

Standard Hydraulic Power Unit YA Pack

YA*-*-*-50

Notice of Model Change

We are pleased to announce that the standard hydraulic power unit YA Pack will be remodeled to comply with the Top Runner criteria that come into force in April 2015, and their design number will be changed from 43 to 50.

■Description of the Change

In the context of worldwide efforts against global warming, many countries have set minimum requirements for energy consumption efficiency and introduced legislation to mandate the use of higher efficiency electric motors. In Japan, the Top Runner criteria will regulate the efficiency of induction motors from April 2015.

By bringing built-in M series motors into compliance with the criteria, we will implement the model change of standard hydraulic power unit YA Pack.



■Major Changes

- The terminal box of the motor will be positioned on the upper side, and the overall unit body will be bigger.
- The masses will increase by a range of 2 to 21 kg (103 to 115% rate of increase in mass).
- The efficiency class of the built-in motor will be changed to IE3, and the overall motor specifications will be improved.

For details on the motor specifications, refer to the following product news.

No.15-01B M Series Motors: Notice of Model Change(rev.)

- The reservoir capacity will be enhanced to hold additional 10 L of fluid.

■Mounting Interchangeability between Old and New Models

Interchangeability	Model	Difference in	Corresponding Dimension
Interchangeable	YA10-*-4/6/10, YA16-*-4/6/10 YA22-*-10, YA37-B-10/16	—	—
Not interchangeable	YA10-B-2/3	The distance between the reservoir end face and the drain (DR) port/tank (T) port	Dimension C, No.6
		The distance between the reservoir end face and the pressure (P) port	Dimension D, No.6
	YA16-B-2	The mounting hole diameter of the unit mounting foot	Dimension C, No.7
	YA22-B-6	The height of T port on the reservoir	Dimension B, No.8





■Timing of Release

Scheduled to be released in April 2015.

(The timing of release may be changed depending on when M series motors are available. For the start date of order reception, contact us separately.)

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■Specifications

Model Number	Geometric Displacement of Pump (cm ³ /rev)	Max. Operating Pressure* ¹ (MPa)	Pressure Adjustment Range (MPa)	Reservoir Capacity (L)	Electric Motor 50 Hz: 200 V AC 60 Hz: 200/220 V AC	Approx. Mass (excluding hydraulic fluid) (kg)
YA10-B-2-0.75-50	10.0	7	1.2 to 7	20	0.75 kW × 4P	45
YA10-B-3-0.75-50				30	0.75 kW × 4P	50
YA10-B-3-1.5-50				30	1.5 kW × 4P	52
YA10-B-4-0.75-50				40	0.75 kW × 4P	55
YA10-B-4-1.5-50				40	1.5 kW × 4P	59
YA10-B-6-1.5-50				60	1.5 kW × 4P	69
YA10-B-6-2.2-50		60	2.2 kW × 4P	77		
YA10-C-6-2.2-50		16	2.0 to 16	60	2.2 kW × 4P	82
YA10-C-6-3.7-50				60	3.7 kW × 4P	94
YA10-C-10-2.2-50				100	2.2 kW × 4P	107
YA10-C-10-3.7-50				100	3.7 kW × 4P	116
YA16-B-1-0.75-50 	15.8	7	1.2 to 7	10	0.75 kW × 4P	43
YA16-B-1-1.5-50 					1.5 kW × 4P	46
YA16-B-1-2.2-50 					2.2 kW × 4P	53
YA16-B-2-0.75-50 		7	1.2 to 7	18	0.75 kW × 4P	45
YA16-B-2-1.5-50					1.5 kW × 4P	48
YA16-B-2-2.2-50					2.2 kW × 4P	55
YA16-B-4-1.5-50		7	1.2 to 7	40	1.5 kW × 4P	64
YA16-B-6-1.5-50		7	1.2 to 7	60	1.5 kW × 4P	74
YA16-B-6-2.2-50					2.2 kW × 4P	82
YA16-B-6-3.7-50					3.7 kW × 4P	94
YA16-C-6-3.7-50		16	2.0 to 16	60	3.7 kW × 4P	99
YA16-B-10-2.2-50		7	1.2 to 7	100	2.2 kW × 4P	107
YA16-C-10-3.7-50		16	2.0 to 16	100	3.7 kW × 4P	121
YA16-C-10-5.5-50					5.5 kW × 4P	145
YA16-C-10-7.5-50					7.5 kW × 4P	157
YA22-B-6-2.2-50		22.2	7	1.2 to 7	60	2.2 kW × 4P
YA22-B-6-3.7-50	3.7 kW × 4P					94
YA22-B-10-2.2-50	7		1.2 to 7	100	2.2 kW × 4P	112
YA22-B-10-3.7-50					3.7 kW × 4P	146
YA22-C-10-5.5-50	16		2.0 to 16	100	5.5 kW × 4P	145
YA22-C-10-7.5-50					7.5 kW × 4P	157
YA37-B-10-3.7-50	36.9	7	1.2 to 7	100	3.7 kW × 4P	141
YA37-B-16-5.5-50				160	5.5 kW × 4P	175
YA37-B-16-7.5-50					7.5 kW × 4P	182

*1: Max. operating pressure indicates the upper limit of pressure adjustment range for the pump. For the service limits of pressure and output flow for electric motor output, refer to the revised version of the product catalogue (JC-1012-2) to be issued at a later date.

*2: The thermal class of the electric motor is type F in all models.

*3: YA37-B-16-5.5/7.5 with a pump of two-pressure two-flow control type (control: 05 or 06) is also available as a special option. For details, contact us separately.

■ Model Number Designation

YA	16	—B	—6	—2.2	—50	
Series Number	Built-in Pump	Pressure Adj. Range * (MPa)	Reservoir Capacity (L)	Electric Motor	Design Number	
YA: Standard Hydraulic Power Unit YA Pack	10: A10 (10.0 cm ³ /rev)	B: 1.2 to 7	2: 20	0.75: 0.75 kW × 4P	50	
			3: 30	0.75: 0.75 kW × 4P		
				4: 40		1.5: 1.5 kW × 4P
			6: 60			0.75: 0.75 kW × 4P
				6: 60		1.5: 1.5 kW × 4P
			6: 60			2.2: 2.2 kW × 4P
		10: 100		2.2: 2.2 kW × 4P		
			10: 100	3.7: 3.7 kW × 4P		
		16: AR16 (15.8 cm ³ /rev)		B: 1.2 to 7		1: 10
			1.5: 1.5 kW × 4P			
	2.2: 2.2 kW × 4P					
	B: 1.2 to 7		2: 18	0.75: 0.75 kW × 4P		
				1.5: 1.5 kW × 4P		
				2.2: 2.2 kW × 4P		
	B: 1.2 to 7		4: 40	1.5: 1.5 kW × 4P		
				6: 60		1.5: 1.5 kW × 4P
	6: 60		2.2: 2.2 kW × 4P			
			6: 60			3.7: 3.7 kW × 4P
	10: 100	3.7: 3.7 kW × 4P				
		10: 100	5.5: 5.5 kW × 4P			
	10: 100		7.5: 7.5 kW × 4P			
		22: AR22 (22.2 cm ³ /rev)	B: 1.2 to 7	6: 60		2.2: 2.2 kW × 4P
	3.7: 3.7 kW × 4P					
	B: 1.2 to 7		10: 100	2.2: 2.2 kW × 4P		
				3.7: 3.7 kW × 4P		
	C: 2.0 to 16		10: 100	5.5: 5.5 kW × 4P		
				7.5: 7.5 kW × 4P		
37: A37 (36.9 cm ³ /rev)	B: 1.2 to 7	10: 100	3.7: 3.7 kW × 4P			
			16: 160	5.5: 5.5 kW × 4P		
		7.5: 7.5 kW × 4P				

* "Pressure Adj. Range" column lists the values for the pump.

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Options

Available options are indicated with ○ mark. As applicable options and notes for some models have been changed, refer to the following table in selecting options.

Option Symbol	01M*	03M*	B	E	G	T*	V VT	F	Mg	C	Ca	Te	H*	Cw	TR	Le	P	PT	R	Rk	*V *H	B C	D	
Option Item	(1) Base Plate incorporated Size/Number of Plates		(2) Without Control Circuit	(3) Without Port Block	(4) Pressure gauge for Control Circuit incorporated	(5) Terminal Box incorporated	(6) Electric Wiring Unit	(7) Return Filter incorporated	(8) Magnetic Contamination Catcher incorporated	(9) Drain Cooler Fan Cooler*2 incorporated Radiator		(10) Oil Level Gauge with Thermometer incorporated	(11) With Temperature Rising Circuit*3	(12) Water Cooler incorporated	(13) Thermostat incorporated	(14) Liquid Level Switch incorporated*5	(15) Oil Pan incorporated	(16) External Paint Color changed	(17) Fire Service Act applied	(18) Water Leak Inspection	(19) Different Motor Voltage	(20) Pressure Ranged changed	(21) P Port Check Valve incorporated	
Model																								
YA16-B-1-*	○ 1 to 2	×	○	—	○	○ T1	○	×	○	Built-in	×	○	×	×	○	○	×	○	×	○	○	×	×	
YA10-B-2-0.75	×	×	—	—	—	○ T1	○	×	○	○	×	○	×	×	○	○	○	○	×	○	○	×	×	
YA16-B-2-*	○ 1 to 2	×	○	—	○	○ T1,T2	○	*6	○	Built-in	×	○	×	×	○	○	×	○	×	○	○	×	×	
YA10-B-3-*	×	×	—	—	—	○ T1	○	*6	○	○	×	○	×	×	○	○	○	○	×	○	○	×	×	
YA10-B-4-*	○ 1 to 3	×	○	○	○	○ T1,T2	○	○	○	○	×	○	○	×	○	○	○	○	○	○	○	×	○	
YA16-B-4-1.5	○ 1 to 3	×	○	○	○	○ T1,T2	○	○	○	○	×	○	○	×	○	○	○	○	○	○	○	×	○	
YA10-B-6-*	○ 1 to 5	×	○	○	○	○ T1,T2,T3	○	○	○	○	*1	○	○	*4	○	○	○	○	○	○	○	○	○	
YA10-C-6-*	○ 1 to 5	×	○	○	○	○ T1,T2,T3	○	Built-in	○	Built-in	×	○	○	*4	○	○	○	○	○	○	○	○	—	
YA16-B-6-*	○ 1 to 5	×	○	○	○	○ T1,T2,T3	○	○	○	○	*1	○	○	*4	○	○	○	○	○	○	○	○	○	
YA16-C-6-*	○ 1 to 5	×	○	○	○	○ T1,T2,T3	○	Built-in	○	Built-in	×	○	○	*4	○	○	○	○	○	○	○	○	—	
YA22-B-6-*	○ 1 to 5	×	○	○	○	○ T1,T2,T3	○	○	○	○	*1	○	○	*4	○	○	○	○	○	○	○	○	○	
YA10-C-10-*	○ 1 to 5	○ 1 to 4	○	○	○	○ T1,T2,T3	○	Built-in	○	○	*1	○	○	○	○	○	○	○	○	○	○	○	—	
YA16-B-10-2.2	○ 1 to 5	○ 1 to 4	○	○	○	○ T1,T2,T3	○		○	○	*1	○	○	○	○	○	○	○	○	○	○	○	○	○
YA16-C-10-*	○ 1 to 5	○ 1 to 4	○	○	○	○ T1,T2,T3	○		○	○	*1	○	○	○	○	○	○	○	○	○	○	○	○	—
YA22-B-10-*	○ 1 to 5	○ 1 to 4	○	○	○	○ T1,T2,T3	○		○	○	*1	○	○	○	○	○	○	○	○	○	○	○	○	○
YA22-C-10-*	○ 1 to 5	○ 1 to 4	○	○	○	○ T1,T2,T3	○		○	○	*1	○	○	○	○	○	○	○	○	○	○	○	○	—
YA37-B-10-3.7	×	○ 1 to 4	○	○	○	○ T1,T2,T3	○		○	○	*1	○	○	○	○	○	○	○	○	○	○	○	○	○
YA37-B-16-*	×	○ 1 to 4	○	○	○	○ T1,T2,T3	○		○	○	*1	○	○	○	○	○	○	○	○	○	○	○	○	○

*1: Choose either Radiator (C) or Fan Cooler (Ca) in (9) Drain Cooler incorporated.

*2: When Fan Cooler (Ca) in (9) Drain Cooler incorporated or (12) Water Cooler incorporated is chosen, the number of selectable base plates in (1) is limited.

Model	Selected Option	Number of Selectable Base Plates
YA10/16/22-*-6	Fan Cooler (Ca) incorporated	Up to 2 (Size: 01)
	Water Cooler (Cw) incorporated	Up to 4 (Size: 01)
YA10/16/22/37-*-10	Fan Cooler (Ca) incorporated	Size: 01 Up to 3
		Size: 03 Up to 2
YA37-B-16		Up to 2 (Size: 03)

When (17) Fire Service Act applied (R) is chosen, a fan cooler (Ca) cannot be incorporated.

*3: Choose either (11) With Temperature Rising Circuit (temperature rise by a stop valve with a temperature rising circuit (H1)) or (1) Base Plate incorporated.

Temperature rise by a throttle modular valve (H2) can be selected only when (1) Base Plate incorporated is chosen, and it uses one circuit on the base plate.

*4: Up to 4 base plates can be incorporated in (1).

*5: Only low level can be detected.

*6: Oil-immersed type.

■ Specification Comparison between Old and New Models

The specifications of the new and old models are the same except the following. The masses of the new models increase by a range of 2 to 21 kg compared to the old ones (103 to 115% rate of increase in mass).

● Reservoir Capacity

Old Model		New Model	
Model Number	Reservoir Capacity (L)	Model Number	Reservoir Capacity (L)
YA16-B-2-1.5-43	20	YA16-B-2-1.5-50	18
YA16-B-2-2.2-43		YA16-B-2-2.2-50	

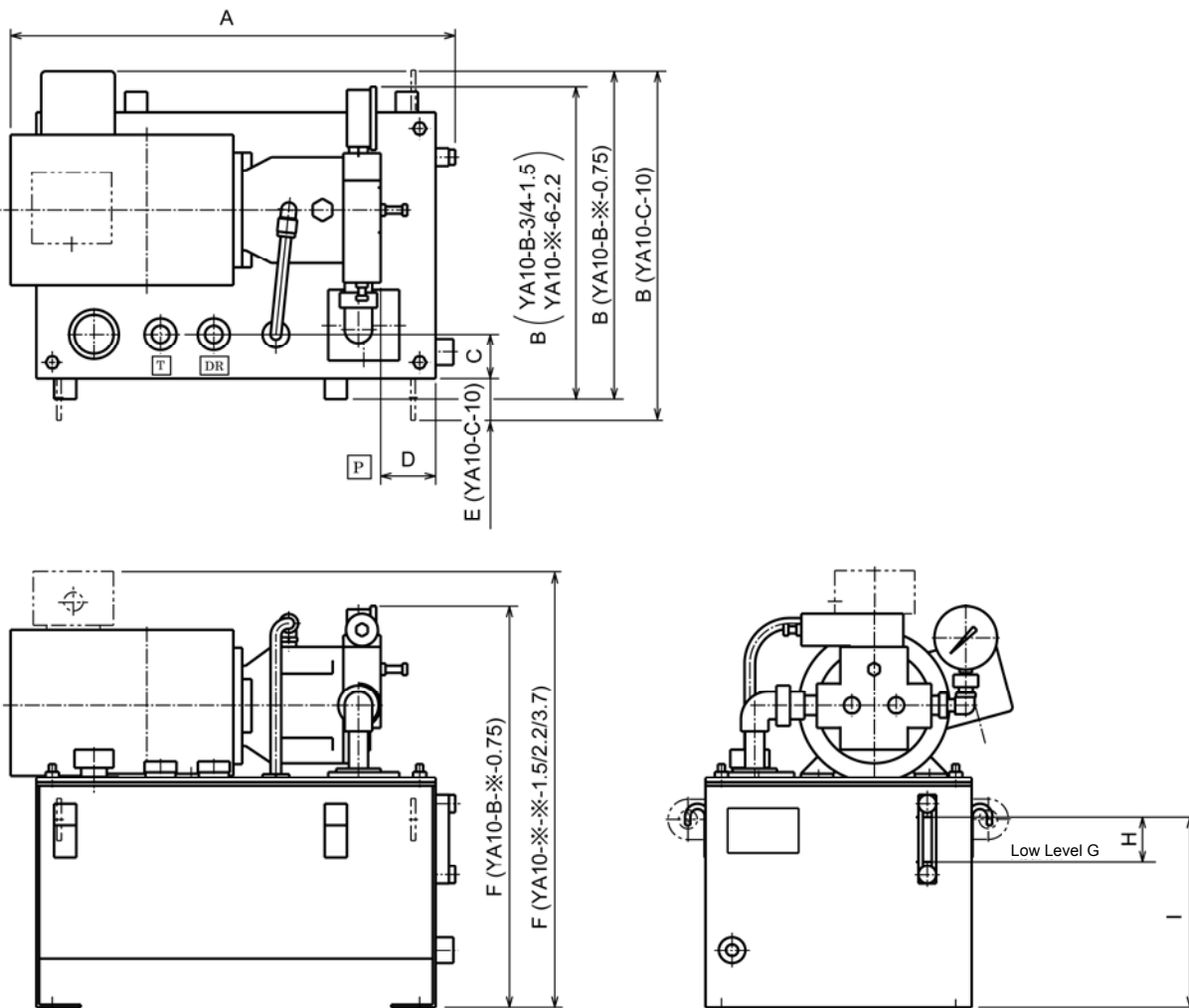
● Approx. Mass

Old Model		New Model	
Model Number	Approx. Mass (kg)	Model Number	Approx. Mass (kg)
YA10-B-2-0.75-43	41	YA10-B-2-0.75-50	45
YA10-B-3-0.75-43	46	YA10-B-3-0.75-50	50
YA10-B-3-1.5-43	50	YA10-B-3-1.5-50	52
YA10-B-4-0.75-43	51	YA10-B-4-0.75-50	55
YA10-B-4-1.5-43	57	YA10-B-4-1.5-50	59
YA10-B-6-1.5-43	67	YA10-B-6-1.5-50	69
YA10-B-6-2.2-43	73	YA10-B-6-2.2-50	77
YA10-C-6-2.2-43	78	YA10-C-6-2.2-50	82
YA10-C-6-3.7-43	82	YA10-C-6-3.7-50	94
YA10-C-10-2.2-43	103	YA10-C-10-2.2-50	107
YA10-C-10-3.7-43	104	YA10-C-10-3.7-50	116
YA16-B-2-1.5-43	46	YA16-B-2-1.5-50	48
YA16-B-2-2.2-43	51	YA16-B-2-2.2-50	55
YA16-B-4-1.5-43	62	YA16-B-4-1.5-50	64
YA16-B-6-1.5-43	72	YA16-B-6-1.5-50	74
YA16-B-6-2.2-43	78	YA16-B-6-2.2-50	82
YA16-B-6-3.7-43	82	YA16-B-6-3.7-50	94
YA16-C-6-3.7-43	87	YA16-C-6-3.7-50	99
YA16-B-10-2.2-43	103	YA16-B-10-2.2-50	107
YA16-C-10-3.7-43	109	YA16-C-10-3.7-50	121
YA16-C-10-5.5-43	129	YA16-C-10-5.5-50	145
YA16-C-10-7.5-43	136	YA16-C-10-7.5-50	157
YA22-B-6-2.2-43	78	YA22-B-6-2.2-50	82
YA22-B-6-3.7-43	82	YA22-B-6-3.7-50	94
YA22-B-10-2.2-43	108	YA22-B-10-2.2-50	112
YA22-B-10-3.7-43	134	YA22-B-10-3.7-50	146
YA22-C-10-5.5-43	129	YA22-C-10-5.5-50	145
YA22-C-10-7.5-43	136	YA22-C-10-7.5-50	157
YA37-B-10-3.7-43	129	YA37-B-10-3.7-50	141
YA37-B-16-5.5-43	160	YA37-B-16-5.5-50	175
YA37-B-16-7.5-43	162	YA37-B-16-7.5-50	182

■Dimensional Comparison between Old and New Models

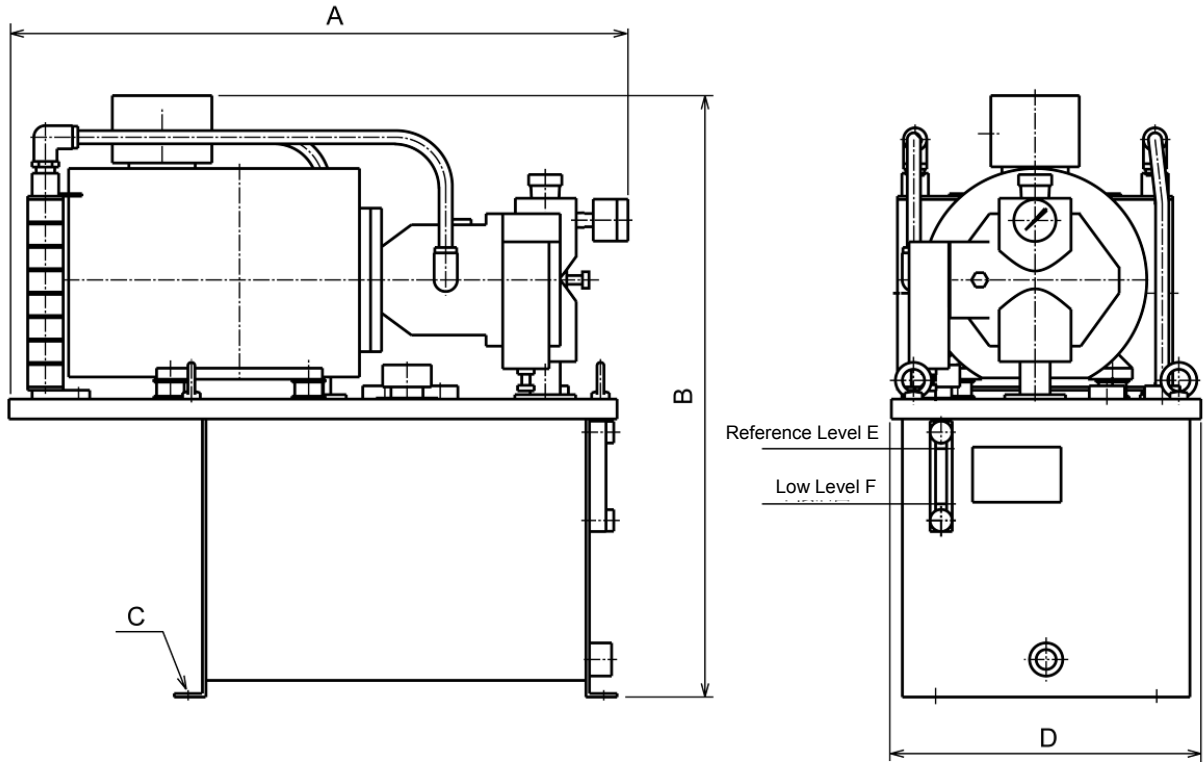
The dimensions of the new and old models are the same except those shown in the following external dimensions table. In some models, the location of an accessory (additional hydraulic apparatus) is changed. For details, refer to the installation drawings.

YA10



	Model Number	A (Max)	B	C	D	E	F (Max)	G	H	I
Old	YA10-B-2-0.75-43	475	365	70	59	—	465	16 L	30	210
	YA10-B-3-0.75-43	475	365	70	59	—	545	26 L	30	290
	YA10-B-3-1.5-43	480	365	70	59	—	575	26 L	30	290
	YA10-B-4-0.75-43	585				—				
	YA10-B-4-1.5-43	605				—				
	YA10-B-6-2.2-43	635				—				
	YA10-C-6-2.2-43	695				—				
	YA10-C-10-2.2-43		610			55				
	YA10-C-10-3.7-43		610			55				
New	YA10-B-2-0.75-50	505	370	50	62	—	455	14 L	50	215
	YA10-B-3-0.75-50	505	370	50	62	—	535	24 L	50	295
	YA10-B-3-1.5-50	505	355	50	50	—	600	24 L	50	295
	YA10-B-4-0.75-50	615				—				
	YA10-B-4-1.5-50	615				—				
	YA10-B-6-2.2-50	655				—				
	YA10-C-6-2.2-50	690				—				
	YA10-C-10-2.2-50		600			50				
	YA10-C-10-3.7-50		600			50				

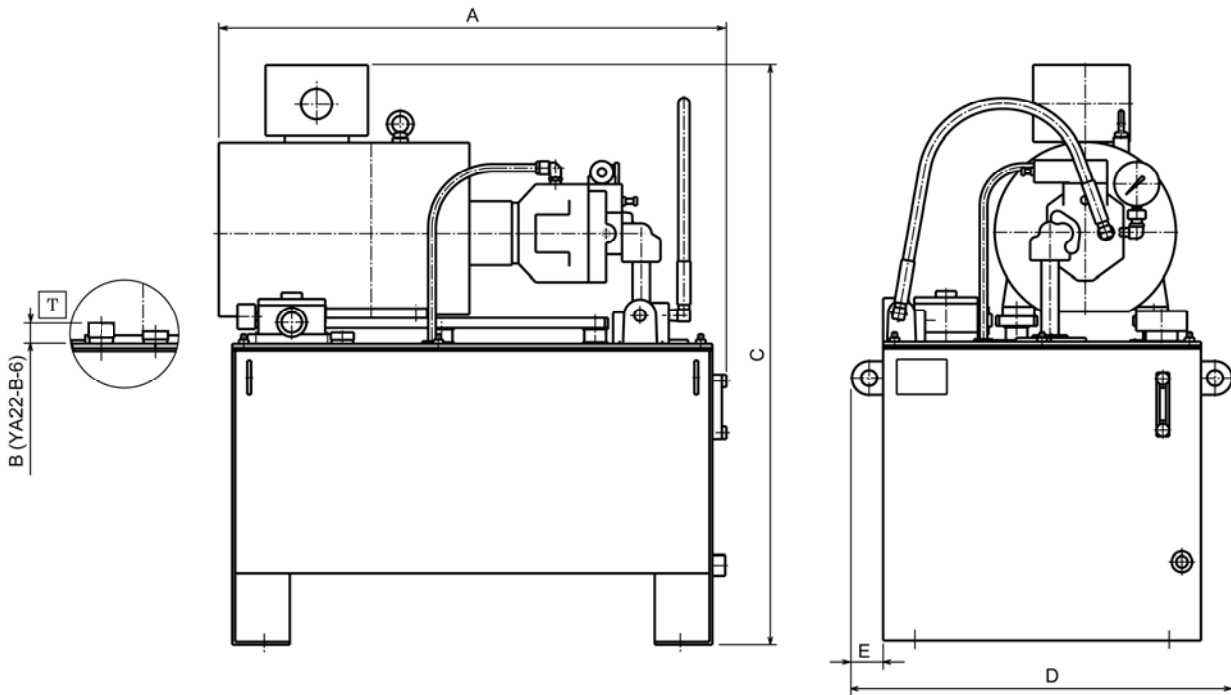
YA16-B-2



Model Number		A (Max)	B	C	D (Max)	E	F
Old	YA16-B-2-1.5-43	550	520	4-φ13 hole	297	20 L	15 L
	YA16-B-2-2.2-43	555	530	4-φ13 hole	297	20 L	15 L
New	YA16-B-2-1.5-50	560	545	4-φ12 hole	280	18 L	13 L
	YA16-B-2-2.2-50	585	555	4-φ12 hole	280	18 L	13 L

YA16-*-4/6/10

YA22/YA37



Model Number		A	B	C (Max)	D	E
Old	YA16-B-4-1.5-43	605				
	YA16-B-6-2.2-43	635				
	YA16-B-10-2.2-43				610	55
	YA16-C-10-3.7-43				610	55
	YA16-C-10-5.5-43			855	610	55
	YA16-C-10-7.5-43	785		855	610	55
	YA22-B-6-2.2-43	635	18			
	YA22-B-6-3.7-43		18			
	YA22-B-10-2.2-43				610	55
	YA22-B-10-3.7-43				610	55
	YA22-C-10-5.5-43			855	610	55
	YA22-C-10-7.5-43	785		855	610	55
	YA37-B-10-3.7-43				610	55
	YA37-B-16-5.5-43			940	700	50
	YA37-B-16-7.5-43	815		940	700	50
New	YA16-B-4-1.5-50	615				
	YA16-B-6-2.2-50	655				
	YA16-B-10-2.2-50				600	50
	YA16-C-10-3.7-50				600	50
	YA16-C-10-5.5-50			910	600	50
	YA16-C-10-7.5-50	805		910	600	50
	YA22-B-6-2.2-50	655	30			
	YA22-B-6-3.7-50		30			
	YA22-B-10-2.2-50				600	50
	YA22-B-10-3.7-50				600	50
	YA22-C-10-5.5-50			910	600	50
	YA22-C-10-7.5-50	805		910	600	50
	YA37-B-10-3.7-50				600	50
	YA37-B-16-5.5-50			990	690	45
	YA37-B-16-7.5-50	830		990	690	45

■Sales Material

As for the appearance, dimensions, and hydraulic circuit diagram for each model, refer to the installation drawings. For other features such as characteristics, refer to the revised version of the product catalogue to be issued at a later date.

●Installation Drawings

Model Number	Installation Drawing	Model Number	Installation Drawing
YA10-B-2-0.75-50	UH2 UA2-79610-7	YA16-B-4-1.5-50	UH2 UA2-79610-12
YA10-B-3-0.75-50	UH2 UA2-79610-8	YA16-B-6-1.5-50	UH2 UA2-79610-17
YA10-B-3-1.5-50	UH2 UA2-79610-9	YA16-B-6-2.2-50	UH2 UA2-79610-18
YA10-B-4-0.75-50	UH2 UA2-79610-10	YA16-B-6-3.7-50	UH2 UA2-79610-19
YA10-B-4-1.5-50	UH2 UA2-79610-11	YA16-C-6-3.7-50	UH2 UA2-79610-20
YA10-B-6-1.5-50	UH2 UA2-79610-13	YA16-B-10-2.2-50	UH2 UA2-79610-25
YA10-B-6-2.2-50	UH2 UA2-79610-14	YA16-C-10-3.7-50	UH2 UA2-79610-26
YA10-C-6-2.2-50	UH2 UA2-79610-15	YA16-C-10-5.5-50	UH2 UA2-79610-27
YA10-C-6-3.7-50	UH2 UA2-79610-16	YA16-C-10-7.5-50	UH2 UA2-79610-28
YA10-C-10-2.2-50	UH2 UA2-79610-23	YA22-B-6-2.2-50	UH2 UA2-79610-21
YA10-C-10-3.7-50	UH2 UA2-79610-24	YA22-B-6-3.7-50	UH2 UA2-79610-22
YA16-B-1-0.75-50	UH2 UA2-79610-1	YA22-B-10-2.2-50	UH2 UA2-79610-29
YA16-B-1-1.5-50	UH2 UA2-79610-2	YA22-B-10-3.7-50	UH2 UA2-79610-30
YA16-B-1-2.2-50	UH2 UA2-79610-3	YA22-C-10-5.5-50	UH2 UA2-79610-31
YA16-B-2-0.75-50	UH2 UA2-79610-4	YA22-C-10-7.5-50	UH2 UA2-79610-32
YA16-B-2-1.5-50	UH2 UA2-79610-5	YA37-B-10-3.7-50	UH2 UA2-79610-33
YA16-B-2-2.2-50	UH2 UA2-79610-6	YA37-B-16-5.5-50	UH2 UA2-79610-34
		YA37-B-16-7.5-50	UH2 UA2-79610-35

●Product Catalogue

- (1) Catalogue name
Standard Hydraulic Unit Power Package (revised version)
- (2) Catalogue number
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- (3) Issue date
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