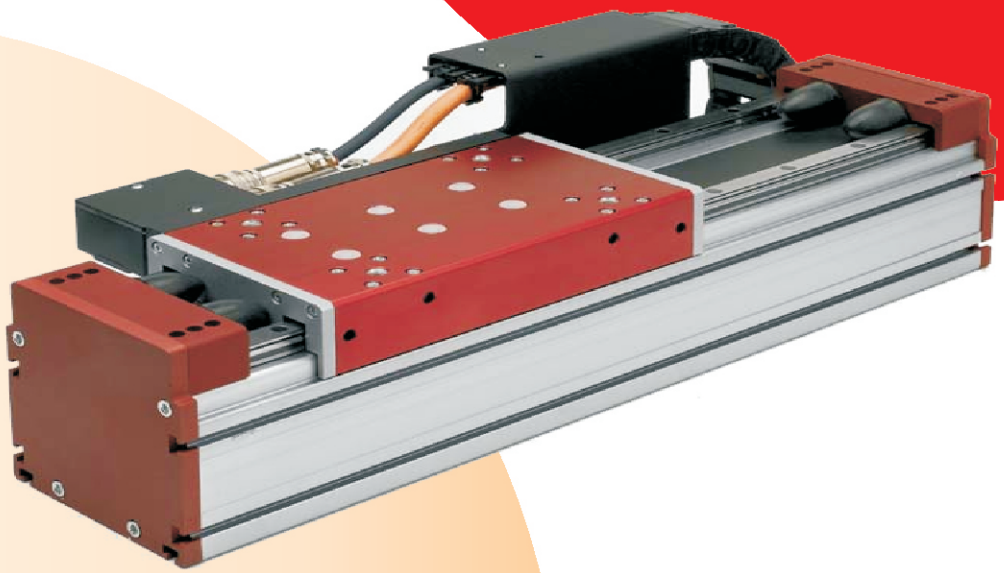
SKA COMPACT

ALL IN ONE

Linear Axes



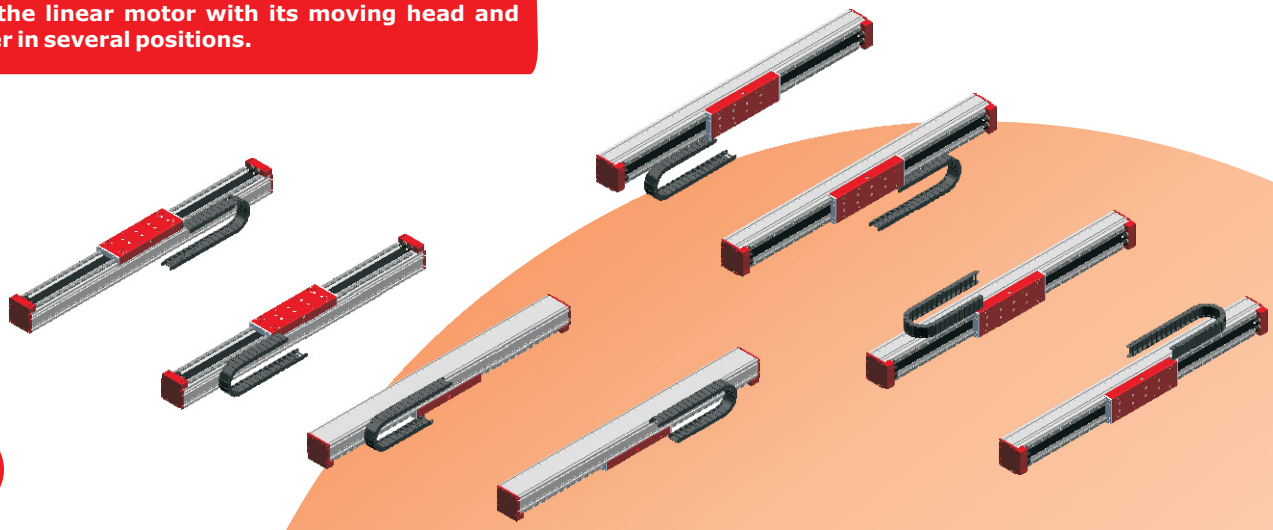
MOTOR POWER COMPANY

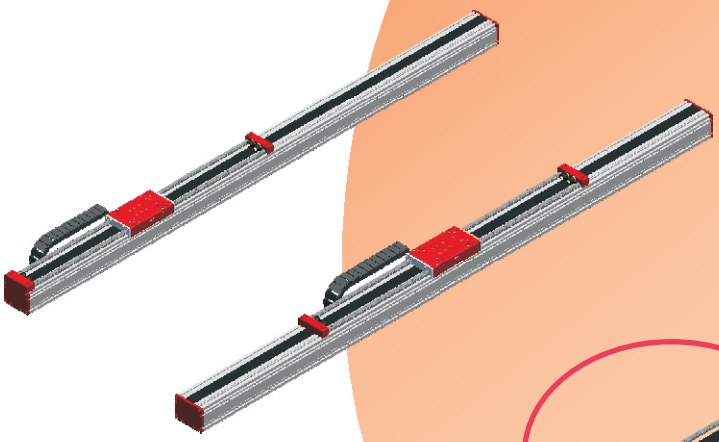
SKA COMPACT

Cutting-edge ***all in one*** linear axis based on iron core technology. A range of three sizes with aluminium carrying structure. The power components, moving coil and magnetic track, are preassembled and equipped with thermal sensor, moving head, linear guideways, encoder, stroke stopper, cables and cable carrier. A flexible motor payload capacity allows its fitting on any extruded structure side and in any direction.

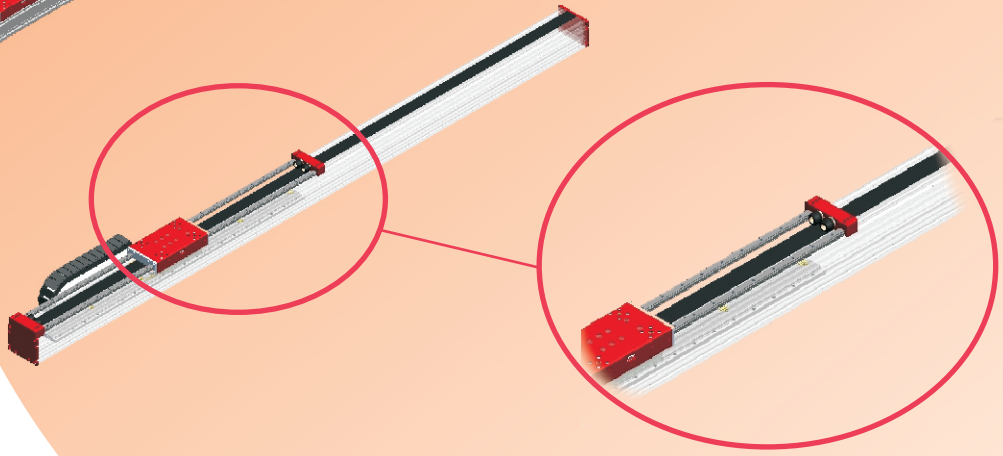
- 58N to 1600N continuous force (196N to 4800N peak force)
- 5m/s speed
- 5g (50m/s2) acceleration
- 0,01 to 0,1 mm accuracy
- All mechanical components are completely sealed off for a high degree of protection
- Cooling option
- Optional safety brake
- Cantilever and Gantry configurations
- Feedback options: optical or magnetic Sin Cos, TTL and absolute encoder, Hall Sensor.

SKA COMPACT: the linear axis flexibility allows to employ the linear motor with its moving head and cable carrier in several positions.

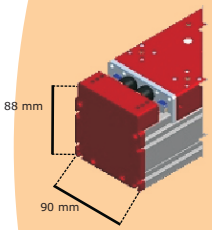


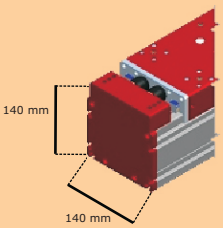


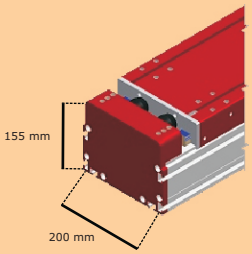
SKA COMPACT: its extruded profile is designed for satisfying a vast application requests.
The aluminium structure can be used as a carrying unit in the machine or for settling components inside the empty profile.



SKA COMPACT

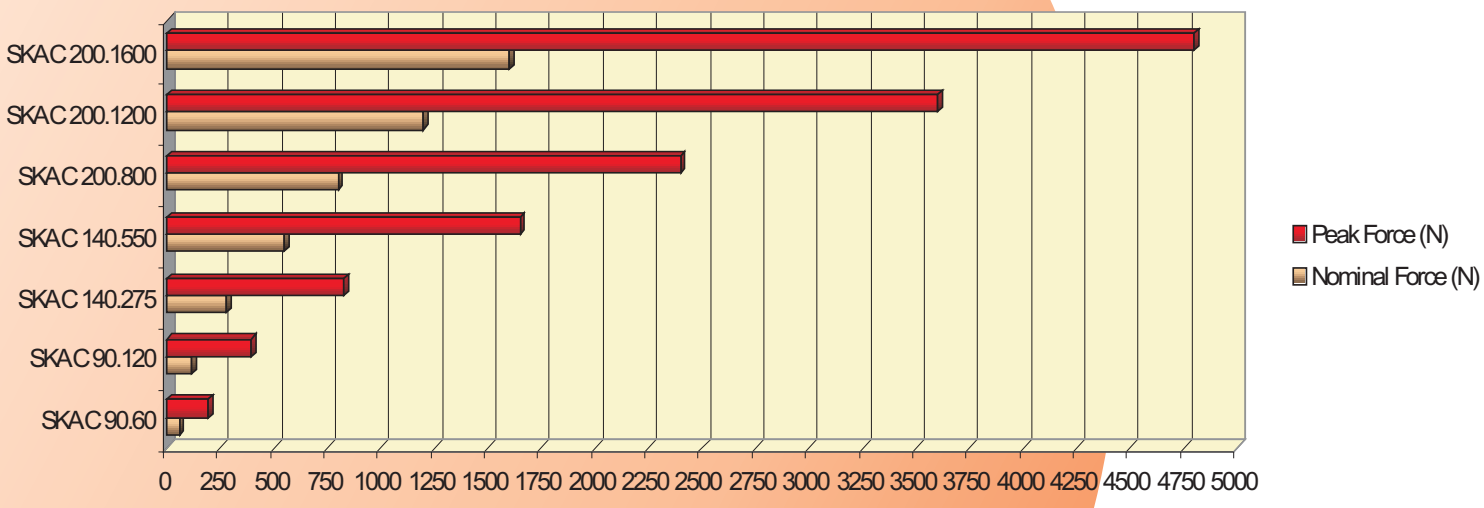






		SKA C 90.60	SKA C 90.120	SKA C 140.275	SKA C 140.550	SKA C 200.800	SKA C 200.1200	SKA C 200.1600
Peak Force	(N)	196	392	825	1650	2400	3600	4800
Continuous Force	(N)	58	116	275	550	800	1200	1600
Speed	(m/s)	5	5	5	5	5	5	5
Acceleration	(m/s²)	50	50	50	50	50	50	50
Stroke		From 50 to 3500 mm - further stroke extention available with extra modules addition						

Data are rated at ΔT = 80°C , 0÷40°C environmental temperature - Class F insulation - Performances are rated with natural ventilation



MOTOR POWER COMPANY

How to order SKA COMPACT

SKA C | **90.60** | **15** | **1000** | **00** | **007** | **01**

Series name

Model
- 90.60
- 90.120
- 140.275
- 140.550
- 200.800
- 200.1200
- 200.1600

Winding
- See data sheet

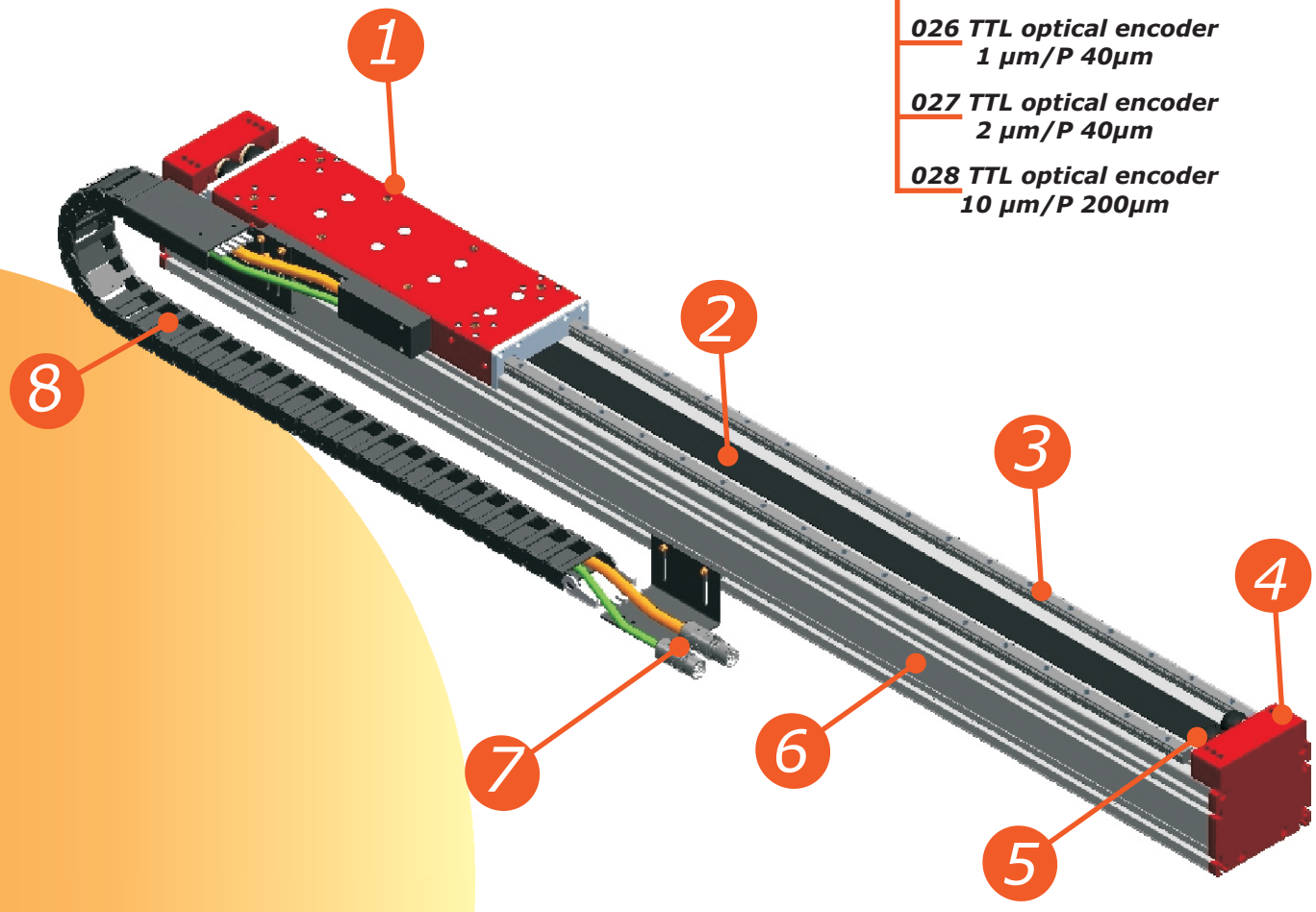
Stroke
- SKA C 90 50 to 2000mm 50mm pitch
- SKA C 140 - 200 100 to 3500mm 100mm pitch

Hall Sensors
- 00 Without Hall Sensor
- 01 With Hall Sensor

Encoder Feedback
- 000 No encoder
- 006 TTL magnetic encoder 2 µm/P 2mm
- 007 TTL magnetic encoder 10 µm/P 2mm
- 008 TTL optical encoder 5 µm/P 200µm
- 015 Sin-Cos optical encoder P 40µm
- 019 TTL optical encoder 1 µm/P 200µm
- 021 Sin-Cos optical encoder P 200µm
- 023 Sin-Cos magnetic encoder P 2mm
- 024 TTL magnetic encoder 1 µm/P 2mm
- 025 TTL optical encoder 0,5 µm/P 40µm
- 026 TTL optical encoder 1 µm/P 40µm
- 027 TTL optical encoder 2 µm/P 40µm
- 028 TTL optical encoder 10 µm/P 200µm

Connectors
- 01 Double Connector

1. Moving head
2. Protection cover
3. Linear guideways
4. Stroke stopper
5. Rubber bumpers
6. Aluminium extruded profile
7. Connectors
8. Cable carrier chain with dynamic laying cables



SERIES

SKA COMPACT

TRANSDUCER SERIES PAGE 1

TRANSDUCERS

TTL OPTICAL ENCODER P200µm (FEEDBACK ORDER NR. 008 - 019 - 028)			
RATED VOLTAGE	Vn	[Vdc]	5 ± 5%
RATED CURRENT	In	[mA]	120
MAX OUTPUT FREQUENCY	F	[MHz]	5
WORKING TEMPERATURE	Tn	[°C]	0° ÷ + 50°
ELECTRONIC TYPE			LINE DRIVER AM 26 LS32
ZERO PULSE			STANDARD
RESOLUTION	R	[µm]	1 - 5 - 10
ACCURACY	A	[µm]	± 30 µm/m
OPTICAL LINE PITCH	P	[µm]	200
MAX SPEED	S	[m/s]	It depends of resolution

SIN COS OPTICAL ENCODER P200µm (FEEDBACK ORDER NR. 021)			
RATED VOLTAGE	Vn	[Vdc]	5 ± 5%
RATED CURRENT	In	[mA]	120
MAX OUTPUT FREQUENCY	F	[KHz]	50
WORKING TEMPERATURE	Tn	[°C]	0° ÷ + 50°
SIGNAL TYPE		[Vdc]	1 Vpp
ZERO PULSE			STANDARD
RESOLUTION	R	[µm]	Function of the interpolator
ACCURACY	A	[µm]	± 30 µm/m
OPTICAL LINE PITCH	P	[µm]	200
MAX SPEED	S	[m/s]	It depends of interpolator

TTL OPTICAL ENCODER P40µm (FEEDBACK ORDER NR. 025 – 026 - 027)			
RATED VOLTAGE	Vn	[Vdc]	5 ± 5%
RATED CURRENT	In	[mA]	120
MAX OUTPUT FREQUENCY	F	[MHz]	5
WORKING TEMPERATURE	Tn	[°C]	0° ÷ + 50°
ELECTRONIC TYPE			LINE DRIVER AM 26 LS32
ZERO PULSE			STANDARD
RESOLUTION	R	[µm]	0.5 - 1 - 2
ACCURACY	A	[µm]	± 5 µm/m
OPTICAL LINE PITCH	P	[µm]	40
MAX SPEED	S	[m/s]	It depends of resolution

SERIES

SKA COMPACT

TRANSDUCER SERIES PAGE 2

TRANSDUCERS

SIN COS OPTICAL ENCODER P40µm (FEEDBACK ORDER NR. 015)			
RATED VOLTAGE	Vn	[Vdc]	5 ± 5%
RATED CURRENT	In	[mA]	120
MAX OUTPUT FREQUENCY	F	[KHz]	250
WORKING TEMPERATURE	Tn	[°C]	0° ÷ + 50°
SIGNAL TYPE		[Vdc]	1 Vpp
ZERO PULSE			STANDARD
RESOLUTION	R	[µm]	Function of the interpolator
ACCURACY	A	[µm]	± 5 µm/m
OPTICAL LINE PITCH	P	[µm]	40
MAX SPEED	S	[m/s]	It depends of interpolator
TTL MAGNETIC ENCODER (FEEDBACK ORDER NR. 006 – 007 - 024)			
RATED VOLTAGE	Vn	[Vdc]	5 ± 2.5%
RATED CURRENT	In	[mA]	200
MAX OUTPUT FREQUENCY	F	[KHz]	500
WORKING TEMPERATURE	Tn	[°C]	0° ÷ + 50°
ELECTRONIC TYPE			LINE DRIVER AM 26 LS32
ZERO PULSE			STANDARD
RESOLUTION	R	[µm]	1 – 2 - 10
ACCURACY	A	[mm]	± [0.025+(0.02*L)] (L: stroke length in mt)
MAGNETIC TAPE PITCH	P	[mm]	2
MAX SPEED	S	[m/s]	It depends of resolution
SIN COS MAGNETIC ENCODER (FEEDBACK ORDER NR. 023)			
RATED VOLTAGE	Vn	[Vdc]	5 ± 2.5%
RATED CURRENT	In	[mA]	200
MAX OUTPUT FREQUENCY	F	[KHz]	5
WORKING TEMPERATURE	Tn	[°C]	0° ÷ + 50°
SIGNAL TYPE		[Vdc]	1 Vpp
ZERO PULSE			Not available
RESOLUTION	R	[µm]	Function of the interpolator
ACCURACY	A	[mm]	± [0.025+(0.02*L)] (L: stroke length in mt)
MAGNETIC TAPE PITCH	P	[mm]	2
MAX SPEED	S	[m/s]	It depends of interpolator
HALL SENSOR			
RATED VOLTAGE	Vn	[Vdc]	5 ÷ 24
RATED CURRENT	In	[mA]	100
WORKING TEMPERATURE	Tn	[°C]	-20°÷ +100°
N° OF COMMUTATION SIGNALS			3 Common Mode 5v

IRON CORE LINEAR AXES “ALL IN ONE”

SERIES

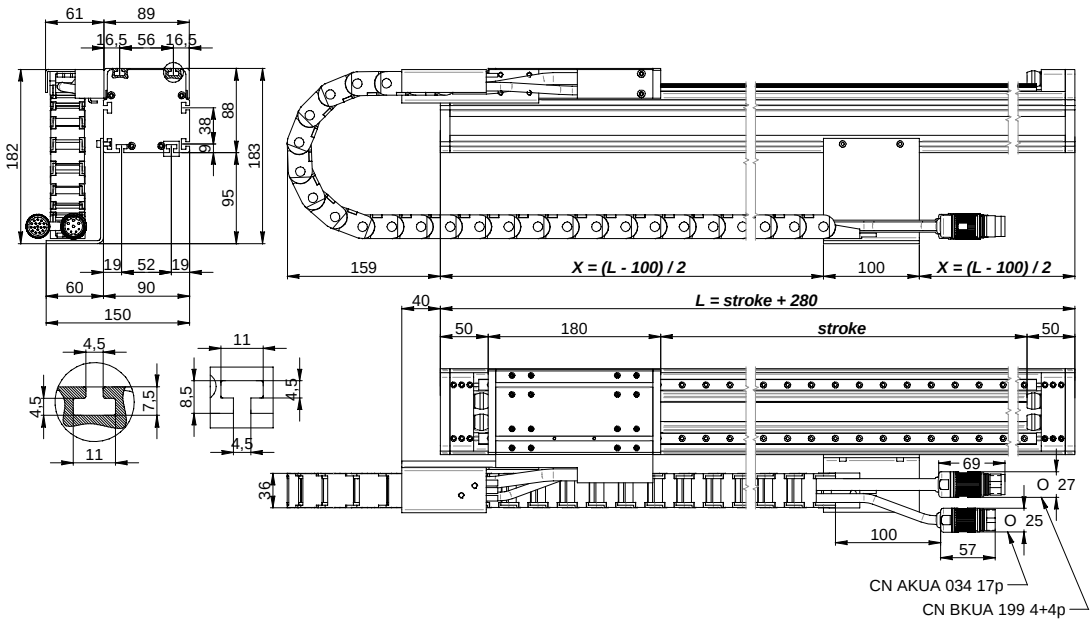
SKA COMPACT 90.60

FORCE [N]

58

SINEWAVE FORM		SIMBOLS	UNITS	WINDING TYPE			
				12	14	15	16
MOTOR SPEED	Vn drive 3phase 145 V (ac)		[m/s]	4.5	3	2	1.5
	Vn drive 3phase 230 V (ac)		[m/s]		4.5	3	2
	Vn drive 3phase 400 V (ac)		[m/s]			5	4
MOTOR RATINGS	FEATURES						
	Voltage constant ± 5%	Ke	[Vrms/m/s]	24	36	55	72
	Pole Pitch	P	[mm]	12			
	Temperature range	Tr	[°C]	0 ÷ 40°			
	SKAC. 90.60						
	Continuous force (0 m/s)	Fn0	[N]	58			
	Peak force	Fmax	[N]	196			
	Force constant ± 5%	Kf	[N/Arms]	40	60	91	121
	Rated current (0 m/s)	In0	[Arms]	1.45	0.96	0.64	0.48
	Peak current	I fmax	[Arms]	5.8	3.86	2.55	1.92
	Phase/phase res. ± 5% a 20°C	Rff	[Ohm]	5.8	13.1	30.1	53
	Phase/phase inductance	Lff	[mH]	20.4	45.8	105.4	206
	Electrical time constant	Te	[msec]	3.9			
	Attractive force	Fm	[N]	347			
	Dissipated power	Pd	[W]	26.4			
	Thermal resistance	Rth	[°C/W]	13.6			
	Motor constant	Km	[N/√W]				
	Moving head weight		[kg]	2			
THERMAL PROTECTION	Type of thermal cut - off			N C : normally closed			
	Rated voltage	Vn	[Vac]	250			
	Rated current	In	[A]	2.5			
	Operative temperature	Tn	[°C]	130 °C ± 5%			
	Resetting temperature	Tr	[°C]	100 °C ± 15°C			
	Operative time		[ms]	1			
	Insulation class			F			

SKA COMPACT 90.60
OVERALL DIMENSIONS



Data Sheet n°: SKAC-2008-02-00

IRON CORE LINEAR AXES “ALL IN ONE”

SERIES

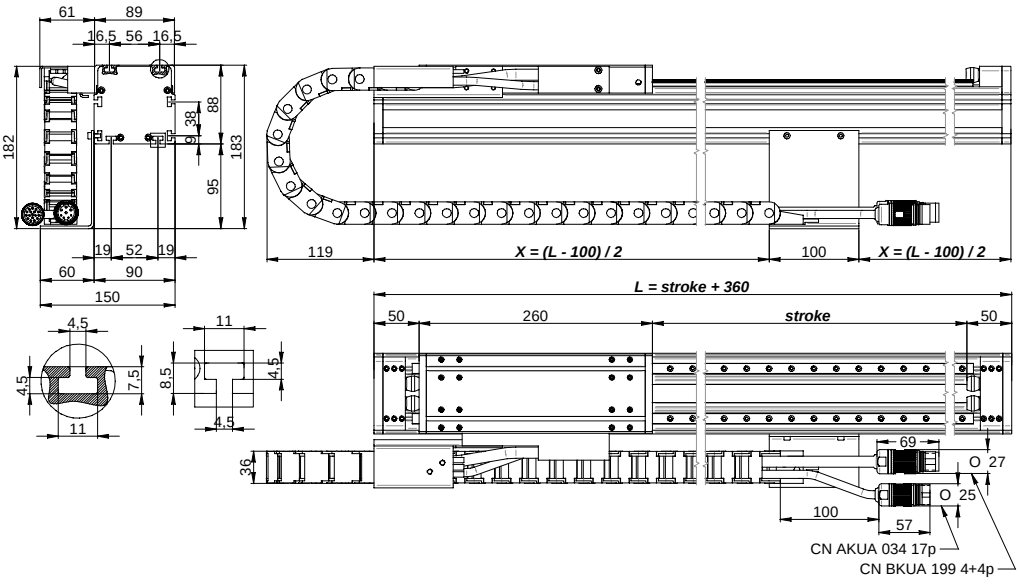
SKA COMPACT 90.120

FORCE [N]

116

	SINEWAVE FORM	SIMBOLS	UNITS	WINDING TYPE			
				12	14	15	16
MOTOR SPEED	Vn drive 3phase 145 V (ac)		[m/s]	4.5	3	2	1.5
	Vn drive 3phase 230 V (ac)		[m/s]		4.5	3	2
	Vn drive 3phase 400 V (ac)		[m/s]			5	4
MOTOR RATINGS	FEATURES						
	Voltage constant ± 5%	Ke	[Vrms/m/s]	24	36	55	72
	Pole Pitch	P	[mm]	12			
	Temperature range	Tr	[°C]	0 ÷ 40°			
	SKAC. 90.120						
	Continuous force (0 m/s)	Fn0	[N]	116			
	Peak force	Fmax	[N]	392			
	Force constant ± 5%	Kf	[N/Arms]	40	60	91	121
	Rated current (0 m/s)	In0	[Arms]	2.9	1.93	1.27	0.96
	Peak current	I fmax	[Arms]	11.6	7.73	5.1	3.83
	Phase/phase res. ± 5% a 20°C	Rff	[Ohm]	2.78	6.29	14.5	25.44
	Phase/phase inductance	Lff	[mH]	9.8	22	50.6	98.9
	Electrical time constant	Te	[msec]	3.5			
	Attractive force	Fm	[N]	693			
	Dissipated power	Pd	[W]	50.7			
	Thermal resistance	Rth	[°C/W]	1.57			
	Motor constant	Km	[N/√W]	19.7			
	Moving head weight		[kg]	3			
THERMAL PROTECTION	Type of thermal cut - off			N C : normally closed			
	Rated voltage	Vn	[Vac]	250			
	Rated current	In	[A]	2.5			
	Operative temperature	Tn	[°C]	130 °C ± 5%			
	Resetting temperature	Tr	[°C]	100 °C ± 15°C			
	Operative time		[ms]	1			
	Insulation class			F			

SKA COMPACT 90.120
OVERALL DIMENSIONS



IRON CORE LINEAR AXES “ALL IN ONE”

SERIES

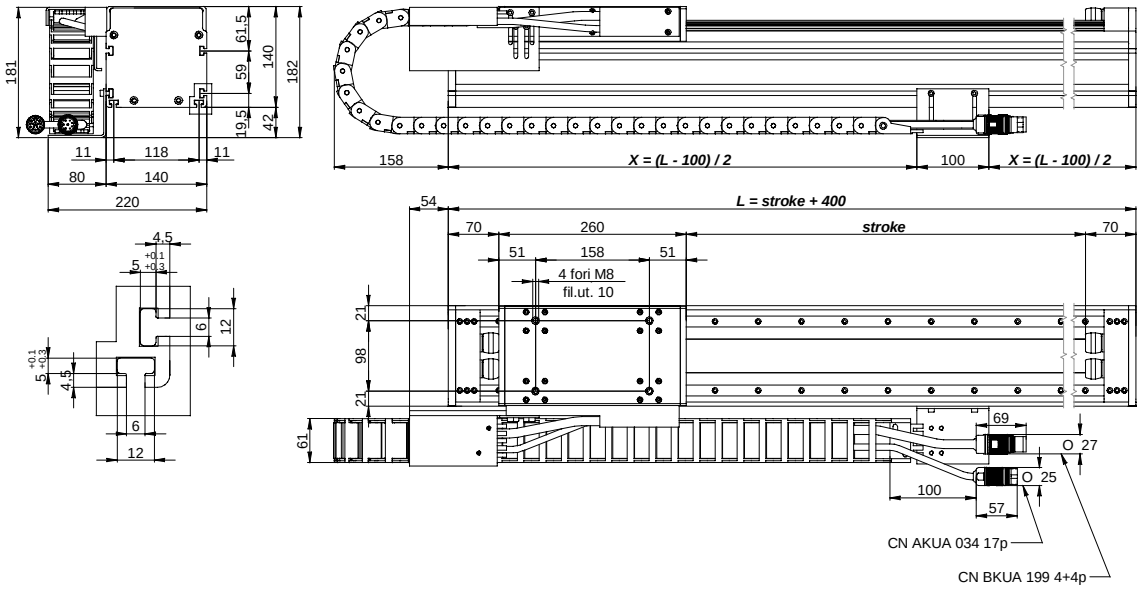
SKA COMPACT 140.275

FORCE [N]

275

SINEWAVE FORM	SIMBOLS	UNITS	WINDING TYPE					
			12	14	15	16	17	18
MOTOR SPEED								
Vn drive 3phase 145 V (ac)		[m/s]	4.5	3	2	1.5	1.1	
Vn drive 3phase 220 V (ac)		[m/s]		4.5	3	2	1.5	1
Vn drive 3phase 380 V (ac)		[m/s]			5	4	3	2
MOTOR RATINGS								
FEATURES								
Voltage constant ± 5%	Ke	[Vrms/m/s]	24	36	55	72	97	145
Pole Pitch	P	[mm]	24					
Temperature range	Tr	[°C]	0 ÷ 40°					
SKAC. 140.275								
Continuous force (0 m/s)	Fn0	[N]	275					
Peak force	Fmax	[N]	825					
Force constant ± 5%	Kf	[N/Arms]	40	60	91	121	161	241
Rated current (0 m/s)	In0	[Arms]	6.9	4.6	3.0	2.28	1.71	1.17
Peak current	I fmax	[Arms]	27.6	18.38	12.0	9.13	6.84	4.56
Phase/phase res. ± 5% a 20°C	Rff	[Ohm]	0.933	2.1	4.9	8.4	12.9	34.06
Phase/phase inductance	Lff	[mH]	14.8	33.2	77.5	132.8	235.4	538.6
Electrical time constant	Te	[msec]	15.8					
Attractive force	Fm	[N]	1202					
Dissipated power	Pd	[W]	86.8					
Thermal resistance	Rth	[°C/W]	0.921					
Motor constant	Km	[N/√W]	33.8					
Moving head weight		[kg]	7					
THERMAL PROTECTION								
Type of thermal cut - off			N C : normally closed					
Rated voltage	Vn	[Vac]	250					
Rated current	In	[A]	2.5					
Operative temperature	Tn	[°C]	130 °C ± 5%					
Resetting temperature	Tr	[°C]	100 °C ± 15°C					
Operative time		[ms]	1					
Insulation class			F					

SKA COMPACT 140.275
OVERALL DIMENSIONS



IRON CORE LINEAR AXES “ALL IN ONE”

SERIES

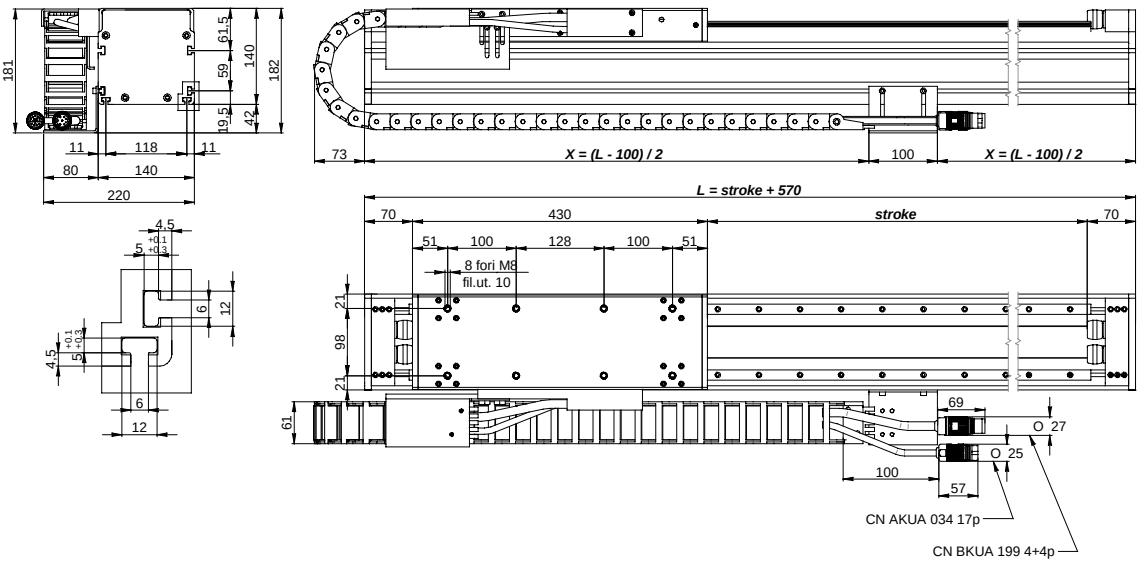
SKA COMPACT 140.550

FORCE [N]

550

SINEWAVE FORM		SIMBOLS	UNITS	WINDING TYPE					
				12	14	15	16	17	18
MOTOR SPEED	Vn drive 3phase 145 V (ac)		[m/s]	4.5	3	2	1.5	1.1	
	Vn drive 3phase 220 V (ac)		[m/s]		4.5	3	2	1.5	1
	Vn drive 3phase 380 V (ac)		[m/s]			5	4	3	2
MOTOR RATINGS	FEATURES								
	Voltage constant ± 5%	Ke	[Vrms/m/s]	24	36	55	72	97	145
	Pole Pitch	P	[mm]	24					
	Temperature range	Tr	[°C]	0 ÷ 40°					
	SKAC. 140.550								
	Continuous force (0 m/s)	Fn0	[N]	550					
	Peak force	Fmax	[N]	1650					
	Force constant ± 5%	Kf	[N/Arms]	37	56	86	113	151	226
	Rated current (0 m/s)	In0	[Arms]	14.72	9.8	6.41	4.87	3.65	2.44
	Peak current	I fmax	[Arms]	58.86	39.2	25.65	19.47	14.59	9.73
	Phase/phase res. ± 5% a 20°C	Rff	[Ohm]	0.45	0.98	2.33	3.98	7.21	16.21
	Phase/phase inductance	Lff	[mH]	8.1	18.2	42.5	72.85	131.4	295.5
	Electrical time constant	Te	[msec]	18.22					
	Attractive force	Fm	[N]	2405					
	Dissipated power	Pd	[W]	191.5					
	Thermal resistance	Rth	[°C/W]	0.418					
	Motor constant	Km	[N/√W]	45.6					
	Moving head weight		[kg]	12					
THERMAL PROTECTION	Type of thermal cut - off			N C : normally closed					
	Rated voltage	Vn	[Vac]	250					
	Rated current	In	[A]	2.5					
	Operative temperature	Tn	[°C]	130 °C ± 5%					
	Resetting temperature	Tr	[°C]	100 °C ± 15°C					
	Operative time		[ms]	1					
	Insulation class			F					

SKA COMPACT 140.550
OVERALL DIMENSIONS



IRON CORE LINEAR AXES “ALL IN ONE”

SERIES

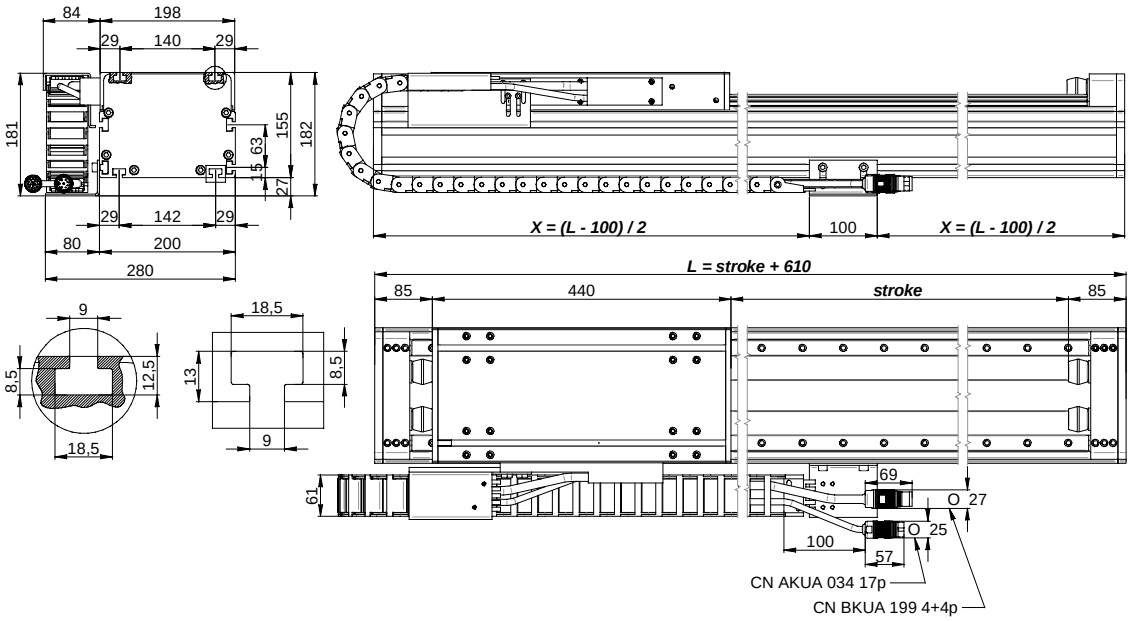
SKA COMPACT 200.800

FORCE [N]

800

	SINEWAVE FORM	SIMBOLS	UNITS	WINDING TYPE			
				15	16	17	18
MOTOR SPEED	Vn drive 3phase 145 V (ac)		[m/s]	2	1.5	1.1	
	Vn drive 3phase 220 V (ac)		[m/s]	3	2	1.5	1
	Vn drive 3phase 380 V (ac)		[m/s]	5	4	3	2
MOTOR RATINGS	FEATURES						
	Voltage constant ± 5%	Ke	[Vrms/m/s]	55	72	97	145
	Pole Pitch	P	[mm]	24			
	Temperature range	Tr	[°C]	0 ÷ 40°			
	SKAC. 200.800						
	Continuous force (0 m/s)	Fn0	[N]	800			
	Peak force	Fmax	[N]	2400			
	Force constant ± 5%	Kf	[N/Arms]	86	113	151	226
	Rated current (0 m/s)	In0	[Arms]	9.3	7	5.3	3.5
	Peak current	I fmax	[Arms]	37.2	28.2	21.2	14.1
	Phase/phase res. ± 5% a 20°C	Rff	[Ohm]	1.08	1.86	3.3	7.48
	Phase/phase inductance	Lff	[mH]	20.67	35.5	63.9	143.7
	Electrical time constant	Te	[msec]	19			
	Attractive force	Fm	[N]	3906			
	Dissipated power	Pd	[W]	189			
	Thermal resistance	Rth	[°C/W]	0.423			
	Motor constant	Km	[N/√W]	67.6			
	Moving head weight		[kg]	20			
THERMAL PROTECTION	Type of thermal cut - off			N C : normally closed			
	Rated voltage	Vn	[Vac]	250			
	Rated current	In	[A]	2.5			
	Operative temperature	Tn	[°C]	130 °C ± 5%			
	Resetting temperature	Tr	[°C]	100 °C ± 15°C			
	Operative time		[ms]	1			
	Insulation class			F			

SKA COMPACT 200.800
OVERALL DIMENSIONS



IRON CORE LINEAR AXES “ALL IN ONE”

SERIES

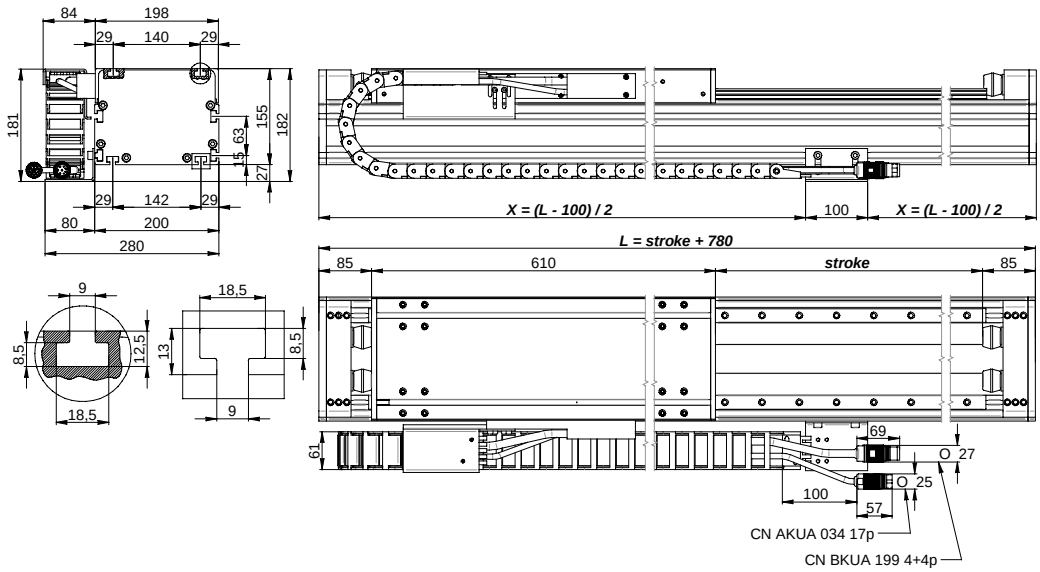
SKA COMPACT 200.1200

FORCE [N]

1200

SINEWAVE FORM		SIMBOLS	UNITS	WINDING TYPE			
				15	16	17	18
MOTOR SPEED	Vn drive 3phase 145 V (ac)		[m/s]	2	1.5	1.1	
	Vn drive 3phase 220 V (ac)		[m/s]	3	2	1.5	1
	Vn drive 3phase 380 V (ac)		[m/s]	5	4	3	2
MOTOR RATINGS	FEATURES						
	Voltage constant ± 5%	Ke	[Vrms/m/s]	55	72	97	145
	Pole Pitch	P	[mm]	24			
	Temperature range	Tr	[°C]	0 ÷ 40°			
	SKAC. 200.1200						
	Continuous force (0 m/s)	Fn0	[N]	1200			
	Peak force	Fmax	[N]	3600			
	Force constant ± 5%	Kf	[N/Arms]	86	113	151	226
	Rated current (0 m/s)	In0	[Arms]	14	10.6	7.96	5.3
	Peak current	I fmax	[Arms]	56	42.5	31.8	21.3
	Phase/phase res. ± 5% a 20°C	Rff	[Ohm]	0.83	1.43	2.56	5.75
	Phase/phase inductance	Lff	[mH]	15.9	27.3	49.2	110.5
	Electrical time constant	Te	[msec]	19			
	Attractive force	Fm	[N]	5831			
	Dissipated power	Pd	[W]	352			
	Thermal resistance	Rth	[°C/W]	0.227			
	Motor constant	Km	[N/√W]	73.2			
	Moving head weight		[kg]	27			
THERMAL PROTECTION	Type of thermal cut - off			N C : normally closed			
	Rated voltage	Vn	[Vac]	250			
	Rated current	In	[A]	2.5			
	Operative temperature	Tn	[°C]	130 °C ± 5%			
	Resetting temperature	Tr	[°C]	100 °C ± 15°C			
	Operative time		[ms]	1			
	Insulation class			F			

SKA COMPACT 200.1200
OVERALL DIMENSIONS



IRON CORE LINEAR AXES “ALL IN ONE”

SERIES

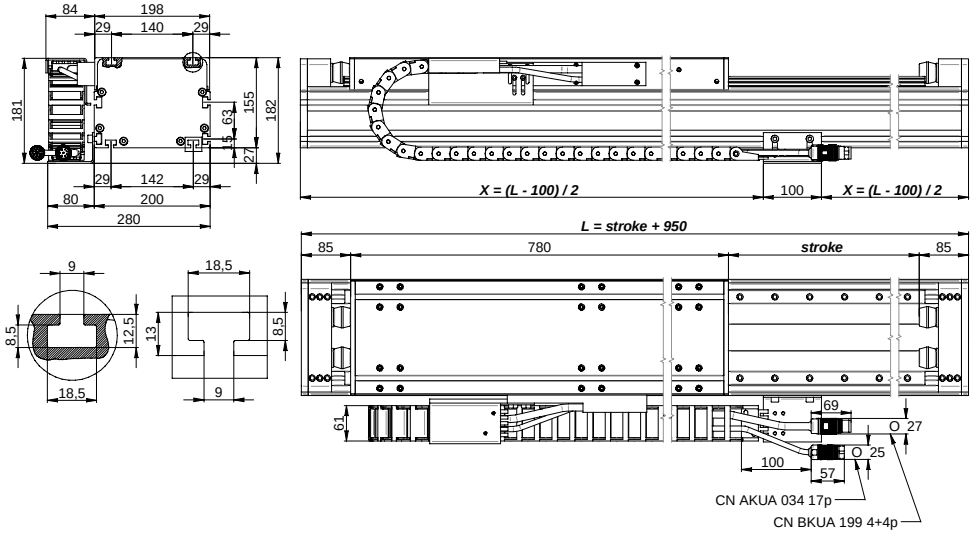
SKA COMPACT 200.1600

FORCE [N]

1600

SINEWAVE FORM		SIMBOLS	UNITS	WINDING TYPE			
				15	16	17	18
MOTOR SPEED	Vn drive 3phase 145 V (ac)		[m/s]	2	1.5	1.1	
	Vn drive 3phase 220 V (ac)		[m/s]	3	2	1.5	1
	Vn drive 3phase 380 V (ac)		[m/s]	5	4	3	2
MOTOR RATINGS	FEATURES						
	Voltage constant ± 5%	Ke	[Vrms/m/s]	55	72	97	145
	Pole Pitch	P	[mm]	24			
	Temperature range	Tr	[°C]	0 ÷ 40°			
	SKAC. 200.1600						
	Continuous force (0 m/s)	Fn0	[N]	1600			
	Peak force	Fmax	[N]	4800			
	Force constant ± 5%	Kf	[N/Arms]	84	110	147	221
	Rated current (0 m/s)	In0	[Arms]	19.1	14.5	10.9	7.24
	Peak current	I fmax	[Arms]	74.4	56.5	42.3	28.3
	Phase/phase res. ± 5% a 20°C	Rff	[Ohm]	0.645	1.1	1.92	4.3
	Phase/phase inductance	Lff	[mH]	11.9	21.3	36.9	82.9
	Electrical time constant	Te	[msec]	19.27			
	Attractive force	Fm	[N]	7774			
	Dissipated power	Pd	[W]	470			
	Thermal resistance	Rth	[°C/W]	0.17			
	Motor constant	Km	[N/√W]	84.6			
	Moving head weight		[kg]	36			
THERMAL PROTECTION	Type of thermal cut - off			N C : normally closed			
	Rated voltage	Vn	[Vac]	250			
	Rated current	In	[A]	2.5			
	Operative temperature	Tn	[°C]	130 °C ± 5%			
	Resetting temperature	Tr	[°C]	100 °C ± 15°C			
	Operative time		[ms]	1			
	Insulation class			F			

SKA COMPACT 200.1600
OVERALL DIMENSIONS



Data Sheet n°: SKAC-2008-02-00

SERIES

SKA COMPACT

OPTIONAL CABLES

OPTIONAL CABLES GENERAL TABLE

CABLE TYPE	CONNECTION OUTPUT SERVOMOTOR SIDE	CONNECTION OUTPUT USER SIDE
Motor power supply 02	CN 8 pin M23	Flying leads
Signal 05	CN 17 pin M23	Flying leads
Signal 06	CN 17 pin M23	CN 12 pin MOLEX
Signal 07	CN 17 pin M23	CN 15 pin D Type
Signal 08	CN 17 pin M23	CN 20 pin 3M

Cables lenghts are 3 – 5 – 10 m, whose order code are printed in each description page.

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SERIES

SKA COMPACT

POWER CABLE DATA

MOTOR POWER CABLE + THERMAL PROTECTION

TECHNICAL DATA

Description:…….……FE(4G1,5+4x0,25)ccST/R-Pu	Insulation: polyolefin, red, black color (Ø outer 1,25mm)
Moving speed……..……..……..100 m/min	UNEL grey, black, brown, yellow/green (Ø outer 2,4mm)
Maximum acceleration…….……..…….4 m/s^2	Jacket : polyurethane compound, black RAL 9005 glazed
Outer Ø……...……...……..….9 ± 0.2mm	Conductor : electrolytic copper braid not tinned – 2 wires
Minimum bending radius……..……..……...10 x Ø	0.25 mm^2 - 4 wires 1,5 mm^2 - Class 5 IEC 60228
Operating temperature :….-20°C +80°C static application	Shield jacket: full tinned copper covered ≥85%
……..……...-5°C +80°C dynamic laying	Shield wire: tinned copper – 1 wire 0.5 mm^2
Rated voltage:...……..……1000 V	
Test voltage:…….3kV	
Max conductor resistance (20°): 0.25mm^2…..80 Ω/km	
1.5 mm^2……..13,3 Ω/km	

UL COMPLIANCE

NORM UL 758 and CSA C22.2 No. 210.2

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SERIES

SKA COMPACT

SIGNAL CABLE

FEEDBACK CABLE

TECHNICAL DATA

Description :.....FE(8x2xAWG 28)ccST/R-Pu
Maximum speed.....100 m/min
Maximum acceleration .....4 m/s²
Outer Ø:.....7 ± 0.2
Minimum bending radius.....10 x Ø
Operating temperature:....-20°C +80°C static application
.....-5°C +80°C dynamyc laying
Rated voltage:.....300 V
Conductor resistance:..... ≤ 215 Ω/km
Characteristic impedance :.....100 Ω
Capacitance:.....50 pF/m
Nominal velocity of propagation :.....66%

Insulation: polyolefin, couple colors DIN 47100, Ø outer 0.85mm
Jacket : polyurethene compound, black RAL 9005 glazed
Conductor : electrolytic copper braid not tinned, 16 wires (8 twisted pairs), AWG24 – 0.22mm²
Shield jacket: full tinned copper, covered ≥85%
Shield wire: tinned copper – 1 wire AWG 24
Insulation resistance: power: ≥20 Mohm. Km

UL COMPLIANCE

NORM UL 758 and CSA C22.2 No. 210.2

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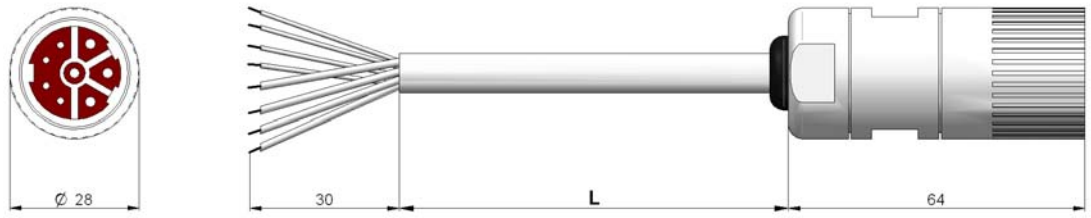
SERIES

SKA COMPACT

POWER CABLE 02

Power Cable 8pin M23 – Flying leads



CONNECTION TYPE C0 / C5		
4+4 pin Power		
Pin	*FUNCTIONS*	*COLOR*
1	Phase U	Grey
2	PE	Yellow/Green
3	Phase W	Brown
4	Phase V	Black
Brake (optional)		
Pin	*FUNCTIONS*	*COLOR*
A	+24 Vdc	Red
B	0	Black
Thermal Protection (optional)		
Pin	*FUNCTIONS*	*COLOR*
C	PT / (PTC+)	
D	PT / (PTC -)	

Lenght mm	*Code*
3000	003108010650
5000	003108010652
10000	003108010654

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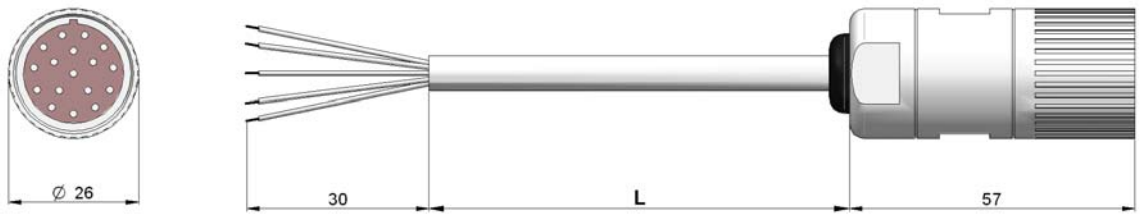
SERIES

SKA COMPACT

SIGNAL CABLE 05

Feedback cable 17pin M23 – Flying Leads



CONNECTION TYPE C0 / C5				
Cn 17 pin Feedback				
		Encoder TTL	Encoder SinCos	
Pin	*Color*	*FUNCTIONS*	*FUNCTIONS*	
1	GREY-PINK	HALL W	HALL W	
2	WHITE-YELLOW	HALL U	HALL U	
3	WHITE	0V	0V	
4	BROWN	+5V	+5V	
5	YELLOW	A/	Sin -	
6	GREEN	A	Sin +	
7	GREY	Z/	Ref -	
8	PINK	Z	Ref +	
9	WHITE-GREEN	HALL V	HALL V	
10	Shied wire	Shield	Shield	
11	BLACK	B/	Cos -	
12	VIOLET	B	Cos +	
13	RED-BLUE	HALL W/	HALL W/	
14	BROWN-GREEN	HALL V/	HALL V/	
15	YELLOW-BROWN	HALL U/	HALL U/	
16	-	-	-	
17	-	-	-	

Length mm	*Code*
3000	003108010500
5000	003108010502
10000	003108010504

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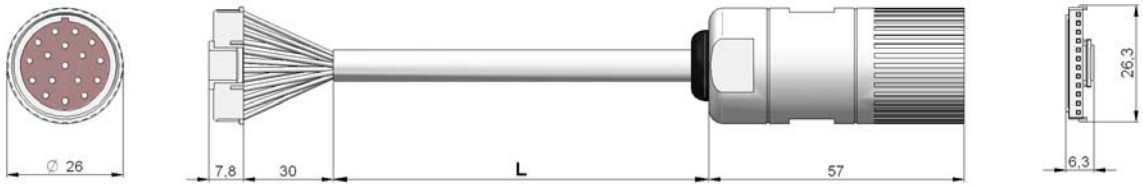
SERIES

SKA COMPACT

SIGNAL CABLE 06

Feedback cable 17pin M23 - 12pin Molex



CONNECTION TYPE C0 / C5					
Motor Side		Drive Side			
			Encoder TTL	Encoder SinCos	
Pin	*Color*	*Pin*	*FUNCTIONS*	*FUNCTIONS*	
1	GREY-PINK	1	HALL W	HALL W	
2	WHITE-YELLOW	3	HALL U	HALL U	
3	WHITE	5	0V	0V	
4	BROWN	6	+5V	+5V	
5	YELLOW	11	A/	Sin -	
6	GREEN	12	A	Sin +	
7	GREY	7	Z/	Ref -	
8	PINK	8	Z	Ref +	
9	WHITE-GREEN	2	HALL V	HALL V	
10	Shield wire	4	Shield	Shield	
11	BLACK	9	B/	Cos -	
12	VIOLET	10	B	Cos +	
13	RED-BLUE	-	-	-	
14	BROWN-GREEN	-	-	-	
15	YELLOW-BROWN	-	-	-	

Lenght mm	*Code*
3000	003108010520
5000	003108010522
10000	003108010524

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SERIES

SKA COMPACT

SIGNAL CABLE 07

Feedback Cable 17pin M23 -15pin D Type

CONNECTION TYPE C0 / C5					
Motor Side		Drive Side			
			Encoder	Encoder SinCos	
Pin	*Color*	*Pin*	*FUNCTIONS*	*FUNCTIONS*	
1	GREY-PINK	1	HALL W	HALL W	
2	WHITE-YELLOW	2	HALL U	HALL U	
3	WHITE	3	0V	0V	
4	BROWN	4	+5V	+5V	
5	YELLOW	5	A/	Sin -	
6	GREEN	6	A	Sin +	
7	GREY	7	Z/	Ref -	
8	PINK	8	Z	Ref +	
9	WHITE-GREEN	10	HALL V	HALL V	
10	Shield wire	Case	Shield	Shield	
11	BLACK	14	B/	Cos -	
12	VIOLET	15	B	Cos +	
13	RED-BLUE	-	-	-	
14	BROWN-GREEN	-	-	-	
15	YELLOW-BROWN	-	-	-	

Lenght mm	*Code*
3000	003108010580
5000	003108010582
10000	003108010584

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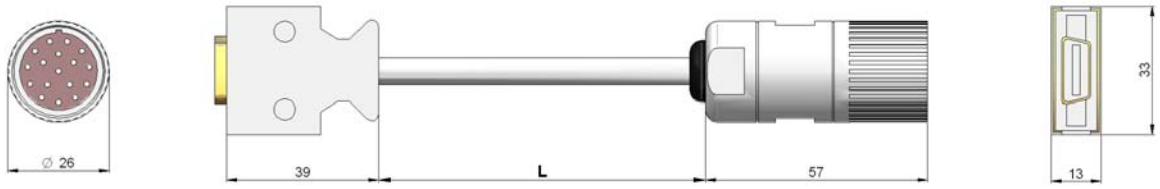
SERIES

SKA COMPACT

SIGNAL CABLE 08

Feedback Cable 17pin M23 - 20pin 3M



CONNECTION TYPE C0 / C5					
Motor Side		Drive Side			
			Encoder		
Pin	*Color*	*Pin*	*FUNCTIONS*		
1	GREY-PINK	20	HALL W		
2	WHITE-YELLOW	7	HALL U		
3	WHITE	1	0V		
4	BROWN	4	+5V		
5	YELLOW	17	A/		
6	GREEN	16	A		
7	GREY	15	Z/		
8	PINK	14	Z		
9	WHITE-GREEN	9	HALL V		
10	Shield wire	Case	Shield		
11	BLACK	19	B/		
12	VIOLET	18	B		
13	RED-BLUE	-	-		
14	BROWN-GREEN	-	-		
15	YELLOW-BROWN	-	-		

Lenght mm	*Code*
3000	003108010562
5000	003108010564
10000	003108010566

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