PEGASUS Series

Game Must Be Changed





Game Must

LS Mecapion develops its new product- Pegasus which can control motor, encoder and drive at one time with our own professional skill. We provide perfect performance, accurate motion and scrupulous management of power. Those are the significant features that build the foundation of trouble-proof machinery for any demanding industrial application.

LS Mecapion goes on to enhance our R&D endeavor in the area of compact design with sophisticated digital processing technology. It is the cradle for all of our efforts in making the most elaborate, integrated motion control solutions available in present market.

Compactness, Advancement, Modularity : we define as PEAGASUS.

It is able to provide trouble-proof AC servo system, adapt with wide range of clever AC Servo System and apply multi-axis controls through EtherCAT. Also it makes set-up extremely easy and shortens set-up time.

EtherCAT Communication

Pegasus series supports various communication standards such as FoE, EoE and CoE. FoE is for firmware updating. EoE is for Parameter setting, adjustment, auxiliary functions, and parameter copy through Ethernet for multi-axis. CoE is for standard drive control connectivity via IEC 61158 Type12, IEC 61800-7 CiA 402 drive profile. EtherCAT Communication allows long distance wiring up to 100m cable length between nodes.





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PEGASUS is intergrated servo system: Motor+Encoder+Drive

By supporting huge investment to make this intergrated pegasus, It provides the following benfits.

Cost effective

Pegasus series does not require motor and encoder cables. Also, it has standard simple EtherCAT wiring for communication.

Pegasus series is intergrated servo system which has motor, encoder and drive in all together. All of features above dedicate to cost effectiveness.

Advanced

Pegasus series uses the magnetic encoder and optimizes PWM algorithm with DC48V input power for controlling the compact motor. Furthermore, we use ASIC which controls sensing, amplifying and signal output part in magnetic encoder. We also applied new winding technology which is specialized in low voltage. Advanced magnetic encoder and low voltage winding technology make more stable and high performance.



Compact and Modulated

Pegasus series is developed for more harsh environment and limited space. We have modulated all the parts and components such as encoder, heatsink, winding method and etc for better performance. Pegasus series becomes intergrated servo system which can be withstand harsh vibration and it also has the feature of reduced temperature of motor while operating.

PC Communication Software

For updating firmware into Pegasus drive, Pegasus series provides its own PC software which enables to perform all the functions include firmware updating. It will help you to do many things as well as parameter setting, adjustment, auxiliary functions and parameter copy function through USB



Motor Specification

Model	Unit	SAR5A-8	SA01A-8	SB01A-6	SB02A-9	SB03A-9		
Frame Size	[mm]	40	40	60	60	60		
Rated Power	[W]	50	100	100	200	300		
Rated Torque	[N m]	0.16	0.32	0.32	0.64	0.95		
	[Kgf cm]	1.62	3.25	3.25	6.50	9.74		
Max. Torque	[N m]	0.32	0.64	0.64	1.27	1.91		
	[Kgf cm]	3.25	6.50	6.50	12.99	19.49		
Rated Speed	[rpm]	3,000	3,000	3,000	3,000	3,000		
Max. Speed	[rpm]	3,000	3,000	3,000	3,000	3,000		
Inortio	[gf cm s ²]	0.02	0.0435	0.114	0.186	0.328		
mertia	[Kg m ² ×10 ⁻⁴]	0.02	0.0426	0.116	0.182	0.321		
Rated Voltage	[VDC]	Input Power : 48VDC						
Encoder Type		Magnetic	Magnetic	Magnetic	Magnetic	Magnetic		

Note : SA01A-8 can be operated Max. torue(6.4Nm) at 3000rpm with 60Vdc of input power(instead of 48Vdc)

Drive Specification

Specification	Unit	Description
Supply voltage	DC Volt	48~60VDC
Continuous output power	Watt	40mm Frame : 50W~100W, 60mm Frame : 100W~300W
Rated current(RMS)	Ampere	1.8~7.1
Peak current	Ampere	200% of rate current
Dimensions	mm	40×74×116(35W)~62×62×194.5(300W)
Protections		 Short circuit, over-current, thermal(NTC) sensor Over Load, Over Voltage, Over voltage, Over Current Over limited Current, Over Heat, Encoder problem Following Error, Sensing Current

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EtherCAT

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Application of Linear Axes Unit

Linear axes unit is used for various field such as moving, auto loader inspection, line up, dispensing, carving and etc with advantage of convenience, simple construction and chief investment compare with other type.

Dispensing Unit

Grease gun will input fixed volume or quantity with required speed to certain place by conveyer.

At this point in time, utilization rate of these technical machine using many axes have has been increasing.

This line of robots and linear motion units are designed with simplicity to be automated. Also it can be used for easily integrated into automated robotic applications.

This advanced robot system that specializes in dispensing is used in a large semiconductor company.

Palletizing Unit

Place certain items into pallet with several spaces as programming order. This type of system is used to automate the pallet building process in a distribution, warehouse, and Manufacturing facility.

And this equipment offers tailored solutions for palletizing systems in the glass industry and beverage industry by using robot palletizer technology and different gripping facility, high performance can be fulfilled in small room.

Pick and Place Unit

Move several parts to assembly line. Then, pick and place. These pick and place equipment commonly pick up components and place them into the fixture for the assembly process. This system is designed for production step including supply and alignment system and has significant flexibility to move parts. And it makes automated assembly system's the efficiency maximize by using continuous operation in Warehouses, distribution centers and factories to reduce labor costs and increasing production handling capacity.

Designation of PEGASUS Series



off the yor domine that			Connector		Pin number	Name	Func	tion	
1 2 3 4 5 6 7 8 9 10 11 [Фурирана 100 (мосех)] 511004-1100 (мосех)		Connector		1	ST01	Blocks the current (torque) applie			
		123		2	ST02	to the motor when the signal is off. DC 24 V GND			
				3	COMMON				
						PEGA-B S	eries		
Pin number	Name	Details	Function			Pin number	Name	Func	tion
1	+24V	DC 24 V input	Common	PEGA-A Sorios PEGA-B Sorios		1	+15V	Bypass Wiring	
2 POT	Forward rotation (CCW) prohibited	The actuator stops the servo motor to prevent	: 43645-0300 (MOLEX)	: 43645-0500 (MOLEX)	2	ST01	Blocks the curren	t (torque) applied	
		it from moving beyond the motion range in			3	ST02	to the motor when the signal is off		
			forward direction.			4	COMMON	DC 24V GND	
2 NOT	Reverse rotation	The actuator stops the servo motor to prevent			5	0V	Bypass Wiring		
3	NUT	(CW) prohibited	reserve direction.						
4	HOME	Origin sensor	Connects the origin sensor to return to the	CN2 - Rowor	Connector	Pin number	Name	Details	Function
			origin.	GITS : FUWEI	Connector	1	Р	DC 48 V	DC 48 V input
5	STOP	Servo stop	Stops the servo motor when the contact is on.			2	N	DCOV	DC 0 V input
6	BRAKE+	Brake	Outputs brake control signal	32		3	FG	FG	Frame Ground
7	BRAKE-	Diake	outputs brake controt signat.			_			
8	ALARM+	Sorvo alarm	Outputs signal when alarm occurs						
9	ALARM-	Jer vo atarini	outputs signat when atainin occurs.						
10	AMON	Analog monitor	Analog monitor output (-4 V to +4 V)	PEGA-A Series : MC 1.5-3-STF-3.5 (PHOENIX CONTACT)					
11	AGND	AGND(0V)	Analog ground						
te 1) 4 cha	nnels coul	d be mapped to 12 i	nput functions.	PEGA-B Series : MS	STB 2.5-3-STF-5.08				

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