



SKA DDR
DIRECT DRIVE
SERVOMOTORS

MOTORS

**MOTOR
POWER**
COMPANY

WELCOME TO MOTOR POWER COMPANY

SKA DDR directly driven Motor Power Company motors are the perfect answer for the ideal application. This series provides more torque density than comparably sized conventional servomotors. Versatility is guaranteed due to combination of space-saving of **Frameless** motors and ready-to-use advantages of **Power Pack** configurations.

SKA DDR series means high performances, system design simplification, lower noise, cost reduction, mechanical transmission elimination.

Motor Power Company is able to offer different motors configuration: standard or customized shafts, wide torque range, many feedback technology, quality, service and experience.

This complete series is provided with or without its perfectly coupling drive. Motor Power Company proposes not just components but complete motion solutions, combining direct drive motors with a series of drives with high flexibility and exceptional capabilities in a wide range of applications.

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SKA DDR DIRECT DRIVE

TECHNOLOGY

SKA DDR is available in **Frameless** version - rotor, stator and feedback as separate components- for the most space saving solutions.

And in **Power Pack** version, full frame motors with different shaft models, for an easy installation.

This catalogue contains some examples of our SKA DDR design and manufacturing experience, other tailored models to your needs are available.



GEARLESS POWERFUL SOLUTION WITH HIGHER POSITION ACCURACY

- Frameless or Power Pack motors
- Instantaneous peak torque till 2400 Nm
- A high-speed operation up to 1200 rpm
- No backlash for a high-precision, high-speed operation with shorter settling time
- Improved positioning accuracy
- Perfect matching between motor and drives with different network communication
- Wide range of feedback devices

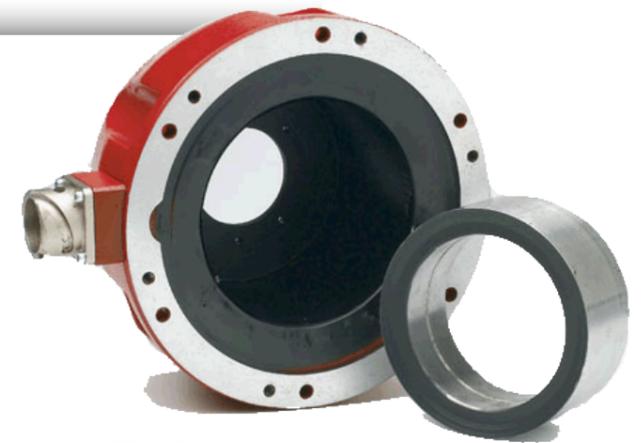


SEE IT BEFORE IT HAPPENS



DIRECT DRIVE SYSTEM TECHNICAL IMPROVEMENTS

- Simplified machine structure, adjustment and maintenance
- Fewer parts to assemble, control and purchase
- Direct connection to load increases torsional stiffness
- Low noise level
- No maintenance for lubrication
- Compact design for reduced space requirement
- Easy wiring and piping using the motor's hollow shaft
- No limits due to backlash, friction or inertia
- Motor peak torque can provide 800% of continuous torque
- Reduction and control of energy costs
- Energy efficiency



APPLICATIONS

SKA DDR is suitable for a wide variety of applications.

Packaging machinery	Capping machines	Pharma machines
Part unloaders	Labelling processes	Tool machines
Actuators	Print registration stands	Ceramic tiles machines
Rotary tables	Solar energy	Indexing rotary platform
Material handling	Wind energy	Food and diary machines

SKA DDR

DIRECT DRIVE SERVOMOTORS

PRODUCT LINEUP

	STALL TORQUE (Nm)	PEAK TORQUE (Nm)	MAXIMUM SPEED @230/400 Vac (Rpm)	POLES (nr)	RATED VOLTAGE (Vac)
SKA DDR 090.30	2	15.9	1200/1200	14	230-400
SKA DDR 090.60	3,5	28	1200/1200	14	230-400
SKA DDR 090.90	4,7	40	1200/1200	14	230-400
SKA DDR 148.30	8	35	1000/1000	14	230-400
SKA DDR 148.60	14	72	1000/1000	14	230-400
SKA DDR 148.90	20	106	900/800	14	230-400
SKA DDR 148.120	26	141	900/800	14	230-400
SKA DDR 148.150	30	170	750/800	14	230-400
SKA DDR 148.240	48	260	750/800	14	230-400
SKA DDR 245.30	41	128	750/800	28	230-400
SKA DDR 245.60	70	241	750/800	28	230-400
SKA DDR 245.90	93	350	300/500	28	230-400
SKA DDR 245.120	115	458	300/500	28	230-400
SKA DDR 335.30	100	290	300/500	42	230-400
SKA DDR 335.60	164	550	300/500	42	230-400
SKA DDR 335.90	220	800	300/300	42	230-400
SKA DDR 335.120	270	1043	300/300	42	230-400
SKA DDR 335.150	320	1290	300/300	42	230-400
SKA DDR 430.30	210	458	180/300	56	230-400
SKA DDR 430.60	340	868	180/300	56	230-400
SKA DDR 430.90	450	1254	90/150	56	230-400
SKA DDR 430.120	560	1649	90/150	56	230-400
SKA DDR 430.150	660	2025	50/90	56	230-400
SKA DDR 430.180	760	2400	50/90	56	230-400

SKA DDR FRAMELESS MOTOR TYPE DESIGNATION

SKA DDR FL	090	60	19	00	14	96
Servomotor Name	Model	Size	Winding code	Hall Sensor	Connectors	Options
	1	2	3	4	5	6

1 Choose SKA DDR model among 090 - 148 - 245 - 335 - 430

2 Choose SKA DDR size among
 30-60-90 for model 90
 30-60-90-120-150-240 for model 148
 30-60-90-120 for model 245
 30-60-90-120-150 for model 335
 30-60-90-120-150-180 for model 430

3	Winding Code	17	18	19	50	51	52	53	54	55	56
Motor											
SKA DDR 090.30		•	•	•	•	-	-	-	-	-	-
SKA DDR 090.60		•	•	•	•	-	-	-	-	-	-
SKA DDR 090.90		•	•	•	•	•	-	-	-	-	-
SKA DDR 148.30		•	•	•	•	•	•	-	-	-	-
SKA DDR 148.60		•	•	•	•	•	•	-	-	-	-
SKA DDR 148.90		•	•	•	•	•	•	•	-	-	-
SKA DDR 148.120		-	•	•	•	•	•	•	-	-	-
SKA DDR 148.150		-	-	•	•	•	•	•	-	-	•
SKA DDR 148.240		-	-	•	•	•	•	•	-	-	•
SKA DDR 245.30		-	-	•	•	•	•	•	-	-	-
SKA DDR 245.60		-	-	•	•	•	•	•	-	-	-
SKA DDR 245.90		-	-	-	-	•	•	•	-	-	-
SKA DDR 245.120		-	-	-	-	•	•	•	-	-	-
SKA DDR 335.30		-	-	-	-	•	•	•	•	-	-
SKA DDR 335.60		-	-	-	-	•	•	•	•	-	-
SKA DDR 335.90		-	-	-	-	•	•	•	•	•	-
SKA DDR 335.120		-	-	-	-	•	•	•	•	•	-
SKA DDR 335.150		-	-	-	-	•	•	•	•	•	-
SKA DDR 430.30		-	-	-	-	-	•	•	•	•	•
SKA DDR 430.60		-	-	-	-	-	•	•	•	•	•
SKA DDR 430.90		-	-	-	-	-	-	•	•	•	•
SKA DDR 430.120		-	-	-	-	-	-	•	•	•	-
SKA DDR 430.150		-	-	-	-	-	-	-	•	•	-
SKA DDR 430.180		-	-	-	-	-	-	-	•	•	-

Legenda • available - not available

4 Choose Hall Sensor for SKA DDR
 00: No Hall Sensor
 01: Hall Sensor (available for models 148-245-335)

5 Standard connection
 14: M23 connector type

6 Choose an option:
 96: PT 1000 thermal sensor

SKA DDR POWER PACK MOTOR TYPE DESIGNATION

SKA DDR PP 148 30.8 51 01 00 060 29 96

Servomotor Name Model Size Winding code Shaft Hall Sensor Feedback Connection Options

1 2 3 4 5 6 7 8

1 Choose SKA DDR model among 090 - 148 - 245 - 335 - 430

2 Choose SKA DDR size among
 30-60-90 for model 90
 30-60-90-120-150-240 for model 148
 30-60-90-120 for model 245
 30-60-90-120-150 for model 335
 30-60-90-120-150-180 for model 430

Motor	Winding Code										
	17	18	19	50	51	52	53	54	55	56	
SKA DDR 090.30.2	•	•	•	•	-	-	-	-	-	-	
SKA DDR 090.60.3,5	•	•	•	•	-	-	-	-	-	-	
SKA DDR 090.90.4,7	•	•	•	•	-	-	-	-	-	-	
SKA DDR 148.30.8	•	•	•	•	•	•	-	-	-	-	
SKA DDR 148.60.14	•	•	•	•	•	•	-	-	-	-	
SKA DDR 148.90.20	•	•	•	•	•	•	-	-	-	-	
SKA DDR 148.120.26	-	•	•	•	•	•	-	-	-	-	
SKA DDR 148.150	-	-	•	•	•	•	-	-	-	•	
SKA DDR 148.240	-	-	•	•	•	•	-	-	-	•	
SKA DDR 245.30.41	-	-	•	•	•	•	-	-	-	-	
SKA DDR 245.60.70	-	-	•	•	•	•	-	-	-	-	
SKA DDR 245.90.93	-	-	-	-	•	•	•	-	-	-	
SKA DDR 245.120.115	-	-	-	-	•	•	•	-	-	-	
SKA DDR 335.30.100	-	-	-	-	•	•	•	•	-	-	
SKA DDR 335.60.164	-	-	-	-	•	•	•	•	-	-	
SKA DDR 335.90.220	-	-	-	-	•	•	•	•	-	-	
SKA DDR 335.120.270	-	-	-	-	•	•	•	•	-	-	
SKA DDR 335.150.320	-	-	-	-	•	•	•	•	-	-	
SKA DDR 430.30.210	-	-	-	-	-	•	•	•	•	•	
SKA DDR 430.60.340	-	-	-	-	-	•	•	•	•	•	
SKA DDR 430.90.450	-	-	-	-	-	-	•	•	•	•	
SKA DDR 430.120.560	-	-	-	-	-	-	•	•	•	-	
SKA DDR 430.150.660	-	-	-	-	-	-	-	•	•	-	
SKA DDR 430.180.760	-	-	-	-	-	-	-	•	•	-	

Legenda • available - not available

4 Choose shaft version for SKA DDR among
 01: for through hollow shaft
 02: for male shaft
 03: for hollow shaft

5 Choose Hall Sensor or not for SKA DDR
 00: No Hall Sensor
 01: Hall Sensor (available for models 148-245-335)

6 Choose feedback for SKA DDR from available items at page 9
 7 29: Standard connection, contact us for checking others connections

8 Choose an option:
 96: for PT 1000 thermal sensor
 02: for brake (see specifications at page 50)

SKA DDR FEEDBACK DESCRIPTION

Order code	Feedback	Description	Motor				
			SKA DDR 090	SKA DDR 148	SKA DDR 245	SKA DDR 335	SKA DDR 430
01	Hall Sensor	5Vdc - TTL	-	•	•	•	-
004	Resolver size 21	2 poles	•	•	•	•	•
094	Resolver size 34	2 poles	•	•	•	•	•
022	OIH 48	2.000 ppr TTL	•	•	•	•	•
060	SEK 90 - hole Ø 40	Absolute singleturn Hiperface 11bit + 64ppr SinCos	•	•	•	•	•
063	SEK 160 - hole Ø 100	Absolute singleturn Hiperface 12bit + 128ppr SinCos	-	-	-	•	•
(*)	SEK 260 - hole Ø 200	Absolute singleturn Hiperface 13bit + 256ppr SinCos	-	-	-	-	•
026	SKS 36	Absolute singleturn Hiperface 12bit + 128ppr SinCos	•	•	-	-	-
056	SKM 36	Absolute multeturn Hiperface 12+12bit + 128ppr SinCos	•	•	-	-	-
029	SRS 50	Absolute singleturn Hiperface 15bit + 1024ppr SinCos	•	•	•	•	•
030	SRM 50	Absolute multeturn Hiperface 15+12bit + 1024ppr SinCos	•	•	•	•	•
015	ERN 1080	1.024ppr Sin Cos	•	•	•	•	•
014	ERN 1080	2.048ppr Sin Cos	•	•	•	•	•
054	ERN 1080	3.600ppr Sin Cos	•	•	•	•	•
061	EKM 36	DSL	•	•	-	-	-
062	EFM 50	DSL	•	•	•	•	•
058	ECN 1313	Absolute singleturn EnDat 01 13bit + 2048ppr SinCos	•	•	•	•	•
(*)	ECN 1325	Absolute singleturn EnDat 22 25bit (available as an option with functional safety)	•	•	•	•	•
051	EQN 1325	Absolute multeturn EnDat 01 13+12bit + 2048ppr SinCos	•	•	•	•	•
070	EQN 1337	Absolute multeturn EnDat 22 25+12bit (available as an option with functional safety)	•	•	•	•	•
055	ECN 113 - hole Ø 40	Absolute singleturn EnDat 01 13bit + 2048ppr SinCos	•	•	•	•	•
(*)	ECN 125 - hole Ø 40	Absolute singleturn EnDat 22 25bit	•	•	•	•	•
053	ERN 180 - hole Ø 40	5.000ppr Sin Cos	•	•	•	•	•

Legenda • available - not available

SKA **DDR**

DIRECT DRIVE TORQUE SERVOMOTORS RATINGS AND SPECIFICATIONS

SKA DDR 090 RATINGS AND SPECIFICATIONS

TIME RATING	Continuous	AMBIENT TEMPERATURE	0 to 40 °C
INSULATION CLASS	F	AMBIENT HUMIDITY	20 to 80% RH (non condensing)
POLES	14	THERMAL PROTECTION	PT 1000
INSULATION SYSTEM UL /CSA	cURus , DVI155J File nr.:E216686	CE certified	

SKA DDR 090.30.2.17 SKA DDR 090.30.2.18 SKA DDR 090.30.2.19 SKA DDR 090.30.2.50

Stall torque	Nm	2,0	2,0	2,0	2,0
Peak torque	Nm	15,9	15,9	14,3	10,5
Stall current	Arms	1,25	0,83	0,5	0,36
Peak current	Arms	14	9,3	4,8	2,1
Maximum speed @230 Vac 3phase	rpm	1200	1200	750	500
Maximum speed @400 Vac 3phase	rpm	-	-	1200	800
Torque constant ± 5%	Nm/Arms	1,14	1,71	3,0	5,0
Voltage constant ± 5%	Vrms/krpm	96	144	240	340
Phase/phase resistance ± 5%	Ohm	9,7	22,6	60	130
Phase/phase inductance	mH	21	48	140	250
Electrical time constant	msec	2,3	2,3	2,4	2,0
Thermal resistance	°C/W	3,2	3,2	3,2	3,2

Values and torque/speed specifications here detailed are obtained with the SKA DDR coupled to FLEXI PRO drive, with a winding temperature of 100°C. All others data are with a coil temperature of 25°C.

Output continuous rating with 225x225x8mm heat sink flange coupling and with front flange not sealed. Derating must be considered in some Power Pack configuration.

SKA DDR 090.60.3.5.17 SKA DDR 090.60.3.5.18 SKA DDR 090.60.3.5.19 SKA DDR 090.60.3.5.50

Stall torque	Nm	3,5	3,5	3,5	3,5
Peak torque	Nm	28	28	28	21
Stall current	Arms	2,19	1,46	0,87	0,63
Peak current	Arms	26,9	17,8	11,2	5,46
Rated current	Arms				
Maximum speed @230 Vac 3phase	rpm	1200	1200	750	500
Maximum speed @400 Vac 3phase	rpm	-	-	1200	800
Torque constant ± 5%	Nm/Arms	1,04	1,57	2,50	3,85
Voltage constant ± 5%	Vrms/krpm	96	144	240	340
Phase/phase resistance ± 5%	Ohm	3,9	8,9	32,4	47
Phase/phase inductance	mH	12	27	72	142
Electrical time constant	msec	3,0	3,0	3,0	3,0
Thermal resistance	°C/W	2,6	2,6	2,6	2,6

Values and torque/speed specifications here detailed are obtained with the SKA DDR coupled to FLEXI PRO drive, with a winding temperature of 100°C. All others data are with a coil temperature of 25°C.

Output continuous rating with 225x225x8mm heat sink flange coupling and with front flange not sealed. Derating must be considered in some Power Pack configuration.

SKA DDR 090 RATINGS AND SPECIFICATIONS

TIME RATING	Continuous	AMBIENT TEMPERATURE	0 to 40 °C
INSULATION CLASS	F	AMBIENT HUMIDITY	20 to 80% RH (non condensing)
POLES	14	THERMAL PROTECTION	PT 1000
INSULATION SYSTEM UL /CSA	cURus , DVI155J File nr.:E216686	CE certified	

SKA DDR 090.90.4.7.17 SKA DDR 090.90.4.7.18 SKA DDR 090.90.4.7.19 SKA DDR 090.90.4.7.50 SKA DDR 090.90.4.7.51

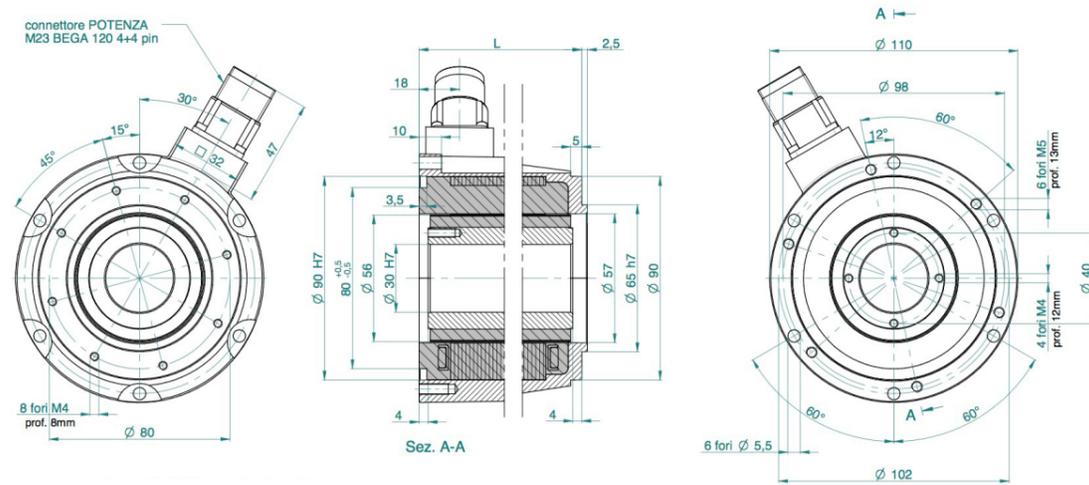
Stall torque	Nm	4,7	4,7	4,7	4,7	4,7
Peak torque	Nm	40	40	40	30	19
Stall current	Arms	2,94	1,96	1,17	0,84	0,50
Peak current	Arms	38	26	16	8,0	2,8
Maximum speed @230 Vac 3phase	rpm	1200	1200	750	500	300
Maximum speed @400 Vac 3phase	rpm	-	-	1200	800	500
Torque constant ± 5%	Nm/Arms	1,05	1,54	2,50	3,75	6,8
Voltage constant ± 5%	Vrms/krpm	96	144	240	340	570
Phase/phase resistance ± 5%	Ohm	3,5	7	19,2	40	115
Phase/phase inductance	mH	9,9	20	54	120	345
Electrical time constant	msec	3,3	3,0	2,9	3,0	3,0
Thermal resistance	°C/W	2,1	2,1	2,1	2,1	2,1

Values and torque/speed specifications here detailed are obtained with the SKA DDR coupled to FLEXI PRO drive, with a winding temperature of 100°C. All others data are with a coil temperature of 25°C.

Output continuous rating with 225x225x8mm heat sink flange coupling and with front flange not sealed. Derating must be considered in some Power Pack configuration.

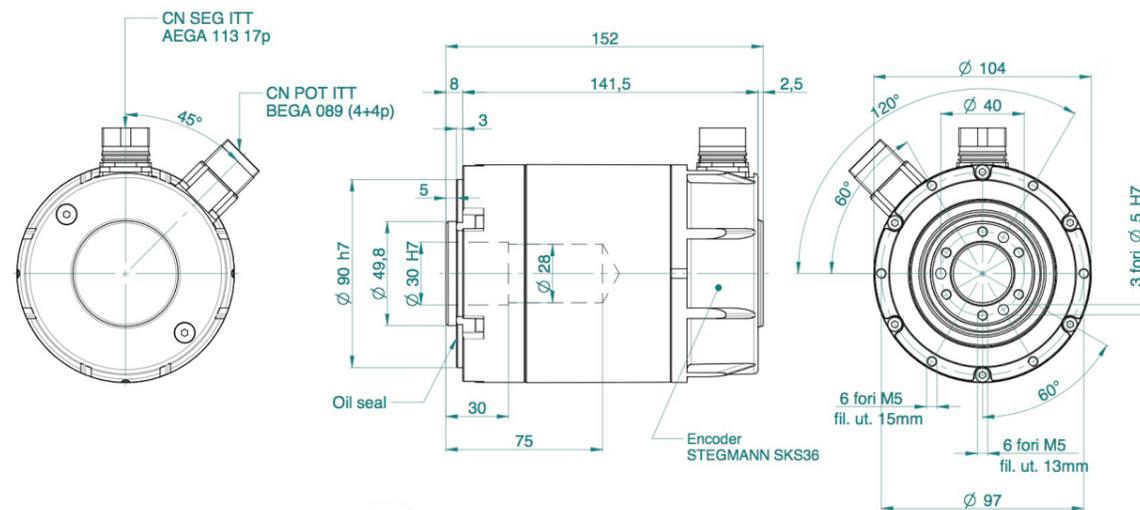
SKA DDR 090 DIMENSIONS AND CONFIGURATIONS

SKA DDR 090 FRAMELESS reference drawing 02



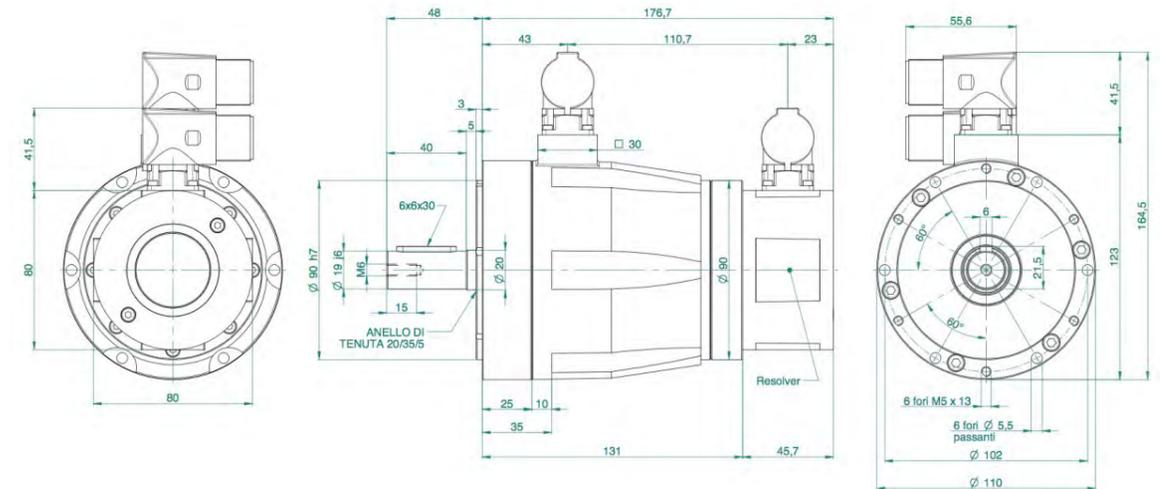
MOTOR TYPE	L(mm)
SKA DDR 090.30	60
SKA DDR 090.60	90
SKA DDR 090.90	120

SKA DDR 090.30 POWER PACK HOLLOW SHAFT reference drawing 03

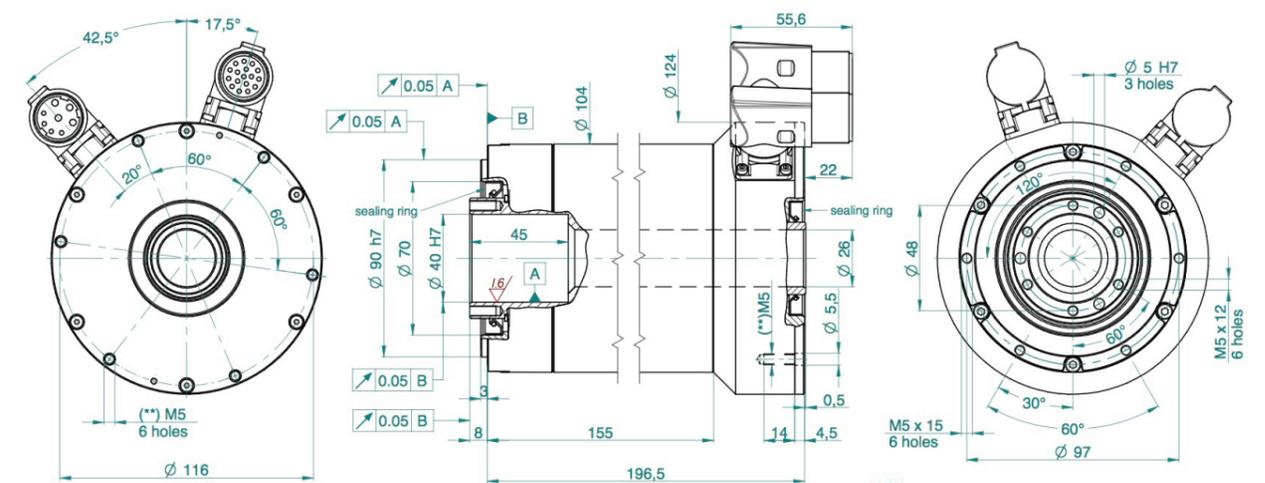


SKA DDR 090 DIMENSIONS AND CONFIGURATIONS

SKA DDR 090.60 POWER PACK MALE SHAFT reference drawing 04

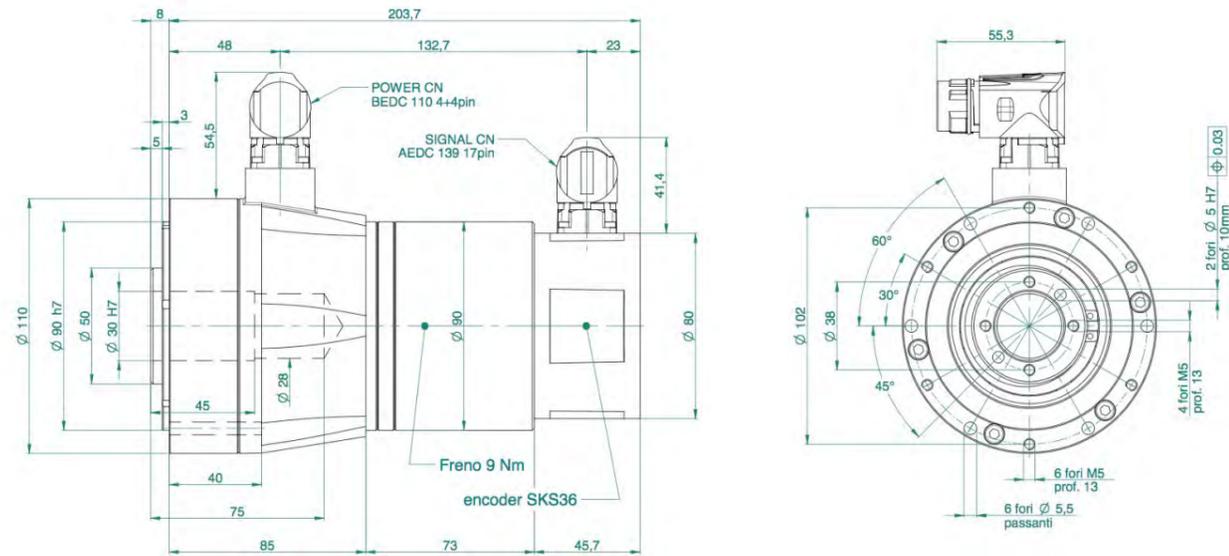


SKA DDR 090.90 POWER PACK THROUGH HOLLOW SHAFT reference drawing 05



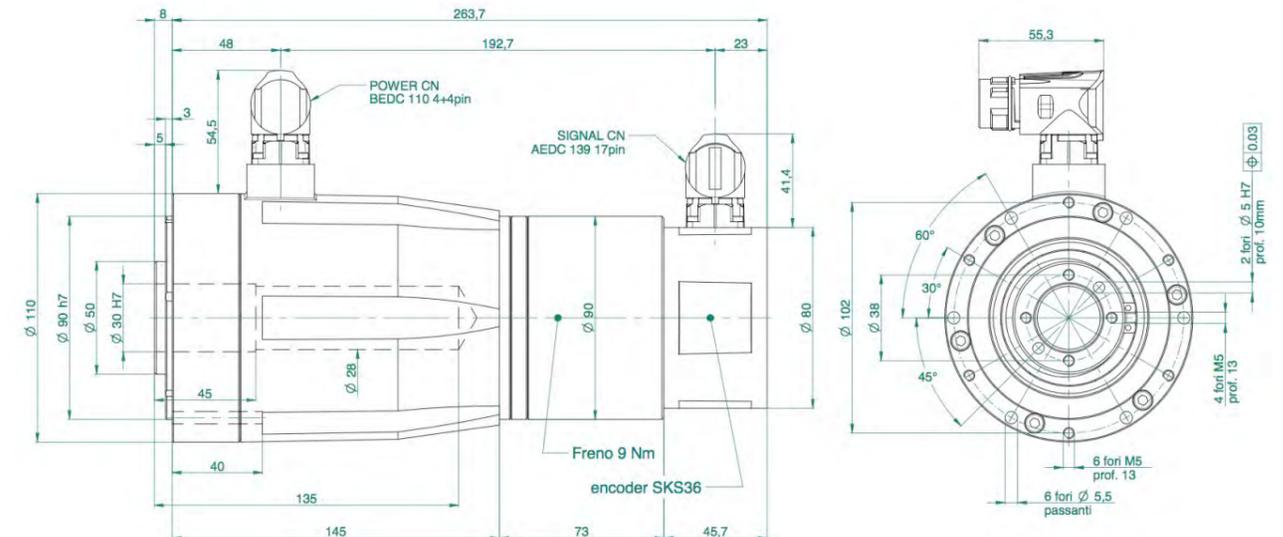
SKA DDR 090 DIMENSIONS AND CONFIGURATIONS

SKA DDR 090.30 POWER PACK HOLLOW SHAFT AND BRAKE reference drawing 06

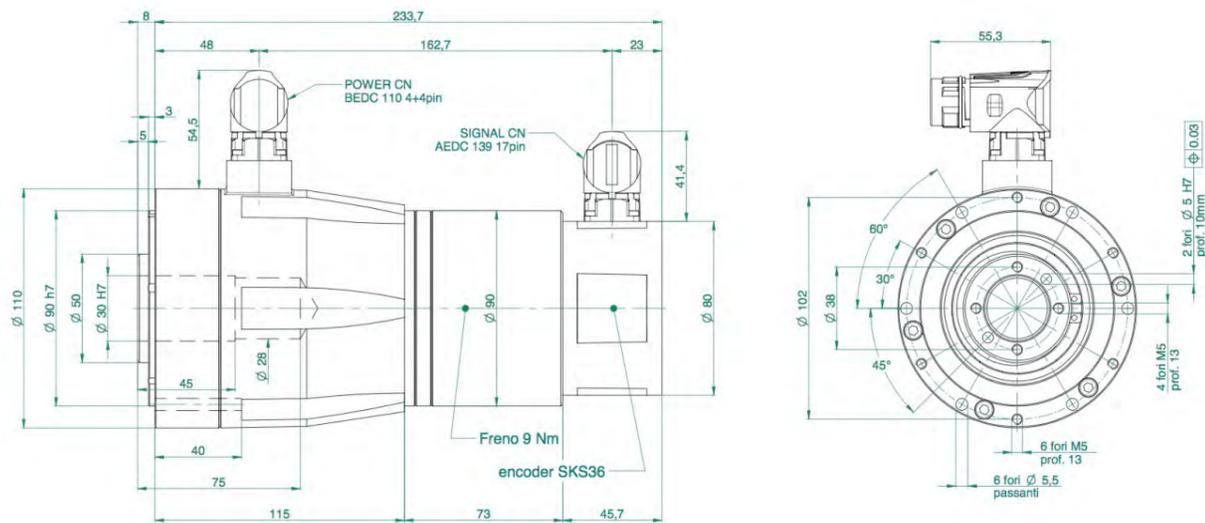


SKA DDR 090 DIMENSIONS AND CONFIGURATIONS

SKA DDR 090.90 POWER PACK HOLLOW SHAFT AND BRAKE reference drawing 08

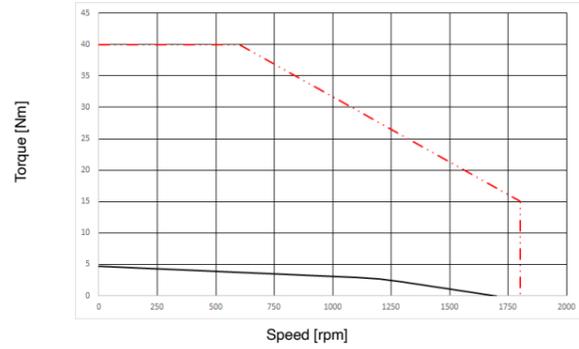


SKA DDR 090.60 POWER PACK HOLLOW SHAFT AND BRAKE reference drawing 07

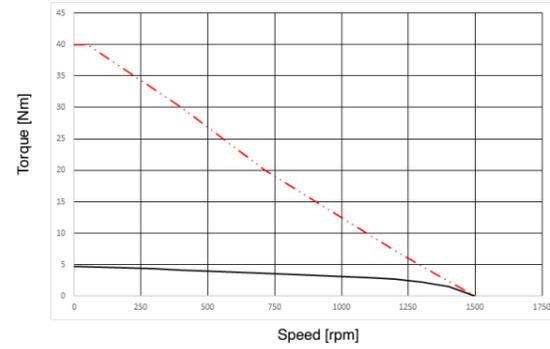


SKA DDR 090 TORQUE AND SPEED CHARTS

SKA DDR 090.90.18 400 Vac



SKA DDR 090.90.19 400 Vac



SKA DDR 148 RATINGS AND SPECIFICATIONS

TIME RATING
INSULATION CLASS
POLES
INSULATION SYSTEM UL /CSA

Continuous
F
14
cURus , DVI55J File nr.:E216686

AMBIENT TEMPERATURE
AMBIENT HUMIDITY
THERMAL PROTECTION
CE certified

0 to 40 °C
20 to 80% RH (non condensing)
PT 1000

	SKA DDR 148.30.8.17	SKA DDR 148.30.8.18	SKA DDR 148.30.8.19	SKA DDR 148.30.8.50	SKA DDR 148.30.8.51	SKA DDR 148.30.8.52
--	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------

Stall torque	Nm	8	8	8	8	8
Peak torque	Nm	35	35	35	35	24
Stall current	Arms	5,00	3,33	2,00	1,43	0,51
Peak current	Arms	26,9	18,0	10,7	7,71	4,60
Maximum speed @230 Vac 3phase	rpm	1000	1000	750	500	300
Maximum speed @400 Vac 3phase	rpm	-	-	1000	800	500
Torque constant ± 5%	Nm/Arms	1,30	1,94	3,26	4,54	7,61
Voltage constant ± 5%	Vrms/krpm	96	144	240	340	570
Phase/phase resistance ± 5%	Ohm	1,2	3,60	6,2	11,8	39,1
Phase/phase inductance	mH	3,85	12,6	23	50	140
Electrical time constant	msec	3,5	3,5	3,5	3,5	3,5
Thermal resistance	°C/W	1,21	1,21	1,21	1,21	1,21

Values and torque/speed specifications here detailed are obtained with the SKA DDR coupled to FLEXI PRO drive, with a front temperature of 100°C. All others data are with a coil temperature of 25°C.

Output continuous rating with 370x370x10mm heat sink flange coupling and with front flange not sealed. Derating must be considered in some Power Pack configuration.

	SKA DDR 148.60.14.17	SKA DDR 148.60.14.18	SKA DDR 148.60.14.19	SKA DDR 148.60.14.50	SKA DDR 148.60.14.51	SKA DDR 148.60.14.52
--	-------------------------	-------------------------	-------------------------	-------------------------	-------------------------	-------------------------

Stall torque	Nm	14	14	14	14	14
Peak torque	Nm	72	72	72	72	65
Stall current	Arms	8,75	5,83	3,50	2,50	1,49
Peak current	Arms	55,4	37,1	22,1	15,9	9,5
Maximum speed @230 Vac 3phase	rpm	1000	1000	750	500	300
Maximum speed @400 Vac 3phase	rpm	-	-	1000	800	500
Torque constant ± 5%	Nm/Arms	1,30	1,94	3,26	4,54	7,61
Voltage constant ± 5%	Vrms/krpm	96	144	240	340	570
Phase/phase resistance ± 5%	Ohm	0,53	1,25	2,8	4,9	15,6
Phase/phase inductance	mH	2	4	13	21	67
Electrical time constant	msec	4,9	4,9	4,9	4,8	4,9
Thermal resistance	°C/W	1,13	1,13	1,13	1,13	1,13

Values and torque/speed specifications here detailed are obtained with the SKA DDR coupled to FLEXI PRO drive, with a winding temperature of 100°C. All others data are with a coil temperature of 25°C.

Output continuous rating with 370x370x10mm heat sink flange coupling and with front flange not sealed. Derating must be considered in some Power Pack configuration.

SKA DDR 148 RATINGS AND SPECIFICATIONS

TIME RATING	Continuous	AMBIENT TEMPERATURE	0 to 40 °C
INSULATION CLASS	F	AMBIENT HUMIDITY	20 to 80% RH (non condensing)
POLES	14	THERMAL PROTECTION	PT 1000
INSULATION SYSTEM UL /CSA	cURus , DVI55J File nr.:E216686	CE certified	

		SKA DDR 148.90.20.17	SKA DDR 148.90.20.18	SKA DDR 148.90.20.19	SKA DDR 148.90.20.50	SKA DDR 148.90.20.51	SKA DDR 148.90.20.52	SKA DDR 148.90.20.53
Stall torque	Nm	20	20	20	20	20	20	20
Peak torque	Nm	106	106	106	106	106	90	60
Stall current	Arms	12,5	8,33	5,00	3,57	2,13	1,27	0,64
Peak current	Arms	81,5	54,6	32,5	23,3	13,9	6,85	2,1
Maximum speed @230 Vac 3phase	rpm	900	900	750	500	300	180	-
Maximum speed @400 Vac 3phase	rpm	-	-	-	800	500	300	150
Torque constant ± 5%	Nm/Arms	1,30	1,94	3,26	4,54	7,61	13,7	28,8
Voltage constant ± 5%	Vrms/krpm	96	144	240	340	570	950	1900
Phase/phase resistance ± 5%	Ohm	0,33	0,70	2,05	3,5	11,0	27,3	136
Phase/phase inductance	mH	1,6	3,6	9,5	17	62	125	632
Electrical time constant	msec	5,0	5,1	5,6	5,6	5,6	5,2	4,7
Thermal resistance	°C/W	0,94	0,94	0,94	0,94	0,94	0,94	0,94

Values and torque/speed specifications here detailed are obtained with the SKA DDR coupled to FLEXI PRO drive, with a winding temperature of 100°C. All others data are with a coil temperature of 25°C.

Output continuous rating with 370x370x10mm heat sink flange coupling and with front flange not sealed. Derating must be considered in some Power Pack configuration.

		SKA DDR 148.120.26.18	SKA DDR 148.120.26.19	SKA DDR 148.120.26.50	SKA DDR 148.120.26.51	SKA DDR 148.120.26.52	SKA DDR 148.120.26.53
Stall torque	Nm	26	26	26	26	26	26
Peak torque	Nm	141	141	141	141	141	85
Stall current	Arms	10,8	6,50	4,64	2,77	1,66	0,83
Peak current	Arms	72,7	43,3	31,1	18,5	11,1	2,95
Maximum speed @230 Vac 3phase	rpm	900	750	500	300	180	-
Maximum speed @400 Vac 3phase	rpm	-	-	800	500	300	150
Torque constant ± 5%	Nm/Arms	1,94	3,26	4,54	7,61	13,7	28,8
Voltage constant ± 5%	Vrms/krpm	144	240	340	570	950	1900
Phase/phase resistance ± 5%	Ohm	0,50	1,38	3,0	7,80	22,5	87
Phase/phase inductance	mH	3,0	8,3	15	35	115	524
Electrical time constant	msec	6,0	6,0	6,1	6,0	6,0	6,0
Thermal resistance	°C/W	0,79	0,79	0,79	0,79	0,79	0,79

Values and torque/speed specifications here detailed are obtained with the SKA DDR coupled to FLEXI PRO drive, with a winding temperature of 100°C. All others data are with a coil temperature of 25°C.

Output continuous rating with 370x370x10mm heat sink flange coupling and with front flange not sealed. Derating must be considered in some Power Pack configuration.

SKA DDR 148 RATINGS AND SPECIFICATIONS

TIME RATING	Continuous	AMBIENT TEMPERATURE	0 to 40 °C
INSULATION CLASS	F	AMBIENT HUMIDITY	20 to 80% RH (non condensing)
POLES	14	THERMAL PROTECTION	PT 1000
INSULATION SYSTEM UL /CSA	cURus , DVI55J File nr.:E216686	CE certified	

		SKA DDR 148.150.30.19	SKA DDR 148.150.30.50	SKA DDR 148.150.30.51	SKA DDR 148.150.30.52	SKA DDR 148.150.30.56	SKA DDR 148.150.30.53
Stall torque	Nm	30	30	30	30	30	30
Peak torque	Nm	170	170	170	170	125	95
Stall current	Arms	7,5	5,6	3,2	1,91	1,29	0,95
Peak current	Arms	53	37,8	22,4	13,4	6,1	3,1
Maximum speed @230 Vac 3phase	rpm	750	500	300	180	-	-
Maximum speed @400 Vac 3phase	rpm	-	800	500	300	200	150
Torque constant ± 5%	Nm/Arms	3,2	4,5	7,59	12,7	20,5	30,6
Voltage constant ± 5%	Vrms/krpm	240	340	570	950	1400	1900
Phase/phase resistance ± 5%	Ohm	1,17	2,4	6,64	19,1	40	80
Phase/phase inductance	mH	6,4	13	38	106	230	420
Electrical time constant	msec	5,5	5,4	5,7	5,5	5,7	5,3
Thermal resistance	°C/W	0,72	0,72	0,72	0,72	0,72	0,72

Values and torque/speed specifications here detailed are obtained with the SKA DDR coupled to FLEXI PRO drive, with a winding temperature of 100°C. All others data are with a coil temperature of 25°C.

Output continuous rating with 370x370x10mm heat sink flange coupling and with front flange not sealed. Derating must be considered in some Power Pack configuration.

		SKA DDR 148.240.48.19	SKA DDR 148.240.48.50	SKA DDR 148.240.48.51	SKA DDR 148.240.48.52	SKA DDR 148.240.48.56	SKA DDR 148.240.48.53
Stall torque	Nm	48	48	48	48	48	48
Peak torque	Nm	260	260	260	260	211	168
Stall current	Arms	12	8,53	5,09	3,05	2,07	1,53
Peak current	Arms	81,3	57,8	32,3	20,5	10,3	5,5
Maximum speed @230 Vac 3phase	rpm	750	500	300	180	-	-
Maximum speed @400 Vac 3phase	rpm	-	800	500	300	200	150
Torque constant ± 5%	Nm/Arms	3,2	4,5	7,59	12,7	20,5	30,6
Voltage constant ± 5%	Vrms/krpm	240	340	570	950	1400	1900
Phase/phase resistance ± 5%	Ohm	0,73	1,48	4,12	11,6	25,3	46,9
Phase/phase inductance	mH	4,72	9,63	26,8	75,5	165	306
Electrical time constant	msec	6,5	6,5	6,5	6,5	6,5	6,5
Thermal resistance	°C/W	0,46	0,46	0,46	0,46	0,46	0,46

Values and torque/speed specifications here detailed are obtained with the SKA DDR coupled to FLEXI PRO drive, with a winding temperature of 100°C. All others data are with a coil temperature of 25°C.

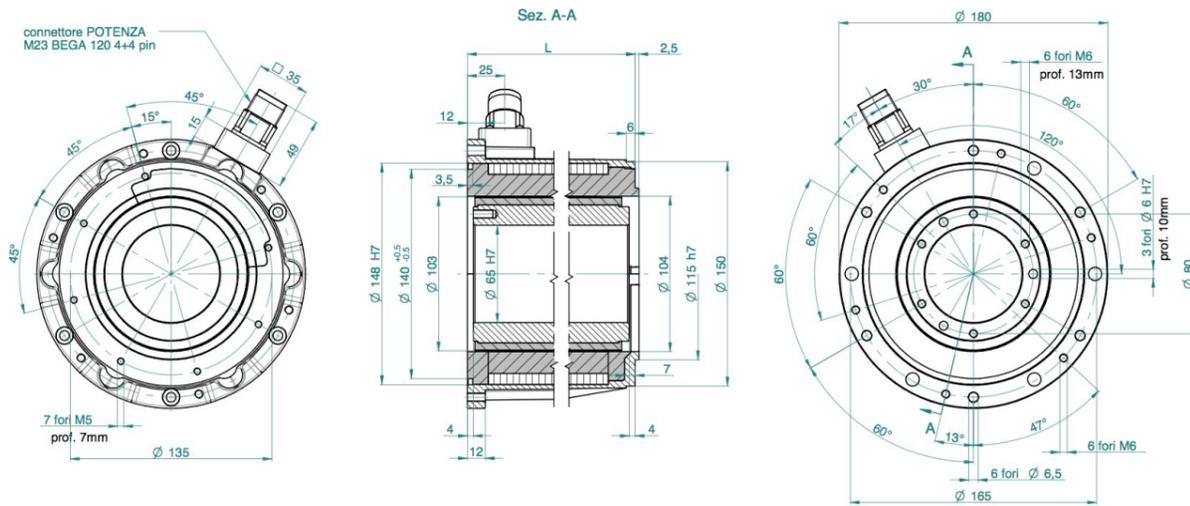
Output continuous rating with 370x370x10mm heat sink flange coupling and with front flange not sealed. Derating must be considered in some Power Pack configuration.

SEE IT BEFORE IT HAPPENS



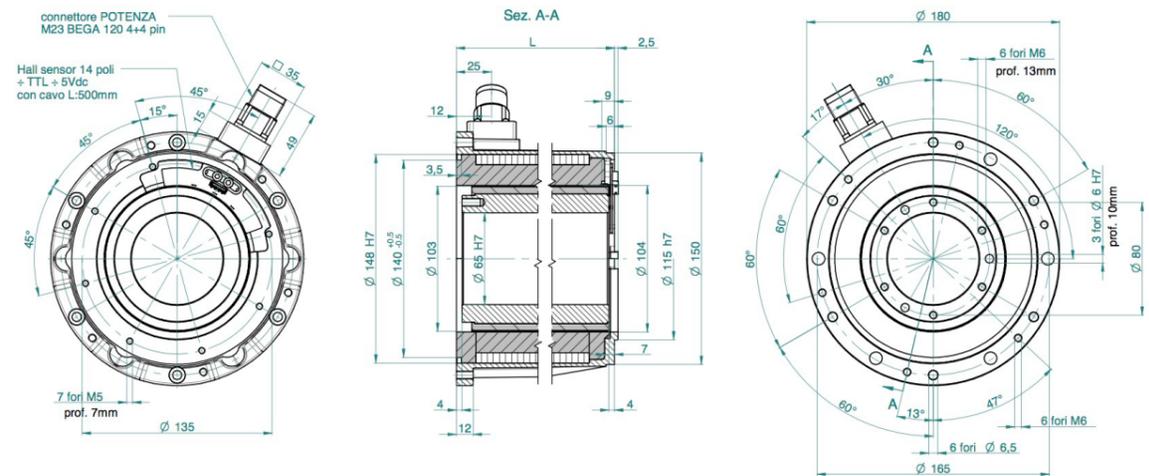
SKA DDR 148 DIMENSIONS AND CONFIGURATIONS

SKA DDR 148 FRAMELESS reference drawing 102



MOTOR TYPE	L (mm)
SKA DDR 148.30	62
SKA DDR 148.60	92
SKA DDR 148.90	122
SKA DDR 148.120	152

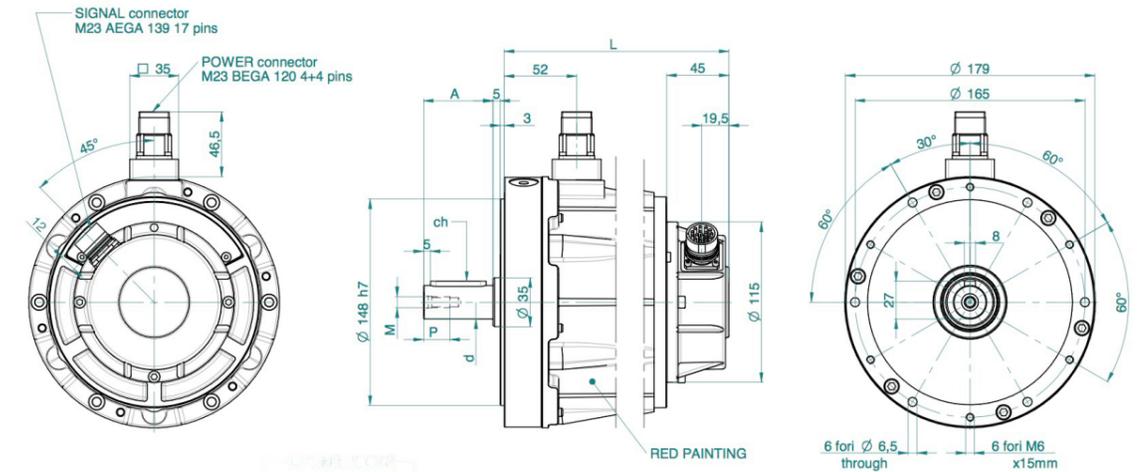
SKA DDR 148 FRAMELESS AND HALL SENSORS reference drawing 103



MOTOR TYPE	L (mm)
SKA DDR 148.30	62
SKA DDR 148.60	92
SKA DDR 148.90	122
SKA DDR 148.120	152

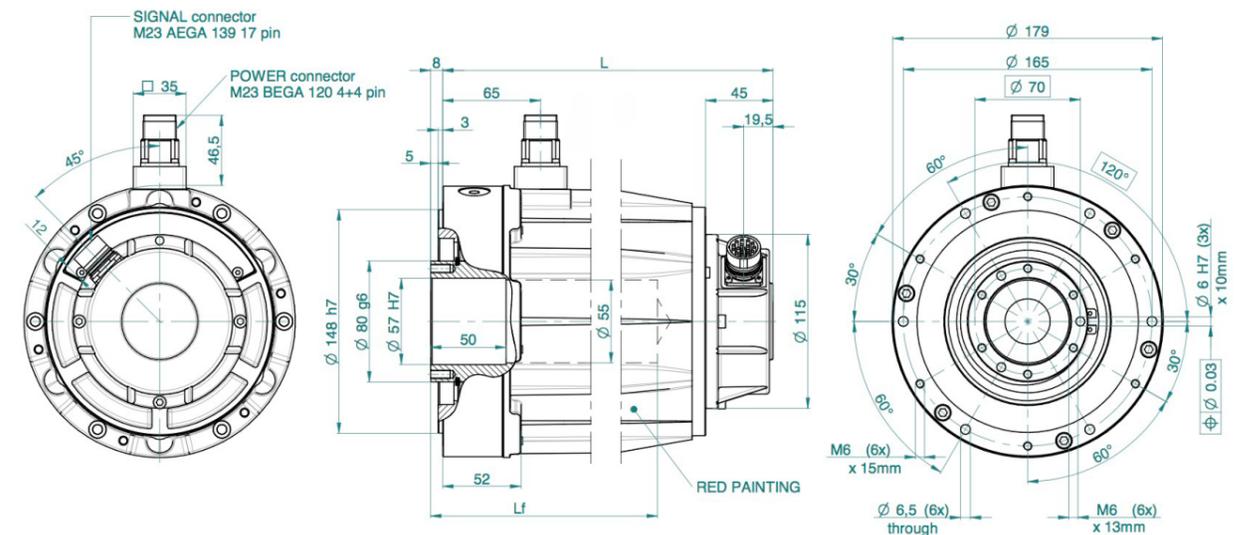
SKA DDR 148 DIMENSIONS AND CONFIGURATIONS

SKA DDR 148 POWER PACK MALE SHAFT reference drawing 104



MOTOR TYPE	L (mm)	d (j6)	A	M	P	ch
SKA DDR 148.30	146	24	50	M8	19	8x7x40
SKA DDR 148.60	176	24	50	M8	19	8x7x40
SKA DDR 148.90	206	24	50	M8	19	8x7x40
SKA DDR 148.120	236	28	60	M10	22	8x7x50

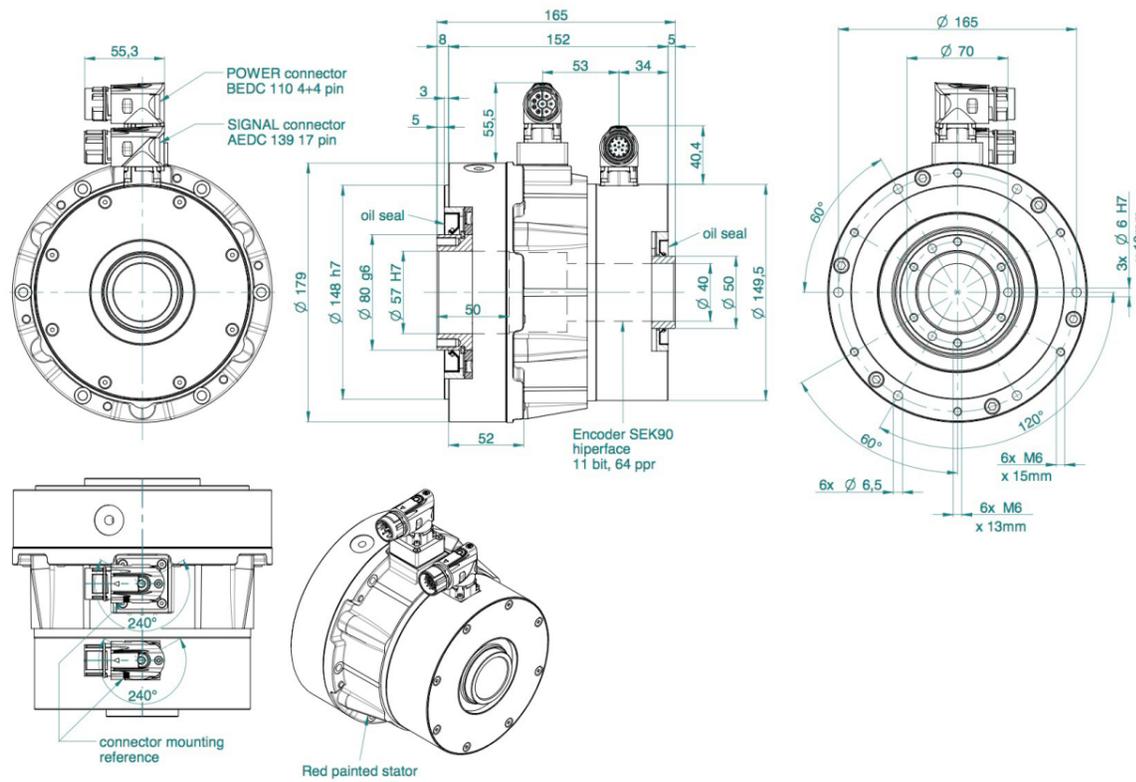
SKA DDR 148 POWER PACK HOLLOW SHAFT reference drawing 105



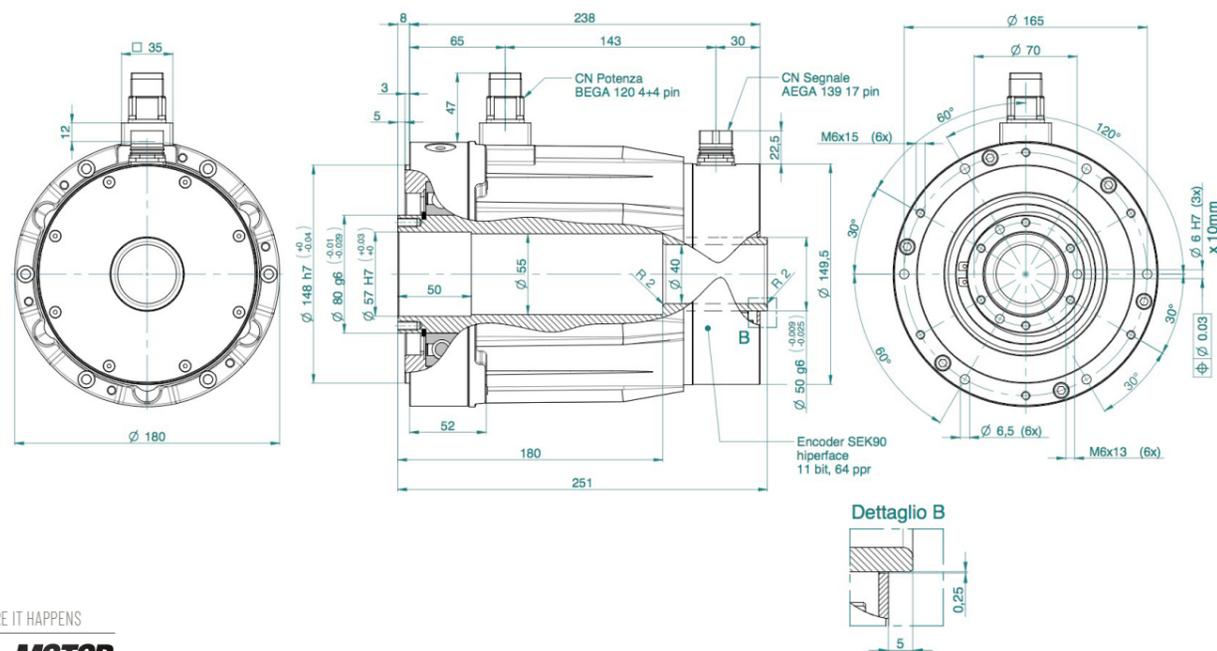
MOTOR TYPE	L (mm)	Lf (mm)
SKA DDR 148.30	159	90
SKA DDR 148.60	189	120
SKA DDR 148.90	219	150
SKA DDR 148.120	249	180

SKA DDR 148 DIMENSIONS AND CONFIGURATIONS

SKA DDR POWER PACK 148 30 THROUGH HOLLOW SHAFT reference drawing 106

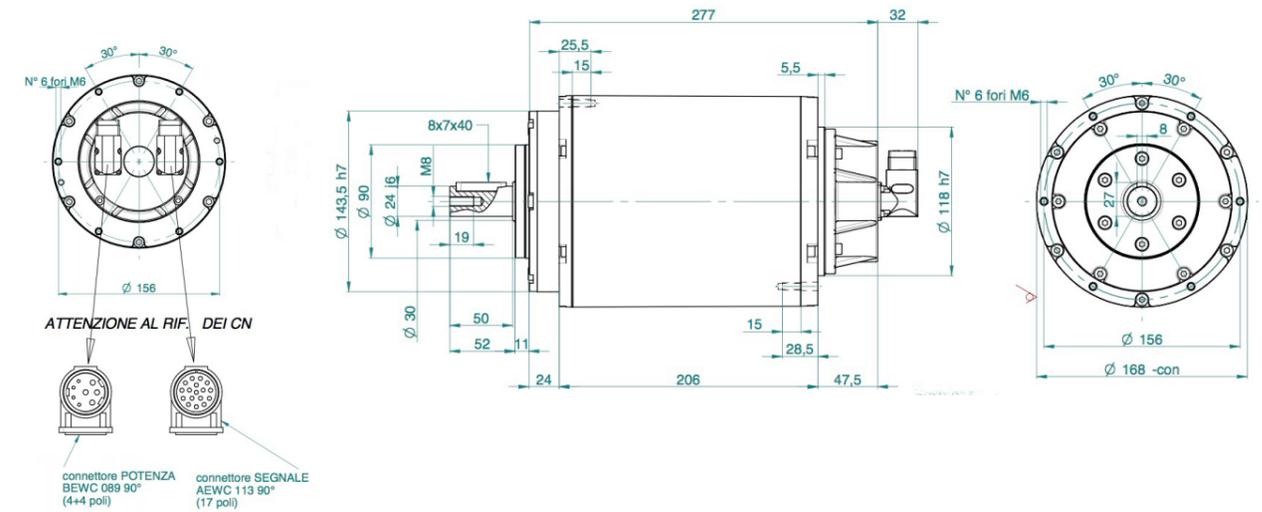


SKA DDR 148 120 POWER PACK THROUGH HOLLOW SHAFT reference drawing 107

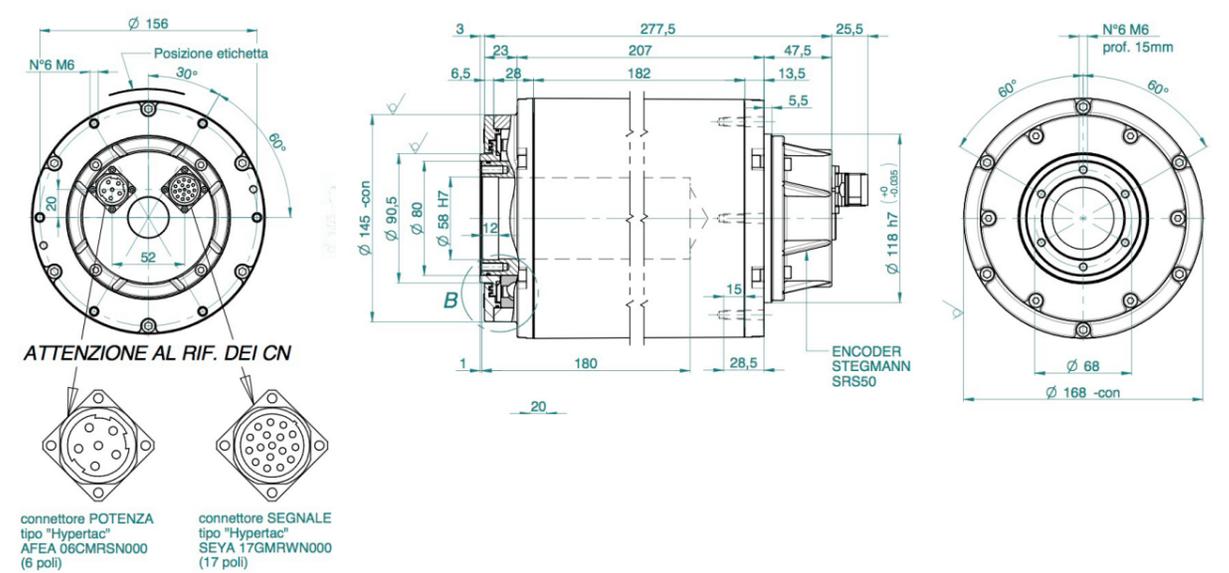


SKA DDR 148 DIMENSIONS AND CONFIGURATIONS

SKA DDR 148 150 POWER PACK MALE SHAFT reference drawing 108

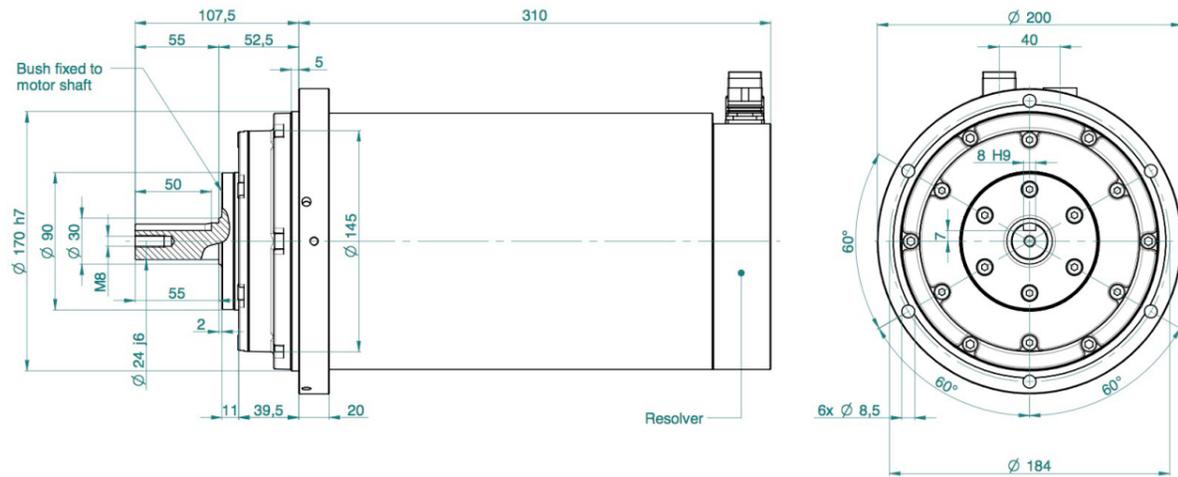


SKA DDR 148 150 POWER PACK HOLLOW SHAFT reference drawing 109

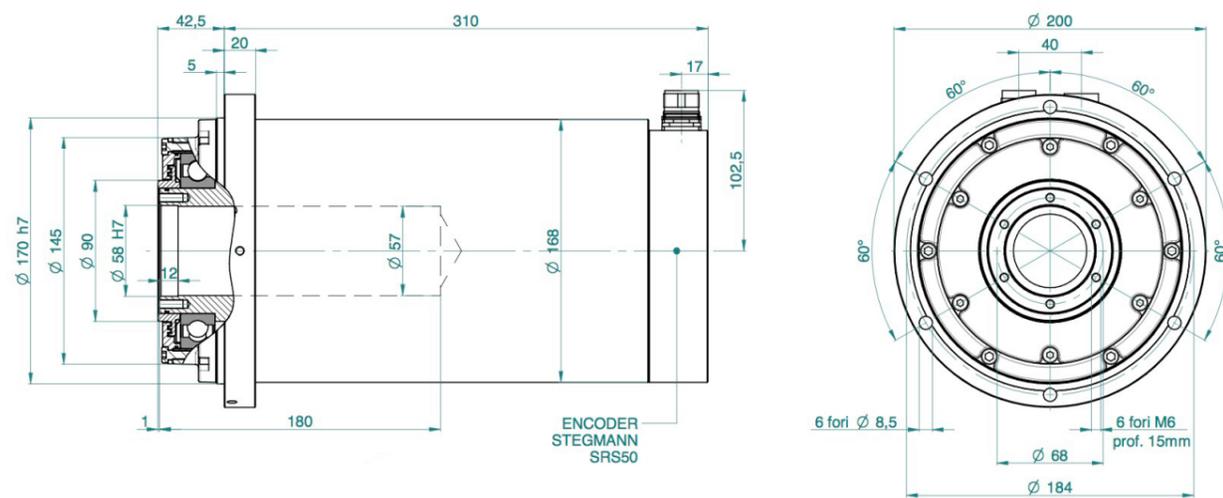


SKA DDR 148 DIMENSIONS AND CONFIGURATIONS

SKA DDR 148 240 POWER PACK MALE SHAFT reference drawing 110

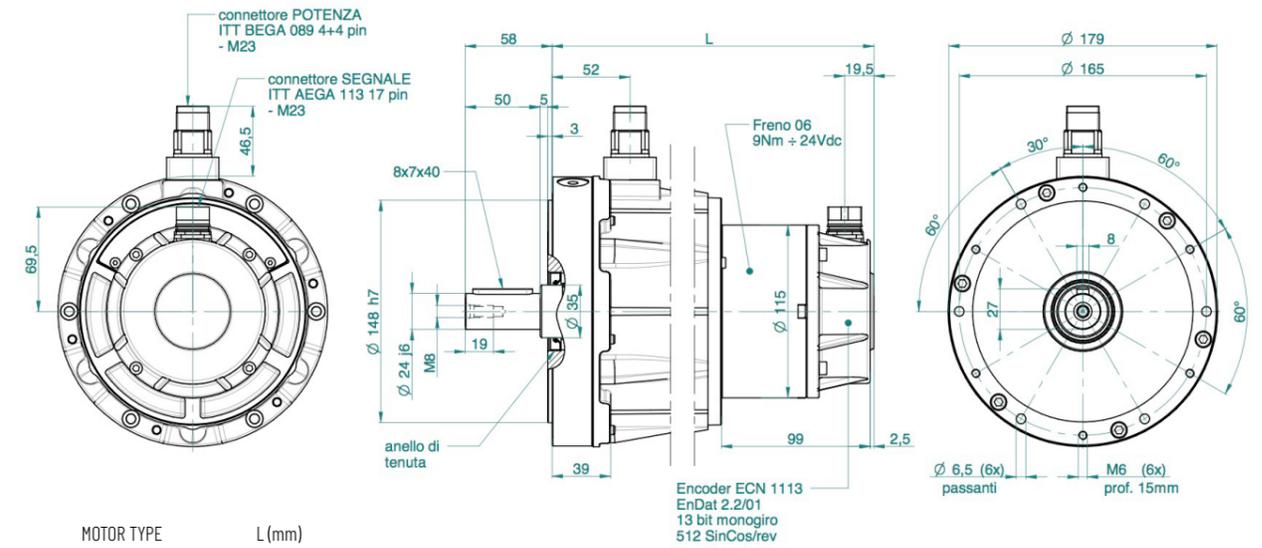


SKA DDR 148 240 POWER PACK HOLLOW SHAFT reference drawing 111



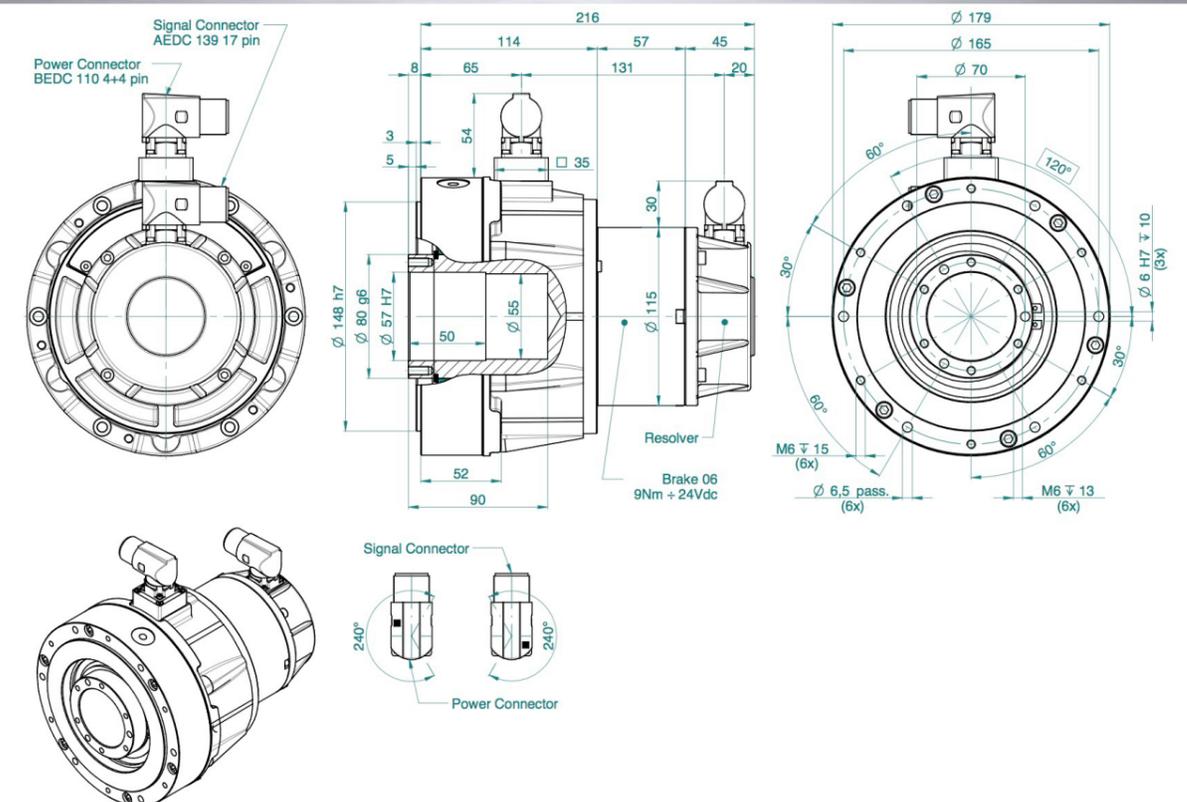
SKA DDR 148 DIMENSIONS AND CONFIGURATIONS

SKA DDR 148 POWER PACK MALE SHAFT AND BRAKE reference drawing 112



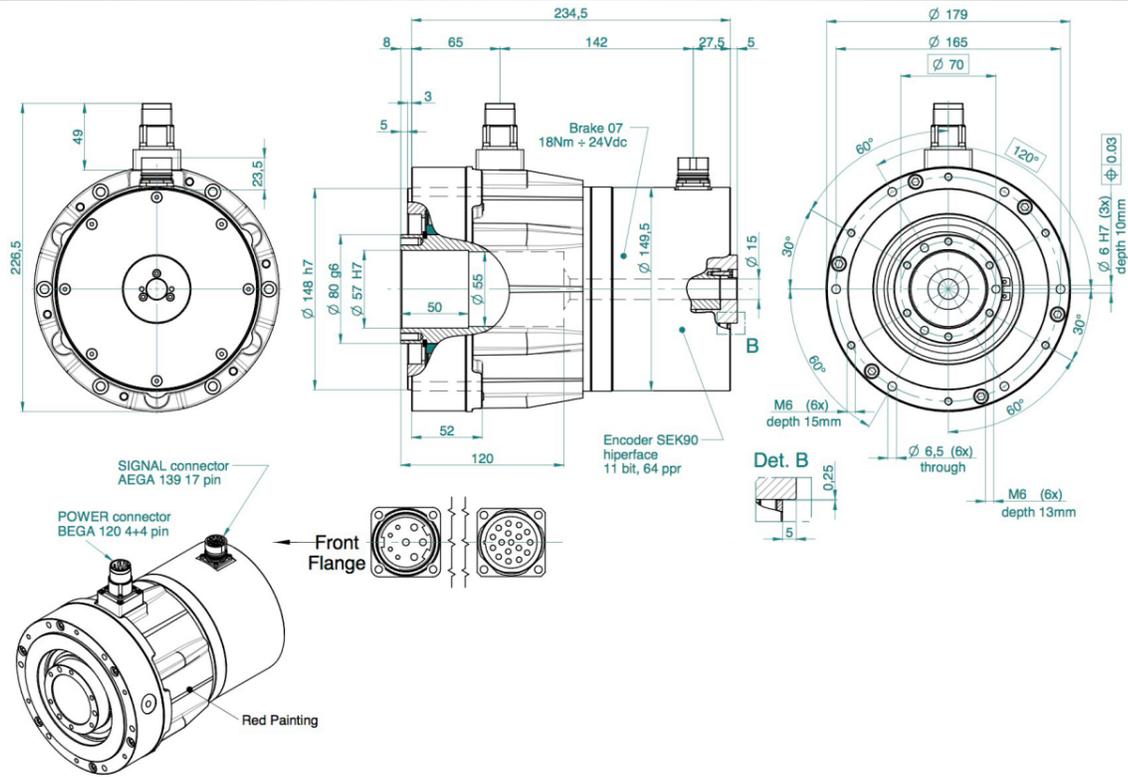
MOTOR TYPE	L (mm)
SKA DDR 148.30	203
SKA DDR 148.60	233
SKA DDR 148.90	263
SKA DDR 148.120	293

SKA DDR 148 30 POWER PACK HOLLOW SHAFT AND BRAKE reference drawing 113

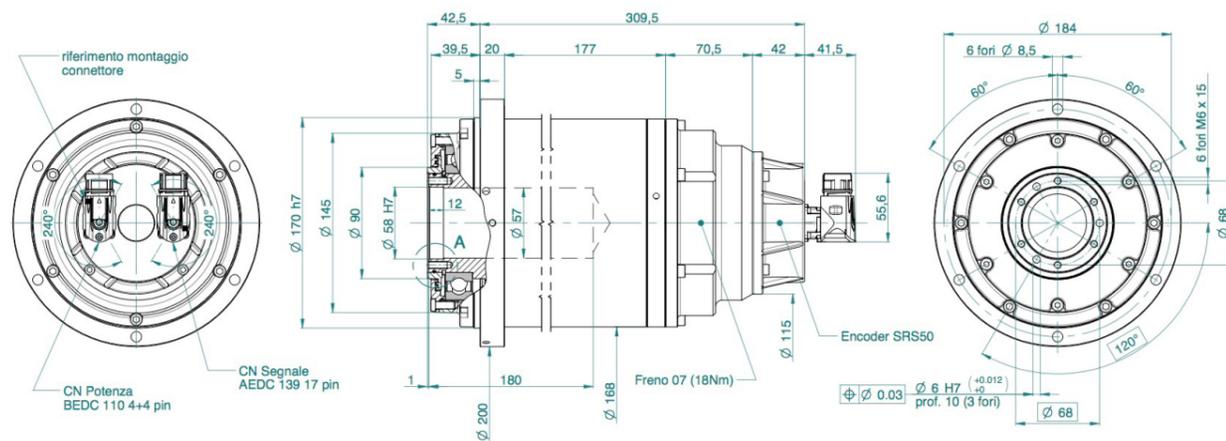


SKA DDR 148 DIMENSIONS AND CONFIGURATIONS

SKA DDR 148 60 POWER PACK THROUGH HOLLOW SHAFT AND BRAKE reference drawing 114

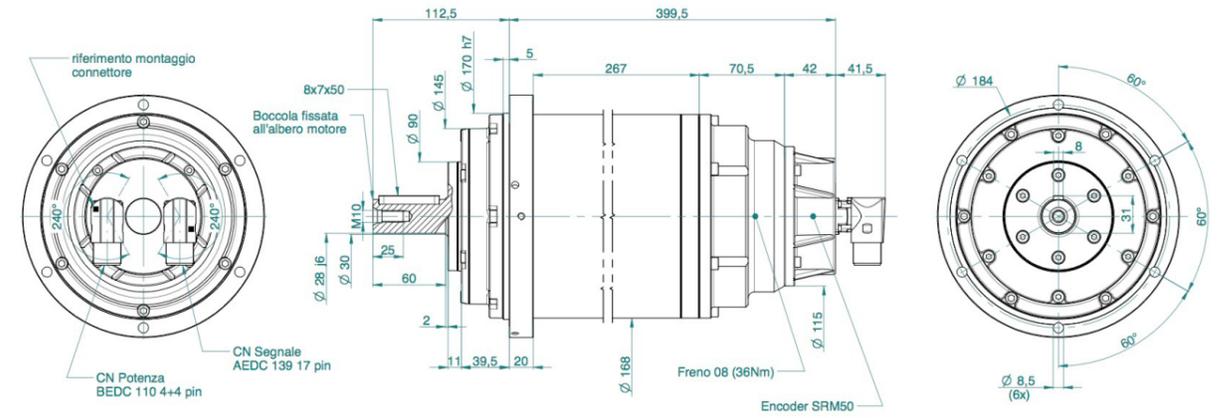


SKA DDR 148 POWER PACK HOLLOW SHAFT AND BRAKE reference drawing 115



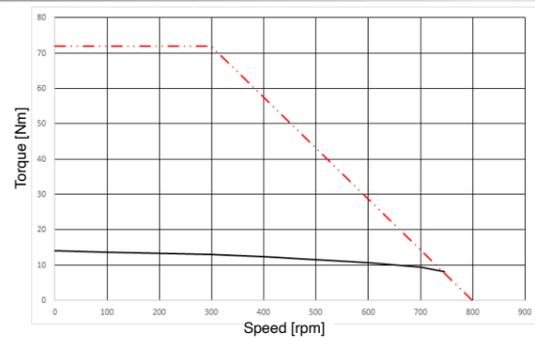
SKA DDR 148 DIMENSIONS AND CONFIGURATIONS

SKA DDR 148 240 POWER PACK MALE SHAFT AND BRAKE reference drawing 116

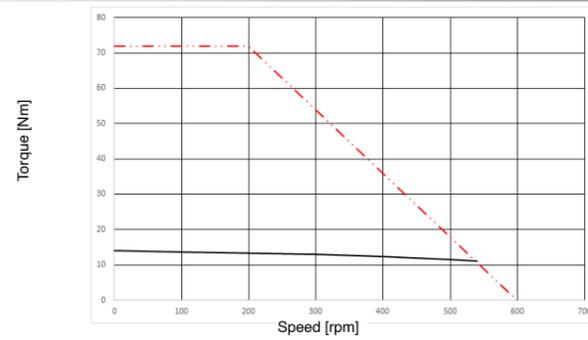


SKA DDR 148 TORQUE AND SPEED CHARTS

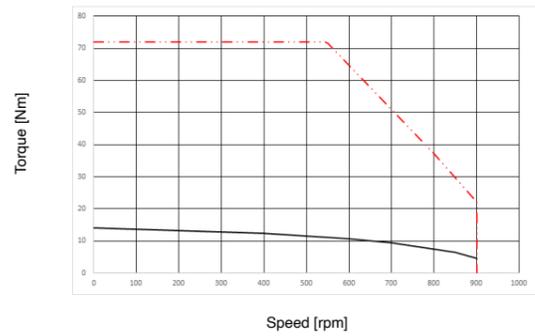
SKA DDR 148.60.19 230 Vac



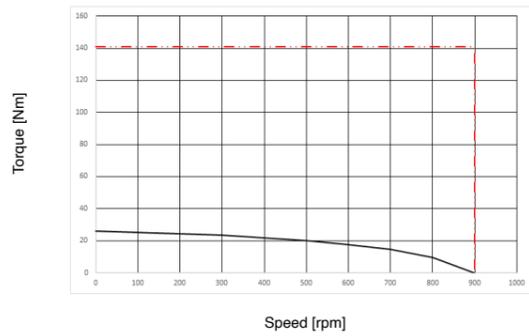
SKA DDR 148.60.50 230 Vac



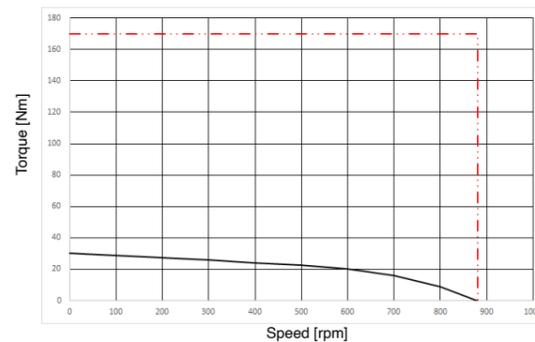
SKA DDR 148.60.50 400 Vac



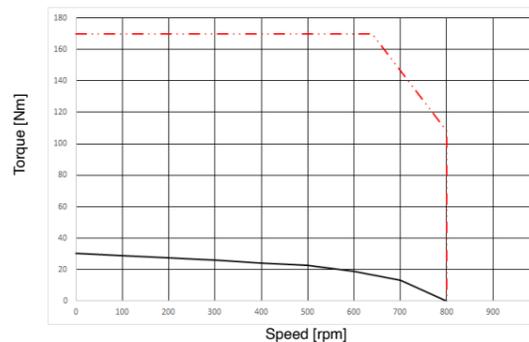
SKA DDR 148.120.19 400 Vac



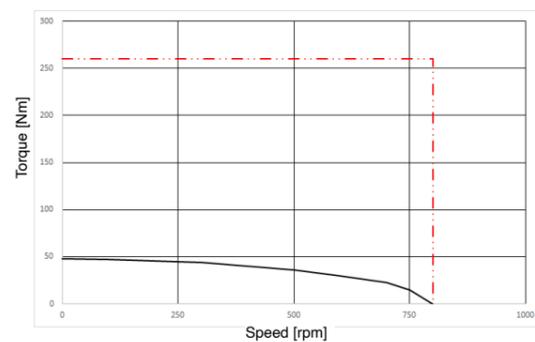
SKA DDR 148.150.19 400 Vac



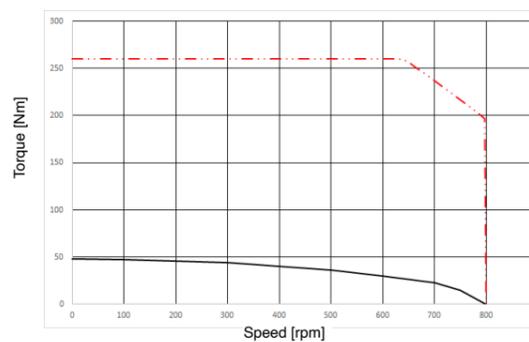
SKA DDR 148.150.50 400 Vac



SKA DDR 148.240.19 400 Vac



SKA DDR 148.240.50 400 Vac



— CONTINUOUS DUTY @ RATED VOLTAGE

- - - - - INTERMITTENT DUTY @ RATED VOLTAGE

SKA DDR 245 RATINGS AND SPECIFICATIONS

TIME RATING
INSULATION CLASS
POLES
INSULATION SYSTEM UL /CSA

Continuous
F
28
cURus , DVI55J File nr.:E216686

AMBIENT TEMPERATURE
AMBIENT HUMIDITY
THERMAL PROTECTION
CE certified

0 to 40 °C
20 to 80% RH (non condensing)
PT 1000

		SKA DDR 245.30.41.19	SKA DDR 245.30.41.50	SKA DDR 245.30.41.51	SKA DDR 245.30.41.52	SKA DDR 245.30.41.53
Stall torque	Nm	41	41	41	41	41
Peak torque	Nm	128	128	128	128	128
Stall current	Arms	10,3	7,32	4,36	2,61	1,31
Peak current	Arms	38,6	27,4	16,1	9,7	4,8
Maximum speed @230 Vac 3phase	rpm	750	500	300	180	90
Maximum speed @400 Vac 3phase	rpm	-	800	500	300	90
Torque constant ± 5%	Nm/Arms	3,3	4,7	7,9	13,2	26,4
Voltage constant ± 5%	Vrms/krpm	240	340	570	950	1900
Phase/phase resistance ± 5%	Ohm	0,76	1,6	4,2	12,5	44
Phase/phase inductance	mH	8,0	15	42	106	370
Electrical time constant	msec	10,4	10,4	10,0	10,4	8,4
Thermal resistance	°C/W	0,58	0,58	0,58	0,58	0,58

Values and torque/speed specifications here detailed are obtained with the SKA DDR coupled to FLEXI PRO drive, with a winding temperature of 100°C. All others data are with a coil temperature of 25°C.

Output continuous rating with 610x610x20mm heat sink flange coupling and with front flange not sealed. Derating must be considered in some Power Pack configuration.

		SKA DDR 245.60.70.19	SKA DDR 245.60.70.50	SKA DDR 245.60.70.51	SKA DDR 245.60.70.52	SKA DDR 245.60.70.53
Stall torque	Nm	70	70	70	70	70
Peak torque	Nm	241	241	241	241	241
Stall current	Arms	17,5	12,5	7,45	4,46	2,23
Peak current	Arms	73,9	51,5	30,9	18,2	9,1
Maximum speed @230 Vac 3phase	rpm	750	500	300	180	90
Maximum speed @400 Vac 3phase	rpm	-	800	500	300	150
Torque constant ± 5%	Nm/Arms	3,3	4,7	7,9	13,2	26,4
Voltage constant ± 5%	Vrms/krpm	240	340	570	950	1900
Phase/phase resistance ± 5%	Ohm	0,31	0,76	2,07	5,0	23
Phase/phase inductance	mH	4,4	6,5	21	65	260
Electrical time constant	msec	14,0	14,0	10,0	13,00	11,0
Thermal resistance	°C/W	0,49	0,49	0,49	0,49	0,49

Values and torque/speed specifications here detailed are obtained with the SKA DDR coupled to FLEXI PRO drive, with a winding temperature of 100°C. All others data are with a coil temperature of 25°C.

Output continuous rating with 610x610x20mm heat sink flange coupling and with front flange not sealed. Derating must be considered in some Power Pack configuration.

SKA DDR 245 RATINGS AND SPECIFICATIONS

TIME RATING	Continuous	AMBIENT TEMPERATURE	0 to 40 °C
INSULATION CLASS	F	AMBIENT HUMIDITY	20 to 80% RH (non condensing)
POLES	28	THERMAL PROTECTION	PT 1000
INSULATION SYSTEM UL /CSA	cURus , DVI55J File nr.:E216686	CE certified	

SKA DDR 245.90.93.51

SKA DDR 245.90.93.52

SKA DDR 245.90.93.53

Stall torque	Nm	93	93	93
Peak torque	Nm	350	350	350
Stall current	Arms	9,89	5,92	2,96
Peak current	Arms	44,7	26,5	13,2
Maximum speed @230 Vac 3phase	rpm	300	180	90
Maximum speed @400 Vac 3phase	rpm	500	300	150
Torque constant ± 5%	Nm/Arms	7,9	13,2	26,4
Voltage constant ± 5%	Vrms/krpm	570	950	1900
Phase/phase resistance ± 5%	Ohm	1,14	4,32	14,3
Phase/phase inductance	mH	18	40	142
Electrical time constant	msec	15,8	15,8	15,8
Thermal resistance	°C/W	0,42	0,42	0,42

Values and torque/speed specifications here detailed are obtained with the SKA DDR coupled to FLEXI PRO drive, with a winding temperature of 100°C. All others data are with a coil temperature of 25°C.

Output continuous rating with 610x610x20mm heat sink flange coupling and with top flange not sealed. Derating must be considered in some Power Pack configuration.

SKA DDR 245.120.115.51

SKA DDR 245.120.115.52

SKA DDR 245.120.115.53

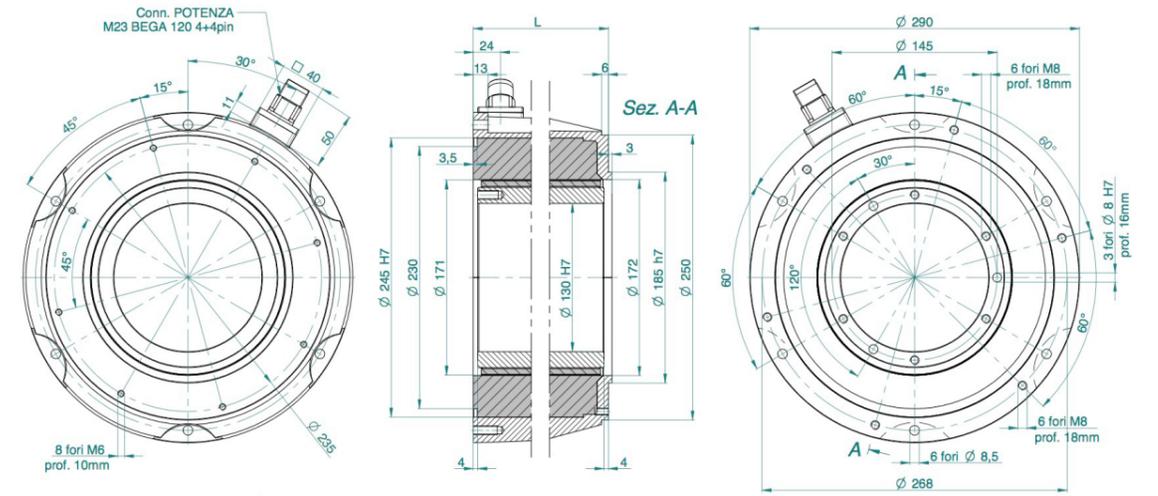
Stall torque	Nm	115	115	115
Peak torque	Nm	458	458	458
Stall current	Arms	12,2	7,32	3,66
Peak current	Arms	58,6	34,6	17,3
Maximum speed @230 Vac 3phase	rpm	300	180	90
Maximum speed @400 Vac 3phase	rpm	500	300	150
Torque constant ± 5%	Nm/Arms	7,9	13,2	26,4
Voltage constant ± 5%	Vrms/krpm	570	950	1900
Phase/phase resistance ± 5%	Ohm	1,12	2,8	9,95
Phase/phase inductance	mH	9,8	27,5	135
Electrical time constant	msec	12	12	13,6
Thermal resistance	°C/W	0,38	0,38	0,38

Values and torque/speed specifications here detailed are obtained with the SKA DDR coupled to FLEXI PRO drive, with a winding temperature of 100°C. All others data are with a coil temperature of 25°C.

Output continuous rating with 610x610x20mm heat sink flange coupling and with front flange not sealed. Derating must be considered in some Power Pack configuration.

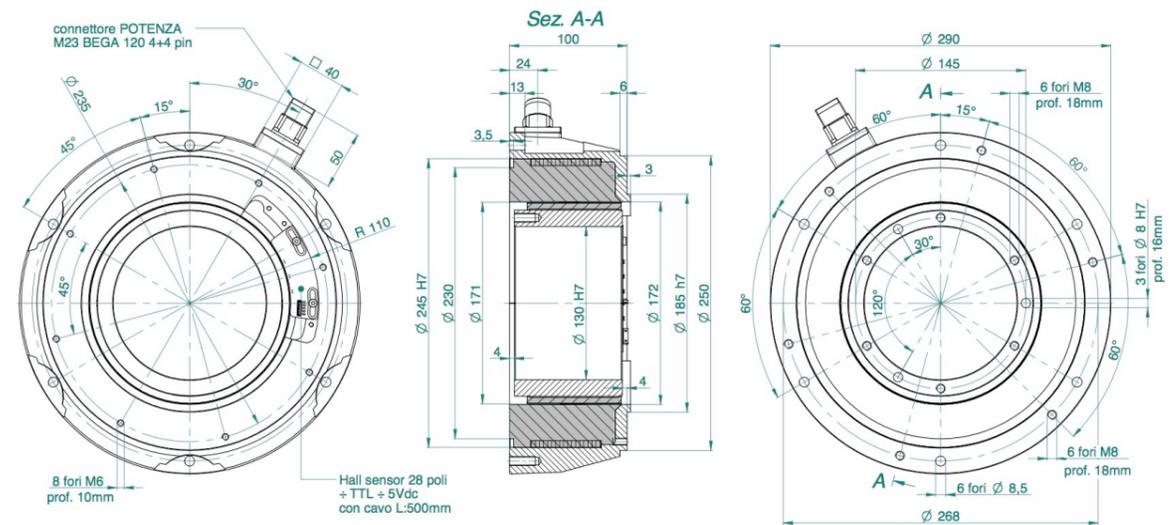
SKA DDR 245 DIMENSIONS AND CONFIGURATIONS

SKA DDR 245 FRAMELESS reference drawing 202



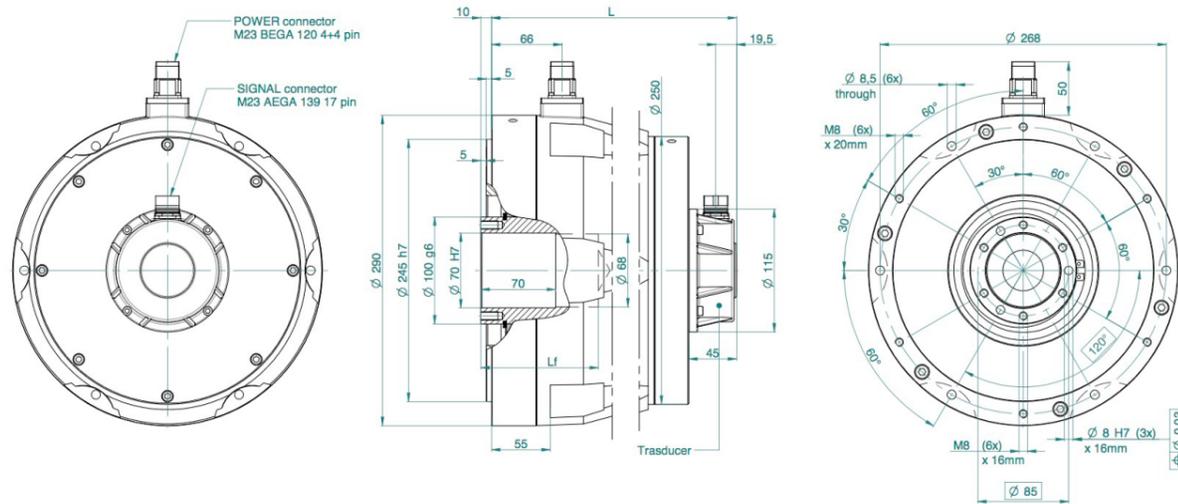
MOTOR TYPE	L (mm)
SKA DDR 245.30	70
SKA DDR 245.60	100
SKA DDR 245.90	130
SKA DDR 245.120	160

SKA DDR 245 60 FRAMELESS AND HALL SENSORS reference drawing 203



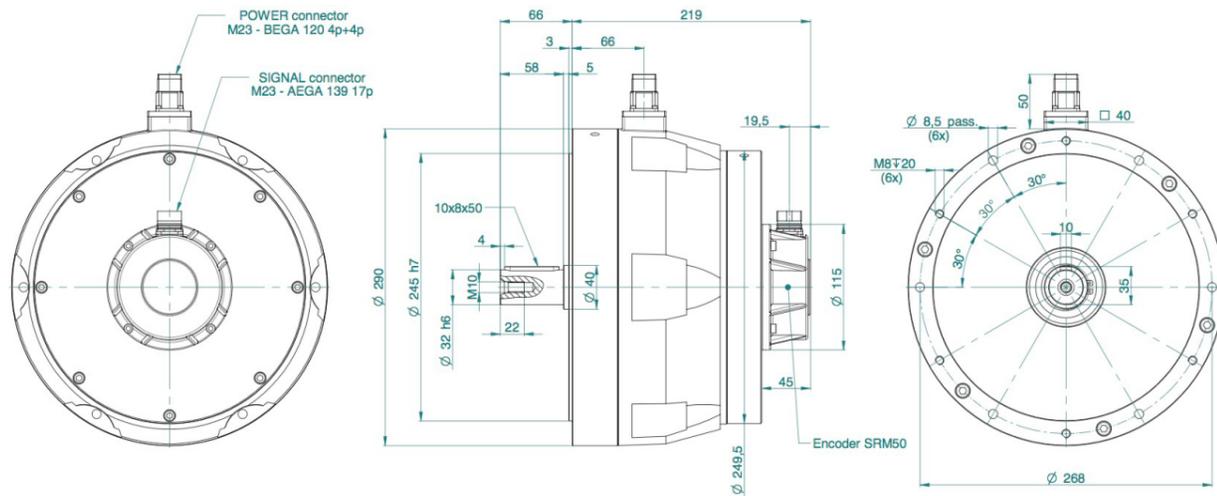
SKA DDR 245 DIMENSIONS AND CONFIGURATIONS

SKA DDR 245 POWER PACK HOLLOW SHAFT reference drawing 204



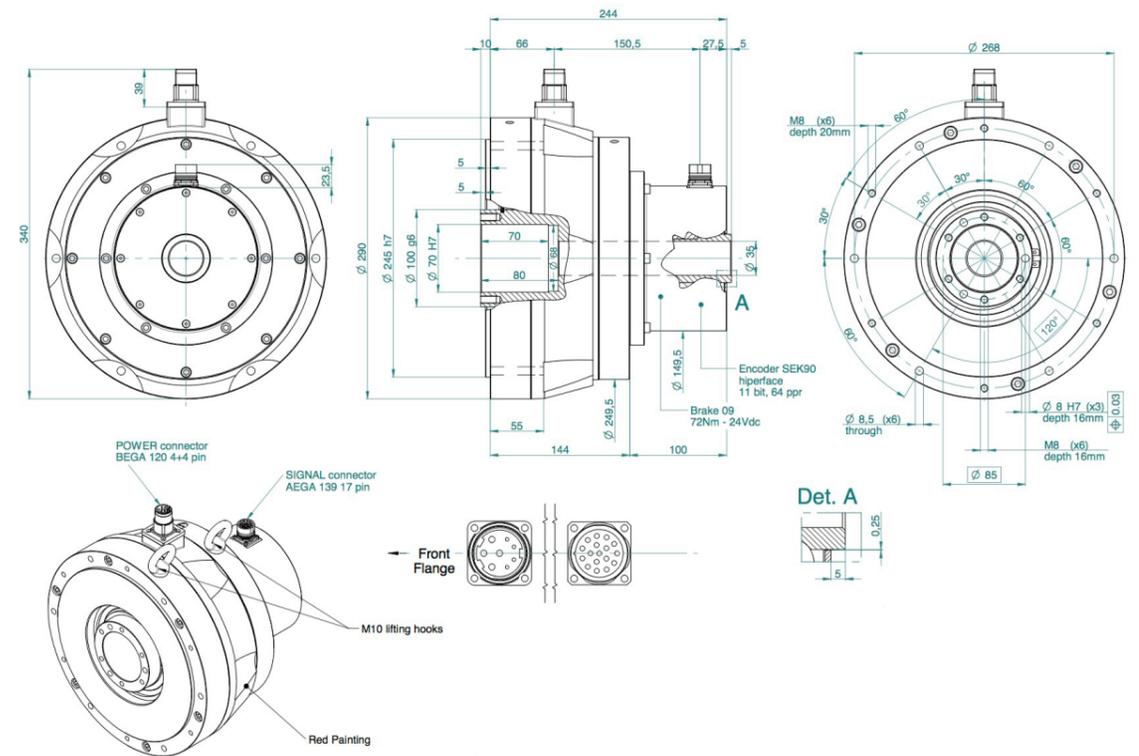
MOTOR TYPE	L (mm)	Lf (mm)
SKA DDR 245.30	189	80
SKA DDR 245.60	219	110
SKA DDR 245.90	249	140
SKA DDR 245.120	279	170

SKA DDR 245 60 POWER PACK MALE SHAFT reference drawing 205

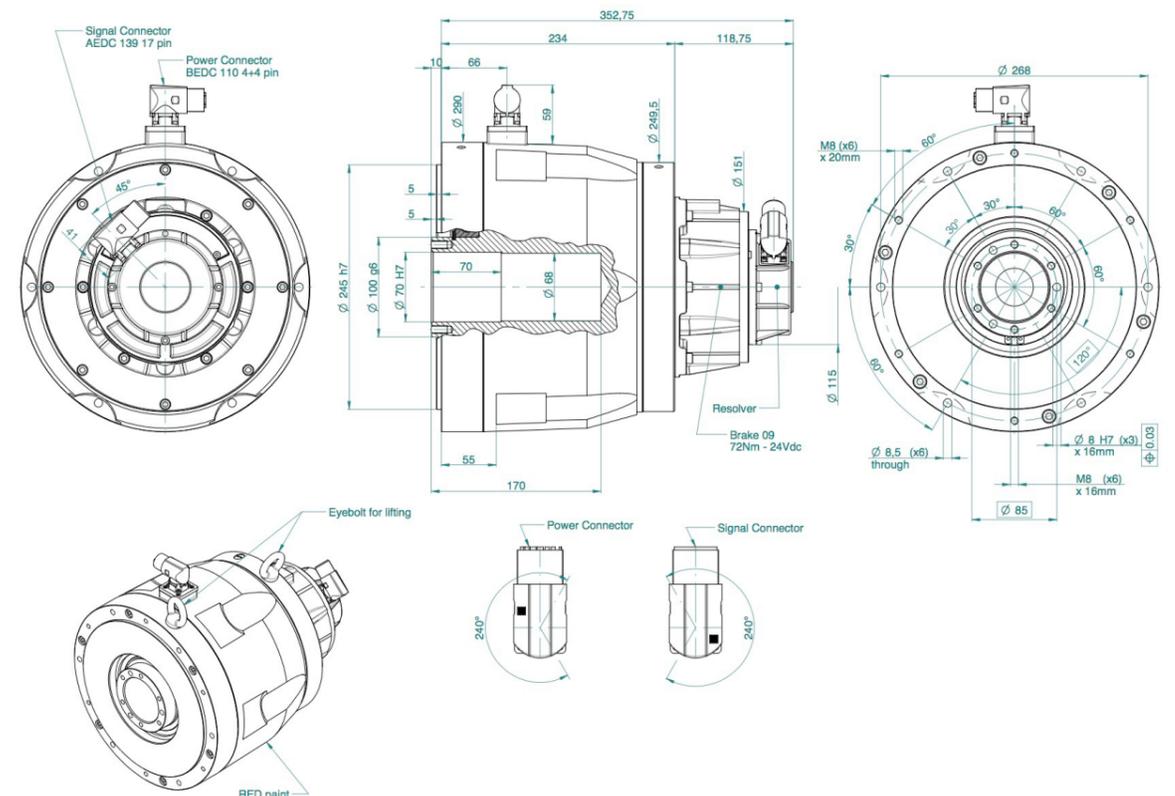


SKA DDR 245 DIMENSIONS AND CONFIGURATIONS

SKA DDR 245 30 HOLLOW THROUGH SHAFT AND BRAKE reference drawing 206



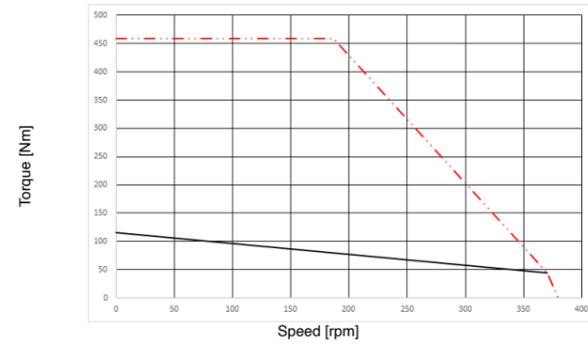
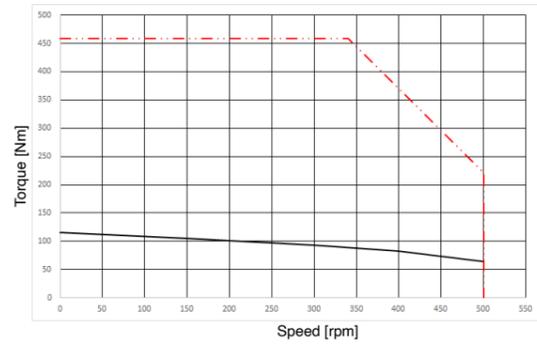
SKA DDR 245 120 POWER PACK HOLLOW SHAFT AND BRAKE reference drawing 207



SKA DDR 245 TORQUE AND SPEED CHARTS

SKA DDR 245.120.51 400 Vac

SKA DDR 245.120.52 400 Vac



SKA DDR 335 RATINGS AND SPECIFICATIONS

TIME RATING
INSULATION CLASS
POLES
INSULATION SYSTEM UL /CSA

Continuous
F
42
cURus , DVI55J File nr.:E216686

AMBIENT TEMPERATURE
AMBIENT HUMIDITY
THERMAL PROTECTION
CE certified

0 to 40 °C
20 to 80% RH (non condensing)
PT 1000

SKA DDR 335.30.100.51

SKA DDR 335.30.100.52

SKA DDR 335.30.100.53

SKA DDR 335.30.100.54

Stall torque	Nm	100	100	100	100
Peak torque	Nm	290	290	290	290
Stall current	Arms	10,6	6,36	3,18	1,92
Peak current	Arms	36,7	22,3	11,0	6,61
Maximum speed @230 Vac 3phase	rpm	300	180	90	50
Maximum speed @400 Vac 3phase	rpm	500	300	150	90
Torque constant ± 5%	Nm/Arms	7,9	13,2	26,4	43,8
Voltage constant ± 5%	Vrms/krpm	570	950	1900	3150
Phase/phase resistance ± 5%	Ohm	1,24	5,7	17,0	38,7
Phase/phase inductance	mH	12	34	130	376
Electrical time constant	msec	9,72	9,72	9,72	9,72
Thermal resistance	°C/W	0,26	0,26	0,26	0,26

Values and torque/speed specifications here detailed are obtained with the SKA DDR coupled to FLEXI PRO drive, with a winding coil temperature of 100°C.
All others data are with a coil temperature of 25°C.

Output continuous rating with 840x840x30mm heat sink flange coupling and with front flange not sealed.
Derating must be considered in some Power Pack configuration.

SKA DDR 335.60.164.51

SKA DDR 335.60.164.52

SKA DDR 335.60.164.53

SKA DDR 335.60.164.54

Stall torque	Nm	164	164	164	164
Peak torque	Nm	550	550	550	550
Stall current	Arms	17,4	10,4	5,22	3,15
Peak current	Arms	69,5	41,8	20,8	12,5
Maximum speed @230 Vac 3phase	rpm	300	180	90	50
Maximum speed @400 Vac 3phase	rpm	500	300	150	90
Torque constant ± 5%	Nm/Arms	7,9	13,2	26,4	43,8
Voltage constant ± 5%	Vrms/krpm	570	950	1900	3150
Phase/phase resistance ± 5%	Ohm	0,52	1,9	5,80	16,4
Phase/phase inductance	mH	6,8	17	75	210
Electrical time constant	msec	13,0	13,0	13,0	12,8
Thermal resistance	°C/W	0,30	0,30	0,30	0,30

Values and torque/speed specifications here detailed are obtained with the SKA DDR coupled to FLEXI PRO drive, with a winding coil temperature of 100°C.
All others data are with a coil temperature of 25°C.

Output continuous rating with 840x840x30mm heat sink flange coupling and with front flange not sealed.
Derating must be considered in some Power Pack configuration.

SKA DDR 335 RATINGS AND SPECIFICATIONS

TIME RATING	Continuous	AMBIENT TEMPERATURE	0 to 40 °C
INSULATION CLASS	F	AMBIENT HUMIDITY	20 to 80% RH (non condensing)
POLES	42	THERMAL PROTECTION	PT 1000
INSULATION SYSTEM UL /CSA	cURus , DVI55J File nr.:E216686	CE certified	

SKA DDR 335.90.220.51 SKA DDR 335.90.220.52 SKA DDR 335.90.220.53 SKA DDR 335.90.220.54 SKA DDR 335.90.220.55

Stall torque	Nm	220	220	220	220	220
Peak torque	Nm	800	800	800	800	624
Stall current	Arms	23,4	14,0	7,00	4,22	2,33
Peak current	Arms	101	60,6	30,3	18,3	7,62
Maximum speed @230 Vac 3phase	rpm	300	180	90	50	-
Maximum speed @400 Vac 3phase	rpm	-	300	150	90	50
Torque constant ± 5%	Nm/Arms	7,9	13,2	26,4	43,8	81,9
Voltage constant ± 5%	Vrms/krpm	570	950	1900	3150	5700
Phase/phase resistance ± 5%	Ohm	0,32	0,92	5	11,3	39
Phase/phase inductance	mH	4,4	12,9	44	150	470
Electrical time constant	msec	13,8	14,0	14,3	13,2	12,1
Thermal resistance	°C/W	0,26	0,26	0,26	0,26	0,26

Values and torque/speed specifications here detailed are obtained with the SKA DDR coupled to FLEXI PRO drive, with a winding temperature of 100°C. All others data are with a coil temperature of 25°C.

Output continuous rating with 840x840x30mm heat sink flange coupling and with front flange not sealed. Derating must be considered in some Power Pack configuration.

SKA DDR 335.120.270.51 SKA DDR 335.120.270.52 SKA DDR 335.120.270.53 SKA DDR 335.120.270.54 SKA DDR 335.120.270.55

Stall torque	Nm	270	270	270	270	270
Peak torque	Nm	1043	1043	1043	1043	852
Stall current	Arms	28,7	17,2	8,59	5,18	2,86
Peak current	Arms	132	79,0	39,6	23,8	10,4
Maximum speed @230 Vac 3phase	rpm	300	180	90	50	-
Maximum speed @400 Vac 3phase	rpm	-	300	150	90	50
Torque constant ± 5%	Nm/Arms	7,9	13,2	26,4	43,8	81,9
Voltage constant ± 5%	Vrms/krpm	570	950	1900	3150	5700
Phase/phase resistance ± 5%	Ohm	0,24	0,67	2,72	7,43	24,6
Phase/phase inductance	mH	3,5	10,4	42,1	116	382
Electrical time constant	msec	15,6	15,5	15,5	15,6	15,5
Thermal resistance	°C/W	0,25	0,25	0,25	0,25	0,25

Values and torque/speed specifications here detailed are obtained with the SKA DDR coupled to FLEXI PRO drive, with a winding temperature of 100°C. All others data are with a coil temperature of 25°C.

Output continuous rating with 840x840x30mm heat sink flange coupling and with top flange not sealed. Derating must be considered in some Power Pack configuration.

SKA DDR 335 RATINGS AND SPECIFICATIONS

TIME RATING	Continuous	AMBIENT TEMPERATURE	0 to 40 °C
INSULATION CLASS	F	AMBIENT HUMIDITY	20 to 80% RH (non condensing)
POLES	42	THERMAL PROTECTION	PT 1000
INSULATION SYSTEM UL /CSA	cURus , DVI55J File nr.:E216686	CE certified	

SKA DDR 335.150.320.51 SKA DDR 335.150.320.52 SKA DDR 335.150.320.53 SKA DDR 335.150.320.54 SKA DDR 335.150.320.55

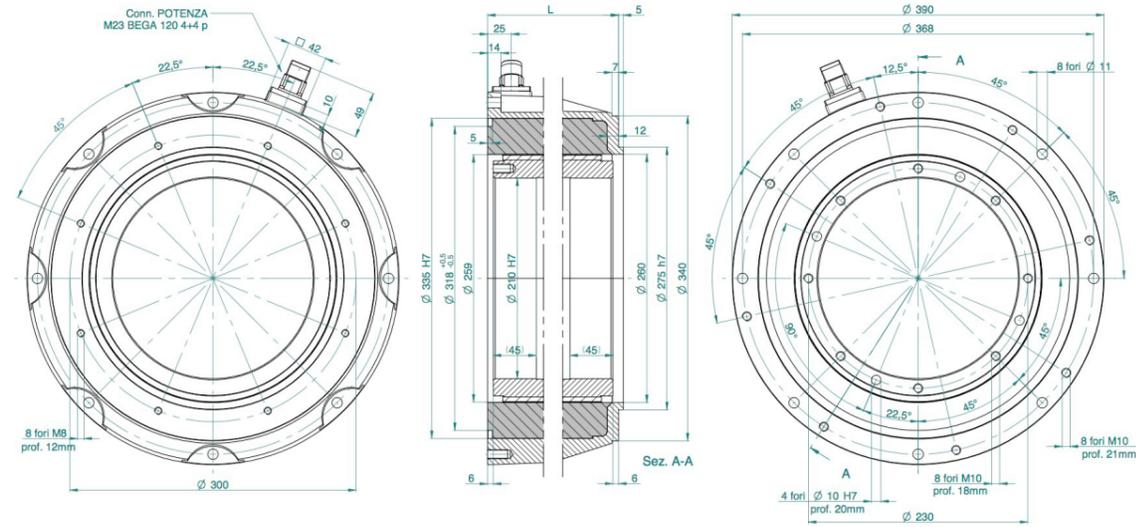
Stall torque	Nm	320	320	320	320	320
Peak torque	Nm	1290	1290	1290	1290	1097
Stall current	Arms	34,0	20,4	10,2	6,14	3,39
Peak current	Arms	163	97,7	48,9	29,4	13,4
Maximum speed @230 Vac 3phase	rpm	300	180	90	50	-
Maximum speed @400 Vac 3phase	rpm	-	300	150	90	50
Torque constant ± 5%	Nm/Arms	7,9	13,2	26,4	43,8	81,9
Voltage constant ± 5%	Vrms/krpm	570	950	1900	3150	5700
Phase/phase resistance ± 5%	Ohm	0,19	0,7	3,1	6,8	19,2
Phase/phase inductance	mH	3,0	8	26	78	311
Electrical time constant	msec	15,8	16,2	16,2	16,2	16,2
Thermal resistance	°C/W	0,144	0,144	0,144	0,144	0,144

Values and torque/speed specifications here detailed are obtained with the SKA DDR coupled to FLEXI PRO drive, with a winding temperature of 100°C. All others data are with a coil temperature of 25°C.

Output continuous rating with 840x840x30mm heat sink flange coupling and with front flange not sealed. Derating must be considered in some Power Pack configuration.

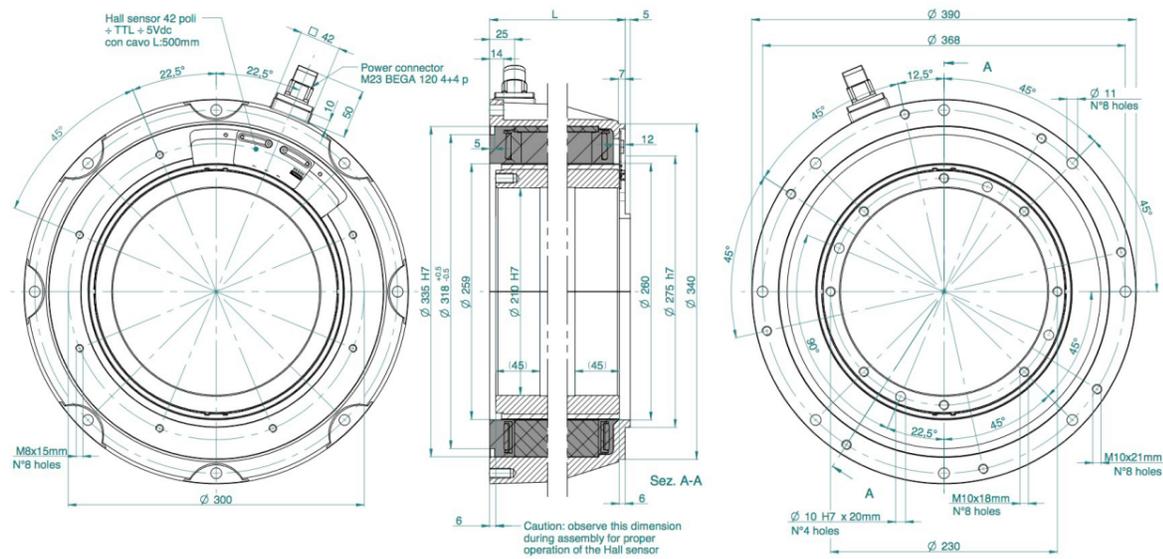
SKA DDR 335 DIMENSIONS AND CONFIGURATIONS

SKA DDR 335 FRAMELESS reference drawing 302



MOTOR TYPE	L (mm)
SKA DDR 335.30	82
SKA DDR 335.60	112
SKA DDR 335.90	142
SKA DDR 335.120	172
SKA DDR 335.150	202

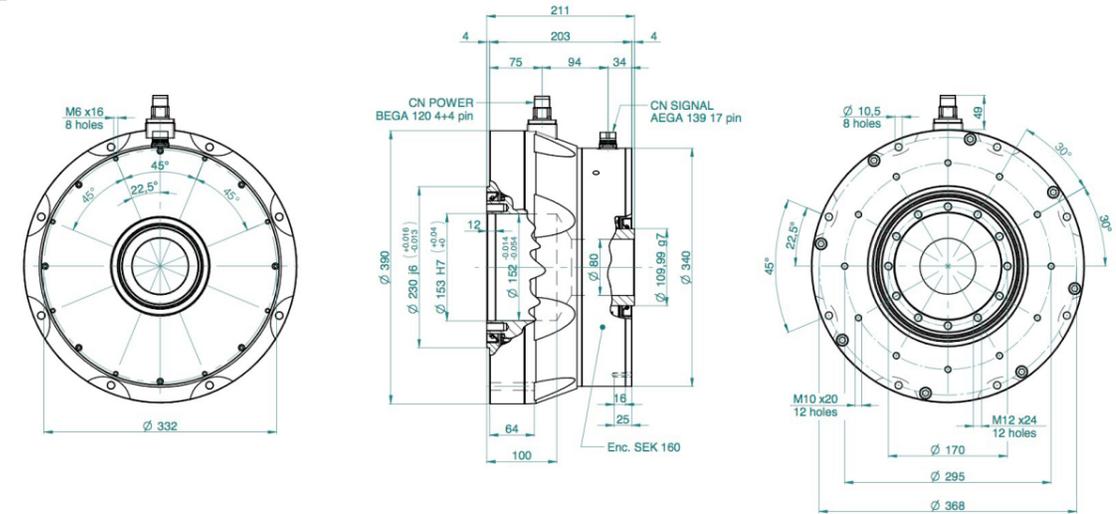
SKA DDR 335 FRAMELESS AND HALL SENSORS reference drawing 303



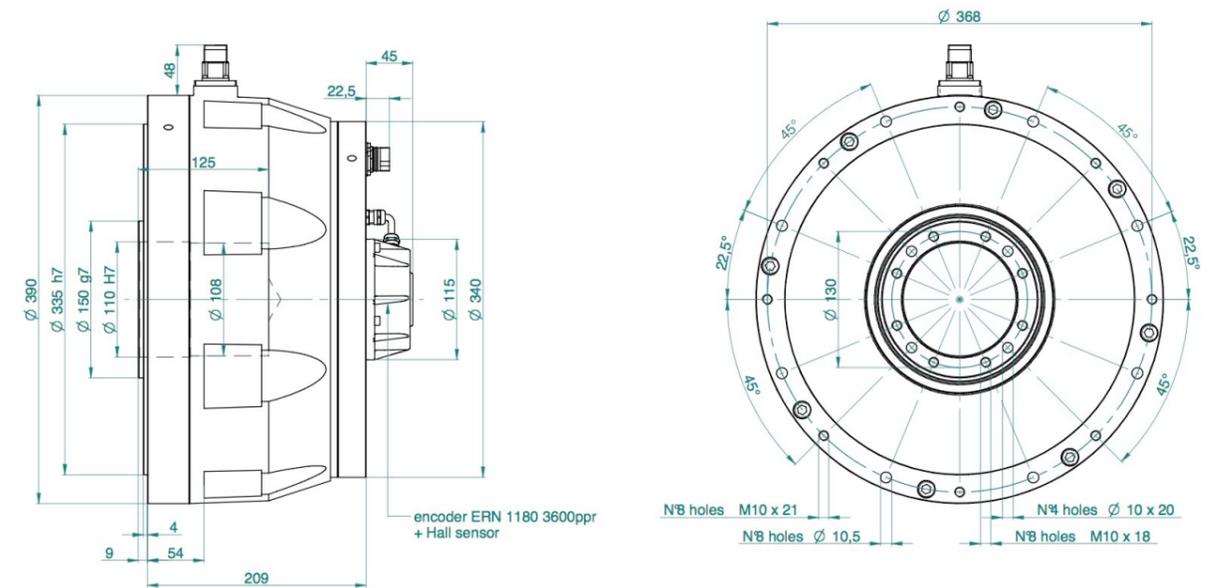
MOTOR TYPE	L (mm)
SKA DDR 335.30	82
SKA DDR 335.60	112
SKA DDR 335.90	142
SKA DDR 335.120	172
SKA DDR 335.150	202

SKA DDR 335 DIMENSIONS AND CONFIGURATIONS

SKA DDR 335 30 POWER PACK HOLLOW THOUGH SHAFT reference drawing 304

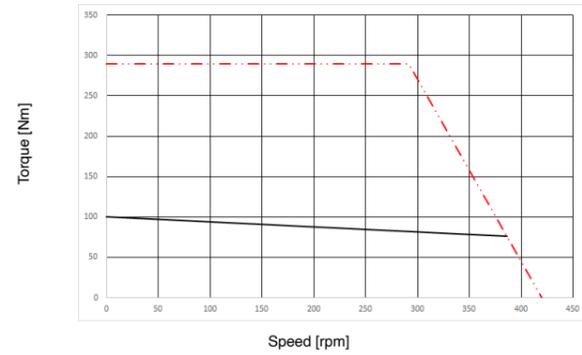


SKA DDR 335 90 POWER PACK HOLLOW SHAFT reference drawing 305

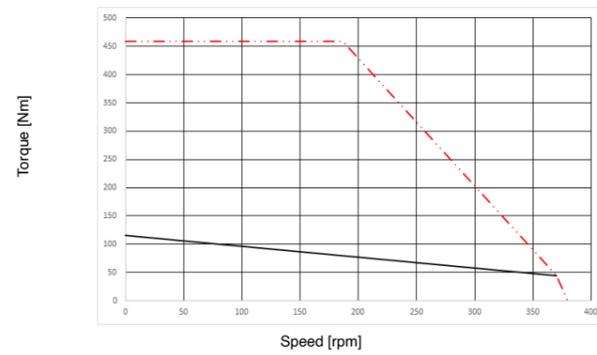


SKA DDR 335 TORQUE AND SPEED CHARTS

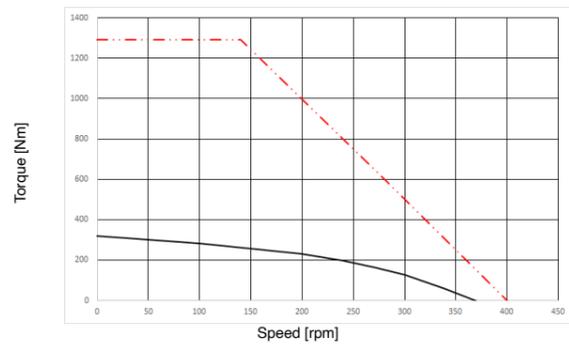
SKA DDR 335.30.52 400 Vac



SKA DDR 335.30.53 400 Vac



SKA DDR 335.150.52 400 Vac



SKA DDR 430 RATINGS AND SPECIFICATIONS

TIME RATING
INSULATION CLASS
POLES
INSULATION SYSTEM UL /CSA

Continuous
F
56
cURus , DVI55J File nr.:E216686

AMBIENT TEMPERATURE
AMBIENT HUMIDITY
THERMAL PROTECTION
CE certified

0 to 40 °C
20 to 80% RH (non condensing)
PT 1000

SKA DDR 430.30.210.52 SKA DDR 430.30.210.53 SKA DDR 430.30.210.54 SKA DDR 430.30.210.55 SKA DDR 430.30.210.56

Stall torque	Nm	210	210	210	210	210
Peak torque	Nm	458	458	458	436	458
Stall current	Arms	13,3	6,68	4,01	2,23	9,07
Peak current	Arms	40,4	20,2	12,1	6,37	27
Maximum speed @230 Vac 3phase	rpm	180	90	50	-	100
Maximum speed @400 Vac 3phase	rpm	300	150	90	50	150
Torque constant ± 5%	Nm/Arms	11,3	22,7	37,9	68,4	23,16
Voltage constant ± 5%	Vrms/krpm	950	1900	3150	5700	1400
Phase/phase resistance ± 5%	Ohm	1,11	4,47	12,5	40,3	3,25
Phase/phase inductance	mH	16,0	66,0	183	593	22,8
Electrical time constant	msec	14,4	14,8	14,6	14,7	7,0
Thermal resistance	°C/W	0,23	0,23	0,23	0,23	0,23

Values and torque/speed specifications here detailed are obtained with the SKA DDR coupled to FLEXI PRO drive, with a winding temperature of 100°C.
All others data are with a coil temperature of 25°C.

Output continuous rating with 1000x1000x30mm heat sink flange coupling and with front flange not sealed.
Derating must be considered in some Power Pack configuration.

SKA DDR 430.60.340.52 SKA DDR 430.60.340.53 SKA DDR 430.60.340.54 SKA DDR 430.60.340.55 SKA DDR 430.60.340.56

Stall torque	Nm	340	340	340	340	340
Peak torque	Nm	868	868	868	868	868
Stall current	Arms	21,8	10,9	6,58	3,64	14,68
Peak current	Arms	76,8	38,2	22,9	12,7	37,5
Maximum speed @230 Vac 3phase	rpm	180	90	50	-	100
Maximum speed @400 Vac 3phase	rpm	300	150	90	50	150
Torque constant ± 5%	Nm/Arms	11,3	22,7	37,9	68,4	23,16
Voltage constant ± 5%	Vrms/krpm	950	1900	3150	5700	1400
Phase/phase resistance ± 5%	Ohm	0,7	2,65	5,22	16,9	1,47
Phase/phase inductance	mH	10	32	102	330	14,50
Electrical time constant	msec	12	12	19,5	19,5	9,9
Thermal resistance	°C/W	0,21	0,21	0,21	0,21	0,21

Values and torque/speed specifications here detailed are obtained with the SKA DDR coupled to FLEXI PRO drive, with a winding temperature of 100°C.
All others data are with a coil temperature of 25°C.

Output continuous rating with 1000x1000x30mm heat sink flange coupling and with front flange not sealed.
Derating must be considered in some Power Pack configuration.

SKA DDR 430 RATINGS AND SPECIFICATIONS

TIME RATING	Continuous	AMBIENT TEMPERATURE	0 to 40 °C
INSULATION CLASS	F	AMBIENT HUMIDITY	20 to 80% RH (non condensing)
POLES	56	THERMAL PROTECTION	PT 1000
INSULATION SYSTEM UL /CSA	cURus , DVI55J File nr.:E216686	CE certified	

SKA DDR 430.90.450.53 SKA DDR 430.90.450.54 SKA DDR 430.90.450.55 SKA DDR 430.90.450.56

Stall torque	Nm	450	450	450	450
Peak torque	Nm	1254	1254	1254	1254
Stall current	Arms	14,3	8,63	4,78	19,43
Peak current	Arms	55,2	33,1	18,3	54,1
Maximum speed @230 Vac 3phase	rpm	90	50	-	100
Maximum speed @400 Vac 3phase	rpm	150	90	50	150
Torque constant ± 5%	Nm/Arms	22,7	37,9	68,4	23,16
Voltage constant ± 5%	Vrms/krpm	1900	3150	5700	1400
Phase/phase resistance ± 5%	Ohm	1,19	4,14	16,4	0,98
Phase/phase inductance	mH	26,2	73,0	200	9,8
Electrical time constant	msec	22,0	22,1	22,0	22,0
Thermal resistance	°C/W	0,136	0,136	0,136	0,136

Values and torque/speed specifications here detailed are obtained with the SKA DDR coupled to FLEXI PRO drive, with a winding temperature of 100°C. All others data are with a coil temperature of 25°C.

Output continuous rating with 1000x1000x30mm heat sink flange coupling and with front flange not sealed. Derating must be considered in some Power Pack configuration.

SKA DDR 430.120.560.53 SKA DDR 430.120.560.54 SKA DDR 430.120.560.55

Stall torque	Nm	560	560	560
Peak torque	Nm	1649	1649	1649
Stall current	Arms	17,82	10,7	5,94
Peak current	Arms	72,6	43,5	24,1
Maximum speed @230 Vac 3phase	rpm	90	50	-
Maximum speed @400 Vac 3phase	rpm	150	90	50
Torque constant ± 5%	Nm/Arms	22,7	37,9	68,4
Voltage constant ± 5%	Vrms/krpm	1900	3150	5700
Phase/phase resistance ± 5%	Ohm	1,37	2,42	7,80
Phase/phase inductance	mH	26	57	183
Electrical time constant	msec	19	23,6	23,5
Thermal resistance	°C/W	0,17	0,17	0,17

Values and torque/speed specifications here detailed are obtained with the SKA DDR coupled to FLEXI PRO drive, with a winding temperature of 100°C. All others data are with a coil temperature of 25°C.

Output continuous rating with 1000x1000x30mm heat sink flange coupling and with front flange not sealed. Derating must be considered in some Power Pack configuration.

SKA DDR 430 RATINGS AND SPECIFICATIONS

TIME RATING	Continuous	AMBIENT TEMPERATURE	0 to 40 °C
INSULATION CLASS	F	AMBIENT HUMIDITY	20 to 80% RH (non condensing)
POLES	42	THERMAL PROTECTION	PT 1000
INSULATION SYSTEM UL /CSA	cURus , DVI55J File nr.:E216686	CE certified	

SKA DDR 430.150.660.54 SKA DDR 430.150.660.55

Stall torque	Nm	660	660
Peak torque	Nm	2025	2025
Stall current	Arms	12,7	7,00
Peak current	Arms	53,4	29,6
Maximum speed @230 Vac 3phase	rpm	50	-
Maximum speed @400 Vac 3phase	rpm	90	50
Torque constant ± 5%	Nm/Arms	37,9	68,4
Voltage constant ± 5%	Vrms/krpm	3150	5700
Phase/phase resistance ± 5%	Ohm	2,03	6,21
Phase/phase inductance	mH	47,3	152
Electrical time constant	msec	23,3	24,5
Thermal resistance	°C/W	0,15	0,15

Values and torque/speed specifications here detailed are obtained with the SKA DDR coupled to FLEXI PRO drive, with a winding temperature of 100°C. All others data are with a coil temperature of 25°C.winding

Output continuous rating with 1000x1000x30mm heat sink flange coupling and with front flange not sealed. Derating must be considered in some Power Pack configuration.

SKA DDR 430.180.760.54 SKA DDR 430.180.760.55

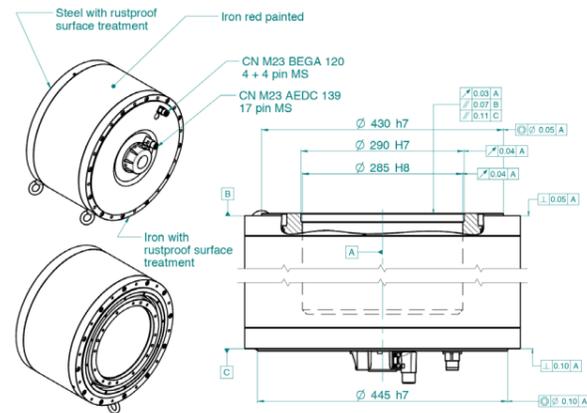
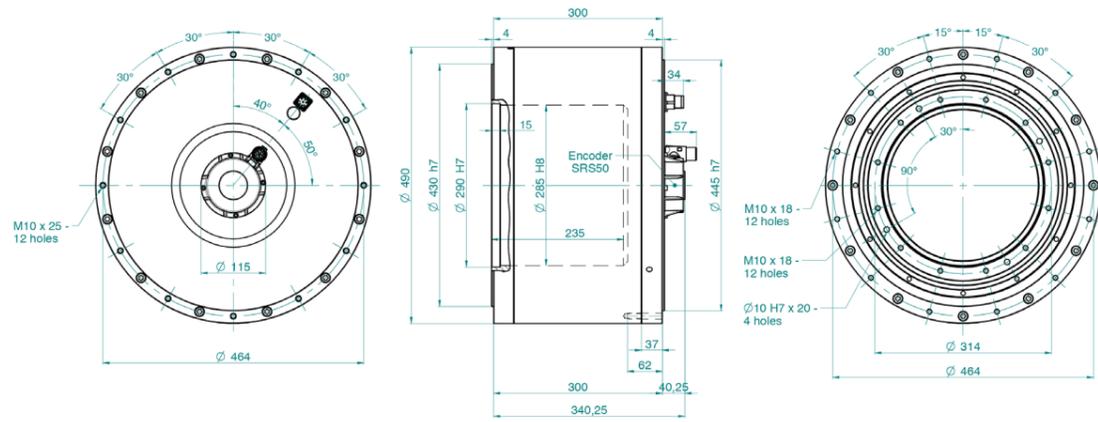
Stall torque	Nm	760	760
Peak torque	Nm	2400	2400
Stall current	Arms	14,6	8,06
Peak current	Arms	64	35,1
Maximum speed @230 Vac 3phase	rpm	50	-
Maximum speed @400 Vac 3phase	rpm	90	50
Torque constant ± 5%	Nm/Arms	37,6	68,4
Voltage constant ± 5%	Vrms/krpm	3150	5700
Phase/phase resistance ± 5%	Ohm	2,5	8,5
Phase/phase inductance	mH	32	105
Electrical time constant	msec	12,8	12,5
Thermal resistance	°C/W	0,10	0,08

Values and torque/speed specifications here detailed are obtained with the SKA DDR coupled to FLEXI PRO drive, with a winding temperature of 100°C. All others data are with a coil temperature of 25°C.winding

Output continuous rating with 1000x1000x30mm heat sink flange coupling and with front flange not sealed. Derating must be considered in some Power Pack configuration.

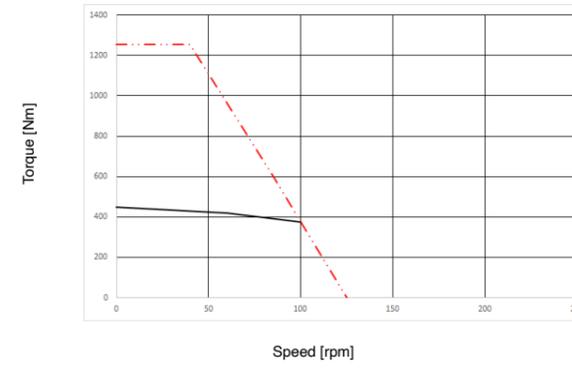
SKA DDR 430 DIMENSIONS AND CONFIGURATIONS

SKA DDR 430 BLIND HOLLOW SHAFT reference drawing 402

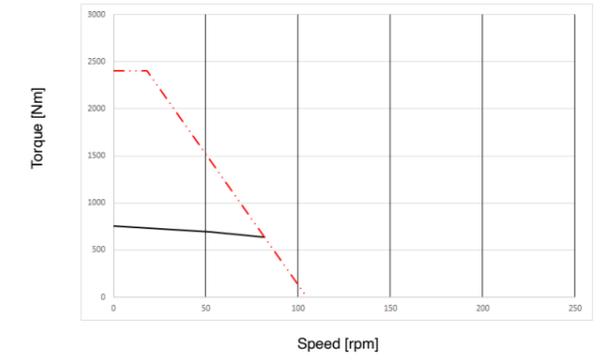


SKA DDR 430 TORQUE AND SPEED CHARTS

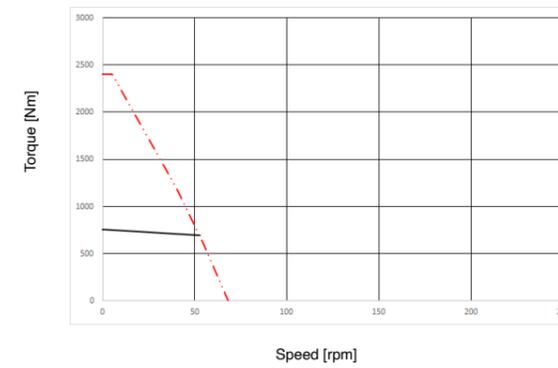
SKA DDR 430.90.54 400 Vac



SKA DDR 430.180.54 400 Vac



SKA DDR 430.180.55 400 Vac



BRAKE FEATURES

		SKA DDR 090	
Static Torque @20°C	Nm	2	4,5
Moment of Inertia	Kg cm ²	0,050	0,220
Rated Current	A	0,46	0,5
Input Power	W	11	12
Engaging Time	ms	6	7
Release Time	ms	25	35
Operating Voltage		24 Vdc +6% - 10% Stabilized	

		SKA DDR 148	
Static Torque @20°C	Nm	18	36
Moment of Inertia	Kg cm ²	1,9	6,21
Rated Current	A	1	1,08
Input Power	W	24	26
Engaging Time	ms	10	22
Release Time	ms	50	90
Operating Voltage		24 Vdc +6% - 10% Stabilized	

		SKA DDR 245 - 335 - 430	
Static Torque @20°C	Nm	72	
Moment of Inertia	Kg cm ²	15,3	
Rated Current	A	1,66	
Input Power	W	40	
Engaging Time	ms	7	
Release Time	ms	140	
Operating Voltage		24 Vdc +6% - 10% Stabilized	

THERMAL PROTECTION FEATURES

PT 1000

Thermal protection features

Type	PT 1000-R8/2-2F
Sensor	Sensor RTD (Platinum Resistance Temperature Detectors) according to DIN EN 60751
Temperature range	from -40 °C to 250 °C
Accuracy	$\Delta t = \pm (0,3 + 0,04t) \text{ } ^\circ\text{C}$

°C	Resistance (Ω)
-40	843
-30	882
-20	922
-10	961
0	1000
10	1039
20	1078
30	1117
40	1155
50	1194
60	1232
70	1271
80	1309
90	1347
100	1385
110	1423
120	1461
130	1498
140	1536
150	1573
160	1611

WIRING MOTOR CONNECTIONS

CONNECTORS WITH 29 CONNECTION and PT1000 on power

POWER CONNECTOR

FEEDBACK CONNECTOR

		RESOLVER	HIPERFACE ABSOLUTE ENCODER		
PIN	FUNCTION	PIN	FEEDBACK FUNCTION	PIN	FEEDBACK FUNCTION
1	Phase U	1	-	1	-
2	PE	2	-	2	-
3	Phase W	3	-	3	0 Vdc
4	Phase V	4	-	4	7-12 Vdc
A	Brake 24V (#)	5	/Sin	5	/Sin
B	Brake 0V (#)	6	Sin +	6	Sin
C	PT 1000 (+)	7	/Ref	7	/DATA
D	PT 1000 (-)	8	Ref	8	DATA
		9	-	9	-
(#) Optional		10	Shield	10	Shield
		11	/Cos	11	/Cos
		12	Cos	12	Cos
		13	-	13	-
		14	-	14	-
		15	-	15	-
		16	-	16	-
		17	-	17	-

CONNECTORS WITH 29 CONNECTION and PT1000 on signal

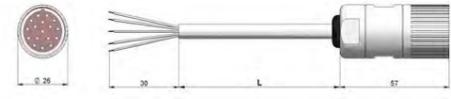
POWER CONNECTOR

FEEDBACK CONNECTOR

		RESOLVER	HIPERFACE ABSOLUTE ENCODER		
PIN	FUNCTION	PIN	FEEDBACK FUNCTION	PIN	FEEDBACK FUNCTION
1	Phase U	1	-	1	-
2	PE	2	-	2	-
3	Phase W	3	-	3	0 Vdc
4	Phase V	4	-	4	7-12 Vdc
A	Brake 24V (#)	5	/Sin	5	/Sin
B	Brake 0V (#)	6	Sin +	6	Sin
C		7	/Ref	7	/DATA
D		8	Ref	8	DATA
		9	-	9	-
(#) Optional		10	Shield	10	Shield
		11	/Cos	11	/Cos
		12	Cos	12	Cos
		13	-	13	-
		14	-	14	-
		15	-	15	-
		16	PT 1000 (+)	16	PT 1000 (+)
		17	PT 1000 (-)	17	PT 1000 (-)

DYNAMIC LAYING CABLES SPECIFICATIONS

SIGNAL CABLES for ALL SERVOMOTORS MODELS

MOTOR SIDE PIN	COLOUR	Signal free wire cable for general purpose	For cable order	
1	Grey/Pink		Length (mm)	Order code
2	Red		5000	003108011110
3	Blue1		10000	003108011112
4	Red1			
5	Yellow			
6	Green			
7	Grey			
8	Pink			
9	White/Green			
10	Shield2			
11	Black			
12	Violet			
13	Red/Blue			
14	Brown/Green			
15	Blue			
16	Brown			
17	White			

DYNAMIC LAYING CABLES SPECIFICATIONS

SIGNAL CABLES for ALL SERVOMOTORS MODELS connection 29

MOTOR SIDE PIN	COLOUR	FUNCTION	DRIVE SIDE PIN	Resolver signal SUMITOMO cable for FLEXI PRO	For cable order	
5	Black/Blue	RefSin	19		Lenght (mm)	Order code
6	Blue	Sin	6		5000	00310801100
7	Black/Green	Ref-	21		10000	00310801102
8	Green	Ref+	8			
10	Shield	SHIELD	26			
11	Black/Red	RefCos	20			
12	Red	Cos	7			
16	White	PT 1000 (+)	12			
17	Black/White	PT 1000 (-)	25			

MOTOR SIDE PIN	COLOUR	FUNCTION	DRIVE SIDE PIN	Hiperface absolute encoder signal SUMITOMO cable for FLEXI PRO	For cable order	
17	White	PT 1000 (+)	25		Lenght (mm)	Order code
16	Brown	PT 1000 (-)	12		3000	00310801123
12	Pink	Cos	10		5000	003108020152
11	Grey	Cos-	23		10000	003108020153
10	Shield2	SHIELD	26			
8	Violet	Data+	1			
7	Black	Data-	14			
6	Green	Sin+	9			
5	Yellow	Sin-	22			
4	Red1	7-12V	18			
3	Blue1	GND	24			

DYNAMIC LAYING CABLES SPECIFICATIONS

POWER CABLES

FUNCTION	PIN/M23	Power free wire cable				
Phase U	1		SKA DDR 090- 148 - 245		SKA DDR 335 - 430	
Phase V	4		Lenght (mm)	Order code	Lenght (mm)	Order code
Phase W	3		3000	003108007314	3000	003108005080
PE	2		5000	003108007302	5000	003108005104
N.C.	A		10000	003108007316	10000	003108005106
N.C.	B					
PT 1000 (+)	C					
PT 1000 (-)	D					

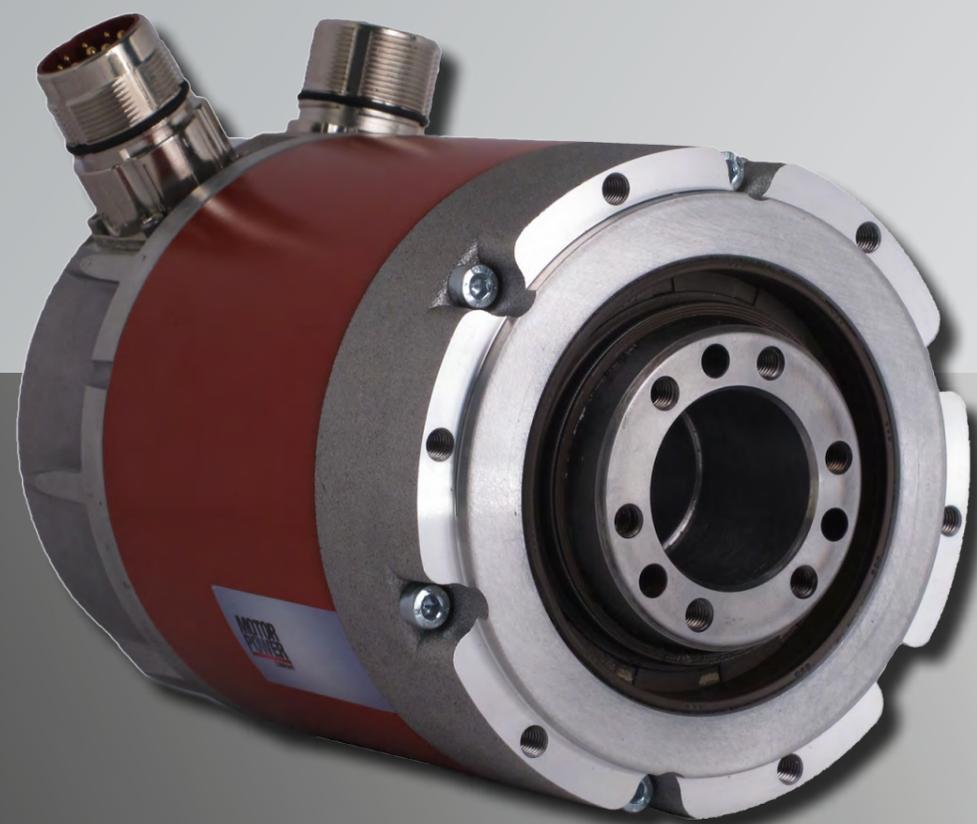
Power free wire cable with M23 90° connector



SKA DDR 090 - 148 - 245		SKA DDR 335 - 430	
Lenght (mm)	Order code	Lenght (mm)	Order code
3000	003108020075	3000	003108005108
5000	003108020076	5000	003108020014
10000	003108020077	10000	003108005110

FLYING CONNECTORS M23

Straight power connector pin included BSTA108NN00580236000 + 4 PIN 60.003.11 FM/2mm CRIMP,0,35-2,5 SPRING + 4 PIN 60.001.11 FM/1mm CRIMP,0,14-1 SPRING	order code 007117000472		
Straight signal connenctor pin included ASTA014NN00410235000 17p/FM + 17 PIN 60.011.11 FM/1mm CRIMP,0,14-1	order code 007117000462		
90° power connector pin included BSDA108NN00420200000 + 4 PIN 60.003.11 FM/2mm CRIMP,0,35-2,5 SPRING + 4 PIN 60.001.11 FM/1mm CRIMP,0,14-1 SPRING	order code 007117002055		
90° signal connenctor pin included ASDA014NN00480150000 + 17 PIN 60.011.11 FM/1mm CRIMP,0,14-1	order code 007117002056		



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