ELECTRICAL CHARACTERISTICS

The machine E5X is supplied in all the voltages and networks with frequencies of 50 or 60 Hz.

ELECTRICAL POWER INSTALLED

The electrical powers installed are indicated hereafter and do not depend on the nominal width of the weaving machine:
main motor 7.0 kW
motor of aspirator 0.45 kW
motor of phase advancer for machines without Jacquard 0.55 kW
motor of phase advancere for machines complete of Jacquard 1.25 Kw
electrical board, with feeding of weft-feeder 0.9 kW
In total the electrical power is of 9,0 kW for weaving machines equipped of external machine or dobby, and 10,1 kW for weaving machines equipped with Jacquard with search of the pick.

ELECTRICAL POWER ABSORBED

The absorbed electrical power, and consequently the energy used by the weaving machine during its operation, is function of the following parameters:
- type of article;
- shedding machine;
- weaving width;
- speed of the weaving machine;
Approximately, the following values can be given:
for weaving machines H 1600-2600 from 3 to 7.5 kW
for weaving machines H 2800-3800 from 3 to 7.5 kW

PHASE-DIFFERENCE ANGLE

Cos F (cos fi) is variable in function of the load and the speed of the weaving machine.
We advise, above all for the calculation of the short circuit current, to consider the cos F values rather low:
for weaving machines H 1600-2600 cos F = 0,5-0,9
for weaving machines H 2800-3800 cos F = 0,5-0,9

STARTING POINT CURRENT

By the start up of the machine, the peak of the absorbed current (lasts few fractions of seconds) can be of 60-70 Ampere.
We advise therefore, in order to avoid the continuous assistance operation of the protections on the feeding network, to protect it with systems delayed.

STATIC AND DYNAMIC CHARGE

By running, the weaving machines transmit to the ground remarkable dynamic loads, besides static, because of the elevated speed of alternate movement of the masses.

In the next table are presented maximum indicative values of static load (weight weaving machine "P") and of the dynamic loads acting in vertical direction ("Pv") and horizontal in the sense of the batten ("Po").

To these values are properly added up static loads of the beam of warp and of fabric ("Pa"), and the vertical dynamic loads generated by the movement of the healds frames (Pl).

In particular:

"Pa": it is calculated reminding the type of thread, of fabric, of weights of the beam of warp and the small beam of the fabric.

"Pl": it depends on the type of frames, their weight complete of heddles and on the race they execute in function of the regulations and the type of weaving machine used. For an approximate calculation we suppose loads of 500 N every frame in movement; reminding that two frames moving in the same time cancel the load.

| Width	Static load		Maximums Dynamic Loads			The Maximum Frequency	
H	P [N]	Pa [N]	Po [N]	Pv [N]	PI[N]	RPM	Hz
1600	32400		8800	1500		560	9,3
1900	33400		10400	1800		560	9,3
2100	34100		10300	1800		530	8,8
2300	34800		10100	1700		500	8,3
2400	35100		10500	1800		500	8,3
2600	35800		9800	1700		465	7,8
2800	36500		10600	1800		465	7,8
3000	37200		10200	1800		440	7,3
3200	37900		8100	1400		380	6,3
3400	38500		8600	1500		380	6,3
3600	39200		9100	1600		380	6,3
3800	39900		7900	1400		345	5,8

DIRECT MOTOR

Motor type: Three phase 380 Vac

Nominal Power: 7 KW for Dobby Looms and 13KW for Jacquard Looms
Nominal Speed:1800 rpm
Nominal Torque: 70 Nm
Efficiency: 88%
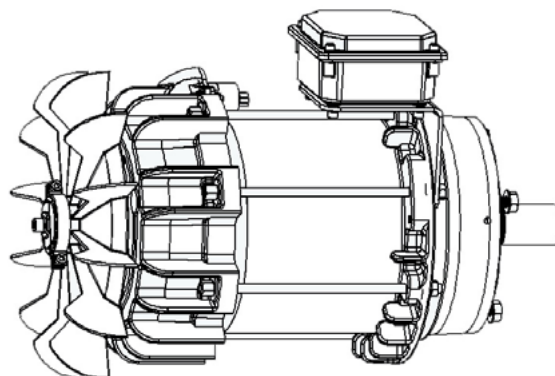
Indicative picture

With this motor you can vary the velocity from 0 rpm to 600 rpm in 400msec.