

D.C. MOTORS OF SERIES SH

GENERAL INFORMATION

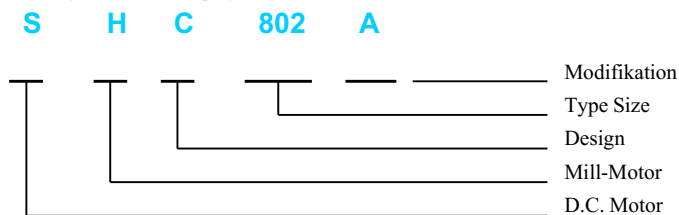
D.C. motors of series SH are specially designed for heavy duty conditions in the iron and steel industry, for driving rolling mill auxiliaries, and others. They are marked by a robust construction, thorough impregnation and especially high working reliability. All motors are designed for humid tropical environments per TH 33.

TECHNICAL DESCRIPTION

The SH motors are constructed with a fully laminated yoke, low moment of inertia and compensating winding. They have got very good dynamical properties in transient states and a considerable short-time overload capacity. All listed machines are insulated to Class F insulation system which ensures a very long life.

Motors are fitted with PTC thermistors serving as temperature sensors for thermal protection against the dangerous overheating of a motor, e.g. in the case of failure of forced ventilation. These PTC thermistors are put in series and their connections are led into the terminal box.

IDENTIFIKATION



DESIGN

SHC - IP 23/IC 17 or IP 44/IC 37

The flanges for air inlet or air outlet are positioned between the feet. The terminal box is arranged at the top - in the centre of the machine, sealing glands can be arranged on the right-hand side or on the left-hand side.

Cooling air must comply with the normal environment according to ČSN 33 0300, i.e. at ambient temperatures from -10 °C to +40 °C and a relative air humidity of max. 80 %, it must be free of aggressive gases, impurities and dust (especially without hard and electrically conducting dust particles). Cooling air quantity - see table.

SHK - IP 23/IC 06

The separately driven fan is mounted at the top of the motor and is fitted with filters. The terminal box is mounted on the right-hand side when viewed from the main free shaft. In the next text there is a recommendation for application of the SHK motors in operation.

SHF - IP 44/IC 66

The air-air heat exchanger is mounted at the top of the machine. The terminal box is mounted on the right-hand side when viewed from the main free shaft.

SHA - IP 44/IC 41

Totally-enclosed machine, frame-cooled. No external fan. Method of cooling IC 00 41. The terminal box is mounted at the top - in the centre of the machine.

The sealing glands can be arranged on the right or on the left.

SHW - IP 44/IC W37A86

The water-air heat exchanger is mounted at the top of the machine. The terminal box is mounted on the right-hand side when viewed from the main free shaft.

FREE SHAFT EXTENSIONS

On the basic design of the SH motors the shaft has 2 tapered free shaft extensions, without key and with a lock nut - mounting arrangement IM 1004.

The tapered shaft extensions are arranged for dismantling of the couplings by pressure oil.

The motors can be supplied as a specialized version with 1 or 2 cylindrical free shaft extensions with key - mounting arrangement IM 1002.

Mounting arrangements IM 1001, IM 1003 and others - on request. Mounting of tachogenerator is possible.

MODIFICATIONS: high-speed, low-speed, very low-speed

The SH series motors are being produced in 2 basic electrical modifications:

A high-speed modification - in comparison with the B modification the motors have higher speed values at higher outputs.

B low-speed modification - in comparison with the A modification the outputs and speed are about half at the same armature voltage.

NOTICE: C, E very low-speed modification - in comparison with the B modification the outputs and speed are yet lower at the same armature voltage

VENTILATION

Ventilation aggregates are fitted with 3-phase squirrel-cage induction motors. It is necessary to specify the connection voltage of these motors in a customer's order.

VOLTAGE

The rating values in the Data Sheets are valid for 440 V (460 V). However, the SH motors can operate from practically zero voltage to 600 V. All machines are designed for separate excitation of 220 V or 110 V, this separate excitation can be switched over by means of barriers in the terminal box.

The data are given in a table.

OVERLOAD CAPACITY

The motors are allowed to carry short-time overloading, however, in all the cases it is necessary to carry out the checking of the load diagram of a working machine, whose mean value must not exceed the rated value of permissible motor loading.

The data are given in a table.

The maximum permissible speed current increase amounts to 200 - 300 I_n/s.

TYPE	MODIFICATION A				MODIFICATION B	
	n _n 440 V	n _{max} 440 V	n _n 230 V	n _{max} 230 V	n _n 440 V	n _{max} 440 V
SHC, SHK, SHA 802, 803, 804	•3	•1.5	3	1.5	•3	•1.5
SHC 08 – 24	2	1.3	3	1.6	3	1.3
SHF 06 – 22	2	1.3	3	1.6	3	1.3
SHA 06 – 16	3	1.3	3	1.6	3	1.3
SHK 08	1.6	1.3	2.4	1.6	2.4	1.3
SHK 10	1.7	1.3	2.6	1.6	2.6	1.3
SHK 12, 14	1.9	1.3	2.8	1.6	2.8	1.3
SHK 16, 18, 20, 22, 24	2	1.3	3	1.6	3	1.3
SHW 06 - 24	2	1.3	3	1.6	3	1.3

• Overload capacity of 460 V
n_n - rated speed of rotation
The higher overload is possible on request

CURRENT RIPPLE

The permissible effective current ripple is $W_e I = 30\%$ for feeding by rectifiers, where by the effective current ripple we understand the ratio of the effective value of the variable component of current and the linear mean value of current, given in per cent:

$$W_e I = \frac{I_p}{I_s} \cdot 100 = \frac{\sqrt{\sum I_n^2}}{I_s} \cdot 100 = \frac{\sqrt{I^2 - I_s^2}}{I_s} \cdot 100 \quad [\%]$$

- I_p – effective value of the variable component of current
- I_s – linear mean value of current
- I_n – effective value of n-harmonic (n = 1,2,3...)
- I – effective value of the full current course

No smoothing chokes are needed if the motors are supplied from a thyristor converter with a fully controlled bridge (6-pulse rectifier).

NOTICE

The rated data given in this catalogue apply when the motors are operated at an ambient temperature of max. +40°C and at an altitude above sea level of max. 1000 m. At ambient temperatures above +40°C and altitudes in excess of 1000 m above sea level the motor outputs are reduced - data on request.

The motors SHK 08 - 24 are fitted with a ventilation aggregate with netting wire filters. When using these motors it is necessary to consider following facts:

1. The capacity of filters is limited and the filters require regular maintenance according to the kind of operation and environment.
2. It is not sufficient only to shake the dust off the filters; the filters must always be washed and again soaked in oil in accordance with special instruction.
Therefore we recommend to place an order for 1 set of spare filters to allow their replacement without work interruption.
3. The filters do not retain oil mist arising during the technologic process. In such an environment the operation only is possible for the motors with air inlet - SHC, or for the totally-enclosed motors - SHA.
4. The motors SHK802 - 804 are fitted with a ventilation aggregate with the filter mat (synthetic fabric), which is possible to catch the dust elements 5 - 10 mikrometre.

Outputs and speeds of motors SH 06 - 22 - Modification A, B - at 230V, 440V of the armature voltage conform to the AISE Standard No 1 from 1957 for the Mill-Motors and SH 800 from 1968 (IEC 34-13 from 1980).

The assemblage dimensions of these motors conform to this Standard as well.

The data in this catalog are not binding and can be modified by the producer.
Other than given data will be submitted on request.

**ŠTÍTKOVÉ HODNOTY MOTORŮ
SCHILDANGABEN DER MOTOREN
RATED DATA FOR MOTOR**

SHC

IP 23 / IC 17 neboloderlor IP 44 (IP 54) / IC 37

MODIFIKACE A / MODIFIKATION A / MODIFICATION A										
TYP TYPE	Výkon Leistung Output	Otáčky při Drehzahl bei Speed at		Proud kotvy Ankerstrom Armature Current	Točivý moment Drehmoment Torque	Budicí proud Erregerstrom Excitation current	R_a při 120 °C R_a bei 120 °C R_a at 120 °C	L_a	Mom. setrvačnosti Trägheitsmoment Mom. of inertia	Hmotnost Masse Weight
	[kW]	230V [min ⁻¹]	440V [min ⁻¹]	[A]	[Nm]	[A]	[Ω]	[mH]	[kgm ²]	[kg]
SHC 802 A	13	900		67,2	138	2,9	0,423	2,1	0,42	300
	26		1800	62,5	138	3,4				
SHC 803 A	17,5	800		92,5	209	2,9	0,367	2,28	0,53	345
	35		1600	84,2	209	3,5				
SHC 804 A	26	725		136	342	3,1	0,254	1,63	0,97	475
	54		1450	130,7	356	3,6				
SHC 08 A	26	625		132	397	7,1	0,2022	1,9	1,25	820
	51		1175	127	414	8,6				
SHC 10 A	37	585		185	604	5,5	0,119	1,59	2,0	1020
	75		1100	183,5	651	5,9				
SHC 12 A	53,5	550		274	929	6,2	0,107	1,5	2,87	1365
	110		1050	274	1000	7,3				
SHC 14 A	76	500		375	1452	8,3	0,0607	0,92	4,5	1965
	148		980	361	1442	9,2				
SHC 16 A	112	460		548	2325	11,5	0,0368	0,46	8,25	2580
	222		925	539	2292	11,8				
SHC 18 A	150	415		729	3452	18	0,0257	0,407	15,5	3480
	296		840	717	3365	21,3				
SHC 20 A	206	390		995	5044	14,2	0,0182	0,33	28,75	4935
	406		780	982	4971	14,2				
SHC 22 A	278	360		1356	7375	17,2	0,0153	0,264	45	6600
	550		720	1333	7295	17,5				
SHC 24 A	380	340		1810	10673	16,6	0,0084	0,245	69,2	8050
	754		680	1810	10589	16,6				

• HODNOTY PŘI NAPĚTI KOTVY 460V
• WERTE BEI DER ANKERSPANNUNG VON 460 V
• VALUES AT THE ARMATURE VOLTAGE OF 460V

MODIFIKACE B / MODIFIKATION B / MODIFICATION B										
TYP TYPE	Výkon Leistung Output	Napětí kotvy Ankerspannung Armature voltage	Otáčky Drehzahl Speed	Proud kotvy Ankerstrom Armature Current	Točivý moment Drehmoment Torque	Budicí proud Erregerstrom Excitation current	R_a při 120 °C R_a bei 120 °C R_a at 120 °C	L_a	Mom. setrvačnosti Trägheitsmoment Mom. of inertia	Hmotnost Masse Weight
	[kW]	[V]	[min ⁻¹]	[A]	[Nm]	[A]	[Ω]	[mH]	[kgm ²]	[kg]
SHC 802 B	13	460	900	33,2	138	2,1	1,637	12,7	0,39	285
SHC 803 B	17,5	460	800	44,5	209	2,6	1,183	8,29	0,48	340
SHC 804 B	27	460	725	69,5	356	2,9	0,917	5,56	0,96	475
SHC 08 B	27	440	625	70,5	412	4,5	0,720	6,84	1,25	810
SHC 10 B	38	440	585	98,5	620	7,3	0,416	5,20	2	1020
SHC 12 B	56	440	550	143	972	9,2	0,260	3,87	2,87	1340
SHC 14 B	76	440	500	194	1452	10,7	0,204	3,26	4,5	1940
SHC 16 B	112	440	460	288	2325	10,5	0,153	2,13	8,25	2540
SHC 18 B	150	440	415	386	3452	14,6	0,0981	1,75	15,5	3430
SHC 20 B	206	440	390	520	5044	17,1	0,0698	1,25	28,75	4785
SHC 22 B	278	440	360	709	7375	16,5	0,0575	1,08	45	6550
SHC 24 B	375	440	340	944	10533				69,2	8050

MODIFIKACE Y / MODIFIKATION Y / MODIFICATION Y										
TYP TYPE	Výkon Leistung Output	Napětí kotvy Ankerspannung Armature voltage	Otáčky Drehzahl Speed	Proud kotvy Ankerstrom Armature Current	Točivý moment Drehmoment Torque	Budicí proud Erregerstrom Excitation current	R_a při 120 °C R_a bei 120 °C R_a at 120 °C	L_a	Mom. setrvačnosti Trägheitsmoment Mom. of inertia	Hmotnost Masse Weight
	[kW]	[V]	[min ⁻¹]	[A]	[Nm]	[A]	[Ω]	[mH]	[kgm ²]	[kg]
SHC 22 Y	750	440	970	1792	7384	13	0,0074	0,175	57,8	6880

MODIFIKACE E,C / MODIFIKATION E,C / MODIFICATION E,C										
TYP TYPE	Výkon Leistung Output	Napětí kotvy Ankerspannung Armature voltage	Otáčky Drehzahl Speed	Proud kotvy Ankerstrom Armature Current	Točivý moment Drehmoment Torque	Budicí proud Erregerstrom Excitation current	R_a při 120 °C R_a bei 120 °C R_a at 120 °C	L_a	Mom. setrvačnosti Trägheitsmoment Mom. of inertia	Hmotnost Masse Weight
	[kW]	[V]	[min ⁻¹]	[A]	[Nm]	[A]	[Ω]	[mH]	[kgm ²]	[kg]
SHC 08 E	5,2	440	125	21	397	5	8,741	122	1,25	860
SHC 10 C	17	440	265	50	613	6,7	1,844	26,6	2	1030
SHC 12 C	26	440	250	74	993	7,5	1,102	22,3	2,87	1380
SHC 14 C	34	440	225	97	1443	10,4	0,816	17,5	4,5	1955
SHC 16 C	50	440	205	145	2329	10,6	0,617	13,4	8,25	2600

**ŠTÍTKOVÉ HODNOTY MOTORŮ
SCHILDANGABEN DER MOTOREN
RATED DATA FOR MOTOR**

SHK

IP 23 / IC 06

MODIFIKACE A / MODIFIKATION A / MODIFICATION A										
TYP TYPE	Výkon Leistung Output	Otáčky při Drehzahl bei Speed at 230V 440V		Proud kotvy Ankerstrom Armature Current	Točivý moment Drehmoment Torque	Budičiproud Erregerstrom Excitation current	R _a při 120 °C R _a bei 120 °C R _a at 120 °C	L _a	Mom. setrvačnosti Trägheitsmoment Mom. of inertia	Hmotnost Masse Weight
	[kW]	[min ⁻¹]	[min ⁻¹]	[A]	[Nm]	[A]	[Ω]	[mH]	[kgm ²]	[kg]
SHK 802 A	13	900		67,2	138	2,9	0,307	2,1	0,42	310
	26		1800	62,5	138	3,4				
SHK 803 A	16	800		85	191	2,9	0,377	2,28	0,53	365
	35		1600	84,2	209	3,9				
SHK 804 A	27	725		141	356	3,2	0,239	1,63	0,97	520
	54		1450	130	356	3,8				
SHK 08 A	30	626		160	458	4,4	0,192	1,9	1,25	980
	65		1175	163	529	5,5				
SHK 10 A	43	585		215	702	5,0	0,112	1,59	2,0	1190
	86		1100	212	747	6,2				
SHK 12 A	57	550		294	990	6,2	0,107	1,50	2,87	1545
	115		1050	286	1046	6,7				
SHK 14 A	83	500		412	1585	10	0,0561	0,92	4,5	2240
	161		980	396	1569	11,2				
SHK 16 A	112	460		548	2325	11,8	0,0367	0,46	8,25	2940
	220		925	535	2271	11,6				
SHK 18 A	150	415		730	3452	18,2	0,0265	0,407	15,5	3900
	295		840	715	3354	21				
SHK 20 A	204	390		985	4995	15,4	0,0181	0,33	28,75	5435
	405		780	985	4958	15,4				
SHK 22 A	278	360		1357	7375	17,2	0,0135	0,264	45	7370
	550		720	1330	7295	16,2				
SHK 24 A	380	340		1810	10673	16,6	0,0084	0,245	69,2	8950
	754		680	1810	10589	16,6				

• HODNOTY PŘI NAPĚTÍ KOTVY 460V
• WERTE BEI DER ANKERSPANNUNG VON 460 V
• VALUES AT THE ARMATURE VOLTAGE OF 460V

MODIFIKACE B / MODIFIKATION B / MODIFICATION B										
TYP TYPE	Výkon Leistung Output	Napětíkotvy Ankerspannung Armature voltage	Otáčky Drehzahl Speed	Proud kotvy Ankerstrom Armature Current	Točivý moment Drehmoment Torque	Budičiproud Erregerstrom Excitation current	R _a při 120 °C R _a bei 120 °C R _a at 120 °C	L _a	Mom. setrvačnosti Trägheitsmoment Mom. of inertia	Hmotnost Masse Weight
	[kW]	[V]	[min ⁻¹]	[A]	[Nm]	[A]	[Ω]	[mH]	[kgm ²]	[kg]
SHK 802 B	13	460	900	33	138	2,1	1,554	12,7	0,30	305
SHK 803 B	17,5	460	800	44,5	209	2,6	1,145	8,29	0,48	375
SHK 804 B	27	460	725	70	356	2,9	0,905	5,56	0,96	530
SHK 08 B	30,5	440	625	82	466	4,4	0,718	6,84	1,25	1005
SHK 10 B	44	440	585	115	718	7,4	0,419	5,2	2	1270
SHK 12 B	57,5	440	550	148	998	7,8	0,276	3,87	2,87	1530
SHK 14 B	82	440	500	211	1566	10,2	0,201	3,26	4,5	2230
SHK 16 B	112	440	460	290	2325	12,4	0,156	2,13	8,25	2890
SHK 18 B	148,5	440	415	382	3417	13,6	0,114	1,75	15,5	3800
SHK 20 B	206	440	390	522	5044	15,0	0,0705	1,25	28,75	5350
SHK 22 B	277	440	360	708	7348	15,6	0,0569	1,08	45	7375
SHK 24 B	375	440	340	944	10533				69,2	8950

ŠTÍTKOVÉ HODNOTY MOTORŮ
SCHILDANGABEN DER MOTOREN
RATED DATA FOR MOTOR

SHF

IP 44 (IP 54) / IC 666

MODIFIKACE A / MODIFIKATION A / MODIFICATION A										
TYP TYPE	Výkon Leistung Output	Otáčky při Drehzahl bei Speed at 230V 440V		Proud kotvy Ankerstrom Armature Current	Točivý moment Drehmoment Torque	Budičiproud Erregerstrom Excitation current	R_a při 120 °C R_a bei 120 °C R_a at 120 °C	L_a	Mom. setrvačnosti Trägheitsmoment Mom. of inertia	Hmotnost Masse Weight
	[kW]	[min ⁻¹]	[min ⁻¹]	[A]	[Nm]	[A]	[Ω]	[mH]	[kgm ²]	[kg]
SHF 06 A	17	700		85	232	4,6	0,2529	1,9	0,75	780
	31		1400	77	211	4,8				
SHF 08 A	23	625		114	351	5,1	0,1589	1,9	1,25	1080
	43		1175	106	349	6,1				
SHF 10 A	33	585		160	539	5,6	0,113	1,59	2	1440
	58		1100	141	503	5,9				
SHF 12 A	42	550		210	729	6,1	0,1089	1,5	2,87	1835
	84		1050	206	764	6,6				
SHF 14 A	55	500		272	1050	9,1	0,05946	0,92	4,5	2530
	112		980	272	1091	9,6				
SHF 16 A	81	460		388	1682	13,2	0,0352	0,46	8,25	3395
	163		925	394	1683	12,3				
SHF 18 A	110	415		528	2531	19,2	0,0267	0,407	15,5	4340
	210		840	504	2387	18,2				
SHF 20 A	136	390		668	3330	13,8	0,0183	0,33	28,75	6160
	272		780	650	3330	13,8				
SHF 22 A	185	360		880	4908	13,0	0,0149	0,264	45	7900
	340		720	814	4510	15,2				
SHF 24 A	247	340		1177	6938		0,0084	0,245	69,2	9550
	452		680	1085	6348					

MODIFIKACE B / MODIFIKATION B / MODIFICATION B										
TYP TYPE	Výkon Leistung Output	Napětíkotvy Ankerspannung Armature voltage	Otáčky Drehzahl Speed	Proud kotvy Ankerstrom Armature Current	Točivý moment Drehmoment Torque	Budičiproud Erregerstrom Excitation current	R_a při 120 °C R_a bei 120 °C R_a at 120 °C	L_a	Mom. setrvačnosti Trägheitsmoment Mom. of inertia	Hmotnost Masse Weight
	[kW]	[V]	[min ⁻¹]	[A]	[Nm]	[A]	[Ω]	[mH]	[kgm ²]	[kg]
SHF 06 B	17	440	700	45	232	4,6	0,987	11,97	0,75	810
SHF 08 B	23	440	625	60	351	4,6	0,673	6,84	1,25	1100
SHF 10 B	33	440	585	83,5	539	7,7	0,413	5,20	2	1385
SHF 12 B	47	440	550	119	816	7,6	0,286	3,87	2,87	1800
SHF 14 B	62	440	500	156	1184	8,8	0,2057	3,26	4,5	2455
SHF 16 B	90	440	460	227	1868	12,4	0,1554	2,13	8,25	3300
SHF 18 B	120	440	415	305	2760	14,5	0,1211	1,75	15,5	4800
SHF 20 B	160	440	390	403	3918	16	0,0787	1,25	28,75	6500
SHF 22 B	210	440	360	530	5570	12,2	0,0595	1,08	45	7800
SHF 24 B	274	440	340	690	7696					9550

ŠTÍTKOVÉ HODNOTY MOTORŮ
SCHILDANGABEN DER MOTOREN
RATED DATA FOR MOTOR

SHA

IP 44 (IP 54) / IC 410

MODIFIKACE A / MODIFIKATION A / MODIFICATION A										
TYP TYPE	Výkon Leistung Output	Otáčky při Drehzahl bei Speed at 230V 440V		Proud kotvy Ankerstrom Armature Current	Točivý moment Drehmoment Torque	Budičiproud Erregerstrom Excitation current	R _a při 120 °C R _a bei 120 °C R _a at 120 °C	L _a	Mom. setrvačnosti Trägheitsmoment Mom. of inertia	Hmotnost Masse Weight
	[kW]	[rpm]	[rpm]	[A]	[Nm]	[A]	[Ω]	[mH]	[kgm ²]	[kg]
SHA 802 A	4,5	1080		22	39,8	2,2	0,4396	10	0,420	290
	5,6		2160	14	24,7	2,4				
SHA 803 A	5	960		25	49,7	2,5	0,3317	9	0,53	360
	7,5		1920	18	37,3	2,7				
SHA 804 A	8	900		38	85	2,6	0,2478	7	0,97	460
	10,5		1740	25	57,6	2,9				
SHA 06 A	8	800		39	95,5	2,0	0,2744	1,97	0,75	590
	14		1550	36	86	2,3				
SHA 08 A	12	700		58	164	2,2	0,1921	1,9	1,25	870
	19		1300	48	140	2,5				
SHA 10 A	15	650		71	220	2,9	0,1190	1,53	2	1080
	23		1200	58	183	3,2				
SHA 12 A	21	600		96	334	2,7	0,0802	1,17	2,87	1425
	31		1150	77	257	2,9				
SHA 14 A	26	550		123	451	4,9	0,0558	0,84	4,5	2030
	40		1050	97	364	5,2				
SHA 16 A	29	700		135	396	4,3	0,0386	0,46	8,25	2640
	50		1200	124	398	5,1				

• HODNOTY PŘI NAPĚTÍ KOTVY 460V
• WERTE BEI DER ANKERSPANNUNG VON 460 V
• VALUES AT THE ARMATURE VOLTAGE OF 460V

MODIFIKACE B / MODIFIKATION B / MODIFICATION B										
TYP TYPE	Výkon Leistung Output	Napětí kotvy Ankerspannung Armature voltage	Otáčky Drehzahl Speed	Proud kotvy Ankerstrom Armature Current	Točivý moment Drehmoment Torque	Budičiproud Erregerstrom Excitation current	R _a při 120 °C R _a bei 120 °C R _a at 120 °C	L _a	Mom. setrvačnosti Trägheitsmoment Mom. of inertia	Hmotnost Masse Weight
	[kW]	[V]	[min ⁻¹]	[A]	[Nm]	[A]	[Ω]	[mH]	[kgm ²]	[kg]
SHA 802 BS	3,5	440	900	9,3	37,1	0,83	4,75	47,6	0,36	250
SHA 802 B	5,6	460	1080	14	49,5	1,8	1,728	20	0,42	295
SHA 803 B	7,5	460	960	18	74,6	2,1	1,163	18	0,53	345
SHA 804 B	8	460	900	19	84,9	2,4	1,052	17	0,97	460
SHA 06 B	8,5	440	800	22	101	2,4	1,099	13,4	0,75	585
SHA 08 B	12	440	700	30	164	2,5	0,731	7,3	1,25	870
SHA 10 B	15	440	650	37	220	3,6	0,556	5,3	2	1020
SHA 12 B	21,5	440	600	53	342	4,1	0,286	4,0	2,87	1340
SHA 14 B	28	440	550	68	486	4,8	0,204	3,26	4,5	2040
SHA 16 B	33	440	500	81	630	5,4	0,150	2,13	8,25	2630

ŠTÍTKOVÉ HODNOTY MOTORŮ
SCHILDANGABEN DER MOTOREN
RATED DATA FOR MOTOR

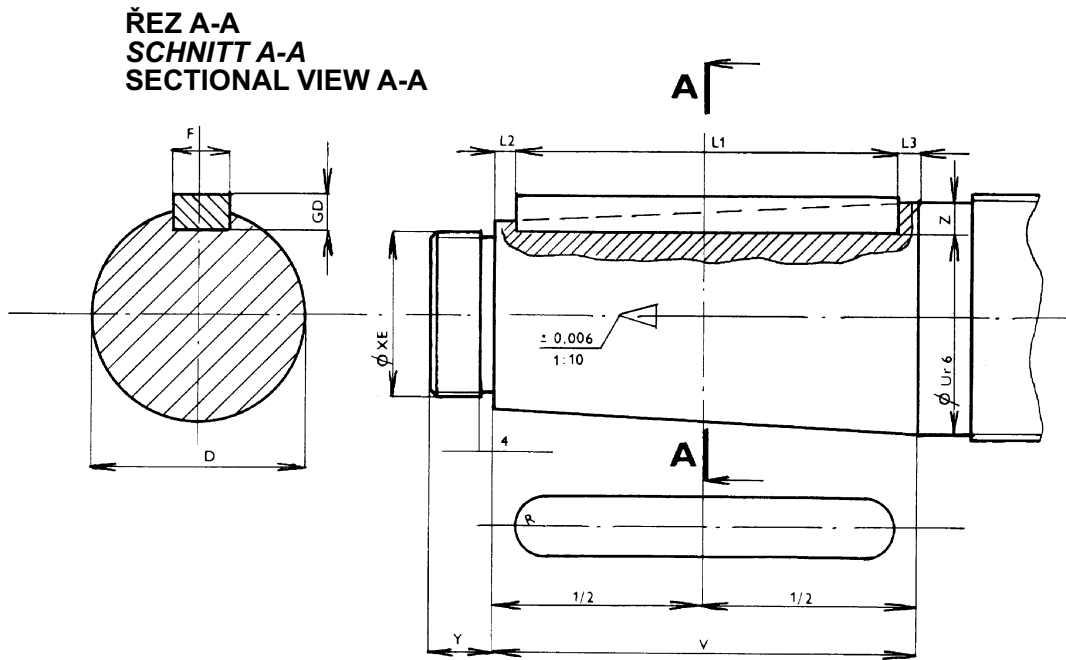
SHW

IP 44 (IP 54) / IC 86 W

MODIFIKACE A / MODIFIKATION A / MODIFICATION A										
TYP TYPE	Výkon Leistung Output	Otáčky při Drehzahl bei Speed at 230V 440V		Proud kotvy Ankerstrom Armature Curren	Točivý moment Drehmoment Torque	Budičiproud Erregerstrom Excitation current	R _a při 120 °C R _a bei 120 °C R _a at 120 °C	L _a	Mom. setrvačnosti Trägheitsmoment Mom. of inertia	Hmotnost Masse Weight
	[kW]	[min ⁻¹]		[A]	[Nm]	[A]	[Ω]	[mH]	[kgm ²]	[kg]
SHW 06 A	18,5	700		95	252	5	0,299	2,26	0,75	1300
	37		1400	93	252	5				
SHW 08 A	26	625		132	397	7,1	0,2022	1,9	1,25	1500
	51		1175	127	414	8,6				
SHW 10 A	37	585		185	604	5,5	0,119	1,59	2,0	1750
	75		1100	183,5	651	5,9				
SHW 12 A	53,5	550		274	929	6,2	0,107	1,5	2,87	2200
	110		1050	274	1000	7,3				
SHW 14 A	76	500		375	1452	8,3	0,0607	0,92	4,5	3000
	148		980	361	1442	9,2				
SHW 16 A	112	460		548	2325	11,5	0,0368	0,46	8,25	3700
	222		925	539	2292	11,8				
SHW 18 A	150	415		729	3452	18	0,0257	0,407	15,5	5000
	296		840	717	3365	21,3				
SHW 20 A	206	390		995	5044	14,2	0,0182	0,33	28,75	6000
	406		780	982	4971	14,2				
SHW 22 A	278	360		1356	7375	17,2	0,0153	0,264	45	8200
	550		720	1333	7295	17,5				
SHW 24 A	380	340		1810	10673	16,6	0,0084	0,245	69,2	9900
	754		680	1810	10589	16,6				

MODIFIKACE B / MODIFIKATION B / MODIFICATION B										
TYP TYPE	Výkon Leistung Output	Napětíkotvy Ankerspannung Armature voltage	Otáčky Drehzahl Speed	Proud kotvy Ankerstrom Armature Current	Točivý moment Drehmoment Torque	Budičiproud Erregerstrom Excitation current	R _a při 120 °C R _a bei 120 °C R _a at 120 °C	L _a	Mom. setrvačnosti Trägheitsmoment Mom. of inertia	Hmotnost Masse Weight
	[kW]	[V]	[min ⁻¹]	[A]	[Nm]	[A]	[Ω]	[mH]	[kgm ²]	[kg]
SHW 06 B	18.5	440	700	49.3	252	4.5	1.098	7.99	0.75	1300
SHW 08 B	27		625	70,5	412	4,5	0,720	6,84	1,25	1500
SHW 10 B	38		585	98,5	620	7,3	0,416	5,2	2	1750
SHW 12 B	56		550	143	972	9,2	0,26	3,87	2,87	2190
SHW 14 B	76		500	194	1452	10,7	0,204	3,26	4,5	2985
SHW 16 B	112		460	288	2325	10,5	0,153	2,13	8,25	3660
SHW 18 B	150		415	386	3452	14,6	0,0981	1,75	15,5	4950
SHW 20 B	206		390	520	5044	17,1	0,0698	1,25	28,75	5850
SHW 22 B	278		360	709	7375	16,5	0,0575	1,08	45	8150
SHW 24 B	375		340	944	10533					69,2

DETAIL KUŽELOVÉHO ČEPU
DETAIL DES KONISCHEN WELLENENDES
DETAIL OF A TAPERED SHAFT EXTENSION



MATICE PRO ϕ XE
 MUTTERN FÜR ϕ XE
 THE NUTS FOR ϕ XE

	50	85	15	M35x1,5	45,75	$7,2^{+0,2}$	12	8	80	2,5	2,5
	50	95	15	M35x1,5	45,25	$7,2^{+0,2}$	12	8	90	2,5	2,5

NÁHRADNÍ DÍLY ERSATZTEILE SPARE PARTS

TYP TYPE			Náhradní díly / Ersatzteile / Spare parts			
			Ložiska / Lager / Bearings		Kartáče / Bürsten / Carbon brushes EG 367	
			zadní / hinter / non-drive end	přední / vorder / drive end	Ks / Stk. / Pcs	Rozměr / Abmessung / Dimensions
SHA SHC SHK	802	A B	NU311/P63	6311/P63	8	10x16x32
SHA SHC SHK	803	A B	NU311/P63	6311/P63	12 8	10x16x32
SHA SHC SHK	804	A B	NU312/P63	6312/P63	8	16x25x40
SHA	08	A B	NU315/C3	6315/C3	4	16x25x50
SHA	10	A B	NU317/P63	6317/P64	8	16x25x50
SHA	12	A B	NU319M/P63	6319M/P64	4 8	16x25x50 12.5x25x50
SHA	14	A B	NU322M/P63	6322M/P64	32 16	10x32x50
SHA	16	A B	NU324M/P63	6324M/P64	16 8	12.5x32x50
SHF SHW	06	A B	NU313/P63	6313/P63	8 4	12.5x25x50
SHF	08	A B	NU315/C3	6315/C3	8 4	16x25x50
SHF	10	A B	NU317/P63	6317/P64	8 4	16x25x50
SHF	12	A B	NU319M/P63	6319M/P64	12 8	16x25x50
SHF	14	A B	NU322M/P63	6322M/P64	24 8	10x32x50
SHF	16	A B	NU324M/P63	6324M/P64	32 16	12.5x32x50
SHF	18	A B	NU326M/P63	6326M/P64	24 16	12.5x32x50
SHF	20	A B	NU330M/P63NA	6330M/P64	40 16	12.5x32x50 16x32x50
SHF	22	A B	NU332M/P63NA	6332M/P64	40 24	16x32x50
SHC SHK SHW	08	A B	NU315/C3	6315M/P64	8 4	16x25x50
SHC SHK SHW	10	A B	NU317/P63	6317/P64	12 8	16x25x50
SHC SHK SHW	12	A B	NU319M/P63	6319M/P64	12 8	16x25x50 20x25x50
SHC SHK SHW	14	A B	NU322M/P63	6322M/P64	24 16	10x32x50
SHC SHK SHW	16	A B	NU324M/P63	6324M/P64	32 16	12.5x32x50
SHC SHK SHW	18	A B	NU326M/P63	6326M/P64	32 16	16x32x50 12.5x32x50
SHC SHK SHW	20	A B	NU330M/P63NA	6330M/P64	40 24	16x32x50
SHC SHK SHW	22	A B	NU332M/P63NA	6332M/P64	56 32	16x32x50
SHC SHK SHW	24	A B	NU336M/C3	6336M/C3	56	20x32x50

ROZSAH REGULACE OTÁČEK DREHZAHLREGELBEREICH SPEED CONTROL RANGE

TYP TYPE	MODIFIKACE A / MODIFIKATIONA / MODIFICATION A			MODIFIKACE B / MODIFIKATIONB / MODIFICATION B		
	Regulace napětí při M= konst. do Spannungsregelung beim M = konst. bis Armature speed range at constant torque up to		Max. otáčky při U_n Max. Drehzahl bei U_n Max. speed at U_n	Regulace napětí při M= konst. do Spannungsregelung beim M = konst. bis Armature speed range at constant torque up to		Max. otáčky při U_n odbuzení Max. Drehzahl bei U_n durch Entregung Max. speed at U_n by field weakening
	Napětí Spannung Voltage	Otáčky Drehzahl Speed				
	[V]	[min ⁻¹]	[min ⁻¹]	[V]	[min ⁻¹]	[min ⁻¹]
SH 802	550	2150	2700	550	1100	2700
SH 803	500	1750	2400	550	980	2400
SH 804	600	1925	2175	600	985	2175
SH 06	600	1900	4000	600	950	2100
SH 08	600	1635	3500	600	885	1875
SH 10	600	1550	3300	600	800	1755
SH 12	525	1250	3150	600	770	1650
SH 14	600	1355	2550	600	700	1500
SH 16	600	1275	2250	600	645	1380
SH 18	600	1150	2050	600	580	1260
SH 20	600	1075	1650	600	545	1170
SH 22	550	900	1500	600	500	1080
SH 24	600	935	1400	600	475	1020

U_n - jmenovité napětí 440 V pro SH 06-24, 460 V pro SH 802-804
 U_n - Nennspannung 440 V für SH 06-24, 460 V für SH 802-804
 U_n - rated voltage - 440 V for SH 06-24, 460 V for SH 802 - 804

CHLADICÍ VZDUCH PRO TYP SHC KÜHLLUFT FÜR DEN TYP SHC COOLING AIR FOR TYPE SHC

TYP TYPE	Q	Tlak / Druck / Pressure
	[m ³ /s]	[Pa]
SHC 802	0,08	535
SHC 803	0,12	440
SHC 804	0,19	960
SHC 08	0,26	500
SHC 10	0,35	550
SHC 12	0,5	650
SHC 14	0,7	750
SHC 16	1	900
SHC 18	1,3	1000
SHC 20	1,5	1100
SHC 22	2,3	1800
SHC 24	2,8	2000