### ClampMAX®



A resilient clamping solution for modern machine tool applications.





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WHY

#### **ClampMAX**®

All World's ClampMAX® system is available in many configurations to meet your work-holding requirements. All World has partnered with IFM to bring you smart devices that are IOT ready. These components help to minimize labor costs to build and simplify troubleshooting for your maintenance staff. Our systems can offer you up to six separate valve operations on one unit, and feature individual or both "A" and "B" pressure line monitoring.

Our ClampMAX® units make use of All World's "Booster Technology" which is an in-stack type hydraulic booster. This configuration boosts the line pressure only in the "A" port minimizing leakage potential while increasing safety of operation. These devices come in both holding pressure type for no-leak holding, or auto-venting for zero line energy when the system is shut down. Booster-type systems come with a pressure type in-line 10 micron filter to ensure clean oil in your system. The operating ranges using All World's booster tech are from 225 PSI to 5,000 PSI. With ClampMAX® we also offer models which can offer increased flow rates and up to 3,000 PSI without booster technology.

#### 225 to 5,000 PSI

The most impressive feature of the ClampMAX® system is Daikin's Hybrid Hydraulics Technology, a key component to the unit's efficiency and reliability. These units controls motor speed through use of an inverter control system onboard the unit. This provides a quiet and low temperature operating system which is energy efficient, drawing less than ½ amp while holding pressure. An IPM motor can generate high torque at a low RPM. This allows low pressure draw to draw such low power and even flow pressure.

Sound expensive? You would be surprised to know that you can get all of this technology for the same price as the throw-away systems offered by other companies currently producing hydraulic workholding systems.

#### Be smart. Buy smart.

Let us help you find a solution. Regardless of application, we can build units to suit your specific needs. We currently assist OEM's, machine integrators, fixture builders, and work directly with end users.







## TECHNOLOGY FOR THE FUTURE

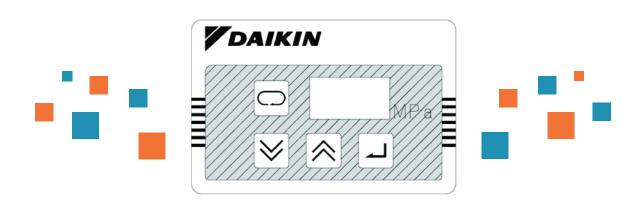
#### **KEYPAD ADJUSTMENTS**

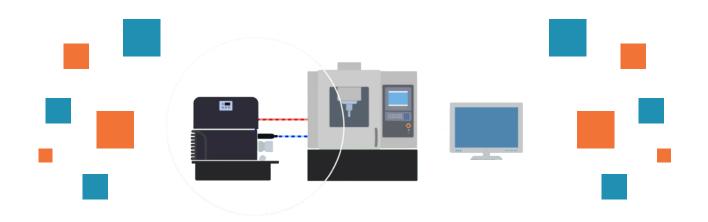
Daikin Hybrid Hydraulic Power Units are the only cost-effective units in the world that can be adjusted through an ergonomic keypad located on the front of the unit. The keypad HMI lets the user manually adjust pressure and flow settings on each machine for unparalleled efficiency. Failures are easy to monitor through the use of the keypad as a diagnostic tool. The keypad also monitors (N) parameters and uses smart technology to alert the user of any potential problems or failures. Better yet, the unit will even shut itself off if a catastrophic failure occurs, drastically reducing maintenance times.

#### **ALARM CODES**

Daikin Hybrid Hydraulic Systems can make your redundant inspections and inefficiencies go away! With the Hybrid System, electricity consumption and other various information is internally monitored at all times – there's no need for periodic inspections. For greater mobility, alarm readouts can be transferred straight from the unit straight to a laptop or tablet's USB port. Triggered alarm codes tell you exactly the reason for maintenance and how the problem can be resolved.

These features greatly contribute to the reduction of man-hours for inspection. Correcting the signalled problem through corrective action result in minmal downtime for the user.





#### **HYBRID-WIN PROGRAMMING**

Hybrid-Win is utility software to monitor the internal status of Daikin hybrid systems using a PC. The software and its instruction manual can be downloaded from the website "http://www.daikinpmc.com/" free of charge by completing the user registration process. This PC utility reads data from Daikin hybrid systems and manages it. Parameter setting and monitoring can be accomplished efficiently using the Windows application. Special cables are required.

The pressure, flow rate, and other internal data of the inverter can be monitored and displayed in the form of graphs. This facilitates operation checks during test runs, adjustment of parameters such as time constants and troubleshooting.

The time required for set-up can be slashed by editing the parameter settings on the PC and writing them to the unit in a batch. The ability to read and save settings facilitates management. To speed up your readings, you can program the software to save the alarm history. This function enables quick identification of the parts that require maintenance and reduction of the downtime. The operating time display can serve as the guide for the timing to replace consumable parts or to conduct maintenance. Troubleshooting information including the diagnosis results of the cause of an alarm and action to take can be displayed.

#### **ENERGY SAVINGS**

**ENERGY** Lower energy consumption through advanced inverter technology provides longer unit life, reduced energy cost, and sustainable savings. Average reduction of 60-70%.

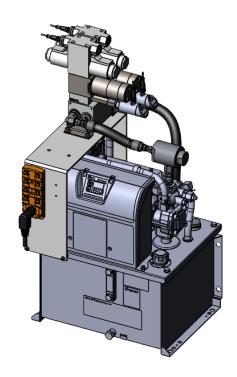
**HEAT** A reduction of heat generation creates longer life for machine components and reduces ambient workspace temperatures, resulting in reduced air conditioning demand and fewer opportunities for overheating. Average reduction from 104°F to 70°F.

**OIL** Conventional hydraulic units require larger capacity tanks to dissipate heat than Daikin power units, which reduce oil disposal. Average reduction of 33-80%.

**NOISE** Noise reduction creates a more comfortable and safe work environment, reducing worry and cutting cost on factory alarms. Average reduction from 75 dBA to 50 dBA.

**STOCK** Compatibility and adaptability creates less need for on-hand stock, as Daikin power units work as a drop-in replacement for the vast majority of hydraulic pumps and motors within the industrial marketplace.

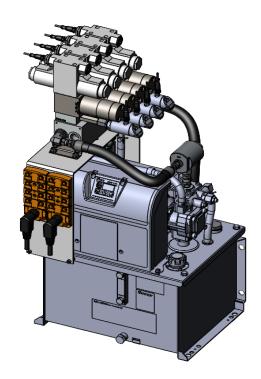




ACU-A-1-B-1-B-1-A-1-AWM			
Description	Quantity		
Eco-Rich #40 Series Hydraulic Unit Kit	1		
Manifold Bracket	1		
D03 Parallel 2 Sta. Alum. Manifold Kit	1		
IFM Wiring Block Kit	1		
#10 SAE Port Fittings	4		
Pressure Line and Return Line Plumbed to Manifold	1		
ClampMAX Filter Kit	1		
KSO-G02-2CP-30-EN Valve Kit	2		
D03 in Stack 3.4:1 Prop. D.A. Valve Type Booster	2		
Single IFM Switch Kit, Aluminum	2		

Specifications		Model
		ACU-A-1-B-1-B-1-A-1-AWM
	Max Flow	No Load: 4 gal/min (15 l/min) Under Pressure: 0.5 gal/min (2.2 l/min)
	Max Pressure	3400 PSI (0-23.5 MPa)
Pump Unit	Flow Adjustment Range	0- 4 gal/min (0-15 l/min)
	Operating Pressure Adjustment Range	0-3400 PSI (0 - 23.5 MPa)
	Motor	2.2 kW
Power Required	Motor/Pump Unit	3 phase, AC 200V (50Hz), 200 V (60Hz), 220V (60Hz) (permissible voltage fluction +/- 10%
Pump Rated	AC 3 phase, 200V (50Hz)	4.7 A
Current	AC 3 phase, 200V (60Hz)	4.5 A
	AC 3 phase 220V (60Hz)	4.3 A
No Fuse	e Breaker Capacity	15 A
External Input Signal		3 channels, photo coupler insulation, DC24V, (Max of 27VDC, 5 mA per channel)
External Output Signal	Digital Output	1 channel, photo coupler insulation, open collector output  DC 24 V, 50mA maximum per channel
Signal	Contact Output	1 channel, relay output, contact capacity: DC 30 V , 1A (resistance load), 1 common contact
Usable Oil		Mineral - oil base hydraulic oil viscosity grade ISO VG32-VG68
	ank Oil Temp	0 to 60 degrees C (recommended operating temperature range : 15 to 50 °C)
	Ambient Temperature	0 - 40 °C
Stora	ge Ambient Temp	-20 to 60 °C
	Humidity	85% RH maximum (no condensation)
In	stallation Site	Indoors (secured with bolts, etc.)
	Altitude	1000 m maximum
Nui	mber of Valves	2
		AC 100 V coils: Starting amps 2.4 A, Holding current 0.51 A, Holding Power 21.5 W
Power Req'd for Each Valve		AC 200 V Coils: Starting amps 1.21, Holding current 0.26 A, Holding power 21.5 W
		*DC 24 V: Starting amps, Holding current 1.22 A, Holding Power 29.2 W
Manifold Material		Aluminum
	Port Size	-8 SAE A & B ports
# of Digita	al Pressure Switches	2
Valve Actuation		*Standard Unit: double solenoid, 24VDC Coils, closed center when de-energized.  Custom options available upon request.

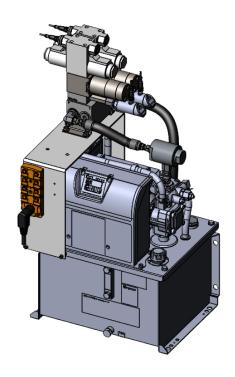




ACU-A-2-D-1-B-1-A-1-AWM			
Description	Quantity		
Eco-Rich #40 Series Hydraulic Unit Kit	1		
Manifold Bracket	1		
D03 Parallel 4 Sta. Alum. Manifold Kit	1		
IFM Wiring Block Kit	2		
#10 SAE Port Fittings	8		
Pressure Line and Return Line Plumbed to Manifold	1		
ClampMAX Filter Kit	1		
KSO-G02-2CP-30 EN Valve Kit	4		
D03 in Stack 3.4:1 Prop. D.A. Valve Type Booster	4		
Single IFM Switch Kit, Aluminum	4		

ecifications  Max Flow	Model ACU-A-2-D-1-B-1-A-1-AWM
	ACU-A-2-D-1-B-1-A-1-AWM
Max Flow	
	No Load: 4 gal/min (15 l/min)
	Under Pressure: 0.5 gal/min (2.2 l/min)
Max Pressure	3400 PSI (0-23.5 MPa)
Flow Adjustment Range	0- 4 gal/min (0-15 l/min)
	0-3400 PSI (0 - 23.5 MPa)
Motor	2.2 kW
Motor/Pump Unit	3 phase, AC 200V (50Hz), 200 V (60Hz), 220V (60Hz) (permissible voltage fluction +/- 10%
AC 3 phase, 200V (50Hz)	4.7 A
AC 3 phase, 200V (60Hz)	4.5 A
AC 3 phase 220V (60Hz)	4.3 A
Breaker Capacity	15 A
nal Input Signal	3 channels, photo coupler insulation, DC24V, (Max of 27VDC, 5 mA per channel)
	1 channel, photo coupler insulation, open collector output
Digital Output	DC 24 V, 50mA maximum per channel
Contact Output	1 channel, relay output, contact capacity: DC 30 V , 1A (resistance load), 1 common contact
Usable Oil	Mineral - oil base hydraulic oil viscosity grade ISO VG32-VG68
nk Oil Temp	0 to 60 degrees C (recommended operating temperature range : 15 to 50 °C)
Ambient Temperature	0 - 40 °C
e Ambient Temp	-20 to 60 °C
Humidity	85% RH maximum (no condensation)
tallation Site	Indoors (secured with bolts, etc.)
Altitude	1000 m maximum
ber of Valves	4
	AC 100 V coils: Starting amps 2.4 A, Holding current 0.51 A, Holding Power 21.5 W
eq'd for Each Valve	AC 200 V Coils: Starting amps 1.21, Holding current 0.26 A, Holding power 21.5 W
	*DC 24 V: Starting amps, Holding current 1.22 A, Holding Power 29.2 W
ifold Material	Aluminum
Port Size	-8 SAE A & B ports
I Pressure Switches	4
ve Actuation	*Standard Unit: double solenoid, 24VDC Coils, closed center when de-energized.  Custom options available upon request.
	Operating Pressure Adjustment Range Motor  Motor/Pump Unit  AC 3 phase, 200V (50Hz)  AC 3 phase, 200V (60Hz)  AC 3 phase 220V (60Hz)  Breaker Capacity nal Input Signal  Digital Output Contact Output Usable Oil nk Oil Temp Ambient Temperature e Ambient Temp Humidity tallation Site Altitude aber of Valves  ard for Each Valve ifold Material Port Size I Pressure Switches



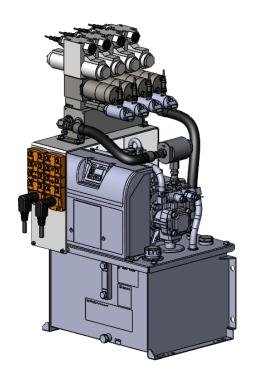


ACU-A-4-B-1-B-2-A-1-AWM			
Description	Quantity		
Eco-Rich #40 Series Hydraulic Unit Kit	1		
Manifold Bracket	1		
D03 Parallel 2 Sta. Ductile Manifold Kit	1		
IFM Wiring Block Kit	1		
#10 SAE Port Fittings	4		
Pressure Line and Return Line Plumbed to Manifold	1		
ClampMAX Filter Kit	1		
KSO-G02-2CP-30 EN Valve Kit	2		
D03 in Stack 5.0:1 Prop. D.A. Valve Type Booster	2		
Single IFM Switch Kit, Ductile	2		

Specifications		Model
		ACU-A-4-B-1-B-2-A-1-AWM
	Max Flow	No Load: 3.5 gal/min (14 l/min) Under Pressure: 0.33 gal/min (1.4 l/min)
	Max Pressure	5000 PSI (0-35 MPa)
Pump Unit	Flow Adjustment Range	0- 3.5 gal/min (0-14 l/min)
	Operating Pressure Adjustment Range	0-5000 PSI (0 - 35 MPa)
	Motor	2.2 kW
Power Required	Motor/Pump Unit	3 phase, AC 200V (50Hz), 200 V (60Hz), 220V (60Hz) (permissible voltage fluction +/- 10%
Pump Rated	AC 3 phase, 200V (50Hz)	4.7 A
Current	AC 3 phase, 200V (60Hz)	4.5 A
	AC 3 phase 220V (60Hz)	4.3 A
No Fus	e Breaker Capacity	15 A
Exte	rnal Input Signal	3 channels, photo coupler insulation, DC24V, (Max of 27VDC, 5 mA per channel)
External Output Signal	Digital Output	1 channel, photo coupler insulation, open collector output DC 24 V, 50mA maximum per channel
Signal	Contact Output	1 channel, relay output, contact capacity: DC 30 V , 1A (resistance load), 1 common contact
	Usable Oil	Mineral - oil base hydraulic oil viscosity grade ISO VG32-VG68
	ank Oil Temp	0 to 60 degrees C (recommended operating temperature range : 15 to 50 °C)
	Ambient Temperature	0 - 40 °C
Stora	ge Ambient Temp	-20 to 60 °C
	Humidity	85% RH maximum (no condensation)
In	stallation Site	Indoors (secured with bolts, etc.)
	Altitude	1000 m maximum
Nui	mber of Valves	2
		AC 100 V coils: Starting amps 2.4 A, Holding current 0.51 A, Holding Power 21.5 W
Power Req'd for Each Valve		AC 200 V Coils: Starting amps 1.21, Holding current 0.26 A, Holding power 21.5 W
		*DC 24 V: Starting amps, Holding current 1.22 A, Holding Power 29.2 W
Manifold Material		Ductile iron
Port Size		-8 SAE A & B ports
# of Digita	al Pressure Switches	2
Valve Actuation		*Standard Unit: double solenoid, 24VDC Coils, closed center when de-energized.  Custom options available upon request.

notes standard option

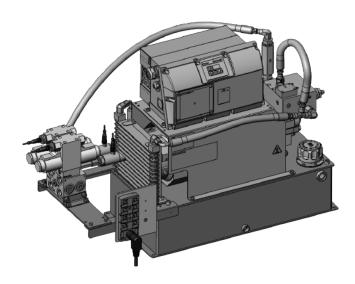
#### **ClampMAX**®



ACU-A-5-D-1-B-2-A-1-AWM			
Description	Quantity		
Eco-Rich #40 Series Hydraulic Unit Kit	1		
Manifold Bracket	1		
D03 Parallel 4 Sta. Ductile Manifold Kit	1		
IFM Wiring Block Kit	4		
#10 SAE Port Fittings	8		
Pressure Line and Return Line Plumbed to Manifold	1		
ClampMAX Filter Kit	1		
KSO-G02-2CP-30 EN Valve Kit	4		
D03 in Stack 5.0:1 Prop. D.A. Valve Type Booster	4		
Single IFM Switch Kit, Ductile	4		

		Model
Specifications		ACU-A-5-D-1-B-2-A-1-AWM
	Max Flow	No Load: 3.5 gal/min (14 l/min)
		Under Pressure: 0.33 gal/min (1.4 l/min)
Pump Unit	Max Pressure	5000 PSI (0-35 MPa)
	Flow Adjustment Range	0- 3.5 gal/min (0-14 l/min)
	Operating Pressure	
	Adjustment Range	0-5000 PSI (0 - 35 MPa)
	Motor	2.2 kW
Power Required	Motor/Pump Unit	3 phase, AC 200V (50Hz), 200 V (60Hz), 220V (60Hz) (permissible voltage fluction +/- 10%
	AC 3 phase, 200V (50Hz)	4.7 A
Pump Rated Current	AC 3 phase, 200V (60Hz)	4.5 A
	AC 3 phase 220V (60Hz)	4.3 A
No Fuse	Breaker Capacity	15 A
Exte	rnal Input Signal	3 channels, photo coupler insulation, DC24V, (Max of 27VDC, 5 mA per channel)
- · · · ·	<u> </u>	1 channel, photo coupler insulation, open collector output
External Output Signal	Digital Output	DC 24 V, 50mA maximum per channel
Signal	Contact Output	1 channel, relay output, contact capacity: DC 30 V , 1A (resistance load), 1 common contact
	Usable Oil	Mineral - oil base hydraulic oil viscosity grade ISO VG32-VG68
Ta	ank Oil Temp	0 to 60 degrees C (recommended operating temperature range : 15 to 50 °C)
	Ambient Temperature	0 - 40 °C
Storaç	ge Ambient Temp	-20 to 60 °C
	Humidity	85% RH maximum (no condensation)
Ins	stallation Site	Indoors (secured with bolts, etc.)
	Altitude	1000 m maximum
Nur	nber of Valves	4
		AC 100 V coils: Starting amps 2.4 A, Holding current 0.51 A, Holding Power 21.5 W
Power Req'd for Each Valve		AC 200 V Coils: Starting amps 1.21, Holding current 0.26 A, Holding power 21.5 W
		*DC 24 V: Starting amps, Holding current 1.22 A, Holding Power 29.2 W
Manifold Material		Ductile iron
Port Size		-8 SAE A & B ports
# of Digita	al Pressure Switches	4
Valve Actuation		*Standard Unit: double solenoid, 24VDC Coils, closed center when de-energized.  Custom options available upon request.

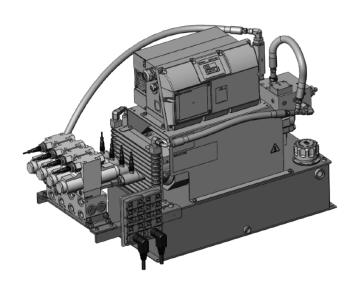




ACU-C-1-B-1-B-X-A-4-AWM			
Description	Quantity		
ClampMAX Super Unit Series Hydraulic Unit	1		
Manifold Bracket	1		
D03 Parallel 2 Sta. Aluminum Manifold Kit	1		
IFM Wiring Block Kit	1		
#10 SAE Port Fittings	4		
Pressure line, and return line plumbed to manifold	1		
KSO-G02-2CP-30 EN Valve Kit	2		
Aluminum, Single IFM Switch Kit	2		

	Model		
Specifications		ACU-C-1-B-1-B-X-A-4-AWM	
Max Flow		15 gal/min (60 l/min)	
Pump Unit	Max Pressure	3000 PSI (20.6 MPa)	
	Flow Adjustment Range	2.5 - 15 gal/min (8.7 - 60 l/min)	
	Operating Pressure	(on	
	Adjustment Range	225-3000 PSI (1.5 - 20.6 MPa)	
	Motor	5.0 kW	
Power Req'd	Motor/Pump Unit	3 phase, AC 200V (50Hz), 200 V (60Hz), 220V (60Hz) (permissible voltage fluction +/- 10%)	
·	AC 3 phase, 200V (50Hz)	22.1 A	
Pump Rated Current	AC 3 phase, 200V (60Hz)	21.7 A	
	AC 3 phase 220V (60Hz)	20.2 A	
No Fus	se Breaker Capacity	30 A	
Evto	rnal Input Signal	5 channels	
Exte	illai iliput Signai	Photo coupler insulation, DC24V, (Maximum of 27VDC), 50mA per channel	
External	Digital Output	2 channel, photo coupler insulation, FET output, DC 24 V, 50mA maximum per channel	
output signal	ignal Contact Output 1 channel, relay output, contact capacity: DC 30 V , 1A (resistance load), 1 common c		
Usable Oil		Mineral oil based, hydraulic oil viscosity grade ISO VG32-VG68	
T	ank Oil Temp	0 to 60 °C (recommended operating temperature range : 15 to 50 °C)	
Operating	Ambient Temperature	0 - 40 °C	
Storage A	Ambient Temperature	-20 to 60 °C	
	Humidity	85% RH maximum (no condensation)	
In	stallation Site	Indoors (secured with bolts, etc.)	
	Altitude	1000 m maximum	
Nu	mber of Valves	2	
<b>D.</b>	See Life of Free Well o	AC 100 V coils: Starting amps 2.4, holding current 0.51 A, holding power 21.5 W	
Power Req'd for Each Valve		AC 200 V Coils: Starting amps 1.21, holding current 0.26 A, holding power 21.5 W	
		*DC 24 V: Starting amps, Holding current 1.22 A, holding power 29.2 W	
Manifold Material		Aluminum	
Port Size		-8 SAE A & B ports -8 SAE A & B ports	
# of Digit	al Pressure Switches	2	
Va	*Standard unit: double solenoid, 24VDC coils, closed center when de-energized.  Valve Actuation  *Standard unit: double solenoid, 24VDC coils, closed center when de-energized.  Custom options available upon request.		
		* notes standard option	





ACU-C-2-D-1-B-X-A-4-AWM			
Description	Quantity		
ClampMAX Super Unit Series Hydraulic Unit	1		
Manifold Bracket	1		
D03 Parallel 4 Sta. Aluminum Manifold Kit	1		
IFM Wiring Block Kit	2		
#10 SAE Port Fittings	8		
Pressure line, and return line plumbed to manifold	1		
KSO-G02-2CP-30 EN Valve Kit	4		
Aluminum, Single IFM Switch Kit	4		

s	pecifications	Model
		ACU-C-2-D-1-B-X-A-4-AWM
	Max Flow	15 gal/min (60 l/min)
Down Hait	Max Pressure	3000 PSI (20.6 MPa)
Pump Unit	Flow Adjustment Range	2.5 - 15 gal/min (8.7 - 60 l/min)
	Operating Pressure Adjustment Range	225-3000 PSI (1.5 - 20.6 MPa)
	Motor	5.0 kW
Power Req'd	Motor/Pump Unit	3 phase, AC 200V (50Hz), 200 V (60Hz), 220V (60Hz) (permissible voltage fluction +/- 10%)
Pump Rated	AC 3 phase, 200V (50Hz)	22.1 A
Current	AC 3 phase, 200V (60Hz)	21.7 A
	AC 3 phase 220V (60Hz)	20.2 A
No Fus	e Breaker Capacity	30 A
Evto	rnal Input Signal	5 channels
LAIG	mai mput Signai	Photo coupler insulation, DC24V, (Maximum of 27VDC), 50mA per channel
External	Digital Output	2 channel, photo coupler insulation, FET output, DC 24 V, 50mA maximum per channel
output signal	Contact Output	1 channel, relay output, contact capacity: DC 30 V , 1A (resistance load), 1 common contact
	Usable Oil	Mineral oil based, hydraulic oil viscosity grade ISO VG32-VG68
Т	ank Oil Temp	0 to 60 °C (recommended operating temperature range : 15 to 50 °C)
Operating	Ambient Temperature	0 - 40 °C
Storage A	Ambient Temperature	-20 to 60 °C
	Humidity	85% RH maximum (no condensation)
In	stallation Site	Indoors (secured with bolts, etc.)
	Altitude	1000 m maximum
Nu	mber of Valves	4
Dower Boald for Each Value		AC 100 V coils: Starting amps 2.4, holding current 0.51 A, holding power 21.5 W
Power Req'd for Each Valve		AC 200 V Coils: Starting amps 1.21, holding current 0.26 A, holding power 21.5 W
		*DC 24 V: Starting amps, Holding current 1.22 A, holding power 29.2 W
Ma	nifold Material	Aluminum
	Port Size	-8 SAE A & B ports -8 SAE A & B ports
# of Digit	al Pressure Switches	4
Va	alve Actuation	*Standard unit: double solenoid, 24VDC coils, closed center when de-energized.  Custom options available upon request.
		* notes standard ention

# ClampMAX® CUSTOM OPTIONS

All World's ClampMAX® system can be customized to handle your most advanced applications. Our experienced engineering staff specializes in custom creating ClampMAX® suited to fit our customer's needs. Some of our most popular options include:

- Remote pendant controls (up to 30 feet away), single or double valve operation
- In-stack booster technology, with operational pressures ranging from 200 to 5,000 PSI
- Banner anti-tie down safety system (optional with control packages)
- HMI 7" touch screen operation of valve control option
- System control: man or robot (custom built)
- · Line pressure holding or releasing options
- · Complete electrical package designs
- Custom stand for small footprint



# ALL WORLD MACHINERY SUPPLY

				laboM		
S	Specifications	ACU-A-1-B-1-B1-A-1-AWM	ACU-A-2-D-1-B-1-A-1-AWM	ACU-A-4-B-1-B-2-A-1-AWM ACU-A-5-D-1-B-2-A-	ACU-A-5-D-1-B-2-A-1-AWM ACU-C-1-B-1-B-X-A-4-AWM ACU-C-2-D-1-B-X-A-4-AWM	ACU-C-2-D-1-B-X-A-4-AWM
	Max Flow	No Load: 4GPM Under Pressure: 0.5G		No Load: 3.5 gal/min (14 l/min) Under Pressure: 0.33 gal/min (1.4 l/min)	15 gal/mi	15 gal/min (60 l/min)
tial amin	Max Pressure	3400 PSI (0	3400 PSI (0 - 23.5 MPa)	5000 PSI (0 - 35 MPa)	3000 PSI	3000 PSI (20.6 MPa)
Jino dilina	Flow Adjustment Range	0 - 4 gal/min	0 - 4 gal/min (0 - 15L/min)	0 - 3.5 gal/min (0 - 14 l/min)	2.5 - 15 gal/mir	2.5 - 15 gal/min (8.7 - 60 l/min)
	Operating Pressure Adjustment Range	0-3400 PSI (	0-3400 PSI (0 - 23.5 MPa)	0-5000 PSI (0 - 35 MPa)	225-3000 PSI (	225-3000 PSI (1.5 - 20.6 MPa)
	Motor		2.2 kW	ζW	5.0	5.0 kW
Power Required	Motor/Pump Unit		3 phase, AC 20	3 phase, AC 200V (50Hz), 200 V (60Hz), 220V (60Hz) (permissible voltage fluction +/- 10%	tage fluction +/- 10%	
	AC 3 phase, 200V (50Hz)		4.7 A	۷		22.1 A
Pump Rated Current	AC 3 phase, 200V (60Hz)		4.5 A	A	21	21.7 A
	AC 3 phase 220V (60Hz)		4.3 A	ď	20	20.2 A
No Fuse	No Fuse Breaker Capacity (A)		15A	4	)K	30 A
Exter	External Input Signal		3 channe	3 channels, photo coupler insulation, DC24V, (Max of 27VDC, 5 mA per channel)	IA per channel)	
External Output	Digital Output		1 channel, photo	1 channel, photo coupler insulation, open collector output, DC 24 V, 50mA maximum per channel	naximum per channel	
Signal	Contact Output		1 channel, rela	channel, relay output, contact capacity: DC 30 V, 1A (resistance load), 1 common contact	), 1 common contact	
	Usable Oil			Mineral - oil base hydraulic oil viscosity grade ISO VG32-VG68	-VG68	
_	Tank Oil Temp		0 to 60	0 to 60 degrees C (recommended operating temperature range : 15 to 50 °C)	: 15 to 50 °C)	
Operating	Operating Ambient Temperature			0 - 40 °C		
Stora	Storage Ambient Temp			-20 to 60 °C		
	Humidity			85% RH maximum (no condensation)		
Ţ	Installation Site			Indoors (secured with bolts, etc.)		
	Altitude			1000 m maximum		
Nui	Number of Valves	2	4	2 4	2	4
			AC 100 V coil	AC 100 V coils: Starting amps 2.4, Holding current 0.51 amps, Holding Power 21.5 Watts	g Power 21.5 Watts	
Power Re	Power Required for Each Valve		AC 200 V Coil	AC 200 V Coils: Starting Amps 1.21, Holding Current 0.26 amps, Holding power 21.5 Watts	ng power 21.5 Watts	
			*DC 24 V:	'DC 24 V: Starting Amps, Holding Current 1.22 amps, Holding Power 29.2 Watts	Power 29.2 Watts	
Ma	Manifold Material	Alun	Aluminum	Ductile Iron		Aluminum
	Port Size			-8 SAE A & B ports		
# of Digit	# of Digital Pressure Switches	2	4	2 4	2	4
Va	Valve Actuation		*Standard Unit: double soleno	*Standard Unit: double solenoid, 24VDC Coils, closed center when de-energized. Custom options available upon request	stom options available upon request	

# ClampMAX®

\* notes standard option



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