

Product Datasheet

COMPANY INTERNAL



KONGSBERG

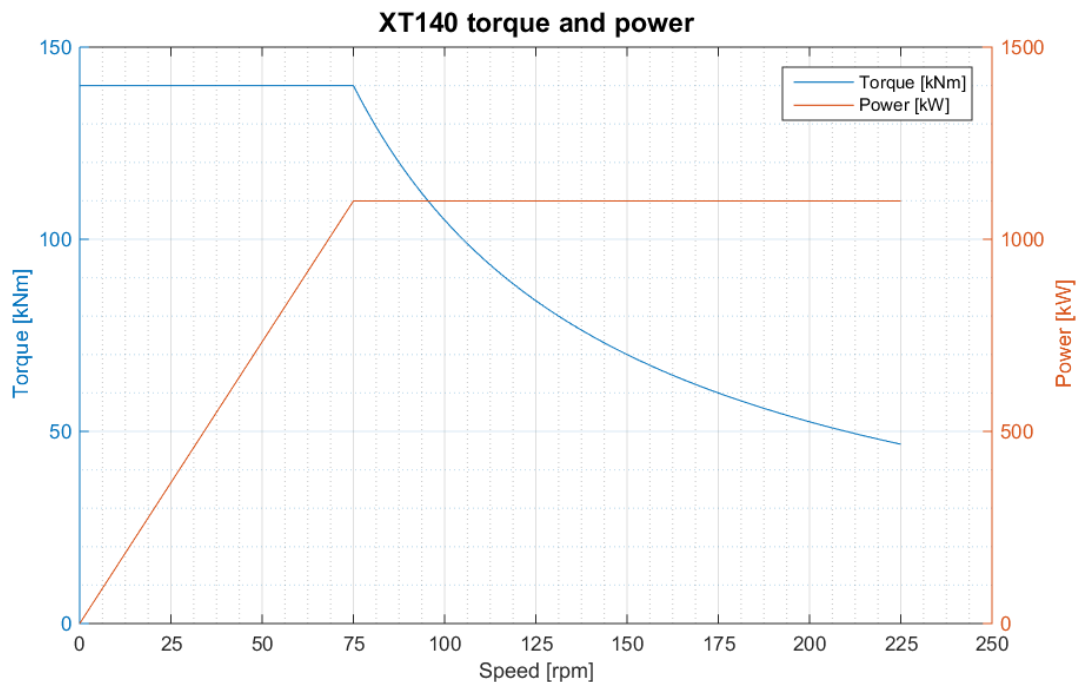
GENERAL

DESCRIPTION	VALUE
RRM ITEM NO.	RRM000238685
MACHINE TYPE	SYNCHRONOUS, PERMANENT MAGNET
MACHINE TYPE CODE	XT140 – 690V



XT140 is an electrical motor with a large diameter and large output torque. The motor is designed as a permanent magnet motor controlled by a frequency drive.

POWER/TORQUE DIAGRAM





MOTOR/GENERATOR DATA

DESCRIPTION	VALUE
Duty type	S1
Nominal speed	75 rpm
Over speed 1	150 rpm
Over speed 2	225 rpm
Nominal torque	140 kNm
Torque at over speed 1	70 kNm (1/2 of nominal torque)
Torque at over speed 2	47 kNm (1/3 of nominal torque)
Nominal shaft power	1.1 MW
Nominal current	1340 A
Cos Φ	0.78
Efficiency	95 %
Nominal voltage	690 V
Nominal frequency	41.25 Hz

PROTECTION

DESCRIPTION	VALUE
Protected by enclosure	IP56
Coil insulation class	H
Temperature sensors, coils	6 x PT100
Temperature sensors, bearings	2 x PT100
Condensation	Heating elements and Self-indicating silica gel protection
Rotor cooler	Leak detection sensor and double wall tubes

COOLING

DESCRIPTION	VALUE
Motor cooling (stator/rotor)	Water/glycol cooled
Flow rate rotor cooler	50 l/min
Pressure drop rotor cooler	0.2 bar (at 38°C)
Flow rate stator cooler	150 l/min
Pressure drop stator cooler	0.6 bar (at 38°C)
Cooling liquid temp.	Max 38 °C
Total heat losses	48 kW

Product Datasheet

COMPANY INTERNAL



KONGSBERG

MECHANICAL DESIGN

DESCRIPTION	VALUE
Mounting designation	Flanged and supported on motor foundation
Bearing DE	Spherical roller bearing
Bearing NDE	Spherical roller bearing, insulated
Bearing lubrication	See lubrication instruction DMN000225207
Rotor connection	Brattvaag spline in rotor
Brake	Without mechanical brake

ELECTRICAL DESIGN

DESCRIPTION	VALUE
Connection of stator winding	6 x 3 x 120 mm ² (6 three phase 120 mm ² cables) 6 x 1 x 70mm ² (ground)
Encoder	Solid shaft encoder, Heidenhain ROC413
Internal fans	Single 3 phase wire connection of 3 fans: 3 phase 400V, 0.85/0.9 A each fan, 50/60Hz
Anti condensation heaters	230V, 2x900W at 10°C Max 16A (C-characteristic) for start-up of both heating cables at -40°C.
Shaft ground	Integrated in motor

VARIOUS

DESCRIPTION	VALUE
Installation drawing	DMN000225208
Weight (approx)	10.3 tonnes
Inertia	1482 kgm ²
Ambient temp.	-40°C /+50 °C

STANDARDS AND APPROVALS

DESCRIPTION	VALUE
Standard	IEC
Approvals	DNV Type approved