



MAC1500-D2-CRAL

Int.ServoAC 1500WS1 4.78Nm IP55L Inc STO



General information

Description	Int.ServoAC 1500WS1 4.78Nm IP55L Inc STO , WxHxL: 134x205x250 mm. 3x 400-480 VAC and 24 VDC. Power cable WP340x. 3000 RPM. 5.0 Nm RMS / 15.0 Nm Peak. 100% Duty Cycle, Pilot debt on front flange may be either 5mm or 6mm. MM0008 1mm may be used for 6mm types., IP55, Incremental Encoder: 8192 CPR, Color: Black, Ø24x58 mm keyway 8x35 mm, incl. M8 4pin hardware STO connector, NB! STO: Not yet approved by TUV		
Manufacture	JVL	Motor type	Integr. AC-servo - Rotating
Motor power [W]	1500	Power Peak [W]	4500
Duty Cycle	S1	Max Duty Cycle [%]	100
Continuous Torque	4.78	Peak torque [Nm]	15
Main supply [V]	3x400	Voltage type - Main	AC
Speed [Rpm]	3000	Connectivity: Without module	RS232
Encoder type	Incr. Encoder	Encoder [Counts/rev]	8192
Fan mounted	No	Brake	No
Integrated gear	No	Gear ratio	-
Integrated PLC	Yes	STO connector	Yes
Approval TÜV - STO	No	Approval - UL	No
PLC no. of AIN	2	PLC no. of DI	-
PLC no. of DIO	-	PLC no. of DO	2
Multifunction IOs	2		
Flange size	134x134	Protection house	IP55
Shaft size - Front [mm]	24.00mm	Protection shaft	IP55
Color	Black	Paint type	



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General information

Ambient Temperature range [°C]:

Maximum Installation Altitude [m]:

Max. Amb. Temperature range - Torque derating:

- Power Derating every 1000m over 1000m [%]:

Weight net [kg] 11.14

Country Of Origin DK

Tariff no US

Weight gross [kg] 12.12

Tariff no 85015220



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Mechanical information

Motor type	Integr. AC-servo - Rotating	Color	Black
Rotor inertia [kgcm²]	13.96	Max inertia factor	20
Encoder type	Incr. Encoder	Encoder [Counts/rev]	8192
Precision Motor - Absolute [Deg -/+]	0.04	Precision Motor - Max Load [Deg -/+]	
Precision Motor - Repeatability [Deg -/+]	0.04		
Brake	No	Brake - Go ON time [ms]	-
Brake Holding torque [Nm]	-	Brake - Go OFF time [ms]	-
Radial load [N]	900	Radial load distance [mm]	
Axial load [N]	450		
Axial play [mm]	+/-0.05	Axial play force [N]	xxx
Front bearing type	xxx	Rear bearing type	xxx
Integrated gear	No	Gear ratio	-
Gear efficiency [%]	< -	Gear backlash [ArcMin]	-
Motor length [mm]	250.0	Motor width [mm]	134.0
Motor height [mm]	204.5	Protection house	IP55
Customer Sealing	Standard		
Flange size	134x134	Mounting holes front [mm]	9.0
Motor diameter center front [mm]	110.0	Bolt circle diameter front [mm]	145.0
Flange material	Aluminium	Flange Thickness [mm]	
Shaft Key included	Key included on shaft	Shaft Key Dimension	8x8x35
Shaft size - Front [mm]	24.00mm	Protection shaft	IP55
Shaft length Front [mm]	58.0	Shaft material	Steel
Approval - ROHS-3	Yes	Approval - UL	No
Approval TÜV - STO	No	Approval - ATEX	No
CAD 2D [PDF]	Download	CAD 3D [STEP]	Download
CAD 2D [DWG]	No	CAD 3D [DWG]	No

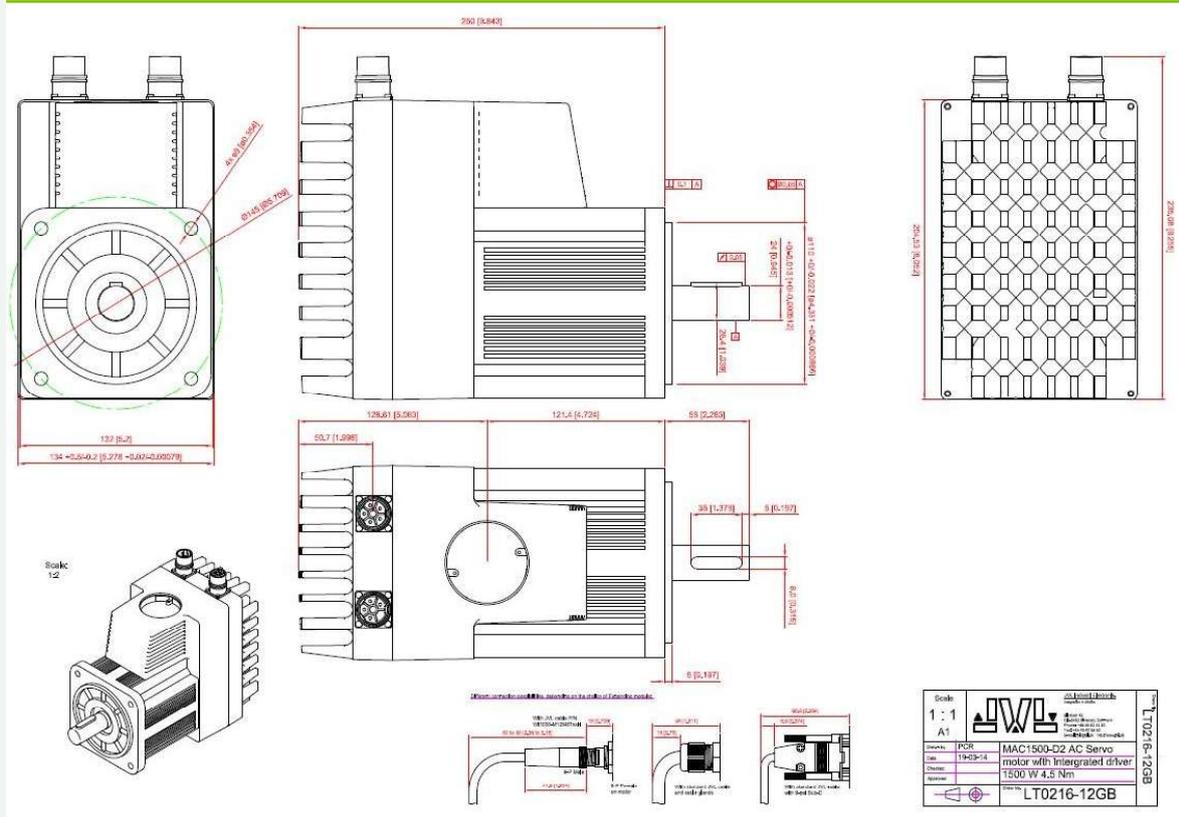


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Mechanical information

CAD 3D [EASM]	No	CAD 3D [IGES]	Download
Datasheet - pdf	Yes	User Manual	Download
REACH SVHC document	Download	Low voltage Directive	LVD conformity with EU standard: EN 61800-3
No Dual Use	Read more here		



Shaft Seal

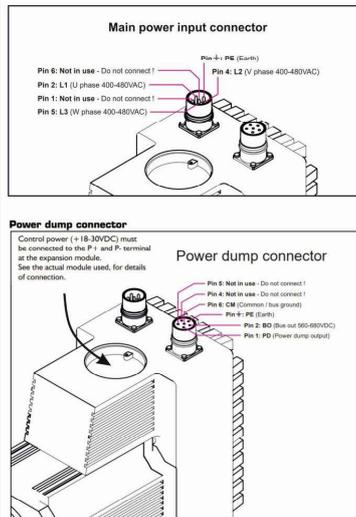


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Connector information

Motor connectors



Connector Power M23 6-pin male **Connector Power Supplier**

Connector Power direction Straight

PDO Connector Type M23 6-pin female **Connector PDO Supplier**

Connector STO M8 4-pin female A-coded

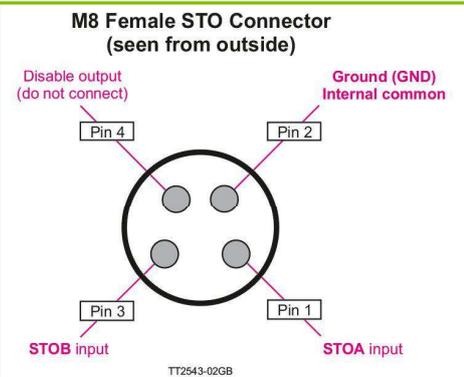
Picture of STO

“STO” (X0) connector M8 - 4 pin male connector

Signal name	Description	Pin no.	JVL Cable W1010-M08M4TxxP	Isolation group (see note)
STOA	STO channel A	1	Brown	1
GND	Ground for the STO signals	2	Inner screen	1
STOB	STO channel B	3	Black	1
24V out	DO NOT CONNECT !	4	(do not exist)	1

Connector housing/metal is connected to earth and at JVL supplied cables also to the cable screen.

Picture STO Con



Expansion connector Generation 1 and 2

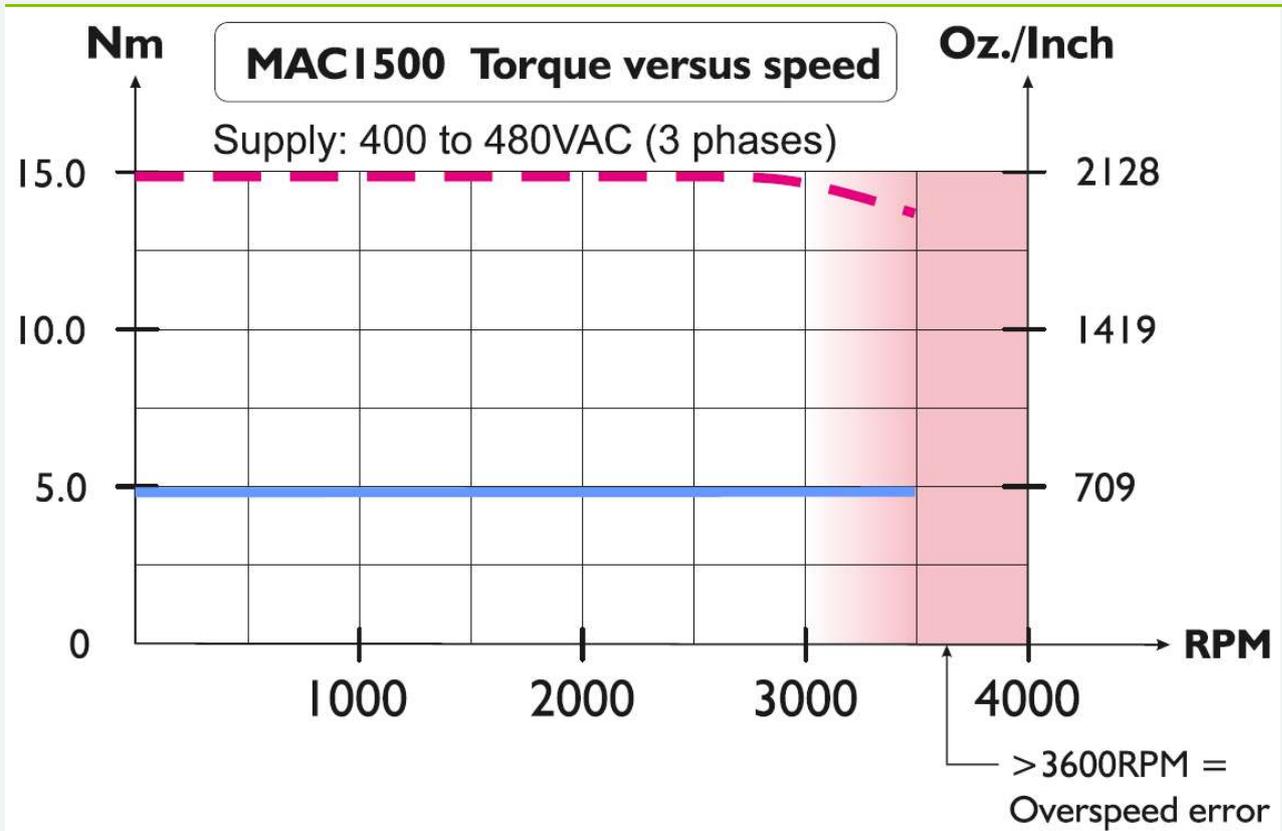


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Torque, force and Power information

RMS torque [Nm]	5.0	Peak torque [Nm]	15
Supply Volt 1 [V]		Velocity max 1 [Rpm]	
Supply Volt 2 [V]		Velocity max 2 [Rpm]	
Supply Volt 3 [V]	3x400	Velocity max 3 [Rpm]	3600
Supply Volt 4 [V]		Velocity max 4 [Rpm]	





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Electrical information

Main supply [V]	3x400	Main supply Min-Max [V]	400-550
Voltage type - Main	AC	Main Voltage possible	1x230VAC, 3x200VAC, 3x400VAC
Inrush current -Main max [A]		Inrush special	No
Recommended fuse	FRN-R-8 Cooper Bussmann inc.	P- isolated from Earth (Low Voltage ground (P-) isolated from housing)	No
Bus Supply Voltage Min [V]		Busvoltage Overvoltage limit [VDC]	1000V
Power Dump Voltage Active Level [V]		Internal Power-Dump Resistance [Ohm]	150
Internal Power-Dump Power [W]	200	PD connection - Int/Ext	Int/Ext PD in Parallel
External Power-Dump Resistance Minimum value [Ohm]	40	External Power-Dump Max Current [A]	25
Control voltage (CVI/O+) [VDC]	18-28	Control Voltage (CVI) Min-Max [VDC]	18-30
PLC no. of DI	-	PLC no. of DO	2
PLC no. of DIO	-	PLC no. of AIN	2
Analogue voltage	-/+10VDC, -/+11bit	Multifunction IOs	2
Multifunction Nom. level [V]		Multifunction Maximum level [V]	
Multifunction Low trigger level [V]		Multifunction High trigger level [V]	
Resistance [Ohm]		Induction [mH]	
MTBF 100% [Year]	-	MTBF 30% [Year]	-

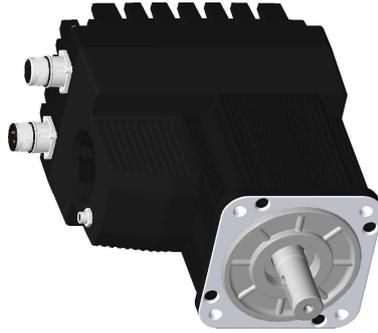
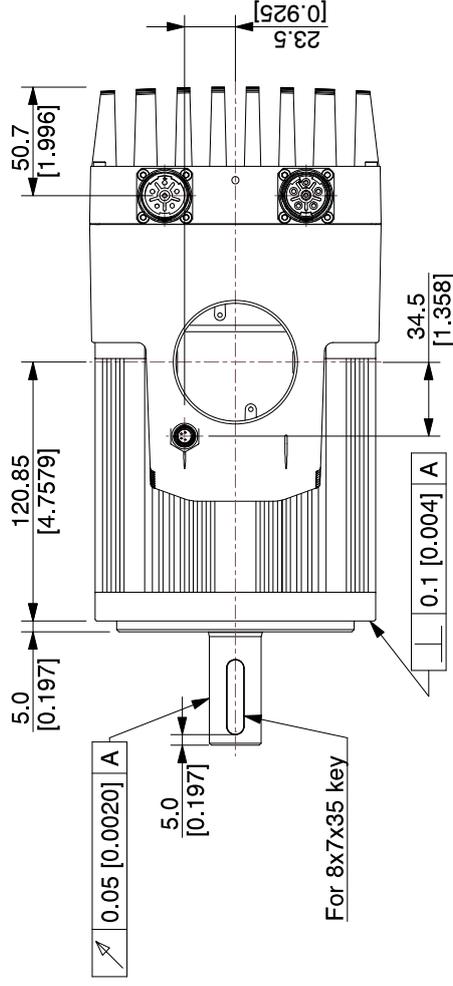
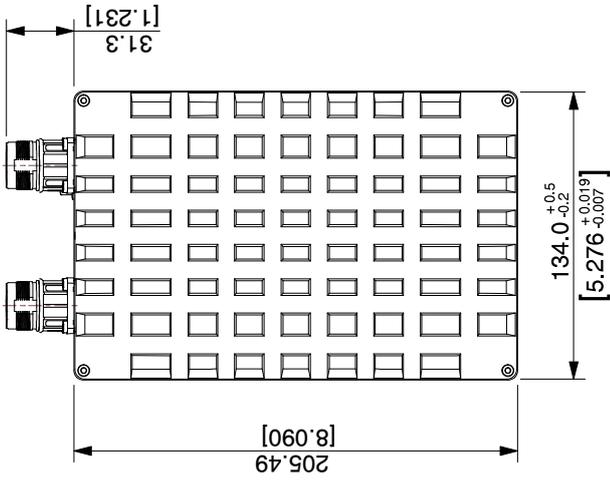
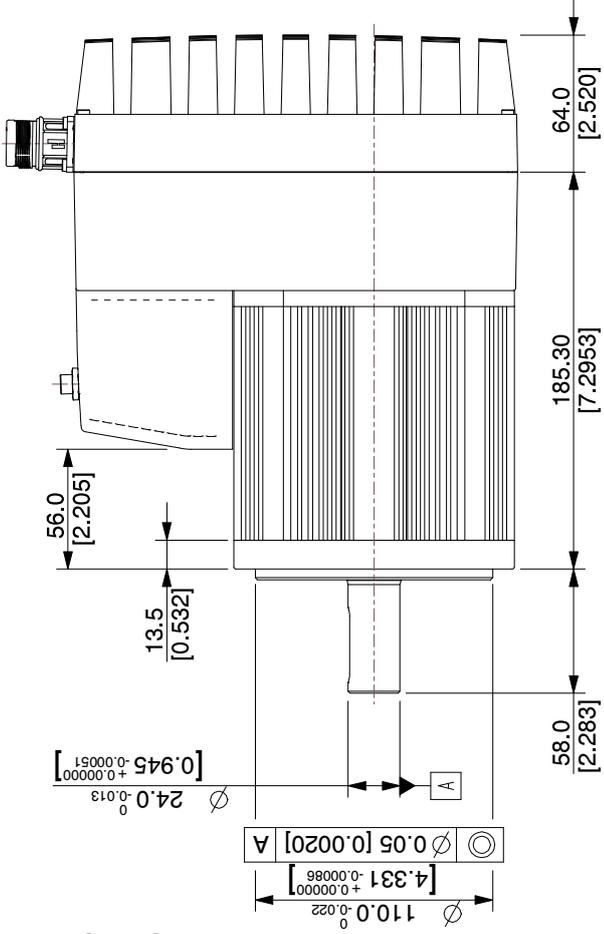
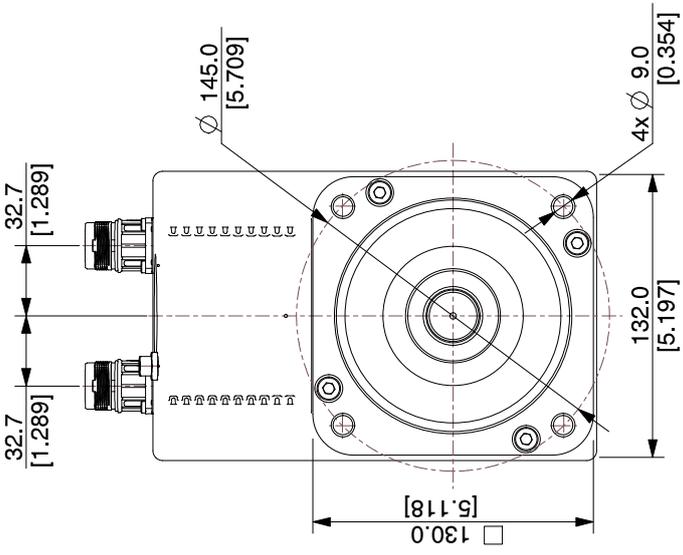


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Communication information

Software	MacTalk	
Connectivity: Without module	RS232	e-PLC Files
Connectivity: Gen. 1 modules	Yes	
Connectivity: Gen. 2 modules	Yes	



NOTES:
1. Encoder Type: Encoder 8192 CPR

JVL A/S
Bregneravej 127
DK-3450 Birkerød
Denmark



PART NUMBER:

MAC1500-D2-CRAL

PART DESCRIPTION:

Integrated Stepper Motor



A4

SCALE

UNIT

NTS

MM [Inch]

Unless specifically stated otherwise, this drawing is the property of JVL A/S and no feature embodied herein may be disclosed except as previously authorized