

WAT SERVO MOTOR DRIVER - MSD040A2416CRS

THE POWER OF TODAY AND TOMORROW



MILITARY MOTOR DRIVER UNIT FOR DEFENSE SYSTEMS

Motor Driver Unit is developed for military systems. Designed and validated according to the requirements of MIL-STD-810G, MIL-STD-461G and MIL-STD-1275E standards.

This versatile motor drive is an ideal system for high-performance military and specialty industrial applications with the ability to operate in a humid environment, high/low temperatures, high vibration/shock or other challenging environmental conditions.



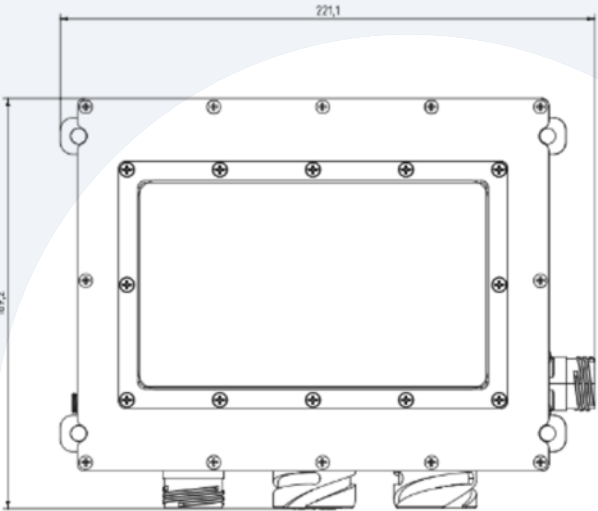
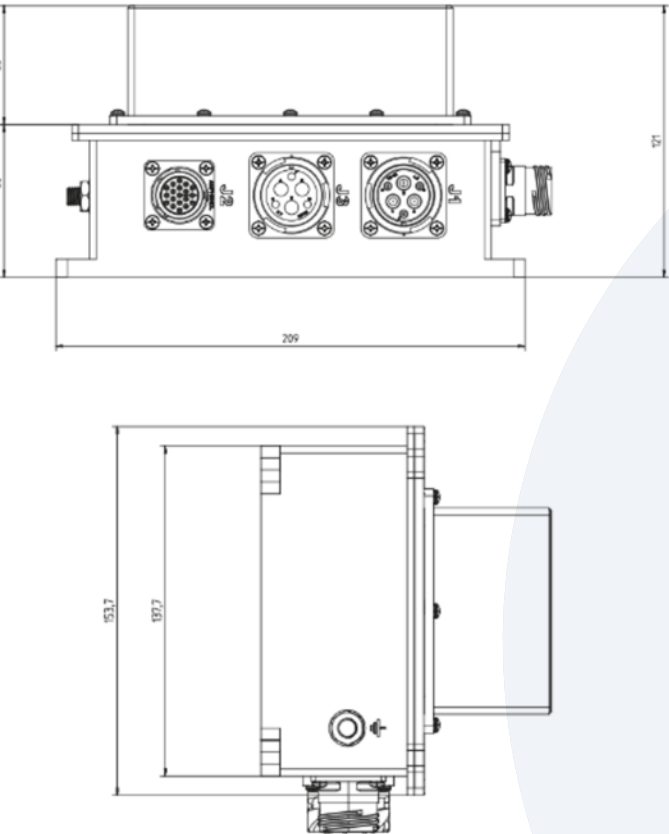
Product Features

Power	Input Voltage	18V-33V
	Continuous Output Current	30Adc [22A rms]
	Max. Output Current*	60Adc [42A rms]
Control Modes and Command Type	Control Mode	Position, Speed, Torque
	Position Command Type	Internal Position Command
	Speed Command Type	Internal Speed Command
	Torque Command Type	Internal Torque Command
Control and Communication	Feedback	Resolver/BISS [opt.], SSI [opt.], Absolute A [opt.]
	Communication	CANOpen-RS232-RS422
	Control	FoC [Field Oriented Control]
I/O	DI/DO	4/0
	AI/AO	1/-
Protection and Security	Protection	Short Circuit, Ambient Over Temperature, Motor Over Temperature, High Voltage, Low Voltage, FeedBack Error, I2T Current limiting
Size and Environmental Conditions Strength	Operating Temperature [°C]	-32°C to + 55°C
	Storage Temperature [°C]	-45°C to + 71°C
	Moisture Resistance	0% to 95% Relative Humidity
	Dimension [H x W x L] [mm]	121mm x 221mm x 169mm
	Shock/Vibration	40Grms [11ms]/2.22Grms [2h]
	Weight [kg]	3kg

*Rated peak current can be supplied for 1 sec., it could be changed according to I2T current limit and duration.

Standarts

MIL-STD-810G	Environmental Engineering Considerations and Laboratory
MIL-STD-461G	Requirements for The Control of Electromagnetic Interference Characteristics of Subsystems and Equipment: CEI02, CS101, CS114, CS115, CS116, REI02, RS102, RS103
MIL-STD-1275E	Characteristics of 28 Volt Dc Electrical Systems in Military Vehicles



Signal and Power Connection Connectors

J1 (CA3102E20-22PBF80)

Pin	Name	Explanation	Technical Drawing
A	24V [+]	Power [+]	
B	N/C	No Connection	
C	N/C	No Connection	
D	N/C	No Connection	
E	24V [-]	Power [-]	
F	N/C	No Connection	

J2 (20WD19PN)

Pin	Name	Explanation	Technical Drawing
A	CAN H	CAN_H Transmission Path	
B	CAN L	CAN_L Transmission Path	
C	REF -	Analog Reference Return	
D	N/C	No Connection	
E	N/C	No Connection	
F	IN 1	Digital Input [5v-24v]	
G	IN 5	Digital Input [5v - 24v]	
H	AUX HV	Auxiliary Line Supply [+]	
J	GND	Supply Return	
K	GND	Supply Return	
L	IN 2	Digital Input [5v - 24v]	
M	IN 4	Digital Input [5v - 24v]	
N	IN 3	Digital Input [5v - 24v]	
P	REF +	Analog Reference	
R	N/C	No Connection	
S	N/C	No Connection	
T	N/C	No Connection	
U	N/C	No Connection	
V	N/C	No Connection	

J3 (CA3102E20-22SBF80)

Pin	Name	Explanation	Technical Drawing
A	U	Motor Phase-U	
B	Brake OUT +	Brake Supply	
C	V	Motor Phase-V	
D	Brake OUT -	Brake Return	
E	W	Motor Phase-W	
F	N/C		

J4 (20WC98SN)

Pin	Resolver/SSI Pin Name	Explanation	Technical Drawing
A	SIN [+] / CLK[-]	Resolver Sin/Cos Encoder	
B	SIN [-] / CLK[+]	Resolver Sin/Cos Encoder	
C	COS [+] / DATA[+]	Resolver Sin/Cos Encoder	
D	COS [-] / DATA[-]	Resolver Sin/Cos Encoder	
E	EXC [+] / SGND	Resolver +	
F	EXC [-] / 5V	Resolver -	
G	TERMISTOR [+]	Motor Temperature Input	
H	TERMISTOR [-]	Motor Temperature Return	
J	Shield		
K	N/C		