THE POWER OF
TODAY AND
TOMORROW

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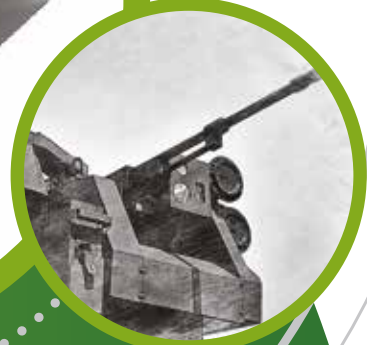
WAT

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 multidirectional 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	Main Input Voltage	18V–33V
	Continuous Output Current	100Adc [70Arms]
	Max. Output Current*	350Adc [248Arms] @1sec
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, SSI Encoder
	Communication	CANOpen, RS232
	Control	FoC [Field Oriented Control]
AI/AO	DI/DO	3/-
	AI/AO	1/-
Protection and Security	Protection	Short Circuit, Inverter Over Temperature, Motor Over Temperature, High Voltage, Low Voltage, Feedback Error, Over Current, Over Load, Communication Fault
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]	95mm x 300mm x 275mm
	Shock/Vibration	40Grms [11ms]/2.22Grms [2h]
	Weight [kg]	10 kg

*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 : CE102, CS101, CS114, CS115, CS116, RE102, RS102, RS103
MIL-STD-1275E	Characteristics of 28 Volt DC Electrical Systems in Military Vehicles
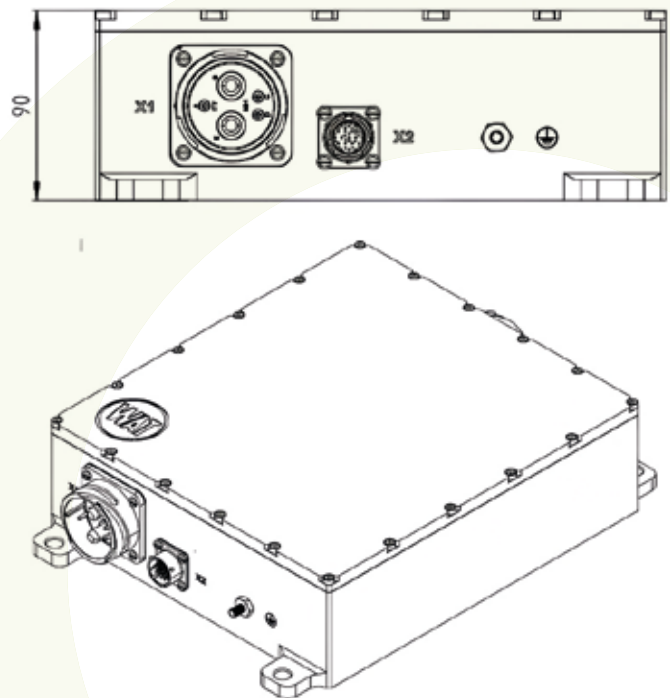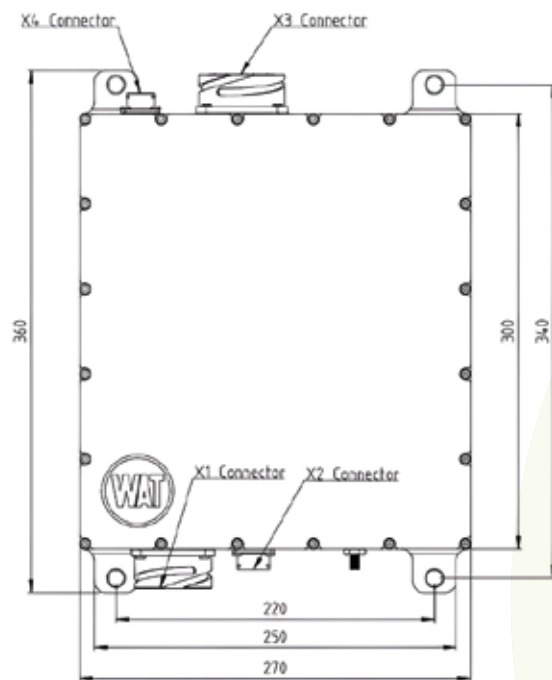
Signal and Power Connection Connectors

X1 (CB2-32-1PC)

Pin	Name	Explanation	Technical Drawing
A	n.u	Not Used	
B	+28VDC Drive	DC Supply Voltage of Power Electronic	
C	n.u	Not Used	
D	n.u	Not Used	
E	28VDC-RE Drive	Return-Line Drive	

X2 (KPSE02E14-19P)

Pin	Name	Explanation	Technical Drawing
A	CAN-HIGH	Can Interface High	
B	CAN-LOW	Can Interface Low	
C	CAN-GND	CAN Ground	
D	SCREEN	CAN-Screen	
E	n.u	Not Used	
F	28V SE	Supply Voltage for All Signal Electronics	
G	28V SE-RE	28V SE Return	
H	28V BREAK RELEASE	External Brake Release Input	
J	28V-RE BREAK RELEASE	External Brake Release-Return	
K	HW EN-RE	Hardware Enable Return for Insulated Digital Input	
L	HW EN	Hardware Enable Input	
M	Boot Mode	RS232 Boot Mode	
N	GND	RS232 GND	
P	n.u	Not Used	
R	5V–RS232	RS232 5V Supply	
S	+FAIL_OUT	Application Programming Interface	
T	-FAIL_OUT	Application Programming Interface	
U	RIN-RS232	RS232 Receive	
V	TOUT-RS232	RS232 Transmit	

X3 (CB2-36-3SC)

Pin	Name	Explanation	Technical Drawing
A	Brake +	Brake, 12V/24V	
B	MOT-PH-W	Motor Phase W	
C	Brake-Re	Brake Return	
D	MOT-PH-V	Motor Phase V	
E	n.u	Not Used	
F	MOT-PH-U	Motor Phase U	

X4 (KPSE02E12-10S)

Pin	Name	Explanation	Technical Drawing
A	+COS	Resolver Seconder Winding, Cos, HI Signal	
B	-COS	Resolver Seconder Winding, Cos, LO Signal	
C	+SIN	Resolver Seconder Winding, Sin, HI Signal	
D	-SIN	Resolver Seconder Winding, Sin, LO Signal	
E	+REF	Resolver Excitation	
F	-REF	Return Line	
G	N-Mot+	NTC[220kOhm], HI Signal	
H	N-Mot-	NTC-LO Signal	
J	Screen	Screen of Resolver Lines	
K	n.u	Not Used	