

N° :

Date : 26 mai 2023

SERVO MOTOR 142U3E305BACAA165240



Definition

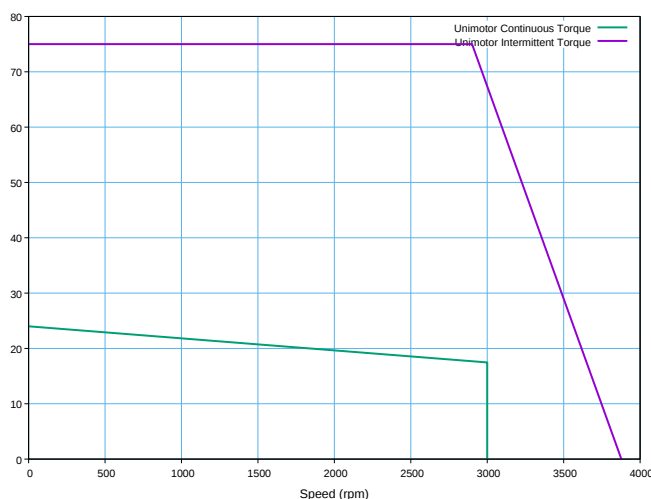
Type	Unimotor FM	
Frame Size (mm)	142	
Voltage	U	U - 400V
Magnet type	3	3 - Standard
Frame Length	E	
Speed (min-1)	30	3000
Brake	5	Braked (5)
Connection type	B	B - Power and Signal 90° rotatable
Output shaft	A	with key
Feedback device code	CA	CA - 4096 ppr Incremental encoder (CFS50)
Inertia & thermistor	A	A - Standard + PTC thermistor
PCD	165	165 (FF 165 / 130)
Shaft Diameter	240	24j6 x 50.0 .
Fan box	-	
Insulation class	F	
UL Motor / UL Stator	UL Motor / UL Stator	

Nominal characteristics

Motor Ambient Temperature (°C)	40	Drive Fsw (kHz)	12
Motor Stall Torque (N.m)	25.00	Stall Current (A)	15.60
Rated Torque (N.m)	18.20	Rated Current (A)	11.4
Motor Peak Torque (N.m)	75.00	Peak Current for Drive Selection (A)	46.88
Rated Power (kW)	5.70	Kt (Nm/A)	1.60
Winding Thermal Time Constant (s)	249	Ke (V/kmin-1)	98.00
Number of Poles	6	R (ph-ph) (Ohm)	0.50
Maximum Cogging (N.m)	0.75	L (ph-ph) (mH)	6.70
Inertia (kg.cm²)	37.11	Product mass	22.42
Ingress Protection Level (IP)	IP65		

Brake	Braked (5)	Static Torque (N.m)	20.0
Release Time (ms)	126	Backlash (°)	0.75
Brake Supply Voltage (V)	24	Brake Coil Power (W)	23.0

Torque / speed graph



Configured characteristics

Motor Ambient Temperature (°C)	40
Drive Fsw (kHz)	8
Derating Factor	0.96
Stall Torque with Derating Factor (N.m)	24.00
Nominal Torque after Derating (N.m)	17.47
Peak Torque with Derating Factor (N.m)	75.00

Version V1.382

The information contained in this data-sheet is for guidance only and does not form part of any contract. The accuracy cannot be guaranteed as our company have an ongoing process of development and reserve the right to change the specification of their products without notice.

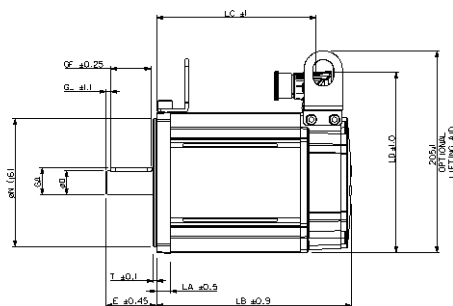
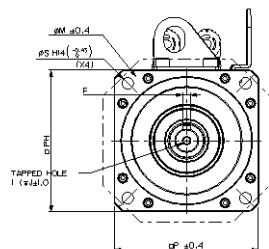
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Moteurs Leroy-Somer SAS. Siège social : Bd Marcellin Leroy, CS 10015, 16915 Angoulême Cedex 9, France. Capital social : 65 800 512 €, RCS Angoulême 338 567 258.
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Motor (° & mm)



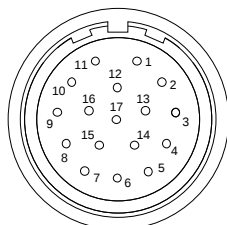
LB	Total length	372.80
LB1	Power connector position	338.00
LJ	Flange thickness	14.0
LA	Register Length	3.4
T	Register Diameter	130.0
N	Power connector overall height	183.50
LD	Flange Square	142.0
LD1	Fixing Hole Diameter	12.0
P	Fixing hole PCD	165
S	Motor Housing Width	142
M	Shaft Diameter	24j6
PH	Shaft Length	50.0
D	Key Height	27.0
E	Key Length	40.0
GA	Key to Shaft End	4.6
GF	Key Width	8
G	Tapped Hole Thread Size	M8x1,25
F	Tapped Hole Depth	20.0
I	Mounting Bolt	M10

Motor electrical interface

Feedback device code : CA - 4096 ppr Incremental encoder (CFS50)

Connection type :
Conductors size :

B - Power and Signal 90° rotatable
4G2.5 + 2x 0.5



1 - CTP
2 - CTP
3 -
4 - S1
5 - S1 /
6 - S2
7 - S2 /
8 - S3
9 - S3 /

10 - A
11 - Index
12 - Index /
13 - A /
14 - B
15 - B /
16 - Power
17 - 0V
Screen

U - Phase U
V - Phase V
W - Phase W
Screen

B+ Brake +
B- Brake -

