



CEB -71204/a of 13 december 2005



**Technical Catalogue**

**SLSHR**  
**3-Phase Totally Enclosed Induction Motor**  
**Steel Housing**  
**Water-Cooled**  
**30 to 1800 kW**

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The SLSHR motor is particularly suitable for applications which require low noise levels, high power with IP 55 protection, high speed and compact dimensions:

- Bow thruster units
- Test benches
- Pumps
- Fans
- Compressors
- Extrusion machines
- Open deck marine equipment
- Hydraulic turbine

## A – GENERAL INFORMATION

- Motor cooled by water circuit integrated in the IC 4A1W7 housing
- Dissipation of losses by an external water circuit
- Reduced noise and vibration levels
- Improved efficiency
- Compact design
- IP 55 (IP 56 on request)
- Motor adapted for operation on a constant torque drive

## B – NOISE LEVEL

The water cooling system used in the SLSHR motor enables the removal of the fan and ensures a reduced noise level (LpA between 63 and 75 dBA – see selection tables on pages 7 - 13).

## C – VARIABLE SPEED OPERATION

- The SLSHR motor is particularly well-adapted for variable speed operation, at constant torque of 0 to 50 Hz.  
The cooling of the motor actually remains constant whatever the point of operation.

## D – ENVIRONMENT

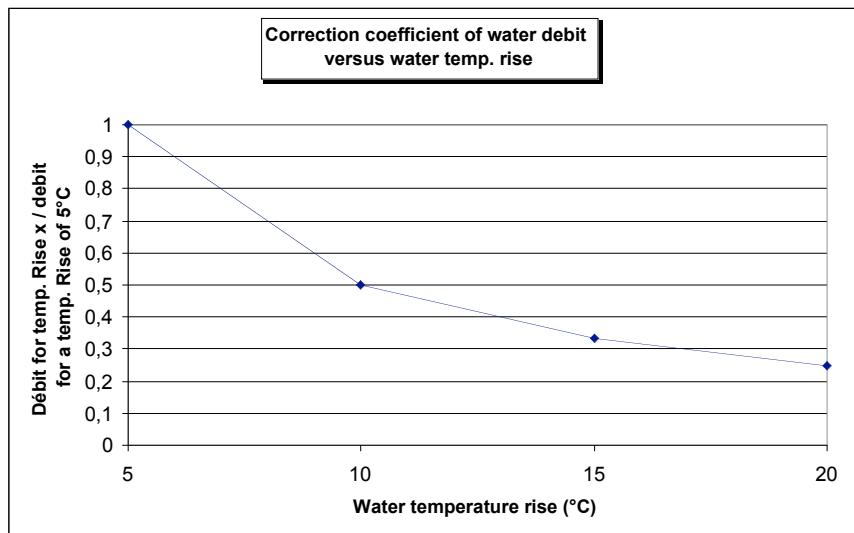
- The normal operating conditions are:
  - Ambient temperature: -16°C/+40°C
  - Altitude : no influence
  - Atmospheric pressure: 1050 hPa (mbar)
  - 3-phase power supply
  - Class F insulation
  - Class B temperature rise
- The correction of power according to the altitude and ambient temperature is different than standard cast iron FLS motors (see FLS catalogue). (No derating due to altitude ; possibility of ambient temperature >40°C without derating. Consult us)
- The standard painting system is system II a, colour RAL 6000

## E – DESCRIPTION OF STANDARD SLSHR MOTORS

Component	Materials	Remarks
<b>Smooth double casing housing</b>	Steel	<ul style="list-style-type: none"> <li>- with integral feet, or without feet</li> <li>- 4, 6, or 8 fixing holes for foot mounted housings</li> <li>- earth terminal on foot</li> <li>- water circuit included in the thickness of the housing</li> <li>- water flows in and out via tapped holes</li> </ul>
<b>Stator</b>	Insulated low-carbon magnetic steel laminations Insulated electroplated copper	<ul style="list-style-type: none"> <li>- low carbon content guarantees long-term lamination pack stability</li> <li>- welded packs</li> <li>- semi-enclosed slots</li> <li>- class F or H insulation</li> </ul>
<b>Rotor</b>	Insulated low-carbon magnetic steel laminations Aluminium (A5L) or copper	<ul style="list-style-type: none"> <li>- inclined cage bars</li> <li>- rotor cage pressure die-cast in aluminium (or alloy for special applications) or soldered in copper</li> <li>- shrink-fitted to shaft, or keyed for soldered rotors</li> <li>- rotor balanced dynamically, class N, _ key</li> </ul>
<b>Shaft</b>	Steel	<ul style="list-style-type: none"> <li>- tapped hole</li> <li>- open keyway</li> </ul>
<b>End shields</b>	Cast iron: Up to SLSHR 315 M Steel: From SLSHR 315 LA	- water cooling circuit bearing integrated from SLSHR 315 LA
<b>Bearings and lubrication</b>		<ul style="list-style-type: none"> <li>- ball bearings C3 play</li> <li>- open type and regreasable</li> <li>- bearings preloaded at NDE up to 315 S, preloaded at DE from size 315 M upwards</li> </ul>
<b>Labyrinth seal Lipseals</b>	Steel	<ul style="list-style-type: none"> <li>- decompression grooves at the front for frame sizes 225M to 280M &amp; ≥315LA</li> <li>- labyrinth seal at the front for frame sizes 315S to 315M</li> <li>- cover plate at the back</li> </ul>
<b>Terminal box</b>	Cast iron body and cover for all frame sizes.	<ul style="list-style-type: none"> <li>- IP 55</li> <li>- fitted with a terminal block with 6 terminals up to 355 LD, 12 terminals thereafter</li> <li>- supplied with undrilled cable gland plate</li> <li>- nozzle and cable gland optional</li> <li>- 1 earth terminal in the terminal box</li> </ul>

## F – COOLING

MOTOR TYPE	Minimum Water Flow [l/min]	Water Temperature Rise [°C]	Minimum Water Inlet Pressure [bar]
SLSHR 250	15	5	2
SLSHR 280	20	5	2
SLSHR 315 L	30	5	2
SLSHR 355 L	60	5	2
SLSHR 355 LK / 400 L	90	5	2
SLSHR 400 LK / 450	135	5	2



- The pressure drop inside the motor is less than 1.5 bar.
- The water inlet pressure must not exceed 5 bar.
- The water inlet temperature must not exceed 40°C (please contact Leroy-Somer for other temperatures)
- For an ambient temperature of < 5°C, the cooling liquid must consist of approximately 50% water and 50% glycol.
- All motors are fitted with two tapped bosses G3/4" ISO 228 for the inward and outward water flow.
- All motors are fitted with drain holes for draining condensates at the bottom.
- All housings are fitted with a drain hole and degassing hole for the water circuit.
- Motors from 315 LA are fitted with water-cooled DE and NDE bearings. The cooling circuit for these bearings is integrated in that of the housing and does not require additional connection.

## G – MOUNTING ARRANGEMENT AND OPERATING POSITION

- The mounting arrangements are the same as for standard cast iron FLS motors (see FLS catalogue - ref. 3653).

## H – BEARINGS AND LUBRICATION

- The types of bearings, mountings, loads permissible on the shaft extension and regreasing intervals are the same as for standard cast iron FLS motors (see FLS catalogue - ref. 3653). In case of water cooled endshields, re-greasing intervals could be longer (consult us).

## I – SUPPLY CONNECTION

- The terminal box can be mounted freely in all positions (A, B or D) and even at another angle defined by the customer.
- The cable gland positions are the same as for standard cast iron FLS motors (see FLS catalogue - ref. 3653).
- All motors are supplied with an undrilled cable gland mounting plate, without nozzle or cable gland.
- The terminal blocks are the same as for standard cast iron FLS motors (see FLS catalogue - ref. 3653).

## J – OPTIONS

- A number of mechanical and electrical options are available on request:
  - Stainless steel housing
  - Adaptable interface and footing for interchangeability
  - Operation in corrosive environments
  - Oil cooling
  - IP 56
  - Special flange
  - etc.

*Please consult Leroy-Somer*

The complete motor reference described below will enable you to order the desired material.

The selection method consists of following the name.

SLSHR	450	LA	4P	500 kW	400 VD	50 Hz	IP 55	IM 1001 IM B3
Range Designation	Frame Size CEI 72	Description of Housing	No. of Poles	Nominal Power	Mains Voltage	Mains Frequency	Protection	Mounting Arrangement

## K – ELECTRICAL CHARACTERISTICS

## K1 - 2 POLES

**2 POLES****Δ230/400Y or 400 V SUPPLY – 50 HZ**

Type	Pn [kW]	Nn [rpm]	Tn [Nm]	In [A]	PF – Pn	PF 4/4 Pn	Eff – Pn	Eff 4/4 Pn	Id/In	Td/Tn	Tm/Tn	PA [kVA]	J [m_.kg]	Weight [kg]
SLSHR 250 M	<b>55</b>	2966	177	94	0.87	0.89	94.3	94.8	7.9	2.5	3.5	65	0.44	405
SLSHR 280 S	<b>75</b>	2965	241	127	0.88	0.90	94.4	94.8	8	2.7	3.8	88	0.47	505
SLSHR 280 M	<b>90</b>	2962	290	149	0.89	0.91	95.3	95.6	7.7	2.6	3.7	104	0.53	560
SLSHR 315 ST	<b>110</b>	2975	356	178	0.92	0.93	95.9	95.9	8.2	2.8	3.3	123	1.08	850
SLSHR 315 M	<b>132</b>	3962	427	221	0.89	0.90	95.6	96.1	7.5	1.8	2.7	153	1.71	1000
SLSHR 315 LA	<b>160</b>	2969	517	272	0.87	0.89	95.2	95.7	7.5	2	3	188	1.71	1050
SLSHR 315 LB	<b>200</b>	2967	647	342	0.86	0.88	95.6	96.1	7.7	2.3	3.4	237	1.99	1150
SLSHR 355 LA	<b>250</b>	2978	808	424	0.88	0.89	95.4	95.8	7.2	2.1	2.6	294	3.39	1400
SLSHR 355 LB	<b>275</b>	2980	881	464	0.88	0.89	96.2	96.5	8.4	2.3	2.9	322	3.39	1500
SLSHR 355 LB	<b>315</b>	2976	1016	525	0.89	0.90	96.1	96.4	7.2	1.8	2.5	364	3.39	1500
SLSHR 355 LC	<b>330</b>	2980	1057	560	0.86	0.88	96.5	96.7	7.9	1.9	2.6	388	3.39	1915
SLSHR 355 LC	<b>355</b>	2979	1137	588	0.88	0.90	96.6	96.9	8.2	2.3	3.1	407	4.03	1915
SLSHR 355 LD	<b>400</b>	2977	1284	673	0.87	0.89	96.3	96.6	7.8	2	2.7	466	4.03	1915

Note: higher powers versus frame size are available (see table on pages 15 – 16)

**2 POLES****380 V SUPPLY – 50 Hz****415 V SUPPLY – 50 Hz****460 V SUPPLY – 60 Hz**

Type	Pn [kW]	Nn [rpm]	In [A]	PF	Eff	Nn [rpm]	In [A]	PF	Eff
SLSHR 250 M	<b>55</b>	2962	98	0.90	94.7	2970	91	0.89	94.8
SLSHR 280 S	<b>75</b>	2966	134	0.90	94.7	2967	124	0.89	94.8
SLSHR 280 M	<b>90</b>	2953	158	0.91	95.5	2967	146	0.90	95.8
SLSHR 315 ST	<b>110</b>	2971	188	0.93	95.8	2976	172	0.93	95.9
SLSHR 315 M	<b>132</b>	2957	230	0.91	96.1	2963	213	0.90	96.2
SLSHR 315 LA	<b>160</b>	2963	283	0.90	95.5	2972	265	0.88	95.6
SLSHR 315 LB	<b>200</b>	2956	358	0.89	95.5	2968	338	0.86	95.8
SLSHR 355 LA	<b>250</b>	2974	442	0.90	95.6	2978	409	0.89	95.7
SLSHR 355 LB	<b>275</b>	2973	482	0.90	96.6	2980	451	0.88	96.8
SLSHR 355 LB	<b>315</b>	2970	552	0.90	96.5	2976	516	0.88	96.8
SLSHR 355 LC	<b>330</b>	2980	590	0.88	96.7	2980	561	0.85	96.5
SLSHR 355 LC	<b>355</b>	2978	619	0.90	96.9	2983	589	0.87	96.5
SLSHR 355 LD	<b>400</b>	2976	709	0.89	96.5	2981	647	0.89	96.8

Pn [kW]	Nn [rpm]	In [A]	PF	Eff	LpA [dBA]
<b>63</b>	3562	93	0.90	94.6	68
<b>86</b>	3566	127	0.90	94.6	68
<b>103</b>	2567	151	0.90	95.6	68
<b>126</b>	3571	178	0.93	95.7	71
<b>150</b>	3557	216	0.91	95.9	73
<b>180</b>	3563	264	0.90	95.4	73
<b>230</b>	3556	341	0.89	95.4	73
<b>280</b>	3574	410	0.90	95.5	75
<b>315</b>	3576	457	0.90	96.3	75
<b>330</b>	3571	484	0.89	96.3	75
<b>380</b>	3576	567	0.88	95.9	75
<b>410</b>	3578	597	0.90	95.9	75
<b>440</b>	3576	657	0.89	95.8	75

Note: higher powers versus frame size are available (see table on pages 15 – 16)

**K2 - 4 POLES****4 POLES****Δ230/400Y or 400 V SUPPLY – 50 HZ**

Type	Pn [kW]	Nn [rpm]	Tn [Nm]	In [A]	PF Pn	PF 4/4 Pn	Eff Pn	Eff 4/4 Pn	Id/In	Td/Tn	Tm/Tn	PA [kVA]	J [m_.kg]	Weight [kg]
SLSHR 250 M	<b>55</b>	1479	355	101	0.80	0.84	94.8	94.7	6.5	2.4	2.5	70	0.7	395
SLSHR 280 S	<b>75</b>	1483	484	137	0.79	0.84	95	95.1	7.7	2.9	3	95	0.815	475
SLSHR 280 M	<b>90</b>	1478	581	162	0.82	0.85	95.2	95.2	7.6	3	3.1	112	1.015	565
SLSHR 315 ST	<b>110</b>	1482	710	203	0.80	0.83	94.7	95	7.3	2.9	2.7	141	1.83	850
SLSHR 315 M	<b>132</b>	1489	850	249	0.77	0.81	94.5	95.2	8	2.8	2.6	172	2.91	1000
SLSHR 315 LA	<b>160</b>	1486	1032	285	0.82	0.85	95.8	96	7.5	2.2	2.4	198	3.4	1050
SLSHR 315 LB	<b>200</b>	1487	1291	369	0.78	0.82	96	96.2	8	2.2	2.3	255	3.4	1150
SLSHR 355 LA	<b>250</b>	1487	1611	427	0.86	0.88	96.5	96.7	7.4	1.7	2.3	296	6.2	1510
SLSHR 355 LB	<b>300</b>	1489	1930	520	0.85	0.87	96.4	96.5	6.5	1.6	1.6	360	6.2	1550
SLSHR 355 LC	<b>315</b>	1490	2019	557	0.82	0.85	96.5	96.7	7.4	2.2	2.2	386	6.5	1800
SLSHR 355 LC	<b>355</b>	1489	2279	619	0.83	0.86	96.6	96.8	6.6	1.9	1.9	429	6.5	1800
SLSHR 355 LD	<b>400</b>	1489	2564	689	0.84	0.87	96.7	96.8	7.4	2.1	2.1	477	7.4	1930
SLSHR 400 LB	<b>400</b>	1491	2559	691	0.85	0.87	96.5	96.8	8	2	2.6	478	11.7	2350
SLSHR 355 LKB	<b>450</b>	1490	2880	767	0.86	0.88	96.6	96.9	7.6	1.8	2.3	532	11.7	2320
SLSHR 400 LB	<b>450</b>	1490	2880	767	0.86	0.88	96.6	96.9	7.6	1.8	2.3	532	11.7	2350
SLSHR 355 LKB	<b>500</b>	1490	3200	854	0.86	0.88	96.4	96.7	6.5	1.7	2.2	592	11.7	2320
SLSHR 400 LVB	<b>500</b>	1490	3200	864	0.84	0.87	96.4	96.7	6.5	1.7	2.2	599	11.7	2350
SLSHR 450 LA	<b>500</b>	1492	3200	864	0.84	0.87	96.4	96.7	8	1.6	2.2	599	21	3100
SLSHR 450 LVA	<b>550</b>	1491	3525	940	0.85	0.88	96.4	96.7	7.9	1.5	2.1	651	21	3100
SLSHR 450 LB	<b>630</b>	1493	4030	1089	0.84	0.87	96.4	96.7	8.2	1.5	2.1	754	24	3450
SLSHR 450 LVB	<b>675</b>	1491	4326	1164	0.84	0.87	96.4	96.7	8	1.4	1.9	807	24	3450

Note: higher powers versus frame size are available (see table on pages 15 – 16)

**4 POLES****380 V SUPPLY – 50 Hz****415 V SUPPLY – 50 Hz****460 V SUPPLY – 60 Hz**

Type	Pn [kW]	Nn [rpm]	In [A]	PF	Eff	Nn [rpm]	In [A]	PF	Eff
SLSHR 250 M	<b>55</b>	1476	102	0.87	94.8	1481	100	0.81	94.5
SLSHR 280 S	<b>75</b>	1480	140	0.86	95	1484	136	0.81	94.7
SLSHR 280 M	<b>90</b>	1477	167	0.86	95.5	1481	158	0.83	95.5
SLSHR 315 ST	<b>110</b>	1479	207	0.85	95	1487	194	0.83	95.3
SLSHR 315 M	<b>132</b>	1487	254	0.83	95.3	1488	249	0.78	94.7
SLSHR 315 LA	<b>160</b>	1485	291	0.87	95.9	1487	284	0.82	95.8
SLSHR 315 LB	<b>200</b>	1486	362	0.87	94.8	1492	357	0.81	96.2
SLSHR 355 LA	<b>250</b>	1485	443	0.89	96.5	1488	415	0.87	96.5
SLSHR 355 LB	<b>300</b>	1487	545	0.87	96.4	1490	498	0.87	96.5
SLSHR 355 LC	<b>315</b>	1488	577	0.86	96.5	1491	548	0.83	96.6
SLSHR 355 LC	<b>355</b>	1487	641	0.87	96.7	1490	608	0.84	96.7
SLSHR 355 LD	<b>400</b>	1488	722	0.87	96.7	1490	685	0.84	96.7
SLSHR 400 LB	<b>400</b>	1490	707	0.89	96.7	1492	672	0.86	96.5
SLSHR 355 LKB	<b>450</b>	1489	795	0.89	96.7	1491	748	0.87	96.5
SLSHR 400 LB	<b>450</b>	1489	795	0.89	96.7	1491	748	0.87	96.5
SLSHR 355 LKB	<b>500</b>	1489	892	0.88	96.8	1491	833	0.87	96.3
SLSHR 400 LVB	<b>500</b>	1489	892	0.88	96.8	1491	833	0.87	96.3
SLSHR 450 LA	<b>500</b>	1492	895	0.88	96.7	1491	840	0.86	96.5
SLSHR 450 LVA	<b>550</b>	1491	973	0.89	96.7	1490	913	0.87	96.5
SLSHR 450 LB	<b>630</b>	1493	1132	0.88	96.7	1492	1063	0.86	96.5
SLSHR 450 LVB	<b>675</b>	1491	1205	0.88	96.7	1490	1132	0.86	96.5

Pn [kW]	Nn [rpm]	In [A]	PF	Eff	LpA [dBA]
<b>63</b>	1776	96	0.87	94.7	64
<b>86</b>	1780	133	0.86	94.7	64
<b>103</b>	1777	158	0.86	95.2	64
<b>125</b>	1779	195	0.85	94.9	66
<b>150</b>	1787	239	0.83	95	67
<b>185</b>	1785	279	0.87	95.8	67
<b>230</b>	1786	344	0.87	96.5	67
<b>285</b>	1785	417	0.89	96.5	70
<b>345</b>	1787	519	0.87	96.2	70
<b>360</b>	1780	546	0.86	96.4	70
<b>405</b>	1787	605	0.87	96.6	70
<b>460</b>	1788	688	0.87	96.6	70
<b>460</b>	1790	681	0.88	96.6	71
<b>515</b>	1789	763	0.88	96.6	71
<b>515</b>	1789	763	0.88	96.6	71
<b>575</b>	1792	860	0.87	96.7	71
<b>575</b>	1792	860	0.87	96.7	71
<b>575</b>	1791	862	0.87	96.5	72
<b>630</b>	1791	934	0.88	96.5	72
<b>725</b>	1793	1092	0.87	96.5	72
<b>775</b>	1791	1160	0.87	96.6	72

Note: higher powers versus frame size are available (see table on pages 15 – 16)

**K3 - 6 POLES****6 POLES****Δ230/400Y or 400 V SUPPLY – 50 HZ**

Type	Pn [kW]	Nn [rpm]	Tn [Nm]	In [A]	PF – Pn	PF 4/4 Pn	Eff – Pn	Eff 4/4 Pn	Id/In	Td/Tn	Tm/Tn	PA [kVA]	J [m_.kg]	Weight [kg]
SLSHR 250 M	<b>37</b>	977	362	73	0.76	0.80	92.8	92.7	6.2	2.2	2.6	50	0.94	394
SLSHR 280 S	<b>45</b>	971	440	84	0.80	0.84	93.3	93.2	6	1.9	2.3	58	1.13	455
SLSHR 280 M	<b>55</b>	977	538	109	0.75	0.79	93.3	93.2	6.9	2.8	3.3	75	1.26	532
SLSHR 315 ST	<b>75</b>	987	731	133	0.84	0.86	95	95	6.5	2.3	2.1	92	1.8	850
SLSHR 315 M	<b>90</b>	987	875	161	0.83	0.85	95.8	95.6	6.7	1.7	1.5	111	2.6	1000
SLSHR 315 LA	<b>110</b>	983	1067	199	0.83	0.85	94.9	94.7	6	1.5	1.3	138	2.6	1050
SLSHR 315 LB	<b>132</b>	988	1280	241	0.81	0.83	96.1	96	7.4	2	1.8	167	3.5	1125
SLSHR 315 LB	<b>150</b>	986	1454	277	0.81	0.82	96.1	96	6.6	1.5	2.5	192	3.5	1125
SLSHR 355 LA	<b>185</b>	987	1783	346	0.77	0.81	95.8	96	7.5	2	3.3	240	5.4	1415
SLSHR 355 LB	<b>220</b>	988	2129	412	0.77	0.81	95.7	95.8	7.4	1.9	3.1	286	6.3	1535
SLSHR 355 LD	<b>250</b>	993	2406	459	0.79	0.82	96.7	96.7	7.8	2.1	2.3	317	8.6	1935
SLSHR 355 LD	<b>300</b>	992	2885	558	0.79	0.82	95.5	95.4	6.8	1.65	1.8	386	8.6	1935
SLSHR 355 LKB	<b>350</b>	994	3376	637	0.80	0.83	96	96.2	6.5	1.7	1.6	442	17	2350
SLSHR 400 LB	<b>350</b>	994	3376	637	0.80	0.83	96	96.2	6.5	1.7	1.6	442	17	2400
SLSHR 450 LA	<b>400</b>	996	3851	773	0.72	0.78	96.0	96.5	8	2	2.2	535	33	3230
SLSHR 400 LKB	<b>500</b>	996	4809	952	0.73	0.79	96.2	96.5	8	2	2.2	659	35	3350
SLSHR 450 LB	<b>500</b>	996	4809	952	0.73	0.79	96.0	96.6	8	2	2.2	659	35	3400
SLSHR 450 LB	<b>550</b>	996	5273	1034	0.74	0.8	96.0	96.6	7.5	1.8	1.9	716	35	3400

Note: higher powers versus frame size are available (see table on pages 15 – 16)

**6 POLES****380 V SUPPLY – 50 Hz****415 V SUPPLY – 50 Hz****460 V SUPPLY – 60 Hz**

Type	Pn [kW]	Nn [rpm]	In [A]	PF	Eff	Nn [rpm]	In [A]	PF	Eff
SLSHR 250 M	<b>37</b>	973	75	0.81	92.6	979	72	0.78	92.3
SLSHR 280 S	<b>45</b>	967	87	0.85	92.8	972	83	0.82	92.8
SLSHR 280 M	<b>55</b>	973	110	0.82	92.8	978	107	0.77	93.2
SLSHR 315 ST	<b>75</b>	986	137	0.88	94.8	988	128	0.86	95
SLSHR 315 M	<b>90</b>	985	165	0.87	95.7	988	156	0.84	95.6
SLSHR 315 LA	<b>110</b>	981	206	0.86	94.9	985	198	0.82	94.8
SLSHR 315 LB	<b>132</b>	986	250	0.84	95.9	989	243	0.79	95.7
SLSHR 315 LB	<b>150</b>	988	284	0.84	95.9	990	277	0.79	95.7
SLSHR 355 LA	<b>185</b>	983	345	0.85	96.2	988	357	0.76	95.4
SLSHR 355 LB	<b>220</b>	985	418	0.84	95.7	988	413	0.78	95.4
SLSHR 355 LD	<b>250</b>	991	477	0.83	96.7	994	450	0.8	96.7
SLSHR 355 LD	<b>300</b>	990	571	0.84	95.4	993	549	0.8	95.4
SLSHR 355 LKB	<b>350</b>	993	676	0.82	96.2	995	669	0.76	96.1
SLSHR 400 LB	<b>350</b>	993	676	0.82	96.2	995	669	0.76	96.1
SLSHR 450 LA	<b>400</b>	995	778	0.81	96.6	996	784	0.74	96.2
SLSHR 400 LKB	<b>500</b>	995	961	0.82	96.6	996	955	0.76	96.2
SLSHR 450 LB	<b>500</b>	995	961	0.82	96.6	996	955	0.76	96.2
SLSHR 450 LB	<b>550</b>	995	1045	0.83	96.6	996	1036	0.77	96.2

Pn [kW]	Nn [rpm]	In [A]	PF	Eff	LpA [dBA]
<b>42</b>	1173	71	0.81	92.4	63
<b>52</b>	1167	85	0.84	92.2	63
<b>63</b>	1173	104	0.82	92.6	63
<b>85</b>	1188	131	0.86	94.8	65
<b>105</b>	1185	159	0.87	95.5	66
<b>125</b>	1185	203	0.82	94.6	66
<b>150</b>	1186	235	0.84	95.8	66
<b>170</b>	1188	266	0.84	95.8	66
<b>210</b>	1184	328	0.84	96	69
<b>250</b>	1185	393	0.84	95.5	69
<b>287</b>	1191	450	0.83	96.5	69
<b>345</b>	1190	544	0.84	95.2	69
<b>400</b>	1193	648	0.81	96	70
<b>400</b>	1193	648	0.81	96	70
<b>460</b>	1195	751	0.80	96.4	70
<b>575</b>	1195	927	0.81	96.4	70
<b>575</b>	1195	927	0.81	96.4	70
<b>632</b>	1195	1007	0.82	96.4	70

Note: higher powers versus frame size are available (see table on pages 15 – 16)

**K4 - 8 POLES****8 POLES****Δ230/400Y or 400 V SUPPLY – 50 HZ**

Type	Pn [kW]	Nn [rpm]	Tn [Nm]	In [A]	PF – Pn	PF 4/4 Pn	Eff – Pn	Eff 4/4 Pn	Id/In	Td/Tn	Tm/Tn	PA [kVA]	J [m_kg]	Weight [kg]
SLSHR 250 M	<b>30</b>	729	393	61	0.74	0.78	92	91.4	6.2	1.8	2.5	42	0.83	393
SLSHR 280 S	<b>37</b>	723	487	75	0.74	0.78	92.3	92.2	4.5	1.3	1.8	52	1.4	472
SLSHR 280 M	<b>45</b>	730	592	102	0.66	0.7	92	92	6	2.3	3.2	70	1.75	563
SLSHR 315 ST	<b>55</b>	738	715	102	0.8	0.83	94.7	94.5	7.4	2.1	3	71	2.7	850
SLSHR 315 M	<b>75</b>	743	972	147	0.76	0.78	95.1	95	7.4	2	2.2	102	3.1	1000
SLSHR 315 LA	<b>90</b>	742	1169	177	0.76	0.78	95.1	95	6.7	1.9	2.1	122	4.2	1030
SLSHR 315 LB	<b>110</b>	742	1420	222	0.74	0.76	95.2	95	7.2	2	2.2	153	5.1	1125
SLSHR 355 LA	<b>132</b>	741	1704	258	0.75	0.78	95.4	95.4	6.7	2	2.2	179	5.5	1415
SLSHR 355 LB	<b>160</b>	741	2065	312	0.75	0.78	95.4	95.4	6.9	2	2.2	216	6	1535
SLSHR 355 LD	<b>200</b>	741	2581	364	0.81	0.84	95.2	95.3	6.7	1.6	1.7	252	6.5	1935
SLSHR 355 LKA	<b>250</b>	743	3235	464	0.77	0.82	95.3	95.5	6.8	1.6	2.2	322	18.5	2170
SLSHR 400 LA	<b>250</b>	743	3235	464	0.77	0.82	95.3	95.5	6.8	1.6	2.2	322	18.5	2200
SLSHR 355 LKB	<b>300</b>	741	3882	552	0.78	0.83	95.1	95.2	6	1.1	1.5	382	21.6	2370
SLSHR 400 LB	<b>300</b>	741	3882	552	0.78	0.83	95.1	95.2	6	1.1	1.5	382	21.6	2400
SLSHR 400 LKA	<b>350</b>	746	4500	652	0.78	0.81	95.9	96.2	6.2	1.7	1.4	452	40	3100
SLSHR 450 LA	<b>350</b>	746	4500	652	0.78	0.81	96.2	96.3	6.2	1.7	1.4	452	40	3150
SLSHR 400 LKB	<b>400</b>	746	5148	737	0.79	0.82	96.0	96.2	6.7	1.9	1.6	510	47	3420
SLSHR 450 LB	<b>400</b>	746	5148	737	0.79	0.82	96.2	96.3	6.7	1.9	1.6	510	47	3470

Note: higher powers versus frame size are available (see table on pages 15 – 16)

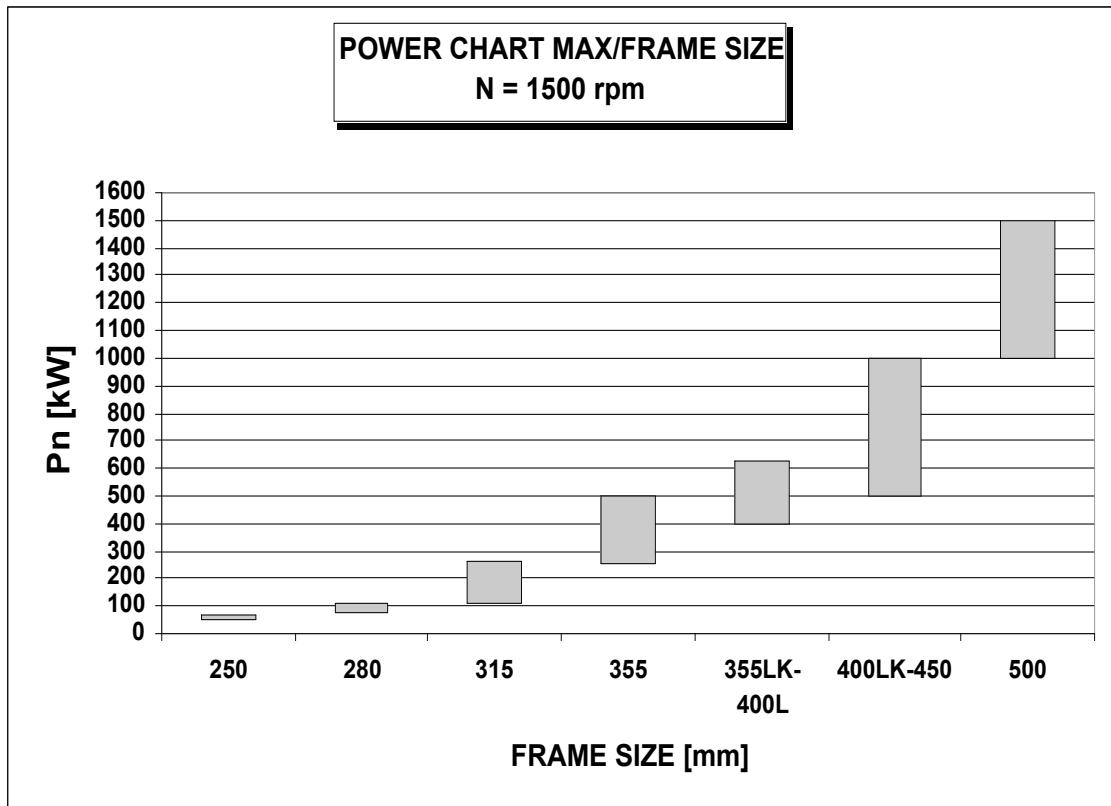
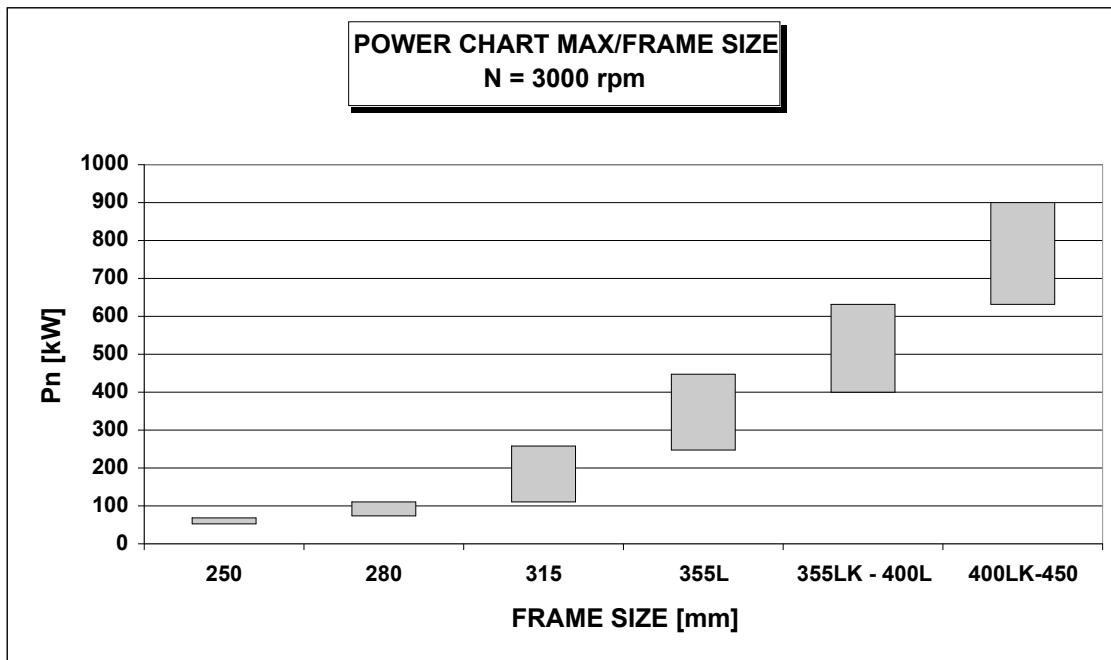
**8 POLES**

**380 V SUPPLY – 50 Hz      415 V SUPPLY – 50 Hz      460 V SUPPLY – 60 Hz**

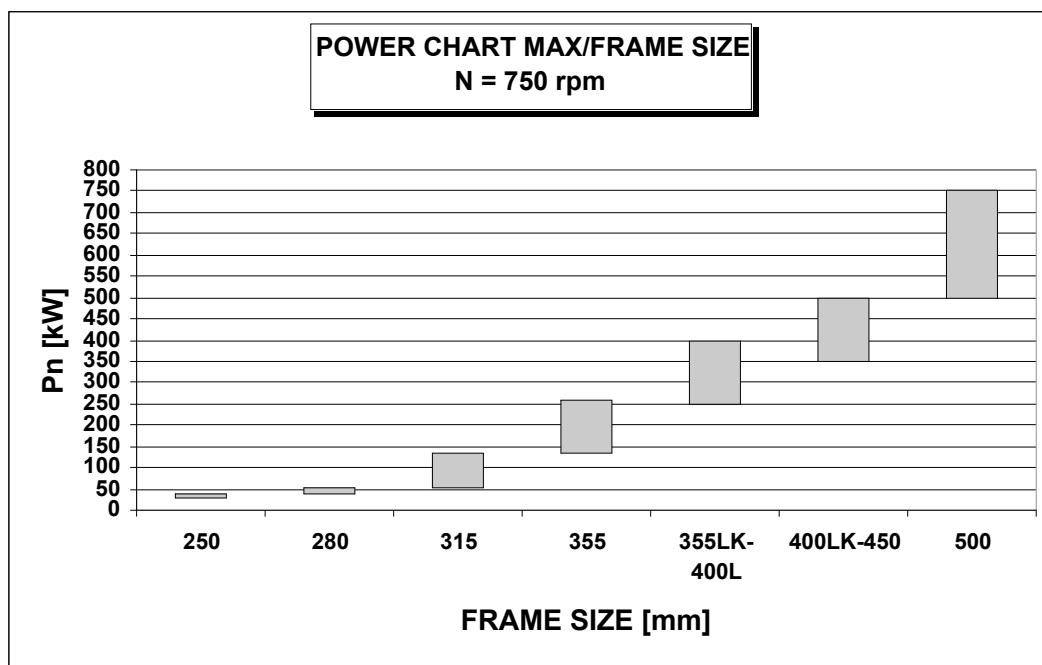
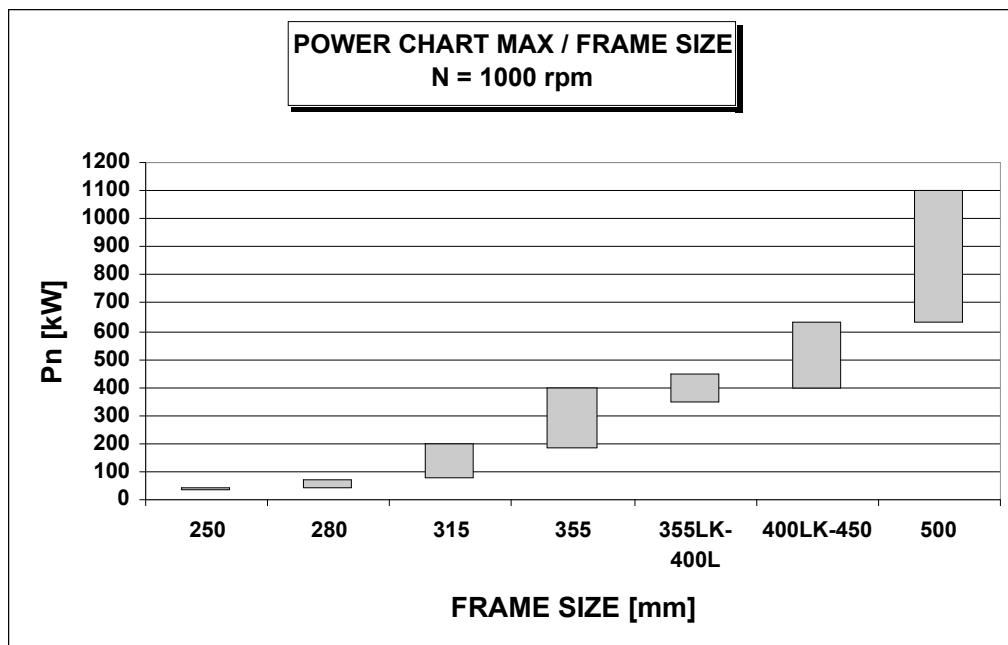
Type	Pn [kW]	Nn [rpm]	In [A]	PF	Eff	Nn [rpm]	In [A]	PF	Eff
SLSHR 250 M	<b>30</b>	725	63	0.80	90.7	731	61	0.75	91
SLSHR 280 S	<b>37</b>	716	78	0.79	91.7	725	72	0.78	92.3
SLSHR 280 M	<b>45</b>	727	101	0.74	92	734	97	0.70	92.2
SLSHR 315 ST	<b>55</b>	737	104	0.85	94.5	740	100	0.82	94
SLSHR 315 M	<b>75</b>	742	149	0.81	95	743	146	0.76	94.3
SLSHR 315 LA	<b>90</b>	741	178	0.81	95	743	174	0.76	94.8
SLSHR 315 LB	<b>110</b>	741	223	0.79	95	743	218	0.74	95
SLSHR 355 LA	<b>132</b>	740	267	0.79	95.5	743	253	0.76	95.6
SLSHR 355 LB	<b>160</b>	740	323	0.79	95.5	743	307	0.76	95.6
SLSHR 355 LD	<b>200</b>	740	377	0.85	95.3	743	356	0.82	95.5
SLSHR 355 LKA	<b>250</b>	742	470	0.85	95.5	744	463	0.79	95.4
SLSHR 400 LA	<b>250</b>	742	470	0.85	95.5	744	463	0.79	95.4
SLSHR 355 LKB	<b>300</b>	740	566	0.85	95.2	742	575	0.77	94.7
SLSHR 400 LB	<b>300</b>	740	566	0.85	95.2	742	575	0.77	94.7
SLSHR 400 LKA	<b>350</b>	745	660	0.84	96.3	746	626	0.81	96.2
SLSHR 450 LA	<b>350</b>	745	660	0.84	96.4	746	626	0.81	96.3
SLSHR 400 LKB	<b>400</b>	746	753	0.84	96.5	747	725	0.80	96.3
SLSHR 450 LB	<b>400</b>	746	753	0.84	96.4	747	725	0.80	96.3

Pn [kW]	Nn [rpm]	In [A]	PF	Eff	LpA [dBA]
<b>34</b>	875	59	0.80	90.5	63
<b>42</b>	866	73	0.79	91.4	63
<b>52</b>	879	97	0.73	92.5	63
<b>65</b>	884	100	0.87	94	63
<b>85</b>	892	139	0.81	94.8	65
<b>105</b>	891	172	0.81	95.0	65
<b>125</b>	891	210	0.79	95.0	65
<b>150</b>	890	251	0.79	95.3	70
<b>185</b>	889	310	0.79	95.2	70
<b>230</b>	890	359	0.85	95.1	70
<b>285</b>	892	444	0.85	95.0	70
<b>285</b>	892	444	0.85	95.0	70
<b>345</b>	890	546	0.84	94.7	70
<b>345</b>	890	546	0.84	94.7	70
<b>400</b>	895	632	0.83	96.0	70
<b>400</b>	895	632	0.83	96.0	70
<b>460</b>	896	726	0.83	96.1	70
<b>460</b>	896	726	0.83	96.0	70

Note: higher powers versus frame size are available (see table on pages 15 – 16)

**K5 - CHARTS SHOWING POWER THAT CAN BE ACHIEVED BY FRAME SIZE  
(FOR S1 DUTY)**

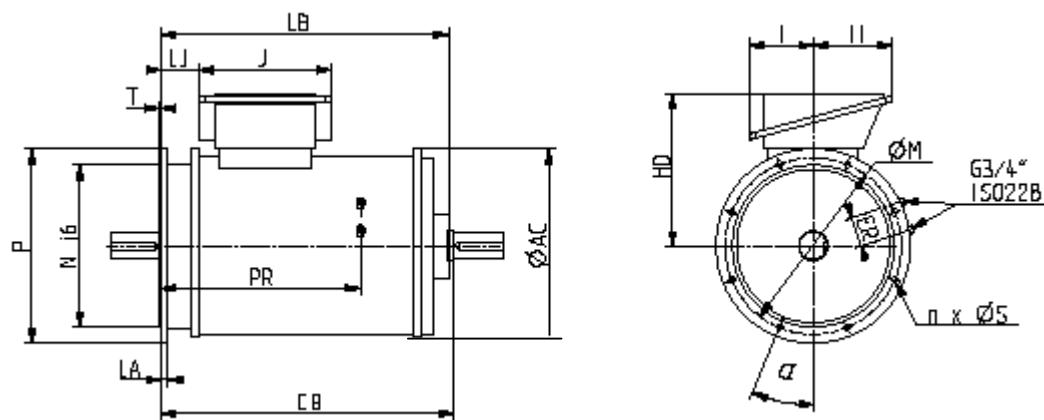
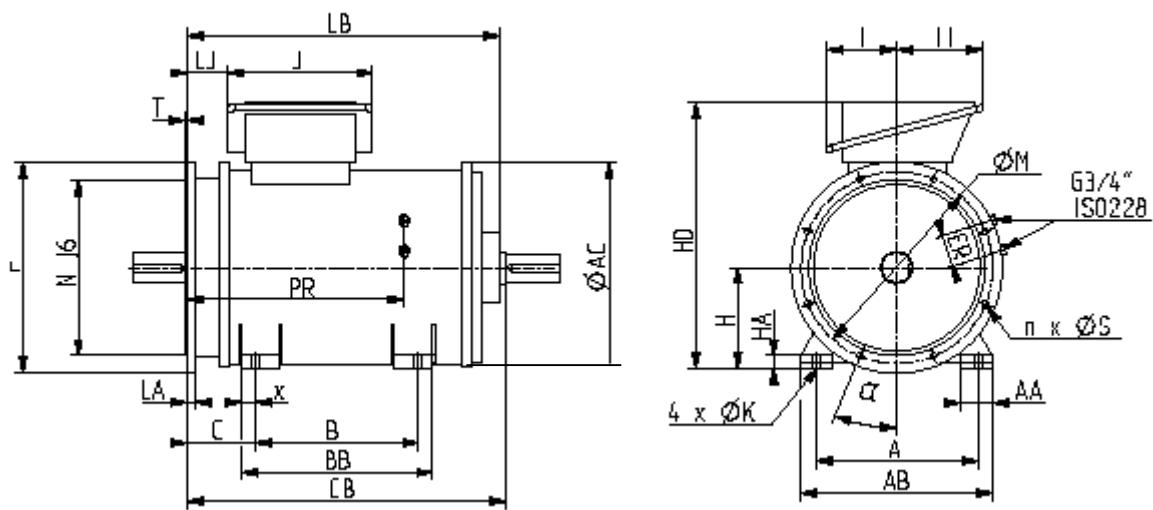
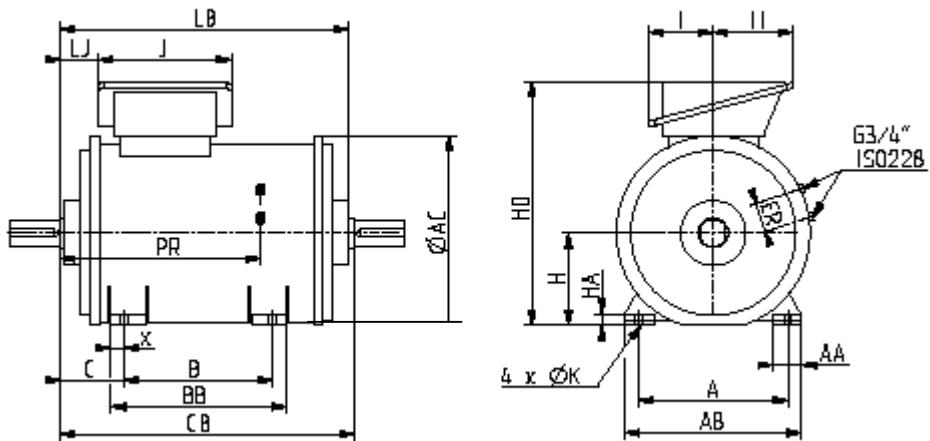
Note : Possibility of higher power for intermittent duty



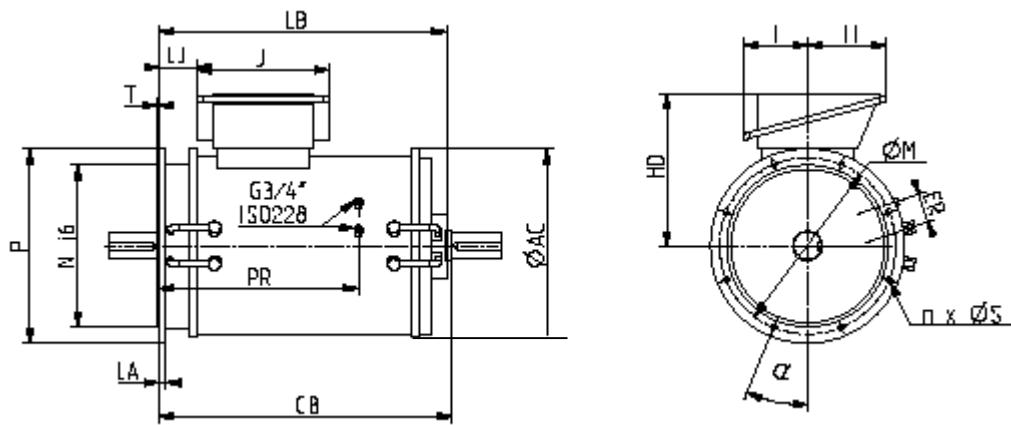
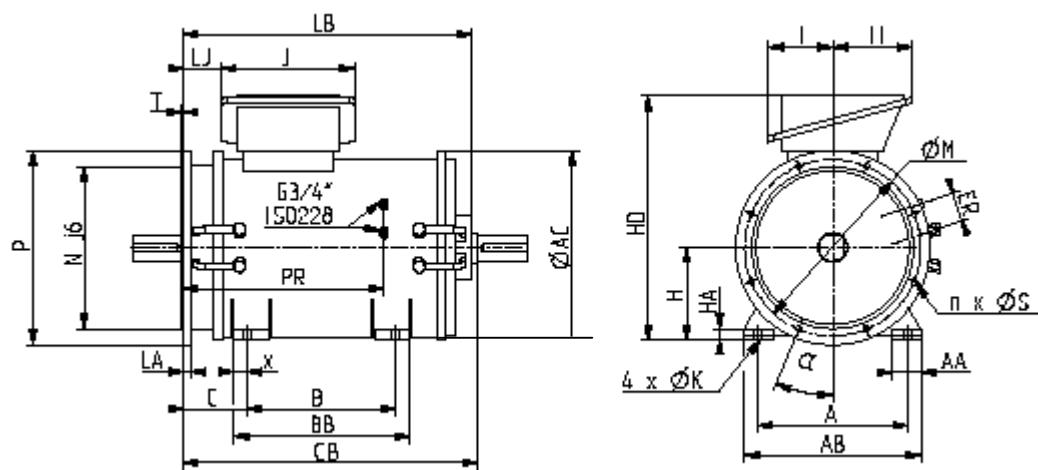
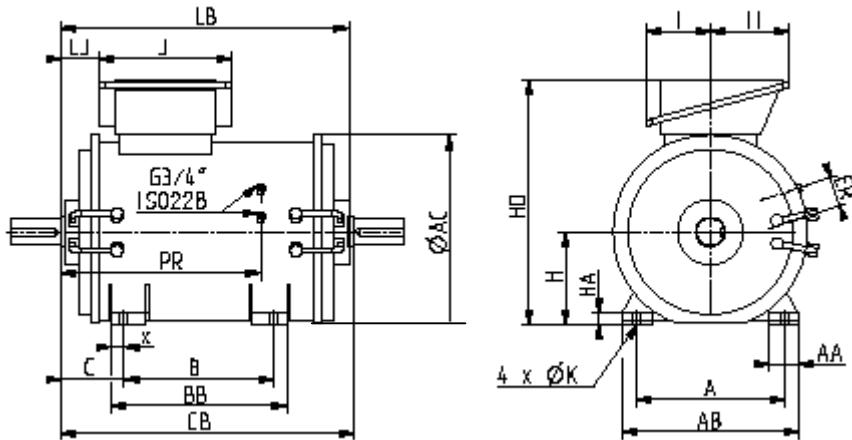
Note : Possibility of higher power for intermittent duty

## L – DIMENSIONS

FRAME SIZE: 250 to 315 M



## FRAME SIZE: 315 LA to 450

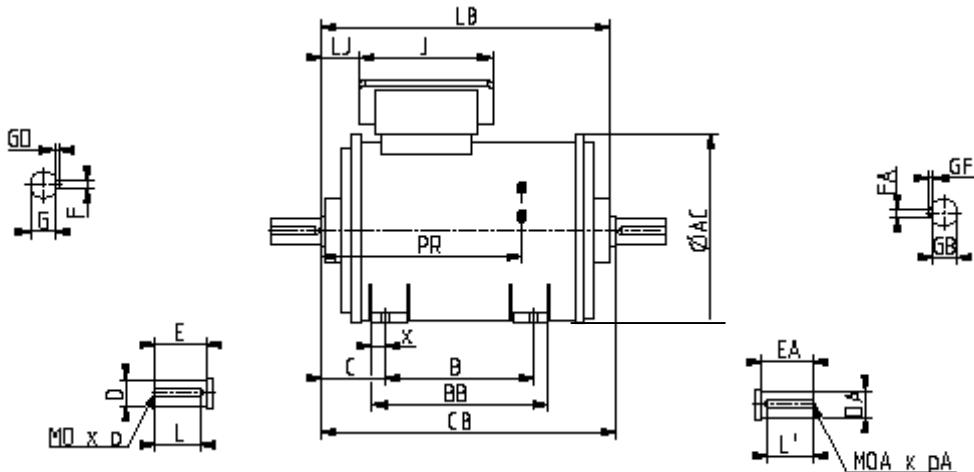


- Foot and/or flange mounted motors**

Type	A	AB	B	BB	C	X	AA	K	HA	H	AC	LB	CB	PR	ER
<b>SLSRH 250M</b>	406	460	349	469	168	52	120	22	35	250	481	850	860	480	100
<b>SLSHR 280S</b>	457	527	368	432	190	32	80	22	27	280	481	710	720	560	100
<b>SLSHR 280M</b>	457	527	419	483	190	32	80	22	27	280	481	810	820	660	100
<b>SLSHR 315ST</b>	508	600	406	547	216	45	90	27	45	315	780	910	920	710	100
<b>SLSHR 315M</b>	508	600	457	577	216	60	100	27	30	315	780	981	991	644	85
<b>SLSHR 315L</b>	508	600	508	628	216	60	100	27	30	315	780	986	996	644	100
<b>SLSHR 355LA/LB</b>	610	710	630	744	254	60	120	27	35	355	782	1095	1105	750	100
<b>SLSHR 355LC/LD</b>	610	710	630	744	254	60	120	27	35	355	782	1220	1230	750	100
<b>SLSHR 355LK</b>	620	750	630	780	254	75	150	27	36	355	787	1591	1601	1177	125
<b>SLSHR 400L/LV</b>	686	824	800	935	280	60	140	35	36	400	787	1378	1388	900	125
<b>SLSHR 400LKA/LKB</b>	686	824	800	950	280	75	140	35	36	400	940	1591	1600	1177	125
<b>SLSHR 450 L/LV</b>	750	890	800	950	315	75	150	35	36	450	940	1591	1600	1177	125

Type	HD	LJ	J	I	II	Flange
<b>SLSRH 250M</b>	689	70	352	173	210	FF500
<b>SLSHR 280S</b>	711	70	352	173	210	FF500
<b>SLSHR 280M</b>	711	70	352	173	210	FF500
<b>SLSHR 315ST</b>	761	68	352	173	210	FF600
<b>SLSHR 315M</b>	822	43	452	219	269	FF600
<b>SLSHR 315L</b>	864	43	452	219	269	FF600
<b>SLSHR 355LA/LB</b>	904	68	452	219	269	FF740
<b>SLSHR 355LC/LD</b>	904	68	452	219	269	FF740
<b>SLSHR 355LK</b>	1165	79	700	224	396	FF740
<b>SLSHR 400L/LV</b>	1162	70	700	224	396	FF940
<b>SLSHR 400LKA/LKB</b>	1210	79	700	224	396	FF940
<b>SLSHR 450 L/LV</b>	1260	79	700	224	396	FF1080

## Dimensions of shaft extensions



Main shaft extension dimensions

No. of poles	4, 6 & 8 poles								
Type	F	GD	D	G	E	O	D	L	LO
SLSRH 250M	18	11	65m6	58	140	20	42	125	15
SLSHR 280S/M	20	12	75m6	67.5	140	20	42	125	15
SLSHR 315ST	22	14	80m6	71	170	20	42	140	30
SLSHR 315M	22	14	80m6	71	170	20	42	140	30
SLSHR 315L	25	14	90m6	81	170	24	50	140	30
SLSHR 355L/LK	28	16	100m6	90	210	24	50	180	30
SLSHR 400L/LK/LV	28	16	110m6	100	210	24	50	180	30
SLSHR 450L/LV	32	18	120m6	109	210	24	50	180	30

2 poles and 2/4 poles									
F	GD	D	G	E	O	D	L	LO	
18	11	60m6	53	140	20	42	125	15	
18	11	65m6	58	140	20	42	125	15	
18	11	65m6	58	140	20	42	125	15	
18	11	65m6	58	140	20	42	125	15	
20	12	70m6	62.5	140	20	42	125	15	
22	14	80m6	71	170	20	42	140	30	
-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	

Secondary shaft extension dimensions

No. of poles	4, 6 & 8 poles								
Type	FA	GF	DA	GB	EA	OA	PA	L'	LO'
SLSRH 250M	18	11	60m6	53	140	20	42	125	15
SLSHR 280S/M	20	12	60m6	53	140	20	42	125	15
SLSHR 315ST	22	14	80m6	53	170	20	42	140	30
SLSHR 315M	22	14	80m6	71	170	20	42	140	30
SLSHR 315L	25	14	90m6	71	170	24	50	140	30
SLSHR 355L/LK	28	16	100m6	90	210	24	50	180	30
SLSHR 400L/LK/LV	28	16	110m6	100	210	24	50	180	30
SLSHR 450L/LV	32	18	120m6	109	210	24	50	180	30

2 poles and 2/4 poles									
FA	GF	DA	GB	EA	OA	PA	L'	LO'	
18	11	60m6	53	140	20	42	125	15	
18	11	60m6	53	140	20	42	125	15	
18	11	65m6	58	140	20	42	125	15	
18	11	65m6	58	140	20	42	125	15	
20	12	70m6	62.5	140	20	42	125	15	
22	14	80m6	71	170	20	42	140	30	
-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	

- Dimensions of flange mountings

Type	M	N	D	T	n	Alpha	S	LA
<b>FF 500</b>	500	450	550	5	8	45	18	18
<b>FF 600</b>	600	550	660	6	8	45	22	25
<b>FF 740</b>	740	680	800	6	8	45	22	25
<b>FF 940</b>	940	880	1000	6	8	45	28	28
<b>FF 1080</b>	1080	1000	1150	6	8	45	30	30

## M – NAMEPLATE

 <b>LEROY SOMER</b>	MOT. 3 ~ SLSHR 450 LB6 B3				   d/h
	N° 906000 00NK01 ... 02			kg :	
IP 55 IK 08	I cl. F	40 °C	S 1	%	
V	Hz	min_-	kW	cos φ	A
690Y	50	994	700	0,83	706
TP111B DEBIT MINI 40L/MN EAU A 40°C MAXI					
P=5 BARS MAXI			ESSO UNIREX N3		
DE	6328C3	93 cm	3000	H 50/60 Hz	
NDE	6328C3	93 cm	3000	H 50/60 Hz	