



SM SERIES SERVO MOTOR

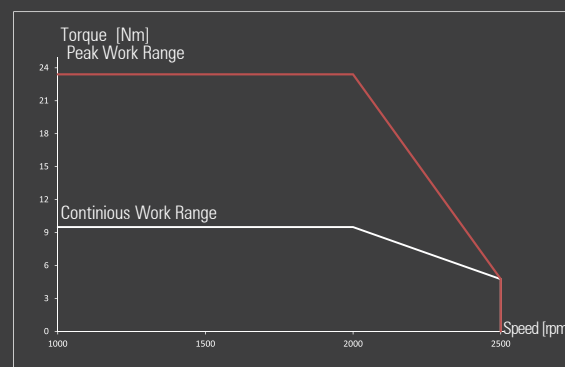
SM13-DX-200BX



SM series industrial servo motors are used in many different applications such as factory automation, special machine production, machine tools and robotic. It provides high accuracy in applications which require precise positioning by means of its low cogging torque and torque ripple. There are 12 different power level motor options from 60 mm frame size 200W to 130 mm frame size 2kW. Braked option can be provided when needed in such applications. BiSS / SSI (absolute) and incremental encoder alternatives are offered for required applications. Through its compact construction, it brings a flexible solution for large machines and for the machines with limited space.

MOTOR PROPERTIES			
PARAMETERS		UNIT	SM10-DX-200BX
GENERAL	DC Bus Voltage	V	310
	Rated Power	W	2000
	Rated Torque	Nm	9,55
	Rated Current	A	10,8
	Rated Speed	rpm	2000
	Max Torque	Nm	23,4
	Max Current	A	31,8
	Max Speed	rpm	2500
	Efficiency	%	92,5
	Mechanical Time Constant	ms	0,31
	Electrical Time Constant	ms	11,86
	IP Rating	-	IP65*
ELECTRICAL	Torque Constant	Nm/A	0,93
	Voltage Constant	V/krpm	71,39
	Resistance	ohm	0,35
	Inductance	mH	4,15
MECHANICAL	Rotor Moment of Inertia (Without Brake)	kg.cm ²	11,23
	Rotor Moment of Inertia (With Brake)	kg.cm ²	11,71
	Weight (Without Brake)	kg	7,2
	Weight (With Brake)	kg	8,3
BRAKE	Static Torque	Nm	20
	Operating Voltage	V	24±%10
	Power Consumption (20 °C)	W	10,15±%7
	Electrical Insulation Rating	-	H

SM13DX-200BX



Low cogging torque and low torque ripple

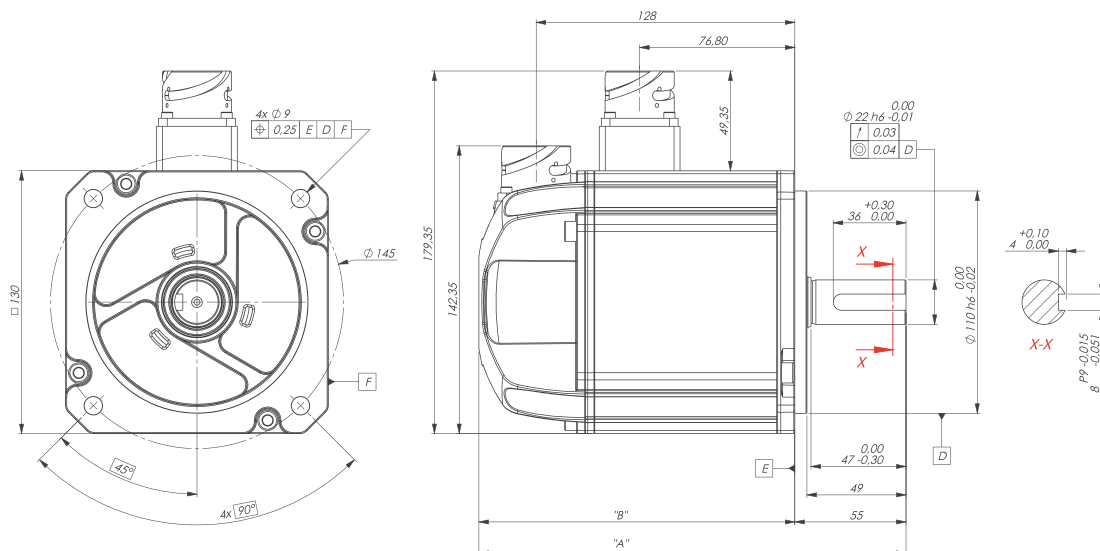
High performance in 24/7 applications

Suitable for use with different drivers

High efficiency, low energy consumption



* Protection level is IP65 when suitable connectors and shaft seals are used.



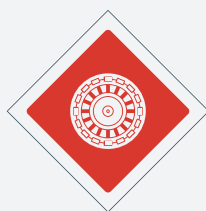
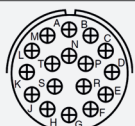
WITHOUT BRAKE		WITH BRAKE	
"A" (mm)	"B" (mm)	"A" (mm)	"B" (mm)
219,4	164,4	259,4	204,4

Dimensions are in mm.

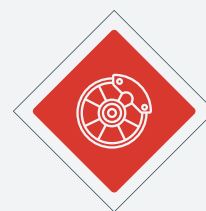
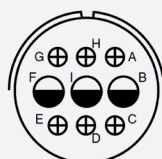
CONNECTOR CONNECTION INFORMATION



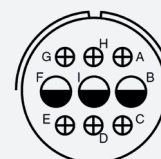
Signal Connector		
Encoder	Colour Codes	Connector
+VDC	BROWN	A
GND	WHITE	B
A+/DATA+	GREEN	C
A-/DATA-	GREEN / BLACK	D
B+/CLOCK+	YELLOW	E
B-/CLOCK-	YELLOW / BLACK	F
Z	GREY	G
Z-	GREY / BLACK	H
U	BLUE	J
U-	BLUE / BLACK	K
V	ORANGE	L
V-	ORANGE / BLACK	M
W	RED	N
W-	RED / BLACK	P
SHIELD	BLACK	R
(NC)		S
(NC)		T



Power Connector Without Brake		
Motor	Colour Codes	Connector
U	BROWN (1)	F
V	GREY (2)	I
W	BLACK (3)	B
GROUND	GREEN	E



Power Connector With Brake		
Motor	Colour Codes	Connector
U	BROWN (1)	F
V	GREY (2)	I
W	BLACK (3)	B
BRAKE +		G
BRAKE -		H
GROUND	GREEN	E



ENCODER INFORMATION

Encoder Type	Supply Voltage (VDC)	Max Electrical Frequency (kHz)	Operating Temperature (°C)	Speed (rpm)	Encoder Resolution (bit)
1: Incremental	4,75 - 5	> 200	-20 ... +85	≤ 10000	13
2: BISS / SSI	4,75 - 5	> 200	-20 ... +85	≤ 10000	17 - 21