

Drive selection

Technical data AC asynchronous motors (inverter-optimised)

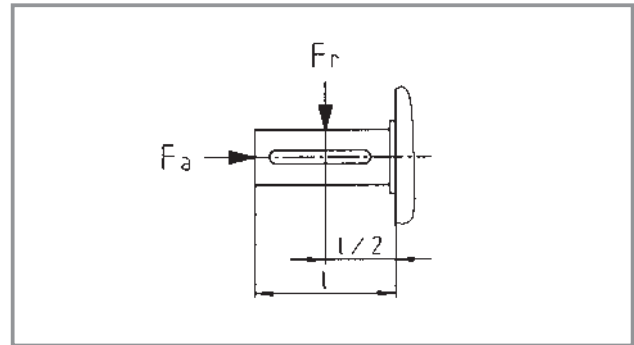
Description

Inverter-optimised motors are characterised by their smooth surface and variable applications. The reinforced insulation system is particularly dimensioned for inverter operation.



General data

Motor type	SDSGA□□□□-□□
Enclosure	IP54 or IP 55
Thermal class (VDE530)	F
Motor protection	Thermal contact or KTY Note options in the tables
Cooling	Naturally ventilated
Temperature range	-20 to +40 °C
Site altitude	Up to 1000 m a.m.s.l.
Electrical connection	Connector or terminal box Note options in the tables
Bearing	Deep-groove ball bearing
Operating mode (VDE530)	S1



Rated data

Motor type	SDSGA□□047-22	SDSGA□□056-22	SDSGA□□063-22	SDSGA□□063-32
Rated power (W)	75	240	400	600
Rated torque (Nm)	0.27	0.81	1.35	1.9
Rated current (A)	0.90/0.52	1.49/0.86	2.02/1.23	3.00/1.74
Rated voltage (V)	230/400	230/400	230/400	230/400
Rated frequency (Hz)	100	100	100	100
Rated speed (rpm)	2700	2790	2800	2825
Max. speed (rpm)	6000	6000	6000	6000
Power factor	0.5	0.714	0.7	0.7
Moment of inertia (kgcm ²)	0.41	1.404	2.796	4.21
Max. radial force (N) F _r	350	560	650	650
Max. axial force (N) F _a	750	430	510	510



Connection plan for inverter motor SDSGA□□047-22

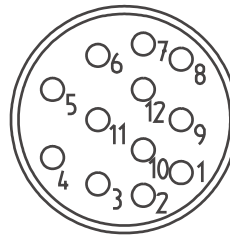
Parameter setting for servo inverter 9321			
Code	Setting		Meaning
	Y	Δ	
C0006	2	22	Servo asynchronous (Y)
C0025	RsX		Resolver
C0070	5		
C0071	150		ms
C0075	0.35		
C0076	1.80		ms
C0081	0.075		Pn (kW)
C0084	72		Rphase (ohm)
C0085	267		Xleakage (mH)
C0086	0		COMMON
C0087	2700		nn (rpm)
C0088	0.52	0.90	In (A)
C0089	100		fn (Hz)
C0090	390	230	Un (V)
C0091	0.5		cos phi

Connector for resolver and thermal contact		
Pin no.	Connection name	Connection to:
1	+Ref	Resolver
2	-Ref	Resolver
3		
4	+cos	Resolver
5	-cos	Resolver
6	+sin	Resolver
7	-sin	Resolver
8		
9		
10		
11	+	KTY/thermal switch
12	-	KTY/thermal switch

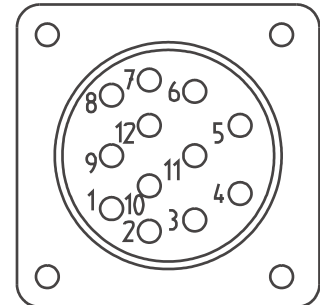
Connector for motor and brake		
Pin no.	Connection name	Connection to:
1	Y1	Brake
2	Y2	Brake
PE	PE	Conductor
4	U	Motor phase
5	V	Motor phase
6	W	Motor phase

Connector for incremental encoder and thermal contact		
Pin no.	Connection name	Connection to:
1	B	Track B
2	-A	Track A inv.
3	A	Track A
4	+UB	+5 V - +24 V
5	+0V	Grnd
6	-N	Track 0 inv.
7	N	Track 0
8		
9	-B	Track B inv.
10		
11	+	KTY/thermal switch
12	-	KTY/thermal switch

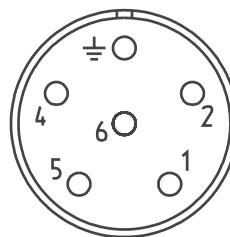
Encoder connector
for resolver/
Incremental encoder



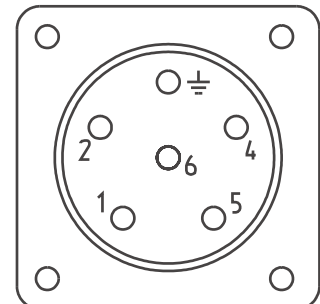
Encoder angular
connection



Power connector



Motor angular
connection



Drive selection

Technical data AC asynchronous motors (inverter-optimised)

Connection plan for inverter motor SDSGA□□056-22

Parameter setting for servo inverter 9321

Code	Setting		Meaning
	Y	Δ	
C0006	2	22	Servo asynchronous
C0025	RsX		Resolver
C0070	5		
C0071	150		ms
C0075	0.35		
C0076	1.80		ms
C0081	0.24		Pn (kW)
C0084	20.9		Rphase (ohm)
C0085	103		Xleakage (mH)
C0086	0		COMMON
C0087	2790		nn (rpm)
C0088	0.86	1.50	In (A)
C0089	100		fn (Hz)
C0090	390	230	Un (V)
C0091	0.70		cos phi

Connector for resolver and thermal contact

Pin no.	Connection name	Connection to:
1	+Ref	Resolver
2	-Ref	Resolver
3		
4	+cos	Resolver
5	-cos	Resolver
6	+sin	Resolver
7	-sin	Resolver
8		
9		
10		
11	+	KTY/thermal switch
12	-	KTY/thermal switch

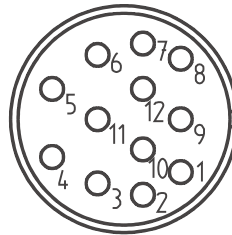
Connector for motor and brake

Pin no.	Connection name	Connection to:
1	Y1	Brake
2	Y2	Brake
PE	PE	Conductor
4	U	Motor phase
5	V	Motor phase
6	W	Motor phase

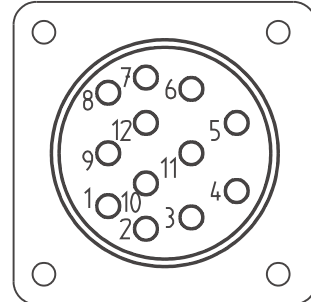
Connector for incremental encoder and thermal contact

Pin no.	Connection name	Connection to:
1	B	Track B
2	-A	Track A inv.
3	A	Track A
4	+UB	+5 V - +24 V
5	+0V	Grnd
6	-N	Track 0 inv.
7	N	Track 0
8		
9	-B	Track B inv.
10		
11	+	KTY/thermal switch
12	-	KTY/thermal switch

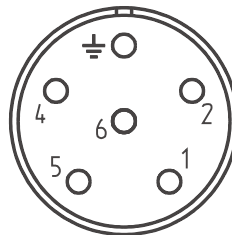
Encoder connector
for resolver/
Incremental encoder



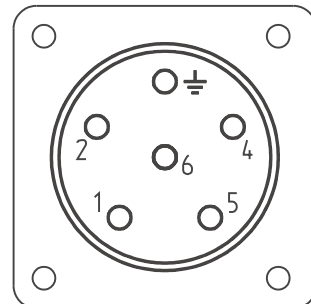
Encoder angular
connection



Power connector



Motor angular
connection





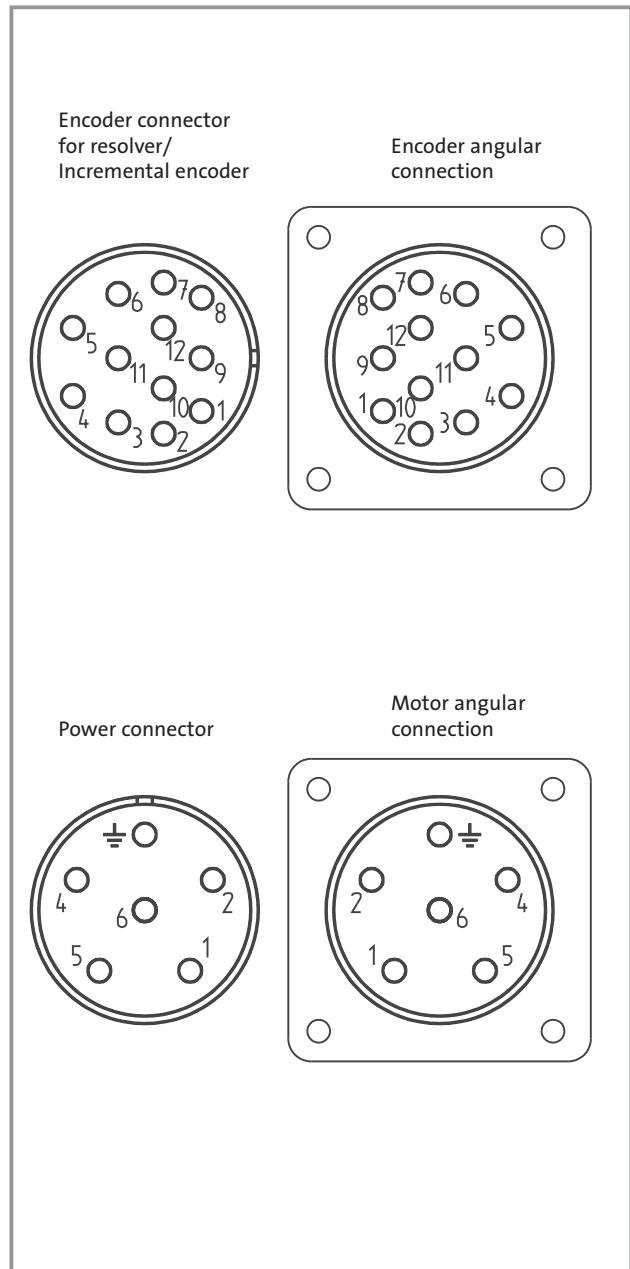
Connection plan for inverter motor SDSGA□□063-22

Parameter setting for servo inverter 9321			
Code	Setting		Meaning
	Y	Δ	
C0006	2	22	Servo asynchronous
C0025	RsX		Resolver
C0070	5		
C0071	150		ms
C0075	0.35		
C0076	1.80		ms
C0081	0.40		Pn (kW)
C0084	10		Rphase (ohm)
C0085	50		Xleakage (mH)
C0086	0		COMMON
C0087	2800		nn (rpm)
C0088	1.23	2.12	In (A)
C0089	100		fn (Hz)
C0090	390	230	Un (V)
C0091	0.70		cos phi

Connector for resolver and thermal contact		
Pin no.	Connection name	Connection to:
1	+Ref	Resolver
2	-Ref	Resolver
3		
4	+cos	Resolver
5	-cos	Resolver
6	+sin	Resolver
7	-sin	Resolver
8		
9		
10		
11	+	KTY/thermal switch
12	-	KTY/thermal switch

Connector for motor and brake		
Pin no.	Connection name	Connection to:
1	Y1	Brake
2	Y2	Brake
PE	PE	Conductor
4	U	Motor phase
5	V	Motor phase
6	W	Motor phase

Connector for incremental encoder and thermal contact		
Pin no.	Connection name	Connection to:
1	B	Track B
2	-A	Track A inv.
3	A	Track A
4	+UB	+5 V - +24 V
5	+0V	Grnd
6	-N	Track 0 inv.
7	N	Track 0
8		
9	-B	Track B inv.
10		
11	+	KTY/thermal switch
12	-	KTY/thermal switch



Drive selection

Technical data AC asynchronous motors (inverter-optimised)

Connection plan for inverter motor SDSGA0063-32

Parameter setting for servo inverter 9321

Code	Setting		Meaning
	Y	Δ	
C0006	2	22	Servo asynchronous
C0025	RsX		Resolver
C0070	5		
C0071	150		ms
C0075	0.35		
C0076	1.80		ms
C0081	0.60		Pn (kW)
C0084	8.5		Rphase (ohm)
C0085	26		Xleakage (mH)
C0086	0		COMMON
C0087	2825		nn (rpm)
C0088	1.74	3	In (A)
C0089	100		fn (Hz)
C0090	390	230	Un (V)
C0091	0.70		cos phi

Connector for resolver and thermal contact

Pin no.	Connection name	Connection to:
1	+Ref	Resolver
2	-Ref	Resolver
3		
4	+cos	Resolver
5	-cos	Resolver
6	+sin	Resolver
7	-sin	Resolver
8		
9		
10		
11	+	KTY/thermal switch
12	-	KTY/thermal switch

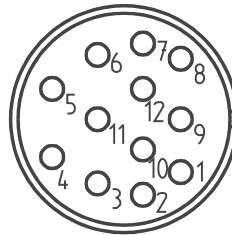
Connector for motor and brake

Pin no.	Connection name	Connection to:
1	Y1	Brake
2	Y2	Brake
PE	PE	Conductor
4	U	Motor phase
5	V	Motor phase
6	W	Motor phase

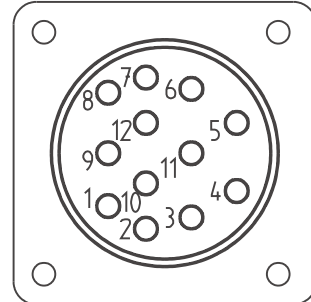
Connector for incremental encoder and thermal contact

Pin no.	Connection name	Connection to:
1	B	Track B
2	-A	Track A inv.
3	A	Track A
4	+UB	+5 V - +24 V
5	+0V	Grnd
6	-N	Track 0 inv.
7	N	Track 0
8		
9	-B	Track B inv.
10		
11	+	KTY/thermal switch
12	-	KTY/thermal switch

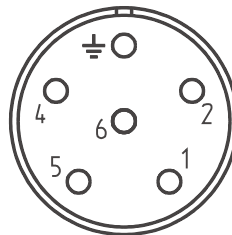
Encoder connector
for resolver/
Incremental encoder



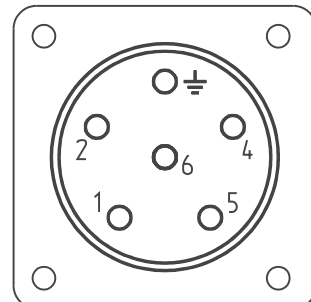
Encoder angular
connection



Power connector



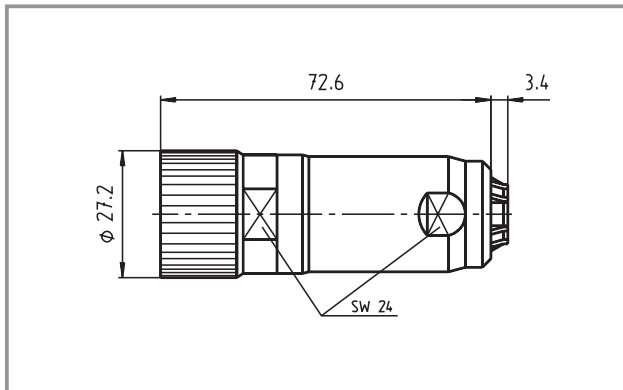
Motor angular
connection



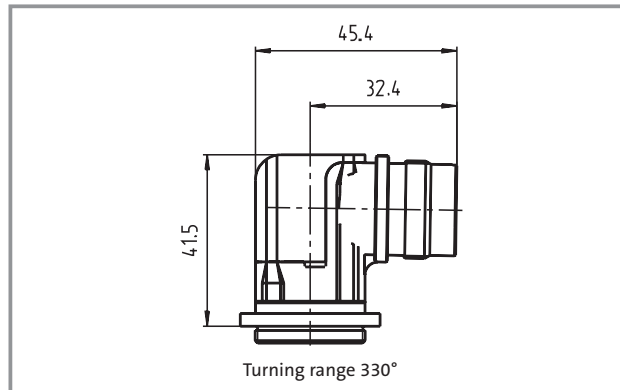


Dimensions of male and female connectors

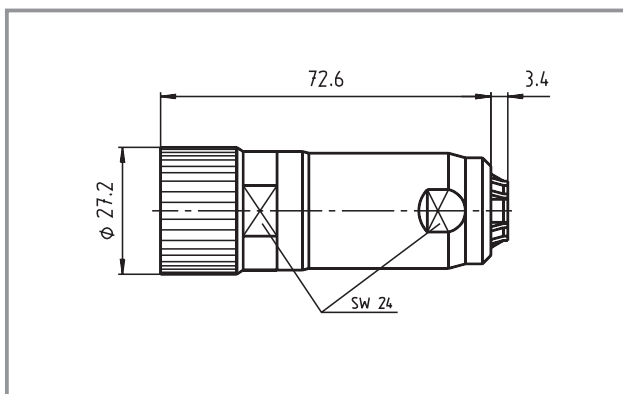
Power connector SDSGA□□047
SDSGA□□056
SDSGA□□063



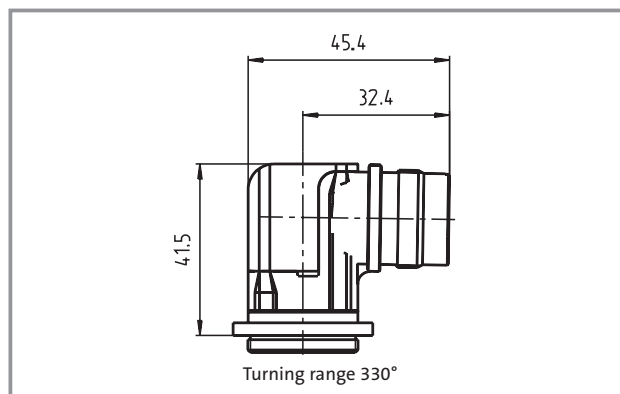
Motor angular connection SDSGA□□047
SDSGA□□063
SDSGA□□056



Encoder connector (resolver/incremental encoder)



Encoder angular connection

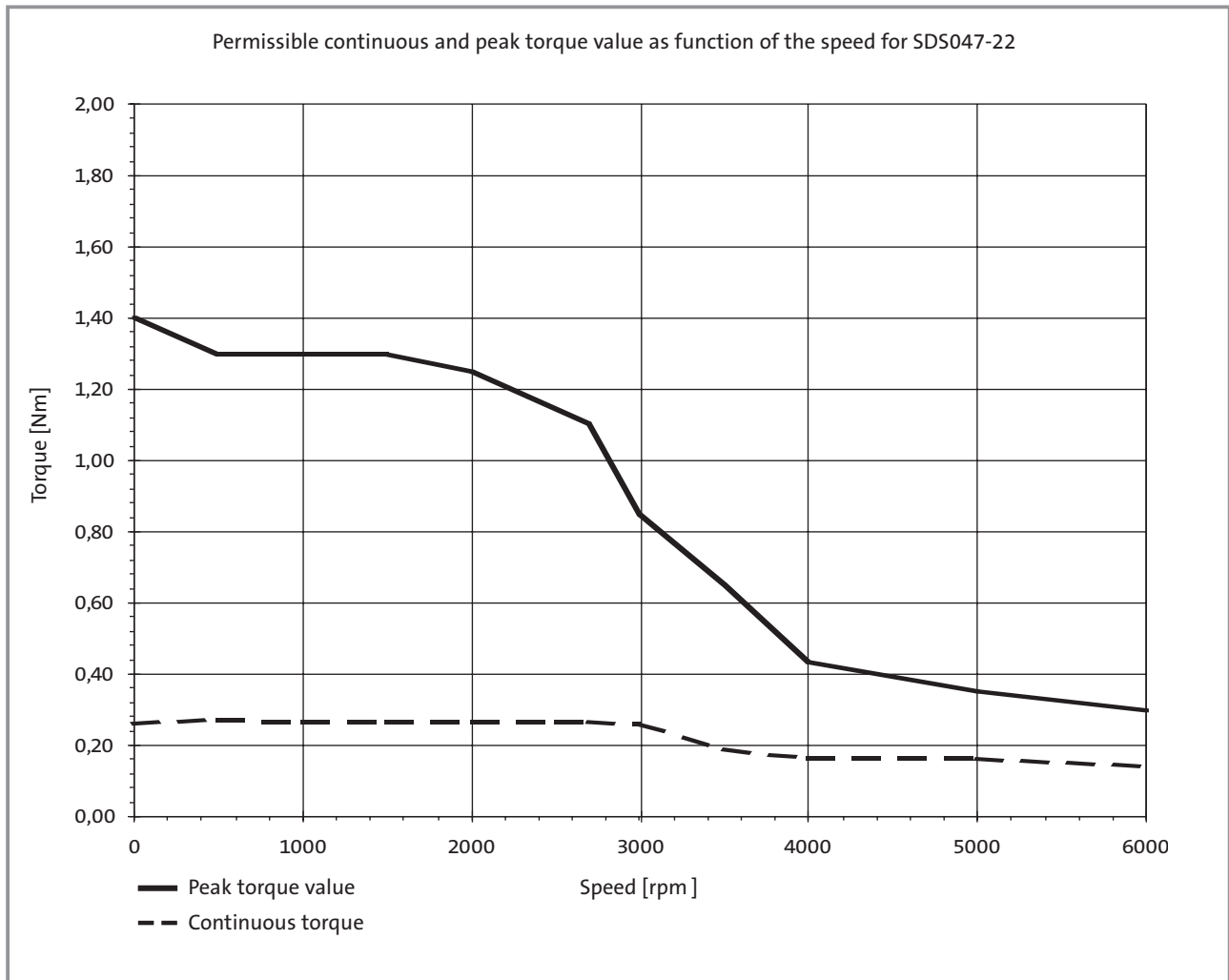




Drive selection

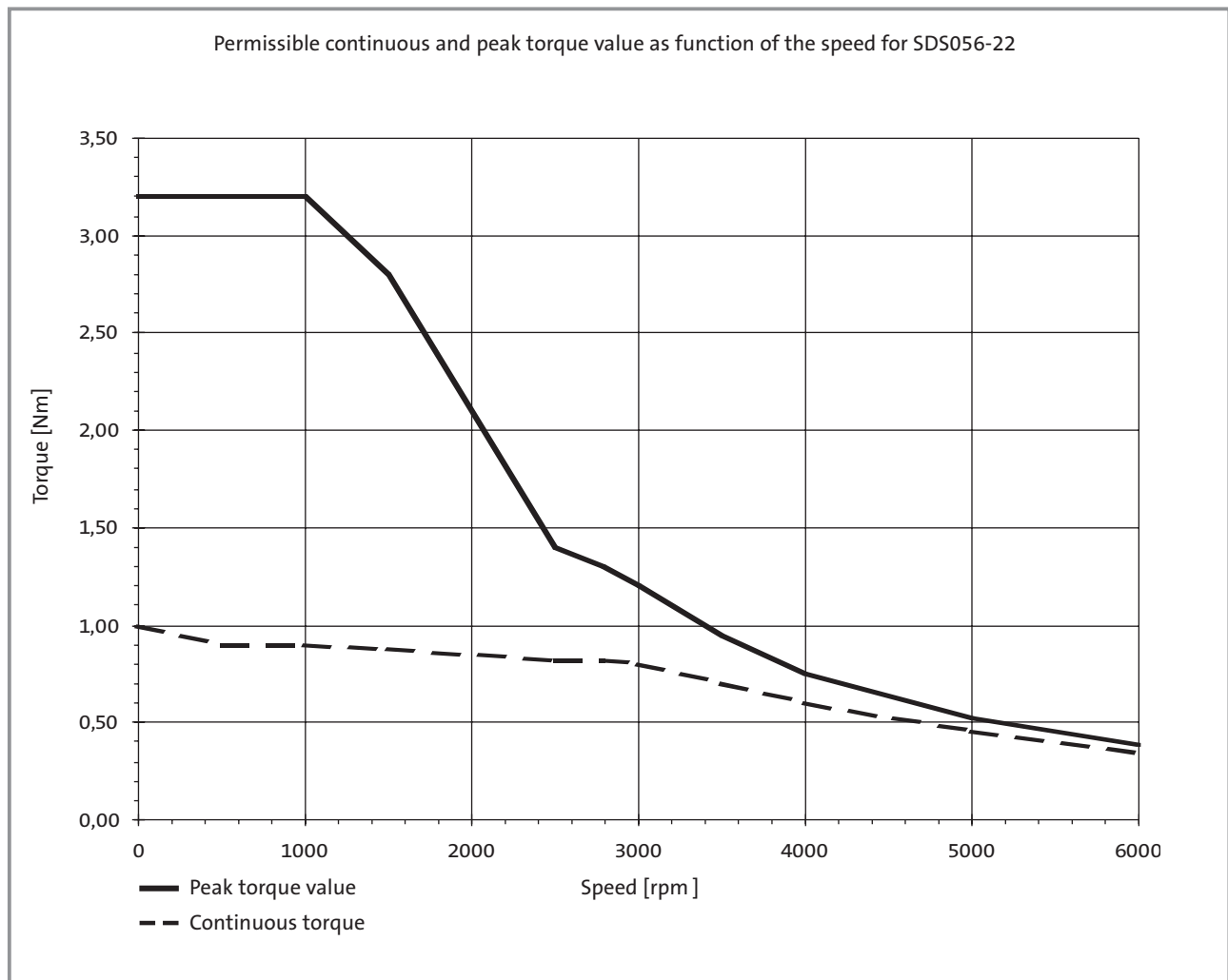
Technical data AC asynchronous motors (inverter-optimised)

Characteristics SDSGA□□047





Characteristics SDSGA□□056-22

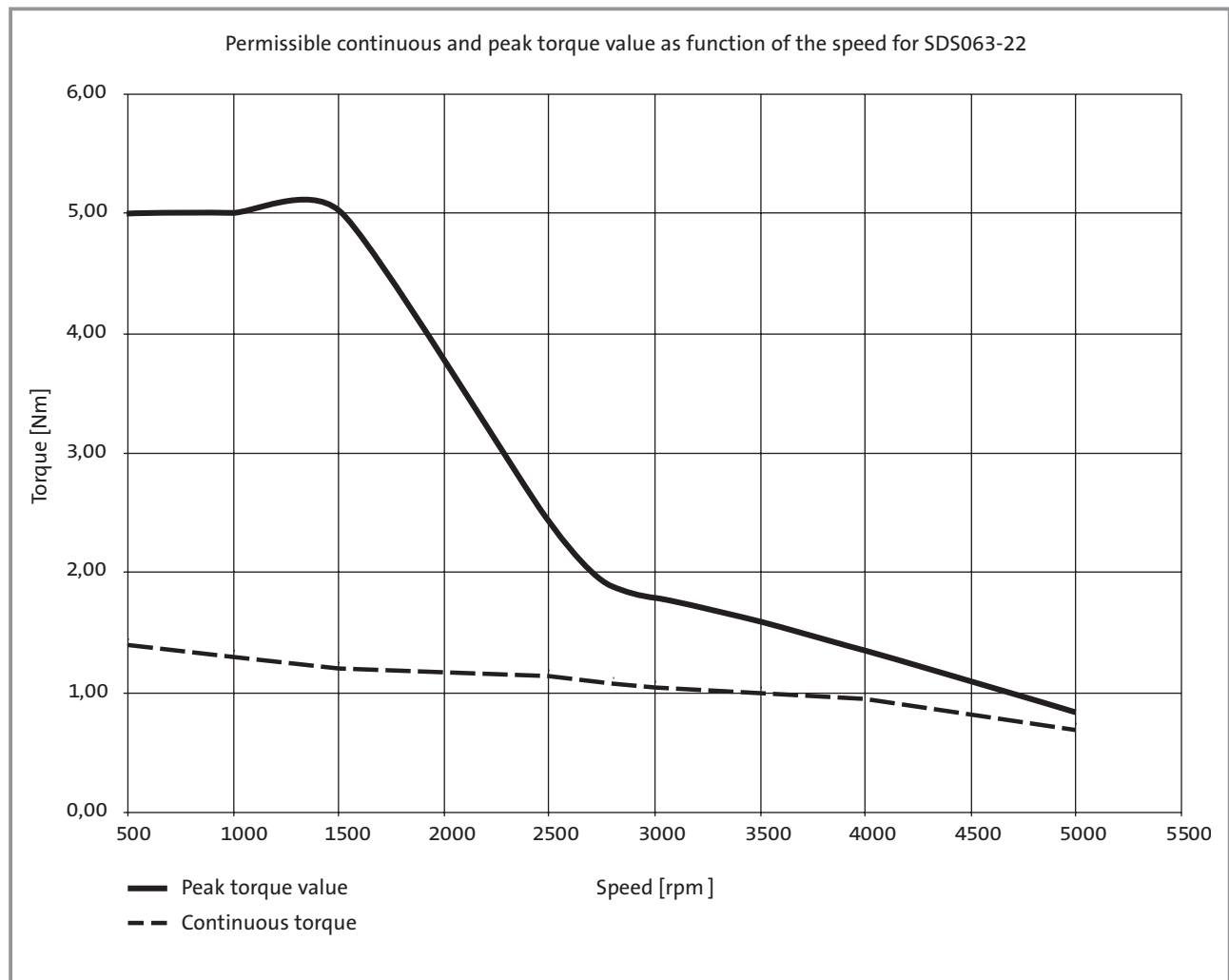




Drive selection

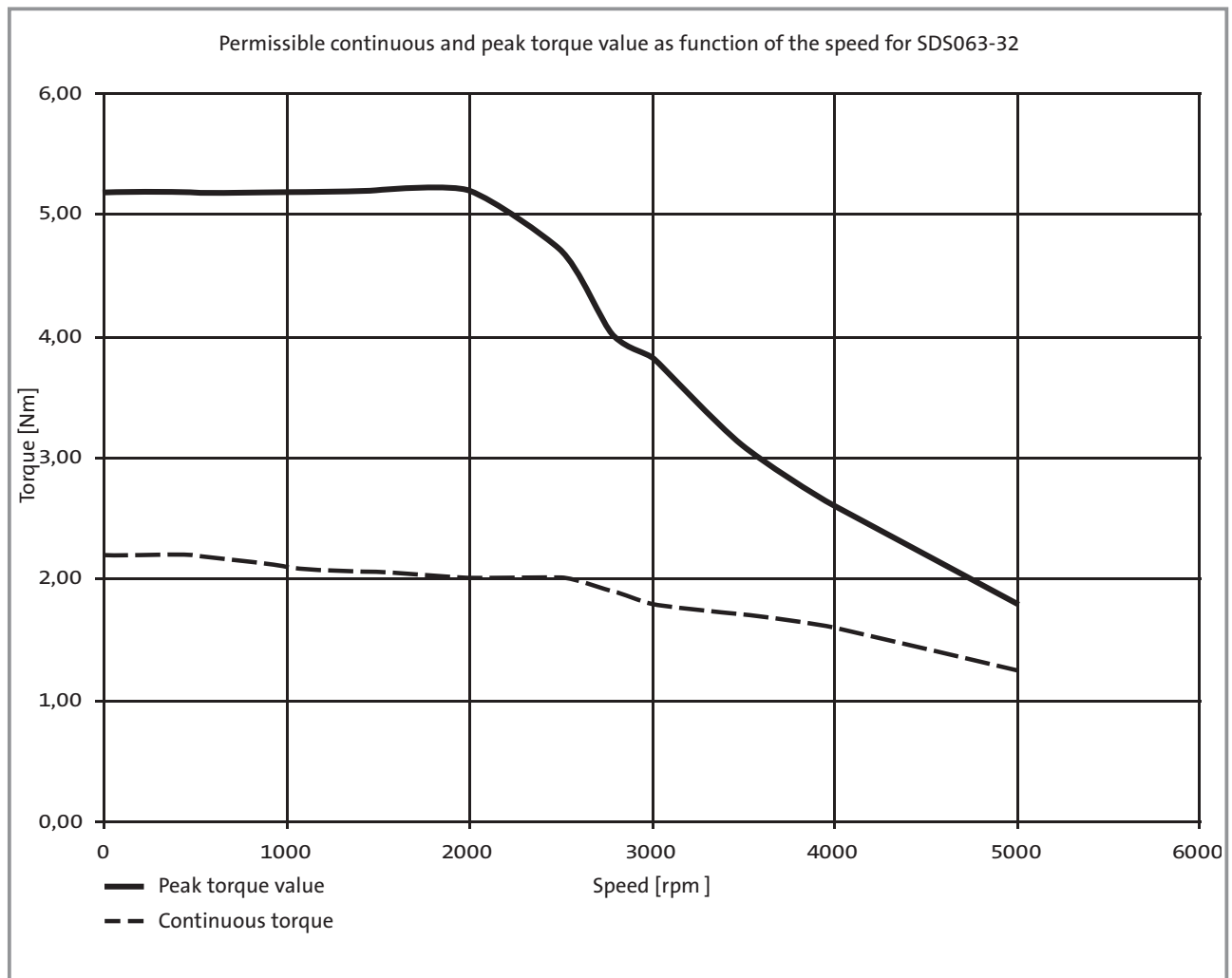
Technical data AC asynchronous motors (inverter-optimised)

Characteristics SDSGA□□063-22





Characteristics SDSGA□□063-32





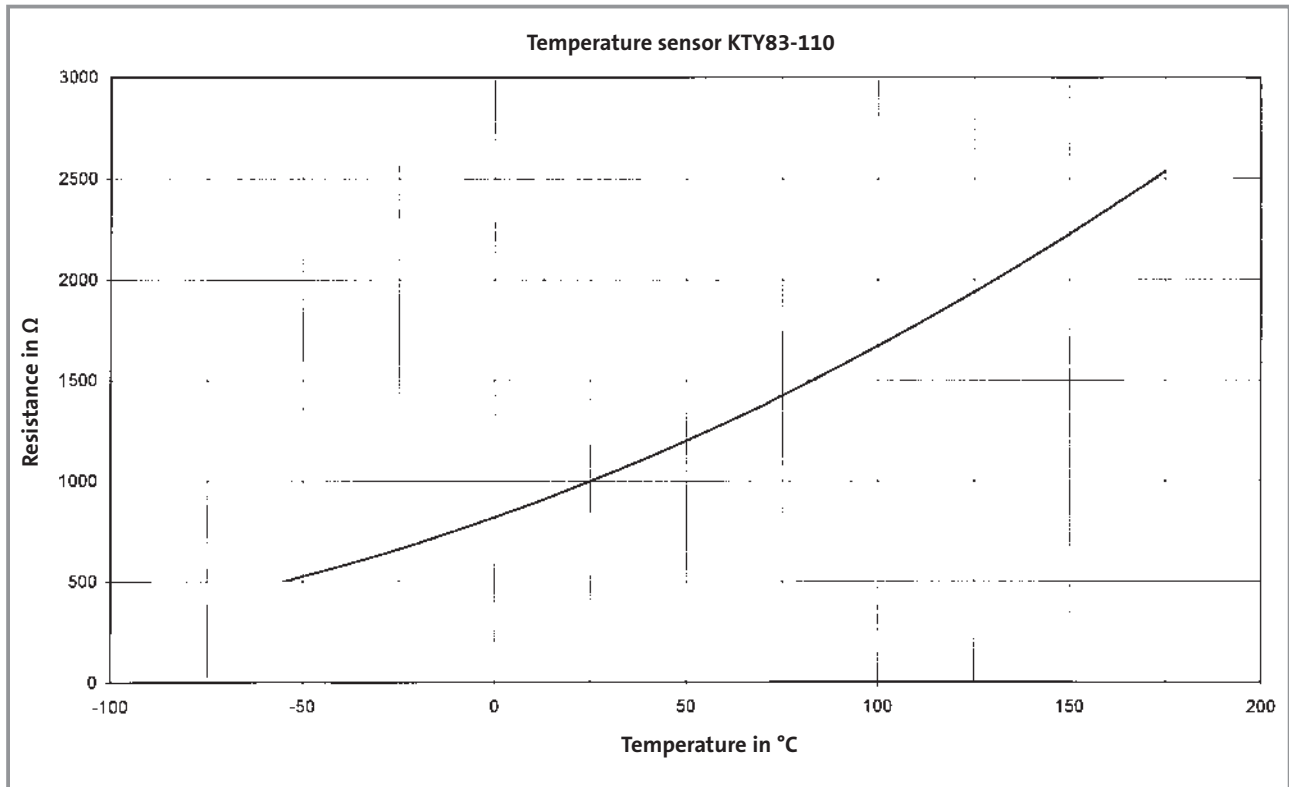
Drive selection

Technical data AC asynchronous motors (inverter-optimised)

Temperature encoder KTY 83-110 (integrated temperature detector)

The motor temperature is monitored continuously using the KTY temperature detector, although this does not offer full protection.

The feedback to the servo inverter 9300 is carried out using the feedback system cable. When the encoder is fed with a measuring current of 1 mA, the relationship between temperature and resistance will be as follows:



Thermostat – NC contact (TKÖ)

As an alternative to the continuous sensor KTY, a temperature contact can also be used to monitor the windings of motor series SDSGA.

Technical data

	AC connection	DC connection		
Operating temperature	150 °C ± 5 °C			
Reset temperature	90...135 °C			
Supply voltage	250 V ≈	60 V	48 V	24 V
Rated current [A]	2.5 A	1.0 A	1.25 A	1.6 A





Drive selection

AC asynchronous motor (inverter-optimised)

Selection table Type SDSGA□□0□□-□□

Motor type	P _N W	100 Hz		Design A-side	Selection (tick as required)
		n ₂ rpm	M ₂ Nm		
SDSGA□□047-22	75	2700	0.27	IEC56 B14 C80	
SDSGA□□056-22	240	2790	0.81	IEC63 B14 C90	
SDSGA□□063-22	400	2800	1.35	IEC71 B14 C105	
SDSGA□□063-32	600	2825	1.90	IEC71 B14 C105	

Additional order information

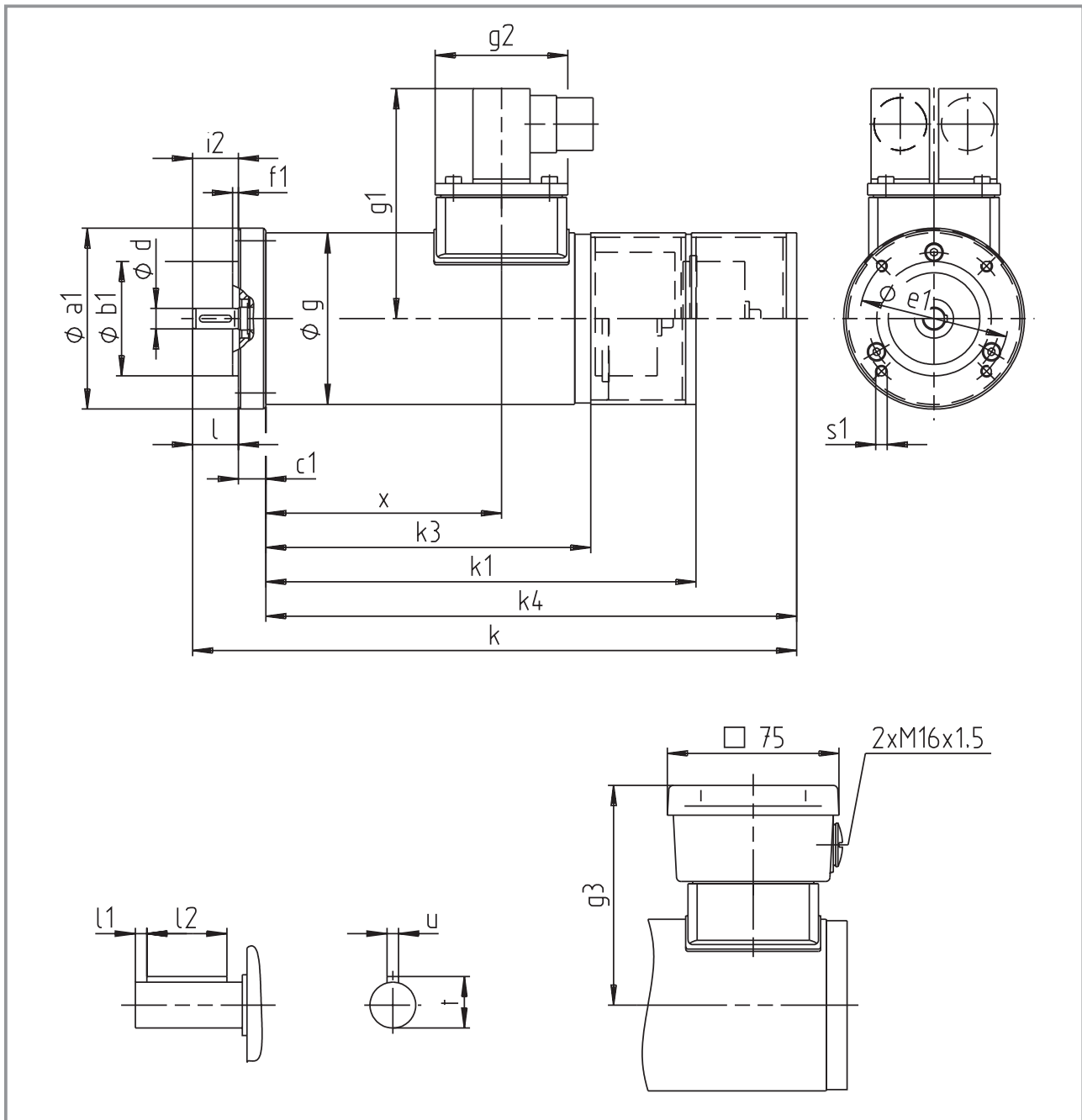
Rated voltage	230 V	connector version and motor frame size 047 only	
	390 V	connector version and motor frame size 056-063 only	
	230/400 V	terminal box version only	
Enclosure	IP54		
	IP55		
Motor protection	KTY	connector version only	
	Thermal contact 'NC contact'	terminal box version only	
Electrical connection	Terminal box		
	Connector		
B-side design	XX=no built-on accessories	terminal box version only	
	RS=with resolver	connector version only	
	BR=with spring-applied brake	terminal box version only	
	RS=with incremental encoder	connector version only	
	BS=with spring-applied brake and resolver	connector version only	
	BI=with spring-applied brake and incremental encoder	connector version only	
	BV=for brake attachment	terminal box version only	
Brake supply voltage	24 V DC		
	230 V AC with bridge rectifier	terminal box version only	
Position of electrical connection			2

Type code see pages 1-3 to 1-6.

Mounting position see cover fold-out.



Dimensions Type SDSGA□□0□□-□2



Motor type	Frame size	a_1	b_1 j_7	c_1	d k_6	e_1	f_1	g	g_1	g_2	g_3	i_2	k	k_1	k_3	k_4	l	l_1	l_2	s_1	t	u	x	Weight approx. kg
SDSGA□□047-22	IEC56C80	79	50	12	9	65	2.5	75	101	58	96	20	264	188	144	232	20	3	14	M5	10.2	3	103	3.0-4.0
SDSGA□□056-22	IEC63C90	89	60	12	11	75	2.5	85	106	58	101	23	274	195	151	239	23	3	18	M5	12.5	4	108	4.0-5.5
SDSGA□□063-22	IEC71C105	104	70	12	14	85	2.5	95	111	58	106	30	293	202	156	251	30	2.5	25	M6	16	5	118	5.3-6.7
SDSGA□□063-32	IEC71C105	104	70	12	14	85	2.5	95	111	58	106	30	333	242	196	291	30	2.5	25	M6	16	5	158	6.8-8.2

Dimensions in mm

Drive selection

AC asynchronous motor (inverter-optimised)

Selection table Type SDSGA□□0□□-□2

Motor type	P _N	100 Hz		Design A-side for gearbox attachment	Selection (tick as required)
	W	n ₂ rpm	M ₂ Nm		
SDSGA□□047-22	75	2700	0.27	B14 for SSN31	
				B14 for SPL42	
SDSGA□□056-22	240	2790	0.81	B14 for SSN40	
SDSGA□□063-22	400	2800	1.35	B14 for SSN40	
SDSGA□□063-32	600	2825	1.90	B14 for SSN40	

Additional order information

Rated voltage	230 V	connector version and motor frame size 047 only	
	390 V	connector version and motor frame size 056-063 only	
	230/400 V	terminal box version only	
Enclosure	IP54		
	IP55		
Motor protection	KTY	connector version only	
	Thermal contact 'NC contact'	terminal box version only	
Electrical connection	Terminal box		
	Connector		
B-side design	XX=no built-on accessories	terminal box version only	
	RS=with resolver	connector version only	
	BR=with spring-applied brake	terminal box version only	
	RS=with incremental encoder	connector version only	
	BS=with spring-applied brake and resolver	connector version only	
	BI=with spring-applied brake and incremental encoder	connector version only	
	BV=for brake attachment	terminal box version only	
Brake supply voltage	24 V DC		
	230 V AC with bridge rectifier	terminal box version only	
Position of electrical connection			2

Type code see pages 1-3 to 1-6.

Mounting position see cover fold-out.



Drive selection

AC worm geared motors (inverter-optimised)

Selection table Type SSN31-1G□□□-047C22

Motor type	P _N W	100 Hz			i	Selection (tick as required)
		n ₂ rpm	M ₂ Nm	c		
SDSGA□□047-22	75	540	1.05	12.20	5	
		386	1.57	8.92	7	
		270	2.08	6.73	10	
		180	3.00	5.34	15	
		135	3.73	4.03	20	
		108	4.02	3.40	25	
		90	4.78	3.04	30	
		71	5.85	2.74	38	
		54	6.21	2.09	50	
		49	7.72	1.94	55	
		36	7.29	1.51	75	
		27	10.26	1.07	100	

Additional order information

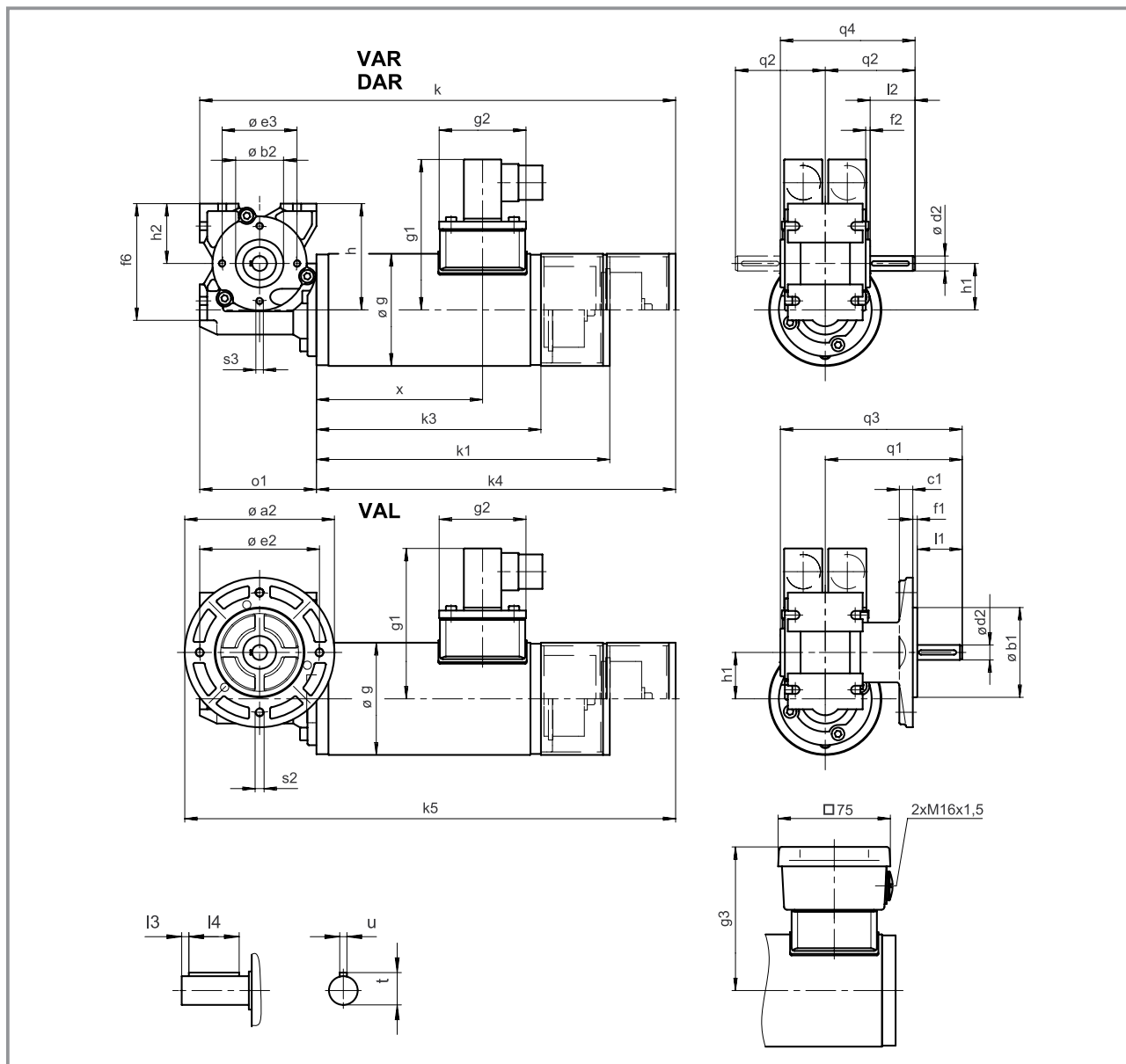
Rated voltage	230 V	connector version only	
	230/400 V	terminal box version only	
Enclosure	IP54		
	IP55		
Temperature monitoring	KTY	connector version only	
	Thermal contact 'NC contact'	terminal box version only	
Electrical connection	Connector		
	Terminal box		
B-side design	XX=no built-on accessories	terminal box version only	
	RS=with resolver	connector version only	
	BR=with spring-applied brake	terminal box version only	
	IG = Incremental encoder	connector version only	
	BS=with spring-applied brake and resolver	connector version only	
	BI=with spring-applied brake and incremental encoder	connector version only	
	BV=for brake attachment	terminal box version only	
Brake supply voltage	24 V DC		
	230 V AC with bridge rectifier	terminal box version only	
Gearbox type	VAR	Shaft D10x30mm	
		Shaft D12x40mm	
	DAR	Shaft D10x30mm	
		Shaft D12x40mm	
	VAL	Shaft D10x30mm Flange D100mm	
		Shaft D12x40mm Flange D120mm	
	HAR		
Shaft position on type VAR			3 5
Flange/shaft position on type VAL			3 5
Mounting position			A B C D E F
Position of electrical connection			2 3 4 5

Type code see pages 1-3 to 1-6.

Mounting position see cover fold-out.



Dimensions Type SSN31-1GVA□-047C22



Geared motor	a ₂	b ₁ j7	b ₂ h8	c ₁	d ₂ h6	e ₂	e ₃	f ₁	f ₂	f ₆	g	g ₁	g ₂	g ₃	h	h ₁	h ₂
SSN31-1GVA□-047C22	100	60	32	9	10	80	50	3	3	78	75	101	58	96	71	31	40
	120	80	32	9	12	100	50	3	3	78	75	101	58	96	71	31	40

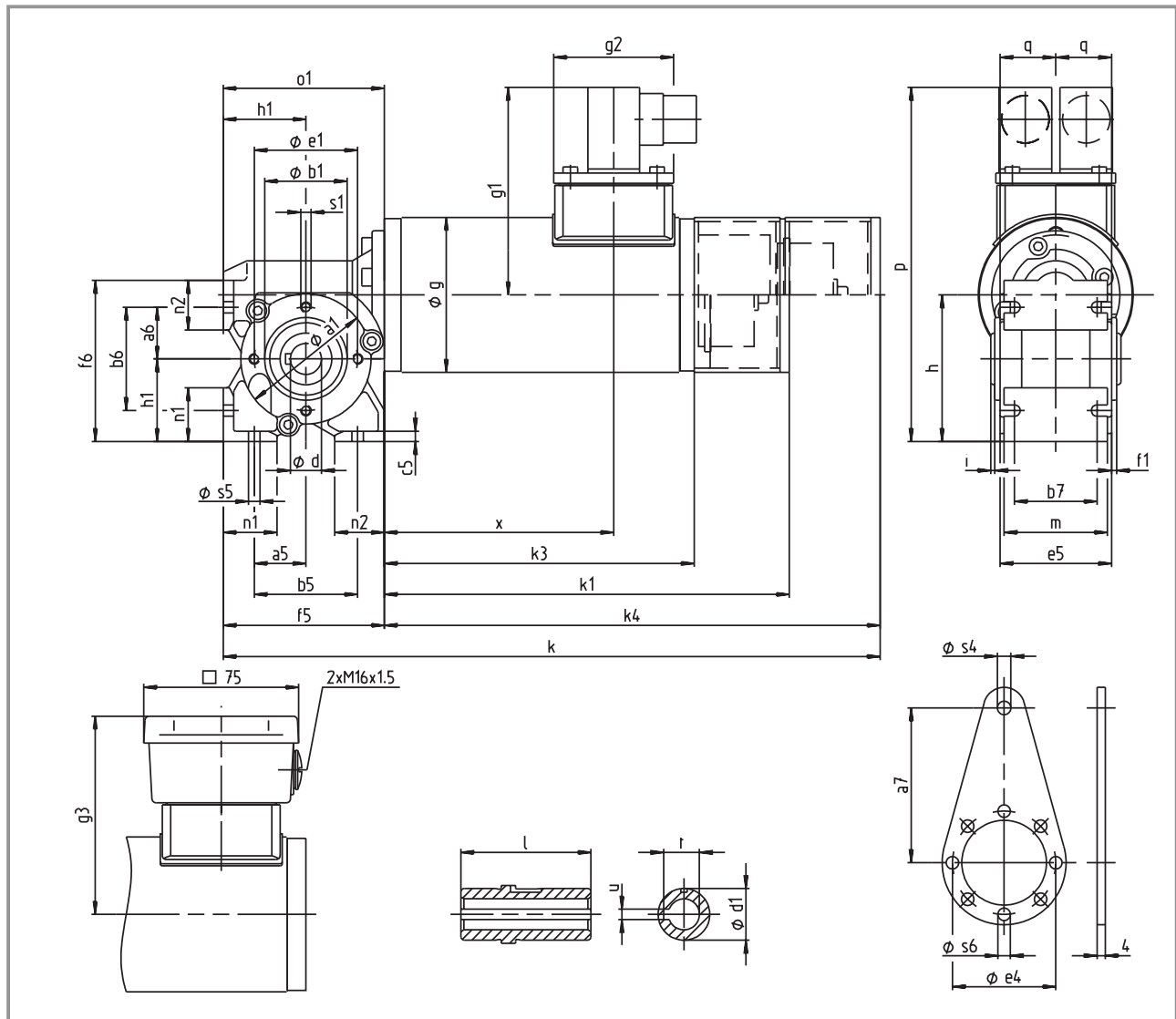
Geared motor	k	k ₁	k ₃	k ₄	k ₅	l ₁	l ₂	l ₃	l ₄	o ₁	q ₁	q ₂	q ₃	q ₄	s ₂	s ₃	t	u	x	Weight approx. kg
SSN31-1GVA□-047C22	318	196	152	240	328	30	30	4	25	78	91.5	60	121.5	90	M6	M5	11.2	3	111	3.7-4.7
	318	196	152	240	338	40	40	4	28	78	101.5	70	131.5	100	M6	M5	13.5	4	111	3.8-4.8

Dimensions in mm

Drive selection

AC worm geared motors (inverter-optimised)

Dimensions Type SSN31-1GHAR-047C22



Gear motor	a ₁	a ₅	a ₆	a ₇	b ₁ h8	b ₅	b ₆	b ₇	c ₅	d h7	d ₁	e ₁	e ₄	e ₅	f ₁	f ₅	f ₆	g	g ₁	g ₂	g ₃	h	h ₁
SSN31-1GHAR-047C22	63	25	25	75	40	50	50	40	5	15	25	50	50	54	2.5	78	78	75	101	58	96	71	40

Gear motor	i	k	k ₁	k ₃	k ₄	l	m	n ₁	n ₂	o ₁	p	q	s ₁	s ₄	s ₅	s ₆	t	u	x	Weight approx. kg
SSN31-1GHAR-047C22	2	318	196	152	240	63	50	26	24	78	172	27	M5	6.5	5.5	6	17.3	5	111	3.7-4.7

Dimensions in mm



Drive selection

AC worm geared motors (inverter-optimised)

Selection table Type SSN40-1G□□□-056C22

Motor type	P _N W	100 Hz			i	Selection (tick as required)
		n ₂ rpm	M ₂ Nm	c		
SDSGA□□056-22	240	413	4.60	7.62	6.75	
		279	6.50	5.33	10	
		186	8.90	3.67	15	
		139	11.50	2.96	20	
		111	12.90	2.24	25	
		93	15.00	2.39	30	
		69	18.00	1.87	40	
		56	21.80	1.46	50	
		47	18.40	1.25	60	
		35	24.00	0.95	80	

Additional order information

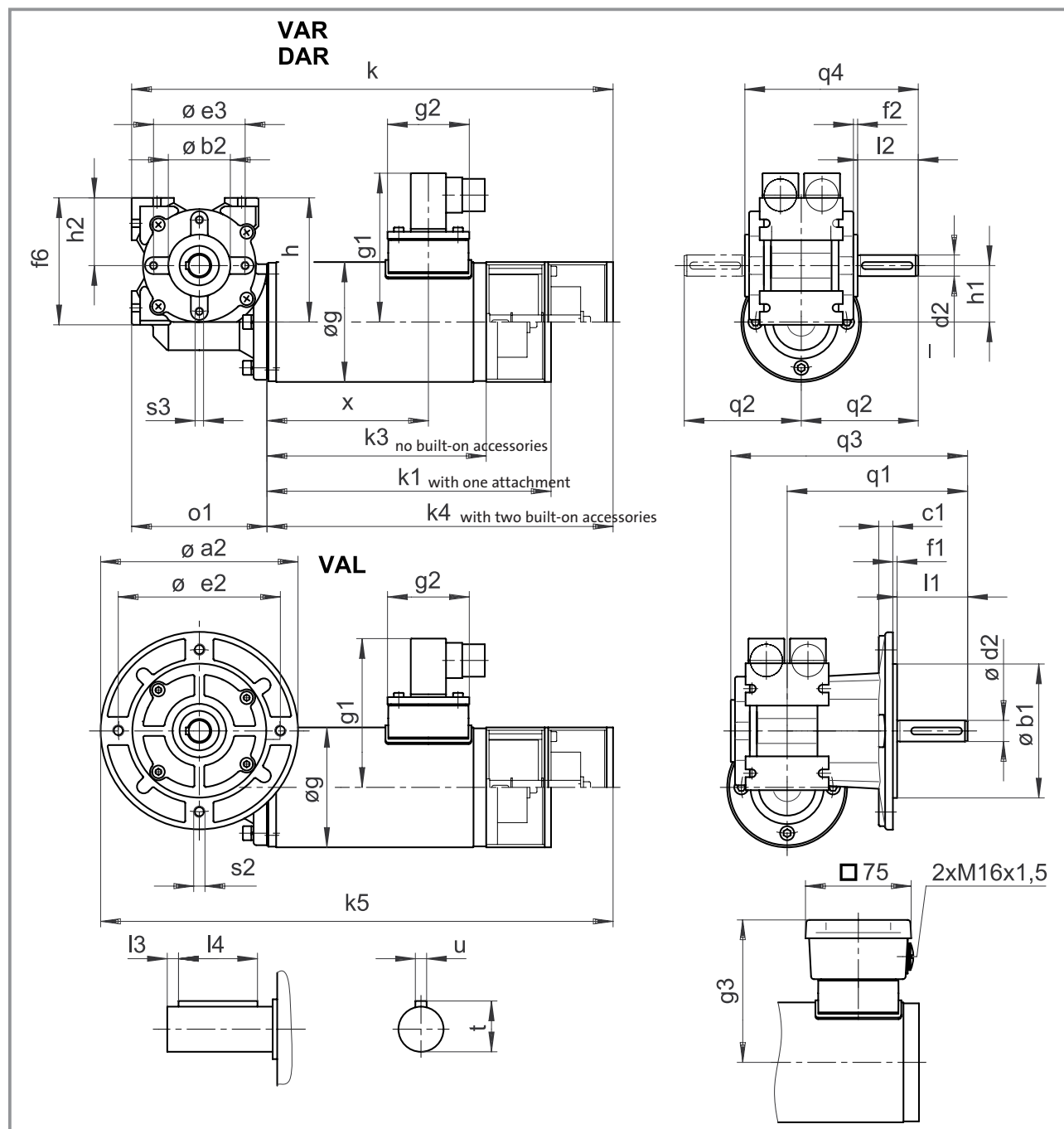
Rated voltage	390 V	connector version only	
	230/400 V	terminal box version only	
Enclosure	IP54		
	IP55		
Motor protection	KTY	connector version only	
	Thermal contact only with terminal box version		
Electrical connection	Connector		
	Terminal box		
B-side design	XX=no built-on accessories	terminal box version only	
	RS=with resolver	connector version only	
	BR=with spring-applied brake	terminal box version only	
	RS=with incremental encoder	connector version only	
	BS=with spring-applied brake and resolver	connector version only	
	BI=with spring-applied brake and incremental encoder	connector version only	
	BV=for brake attachment	terminal box version only	
Brake supply voltage	24 V DC		
	230 V AC with bridge rectifier	terminal box version only	
Gearbox type	VAR		
	DAR		
	VAL		
	HAR		
Shaft position on type VAR			3 5
Flange/shaft position on type VAL			3 5
Mounting position			A B C D E F
Position of electrical connection			2 3 4 5

Type code see pages 1-3 to 1-6.

Mounting position see cover fold-out.



Dimensions Type SSN40-1GVA□-056C22



Geared motor	a_2	b_1 j_7	b_2 h_{10}	c_1	d_2 h_6	e_2	e_3	f_1	f_2	f_6	g	g_1	g_2	g_3	h	h_1	h_2
SSN40-1GVA□-056C22	140	95	44	10	15	115	65	3	3	90	85	106	58	101	88	40	48

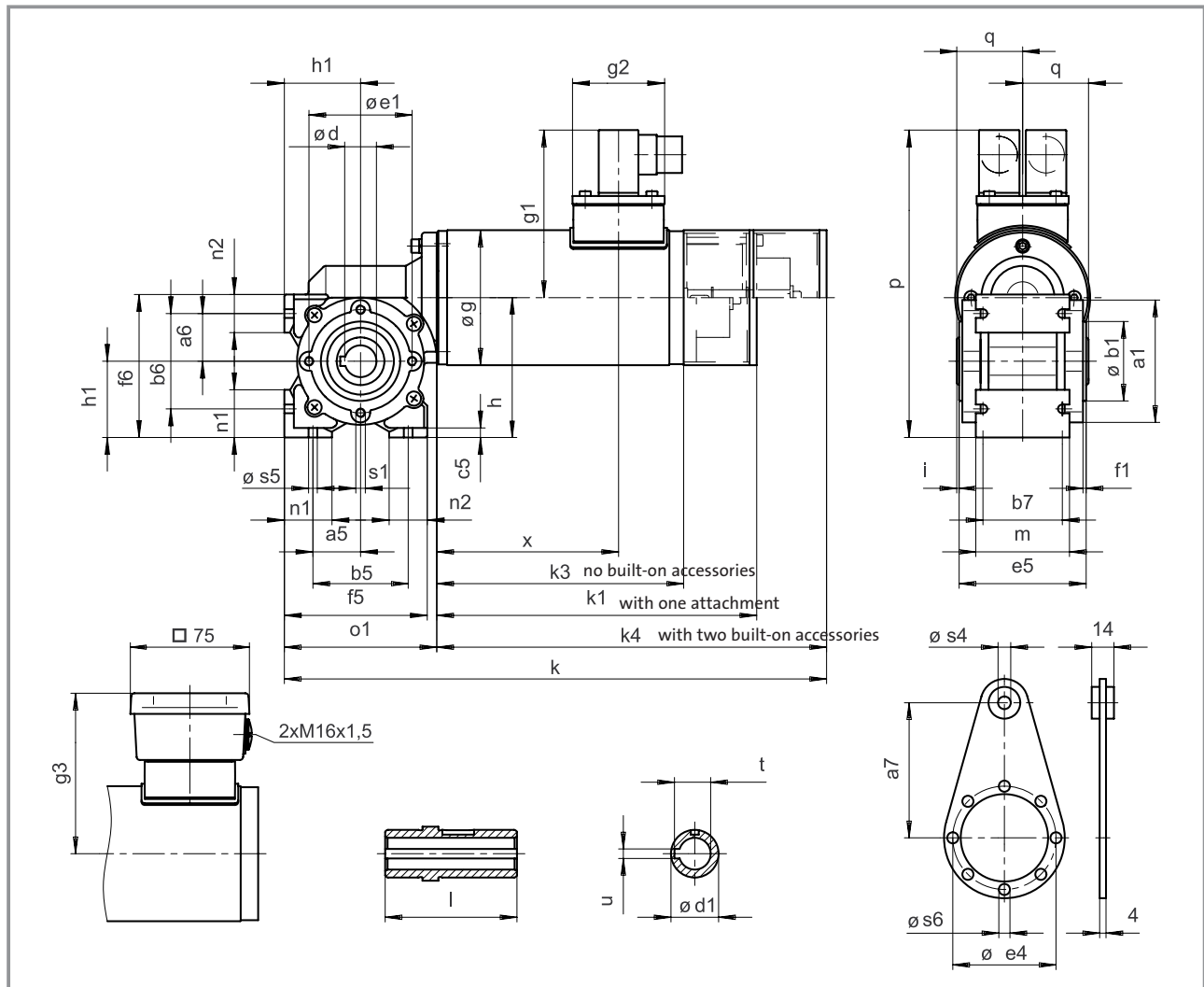
Geared motor	k	k_1	k_3	k_4	k_5	l_1	l_2	l_3	l_4	$\varnothing_1$	q_1	q_2	q_3	q_4	s_2	s_3	t	u	x	Weight approx. kg
SSN40-1GVA□-056C22	342	202	158	246	364	50	43	4	36	96	128	83	168	123	M8	M6	17	5	115	5.5-7.0

Dimensions in mm

Drive selection

AC worm geared motors (inverter-optimised)

Dimensions Type SSN40-1GHAR-056C22



Geared motor	a ₁	a ₅	a ₆	a ₇	b ₁ h ₈	b ₅	b ₆	b ₇	c ₅	d H7	d ₁	e ₁	e ₄	e ₅	f ₁	f ₅	f ₆	g	g ₁	g ₂	g ₃	h
SSN40-1GHAR-056C22	77	30	30	85	50	60	60	50	6	20	30	65	65	80	2	90	90	85	106	58	101	88

Geared motor	h ₁	i	k	k ₁	k ₃	k ₄	l	m	n ₁	n ₂	o ₁	p	q	s ₁	s ₄	s ₅	s ₆	t	u	x	Weight approx. kg
SSN40-1GHAR-056C22	48	1.5	342	202	158	246	83	59	30	24	96	194	41.5	M6	8	5.5	7	22.8	6	115	5.5-6.5

Dimensions in mm





Drive selection

AC worm geared motors (inverter-optimised)

Selection table Type SSN40-1G□□□-063C22

Motor type	P _N W	100 Hz			i	Selection (tick as required)
		n ₂ rpm	M ₂ Nm	c		
SDSGA□□063-22	400	413	7.65	4.57	6.75	
		279	10.93	3.20	10	
		186	14.98	2.20	15	
		139	19.07	1.77	20	
		111	21.60	1.34	25	
		93	25.01	1.43	30	
		69	30.24	1.02	40	
		56	32.00	0.88	50	
		47	23.00	0.75	60	
		35	24.00	0.57	80	

Additional order information

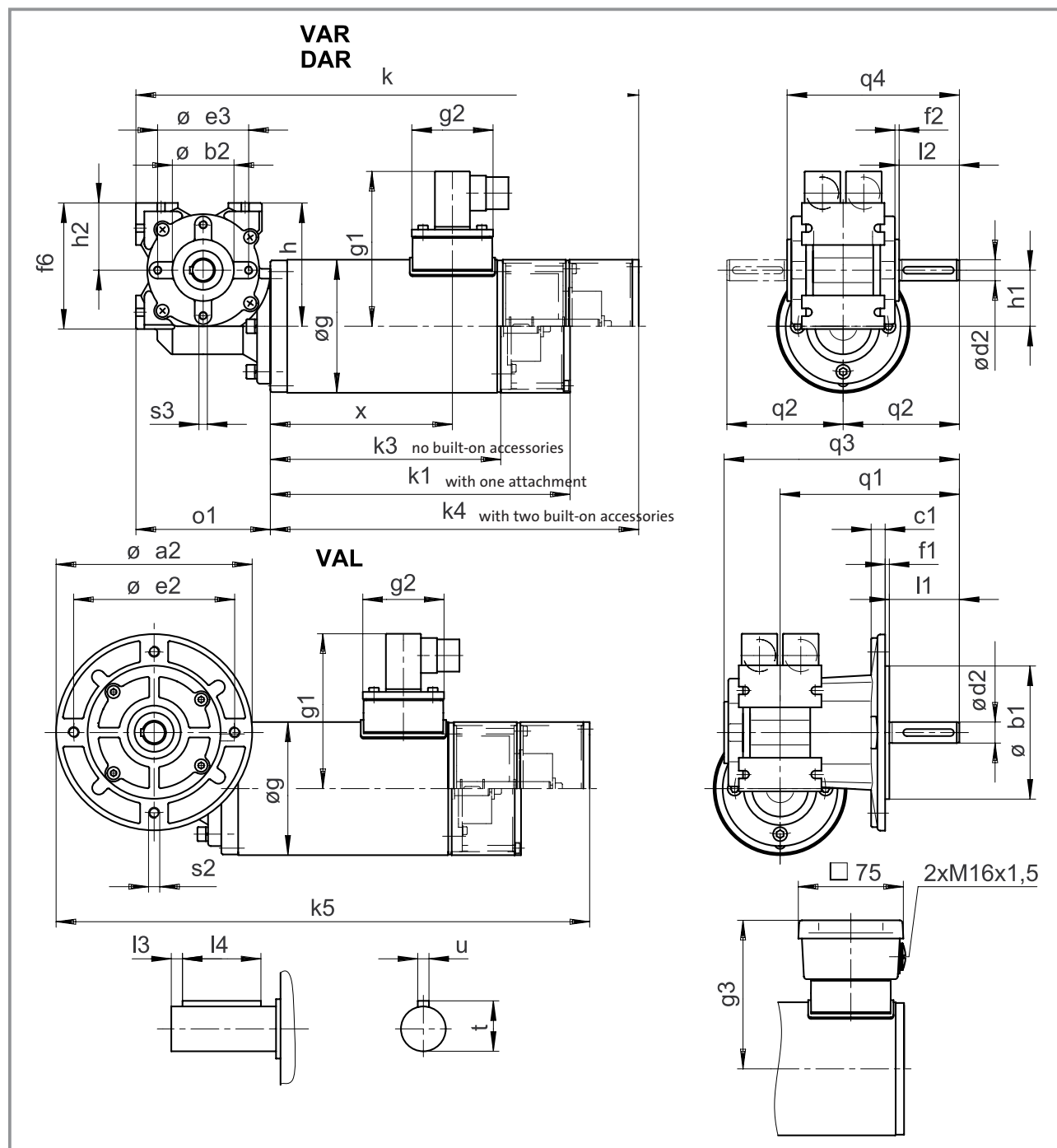
Rated voltage	390 V	connector version only	
	230/400 V	terminal box version only	
Enclosure	IP54		
	IP55		
Motor protection	KTY	connector version only	
	Thermal contact only with terminal box version		
Electrical connection	Connector		
	Terminal box		
B-side design	XX=no built-on accessories	terminal box version only	
	RS=with resolver	connector version only	
	BR=with spring-applied brake	terminal box version only	
	RS=with incremental encoder	connector version only	
	BS=with spring-applied brake and resolver	connector version only	
	BI=with spring-applied brake and incremental encoder	connector version only	
	BV=for brake attachment	terminal box version only	
Brake supply voltage	24 V DC		
	230 V AC with bridge rectifier	terminal box version only	
Gearbox type	VAR		
	DAR		
	VAL		
	HAR		
Shaft position on type VAR			3 5
Flange/shaft position on type VAL			3 5
Mounting position			A B C D E F
Position of electrical connection			2 3 4 5

Type code see pages 1-3 to 1-6.

Mounting position see cover fold-out.



Dimensions Type SSN40-1GVA□-063C22



Geared motor	a_2	b_1 j_7	b_2 h_{10}	c_1	d_2 h_6	e_2	e_3	f_1	f_2	f_6	g	g_1	g_2	g_3	h	h_1	h_2
SSN40-1GVA□-063C22	140	95	44	10	15	115	65	3	3	90	95	111	58	106	88	40	48

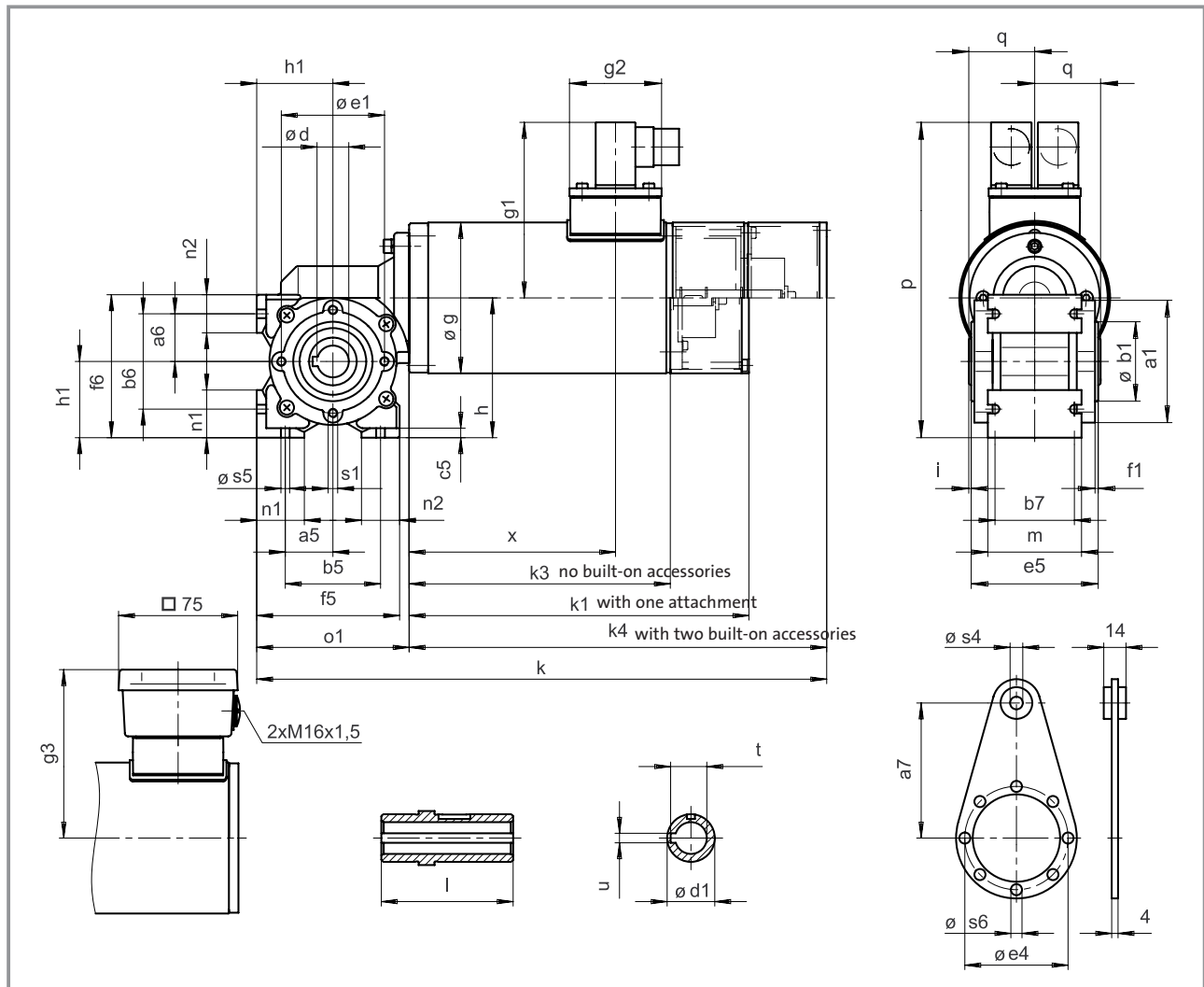
Geared motor	k	k_1	k_3	k_4	k_5	l_1	l_2	l_3	l_4	o_1	q_1	q_2	q_3	q_4	s_2	s_3	t	u	x	Weight approx. kg
SSN40-1GVA□-063C22	359	214	168	263	381	50	43	4	36	96	128	83	168	123	M8	M6	17	5	170	7.0-8.5

Dimensions in mm

Drive selection

AC worm geared motors (inverter-optimised)

Dimensions Type SSN40-1GHAR-063C22



Geared motor	a ₁	a ₅	a ₆	a ₇	b ₁ h ₈	b ₅	b ₆	b ₇	c ₅	d H ₇	d ₁	e ₁	e ₄	e ₅	f ₁	f ₅	f ₆	g	g ₁	g ₂	g ₃	h
SSN40-1GHAR-063C22	77	30	30	85	50	60	60	50	6	20	30	65	65	80	2	90	90	95	111	58	106	88

Geared motor	h ₁	i	k	k ₁	k ₃	k ₄	l	m	n ₁	n ₂	o ₁	p	q	s ₁	s ₄	s ₅	s ₆	t	u	x	Weight approx. kg
SSN40-1GHAR-063C22	48	1.5	359	214	168	263	83	59	30	24	96	199	41.5	M6	8	5.5	7	22.8	6	130	7.0-8.0

Dimensions in mm



Drive selection

AC worm geared motors (inverter-optimised)

Selection table Type SSN40-1G□□□-063C32

Motor type	P _N W	100 Hz			i	Selection (tick as required)
		n ₂ rpm	M ₂ Nm	c		
SDSGA□□063-32	600	413	10.80	3.25	6.75	
		279	15.40	2.27	10	
		186	21.00	1.56	15	
		139	27.00	1.26	20	
		111	29.00	0.95	25	
		93	35.30	1.02	30	
		69	34.00	0.80	40	
		56	32.00	0.62	50	
		47	23.00	0.53	60	
		35	24.00	0.40	80	

Additional order information

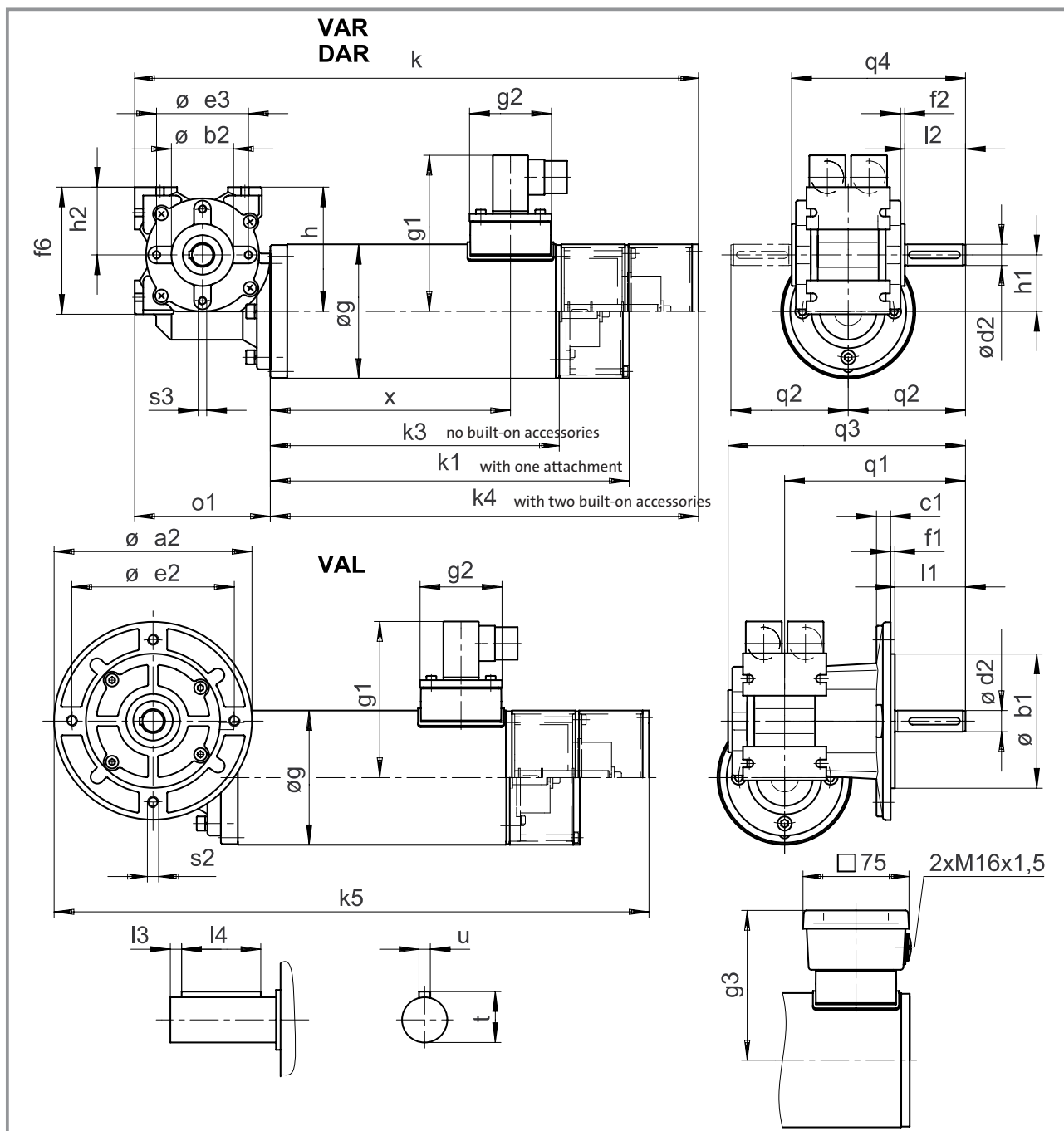
Rated voltage	390 V	connector version only	
	230/400 V	terminal box version only	
Enclosure	IP54		
	IP55		
Motor protection	KTY	connector version only	
	Thermal contact only with terminal box version		
Electrical connection	Connector		
	Terminal box		
B-side design	XX=no built-on accessories	terminal box version only	
	RS=with resolver	connector version only	
	BR=with spring-applied brake	terminal box version only	
	RS=with incremental encoder	connector version only	
	BS=with spring-applied brake and resolver	connector version only	
	BI=with spring-applied brake and incremental encoder	connector version only	
	BV=for brake attachment	terminal box version only	
Brake supply voltage	24 V DC		
	230 V AC with bridge rectifier	terminal box version only	
Gearbox type	VAR		
	DAR		
	VAL		
	HAR		
Shaft position on type VAR			3 5
Flange/shaft position on type VAL			3 5
Mounting position			A B C D E F
Position of electrical connection			2 3 4 5

Type code see pages 1-3 to 1-6.

Mounting position see cover fold-out.



Dimensions Type SSN40-1GVA□-063C32



Geared motor	a_2	b_1 j_7	b_2 h_{10}	c_1	d_2 h_6	e_2	e_3	f_1	f_2	f_6	g	g_1	g_2	g_3	h	h_1	h_2
SSN40-1GVA□-063C32	140	95	44	10	15	115	65	3	3	90	95	111	58	106	88	40	48

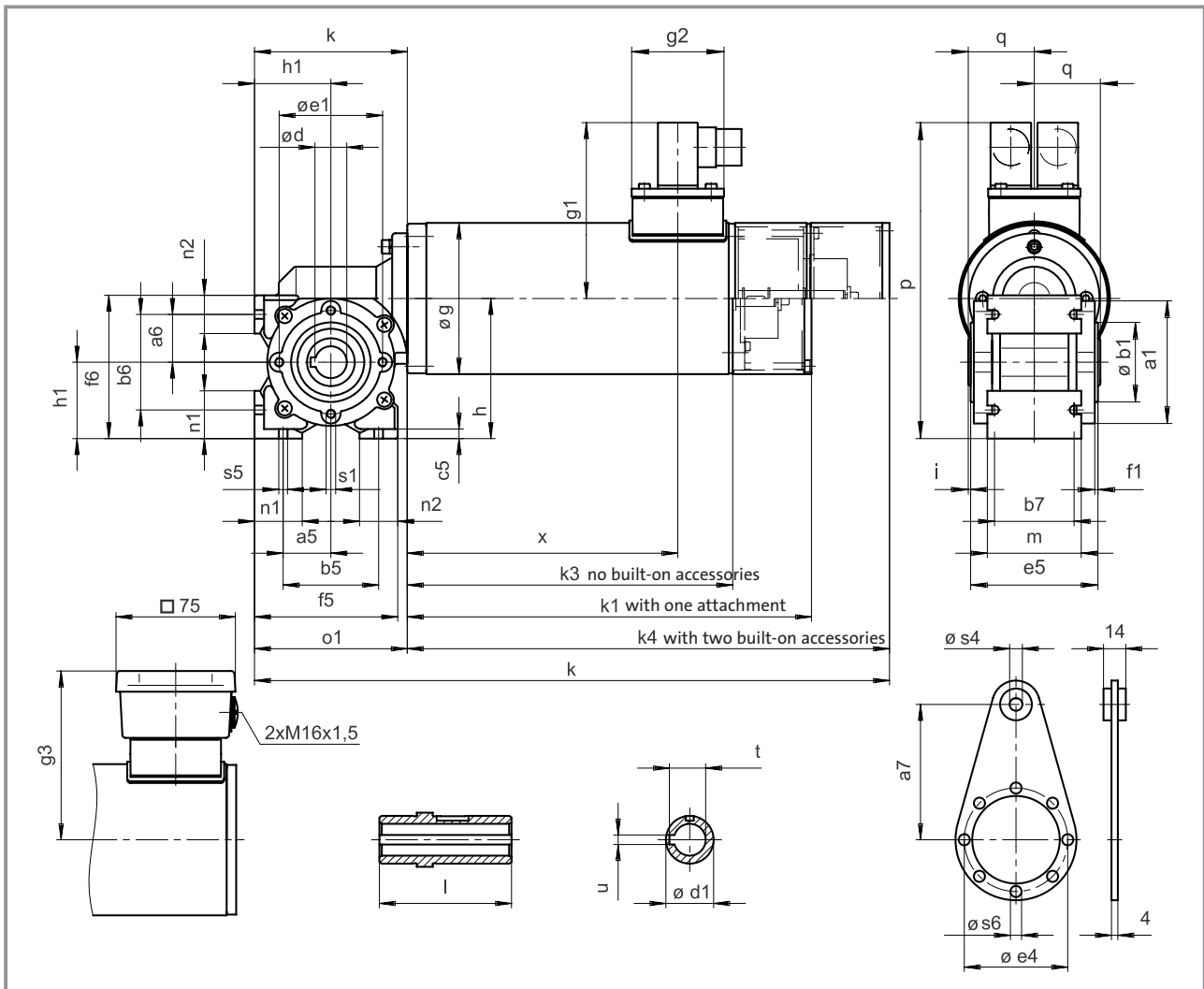
Geared motor	k	k_1	k_3	k_4	k_5	l_1	l_2	l_3	l_4	o_1	q_1	q_2	q_3	q_4	s_2	s_3	t	u	x	Weight approx. kg
SSN40-1GVA□-063C32	399	254	208	303	421	50	43	4	36	96	128	83	168	123	M8	M6	17	5	170	9.0-9.7

Dimensions in mm

Drive selection

AC worm geared motors (inverter-optimised)

Dimensions Type SSN40-1GHAR-063C32



Geared motor	a ₁	a ₅	a ₆	a ₇	b ₁ h ₈	b ₅	b ₆	b ₇	c ₅	d H7	d ₁	e ₁	e ₄	e ₅	f ₁	f ₅	f ₆	g	g ₁	g ₂	g ₃	h
SSN40-1GHAR-063C32	77	30	30	85	50	60	60	50	6	20	30	65	65	80	2	90	90	95	111	58	106	88

Geared motor	h ₁	i	k	k ₁	k ₃	k ₄	l	m	n ₁	n ₂	o ₁	p	q	s ₁	s ₄	s ₅	s ₆	t	u	x	Weight approx. kg
SSN40-1GHAR-063C32	48	1.5	399	254	208	303	83	59	30	24	96	199	41.5	M6	8	5.5	7	22.8	6	170	9.0-9.7

Dimensions in mm





Drive selection

AC planetary geared motors (inverter-optimised)

Selection table Type SPL42-□GVCR-047C22

Motor type	P _N W	100 Hz			i	Selection (tick as required)
		n ₂ rpm	M ₂ Nm	c		
SDSGA□□047-22	75	729	0.80	3.75	3.7	
		400	1.45	2.06	6.75	
		196	2.78	2.69	13.73	
		108	5.06	1.48	25.01	
		59	9.22	0.81	45.56	
		53	9.61	1.56	50.89	
		29	15.00	0.85	92.7	
		16	15.00	0.47	168.84	

Additional order information

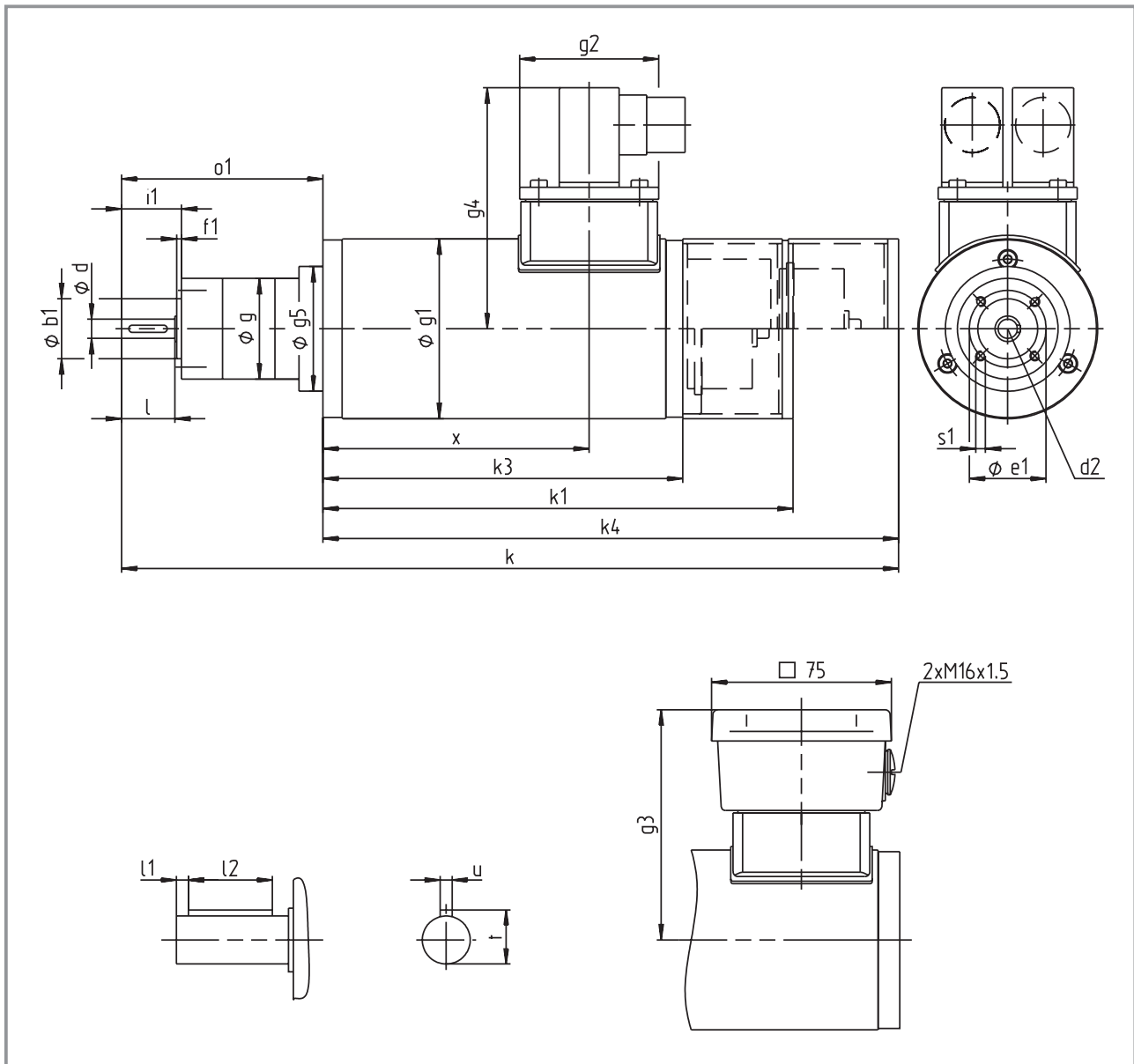
Rated voltage	230 V	connector version only	
	230/400 V	terminal box version only	
Enclosure	IP54		
	IP55		
Motor protection	KTY	connector version only	
	Thermal contact 'NC contact'	terminal box version only	
Electrical connection	Connector		
	Terminal box		
B-side design	XX=no built-on accessories	terminal box version only	
	RS=with resolver	connector version only	
	BR=with spring-applied brake	terminal box version only	
	RS=with incremental encoder	connector version only	
	BS=with spring-applied brake and resolver	connector version only	
	BI=with spring-applied brake and incremental encoder	connector version only	
	BV=for brake attachment	terminal box version only	
Brake supply voltage	24 V DC		
	230 V AC with bridge rectifier	terminal box version only	
Position of electrical connection			2

Type code see pages 1-3 to 1-6.

Mounting position see cover fold-out.



Dimensions Type SPL42-□GVCR-047C22



Geared motor	Ratio i	b ₁ h10	d g6	d ₂	e ₁	f ₁	g	g ₁	g ₂	g ₃	g ₄	g ₅	i ₁
SPL42-□GVCR-047C22	3.7; 6.7	25	8	M3	32	2	42	75	58	96	101	52	25
	14 ... 46												
	51...169												

Geared motor	k	k ₁	k ₃	k ₄	l	l ₁	l ₂	o ₁	s ₁	t	u	x	Weight approx. kg
SPL42-□GVCR-047C22	324	196	152	240	22.2	3	16	84	M4x10	9.2	3	111	3.4-4.4
	337							97					3.6-4.6
	350							110					3.8-4.8

Dimensions in mm



Drive selection

AC planetary geared motors (inverter-optimised)

Selection table Type SPL52-□GVCR-047N22

Motor type	P _N W	100 Hz			i	Selection (tick as required)
		n ₂ rpm	M ₂ Nm	c		
SDSGA□□047-22	75	729	0.80	5.00	3.7	
		400	1.45	2.75	6.75	
		196	2.78	4.31	13.73	
		108	5.06	2.37	25.01	
		59	9.22	1.30	45.56	
		53	9.61	2.60	50.89	
		29	17.50	1.42	92.7	
		16	25.00	0.78	168.84	

Additional order information

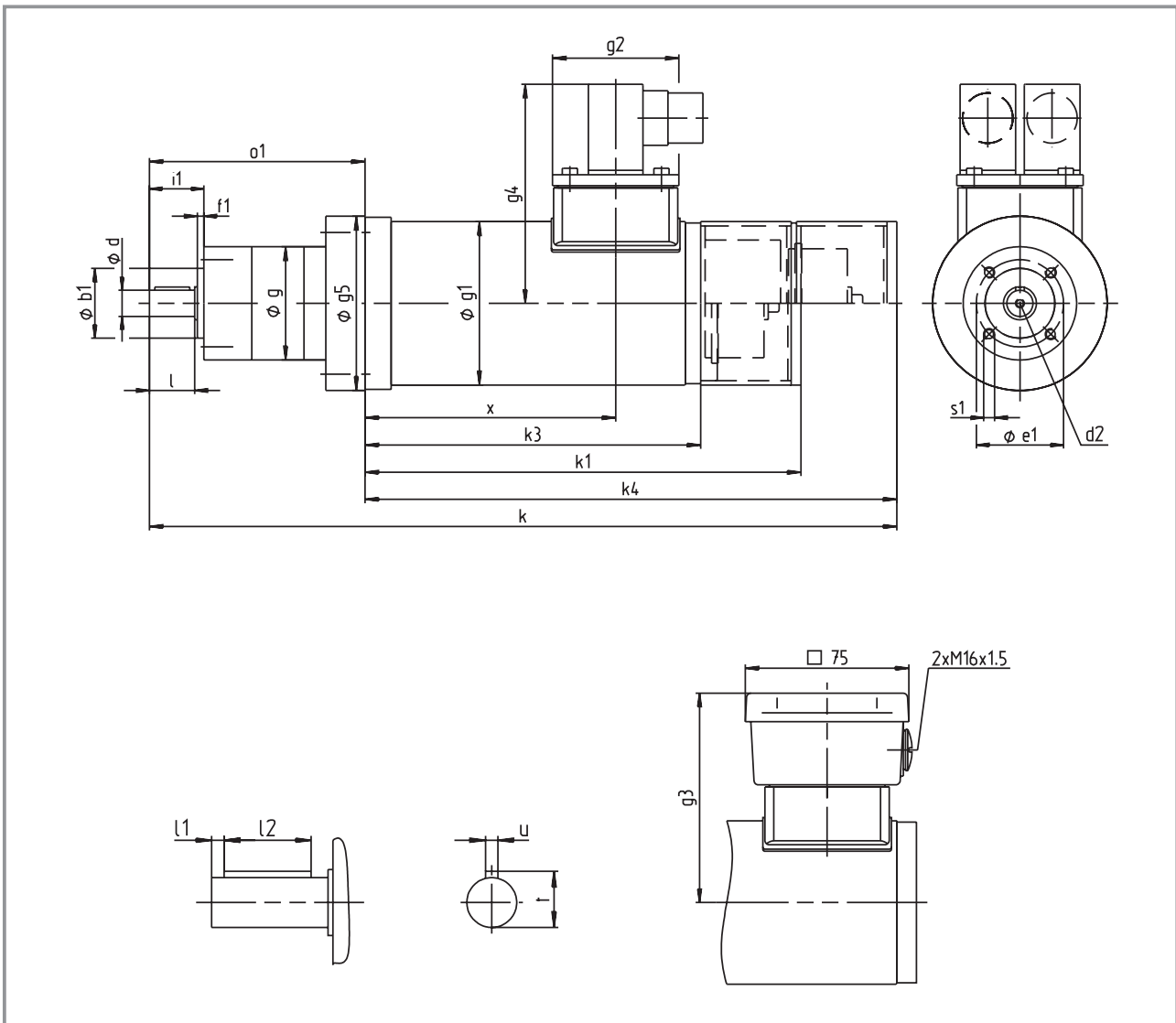
Rated voltage	230 V	connector version only	
	230/400 V	terminal box version only	
Enclosure	IP54		
	IP55		
Motor protection	KTY	connector version only	
	Thermal contact 'NC contact'	terminal box version only	
Electrical connection	Connector		
	Terminal box		
B-side design	XX=no built-on accessories	terminal box version only	
	RS=with resolver	connector version only	
	BR=with spring-applied brake	terminal box version only	
	RS=with incremental encoder	connector version only	
	BS=with spring-applied brake and resolver	connector version only	
	BI=with spring-applied brake and incremental encoder	connector version only	
	BV=for brake attachment	terminal box version only	
Brake supply voltage	24 V DC		
	230 V AC with bridge rectifier	terminal box version only	
Position of electrical connection			2

Type code see pages 1-3 to 1-6.

Mounting position see cover fold-out.



Dimensions Type SPL52-□GVCR-047N22



Geared motor	Ratio i	b ₁ h8	d h7	d ₂	e ₁	f ₁	g	g ₁	g ₂	g ₃	g ₄	g ₅	i ₁
SPL52-□GVCR-047N22	3.7; 6.7	32	12	M4	40	3	52	75	58	96	101	80	25
	14 ... 46												
	51...169												

Geared motor	k	k ₁	k ₃	k ₄	l	l ₁	l ₂	o ₁	s ₁	t	u	x	Weight approx. kg
SPL52-□GVCR-047N22	343	200	156	244	20.8	2.5	16	99	M5x10	13.5	4	115	3.7-4.7
	357							113					3.9-4.9
	371							127					4.0-5.0

Dimensions in mm

Drive selection

AC planetary geared motors (inverter-optimised)

Selection table Type SPL62-□GVCR-056N22

Motor type	P _N W	100 Hz			i	Selection (tick as required)
		n ₂ rpm	M ₂ Nm	c		
SDSGA□□056-22	240	754	2.40	3.34	3.7	
		413	4.30	1.83	6.75	
		203	8.30	3.00	13.73	
		111	15.00	1.65	25.01	
		80	21.20	1.08	34.97	
		61	25.00	0.90	45.56	
		55	28.80	1.73	50.89	
		39	40.30	1.24	71.06	
		28	50.00	0.89	99.5	
		23	50.00	0.71	123.97	

Additional order information

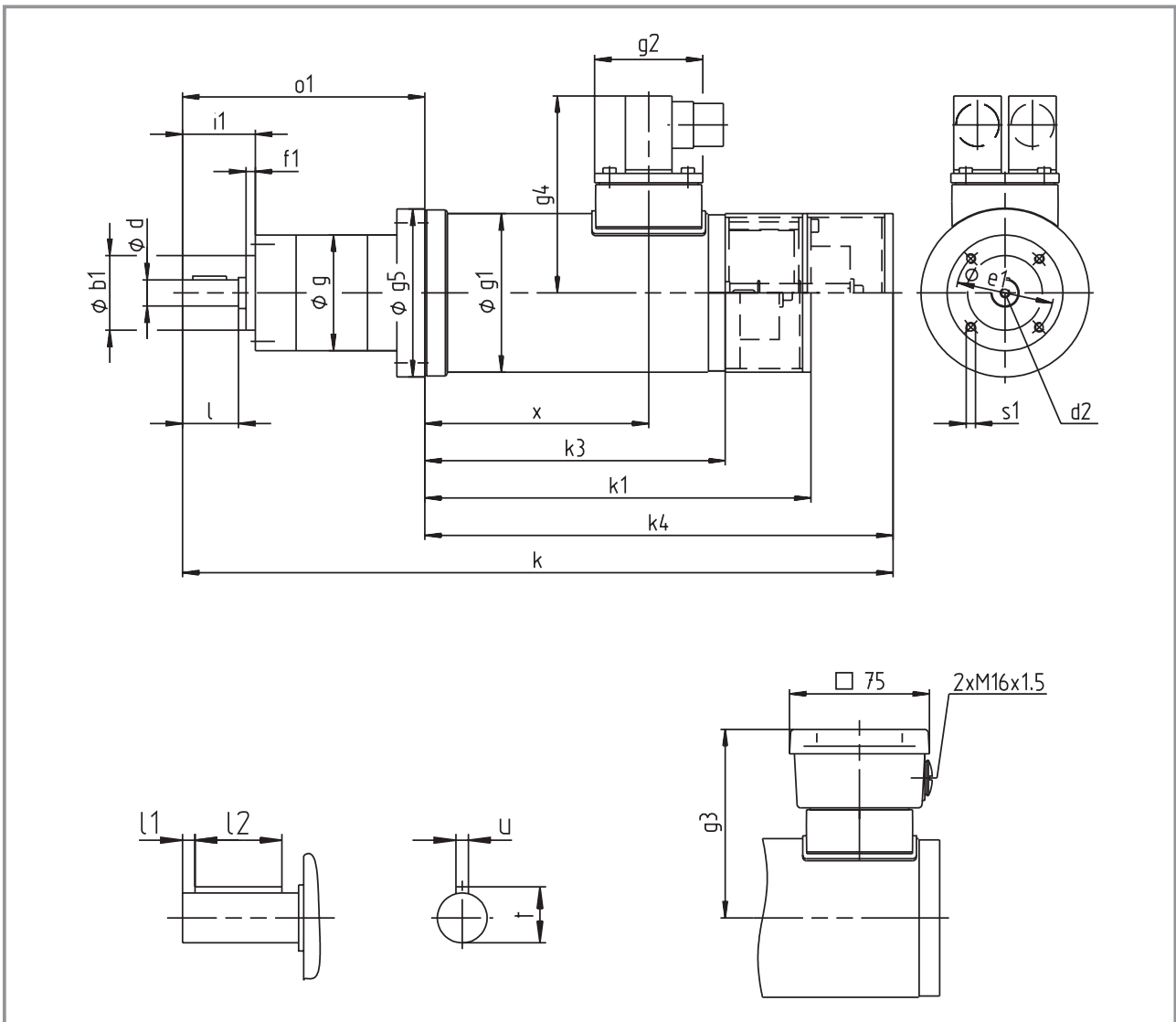
Rated voltage	390 V	connector version only	
	230/400 V	terminal box version only	
Enclosure	IP54		
	IP55		
Motor protection	KTY	connector version only	
	Thermal contact 'NC contact'	terminal box version only	
Electrical connection	Connector		
	Terminal box		
B-side design	XX=no built-on accessories	terminal box version only	
	RS=with resolver	connector version only	
	BR=with spring-applied brake	terminal box version only	
	RS=with incremental encoder	connector version only	
	BS=with spring-applied brake and resolver	connector version only	
	BI=with spring-applied brake and incremental encoder	connector version only	
	BV=for brake attachment	terminal box version only	
Brake supply voltage	24 V DC		
	230 V AC with bridge rectifier	terminal box version only	
Position of electrical connection			2

Type code see pages 1-3 to 1-6.

Mounting position see cover fold-out.



Dimensions Type SPL62-□GVCR-056N22



Geared motor	Ratio i	b ₁ j7	d h7	d ₂	e ₁	f ₁	g	g ₁	g ₂	g ₃	g ₄	g ₅	i ₁
SPL62-□GVCR-056N22	3.7; 6.7	40	14	M5	52	5	62	85	58	101	106	90	39
	14 ... 46												
	51...124												

Geared motor	k	k ₁	k ₃	k ₄	l	l ₁	l ₂	o ₁	s ₁	t	u	x	Weight approx. kg
SPL62-□GVCR-056N22	366	207	163	251	30	5.5	18	115	M5x10	16	5	120	4.8-6.3
	382							131					5.2-6.7
	398							147					5.6-7.0

Dimensions in mm



Drive selection

AC planetary geared motors (inverter-optimised)

Selection table Type SPL81-□GVCR-056N22

Motor type	P _N W	100 Hz			i	Selection (tick as required)
		n ₂ rpm	M ₂ Nm	c		
SDSGA□□056-22	240	754	2.40	8.34	3.7	
		413	4.30	4.57	6.75	
		203	8.30	7.09	13.73	
		111	15.00	3.95	25.01	
		80	21.20	2.82	34.97	
		61	27.70	2.07	45.56	
		55	27.80	4.06	50.89	
		39	40.30	2.97	71.06	
		28	56.40	2.03	99.5	
		23	70.30	1.71	123.97	

Additional order information

Rated voltage	390 V	connector version only	
	230/400 V	terminal box version only	
Enclosure	IP54		
	IP55		
Motor protection	KTY	connector version only	
	Thermal contact 'NC contact'	terminal box version only	
Electrical connection	Connector		
	Terminal box		
B-side design	XX=no built-on accessories	terminal box version only	
	RS=with resolver	connector version only	
	BR=with spring-applied brake	terminal box version only	
	RS=with incremental encoder	connector version only	
	BS=with spring-applied brake and resolver	connector version only	
	BI=with spring-applied brake and incremental encoder	connector version only	
	BV=for brake attachment	terminal box version only	
Brake supply voltage	24 V DC		
	230 V AC with bridge rectifier	terminal box version only	
Position of electrical connection			2

Type code see pages 1-3 to 1-6.

Mounting position see cover fold-out.



Drive selection

AC planetary geared motors (inverter-optimised)

Selection table Type SPL81-□GVCR-063N22

Motor type	P _N W	100 Hz			i	Selection (tick as required)
		n ₂ rpm	M ₂ Nm	c		
SDSGA□□063-22	400	757	4.00	5.01	3.7	
		414	7.30	2.74	6.75	
		204	13.90	4.32	13.73	
		112	25.30	2.37	25.01	
		80	35.40	1.69	34.97	
		61	46.00	1.30	45.56	
		55	48.00	2.50	50.89	
		39	67.20	1.78	71.06	
		28	94.00	1.28	99.5	
		23	117.20	1.02	123.97	

Additional order information

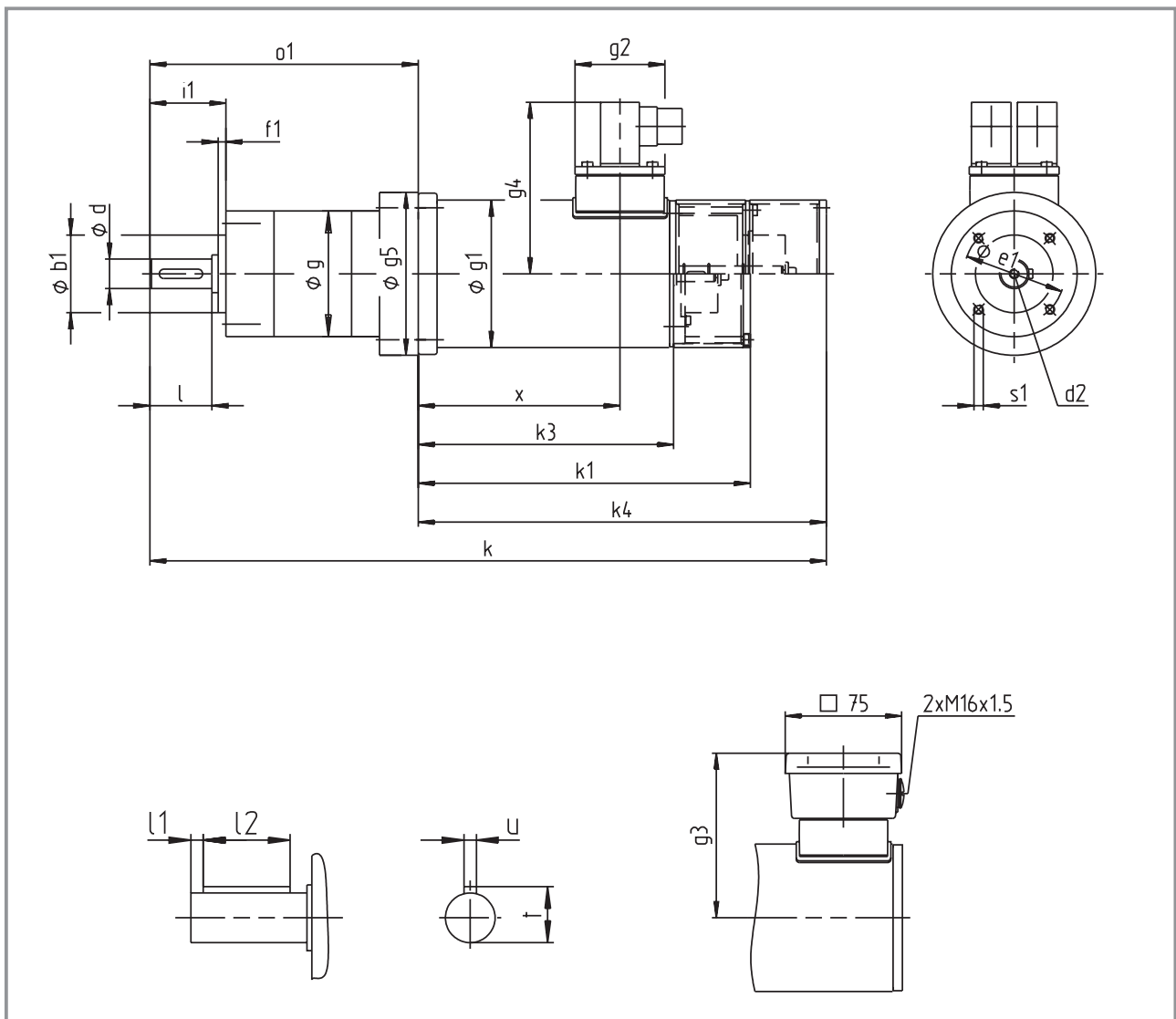
Rated voltage	390 V	connector version only	
	230/400 V	terminal box version only	
Enclosure	IP54		
	IP55		
Motor protection	KTY	connector version only	
	Thermal contact 'NC contact'	terminal box version only	
Electrical connection	Connector		
	Terminal box		
B-side design	XX=no built-on accessories	terminal box version only	
	RS=with resolver	connector version only	
	BR=with spring-applied brake	terminal box version only	
	RS=with incremental encoder	connector version only	
	BS=with spring-applied brake and resolver	connector version only	
	BI=with spring-applied brake and incremental encoder	connector version only	
Brake supply voltage	BV=for brake attachment	terminal box version only	
Position of electrical connection	24 V DC		
	230 V AC with bridge rectifier	terminal box version only	
			2

Type code see pages 1-3 to 1-6.

Mounting position see cover fold-out.



Dimensions Type SPL81-□GVCR-063N22



Geared motor	Ratio i	b ₁ j7	d h7	d ₂	e ₁	f ₁	g	g ₁	g ₂	g ₃	g ₄	g ₅	i ₁
SPL81-□GVCR-063N22	3.7; 6.7	50	19	M6	65	5	81	95	58	106	111	105	49
	14 ... 46												
	51...169												

Geared motor	k	k ₁	k ₃	k ₄	l	l ₁	l ₂	o ₁	s ₁	t	u	x	Weight approx. kg
SPL81-□GVCR-063N22	414	214	168	263	40	6	28	151	M6x12	21.5	6	130	7.2-8.4
	436							173					7.9-9.0
	458							195					8.6-9.8

Dimensions in mm



Drive selection

AC planetary geared motors (inverter-optimised)

Selection table Type SPL81-□GVCR-063N32

Motor type	P _N W	100 Hz			i	Selection (tick as required)
		n ₂ rpm	M ₂ Nm	c		
SDSGA□□063-32	600	757	5.62	3.56	3.7	
		414	10.20	1.95	6.75	
		204	19.60	3.07	13.73	
		112	35.60	1.68	25.01	
		80	49.80	1.2	34.97	
		61	60.00	0.92	45.56	
		55	67.70	1.77	50.89	
		39	94.60	1.27	71.06	
		28	120.00	0.91	99.5	
		23	120.00	0.73	123.97	

Additional order information

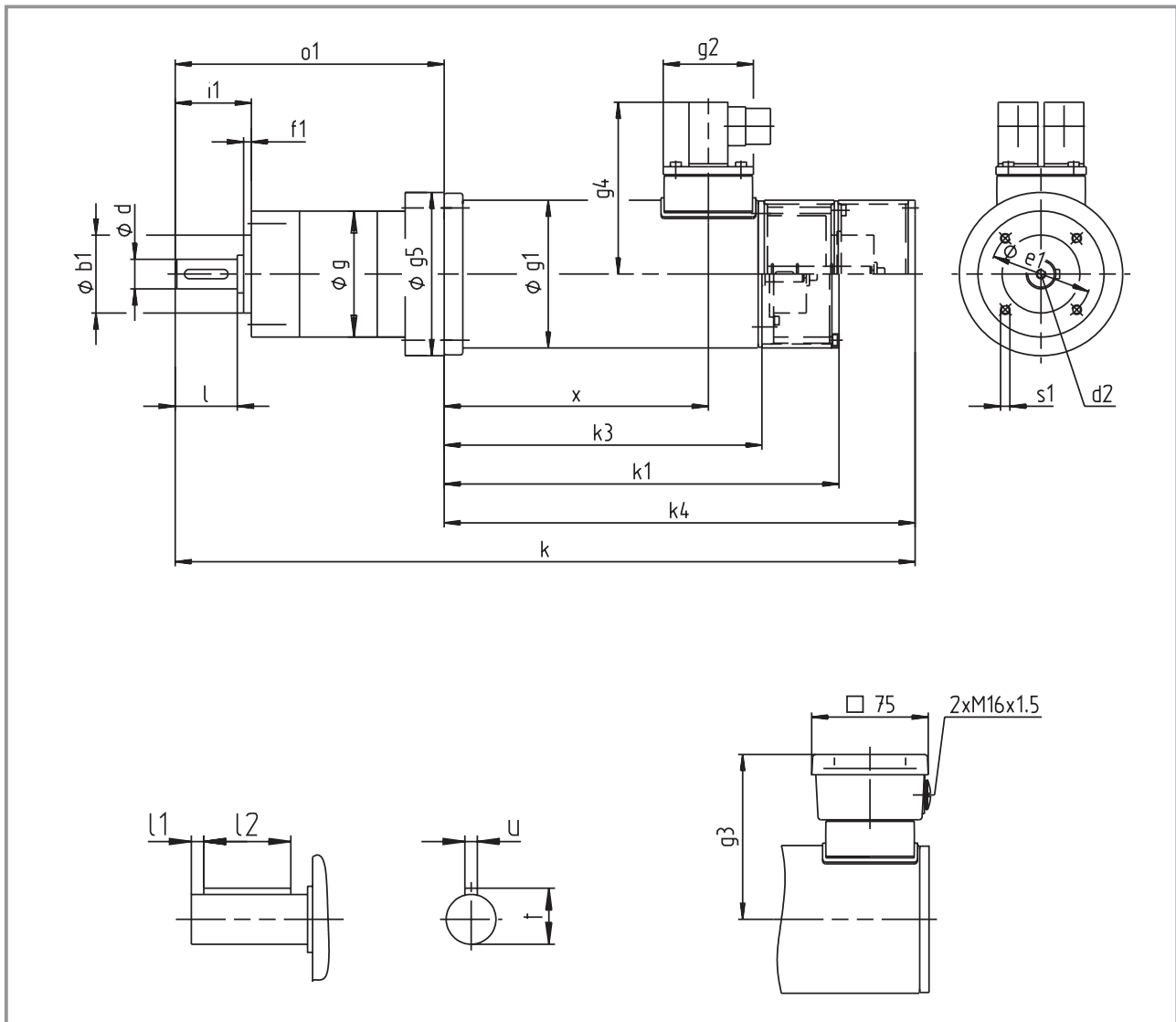
Rated voltage	390 V	connector version only	
	230/400 V	terminal box version only	
Enclosure	IP54		
	IP55		
Motor protection	KTY	connector version only	
	Thermal contact 'NC contact'	terminal box version only	
Electrical connection	Connector		
	Terminal box		
B-side design	XX=no built-on accessories	terminal box version only	
	RS=with resolver	connector version only	
	BR=with spring-applied brake	terminal box version only	
	RS=with incremental encoder	connector version only	
	BS=with spring-applied brake and resolver	connector version only	
	BI=with spring-applied brake and incremental encoder	connector version only	
	BV=for brake attachment	terminal box version only	
Brake supply voltage	24 V DC		
	230 V AC with bridge rectifier	terminal box version only	
Position of electrical connection			2

Type code see pages 1-3 to 1-6.

Mounting position see cover fold-out.



Dimensions Type SPL81-□GVCR-063N32



Geared motor	Ratio i	b ₁ j7	d h7	d ₂	e ₁	f ₁	g	g ₁	g ₂	g ₃	g ₄	g ₅	i ₁
SPL81-□GVCR-063N32	3.7; 6.7	50	19	M6	65	5	81	95	58	106	111	105	49
	14 ... 46												
	51...169												

Geared motor	k	k ₁	k ₃	k ₄	l	l ₁	l ₂	o ₁	s ₁	t	u	x	Weight approx. kg
SPL81-□GVCR-063N32	454	254	208	303	40	6	28	151	M6x12	21.5	6	170	8.6-9.8
	476							173					9.3-10.5
	498							195					10.0-11.2

Dimensions in mm



Drive selection

AC planetary geared motors (inverter-optimised)

Selection table Type SPL12-□GVCR-063N22

Motor type	P _N W	100 Hz			i	Selection (tick as required)
		n ₂ rpm	M ₂ Nm	c		
SDSGA□□063-22	400	757	4.00	12.51	3.7	
		415	7.29	6.86	6.75	
		204	13.90	10.79	13.73	
		112	25.32	5.92	25.01	
		61	46.03	3.25	45.56	
		55	51.53	5.82	50.89	
		30	87.60	3.42	92.7	
		17	159.55	1.88	168.84	

Additional order information

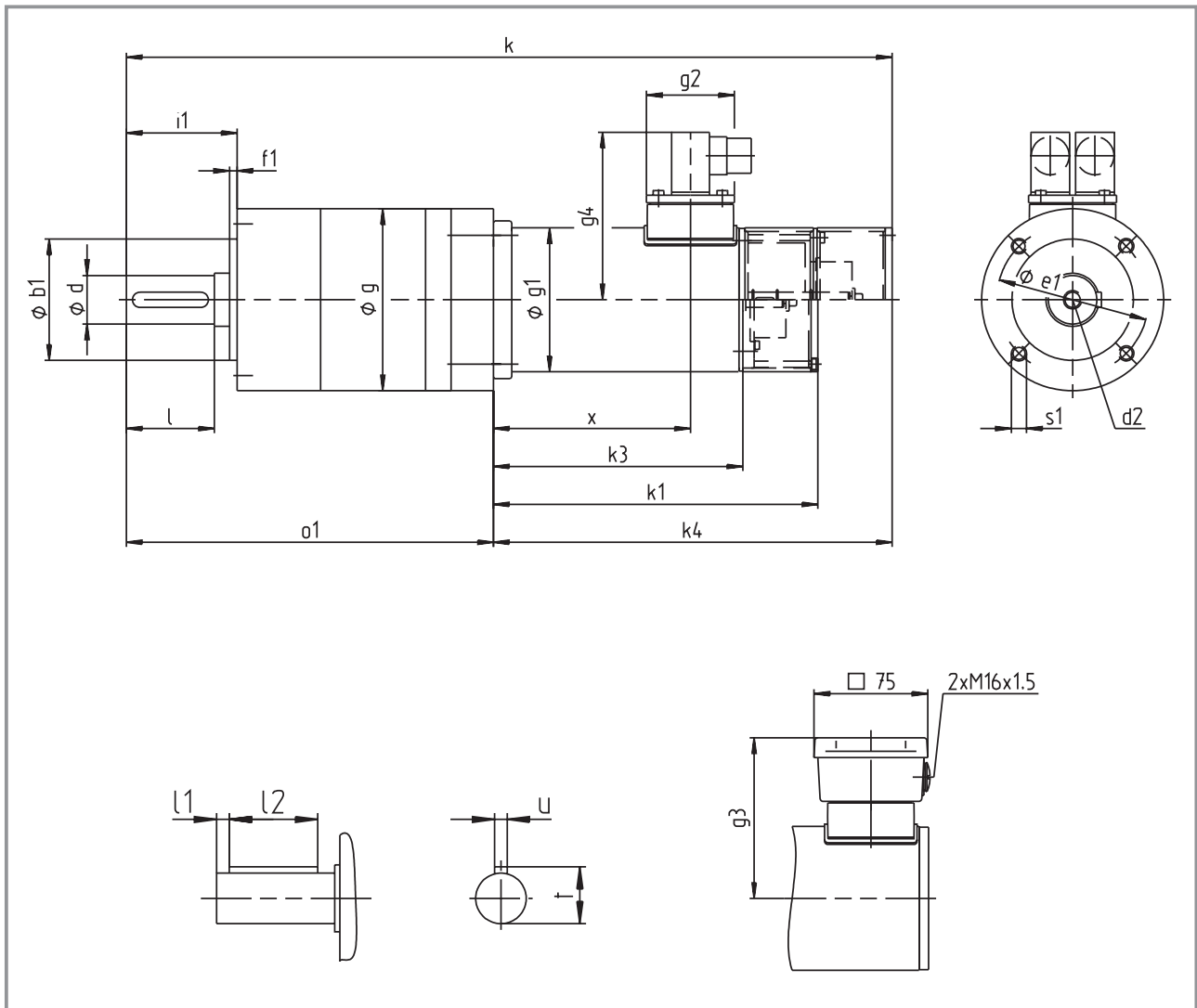
Rated voltage	390 V	connector version only	
	230/400 V	terminal box version only	
Enclosure	IP54		
	IP55		
Motor protection	KTY	connector version only	
	Thermal contact 'NC contact'	terminal box version only	
Electrical connection	Connector		
	Terminal box		
B-side design	XX=no built-on accessories	terminal box version only	
	RS=with resolver	connector version only	
	BR=with spring-applied brake	terminal box version only	
	RS=with incremental encoder	connector version only	
	BS=with spring-applied brake and resolver	connector version only	
	BI=with spring-applied brake and incremental encoder	connector version only	
	BV=for brake attachment	terminal box version only	
Brake supply voltage	24 V DC		
	230 V AC with bridge rectifier	terminal box version only	
Position of electrical connection			2

Type code see pages 1-3 to 1-6.

Mounting position see cover fold-out.



Dimensions Type SPL12-□GVCR-063N22



Geared motor	Ratio i	b ₁ j7	d k6	d ₂	e ₁	f ₁	g	g ₁	g ₂	g ₃	g ₄	i ₁
SPL12-□GVCR-063N22	3.7; 6.7	80	32	M12	100	5	120	95	58	106	111	73
	14 ... 46											
	51...169											

Geared motor	k	k ₁	k ₃	k ₄	o ₁	l	l ₁	l ₂	s ₁	t	u	x	Weight approx. kg
SPL12-□GVCR-063N22	471	214	168	263	208	58	4	50	M10x22	35	10	130	11.0-12.2
	505				242								13.4-14.6
	539				276								15.8-17.0

Dimensions in mm



Drive selection

AC planetary geared motors (inverter-optimised)

Selection table Type SPL12-□GVCR-063N32

Motor type	P _N W	100 Hz			i	Selection (tick as required)
		n ₂ rpm	M ₂ Nm	c		
SDSGA□□063-32	600	757	5.62	8.89	3.7	
		415	10.26	4.87	6.75	
		204	19.57	7.67	13.73	
		112	35.64	4.21	25.01	
		61	64.92	2.31	45.56	
		55	72.52	4.04	50.89	
		30	123.29	2.43	92.7	
		17	224.56	1.34	168.84	

Additional order information

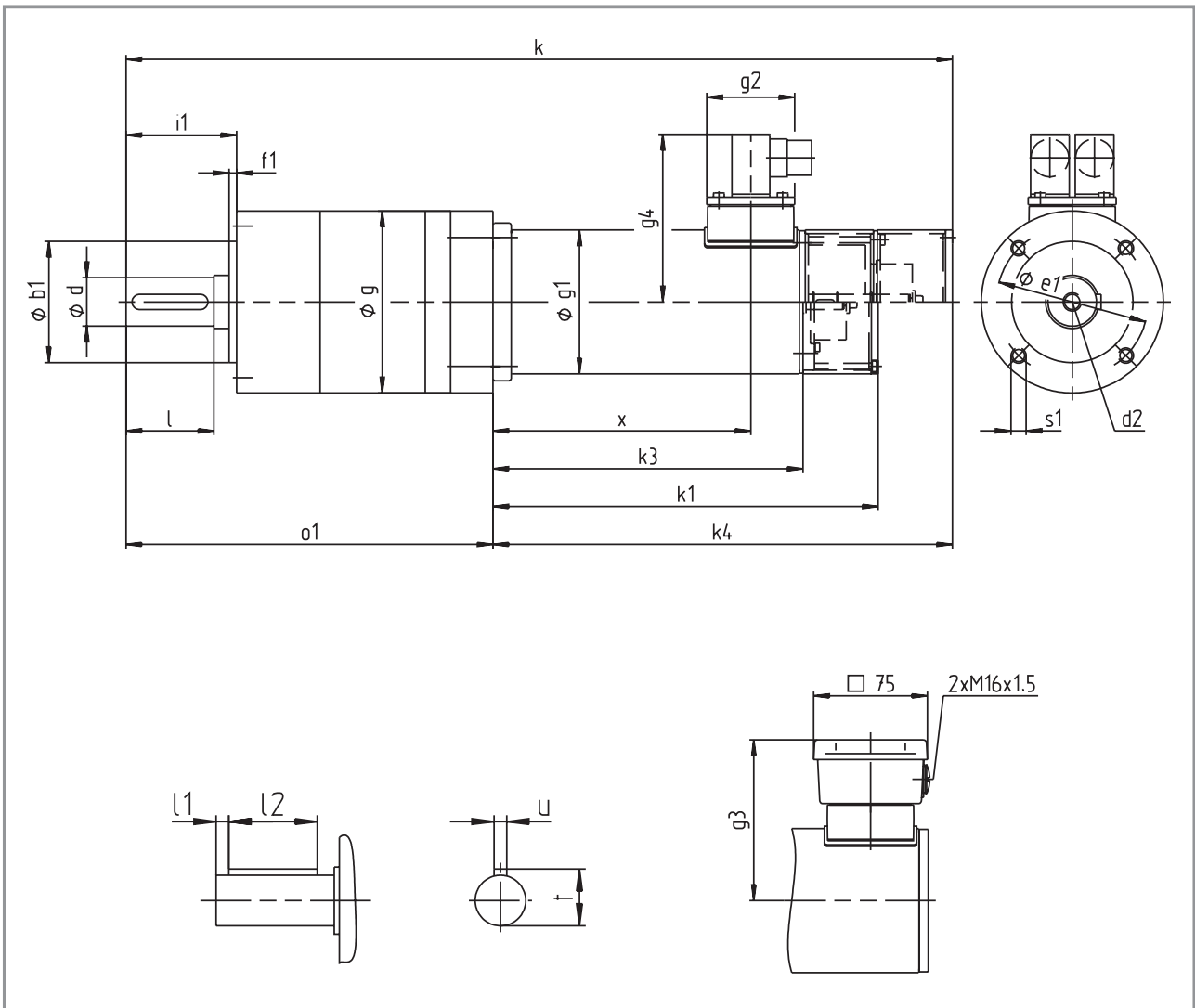
Rated voltage	390 V	connector version only	
	230/400 V	terminal box version only	
Enclosure	IP54		
	IP55		
Motor protection	KTY	connector version only	
	Thermal contact 'NC contact'	terminal box version only	
Electrical connection	Connector		
	Terminal box		
B-side design	XX=no built-on accessories	terminal box version only	
	RS=with resolver	connector version only	
	BR=with spring-applied brake	terminal box version only	
	RS=with incremental encoder	connector version only	
	BS=with spring-applied brake and resolver	connector version only	
	BI=with spring-applied brake and incremental encoder	connector version only	
	BV=for brake attachment	terminal box version only	
Brake supply voltage	24 V DC		
	230 V AC with bridge rectifier	terminal box version only	
Position of electrical connection			2

Type code see pages 1-3 to 1-6.

Mounting position see cover fold-out.



Dimensions Type SPL12-□GVCR-063N32



Geared motor	Ratio i	b ₁ j7	d k6	d ₂	e ₁	f ₁	g	g ₁	g ₂	g ₃	g ₄	i ₁
SPL12-□GVCR-063N32	3.7; 6.7	80	32	M12	100	5	120	95	58	106	111	73
	14 ... 46											
	51...169											

Geared motor	k	k ₁	k ₃	k ₄	o ₁	l	l ₁	l ₂	s ₁	t	u	x	Weight approx. kg
SPL12-□GVCR-063N32	511	254	208	303	208	58	4	50	M10x22	35	10	170	12.4-13.6
	545				242								14.8-16.0
	579				276								17.2-18.4

Dimensions in mm