Auxiliary motor controller specification
Three in one type-

Product model：
KTZ60W03F7

Safety features:

Full electric isolation between high and low voltage;
High voltage cover opening interlock protection;
Protection level is high: IP67
High EMC level: CLASS3;
High reliability;

Technical features:

Compact design, small size and light weight;
Adopt die-cast aluminum structure
Adopt forced air cooling;
CAN-bus, DI interface, Optional Control mode;
It has control algorithm of three-phase AC asynchronous motor, permanent magnet synchronous motor and other types of motor;
Internal integration of power-assisted steering motor controller, air compressor motor controller and DC-DC converter

Application:

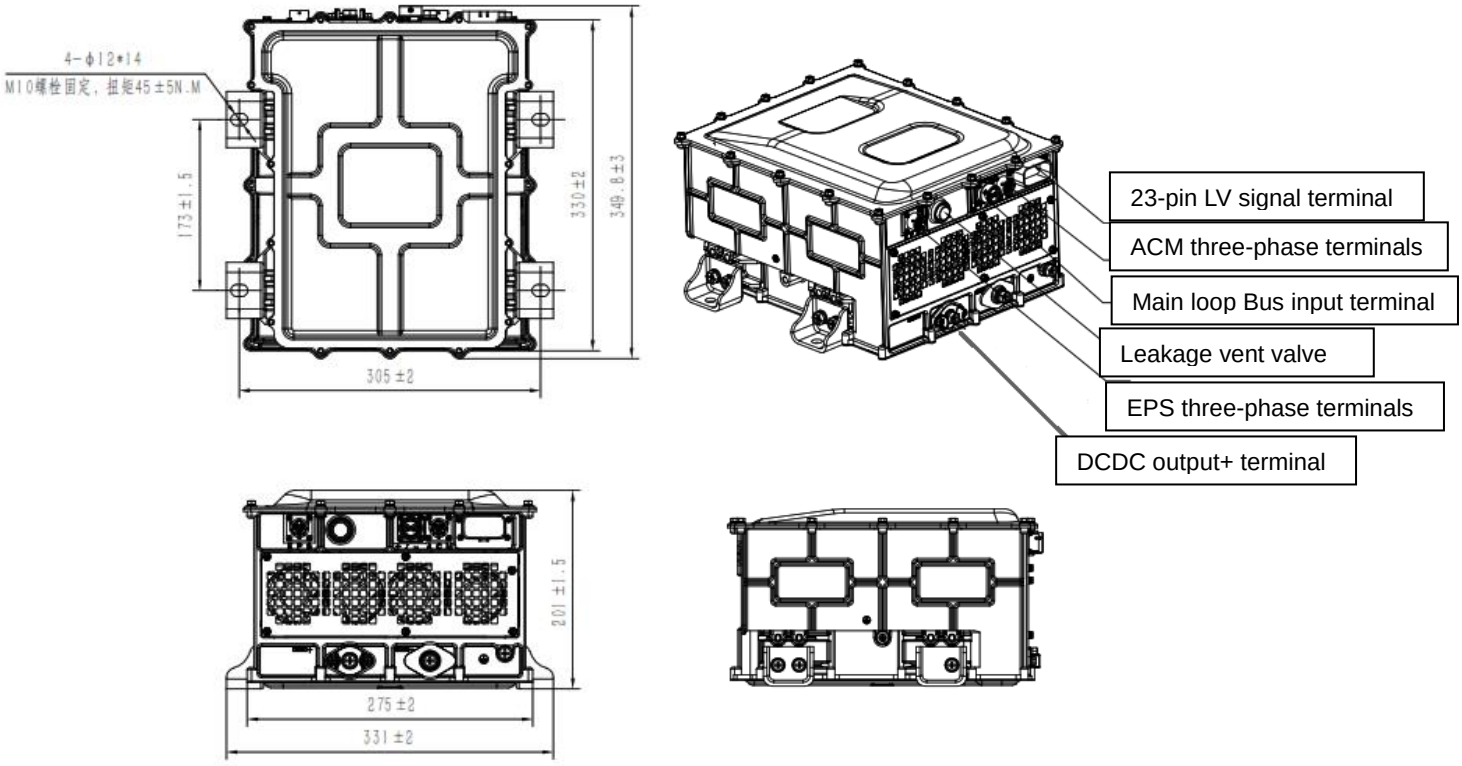
It is suitable for auxiliary parts system of pure electric or hybrid commercial vehicle and logistics vehicle.

Main Parameters:

H-vol、L-vol Power	KTZ60W03F7			Unit
	EPS	ACM	DCDC	
Low voltage range	9~32	9~32	9~32	V
High voltage range	240~750	240~750	240~750	V
High rated voltage	600	600	600	V
High minimum input voltage	250	250	250	V
Power cable specification (recommended)	2.5	2.5	25	mm^2
Three phase output	**KTZ60W03F7**			**Unit**
	EPS	**ACM**	**DCDC**	
Rated output current	13	13	110	A
Peak Current@60s	27.5@60s、30@30s	27.5@60s、30@30s	130@6min	A
Rated output power	6	6	3	kW
Maximum output power	13	13	3.3	kW
Efficiency	0.97	0.97	0.97	

Ambient & Mechanical parameters	KTZ60W03F7	Unit
Weight	≤17	kg
Level of protection	IP67	
Cooling mode	Forced cooling	
Operating ambient Temp	-40~+85	℃

Product features：



Client Application：

1、 Main loop terminal

No.	Function	Terminal Model	Terminal definition		Client end Model	Rated current	Supplier
1	Bus input terminal	C10514N1-02-3-1 G004	+	Bus positive	C10514N1-02-1-2 G003	30A	Jonhon
			-	Bus negative			
2	Driver three-phase output terminal	DY3F1203SNF-02	C	U	DY3T1203PNF	20A	Jonhon
			B	V			
			A	W			
3	DC output 24V+	M8 screw	+	+	M8 wire nose	110A	Customization
4	DC Output 24V-	M8 screw	-	-	M8 wire nose		

2、Control terminal and communication port

2.1、Control terminal(External terminal of the controller)：

Function	Terminal Model	Supplier
Control signal terminal	776087_1	Techo

2.2、Control terminal(User external terminals)：

Function	Terminal Model	Supplier
Control signal terminal	770680_1	Techo
Matching crimp terminal	770520-1	Techo

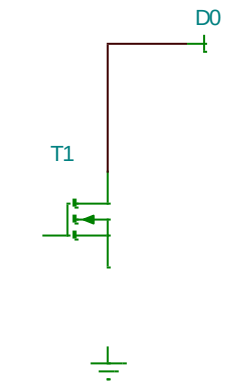
Define of terminals:

PIN No.	Definition	Description	SPEC	Note
PIN 1	24V+	Low-voltage power supply	Rated Voltage：24VDC Voltage range：9~32VDC	
PIN 2	24V-	Low voltage ground		
PIN 3	24V+	low-voltage power supply		
PIN 4	24V-	Low voltage ground		
PIN 5	PT3+	Reserve temperature signal +	PT100 temperature sampling	
PIN 6	CAN_H_B	Link VCU		
PIN 7	CAN_L_B	Link VCU		
PIN 8	COM	CAN ground		
PIN 9	DI1	Digital signal output 1 (High level effective)	EPS enable signal; High-level range: 16~32VDC Low-level range: 0~2VDC	Reserved
PIN 10	DI2	Digital signal output 2 (High level effective)	ACM enable signal; High-level range: 16~32VDC Low-level range: 0~2VDC	Reserved
PIN 11	DI3	Digital signal output 3 (High level effective)	DCDC enable signal; High-level range: 16~32VDC Low-level range: 0~2VDC	Reserved
PIN 12	PT3-	Reserved temperature signal -	PT100 temperature sampling	

PIN No.	Definition	Description	SPEC	Note
PIN 13	CAN_H_A	Monitor the debugging		Supplier monitoring
PIN 14	CAN_L_A	Monitor the debugging		
PIN 15	COM	CAN 地		
PIN 16	DO1	Digital signal output 1 (Low level indicates fault)	The function has not been defined yet. If used, an external 24V power supply with a current less than 50mA is required.	Reserved
PIN 17	DO2	Digital signal output 2 (Low level indicates fault)	The function has not been defined yet. If used, an external 24V power supply with a current less than 50mA is required.	Reserved
PIN 18	DO3	Digital signal output 3 (Low level indicates fault)	DCDC fault output signal; requires external 24V pull-up connection	
PIN 19	COM	Digital signal output Ground		
PIN 20	PT1+	Motor temperature signal + (EPS)	PT100 temperature sampling	
PIN 21	PT1-	Motor temperature signal - (EPS)	PT100 temperature sampling	
PIN 22	PT2+	Motor temperature signal + (ACM)	PT100 temperature sampling	
PIN 23	PT2-	Motor temperature signal - (ACM)	PT100 temperature sampling	

Note:

1) **The internal schematic diagrams of ports DO1, DO2, and DO3 are as follows:**



2) Electrical topology diagram