LEROY SOMER®

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CPLS

Three-phase asynchronous motors

Technical catalogue

CPLS ASYNCHRONOUS MOTORS

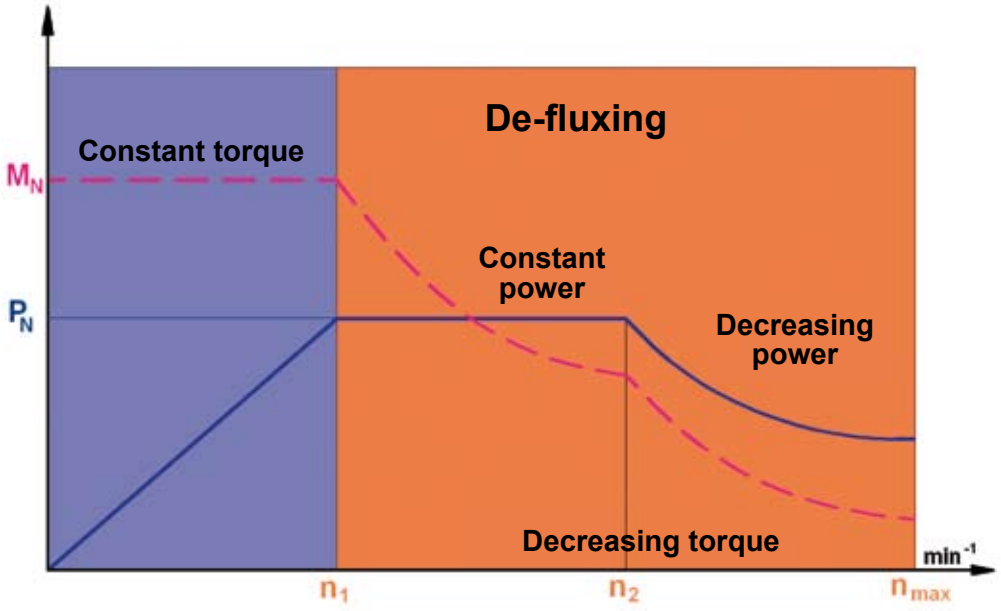
The **CPLS** asynchronous motor range with **IP23** protection has been developed for fixed and variable speed applications when the available space is limited and speed variation is wide.

Supplied by frequency converters, the motors operate in open or closed loop mode. They deliver, as standard, their nominal torques ($\mathbf{M}_N$) up to their rated speed ($\mathbf{n}_1$) then supply a constant power $\mathbf{P}_N$ from the $\mathbf{n}_1$ speed to the $\mathbf{n}_2$ speed.

The squirrel-cage induction motors are well adapted for de-fluxed operation over a wide speed range above the synchronous speed and are only limited by their mechanical constraints.

Each machine is defined by its torque capability. Thanks to the efficient ventilation provided, this torque is available continuously below the rated or synchronous speed.

The performances of these machines can be compared to those of DC machines and characteristics of some brushless motors. The motors have reduced inertia and inherently offer good dynamic performance.



CPLS ASYNCHRONOUS MOTORS

CPLS ASYNCHRONOUS MOTORS

Summary

CPLS ASYNCHRONOUS MOTORS

1 - General description

Asynchronous motors from the CPLS series, shaft height from 112 to 200 mm

Protection: IP23

Mounting type: B3 or B35, all mounting positions

Supply: 3 phase supply via an inverter

Windings: 3-phase windings incorporate Class F insulation system as standard with PTC 150°C thermal protection.

Magnetic laminations: they have been designed to offer good characteristics over the entire operating speed range including that of flux-weakening zone. For higher operating speeds, the adoption of low loss laminations enables further optimization of the electrical characteristics of the motor and drive combination.

Rotor: in aluminium or copper depending on frame size. Half-key balancing.

Housing: steel

End Shields: in cast iron fitted with tie rods. The mounting feet are fitted to the front and rear end shields.

Terminal box: in aluminium. It can be rotated every 90 degrees, on either the front or rear end shields sides.
Only three connecting cables are available in the terminal box.
CAUTION: the terminal box cover must be re-closed once the connecting of the cables is terminated.

Ball Bearings: type 2RS C3 fit bearings, greased for life as standard.

Lifting rings: following the types, they are fixed with screws to the bearings of the machine.

Fan: a three-phase auxiliary fan, 230/400V 50Hz ensures good cooling at all speeds of the machine. The cooling method conforms to the IEC 34-6 standard is IC06.
Unless specified, the temperature of the cooling air should be between +5°C and +40°C with relative humidity less than 80%.

The fan can be orientated every 90°, on either side of the DE shield or NDE shield.

As standard the fan voltage is: 230/400 V 50 Hz and 265/460 V 60 Hz.

The power of the motor fan varies with the size of the machine.

CPLS 112: 0,25 kW
CPLS 132: 0,37 kW
CPLS 160: 1,10 kW
CPLS 200: 2,20 kW

Finish: paint RAL 6000 (green)
Identification on the nameplate fixed on the housing.

Available options

- Front roller bearings
- Greasable Open Bearing
- Class B balancing
- Special shaft ends
- Flanges different from standard by shaft height.
- Filter on radial forced ventilation (standard or MIOVYL)
- Ventilation by duct
- Offset axial fan
- Second shaft end
- Probes PTO, PTF, KTY
- Incremental encoder, absolute encoder
- Brake

Other options on requirements

- Increase of the operating range at constant power with our CONSTANT POWER SYSTEM device.
- Special high-speed bearings
- Fan pressure switch

2 - Choice of machine

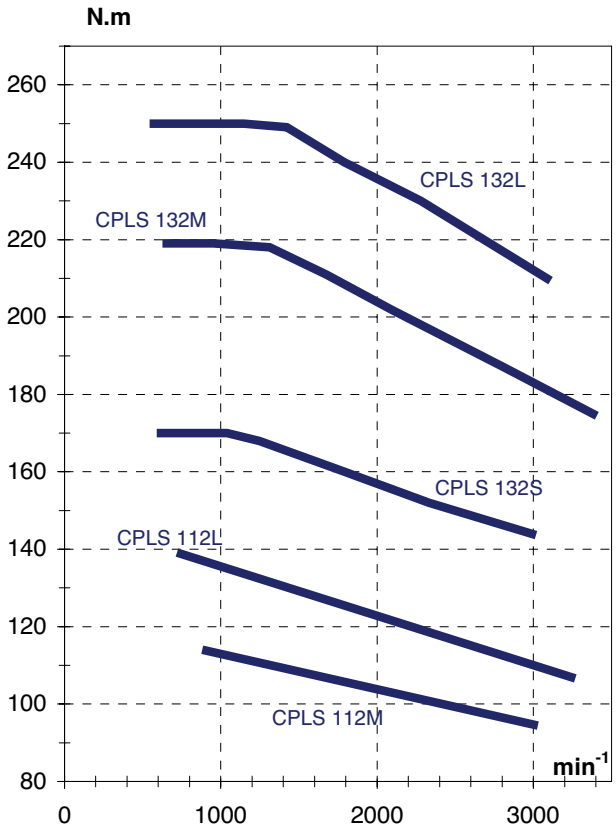
To enable determination of motor/inverter combination, we have developed selection charts for different speed variations. They can be found towards the end of this document between pages 18 and 25.

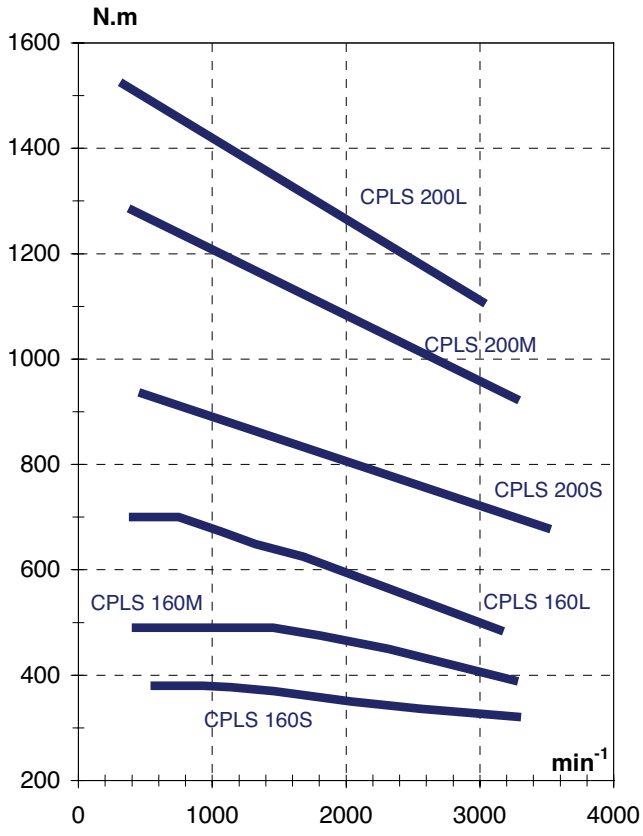
The selection procedure is as follows:

a - Determine the nominal load torque of the application and speed at which it occurs. Then check in the selection chart which motor torque and speed are nearest to the load torque and speed. The ones that are closest would then define size of the machine and the speed range over which it can be used. The set of torque versus speed curves given on the side will be a first step towards choosing the size of the machine

b - On the selection chart check the current corresponding to the torque and speed of the motor selected. Use this current to determine the size of the frequency converter or inverter.

The choice determines the type of machine, and indicates the most adapted winding enabling the use of the inverter size closest to your needs. This information can be found in the determination chart.





To enable determination of motor/inverter combination, we have developed selection charts for different speed variations. They can be found towards the end of this document between pages 18 and 25.

A determination example is given in section 8.

The selection procedure is as follows:
our machines are tested on test stands supplied by inverters from LEROY-SOMER.
When available, the characteristics can be requested at the factory.

3 - Choice of inverter or frequency converter

The choice of the motor and the matching inverter depends on the application requirements.

If the load demands operation from zero to the base speed of the motor i.e. n1, then the current rating of the inverter must be based on the rated current of the motor and on the peak current corresponding the peak torque that the motor may have to deliver.

Our range of machines offers as standard a constant power range up to double the rated speed i.e. (n_2) without having to de-rate the inverter rating. Thereafter, the operating power is reduced because of the rapid reduction in the maximum torque of the motors.

⚠ TAKE CARE to check that the machine bearings are capable of operating at the high speeds you require.

Full documentation on electronic inverters in the **DIGIDRIVE-SK, UNIDRIVE-SP and POWERDRIVE** ranges is available from our representative on request.

If you wish to increase the speed ratio n_2/n_1 you can use our patented **CONSTANT POWER SYSTEM**. It can be integrated in the terminal box, and makes it possible to operate over a wider speed range without derating the drive.

CONSTANT POWER SYSTEM

4 - Normal running conditions and correction factors

According to the IEC 60034-1 standard, standard motors can operate under the following normal conditions:

- ambient temperature between +5°C and +40°C.
- altitude less than 1000m.
- atmospheric pressure 1050 mbar.
- Operating zone 2 (absolute humidity between 5 and 23 g/cm³).
- Ambient air free from chemicals and dust

Corrections relative to altitude and ambient temperature

For different kinds of use, the power correcting coefficient indicated in the chart below will be applied.

P1/P	amb (°C) ≤ 40°C	amb (°C) ≤ 50°C	amb (°C) ≤ 60°C
Altitude ≤ 1000m	1	0,93	0,85
Altitude ≤ 2000m	0,93	0,85	0,75

The factor P1/P gives the correction coefficient.
P1: corrected power.
P : catalogue power.

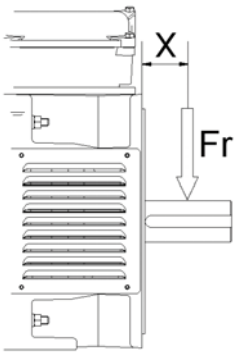
A more detailed abacus is available in the three-phase asynchronous motors catalogue in LS series of LEROY SOMER.

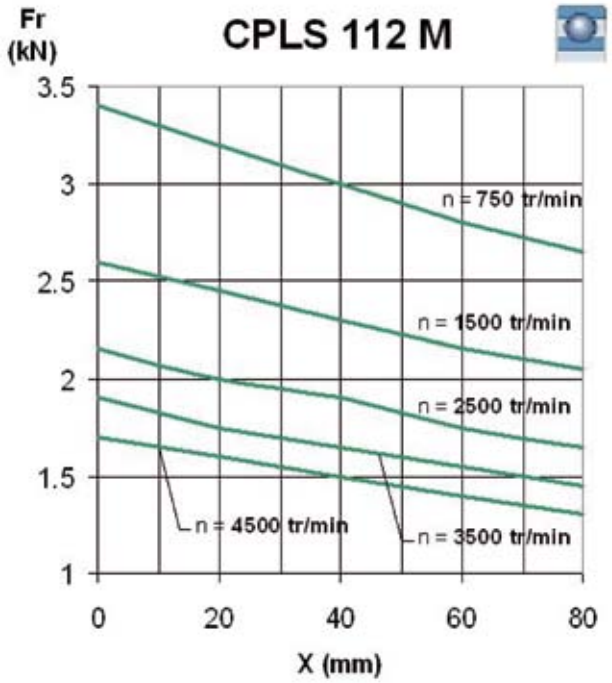
Corrections according to service

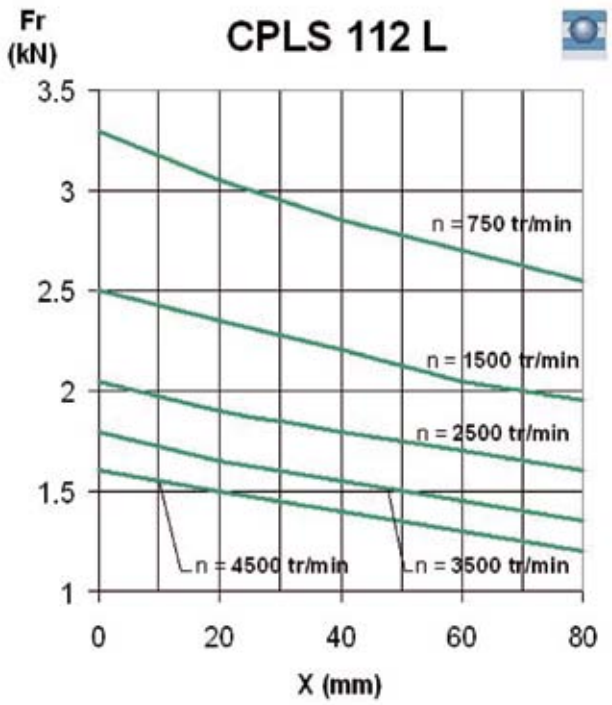
Service type	Operating time		
	10 min	30min	60min
S2	1,6	1,3	1,1
Service type	Operating factor		
	25%	40%	60%
S3	1,4	1,2	1,1
S6	1,4	1,3	1,2

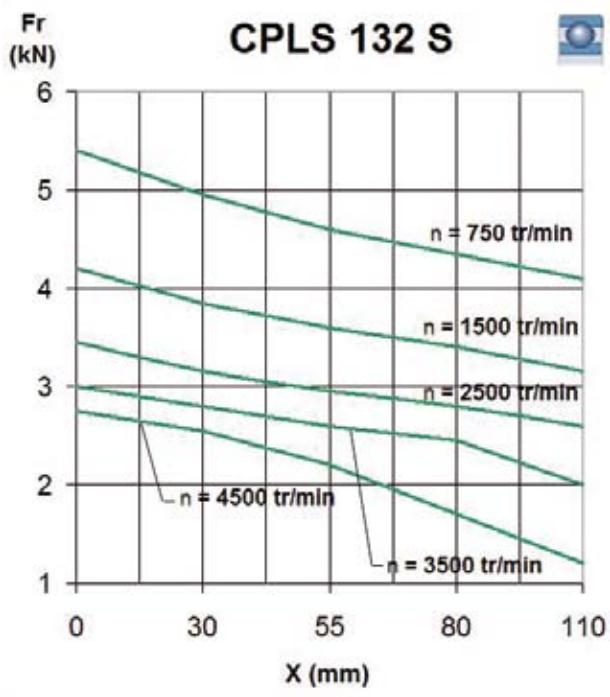
5 - Permissible radial load on main shaft extension, horizontal motor and ball bearings, calculated for a bearing life L_{10h} of 20 000 hours.

In pulley and belt couplings, the drive shaft carrying the pulley is subjected to a radial force Fr applied at a distance X (mm) from the shoulder of the shaft extension (length E).

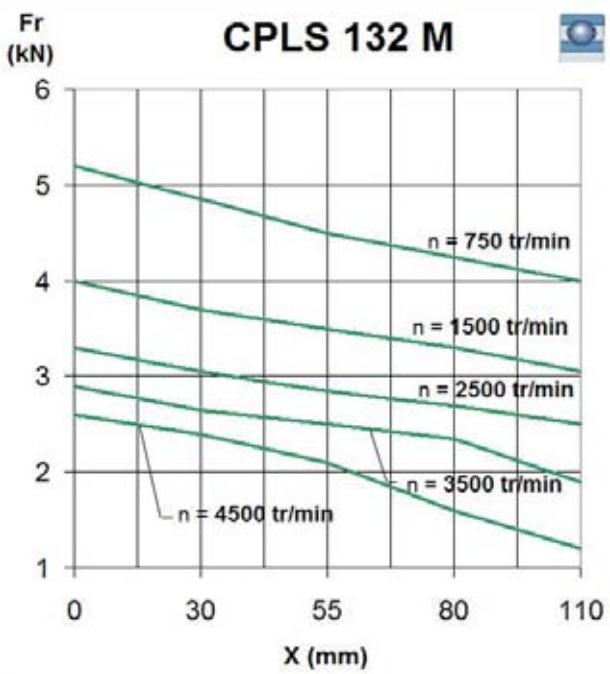


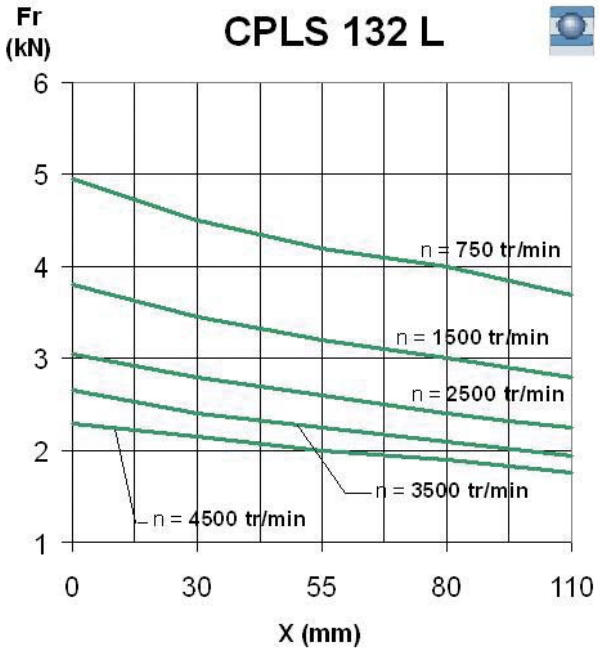


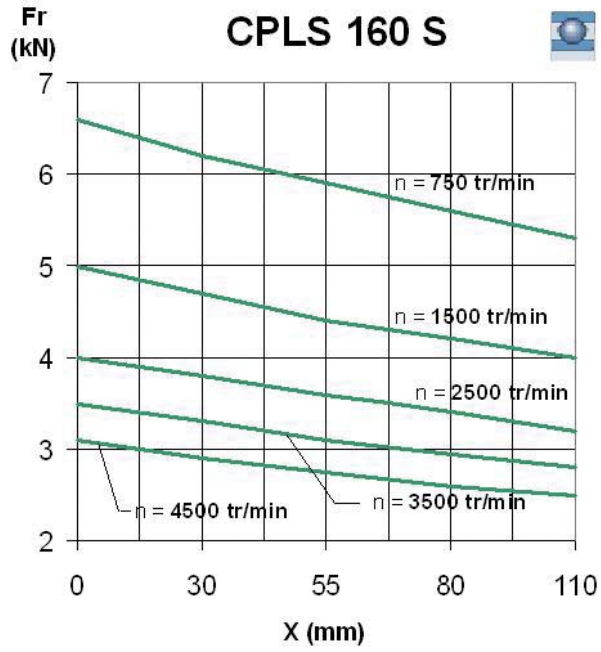


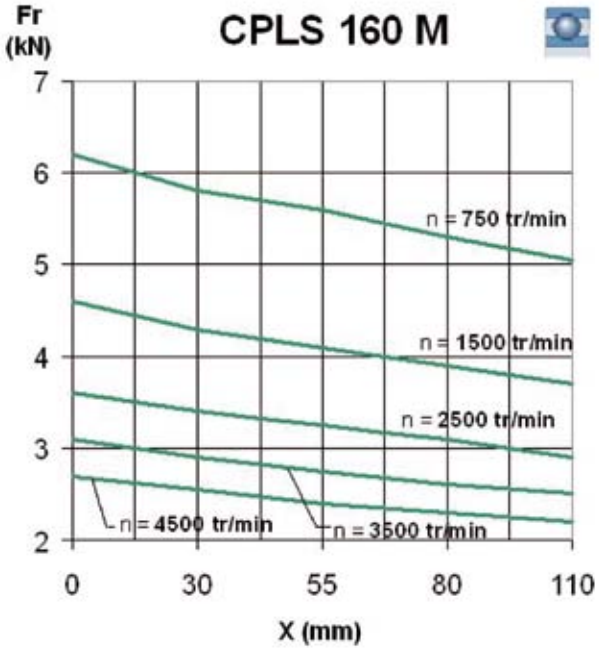


CPLS ASYNCHRONOUS MOTORS

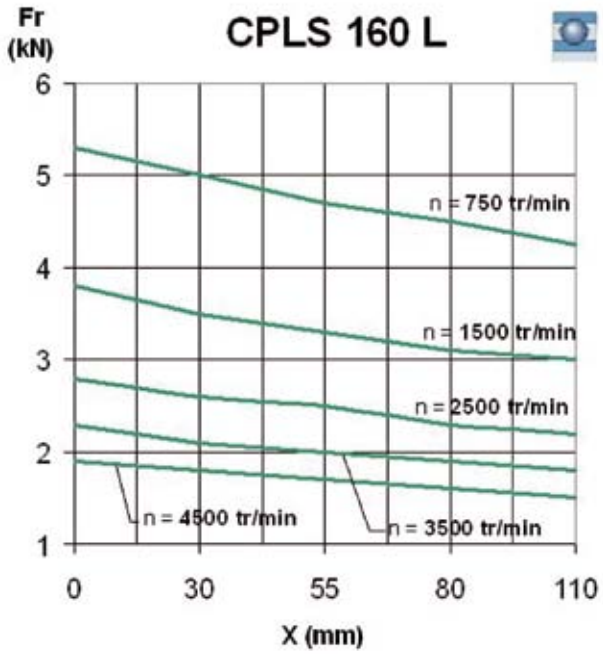


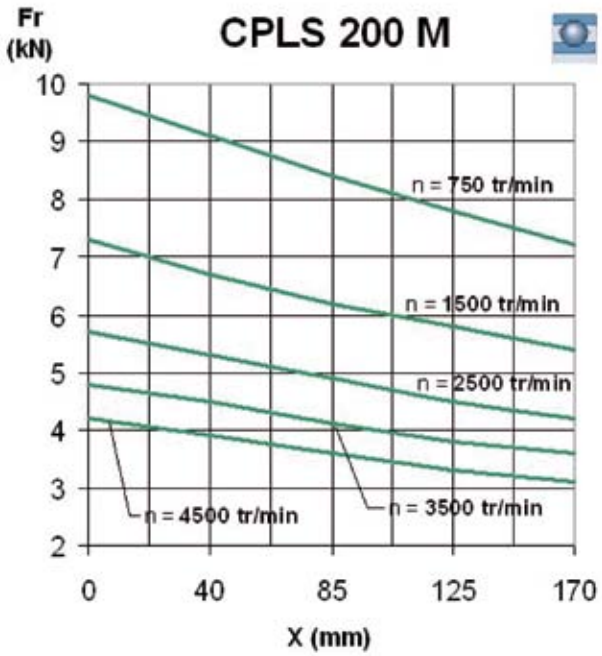


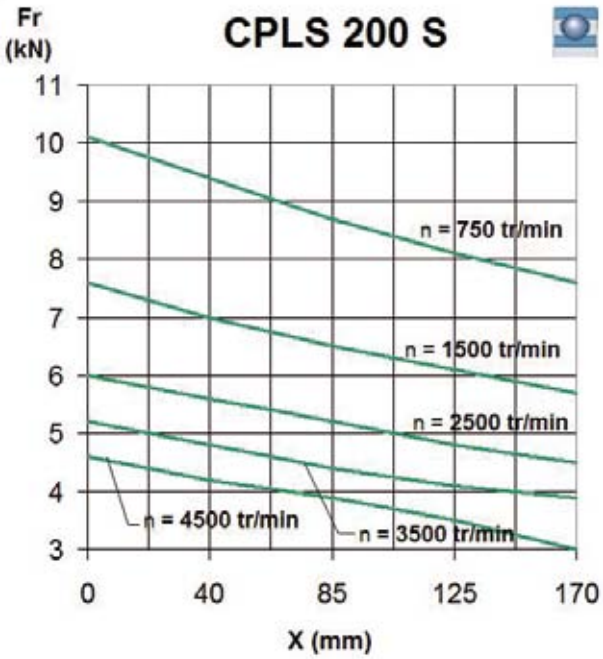


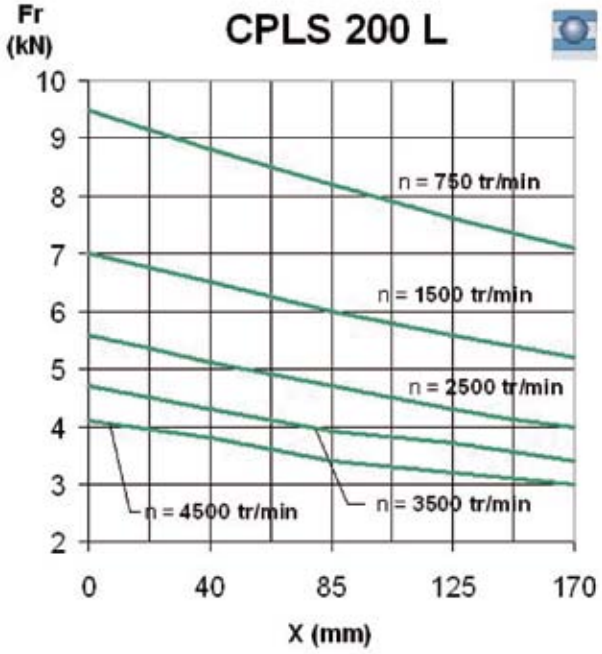


CPLS ASYNCHRONOUS MOTORS



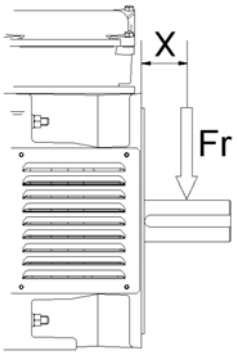


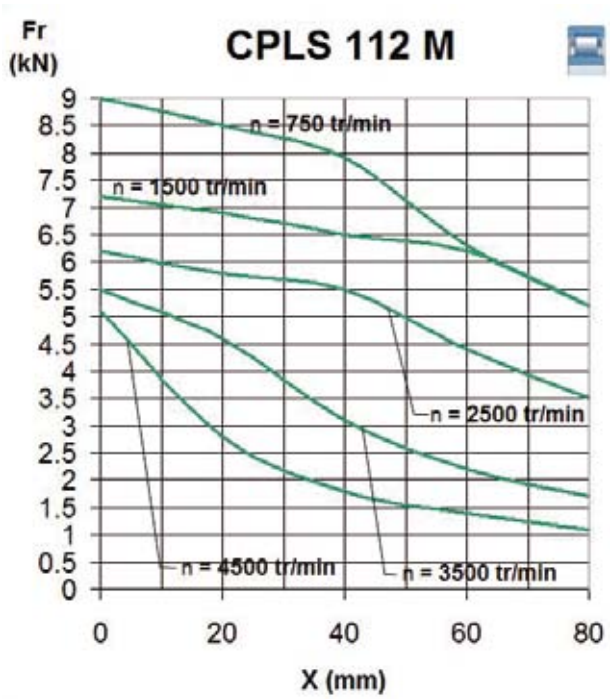


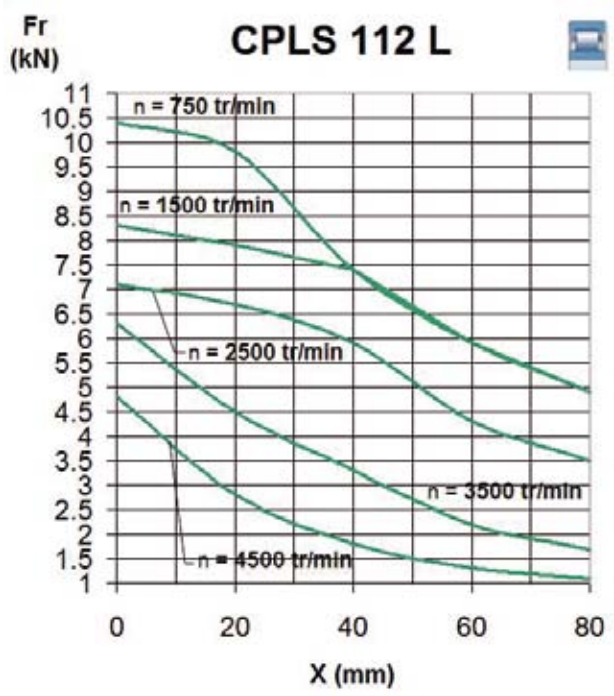


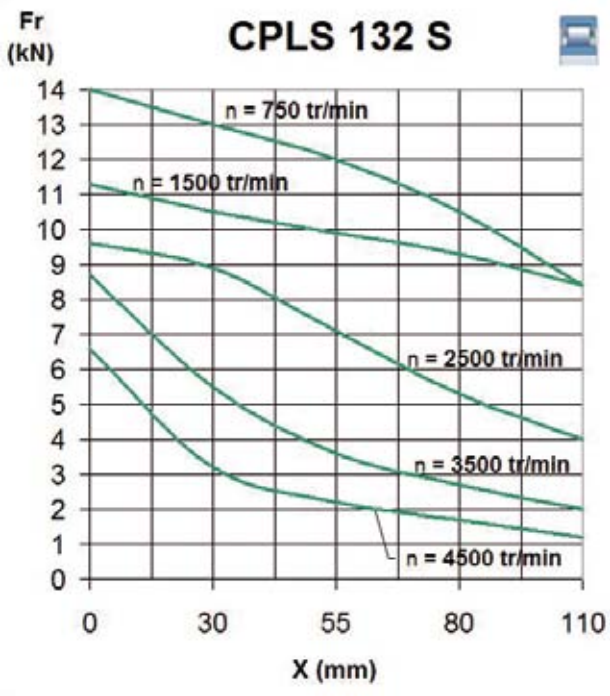
6 - Permissible radial load on main shaft extension, horizontal motor and roller bearings, calculated for a bearing life L_{10h} of 20 000 hours.

In pulley and belt couplings, the drive shaft carrying the pulley is subjected to a radial force Fr applied at a distance X (mm) from the shoulder of the shaft extension (length E).

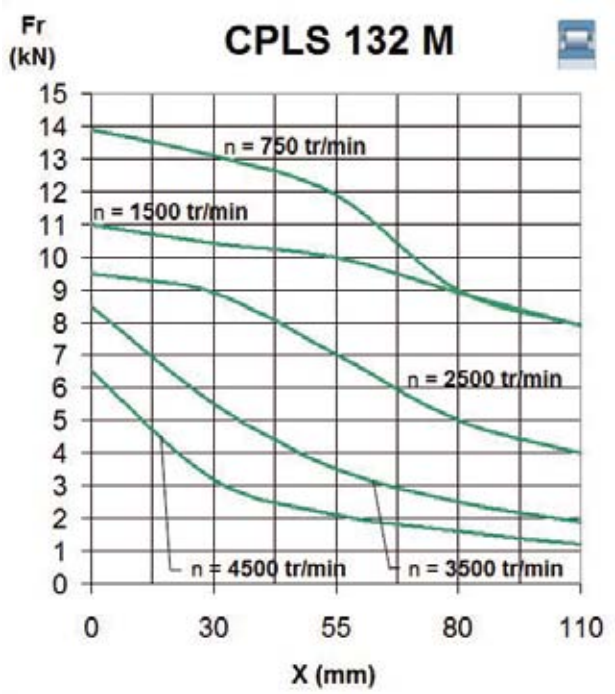


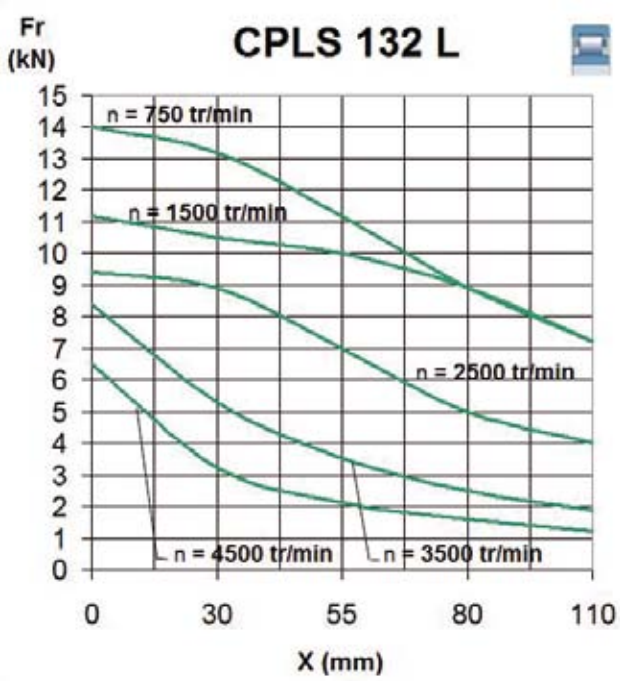


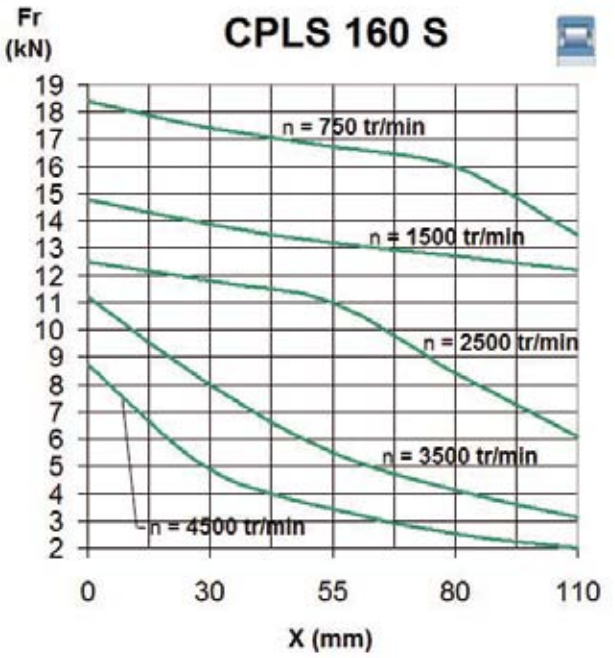


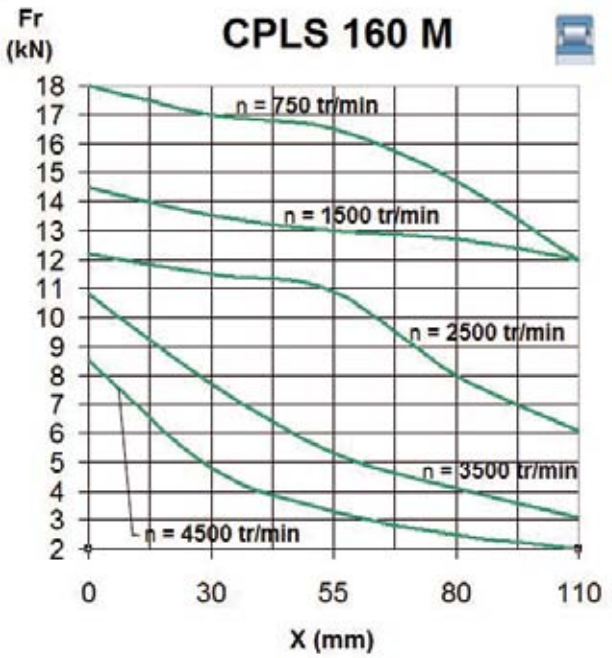


CPLS ASYNCHRONOUS MOTORS

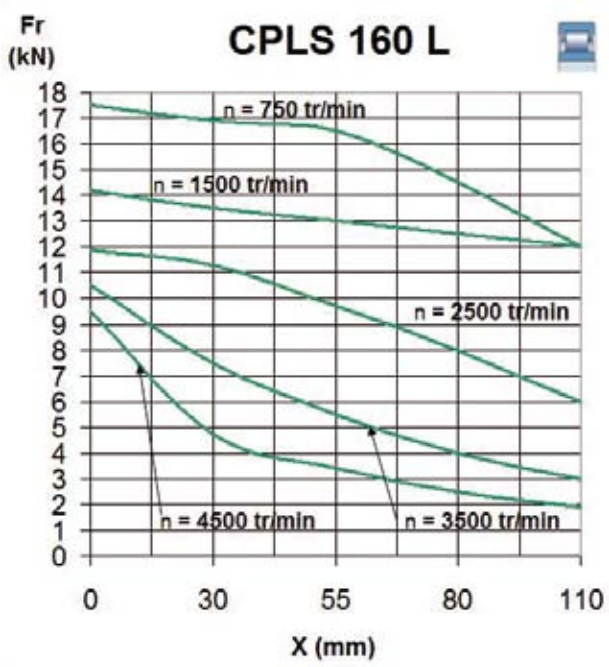


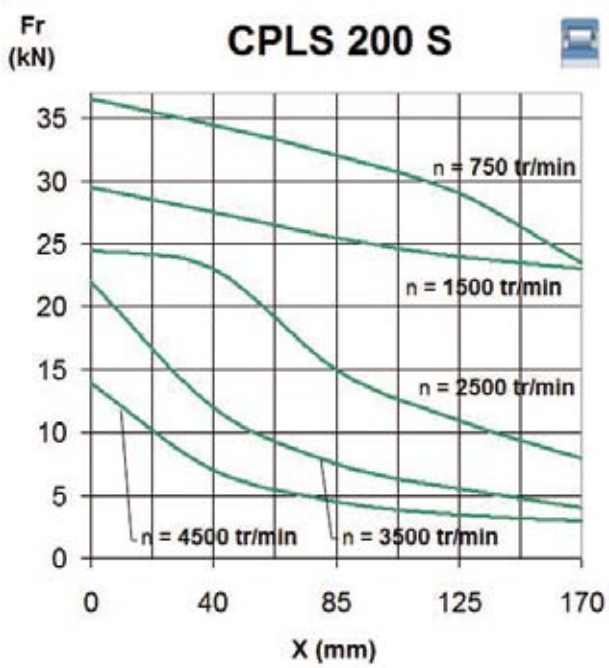


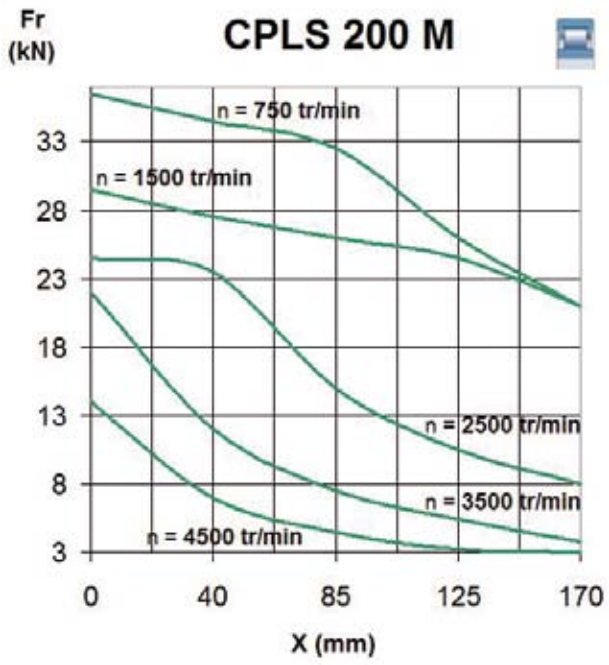


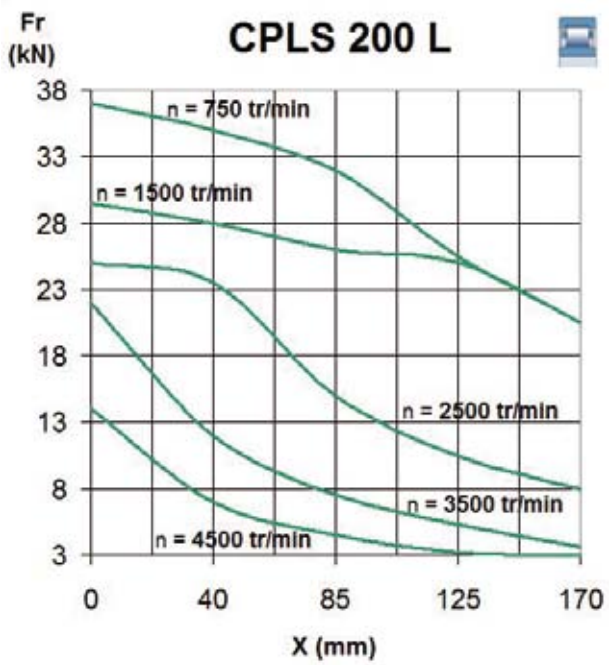


CPLS ASYNCHRONOUS MOTORS

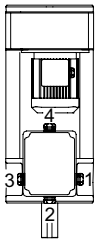




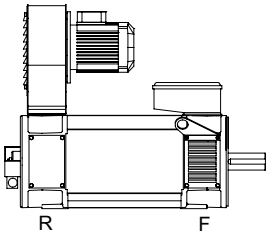




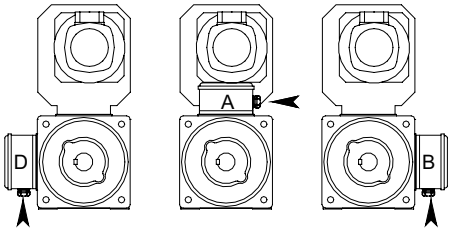
7 - Position of the terminal box and the forced ventilation



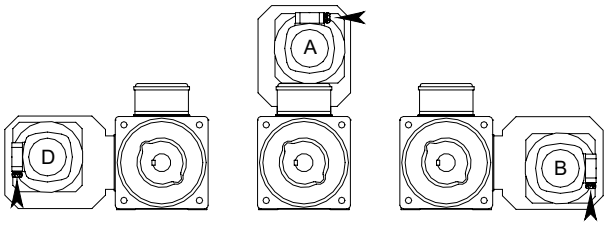
Position of the cable gland output, in relation to the shaft end.



Position of the terminal box and fan in relation to the motor bearing
F: on front bearing
R: on rear bearing



Position of the terminal box



Position of the fan

Example :
Terminal box in position A1 on the front bearing, fan in position B mounted on the rear bearing.
Designation: A1 F - B R.

8 - Selection example

The selection procedure requires the establishment of load torque from application details provided. If the load torque is known, go directly to Step No. 3, otherwise follow Step No. 1.

Example: A drive requires 16kW at 1200rpm, the service being S1. The ambient temperature is 20 Degree Celsius and altitude is less than 1000m.

The terminal box needs to be on the right hand side, and the fan on the top when looking at the shaft end.

Step n°1: correction factors
• Correction according to the ambient temperature and altitude (Section 4)' and Correction according to duty rating or service (Section 4).

Example: No de-ration necessary on account of service and ambient temperature.

Step n° 2: rated torque calculation
Knowing the load power and the speed, the load torque can be calculated as follows:

$C = P \times 9550/n$

C: torque in N.m
P: power in kW
n: speed in min^{-1}

Example: the torque necessary for the application = 127Nm.

Step n° 3: determination of the shaft height
The Torque versus Speed graph in Section 2 enables rapid determination of the size of the motor in relation to the torque and the speed required

Example: on the basis of Section 4, the frame size would be CPLS112L.

Step n° 4: determination of the motor and inverter

On the selection chart on Page 19 (see Pages 18 to 25 for the full range), select the closest speed that fits the application requirement or just above that available inverter output voltage.

The same row that has yielded the required speed, will then provide the mechanical and electrical parameters, which define the operating point of the application, the product code of the motor and the size of the inverter.

Example:
See chart for CPLS112L motor.
The output voltage of the inverter will be 360V.
The closest speed just above the one needed is 1215 min-1.

Step n° 5: control

The motor torque indicated in the selected row relates to continuous duty rating S1. Check if it is equal or higher than that demanded by the application. If it does not fulfil this criterion, then go to the next size of the motor.

Example:
The torque of the motor in S1 service is 130N.m for a requirement of 127N.m, the machine is well dimensioned.

Retained motorisation :

Machine: CPLS 112L 0606 B1F AR

Inverter: UNIDRIVE SP 27T

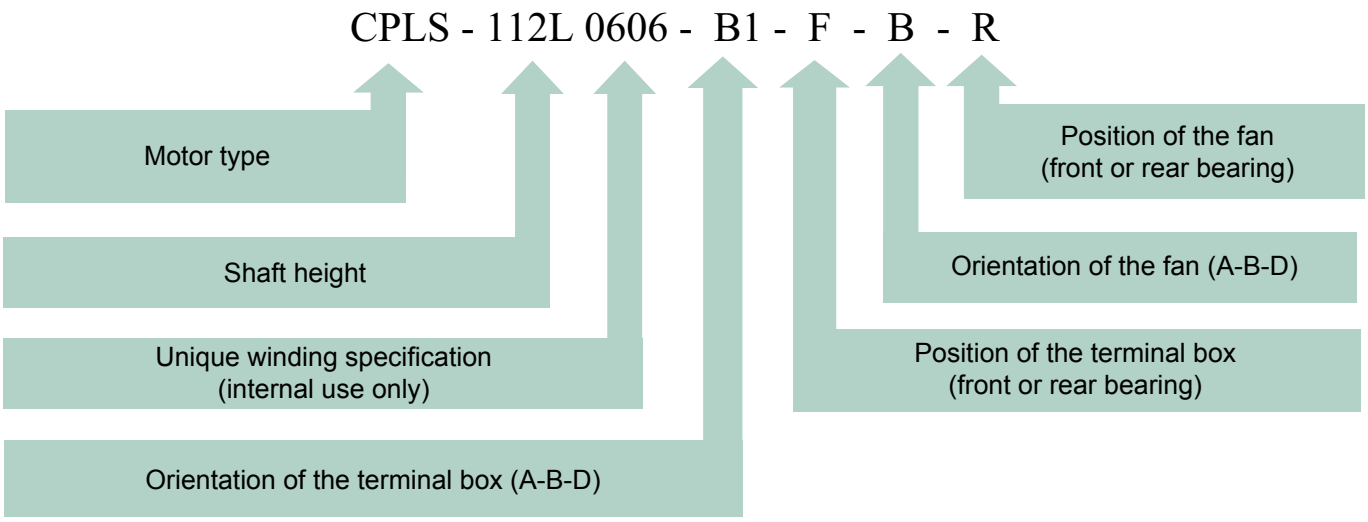
⚠ CAUTION: You must specify the maximum operating speed, as the choice of bearings depends on this.

POWERDRIVE

UNIDRIVE SP

DIGIDRIVE SK

9 - Full designation



CPLS ASYNCHRONOUS MOTORS

CPLS 112M / 95 – 110 N.m

IP23 Motor– IC06 Fan– Class F
S1 Service – Ambient temperature 40°C – Total weight : 87 Kg
Inertia: 0,030 kg.m² - Maximum speed: 8000 min^{-1}
Forced ventilation of 0,25 kW – 230/400V 50Hz

P (kW)	U (V)*	F(Hz)	n_1 (min^{-1})	T (N.m)	I (A)	cos φ	η (%)	R (Ω) (2)	n_2 (min^{-1})	Product code	Unidrive SP rating
8,5	320	25,9	714	114	22,7	0,87	77		1365		
9,1	340	27,5	762	114	22,7	0,86	78		1511		
9,7	360	29,1	812	114	22,8	0,86	79		1630		
10,3	380	30,7	860	114	22,8	0,85	80	1,254	1697	112M0604	16T
11,0	400	32,3	908	115	23,0	0,85	81		1760		
12,0	440	35,5	1006	114	22,7	0,84	82		2083		
12,9	480	38,8	1107	111	22,3	0,83	83		2320		
11,7	320	36,1	1015	109	28,4	0,89	82		2000		
12,5	340	38,3	1081	110	28,7	0,89	83		2122		
13,4	360	40,6	1151	110	28,6	0,89	83		2245		
14,2	380	42,8	1217	111	28,8	0,88	84	0,754	2410	112M0605	22T
15,0	400	45,1	1312	109	28,5	0,89	85		2600		
16,1	440	49,6	1424	108	27,8	0,87	86		2853		
17,3	480	54,2	1564	106	27,3	0,87	87		3157		
14,6	320	46,1	1316	106	35,6	0,86	85		2851		
15,6	340	49,0	1403	106	35,6	0,86	86		3061		
16,5	360	51,8	1488	106	35,5	0,85	87		3240		
17,5	380	54,7	1575	106	35,5	0,85	87	0,492	3428	112M0606	27T
18,5	400	57,6	1663	106	35,6	0,85	88		3610		
20,4	440	63,4	1837	106	35,5	0,84	89		4170		
22,3	480	69,1	2009	106	35,5	0,84	89		4591		
17,5	320	55,7	1603	104	41,3	0,86	87		3475		
18,6	340	59,2	1708	104	41,2	0,86	88		3719		
19,7	360	62,6	1811	104	41,1	0,86	89		4016		
20,9	380	66,1	1916	104	41,2	0,86	89	0,35	4367	112M0607	33T
22,0	400	69,6	2021	104	41,1	0,85	90		4610		
24,3	440	76,6	2232	104	41,1	0,85	90		5092		
26,5	480	83,5	2440	104	41,0	0,85	91		5575 (1)		
23,8	320	81,6	2390	95	55,9	0,83	91		5940 (1)		
25,3	340	86,7	2543	95	55,9	0,83	91		6330 (1)		
26,9	360	92,0	2702	95	56,0	0,83	92		6720 (1)		
28,4	380	97,0	2852	95	56,0	0,83	92	0,163	7110 (1)	112M0608	40T
30,0	400	102	3002	95	56,2	0,83	92		7470 (1)		
32,9	440	117	3450	91	54,1	0,85	93		8000 (1)		
36,1	480	138	4075	84	52,3	0,88	93		8000 (1)		

* voltage available at the drive output
(1) - Bearing with type 2Z metal shields.
(2) - Value of phase-to-phase resistance.
These indicative values are non-contractual and can be modified at any time by the manufacturer.

CPLS ASYNCHRONOUS MOTORS

CPLS 112L / 105 – 145 N.m

IP23 Motor– IC06 Fan– Class F
S1 Service – Ambient temperature 40°C – Total weight: 97 Kg
Inertia: 0,035 kg.m² - Maximum speed: 8000 min^{-1}
Forced ventilation of 0,25 kW – 230/400V 50Hz

P (kW)	U (V)*	F(Hz)	n_1 (min^{-1})	T (N.m)	I (A)	cos φ	η (%)	R (Ω) (2)	n_2 (min^{-1})	Product code	Unidrive SP rating
8,4	320	21,5	581	138	23,1	0,88	74		990		
9,1	340	22,9	623	139	23,2	0,87	76		1130		
9,7	360	24,2	663	140	23,2	0,87	77		1245		
10,4	380	25,6	704	141	23,4	0,86	78	1,39	1385	112L0604	16T
11,0	400	26,9	745	141	23,4	0,86	78		1480		
12,4	440	30	826	143	23,7	0,85	80		1680		
13,8	480	32,3	907	145	24,0	0,85	81		1905		
11,4	320	30,1	835	130	28,6	0,89	80		1562		
12,2	340	32	893	130	28,5	0,89	81		1705		
13,1	360	33,8	947	132	28,7	0,89	82		1825		
14,0	380	35,7	1004	133	28,9	0,89	82	0,836	1970	112L0605	22T
15,0	400	37,6	1060	135	29,2	0,88	83		2115		
16,6	440	41	1175	135	29,1	0,88	84		2330		
18,2	480	45,1	1287	135	29,1	0,88	85		2625		
14,5	320	37,9	1071	129	35,2	0,88	83		2132		
15,6	340	40,3	1143	130	35,4	0,88	84		2302		
16,6	360	42,7	1215	130	35,4	0,88	85		2462		
17,5	380	45	1286	130	35,2	0,88	85	0,540	2606	112L0606	27T
18,5	400	47,4	1358	130	35,1	0,88	86		2785		
20,4	440	52	1503	129	35,0	0,87	87		3147		
22,2	480	56,9	1645	129	34,8	0,87	88		3670		
17,3	320	46,4	1325	125	41,5	0,86	86		2715		
18,5	340	49,3	1412	125	41,6	0,86	87		2978		
19,7	360	52,2	1499	125	41,6	0,86	87		3051		
20,8	380	55,1	1587	125	41,6	0,86	88	0,388	3507	112L0607	33T
22,0	400	58	1674	125	41,6	0,86	88		3670		
24,2	440	64	1849	125	41,4	0,85	89		4027		
26,9	480	69,6	2022	127	41,9	0,85	90		4550		
23,8	320	68	1982	115	56,5	0,83	90		4917		
25,3	340	72,2	2108	115	56,5	0,83	91		5220 (1)		
26,9	360	76,5	2237	115	56,5	0,83	91		5550 (1)		
28,4	380	80,7	2364	115	56,5	0,83	91	0,180	5820 (1)	112L0608	40T
30,0	400	85	2493	115	56,6	0,83	92		6125 (1)		
33,1	440	94	2748	115	56,7	0,82	92		6814 (1)		
36,2	480	102	3003	115	56,7	0,82	92		7470 (1)		
29,5	320	88	2482	109	67,8	0,85	92		6415 (1)		
31,2	340	93	2732	109	67,7	0,84	92		6780 (1)		
33,3	360	99	2912	109	67,8	0,84	92		7230 (1)		
35,0	380	104	3063	109	67,7	0,84	93	0,114	7621 (1)	112L0609	50T
37,0	400	110	3242	109	67,7	0,84	93		8000 (1)		
40,8	440	121	3573	109	67,7	0,84	93		8000 (1)		
44,6	480	140	4140	103	65,5	0,87	94		8000 (1)		

* voltage available at the drive output
(1) - Bearing with type 2Z metal shields.
(2) - Value of phase-to-phase resistance.
These indicative values are non-contractual and can be modified at any time by the manufacturer.

CPLS ASYNCHRONOUS MOTORS

CPLS 132S / 145 – 170 N.m

IP23 Motor– IC06 Fan– Class F
S1 Service – Ambient temperature 40°C – Total weight: 125 Kg
Inertia: 0,065 kg.m² -Maximum speed: 8000 min^{-1}
Forced ventilation of 0,37 kW – 230/400V 50Hz

P (kW)	U (V)*	F(Hz)	n_1 (min^{-1})	T (N.m)	I (A)	cos φ	η (%)	R (Ω) (3)	n_2 (min^{-1})	Product code	Unidrive SP rating
8,6	320	18,2	480	171	24,2	0,87	74		671		
9,2	340	19,4	517	170	24,1	0,86	76		821		
9,8	360	20,5	552	170	24,1	0,85	77		932	132S0604	
10,4	380	21,7	588	169	24,0	0,85	78	1,358	1050		16T
11,0	400	22,8	617	170	24,3	0,83	79		1159		
12,3	440	25,1	692	170	24,2	0,83	80		1363		
13,5	480	27,4	761	170	24,3	0,82	82		1507		
11,7	320	24,2	657	170	30,6	0,88	79		1050		
12,6	340	25,8	705	171	30,7	0,88	80		1190		
13,4	360	27,3	751	170	30,6	0,87	81		1333	132S0605	
14,2	380	28,8	797	170	30,5	0,87	82	0,880	1419		22T
15,0	400	30,3	842	170	30,5	0,86	82		1568		
16,6	440	33,6	942	168	30,2	0,86	84		1777		
18,2	480	37,2	1050	165	29,8	0,86	85		1986		
14,6	320	29,5	816	171	36,8	0,87	82		1452		
15,6	340	31,4	873	170	36,8	0,87	83		1570		
16,5	360	33,2	929	170	36,6	0,86	84		1743	132S0606	
17,6	380	35,1	985	170	36,7	0,86	84	0,59	1862		27T
18,5	400	36,9	1040	170	36,6	0,86	85		2058		
20,5	440	42,0	1192	164	35,7	0,87	87		2245		
22,4	480	46,7	1333	160	35,1	0,88	88		2491		
17,3	320	35,2	981	168	43,4	0,86	84		1658		
18,4	340	37,4	1048	168	43,2	0,85	85		1886		
19,6	360	39,6	1114	168	43,2	0,85	86		2008	132S0607	
20,6	380	41,2	1165	169	43,4	0,84	86	0,462	2193		33T
22,0	400	44,0	1247	168	43,3	0,84	87		2358		
24,2	440	49,0	1398	165	42,6	0,85	88		2631		
26,7	480	54	1547	165	42,5	0,85	89		2900		
23,8	320	49,6	1416	160	57,1	0,85	88		2690		
25,3	340	52,7	1510	160	56,9	0,85	89		2982		
26,9	360	55,8	1603	160	57,0	0,84	90		3163	132S0608	
28,4	380	58,9	1697	160	56,9	0,84	90	0,240	3373		40T
30,0	400	62,0	1790	160	56,9	0,84	90		3554		
33,1	440	68,2	1976	160	56,9	0,84	91		3945		
36,2	480	75,5	2195	157	56,1	0,84	92		4336		
29,5	320	64	1851	152	68,7	0,85	91		3675		
31,4	340	68,0	1971	152	68,6	0,85	91		3916		
33,3	360	72,0	2091	152	68,6	0,85	92		4353	132S0609	
35,2	380	76,0	2211	152	68,6	0,85	92	0,151	4623 (1)		50T
37,0	400	80,0	2332	152	68,4	0,85	92		4866 (1)		
40,9	440	89,0	2601	150	67,9	0,85	93		5433 (1)		
44,7	480	99,0	2902	145	65,9	0,86	93		6063 (1)		
35,9	320	81,6	2378	144	80,6	0,87	92		4720 (1)		
38,2	340	86,7	2531	144	80,5	0,87	93		5021 (1)		
40,5	360	91,8	2684	144	80,5	0,87	93		5578 (1)	132S0610	
42,8	380	96,9	2837	144	80,5	0,87	93	0,101	5908 (1)		60T
45,0	400	102,0	2991	144	80,3	0,86	94		6239 (1)		
49,7	440	118,0	3468	135	77,4	0,88	94		6903 (2)		
51,0	480	128	3773	129	74,0	0,88	95		7519 (2)		

* voltage available at the drive output
(1) - Bearing with type 2Z metal shields.
(2) - Open bearing with regreasing device.
(3) - Value of phase-to-phase resistance.
These indicative values are non-contractual and can be modified at any time by the manufacturer.

CPLS ASYNCHRONOUS MOTORS

CPLS 132M / 175 – 220 N.m

IP23 Motor– IC06 Fan– Class F
S1 Service – Ambient temperature 40°C – Total weight: 143 Kg
Inertia: 0,082 kg.m² - Maximum speed: 8000 min^{-1}
Forced ventilation of 0,37 kW – 230/400V 50Hz

P (kW)	U (V)*	F(Hz)	n_1 (min^{-1})	T (N.m)	I (A)	cos φ	η (%)	R (mΩ) (3)	n_2 (min^{-1})	Product code	Unidrive SP rating
11,7	320	19,1	507	220	31,5	0,88	76		777		
12,6	340	20,3	544	221	31,6	0,87	78		889		
13,4	360	21,5	581	220	31,5	0,87	79		1002		
14,2	380	22,7	618	219	31,4	0,86	80	904	1101	132M0605	22T
15,0	400	23,9	654	219	31,3	0,86	81		1166		
16,7	440	26,3	727	219	31,4	0,85	82		1369		
18,4	480	28,7	800	219	31,5	0,84	83		1505		
14,5	320	23,1	630	220	38,0	0,86	80		1123		
15,6	340	24,6	675	220	38,1	0,86	81		1266		
16,6	360	26,0	717	220	38,1	0,85	82		1417		
17,5	380	27,5	763	219	37,9	0,85	83	610	1509	132M0606	27T
18,5	400	28,9	806	219	37,9	0,84	84		1596		
20,6	440	31,8	893	220	38,1	0,84	85		1771		
22,6	480	34,7	981	220	38,1	0,83	86		1947		
16,6	320	26,0	720	220	43,6	0,83	82		1424		
18,4	340	28,7	796	221	43,6	0,86	83		1495		
19,6	360	30,4	848	221	43,6	0,86	84		1674		
20,8	380	32,1	899	221	43,6	0,86	85	474	1778	132M0607	33T
22,0	400	33,8	950	221	43,6	0,85	85		1881		
24,3	440	37,2	1053	220	43,5	0,85	86		2088		
26,3	480	41,0	1168	215	42,6	0,85	87		2319		
22,6	320	36,8	1036	218	59,3	0,83	86		2050		
25,2	340	39,1	1105	218	59,4	0,83	87		2189		
26,8	360	41,4	1175	218	59,4	0,83	87		2439		
28,4	380	43,7	1244	218	59,5	0,82	88	274	2587	132M0608	40T
30,0	400	46,0	1313	218	59,5	0,82	89		2745		
33,1	440	50,6	1452	218	59,5	0,82	89		3045		
36,2	480	56,0	1614	214	58,6	0,82	90		3208		
29,3	320	46,4	1324	211	71,1	0,84	89		2632		
31,2	340	49,3	1412	211	71,1	0,84	89		2813		
33,1	360	52,2	1499	211	71,0	0,83	90		3131		
35,0	380	55,1	1587	211	71,0	0,83	90	185	3313	132M0609	50T
37,0	400	58,0	1673	211	71,1	0,83	91		3549		
40,8	440	65,0	1883	207	69,9	0,84	91		3744		
44,6	480	72,3	2101	203	68,7	0,85	92		4190		
35,6	320	57,6	1657	205	82,4	0,86	90		3280		
37,9	340	61,2	1765	205	82,3	0,86	91		3503		
40,2	360	64,8	1874	205	82,2	0,86	91		3731		
42,5	380	68,4	1982	205	82,2	0,86	92	129	4109	132M0610	60T
45,0	400	72,0	2090	205	82,5	0,86	92		4347		
49,5	440	81,7	2380	198	80,5	0,87	93		4745 (1)		
54,1	480	93,5	2730	189	78,6	0,89	93		5422 (1)		
43,8	320	76,8	2234	187	97,2	0,88	93		4449 (1)		
46,6	340	81,6	2378	187	97,1	0,88	93		4749 (1)		
49,4	360	86,4	2522	187	97,1	0,87	93		5021 (1)		
52,2	380	91,2	2667	187	97,0	0,87	93	81	5577 (1)	132M0611	75T
55,0	400	96,0	2811	187	97,0	0,87	94		5878 (1)		
60,7	440	114,0	3345	173	94,5	0,90	94		6650 (2)		
62,0	480	118,0	3475	171	89,9	0,88	95		6851 (2)		
49,3	320	92,0	2690	175	107	0,89	94		5349 (1)		
52,5	340	97,8	2864	175	107	0,89	94		5964 (1)		
55,6	360	103,5	3036	175	107	0,89	94		6325 (1)		
58,8	380	109,3	3210	175	107	0,89	94	61	6715 (2)	132M0612	75T
62,0	400	115,0	3380	175	107	0,88	94		7075 (2)		
64,0	440	131,0	3864	158	99,5	0,89	95		7700 (2)		
66,0	480	143,0	4228	149	94,1	0,89	95		8000 (2)		

* voltage available at the drive output
(1) - Bearing with type 2Z metal shields.
(2) - Open bearing with regreasing device.
(3) - Value of phase-to-phase resistance.
These indicative values are non-contractual and can be modified at any time by the manufacturer.

CPLS ASYNCHRONOUS MOTORS

CPLS 132L / 220 – 250 N.m

IP23 Motor– IC06 Fan– Class F
S1 Service – Ambient temperature 40°C – Total weight: 174 Kg
Inertia: 0,107 kg.m² - Maximum speed: 8000 min^{-1}
Forced ventilation of 0,37 kW – 230/400V 50Hz

P (kW)	U (V)*	F(Hz)	n_1 (min^{-1})	T (N.m)	I (A)	cos φ	η (%)	R (mΩ) (3)	n_2 (min^{-1})	Product code	Unidrive SP rating
11,5	320	16,7	445	247	30,9	0,87	76		712		
12,4	340	17,8	478	248	31,0	0,87	78		797		
13,2	360	18,8	509	248	30,9	0,86	79		909		
14,1	380	19,9	542	248	31,0	0,86	80	912	1021	132L0605	22T
15,0	400	20,9	572	250	31,2	0,86	80		1083		
16,6	440	23,0	636	249	31,0	0,85	82		1257		
18,3	480	25,1	700	250	31,1	0,85	83		1385		
14,4	320	20,2	551	250	37,6	0,86	80		1049		
15,5	340	21,5	590	250	37,8	0,86	81		1163		
16,5	360	22,8	630	250	37,7	0,86	82		1253		
17,4	380	24,0	666	250	37,7	0,85	82	634	1380	132L0606	27T
18,5	400	25,3	705	250	37,7	0,85	83		1462		
20,4	440	27,8	781	250	37,7	0,84	84		1548		
22,5	480	30,4	860	250	37,6	0,84	85		1706		
17,2	320	23,8	659	249	43,7	0,86	82		1311		
18,4	340	25,2	702	250	43,8	0,85	83		1455		
19,6	360	26,7	745	250	43,8	0,85	84		1547		
20,7	380	28,2	792	250	43,9	0,85	85	460	1718	132L0607	33T
22,0	400	29,7	837	250	43,8	0,84	85		1818		
24,3	440	32,7	928	250	43,7	0,84	86		2022		
26,6	480	35,6	1016	250	43,7	0,84	87		2205		
23,7	320	32,0	906	250	58,3	0,85	86		2040		
25,3	340	34,0	967	250	58,4	0,84	87		2190		
26,9	360	36,0	1027	250	58,4	0,84	87		2340		
28,5	380	38,0	1087	250	58,5	0,84	88	249	2463	132L0608	40T
30,0	400	40,0	1147	250	58,4	0,84	88		2613		
33,2	440	45,0	1297	244	57,4	0,85	89		2968		
35,8	480	51,0	1476	232	55,3	0,86	90		3466		
29,2	320	39,4	1126	247	72,6	0,82	88		2572		
31,2	340	41,8	1199	248	72,7	0,81	89		2725		
33,3	360	44,3	1273	249	73,1	0,81	90		2959		
35,1	380	46,7	1346	249	73,2	0,81	90	175	3194	132L0609	50T
37,0	400	49,2	1421	249	73,1	0,81	90		3376		
40,9	440	54,1	1568	249	73,2	0,80	91		3709		
44,7	480	59,0	1716	249	73,3	0,80	91		4070		
35,7	320	49,2	1419	240	85,6	0,83	90		3229		
38,0	340	52,3	1513	240	85,5	0,83	91		3440		
40,3	360	55,3	1603	240	85,6	0,82	91		3652		
42,6	380	58,4	1696	240	85,5	0,82	91	123	3863	132L0610	60T
45,0	400	61,5	1790	240	85,7	0,82	92		4073		
49,6	440	67,6	1973	240	85,7	0,82	92		4692 (1)		
53,0	480	75,0	2195	230	82,7	0,83	93		5235 (1)		
43,4	320	62,4	1810	229	98,1	0,86	92		3937 (1)		
46,4	340	66,3	1927	230	98,5	0,86	92		4179 (1)		
49,2	360	70,2	2044	230	98,4	0,86	92		4448 (1)		
52,0	380	74,1	2161	230	98,5	0,86	93	86	4718 (1)	132L0611	75T
55,0	400	78,0	2279	230	98,6	0,86	93		4959 (1)		
60,5	440	85,8	2513	230	98,3	0,86	93		5471 (1)		
64,0	480	95,0	2790	219	94,7	0,86	94		6363 (1)		
54,1	320	84,0	2458	210	119	0,87	93		5314 (1)		
57,6	340	89,3	2617	210	119	0,87	93		5702 (1)		
61,0	360	94,5	2773	210	119	0,87	94		6062 (1)		
64,4	380	99,8	2932	210	119	0,87	94	53	6423 (2)	132L0612	100T
68,0	400	105,0	3088	210	119	0,87	94		6754 (2)		
70,0	440	115,5	3408	196	111	0,87	94		7610 (2)		
72,0	480	126,0	3727	185	105	0,86	95		8000 (2)		

* voltage available at the drive output
(1) - Bearing with type 2Z metal shields.
(2) - Open bearing with regreasing device.
(3) - Value of phase-to-phase resistance.
These indicative values are non-contractual and can be modified at any time by the manufacturer.

CPLS ASYNCHRONOUS MOTORS

CPLS 160S / 300 – 380 N.m

IP23 Motor– IC06 Fan– Class F
S1 Service – Ambient temperature 40°C – Total weight: 230 Kg
Inertia: 0,188 kg.m² - Maximum speed: 8000 min^{-1}
Forced ventilation of 1,10 kW – 230/400V 50Hz

P (kW)	U (V)*	F(Hz)	n_1 (min^{-1})	T (N.m)	I (A)	cos φ	η (%)	R (mΩ) (3)	n_2 (min^{-1})	Product code	Unidrive SP rating
17,2	320	16,4	444	369	45,0	0,87	78		1000		
18,3	340	17,4	475	367	45,0	0,86	80		1100		
19,6	360	18,5	509	368	45,0	0,86	80		1150		
20,8	380	19,5	539	368	45,0	0,86	81	520	1250	160S0602	33T
22,0	400	20,5	572	367	45,0	0,86	82		1300		
24,3	440	22,6	633	367	45,0	0,85	84		1500		
26,7	480	24,6	694	366	45,0	0,84	85		1650		
23,7	320	22,0	613	368	59,0	0,87	83		1500		
25,2	340	23,4	655	367	59,0	0,86	84		1600		
26,8	360	24,8	697	367	59,0	0,86	85		1700		
28,4	380	26,1	737	368	59,0	0,86	85	303	1800	160S0603	40T
30,0	400	27,5	779	368	59,0	0,85	86		1900		
33,2	440	30,3	864	367	59,0	0,85	87		2100		
36,4	480	33	945	368	59,0	0,84	88		2350		
29,2	320	26,0	734	380	74,0	0,85	85		1900		
31,2	340	27,6	782	381	74,0	0,84	86		2000		
33,1	360	29,0	825	383	74,0	0,83	86		2100		
35,1	380	30,9	881	380	74,0	0,84	87	207	2250	160S0604	50T
37,0	400	32,5	930	380	74,0	0,83	87		2400		
40,8	440	35,8	1030	378	74,0	0,83	88		2650		
44,8	480	39,0	1125	380	74,0	0,82	89		2950		
35,6	320	31,6	903	377	88,0	0,84	87		2350		
38,0	340	33,6	963	377	88,0	0,84	88		2500		
40,3	360	35,6	1024	376	88,0	0,83	88		2650		
42,7	380	37,5	1080	377	88,0	0,83	89	141	2810	160S0605	60T
45,0	400	39,5	1140	377	88,0	0,82	89		3100		
49,7	440	43,5	1260	376	88,0	0,82	90		3450 (1)		
53,0	480	49,0	1426	355	83,0	0,85	90		4150 (1)		
43,7	320	40,2	1159	360	101	0,88	89		2850		
46,6	340	42,8	1237	360	101	0,87	90		3050		
49,5	360	45,3	1312	360	101	0,87	90		3250		
52,3	380	47,8	1387	360	101	0,87	91	98	3450 (1)	160S0606	75T
55,0	400	50,3	1462	360	101	0,87	91		3700 (1)		
57,9	440	55,4	1618	342	96	0,86	91		4200 (1)		
61,0	480	60,4	1770	329	94	0,86	92		5000 (1)		
59,6	320	55,8	1625	350	140	0,83	92		4500 (1)		
63,4	340	59,3	1730	350	140	0,83	92		4800 (1)		
67,3	360	62,8	1835	350	140	0,83	92		5000 (1)		
71,1	380	66,3	1943	350	140	0,83	93	66	5200 (1)	160S0607	100T
75,0	400	69,8	2045	350	140	0,83	93		5500 (1)		
80,5	440	76,8	2256	341	137	0,82	93		6700 (2)		
85,5	480	83,8	2468	331	134	0,82	94		7350 (2)		
73,3	320	69,6	2036	344	165	0,86	93		5050 (1)		
77,9	340	74,0	2168	343	165	0,86	93		5400 (1)		
82,7	360	78,3	2297	344	165	0,86	94		5700 (2)		
85,5	380	82,7	2428	336	162	0,86	94	38	6050 (2)	160S0608	120T
90,0	400	87,0	2560	336	162	0,85	94		6350 (2)		
94,0	440	95,7	2824	318	154	0,85	94		7360 (2)		
98,0	480	104	3087	303	148	0,84	95		8000 (2)		
88,8	320	88,8	2608	325	190	0,89	94		6450 (2)		
94,3	340	94,3	2773	325	190	0,89	94		6850 (2)		
100	360	99,9	2941	325	190	0,89	94		7300 (2)		
105	380	105	3095	324	190	0,89	95	26	7600 (2)	160S0609	150T
110	400	111	3275	321	188	0,89	95		8000 (2)		
115	440	122	3609 (1)	305	179	0,89	95		8000 (2)		
-	-		-	-	-	-	-		-		

* voltage available at the drive output
(1) - Bearing with type 2Z metal shields.
(2) - Open bearing with regreasing device.
(3) - Value of phase-to-phase resistance.
These indicative values are non-contractual and can be modified at any time by the manufacturer.

CPLS ASYNCHRONOUS MOTORS

CPLS 160M / 400 – 490 N.m

IP23 Motor– IC06 Fan– Class F
S1 Service – Ambient temperature 40°C – Total weight: 289 Kg
Inertia: 0,246 kg.m² - Maximum speed: 6000 min^{-1}
Forced ventilation of 1,10 kW – 230/400V 50Hz

P (kW)	U (V)*	F(Hz)	n_1 (min^{-1})	T (N.m)	I (A)	cos φ	η (%)	R (mΩ) (3)	n_2 (min^{-1})	Product code	Unidrive SP rating
17	320	12,6	332	475	44,0	0,89	76		620		
18	340	13,3	350	480	44,0	0,88	77		680		
19	360	14,1	380	485	45,0	0,88	78		730	160M0602	
21	380	14,9	400	495	45,0	0,88	79	590	750		33T
22	400	15,7	425	495	45,0	0,88	80		810		
25	440	17,3	470	495	45,0	0,87	81		950		
27	480	18,8	515	495	45,0	0,86	83		1100		
24	320	16,8	457	490	59,0	0,89	80		920		
25	340	17,9	490	490	59,0	0,88	81		1005		
27	360	18,9	520	490	59,0	0,88	82		1070	160M0603	
29	380	20,0	550	490	59,0	0,88	83	349	1120		40T
30	400	21,0	585	490	59,0	0,87	84		1240		
33	440	23,1	648	490	59,0	0,87	85		1405		
37	480	25,2	710	490	59,0	0,86	86		1552		
29	320	20,3	563	490	71,0	0,88	83		1240		
31	340	21,6	602	490	71,0	0,87	84		1320		
33	360	22,9	641	490	71,0	0,87	85		1390	160M0604	
35	380	24,1	576	490	71,0	0,87	85	240	1540		50T
37	400	25,4	715	490	71,0	0,87	86		1680		
41	440	27,9	790	490	71,0	0,86	87		1950		
45	480	30,5	871	490	71,0	86	88		2120		
35	320	24,4	685	490	85,0	0,86	86		1580		
37	340	25,8	730	490	85,0	0,86	86		1750		
40	360	27,5	780	490	85,0	0,86	87		1920	160M0605	
42	380	29,0	820	490	85,0	0,86	87	167	2090		60T
45	400	30,5	870	490	86,0	0,86	88		2270		
49	440	33,5	960	490	86,0	0,85	89		2460		
54	480	36,6	1050	490	86,0	0,84	89		2870		
43	320	29,6	840	490	103	0,86	88		2100		
46	340	31,5	900	490	103	0,86	88		2270		
49	360	33,3	955	490	103	0,86	89		2480	160M0606	
52	380	35,1	1010	490	102	0,86	89	115	2710		75T
55	400	37,0	1065	490	103	0,86	89		2970		
60	440	40,7	1175	480	101	0,85	90		3170		
62	480	44,4	1290	460	97	0,84	91		3750		
59	320	40,0	1155	490	145	0,81	90		3300		
63	340	42,5	1230	490	145	0,81	91		3450 (1)		
67	360	45,0	1305	490	145	0,81	91		3610 (1)	160M0607	
71	380	47,5	1380	490	145	0,81	92	65	3760 (1)		100T
75	400	50,0	1455	490	145	0,81	92		4060 (1)		
81	440	55,0	1605	480	143	0,80	92		4370 (1)		
85	480	60,0	1760	460	139	0,79	93		5500 (1)		
72	320	49,6	1442	475	167	0,83	92		4050 (1)		
76	340	52,7	1535	475	167	0,83	92		4350 (1)		
81	360	55,8	1628	475	167	0,83	93		4650 (1)	160M0608	
86	380	58,9	1720	475	167	0,83	93	45	4940 (1)		120T
90	400	62,0	1810	475	168	0,83	93		5100 (1)		
98	440	68,2	2000	465	164	0,82	94		5850 (2)		
103	480	74,4	2189	450	160	0,82	94		6000 (2)		

* voltage available at the drive output
(1) - Bearing with type 2Z metal shields.
(2) - Open bearing with regreasing device.
(3) - Value of phase-to-phase resistance.
These indicative values are non-contractual and can be modified at any time by the manufacturer.

CPLS ASYNCHRONOUS MOTORS

CPLS 160M / 400 – 490 N.m

IP23 Motor– IC06 Fan– Class F
S1 Service – Ambient temperature 40°C – Total weight: 289 Kg
Inertia: 0,246 kg.m² - Maximum speed: 6000 min^{-1}
Forced ventilation of 1,10 kW – 230/400V 50Hz

P (kW)	U (V)*	F(Hz)	n_1 (min^{-1})	T (N.m)	I (A)	cos φ	η (%)	R (mΩ) (3)	n_2 (min^{-1})	Product code	Unidrive SP rating
87	320	63,2	1845	450	191	0,88	93		4650 (1)		
93	340	67,1	1960	450	191	0,88	93		4960 (1)		
98	360	71,1	2083	450	190	0,88	94		5250 (1)	160M0609	
104	380	75,1	2204	450	190	0,88	94	31	5550 (1)		150T
110	400	79,0	2320	450	192	0,88	94		5800 (2)		
116	440	86,9	2560	430	183	0,87	94		6000 (2)		
122	480	98,0	2890	405	173	0,88	94		6000 (2)		
106	320	88,0	2590	390	224	0,90	95		6000 (2)		
113	340	93,5	2755	390	224	0,90	95		6000 (2)		
119	360	99,0	2920	390	223	0,89	95		6000 (2)	160M0610	
127	380	105	3100	390	223	0,90	95	18	6000 (2)		180T
132	400	110	3255	390	223	0,89	95		6000 (2)		
-	-	-	-	-	-	-	-		-		
-	-	-	-	-	-	-	-		-		

* voltage available at the drive output
(1) - Bearing with type 2Z metal shields.
(2) - Open bearing with regreasing device.
(3) - Value of phase-to-phase resistance.
These indicative values are non-contractual and can be modified at any time by the manufacturer.

CPLS ASYNCHRONOUS MOTORS

CPLS 160L / 620 – 700 N.m

IP23 Motor– IC06 Fan– Class F
S1 Service – Ambient temperature 40°C – Total weight: 362 Kg
Inertia: 0,455 kg.m² - Maximum speed: 5000 min^{-1}
Forced ventilation of 1,10 kW – 230/400V 50Hz

P (kW)	U (V)*	F(Hz)	n_1 (min^{-1})	T (N.m)	I (A)	cos φ	η (%)	R (mΩ) (2)	n_2 (min^{-1})	Product code	Unidrive SP rating
24	320	11,7	320	702	60,0	0,91	78	540	500	160L0603	40T
25	340	12,4	341	702	60,0	0,90	79		600		
27	360	13,1	363	700	59,0	0,90	80		700		
28	380	13,9	387	700	59,0	0,90	81		750		
30	400	14,6	409	700	59,0	0,89	82		800		
33	440	16,1	454	698	59,0	0,88	83		900		
36	480	17,5	496	698	59,0	0,88	84		1000		
29	320	14,2	395	700	71,0	0,90	81	380	750	160L0604	50T
31	340	15,1	422	700	71,0	0,90	82		850		
33	360	16,0	450	700	71,0	0,90	83		900		
35	380	16,9	477	700	71,0	0,89	83		950		
37	400	17,8	504	700	71,0	0,89	84		1050		
41	440	19,6	558	700	71,0	0,89	85		1250		
45	480	21,4	613	700	71,0	0,88	86		1350		
36	320	17,1	485	698	85,0	0,90	84	268	1000	160L0605	60T
38	340	18,2	516	700	85,0	0,89	85		1100		
40	360	19,3	549	700	85,0	0,89	85		1200		
43	380	20,3	580	700	85,0	0,89	86		1300		
45	400	21,4	613	700	85,0	0,88	87		1400		
50	440	23,5	676	700	85,0	0,88	87		1500		
54	480	25,7	743	694	84,0	0,88	88		1650		
44	320	20,8	595	700	103	0,88	86	180	1350	160L0606	75T
47	340	22,1	634	700	102	0,88	87		1450		
49	360	23,4	673	700	102	0,88	88		1650		
52	380	24,7	712	700	102	0,88	88		1750		
55	400	26,0	751	699	102	0,88	88		1850		
60	440	28,6	830	685	100	0,87	89		2050		
64	480	31,2	909	672	99	0,86	90		2250		
60	320	29,2	844	679	139	0,87	89	103	2000	160L0607	100T
64	340	31,0	898	676	139	0,87	90		2100		
68	360	32,9	955	676	138	0,86	90		2250		
71	380	34,7	1010	675	138	0,86	90		2375		
75	400	36,5	1064	673	138	0,86	91		2500		
81	440	40,2	1175	661	136	0,85	92		2900		
88	480	43,8	1284	654	134	0,85	92		3200		
72	320	36,1	1053	650	165	0,86	91	69	2650	160L0608	120T
76	340	38,3	1119	650	165	0,85	92		2850		
81	360	40,6	1188	650	165	0,86	92		3000		
85	380	42,8	1254	650	165	0,85	92		3150		
90	400	45,1	1323	649	164	0,85	92		3350		
97	440	49,6	1459	635	161	0,85	93		3600 (1)		
104	480	54,1	1595	623	159	0,84	93		3950 (1)		
88	320	45,6	1338	625	197	0,86	93	44	3300 (1)	160L0609	150T
93	340	48,5	1425	625	197	0,86	93		3500 (1)		
99	360	51,3	1509	625	197	0,86	93		3700 (1)		
105	380	54,2	1596	625	197	0,86	93		3900 (1)		
110	400	57,0	1680	625	197	0,86	93		4150 (1)		
117	440	62,7	1853	603	191	0,85	94		4700 (1)		
125	480	68,4	2025	590	188	0,85	94		5000 (1)		

* voltage available at the drive output
(1) - Bearing with type 2Z metal shields.
(2) - Value of phase-to-phase resistance.
These indicative values are non-contractual and can be modified at any time by the manufacturer.

CPLS ASYNCHRONOUS MOTORS

CPLS 160L / 620 – 700 N.m

IP23 Motor– IC06 Fan– Class F
S1 Service – Ambient temperature 40°C – Total weight: 362 Kg
Inertia: 0,455 kg.m² - Maximum speed: 5000 min^{-1}
Forced ventilation of 1,10 kW – 230/400V 50Hz

P (kW)	U (V)*	F(Hz)	n_1 (min^{-1})	T (N.m)	I (A)	cos φ	η (%)	R (mΩ) (2)	n_2 (min^{-1})	Product code	Unidrive SP rating
110	320	59,2	1741	603	233	0,91	93		3700 (1)		
116	340	62,9	1852	596	230	0,90	94		4000 (1)		
121	360	66,6	1964	591	228	0,90	94		4300 (1)	160L0610	
126	380	70,3	2075	582	225	0,90	94	27	4600 (1)		180T
132	400	74,0	2187	577	223	0,90	94		5000 (1)		
139	440	81,4	2411	551	213	0,90	95		5000 (1)		
148	480	88,8	2634	537	208	0,90	95		5000 (1)		
138	320	84,8	2506	526	285	0,92	94		5000 (1)		
144	340	90,1	2666	516	280	0,92	95		5000 (1)		
150	360	95,4	2826	507	275	0,92	95		5000 (1)		220T
155	380	100,7	2986	496	268	0,92	95	19	5000 (1)	160L0611	
160	400	106,0	3146	486	263	0,91	95		5000 (1)		
166	440	116,6	3466 (1)	458	248	0,91	96		5000 (1)		180T
171	480	127,2	3786 (1)	432	234	0,91	96		5000 (1)		

* voltage available at the drive output
(1) - Bearing with type 2Z metal shields.
(2) - Value of phase-to-phase resistance.
These indicative values are non-contractual and can be modified at any time by the manufacturer.

CPLS ASYNCHRONOUS MOTORS

CPLS 200S / 680 – 940 N.m

IP23 Motor– IC06 Fan– Class F
S1 Service – Ambient temperature 40°C – Total weight: 505 Kg
Inertia: 0,700 kg.m² - Maximum speed: 5000 min^{-1}
Forced ventilation of 2,20 kW – 230/400V 50Hz

P (kW)	U (V)*	F(Hz)	n_1 (min^{-1})	T (N.m)	I (A)	cos φ	η (%)	R (mΩ) (3)	n_2 (min^{-1})	Product code	Unidrive SP rating
35	320	14,0	376	883	91,0	0,88	78,2		560		
38	340	14,9	403	887	91,3	0,88	79,3		605		
40	360	15,8	431	886	91,0	0,88	80,4		676	200S0604	
43	380	16,6	455	891	91,0	0,87	81,3	278	735		60T
45	400	17,5	482	890	90,7	0,87	82,2		846		
51	440	19,3	536	898	91,3	0,87	83,6		909		
56	480	21,0	588	900	91,1	0,86	84,8		1060		
43	320	16,0	440	937	113	0,85	81,3		816		
46	340	17,0	470	940	113	0,85	82,3		878		
50	360	18,0	500	944	113	0,85	83,1		950	200S0605	
52	380	19,0	531	940	113	0,84	83,9	187,8	1051		75T
55	400	20,0	561	935	112	0,84	84,7		1165		
61	440	22,0	622	935	112	0,83	85,9		1261		
67	480	24,0	682	937	112	0,83	86,9		1355		
59	320	22,3	628	903	146	0,86	85,6		1171		
63	340	23,7	670	900	145	0,86	86,4		1290		
67	360	25,1	712	900	145	0,86	87,0		1351	200S0606	
71	380	26,5	755	900	145	0,85	87,6	108,4	1441		100T
75	400	27,9	796	900	144	0,85	88,2		1587		
83	440	30,7	881	893	143	0,85	89,1		1700		
90	480	33,5	966	890	143	0,85	89,9		1865		
72	320	27,0	767	890	172	0,86	87,6		1525		
77	340	28,7	820	890	172	0,86	88,2		1614		
81	360	30,4	871	887	171	0,86	88,8		1734	200S0607	
86	380	32,1	922	884	170	0,85	89,3	77	1826		120T
90	400	33,8	974	882	170	0,85	89,7		1974		
99	440	37,2	1076	875	168	0,85	90,6		2186		
108	480	40,6	1180	870	167	0,85	91,2		2369		
89	320	33,2	956	883	209	0,85	89,6		1917		
94	340	35,3	1019	880	208	0,85	90,1		2100		
100	360	37,4	1083	877	208	0,85	90,6		2300	200S0608	
104	380	39,4	1143	877	207	0,85	91,0	49,8	2460 (1)		150T
110	400	41,5	1200	875	206	0,84	91,4		2600 (1)		
121	440	45,7	1338	866	205	0,84	91,8		2758 (1)		
131	480	49,8	1457	858	202	0,84	92,5		2944 (1)		
105	320	40,4	1170	858	247	0,84	91,1		2430 (1)		
112	340	42,9	1246	858	247	0,84	91,6		2600 (1)		
119	360	45,5	1324	856	246	0,84	91,9		2775 (1)	200S0609	
125	380	48,0	1400	855	246	0,84	92,3	36,4	2930 (1)		180T
132	400	50,5	1474	855	245	0,84	92,6		3080 (1)		
146	440	55,6	1627	853	245	0,84	931,0		3380 (1)		
158	480	60,6	1778	848	244	0,83	93,6		3568 (1)		
128	320	49,6	1446	845	295	0,85	92,5		2930 (1)		
136	340	52,7	1540	843	295	0,84	92,8		3125 (1)		
144	360	55,8	1633	841	294	0,84	93,1		3320 (1)	200S0610	
152	380	58,9	1726	840	293	0,84	93,4	25	3450 (1)		220T
160	400	62,0	1819	840	293	0,84	93,7		3712 (1)		
174	440	68,2	2005	830	289	0,84	94,1		4100 (2)		
188	480	74,4	2192	820	286	0,84	94,5		4467 (2)		

* voltage available at the drive output
(1) - Bearing with type 2Z metal shields.
(2) - Open bearing with regreasing device.
(3) - Value of phase-to-phase resistance.
These indicative values are non-contractual and can be modified at any time by the manufacturer.

CPLS ASYNCHRONOUS MOTORS

CPLS 200S / 680 – 940 N.m

IP23 Motor– IC06 Fan– Class F
S1 Service – Ambient temperature 40°C – Total weight: 505 Kg
Inertia: 0,700 kg.m² - Maximum speed: 5000 min^{-1}
Forced ventilation of 2,20 kW – 230/400V 50Hz

P (kW)	U (V)*	F(Hz)	n_1 (min^{-1})	T (N.m)	I (A)	cos φ	η (%)	R (mΩ) (3)	n_2 (min^{-1})	Product code	Unidrive SP rating
160	320	68	2000	760	358	0,86	93,7	16,3	3800 (1)	200S0611	270T
170	340	72,3	2125	760	357	0,86	93,9		4030 (2)		
180	360	76,5	2254	760	357	0,86	94,2		4257 (2)		
190	380	80,8	2383	760	357	0,86	94,4		4500 (2)		
200	400	85	2510 (1)	760	357	0,86	94,6		4750 (2)		
213	440	93,5	2764 (1)	736	345	0,85	94,9		5000 (2)		
228	480	102	3020 (1)	721	339	0,85	95,2		5000 (2)		
205	320	94,4	2790 (1)	702	451	0,87	94,9	9,13	5000 (2)	200S0612	340T
216	340	100,3	2967 (1)	696	447	0,86	95,1		5000 (2)		
227	360	106,2	3145 (1)	688	442	0,86	95,3		5000 (2)		
238	380	112,1	3322 (1)	685	440	0,86	95,4		5000 (2)		
250	400	118	3500 (1)	683	438	0,86	95,5		5000 (2)		
-	440	-	- - - - - - - -	-	-	-	-		-		
-	480	-	- - - - - - - -	-	-	-	-		-		

* voltage available at the drive output
(1) - Bearing with type 2Z metal shields.
(2) - Open bearing with regreasing device.
(3) - Value of phase-to-phase resistance.
These indicative values are non-contractual and can be modified at any time by the manufacturer.

CPLS ASYNCHRONOUS MOTORS

CPLS 200M / 900 – 1300 N.m

IP23 Motor– IC06 Fan– Class F
S1 Service – Ambient temperature 40°C – Total weight: 615 Kg
Inertia: 0,980 kg.m² - Maximum speed: 5000 min^{-1}
Forced ventilation of 2,20 kW – 230/400V 50Hz

P (kW)	U (V)*	F(Hz)	n_1 (min^{-1})	T (N.m)	I (A)	cos φ	η (%)	R (mΩ) (3)	n_2 (min^{-1})	Product code	Unidrive SP rating
43	320	11,7	315	1296	115	0,86	78,7		534		
46	340	12,4	337	1300	116	0,85	79,3		590		
49	360	13,1	358	1300	115	0,85	80,4		650	200M0603	
52	380	13,9	382	1300	115	0,84	82,2	220,4	766		75T
55	400	14,6	404	1300	115	0,84	82,2		766		
61	440	16,1	450	1300	115	0,84	83,6		897		
67	480	17,5	491	1305	115	0,83	84,8		1028		
59	320	16,2	449	1255	148	0,86	83,0		821		
63	340	17,2	479	1260	148	0,86	83,4		895		
67	360	18,2	509	1260	148	0,86	84,7		967	200M0604	
71	380	19,2	540	1260	148	0,86	85,5	130,4	1056		100T
75	400	20,2	568	1260	147	0,85	86,1		1115		
83	440	22,2	630	1254	147	0,85	87,3		1240		
91	480	24,2	391	1254	146	0,85	88,2		1374		
71	320	19,6	552	1230	174	0,86	85,8		1058		
77	340	20,8	589	1230	173	0,86	86,5		1148		
81	360	22,1	630	1228	173	0,86	87,2		1250	200M0605	
86	380	23,3	663	1228	173	0,85	87,8	91	1326		120T
90	400	24,5	700	1228	173	0,85	88,3		1390		
99	440	27,0	775	1228	172	0,85	89,2		1540		
108	480	29,4	847	1228	172	0,85	89,9		1770		
88	320	24,0	683	1225	209	0,86	87,8		1340		
93	340	25,5	728	1222	209	0,86	88,5		1445		
99	360	27,0	774	1221	208	0,86	89,1		1535	200M0606	
105	380	28,5	819	1217	207	0,85	89,6	62,8	1626		150T
110	400	30,0	864	1215	207	0,85	90,0		1717		
122	440	33,0	954	1215	206	0,85	90,8		1900		
133	480	36,0	1045	1215	206	0,85	91,4		2080		
105	320	28,6	823	1222	251	0,85	89,7		1562		
112	340	30,3	875	1222	250	0,84	90,2		1632		
119	360	32,1	929	1220	250	0,84	90,6		1820	200M0607	
125	380	33,9	983	1217	249	0,84	91,1	42,6	1963		180T
132	400	35,7	1037	1214	248	0,84	91,4		2090		
146	440	39,3	1145	1212	248	0,84	92,0		2320		
159	480	42,8	1252	1212	248	0,83	92,7		2560 (1)		
128	320	36,0	1041	1173	297	0,85	91,2		2012		
136	340	38,3	1110	1168	295	0,85	91,5		2148		
144	360	40,5	1177	1168	295	0,85	91,9		2311	200M0608	
152	380	42,8	1246	1164	294	0,85	92,3	31	2475 (1)		220T
160	400	45,0	1312	1164	293	0,85	92,6		2640 (1)		
176	440	49,5	1448	1157	291	0,85	93,2		2825 (1)		
192	480	54,0	158	1145	288	0,85	93,7		3040 (1)		
160	320	46,4	1354	1128	364	0,86	92,7		2500 (1)		
170	340	49,3	1441	1126	363	0,86	93,0		2680 (1)		
180	360	52,2	1528	1124	362	0,85	93,3		2917 (1)	200M0609	
190	380	55,1	1615	1121	360	0,85	93,8	19,8	3155 (1)		270T
200	400	58,0	1703	1121	360	0,85	93,8		3392 (1)		
217	440	63,8	1877	1104	355	0,85	94,3		3700 (1)		
234	480	69,6	2053	1090	350	0,85	94,7		4145 (2)		

* voltage available at the drive output
(1) - Bearing with type 2Z metal shields.
(2) - Open bearing with regreasing device.
(3) - Value of phase-to-phase resistance.
These indicative values are non-contractual and can be modified at any time by the manufacturer.

CPLS ASYNCHRONOUS MOTORS

CPLS 200M / 900 – 1300 N.m

IP23 Motor– IC06 Fan– Class F
S1 Service – Ambient temperature 40°C – Total weight: 615 Kg
Inertia: 0,980 kg.m² - Maximum speed: 5000 min^{-1}
Forced ventilation of 2,20 kW – 230/400V 50Hz

P (kW)	U (V)*	F(Hz)	n_1 (min^{-1})	T (N.m)	I (A)	cos φ	η (%)	R (mΩ) (3)	n_2 (min^{-1})	Product code	Unidrive SP rating
204	320	61,0	1794	1086	461	0,85	93,9	12,1	3604 (1)	200M0610	340T
217	340	64,9	1910	1082	460	0,85	94,1		3920 (1)		
227	360	68,7	2026	1068	454	0,85	94,4		4115 (2)		
238	380	72,5	2140	1061	451	0,85	94,6		4298 (2)		
250	400	76,3	2260	1057	450	0,85	94,8		4450 (2)		
275	440	83,9	2483 (1)	1032	438	0,84	95,2		5000 (2)		
300	480	91,6	2715 (1)	1010	430	0,84	95,4		5000 (2)		
256	320	88,0	2603 (1)	940	559	0,87	95,0	7,13	5000 (2)	200M0611	400T
272	340	93,5	2768 (1)	940	559	0,87	95,2		5000 (2)		
287	360	99,0	2933 (1)	935	556	0,87	95,4		5000 (2)		
300	380	104,5	3098 (1)	925	550	0,87	95,5		5000 (2)		
315	400	110,0	3264 (1)	923	548	0,87	95,7		5000 (2)		
330	440	121,0	3596 (1)	877	522	0,87	95,9		5000 (2)		
350	480	132,0	3927 (1)	852	507	0,87	96,0		5000 (2)		

* voltage available at the drive output
(1) - Bearing with type 2Z metal shields.
(2) - Open bearing with regreasing device.
(3) - Value of phase-to-phase resistance.
These indicative values are non-contractual and can be modified at any time by the manufacturer.

CPLS ASYNCHRONOUS MOTORS

CPLS 200L / 1100 – 1550 N.m

IP23 Motor– IC06 Fan– Class F
S1 Service – Ambient temperature 40°C – Total weight: 740 Kg
Inertia: 1,579 kg.m² - Maximum speed: 5000 min^{-1}
Forced ventilation of 2,20 kW – 230/400V 50Hz

P (kW)	U (V)*	F(Hz)	n_1 (min^{-1})	T (N.m)	I (A)	cos φ	η (%)	R (mΩ) (3)	n_2 (min^{-1})	Product code	Unidrive SP rating
43	320	9,5	267	1537	108	0,88	81,5		585		
46	340	10,1	285	1540	108	0,87	82,5		630		
49	360	10,7	305	1540	108	0,87	83,3		688		
52	380	11,3	321	1538	108	0,87	84,1	248	734	200L0603	75T
55	400	11,9	340	1545	109	0,86	84,7		765		
61	440	13,1	376	1536	108	0,86	86,0		855		
66	480	14,3	412	1534	108	0,85	87,0		943		
60	320	13,2	378	1506	143	0,88	85,7		837		
63	340	14,0	402	1505	142	0,88	86,5		897		
67	360	14,9	429	1500	142	0,88	87,1		963		
71	380	15,7	453	1500	141	0,87	87,7	139	1018	200L0604	100T
75	400	16,5	477	1500	141	0,87	88,2		1090		
83	440	18,2	528	1500	141	0,87	89,1		1167		
90	480	19,8	576	1500	141	0,86	89,9		1293		
72	320	15,8	456	1494	169	0,87	87,7		1150		
76	340	16,8	486	1496	169	0,87	88,3		1117		
81	360	17,8	516	1494	169	0,86	88,9		1184		
86	380	18,8	546	1493	169	0,86	89,3	97	1259	200L0605	120T
90	400	19,8	576	1490	169	0,86	89,5		1305		
99	440	21,8	636	1485	168	0,85	90,6		1455		
108	480	23,8	697	1480	167	0,85	91,2		1605		
88	320	19,4	564	1482	204	0,87	89,6		1291		
93	340	20,6	600	1479	203	0,86	90,2		1370		
99	360	21,8	636	1480	203	0,86	90,6		1490		
105	380	23,0	673	1482	203	0,86	91,0	64,5	1575	200L0606	150T
110	400	24,2	708	1480	203	0,86	91,3		1660		
121	440	26,6	781	1477	203	0,85	91,9		1815		
132	480	29,0	853	1460	201	0,85	92,5		2083		
106	320	23,8	696	1441	236	0,88	91,0		1560		
112	340	25,3	740	1443	237	0,88	91,4		1691		
119	360	26,8	786	1440	236	0,88	91,8		1802		
125	380	28,3	831	1440	236	0,88	92,1	47,6	1867	200L0607	180T
132	400	29,8	876	1439	236	0,88	92,5		1955		
145	440	32,8	966	1434	235	0,87	92,9		2168		
155	480	35,8	1057	1397	229	0,87	93,5		2474 (1)		
128	320	29,6	871	1409	293	0,86	92,5		2185		
136	340	31,5	928	1400	291	0,86	92,9		2315		
144	360	33,3	982	1397	290	0,85	93,2		2442 (1)		
152	380	35,2	1040	1396	290	0,85	93,4	29,2	2540 (1)	200L0608	220T
160	400	37,0	1094	1397	290	0,85	93,6		2680 (1)		
176	440	40,7	1204	1392	290	0,85	94,0		3010 (1)		
192	480	44,4	1316	1350	282	0,84	94,4		3400 (1)		
161	320	38,8	1146	1342	359	0,86	93,4		2723 (1)		
171	340	41,2	1218	1337	357	0,86	94,1		2890 (1)		
181	360	43,7	1293	1334	356	0,86	94,4		3100 (1)		
190	380	46,1	1365	1330	355	0,86	94,6	19,6	3250 (1)	200L0609	270T
200	400	48,5	1436	1330	355	0,86	94,8		3450 (1)		
218	440	53,4	1584	1314	352	0,86	95,1		3750 (1)		
240	480	58,2	1728	1298	348	0,85	85,4		4090 (2)		

* voltage available at the drive output
(1) - Bearing with type 2Z metal shields.
(2) - Open bearing with regreasing device.
(3) - Value of phase-to-phase resistance.
These indicative values are non-contractual and can be modified at any time by the manufacturer.

CPLS ASYNCHRONOUS MOTORS

CPLS 200L / 1100 – 1550 N.m

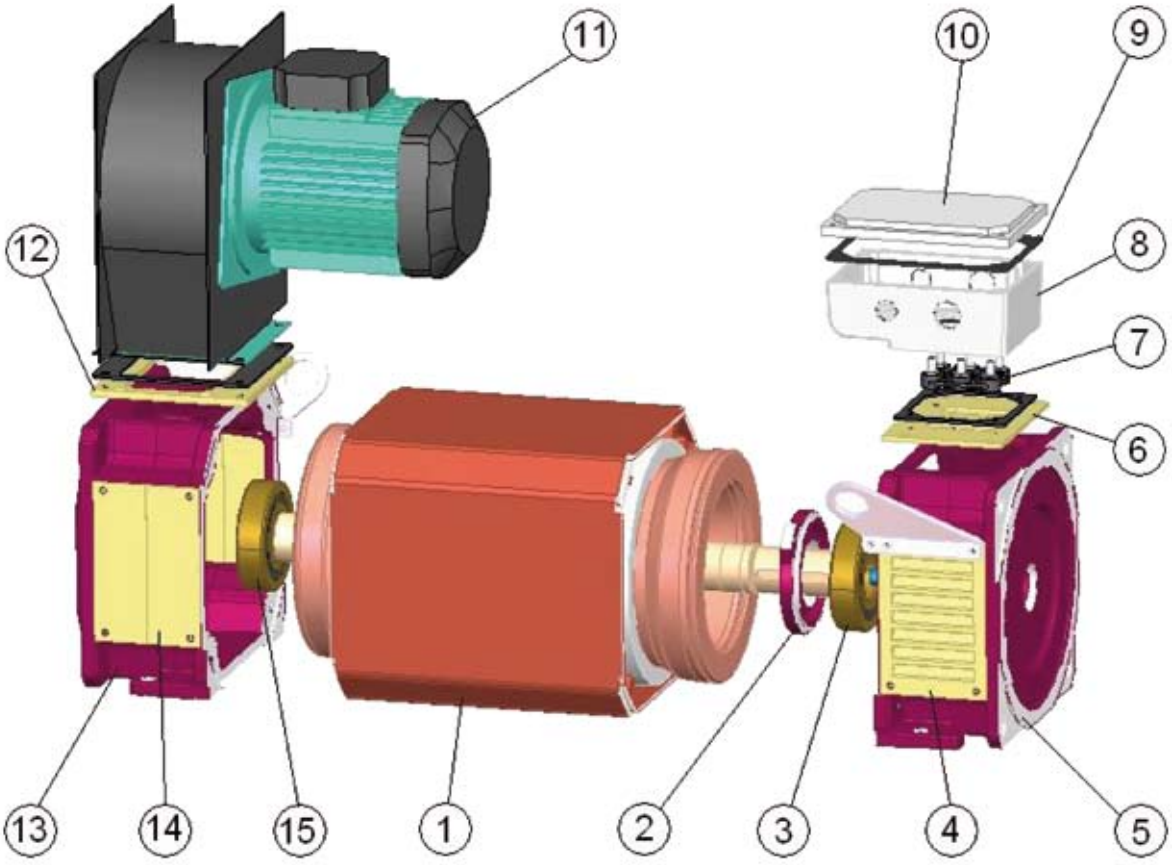
IP23 Motor– IC06 Fan– Class F
S1 Service – Ambient temperature 40°C – Total weight: 740 Kg
Inertia: 1,579 kg.m² - Maximum speed: 5000 min^{-1}
Forced ventilation of 2,20 kW – 230/400V 50Hz

P (kW)	U (V)*	F(Hz)	n_1 (min^{-1})	T (N.m)	I (A)	cos φ	η (%)	R (mΩ) (3)	n_2 (min^{-1})	Product code	Unidrive SP rating
206	320	50,4	1494	1317	454	0,86	94,9		3608 (1)		
219	340	53,6	1590	1315	454	0,86	95,1		3905 (1)		
226	360	56,7	1683	1293	447	0,86	95,3		4150 (2)	200L0610	
238	380	59,9	1800	1276	441	0,86	95,5	12,6	4360 (2)		340T
250	400	63,0	1872	1275	441	0,86	95,5		4750 (2)		
272	440	69,3	2062	1260	436	0,85	95,9		5000 (2)		
288	480	75,6	2251	1222	424	0,85	96,0		5000 (2)		
257	320	68,0	2023	1214	554	0,88	95,5		5000 (2)		
268	340	72,3	2152	1216	555	0,88	95,6		5000 (2)		
284	360	76,5	2278	1203	549	0,88	95,8		5000 (2)	200L0611	
303	380	80,8	2408 (1)	1190	549	0,88	95,9	7	5000 (2)		400T
315	400	85,0	2533 (1)	1187	543	0,87	96,0		5000 (2)		
345	440	93,5	2788 (1)	1182	540	0,87	96,2		5000 (2)		
378	480	102,0	3043 (1)	1170	535	0,87	96,3		5000 (2)		
284	320	80,8	2406 (1)	1167	627	0,89	95,6		5000 (2)		
309	340	85,9	2560 (1)	1153	620	0,89	95,7		5000 (2)		
324	360	90,9	2710 (1)	1142	614	0,88	95,8		5000 (2)	200L0612	
340	380	96,0	2863 (1)	1134	610	0,88	95,9	5,53	5000 (2)		370T
355	400	101,0	3013 (1)	1125	605	0,88	96,0		5000 (2)		
391	440	111,1	3313 (1)	1095	590	0,88	96,2		5000 (2)		
-	-	-	- - - - - - - -	-	-	-	-		-		

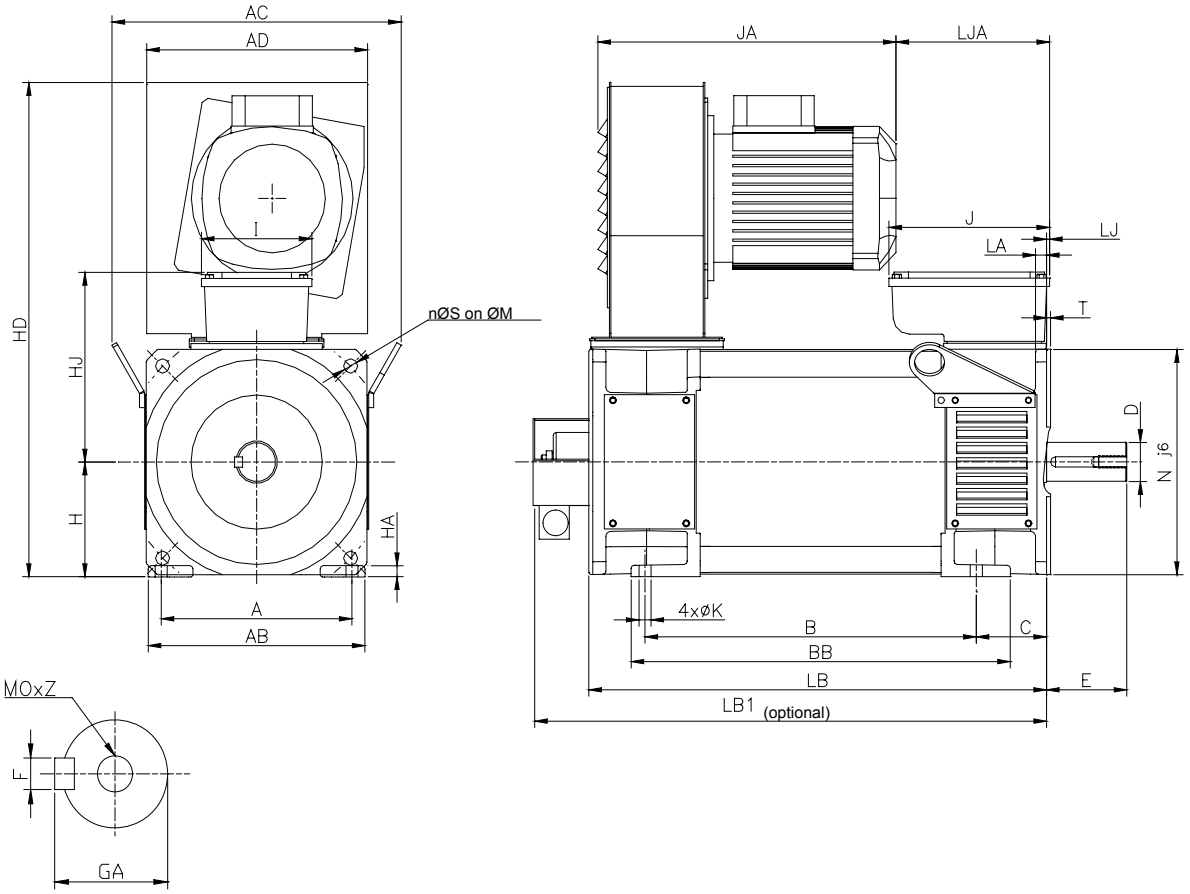
* voltage available at the drive output
(1) - Bearing with type 2Z metal shields.
(2) - Open bearing with regreasing device.
(3) - Value of phase-to-phase resistance.
These indicative values are non-contractual and can be modified at any time by the manufacturer.

10 - Constitution

Rep	Designation	Rep	Designation
1	Stator in its housing	9	Terminal box
2	Flange bearing (following mounting)	10	Terminal box cover
3	Bearing	11	Forced ventilation
4	Ventilation grid	12	Fan joint
5	Front bearing	13	Rear bearing
6	Support plate for terminal box	14	Blanking plate
7	Terminal plate	15	Rear bearing
8	Terminal box body		



11 - Dimensions



Type	Main dimensions																	
	A	AB	AC	AD	B	BB	C	H	HA	HD	HJ	I	J	JA	K	LB	LB1	LJ	LJA
CPLS 112M	190	216	288	220	290	338	70	112	11	482	185	110	160	297	12	416	472	3	110
CPLS 112L	190	216	288	220	330	378	70	112	11	482	185	110	160	297	12	456	512	3	150
CPLS 132S	216	254	330	260	283	329	89	132	11	573	222	157	194	310	12	444	488	13	125
CPLS 132M	216	254	330	260	338	384	89	132	11	573	222	157	194	310	12	499	543	13	180
CPLS 132L	216	254	330	260	418	464	89	132	11	573	222	157	194	310	12	579	623	13	260
CPLS 160S	254	305	370	318	355	403	103-108*	160	13	695	295	260	231	355	14	563	613	4	202
CPLS 160M	254	305	370	318	435	483	103-108*	160	13	680	295	260	231	355	14	643	693	4	280
CPLS 160L	254	305	370	318	565	613	103-108*	160	13	680	295	260	231	355	14	773	823	4	410
CPLS 200S	318	390	444	497	480	542	133-137*	200	18	920	336	260	231	453	18	755	805	7	309
CPLS 200M	318	390	444	497	610	672	133-137*	200	18	920	336	260	231	453	18	885	935	7	439
CPLS 200L	318	390	444	497	730	792	133-137*	200	18	920	336	260	231	453	18	1005	1055	7	559

* Oblong drilled hole

Type	Shaft ends						Flanges					
	D	E	F	GA	O	Z	LA	M	Nj6	n	S	T
CPLS 112	38k6	80	10	41	12	28	11	265	230	4	14	4
CPLS 132	48k6	110	14	51.5	16	36	15	300	250	4	18	5
CPLS 160	55m6	110	16	59	20	42	18	350	300	4	18	5
CPLS 200	65m6 (1)	140	18	69	20	42	20	400	350	4	18	5
CPLS 200	80m6	170	22	85	20	42	20	400	350	4	18	5

(1) Incompatible with roller bearings.

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