valentino Gress/Roman Granite Valentino Gress/Roman Granite Valentino Gress/Roman Granite Platinum/Roman	Polish cream ivory ex. Valentino Gress Tropez / Rover ex. Valentino Gress Polish cream ivory ex. Valentino Gress Platinum
7	Kusen Pintu, Jendela & Aksesoris			
a	Kusen Pintu & Jendela	- Aluminium 4"x1 3/4" Tebal 1,15 Mm. Fin. Powder Coating - Kayu Jati Kelas 2 Mutu A	YKK/Alutama/Handex Lokal	Alutama Lokal
b	Kaca Pintu dan Jendela	- Kaca Bening - Tempered Glass	Asahimas/Mulia Asahimas/Mulia	Asahimas/Mulia Asahimas/Mulia
c	Daun Pintu	- Solid Engineering Door - Aluminium Fin. Powder Coating - UPVC + Frosted Glass - Pintu Kaca Frameless 12 mm	Arin Door/SUMAS/DAIKEN YKK/Alutama/Handex CONCH/KENDS/RETTO Asahimas/Mulia	Arin Door / DAIKEN / Lokal Alutama CONCH/KENDS/RETTO Asahimas/Mulia
d	Pintu Utama Masjid	4mm In Melamic Doff	Lokal	Lokal
e	Pintu Khusus	- Frame 150x50x53 5x23x3 mm - Leaf dengan Daun Pintu Tahan Api Berbentuk Rebated Door ditalamnya desu Rockwool Densitas 100 kg/m3, Kaca Tahan Api	HK-M/BOSTINCO HK-M/BOSTINCO	HK-M / BOSTINCO / Porta Ummu / Dolphin HK-M / BOSTINCO / Porta Ummu / Dolphin
f	Aksesoris	- Engsel Pintu Utama Masjid - Engsel/ Hinges - Handle - Kunci/ Lock Case - Grandel/ Flushtbolt - Door Closer - Patch Fiting	Dekson/KENDS/FIRNO Dekson/KENDS/FIRNO Dekson/KENDS/FIRNO Dekson/KENDS/FIRNO Dekson/KENDS/FIRNO Dekson/KENDS/FIRNO Dekson/KENDS/FIRNO	Dekson / FIRNO Dekson / FIRNO Dekson / FIRNO Dekson / FIRNO Dekson / FIRNO Dekson / FIRNO Dekson / FIRNO
8	Plafond	- Gypsum Board 9 Mm Fin Cat (Wet Area) - Gypsum Board 9 Mm Fin Cat - Rangka Metal Furing - PVC Plafond	Jayaboard/Knaul/A-Pius Jayaboard/Knaul/A-Pius Jayaboard/Knaul/A-Pius INDOFOND/Shunda Plafond	A-Pius A-Pius A-Pius INDOFOND/Shunda Plafond
9	Cat	Dinding - Interior, Anti Noda - Eksterior, Weather Shield - Eksterior, Weather Shield Metallic Plafond	JOTUN/PROPAN/MOWLEX JOTUN/PROPAN/MOWLEX JOTUN/PROPAN/MOWLEX JOTUN/PROPAN/MOWLEX	JOTUN/PROPAN/MOWLEX JOTUN/PROPAN/MOWLEX JOTUN/PROPAN/MOWLEX JOTUN/PROPAN/MOWLEX
10	Sanitasi			
a	Lavatory	- Closet Duduk - Closet Jongkok - Closet Difable - Washlet Shower Spray - Kran/ Water Faucet - Kran Wudhu - Paper Toilet Holder - Floor Drain - Washlet/ Wall Hung - Kran Washlet/ Wall Hung - Washlet/ Under Counter - Kran Washlet/ Under Counter - Sink - Kran Sink - Rob Hoose - Soap Holder	Roca/Toile/KOHLER Roca/Toile/KOHLER Roca/Toile/KOHLER Roca/Toile/KOHLER Roca/Toile/KOHLER Roca/Toile/KOHLER Roca/Toile/KOHLER Roca/Toile/KOHLER Roca/Toile/KOHLER Roca/Toile/KOHLER MODENA Roca/Toile/KOHLER Roca/Toile/KOHLER Roca/Toile/KOHLER	Roca Roca Roca Roca Roca Roca Roca Roca Roca Roca Modena / Royal Roca Roca Roca

No	JENIS PEKERJAAN	KETERANGAN	MATERIAL/MERK	
			Outline Spk	YANG DI TAWARKAN ADHI KSO APG
11	Railing	- Unnoir	Roca/Toto/KOHLER	Roca
		- Kran Unnoir	Roca/Toto/KOHLER	Roca
		- Unnoir Partition	Roca/Toto/KOHLER	Roca
		Tangga Utama :		
		- Handrail Kayu Jati fin. Awlamic	Lokal	Lokal
		- Railing Hollow Stainless Steel	SNI	SNI
		- Handrail dan Railing Galvanis	SW	SNI
		Tangga Darurat :		
		- Hand Railing Pipa Galvanis Ø 2" fin. cat duco	SNI	SNI
		- Pipa Besi Ø 2" Fin. Cat Duco	SNI	SNI
		- Pipa Besi Ø 1" Fin. Cat Duco	SNI	SNI
- Hand Railing Pipa Stainless Ø 2" fin. cat duco	SNI	SNI		
Railing Kaca Mhrtab:				
- Frameless Kaca Tempered Laminated 6 mm	Asahimas/Mulia	Asahimas/Mulia		
12	Atap a. Penutup Atap	Atap Genteng Metal Flat Shingle Metal Zinkalum serta pada bagian atasnya ditaburi granule (batuan alam) - Roof Insulation Single Side Aluminium tebal 10 mm	MAHAFLAT/ECOROOFF/AIKO	MAHAFLAT/ECOROOFF/AIKO
13	Waterproofing a. Waterproofing coating	Crystalline Waterproofing	Penetron/Vandax/E Stop	Brushbond TGP ex Fosroc / Penetron
14	Fasade	- Papan Kalium Silica Board - Kaca Berlang - Tembaga Fin. Glass - Kawangan Cor Beton Ringan Double - Kawangan Cor Beton Ringan Single - Batu Alam - Frameless Kaca Tempered Laminated 8	GRC/Kalsiboard/Nusaboard Asahimas/Mulia Lokal Lokal Lokal Lokal Asahimas/Mulia	GRC/Kalsiboard/Nusaboard Asahimas/Mulia Lokal Lokal Lokal Lokal Asahimas/Mulia
15	Infrastruktur	- Paving K-300 - Grass Block - Papan Kalium Silica Board - Batu Alam - Kanstin 800x140x210mm - Kanstin Tipe L 600x300x230mm	CISANGKAN/MASTER BETON/MUTIARA CISANGKAN/MASTER BETON/MUTIARA GRC/Kalsiboard/Nusaboard ANDESIT/CANDIL/LOKAL CISANGKAN/MASTER BETON/MUTIARA CISANGKAN/MASTER BETON/MUTIARA	MUTIARA / MASTER BETON / LOKAL MUTIARA / MASTER BETON / LOKAL GRC/Kalsiboard/Nusaboard ANDESIT/CANDIL/LOKAL MUTIARA / MASTER BETON / LOKAL MUTIARA / MASTER BETON / LOKAL

Jakarta, 26 Oktober 2022
KSO ADHI APG



PROYEK: MASJID AGUNG JAWA TENGAH - MAGELANG
PEKERJAAN: MEKANIKAL, ELEKTRIKAL & PLUMBING

No.	URAIAN	SPEKIFIKASI	DOKUMEN RKS	SPEKIFIKASI	PENGALUHAN APG
	PEKERJAAN MEKANIKAL				
	PEKERJAAN PLUMBING				
	Pompa Plumbing				
	Pompa Booster	Vertical In Line Multistage Pump	Grundfos/Wilo/Lowara	Vertical In Line Multistage Pump	Wilo/Grundfos/lowara
	Pompa Sumpit	Submersible Pump	Grundfos/Wilo/Lowara	Submersible Pump	Wilo/Grundfos/lowara
	Pipa Air Bersih	Polypropylene Random 80 (PPR 80) PN 10	Rucika Green/Westpex/Toro	Polypropylene Random 80 (PPR 80) PN 10	Westpex/Rucika green
	Pipa Air Daur Ulang	Polypropylene Random 80 (PPR 80) PN 10	Rucika Green/Westpex/Toro	Polypropylene Random 80 (PPR 80) PN 10	Westpex/Rucika green
	Pipa Air Kotor, Air Bekas, Venti & Air Hujan	Polyvinyl Chloride (PVC) kelas AW 10 kg/cm2	Rucika/Pralon/Vinilon	Polyvinyl Chloride (PVC) kelas AW 10 kg/cm2	Vinilon/Pralon/Rucika
	Valve-valve				
	Gate Valve		Muraflex/Armflex/Tozen		Muraflex/Armflex/Tozen
	Flexible Joint		Mico/Kitz/Arita		Mico/Kitz/Arita
	Foot Valve		Wika/Nagano		Wika/Nagano
	Pressure Gauge		Fanal/Potter Electric		Fanal/Potter Electric
	Pressure Switch		Omron/Chint		Omron/Chint
	Water Level Control		Oyo/San-ei		Oyo/San-ei
	Clean Out		Oyo/San-ei		Oyo/San-ei
	Vent Cap		Oyo/San-ei		Oyo/San-ei
	Roof Drain		Oyo/San-ei		Oyo/San-ei
	Roof Tank	FRP (Fiber Reinforced Panel) kapasitas 4 m3	Aquanor/Ezac	FRP (Fiber Reinforced Panel) kapasitas 4 m3	Aquanor/Ezac
	STP				
			Aquanor/Ezac		Aquanor/Ezac
	PEKERJAAN PEMADAM KEBAKARAN				
	Pompa Pemadam				
	Electric Hydrant Pump	Horizontal Split Case Fire Pump, 750 USGPM	Grundfos/Wilo/Lowara	Horizontal Split Case Fire Pump, 750 USGPM	Wilo/Grundfos/lowara
	Diesel Hydrant Pump	Horizontal Split Case Fire Pump, 750 USGPM	Grundfos/Wilo/Lowara	Horizontal Split Case Fire Pump, 750 USGPM	Wilo/Grundfos/lowara
	Jockey Pump	Vertical Multistage Pump	Grundfos/Wilo/Lowara	Vertical Multistage Pump	Wilo/Grundfos/lowara
	Pipa Hidran	Black Steel Schedule 40	Bakrie/Spindo/Riser	Black Steel Schedule 40	Spindo/Riser/Bakrie
	Gate Valve		Mico/Kitz/Arita		Mico/Kitz/Arita
	Flexible Joint		Armflex/Tozen		Armflex/Tozen
	Foot Valve		Mico/Kitz/Arita		Mico/Kitz/Arita
	Branch Control Valve		Mico/Kitz/Arita		Mico/Kitz/Arita
	Safety Valve		Conex/Socla/Arita		Conex/Socla/Arita
	Air Release Valve		Conex/Socla/Arita		Conex/Socla/Arita
	Alarm Control Valve		Wika/Nagano		Wika/Nagano
	Pressure Gauge		Fanal/Potter Electric		Fanal/Potter Electric
	Pressure Switch		Servvo/Yamato/Apron/Zeki		Yamato/Apron/Zeki
	Indoor Hydrant Box		Servvo/Yamato/Apron/Zeki		Yamato/Apron/Zeki
	Outdoor Hydrant Box		Servvo/Yamato/Apron/Zeki		Yamato/Apron/Zeki
	Hydrant Pillar		Servvo/Yamato/Apron/Zeki		Yamato/Apron/Zeki
	Seamless Connection		Viking/Yamato/Apron		Viking/Yamato/Apron
	Head Sprinkler		Servvo/Yamato/Apron		Servvo/Yamato/Apron
	Fire Extinguisher				
	PEKERJAAN TATA UDARA				
	Air Conditioning	AC Type Wall Mounted, Cassette	Daikin/Panasonic/IG	AC Type Wall Mounted, Cassette	LG/Daikin/Panasonic
	Exhaust Fan		KDK/Panasonic/Vanco/Fantech		Vanco/KDK/Panasonic
	Pressurized Air Fan	Centrifugal Indirect Fan	Vanco/Fantech/TCF	Centrifugal Indirect Fan	Vanco/Fantech/TCF
	Pipa Refrigeran	ASTM B280	Dajikin/Kembla/Unipro	ASTM B280	Kembla/Unipro/Dajikin
	Pipa Drain		Rucika/Pralon/Vinilon		Vinilon/Pralon/Rucika
	Isolasi Pipa		Daikin/Flexicell/Armaflex		Armaflex/Flexicell/Daikin
	Grille		Omega/Dinamis		Omega/Dinamis

PROYEK: MASJID AGUNG JAWA TENGAH - MAGELANG
PEKERJAAN: MEKANIKAL, ELEKTRIKAL & PLUMBING

No.	URAIAN	SPESIFIKASI	DOKUMEN RKS	SPESIFIKASI	PENGALUHAN APG
ELEVATOR					
	Passenger Lift (Merara)	1000 kg (13 orang), 5 Stop	VOLKSLIFT/TOSHIBA/HITACHI	1000 kg (13 orang), 5 Stop	VOLKSLIFT/TOSHIBA/HITACHI
PEKERJAAN ELEKTRIKAL					
Penerangan dan kotak kontak					
	Panel Maker	Metal sheet 2 mm, Powder coating Indoor & Outdoor	DTE PANEL/SIMETRI/DIE	Metal sheet 2 mm, Powder coating Indoor & Outdoor	DIE/Simetri/DTE Panel
	Komponen Panel	MCB, MCCB	TERASAKI/Schneider (Masterpact)/LS	MCB, MCCB	LS/Schneider/Terasaki
	Komponen Panel	ACB, MCCB, MCB	TERASAKI/Schneider (Masterpact)/LS	ACB, MCCB, MCB	LS/Schneider/Terasaki
	Capasitor Bank	APFR	TERASAKI/Schneider (Masterpact)/LS	APFR	LS/Schneider/Terasaki
	Komponen, Kontaktor, Relay, Volt/amper Meter		TERASAKI/Schneider (Masterpact)/LS		LS/Schneider/Terasaki
	Kabel daya	NYFGbY, NYY (Inti tembaga)	Supreme/Kabelindo/Kabelmetal	NYFGbY, NYY (Inti tembaga)	Kabelindo/Kabelmetal/Supreme
	Kabel instalasi	NYFGbY, NYY, NYM, NYA, NYMHY	Supreme/Kabelindo/Kabelmetal	NYFGbY, NYY, NYM, NYA, NYMHY	Kabelindo/Kabelmetal/Supreme
	Kabel Tray dan Ladder	FRC	PYROTEC FRMI 110°C/Radox FRMI 110°C/Vitalink FRMI 110°C	FRC	PYROTEC FRMI 110°C/Radox FRMI 110°C/Vitalink FRMI 110°C
	Armature lampu		TRI ABADI/TRI STAR/SAKA		TRI ABADI/TRI STAR/SAKA
	Spesial Lighting		Philips/OSRAM/Panasonic		Philips/OSRAM/Panasonic
	Lighting Controll		Philips/Ligman		Philips/Ligman
			Dali Controller/Paros/Philips		Philips/Pharos/Dali controller
FIRE ALARM					
	MCFA, Detector	Konvensional	Apron/Nittan/Esser	Konvensional	Esser/Apron/Nittan
	Instalasi	NYMHY 2 x 1,5 mm ²	Supreme/Ezo	NYMHY 2 x 1,5 mm ²	Supreme/Ezo
	Conduit Instalasi	PVC High Impact	Clipsal/Iegrant	PVC High Impact	Clipsal/Iegrant
	Detektor (RDR), Heat, smoke		Apron/Nittan/Esser		Esser/Apron/Nittan
	Manual Push Button		Apron/Nittan/Esser		Esser/Apron/Nittan
	Alarm Bell		Apron/Nittan/Esser		Esser/Apron/Nittan
	Break Glass		Apron/Nittan/Esser		Esser/Apron/Nittan
TELEPHONE					
	Instalasi Telephone	kabel ITC 2 x 0,6 mm ²	Supreme/Ezo	kabel ITC 2 x 0,6 mm ²	Supreme/Ezo
	Terminal Box	Terminal	Clipsal/Iigrant/Schneider	Terminal	Clipsal/Iigrant/Schneider
	Conduit Instalasi	PVC High Impact	Clipsal/Iigrant/Schneider	PVC High Impact	Clipsal/Iigrant/Schneider
	Telephon outlet	Standard	Clipsal/Iigrant/Schneider	Standard	Clipsal/Iigrant/Schneider
	Petawat Telephone	Standard Telkom	Panasonic/Boss	Standard Telkom	Panasonic/Boss
TATA SUARA					
	Amplifier, mixer, Speaker, Volume control	Evacuation, Paging, Background Music	TOA/Boss/AUDAC	Evacuation, Paging, Background Music	TOA/Boss
	Instalasi	NYMHY 3 x 1,5 mm ²	Supreme/Ezo	NYMHY 3 x 1,5 mm ²	Supreme/Ezo
	Conduit Instalasi	PVC High Impact	BOSS/LESSO	PVC High Impact	BOSS/LESSO
KOMPUTER					
	Switch / Hub	kap. Sesuai gambar		kap. Sesuai gambar	
	Instalasi Data Komputer	UTP Cat 6	Belden (USA)/MMC	UTP Cat 6	Belden (USA)/MMC
	Conduit Instalasi	PVC High Impact	BOSS/LESSO	PVC High Impact	BOSS/LESSO
	Komputer outlet	Standard	Clipsal/Iigrant/Schneider	Standard	Clipsal/Iigrant/Schneider
CCTV					
	Dome Camera	Infra Red	Panasonic/Honeywell/Axis	Infra Red	Panasonic/Honeywell
	CCD Box Camera	Infra Red	Panasonic/Honeywell/Axis	Infra Red	Panasonic/Honeywell
	Instalasi	Coaxial with cabel power	Supreme/Ezo	Coaxial with cabel power	Supreme/Ezo
	DVR		Panasonic/Honeywell/Axis		Panasonic/Honeywell
	Conduit Instalasi	PVC High Impact	BOSS/LESSO	PVC High Impact	BOSS/LESSO

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No.	URAIAN	SPEKIFIKASI	DOKUMEN RKS	SPEKIFIKASI	PENGAJUAN APG
	PENYALUR PETIR				
	Head Penyulur Petir	sesuai gambar	Flash Fectron fv6/pulsar	sesuai gambar	Flash Fectron fv6/pulsar
	Down Conductor	NY 70 mm	Supreme/Kabelindo/Kabelmetal	NY 70 mm	Kabelindo/Kabelmetal
	Peralatan Grounding	manufacturer	Lokal	manufacturer	Lokal
	Tahanan grounding		Lokal		Lokal
	GENERATOR SET				
	DAYA 725 KVA (stanby power)	sesuai gambar	PERKINS/CATERPILLAR/CUMMINS		TIDAK DITAWARKAN
	Alternator		Stamford/Leroy Somer/Mec ALTE		TIDAK DITAWARKAN
	Peralatan Grounding	manufacturer	Lokal		TIDAK DITAWARKAN
	Kabel Instalasi		Supreme/Kabelindo/Kabelmetal		TIDAK DITAWARKAN
	TRANSFORMATOR				
	DISTRIBUSI 630 KVA	Cast Resin 630 kVA ; 20kV/40V ; 3Ph ; 50Hz ; Yyn0 ; AN ; AL - AL	B&D/Schneider	Cast Resin 630 kVA ; 20kV/40V ; 3Ph ; 50Hz ; Yyn0 ; AN ; AL - AL	B&D/Schneider
	BUSDUCT dan PLUG-IN UNIT				
	Busduct	manufacturer	FURUTEC/GE Spectra/Nissin	manufacturer	FURUTEC/GE Spectra/Nissin
	Straight length	manufacturer	FURUTEC/GE Spectra/Nissin	manufacturer	FURUTEC/GE Spectra/Nissin
	Elbow	manufacturer	FURUTEC/GE Spectra/Nissin	manufacturer	FURUTEC/GE Spectra/Nissin
	Hanger	manufacturer	FURUTEC/GE Spectra/Nissin	manufacturer	FURUTEC/GE Spectra/Nissin
	Flange End	manufacturer	FURUTEC/GE Spectra/Nissin	manufacturer	FURUTEC/GE Spectra/Nissin
	Couple Bar	manufacturer	FURUTEC/GE Spectra/Nissin	manufacturer	FURUTEC/GE Spectra/Nissin
	Flexible	manufacturer	FURUTEC/GE Spectra/Nissin	manufacturer	FURUTEC/GE Spectra/Nissin
	PLUG-IN UNIT	manufacturer	FURUTEC/GE Spectra/Nissin	manufacturer	FURUTEC/GE Spectra/Nissin

Jakarta, 26 Oktober 2022

