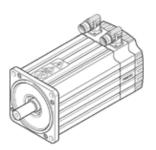
## servo motor EMMS-AS-140-LK-HV-RRB-S1

**FESTO** 

Part number: 1574712 Product to be discontinued

Without gear unit.



## **Data sheet**

Ambient temperature  -40 40 °C  Storage temperature  -20 60 °C  Relative air humidity  0 - 90 %  Conforms to standard  IBC 60034  Insulation protection class  F  Rating class according to EN 60034-1  Temperature monitoring  PTC resistor  Protection class  Shaft design Featherkey  DIN 6885  Shaft design Featherkey  DIN 6885  Shaft design Featherkey  Plug  Materials note  Conforms to ROHS  Corrosion resistance classification CRC  2 - Moderate corrosion stress  PWIS conformity  Authorisation  CL u.u.s. Recognized (OL)  CE mark (see declaration of conformity)  To EU directive for EMC  to EU directive low-voltage devices  in accordance with EU ROHS directive  UKCA marking (see declaration of conformity)  To UK instructions for EMC  TO UK ROHS instructions  Nominal voltage DC  565 V  Type of winding switch  Star inside  Standstill torque  7.5 Nm  Nominal torque  7.5 Nm  Nominal torque  7.5 Nm  Nominal motor current  9.96 A  Sea Constant, phase-to-phase  104.41 m/min	Feature	Value
Relative air humidity O - 90 % Conforms to standard IEC 60034 Insulation protection class F Rating class according to EN 60034-1 S1 Temperature monitoring PTC resistor Protection class IP65 Shaft design Featherkey DIN 6885 A 8 x 7 x 40 Electrical connector system Plug Materials note Corrosion resistance classification CRC 2 - Moderate corrosion stress PWIS conformity Authorisation CE mark (see declaration of conformity)  CE mark (see declaration of conformity)  UKCA marking (see declaration of conformity)  TO UK instructions for EMC TO UK RoHS instructions Nominal voltage DC Type of winding switch Number of pole pairs 6 Standstill torque 17.41 Nm Peak torque Nominal motor current Peak current 19.96 A Motor constant 1.75 Nm/A Motor constant 1.75 Nm/A Motor constant 1.75 Nm/A Motor constant  1.75 Nm/A	Ambient temperature	-40 40 °C
Conforms to standard   IEC 60034     Insulation protection class   F     Rating class according to EN 60034-1   S1     Temperature monitoring   PTC resistor     Protection class   IP65     Shaft design Featherkey   DIN 6885     A 8 x 7 x 40     Electrical connector system   Plug     Materials note   Conforms to RoHS     Corrosion resistance classification CRC   2. Moderate corrosion stress     PWIS conformity   VDMA24364-B2-L     Authorisation   RCM Mark     CUL us - Recognized (OL)     CE mark (see declaration of conformity)   to EU directive for EMC     to EU directive low-voltage devices     in accordance with EU RoHS directive     UKCA marking (see declaration of conformity)   TO UK instructions for electrical equipment     To UK instructions for electrical equipment     To UK RoHS instructions     Nominal voltage DC   S65 V     Type of winding switch   Star inside     Number of pole pairs   6     Standstill torque   17.41 km     Peak torque   67.5 km     Nominal torque   17.41 km     Peak torque   67.5 km     Nominal motor power   3,380 1/min     Nominal motor power   5,110 W     Nominal motor current   9,96 A     Peak current   51.5 A     Motor constant   1.75 km/A	Storage temperature	-20 60 °C
Insulation protection class Rating class according to EN 60034-1 S1 PTC resistor Protection class IP65 Shaft design Featherkey DIN 6885 A 8 x 7 x 40 Electrical connector system Materials note Conforms to RoHS Corrosion resistance classification CRC 2 - Moderate corrosion stress PWIS conformity VDMA24364-B2-L Authorisation RCM Mark c UL us - Recognized (OL) CE mark (see declaration of conformity) to EU directive for EMC to EU directive low-voltage devices in accordance with EU RoHS directive UKCA marking (see declaration of conformity) To UK instructions for electrical equipment To UK (RoHS instructions Nominal voltage DC Type of winding switch Stard inside Number of pole pairs 6 Standstill torque 17.41 Nm Peak torque 67.5 Nm Nominal notary speed Max. speed 3,830 1/min Nominal motor current Post Control of Sin Sh MA Motor constant 1.75 Nm/A	Relative air humidity	0 - 90 %
Rating class according to EN 60034-1  Temperature monitoring Protection class IP65 Shaft design Featherkey DIN 6885 A 8 x 7 x 40 Electrical connector system Plug Materials note Corrosion resistance classification CRC PWIS conformity VDMA24364-B2-L Authorisation RCM Mark c UL us - Recognized (OL) CE mark (see declaration of conformity) To EU directive for EMC to EU directive low-voltage devices in accordance with EU RoHS directive UKCA marking (see declaration of conformity) To UK instructions for electrical equipment To UK instructions for EMC To UK RoHS instructions Nominal voltage DC Type of winding switch Number of pole pairs 6 Standstill torque 25.5 Nm Nominal torque 17.41 Nm Peak torque 67.5 Nm Nominal motor current Pask Company Nominal motor current 9.96 A Peak current Nominal motor current 9.96 A Peak current Notor constant 1.75 Nm/A	Conforms to standard	IEC 60034
Temperature monitoring PTC resistor Protection class IP65 Shaft design Featherkey DIN 6885 A 8 x 7 x 40 Electrical connector system Plug Materials note Conforms to RoHS Corrosion resistance classification CRC 2 · Moderate corrosion stress  PWIS conformity VDMA24364-B2-L Authorisation RCM Mark C UL us - Recognized (OL) CE mark (see declaration of conformity) to EU directive for EMC to EU directive low-voltage devices in accordance with EU RoHS directive  UKCA marking (see declaration of conformity) To UK instructions for electrical equipment To UK instructions for EMC To UK RoHS instructions  Nominal voltage DC 565 V Type of winding switch Star inside  Number of pole pairs 6 Standstill torque 25.5 Nm Nominal torque 17.41 Nm Peak torque 67.5 Nm Nominal rotary speed 3,830 1/min Max. speed 3,830 1/min Mominal motor current 9.96 A Peak current 51.5 A Motor constant	Insulation protection class	F
Protection class  Shaft design Featherkey  Electrical connector system  Materials note  Corrosion resistance classification CRC  PWIS conformity  Authorisation  CE mark (see declaration of conformity)  UKCA marking (see declaration of conformity)  UKCA marking (see declaration of conformity)  To UK instructions for electrical equipment To UK RoHS instructions  Nominal voltage DC Type of winding switch  Number of pole pairs  Standstill torque  Nominal torque  PHUS  Authorisation  RCM Mark C UL us - Recognized (OL)  to EU directive for EMC to EU directive low-voltage devices in accordance with EU RoHS directive  TO UK instructions for electrical equipment To UK instructions for electrical equipment To UK RoHS instructions  Nominal voltage DC Type of winding switch Star inside  Number of pole pairs  6  Standstill torque 17.41 Nm Peak torque 17.41 Nm Peak torque 17.41 Nm Peak torque 17.41 Nm Pominal rotary speed 2,800 1/min Max. speed 3,830 1/min Nominal motor power 5,110 W Nominal motor current 9,96 A Peak current 17.5 Nm/A	Rating class according to EN 60034-1	S1
Shaft design Featherkey	Temperature monitoring	PTC resistor
Electrical connector system Plug Materials note Corrosion resistance classification CRC 2 - Moderate corrosion stress  PWIS conformity VDMA24364-B2-L  Authorisation RCM Mark c UL us - Recognized (OL) CE mark (see declaration of conformity) to EU directive for EMC to EU directive low-voltage devices in accordance with EU RoHS directive  UKCA marking (see declaration of conformity) To UK instructions for electrical equipment To UK instructions for EMC To UK RoHS instructions  Nominal voltage DC Type of winding switch Star inside  Number of pole pairs 6 Standstill torque 25.5 Nm Nominal torque 17.41 Nm Peak torque 67.5 Nm Nominal rotary speed 3,830 1/min Max. speed 3,830 1/min Nominal motor power 5,110 W Nominal motor current 9.96 A Peak current 1.75 Nm/A	Protection class	IP65
Electrical connector system  Materials note  Corrosion resistance classification CRC  2 · Moderate corrosion stress  PWIS conformity  VDMA24364-B2-L  Authorisation  RCM Mark c UL us · Recognized (OL)  CE mark (see declaration of conformity)  to EU directive for EMC to EU directive low-voltage devices in accordance with EU RoHS directive  UKCA marking (see declaration of conformity)  To UK instructions for electrical equipment To UK instructions for EMC To UK RoHS instructions  Nominal voltage DC  Type of winding switch  Number of pole pairs  6  Standstill torque  17.41 Nm  Peak torque  67.5 Nm  Nominal rotary speed  3,830 1/min  Nominal motor power  5,110 W  Nominal motor current  9.96 A  Peak current  1.75 Nm/A	Shaft design Featherkey	DIN 6885
Materials note Corrosion resistance classification CRC 2 - Moderate corrosion stress  PWIS conformity VDMA24364-B2-L Authorisation RCM Mark CUL us - Recognized (OL) CE mark (see declaration of conformity) to EU directive for EMC to EU directive low-voltage devices in accordance with EU RoHS directive  UKCA marking (see declaration of conformity) To UK instructions for electrical equipment To UK nostructions for EMC To UK RoHS instructions  Nominal voltage DC Type of winding switch Star inside Number of pole pairs 6 Standstill torque 25.5 Nm Nominal torque 17.41 Nm Peak torque 67.5 Nm Nominal rotary speed 3,830 1/min Nominal motor current 9.96 A Peak current 51.5 A Motor constant 1.75 Nm/A		A 8 x 7 x 40
Materials note Corrosion resistance classification CRC 2 - Moderate corrosion stress  PWIS conformity VDMA24364-B2-L  Authorisation RCM Mark  CUL us - Recognized (OL)  CE mark (see declaration of conformity) to EU directive for EMC to EU directive low-voltage devices in accordance with EU RoHS directive  UKCA marking (see declaration of conformity) To UK instructions for electrical equipment To UK instructions for EMC To UK RoHS instructions  Nominal voltage DC Type of winding switch Star inside  Number of pole pairs 6 Standstill torque 25.5 Nm Nominal torque 17.41 Nm Peak torque 67.5 Nm Nominal rotary speed 3,830 1/min Nominal motor power 5,110 W Nominal motor current 9.96 A Peak current 17.5 Nm/A	Electrical connector system	Plug
PWIS conformity  Authorisation  RCM Mark c UL us - Recognized (OL)  CE mark (see declaration of conformity)  to EU directive for EMC to EU directive low-voltage devices in accordance with EU RoHS directive  UKCA marking (see declaration of conformity)  To UK instructions for electrical equipment To UK instructions for EMC To UK RoHS instructions  Nominal voltage DC  Type of winding switch  Number of pole pairs  Star inside  Number of pole pairs  6  Standstill torque 25.5 Nm  Nominal torque 17.41 Nm  Peak torque 67.5 Nm  Nominal rotary speed 3,830 1/min  Max. speed 3,830 1/min  Nominal motor current 9.96 A  Peak current 51.5 A  Motor constant  1.75 Nm/A		-
Authorisation  RCM Mark c UL us - Recognized (OL)  CE mark (see declaration of conformity)  to EU directive for EMC to EU directive low-voltage devices in accordance with EU RoHS directive  UKCA marking (see declaration of conformity)  To UK instructions for electrical equipment To UK RoHS instructions  Nominal voltage DC  Type of winding switch  Number of pole pairs  6  Standstill torque  25.5 Nm  Nominal torque  17.41 Nm  Peak torque  67.5 Nm  Nominal rotary speed  2,800 1/min  Max. speed  3,830 1/min  Nominal motor power  Nominal motor current  9.96 A  Peak current  51.5 A  Motor constant  1.75 Nm/A	Corrosion resistance classification CRC	2 - Moderate corrosion stress
c UL us - Recognized (OL)  CE mark (see declaration of conformity)  to EU directive for EMC to EU directive low-voltage devices in accordance with EU RoHS directive  UKCA marking (see declaration of conformity)  To UK instructions for electrical equipment To UK instructions for EMC To UK RoHS instructions  Nominal voltage DC  Type of winding switch Star inside  Number of pole pairs 6  Standstill torque 25.5 Nm  Nominal torque 17.41 Nm  Peak torque 67.5 Nm  Nominal rotary speed 3,830 1/min  Max. speed 3,830 1/min  Nominal motor power 5,110 W  Nominal motor current 9,96 A  Peak current 51.5 A  Motor constant	PWIS conformity	VDMA24364-B2-L
CE mark (see declaration of conformity)  to EU directive for EMC to EU directive low-voltage devices in accordance with EU RoHS directive  UKCA marking (see declaration of conformity)  To UK instructions for electrical equipment To UK instructions for EMC To UK RoHS instructions  Nominal voltage DC  Type of winding switch  Star inside  Number of pole pairs  6  Standstill torque  25.5 Nm  Nominal torque  17.41 Nm  Peak torque  67.5 Nm  Nominal rotary speed  2,800 1/min  Max. speed  3,830 1/min  Nominal motor power  5,110 W  Nominal motor current  9.96 A  Peak current  51.5 A  Motor constant	Authorisation	RCM Mark
CE mark (see declaration of conformity)  to EU directive for EMC to EU directive low-voltage devices in accordance with EU RoHS directive  UKCA marking (see declaration of conformity)  To UK instructions for electrical equipment To UK instructions for EMC To UK RoHS instructions  Nominal voltage DC  Type of winding switch  Star inside  Number of pole pairs  6  Standstill torque  25.5 Nm  Nominal torque  17.41 Nm  Peak torque  67.5 Nm  Nominal rotary speed  2,800 1/min  Max. speed  3,830 1/min  Nominal motor power  5,110 W  Nominal motor current  9.96 A  Peak current  51.5 A  Motor constant		c UL us - Recognized (OL)
to EU directive low-voltage devices in accordance with EU RoHS directive  UKCA marking (see declaration of conformity)  To UK instructions for electrical equipment To UK RoHS instructions  Nominal voltage DC  Type of winding switch  Number of pole pairs  Standstill torque  25.5 Nm  Nominal torque  17.41 Nm  Peak torque  67.5 Nm  Nominal rotary speed  2,800 1/min  Max. speed  3,830 1/min  Nominal motor power  5,110 W  Nominal motor current  9.96 A  Peak current  51.5 A  Motor constant  To UK instructions for electrical equipment To UK instructions for EMC  To UK RoHS instructions  66  Star inside  17.41 Nm  67.5 Nm  17.41 Nm  9.96 A	CE mark (see declaration of conformity)	
in accordance with EU RoHS directive  UKCA marking (see declaration of conformity)  To UK instructions for electrical equipment To UK instructions for EMC To UK RoHS instructions  Nominal voltage DC  Type of winding switch  Number of pole pairs  6  Standstill torque  25.5 Nm  Nominal torque  17.41 Nm  Peak torque  67.5 Nm  Nominal rotary speed  2,800 1/min  Max. speed  3,830 1/min  Nominal motor power  5,110 W  Nominal motor current  9.96 A  Peak current  51.5 A  Motor constant  To UK instructions for electrical equipment To UK RoHS instructions  8	, ,,	to EU directive low-voltage devices
To UK instructions for EMC To UK RoHS instructions  Nominal voltage DC  Type of winding switch  Number of pole pairs  6  Standstill torque  25.5 Nm  Nominal torque  17.41 Nm  Peak torque  67.5 Nm  Nominal rotary speed  2,800 1/min  Max. speed  3,830 1/min  Nominal motor power  5,110 W  Nominal motor current  9.96 A  Peak current  51.5 A  Motor constant  1.75 Nm/A		
To UK instructions for EMC To UK RoHS instructions  Nominal voltage DC  Type of winding switch  Number of pole pairs  6  Standstill torque  25.5 Nm  Nominal torque  17.41 Nm  Peak torque  67.5 Nm  Nominal rotary speed  2,800 1/min  Max. speed  3,830 1/min  Nominal motor power  5,110 W  Nominal motor current  9.96 A  Peak current  51.5 A  Motor constant  1.75 Nm/A	UKCA marking (see declaration of conformity)	
To UK RoHS instructions  Nominal voltage DC  Type of winding switch  Star inside  Number of pole pairs  6  Standstill torque  25.5 Nm  Nominal torque  17.41 Nm  Peak torque  67.5 Nm  Nominal rotary speed  2,800 1/min  Max. speed  3,830 1/min  Nominal motor power  5,110 W  Nominal motor current  9.96 A  Peak current  51.5 A  Motor constant  1.75 Nm/A		
Nominal voltage DC         565 V           Type of winding switch         Star inside           Number of pole pairs         6           Standstill torque         25.5 Nm           Nominal torque         17.41 Nm           Peak torque         67.5 Nm           Nominal rotary speed         2,800 1/min           Max. speed         3,830 1/min           Nominal motor power         5,110 W           Nominal motor current         9.96 A           Peak current         51.5 A           Motor constant         1.75 Nm/A		
Type of winding switch  Number of pole pairs  6  Standstill torque  25.5 Nm  Nominal torque  17.41 Nm  Peak torque  67.5 Nm  Nominal rotary speed  2,800 1/min  Max. speed  3,830 1/min  Nominal motor power  5,110 W  Nominal motor current  9.96 A  Peak current  51.5 A  Motor constant  Star inside  Star inside  Star inside  Star inside  Star inside  8  Star inside  9  6  8  Star inside  17.41 Nm  95.5 Nm  17.41 Nm  99.6 A  17.5 Nm/A	Nominal voltage DC	
Number of pole pairs       6         Standstill torque       25.5 Nm         Nominal torque       17.41 Nm         Peak torque       67.5 Nm         Nominal rotary speed       2,800 1/min         Max. speed       3,830 1/min         Nominal motor power       5,110 W         Nominal motor current       9.96 A         Peak current       51.5 A         Motor constant       1.75 Nm/A	<u> </u>	
Standstill torque       25.5 Nm         Nominal torque       17.41 Nm         Peak torque       67.5 Nm         Nominal rotary speed       2,800 1/min         Max. speed       3,830 1/min         Nominal motor power       5,110 W         Nominal motor current       9.96 A         Peak current       51.5 A         Motor constant       1.75 Nm/A		
Nominal torque       17.41 Nm         Peak torque       67.5 Nm         Nominal rotary speed       2,800 1/min         Max. speed       3,830 1/min         Nominal motor power       5,110 W         Nominal motor current       9.96 A         Peak current       51.5 A         Motor constant       1.75 Nm/A	· · · · · · · · · · · · · · · · · · ·	25.5 Nm
Peak torque         67.5 Nm           Nominal rotary speed         2,800 1/min           Max. speed         3,830 1/min           Nominal motor power         5,110 W           Nominal motor current         9.96 A           Peak current         51.5 A           Motor constant         1.75 Nm/A	•	
Nominal rotary speed         2,800 1/min           Max. speed         3,830 1/min           Nominal motor power         5,110 W           Nominal motor current         9.96 A           Peak current         51.5 A           Motor constant         1.75 Nm/A	'	
Max. speed       3,830 1/min         Nominal motor power       5,110 W         Nominal motor current       9.96 A         Peak current       51.5 A         Motor constant       1.75 Nm/A	•	
Nominal motor power 5,110 W  Nominal motor current 9.96 A  Peak current 51.5 A  Motor constant 1.75 Nm/A	• •	
Nominal motor current         9.96 A           Peak current         51.5 A           Motor constant         1.75 Nm/A	•	· · ·
Peak current         51.5 A           Motor constant         1.75 Nm/A	·	
· ·	Peak current	51.5 A
·	Motor constant	1.75 Nm/A
0		·
Phase-phase winding resistance 0.586 Ohm		
Phase-phase winding inductance 4.65 mH	, ,	
Overall mass moment of inertia at power take-off 19.4 kgcm2		
Product weight 17,240 g	·	-
Permissible axial shaft load 200 N		<del>_</del>
Permissible radial shaft load 1,060 N		
Rotor position sensor Resolver		
Rotary position encoder interface SIN/COS analogue signal	· · · · · · · · · · · · · · · · · · ·	
Rotary position encoder measuring principle Inductive	, i	



Feature	Value
Brake holding torque	18 Nm
Operating voltage DC for brake	24 V
Power consumption, brake	15.6 W
Mass moment of inertia of brake	1 kgcm2
Switching cycles, holding brake	5 million idle actuations (without work of friction!)
MTTF, subcomponent	114 years, rotary position encoder
	4469 years, holding brake
MTTFd, subcomponent	228 years, rotary position encoder
Energy efficiency	ENEFF (CN) / Class 2