

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
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Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

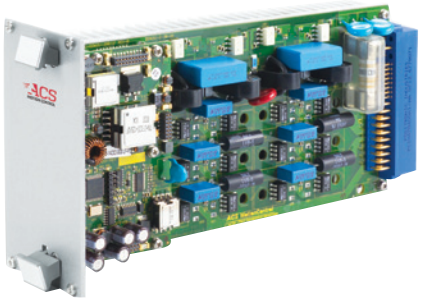
Expert team | Trust guarantee | 100% satisfaction

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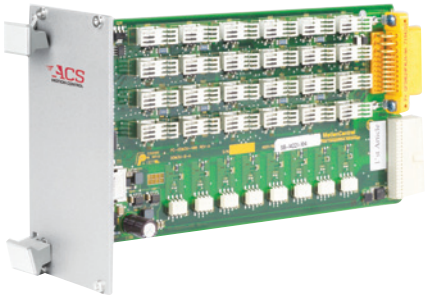
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MC4U

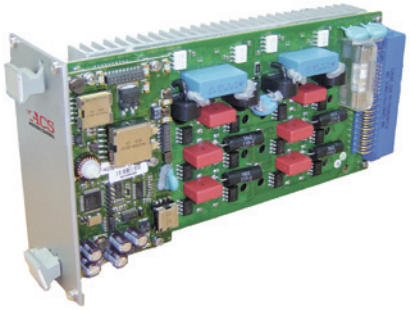
PWM Drives



DDM3U-2-320V-5A, DDM3U-2-320V-10A, DDM3U-2-320V-20A, DDM3U-1-320V-30A-SR, DDM3U-1-320V-45A-SR
2 / 1 Universal Drives per Card 320V, up to 90A peak, 19.1kW



DDM3U-4-60V
Up to 4 Universal Drives per Card 60V, 5A peak, 0.3kW



DDM3U-2-560V-5A, DDM3U-2-560V-10A, DDM3U-2-560V-15A
2 Universal Drives per Card 560V, up to 30A peak, 6kW



DDM3U-4-320V-1A, DDM3U-4-320V-2A, DDM3U-4-320V-3A
Up to 4 Universal Drives per Card 320V, up to 6A peak, 0.75kW

- Low noise for the best position jitter and velocity smoothness
- Optimal solution for large Gantry tables
- Wide power range - 100W to 6kW
- Digital control for easy setup and diagnostics - 100W to 19kW
- Wide range of motos, such as- AC Servo (DC brushless), DC Brush, AC Induction
- Open and closed loop step motor control with high resolution micro-steps

The MC4U line of universal digital PWM drive modules are specifically designed to provide high performance and cost effective solution for demanding multi-axis applications. The drives are optimized for low noise, providing the best possible jitter and velocity smoothness and are fully programmable for easy setup and diagnostics. The low power modules include up to four drives and high power modules include two drives for optimal costs and performance.

The MC4U drive modules support linear and rotary motors covering a wide power range of 100W to 19kW. Each drive can be programmed to control any type of single, two or three phase motor.

CE, UL

Contact us: *sales@acsmotioncontrol.com* | ***www.acsmotioncontrol.com***

ACS MOTION CONTROL

Drive Characteristics

Part Number Where X represents number of axes	DDM3UX-60V-4A	DDM3UX-320V-5A	DDM3UX-320V-10A	DDM3UX-320V-20A	DDM3U-1-320V-30A	DDM3U-1-320V-45A	DDM3UX-320V-1A	DDM3UX-320V-2A	DDM3UX-320V-3A	DDM3UX-560V-5A	DDM3UX-560V-10A	DDM3UX-560V-15A
Number of axes	2 or 4	1 or 2	1 or 2	1 or 2	1	1	2 or 4	2 or 4	2 or 4	1 or 2	1 or 2	1 or 2
Bus Voltage, range [Vdc] ± 10%	18-60	24–320								24–560		
Phase Current (Cont./ Peak), sine amplitude [A]	4/5	5/10	10/20	20/40	30/60	45/90	1/2	2/4	3/6	5/10	10/20	15/30
Phase Current (Cont./ Peak), RMS [A]	2.8/3.6	3.6/7.1	7.1/14.2	14.2/28.3	21.2/42.4	31.8/63.6	0.7/1.4	1.4/2.8	2.1/4.2	3.6/7.1	7.1/14.2	10.6/21.3
Peak current time [sec]	1											
Maxi. drive output voltage (phase to phase) @ max bus voltage and nominal current, sine amplitude [V] For a given Bus Motor Supply Voltage [VM-DC]	V_{M-DC} x 88%											
Input power @ full output (Cont./ Peak) power at specified voltage [kW]	0.6/1.2 @ 51Vdc	2.8/5.6 @ 320Vdc	5.6/11.1 @ 320Vdc	8.3/11.1 @ 320Vdc	7.0/13.4 @ 320Vdc	10.2/19.1 @ 320Vdc	1.1/2.3 @ 320Vdc	2.2/4.4 @ 320Vdc	3.4/6.8 @ 320Vdc	4.1/8.0 @ 560Vdc	8.0/15.2 @ 560Vdc	11.7/21.8 @ 560Vdc
Max. output power @ nominal bus voltage: cont / peak [kW] For 1 axis: Total for 2 axes Total for 4 axes	@ 51Vdc 0.15 / 0.3 0.3 / 0.6 0.6 / 1.2	@ 320Vdc 1.36 / 2.7 2.7 / 5.4 –	@ 320Vdc 2.7 / 5.4 5.4 / 10.8 –	@ 320Vdc 5.4 / 10.8 8.2 / 21.8 –	@ 320Vdc 6.8 / 12.8	@ 320Vdc 9.9 / 18.2	@ 320Vdc 0.26 / 0.52 0.52 / 1.0 1.0 / 2.1	@ 320Vdc 0.5/1.0 1.0 / 2.1 2.1/4.2	@ 320Vdc 0.75 / 1.5 1.5 / 3 3 / 6	@ 560Vdc 2.0 / 4.0 4.0 / 7.9 –	@ 560Vdc 4.0 / 7.9 7.9 / 15.2 –	@ 560Vdc 5.9 / 11.7 11.7 / 21.8 –
Min. load Inductance, at specified bus voltage [mH] At lower bus voltage the minimum inductance value can be reduced proportionally. (Consult factory for using inductance with lower values)	0.25 @ 51Vdc	0.5 @ 320 Vdc								1 @ 560 Vdc		
Heat dissipation at full cont. power [W]	25	68	105	160	235	346	25	45	62	75	120	200
Weight [gram]	290	840		1,110			800			840		1,110
Standards	CE, RoHS	CE, UL, RoHS					CE pending, UL, RoHS					

Common Characteristics

Type: digital current control with field oriented control and space vector modulation
Current ripple frequency: 40 kHz
Current loop sampling rate: 20 kHz
Programmable Current loop bandwidth: up to 5 kHz
Commutation type: sinusoidal. Initiation with and without hall sensors
Switching method: advanced unipolar PWM

Supply

The drive must be supplied by two power sources
A bus supply and a control 24Vdc supply
The bus supply is generated by the MC4U PSM3U modules
During emergency conditions there is no need to remove the control 24Vdc source

Control Supply Specification

Control supply input voltage: 24Vdc ± 10%
Maximum input power: 11.4W
Input current: Maximum: 0.6A @ 19V; Nominal: 0.48A @ 24V

Motor Types

Single phase motors: DC Brush, Voice coil
2 or 3 phase AC synchronous motor
3 phase AC Induction, asynchronous motor
2 and 3 phase step motor (always using microstepping control)

Drive Protection

- Over voltage
- Supply missing
- 24 Vdc control supply missing
- Phase-to-phase short circuit
- Short to ground
- Over current
- Over temperature protection

Drive Faults Reported

- Power supply under voltage
- Power supply missing
- Short circuit
- Over current
- Temperature too high

Ambient Temperature

Operating range: 0 to + 40°C
Storage and transportation range: -25 to +60°C
Humidity (operating range): 5% to 90% non-condensing

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Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

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Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

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