

Product Datasheet

COMPANY INTERNAL



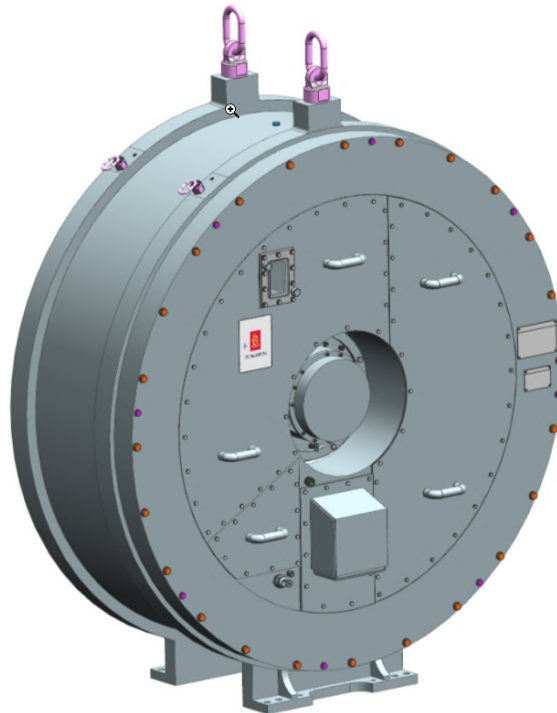
KONGSBERG

Kongsberg Maritime AS

Product type : Electrical Motor

GENERAL

DESCRIPTION	VALUE
RRM ITEM NO.	RRM000338729
MACHINE TYPE	SYNCHRONOUS, PERMANENT MAGNET
MACHINE TYPE CODE	XT70 – DOUBLE STAR



XT70 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. Both single star and double star connection are available in the terminal box, and both connections can be used with either 440 V or 690 V supply. This datasheet is made for the double star configuration

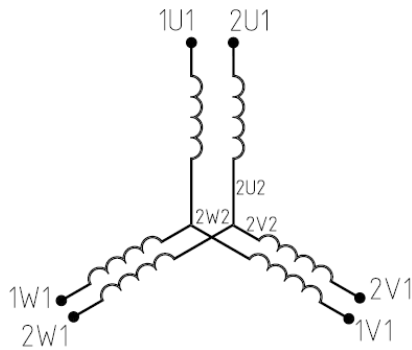
Product Datasheet

COMPANY INTERNAL



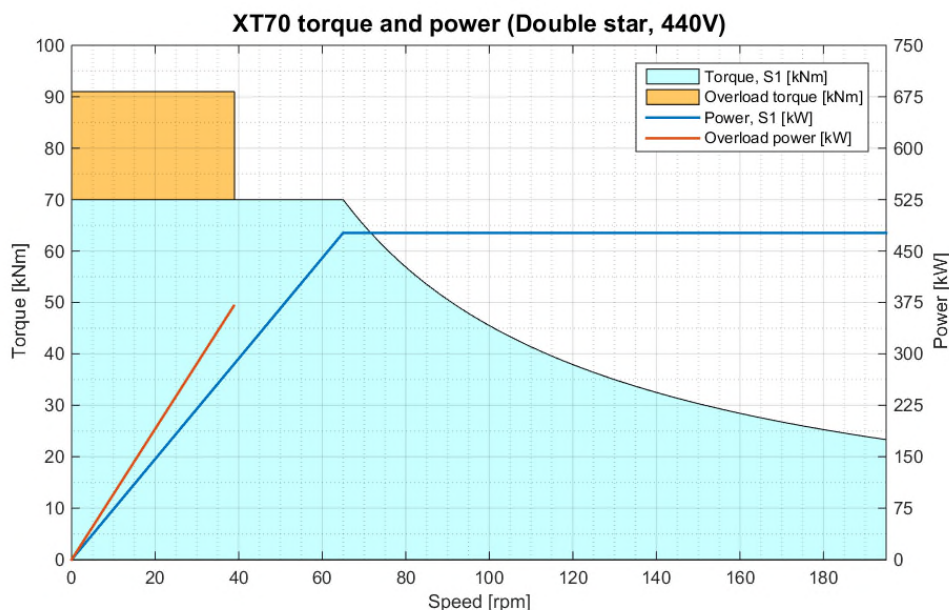
KONGSBERG

DOUBLE STAR CONNECTION



Motor / Generator data – 440 V

DESCRIPTION	NOMINAL VALUES	OVERLOAD VALUES
Duty type	S1	S9, 5 minutes per hour
Normal Speed	65 rpm	39 rpm
Over speed	195.0 rpm	-
Torque	70 kNm	87.5 kNm
Torque at over speed	23 kNm	-
Shaft power	476 kW	357 kW
Current	900 A	1170 A
Voltage	440 V	440 V
Frequency at normal speed	35.75 Hz	21.45 Hz



Product Datasheet

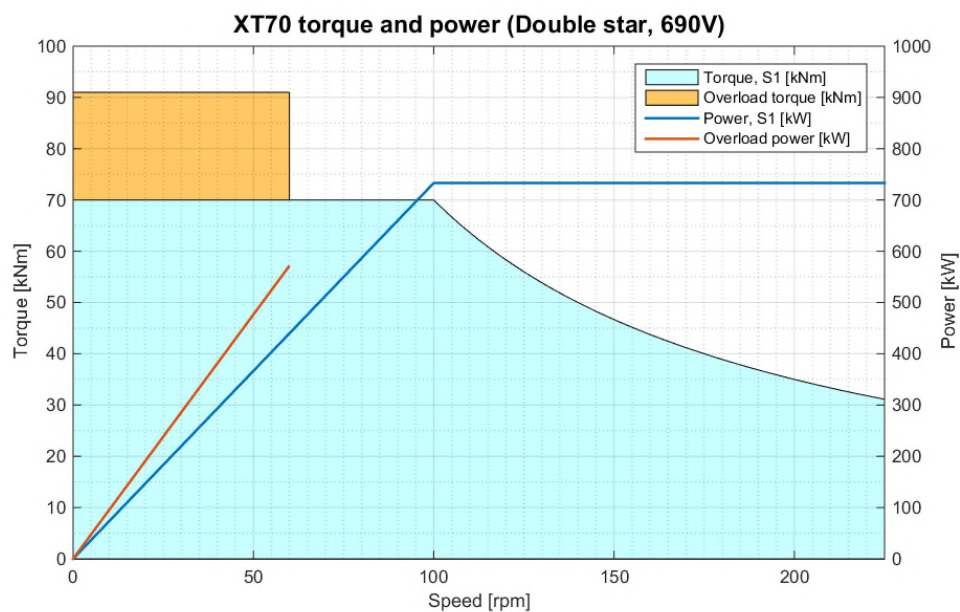
COMPANY INTERNAL



KONGSBERG

Motor / Generator data – 690 V

DESCRIPTION	NOMINAL VALUES	OVERLOAD VALUES
Duty type	S1	S9, 5 minutes per hour
Normal Speed	100 rpm	60 rpm
Over speed	225 rpm	-
Torque	70 kNm	87.5 kNm
Torque at over speed	31 kNm	-
Shaft power	733 kW	550 kW
Current	900 A	1170 A
Voltage	690 V	690 V
Frequency at normal speed	55.00 Hz	33.00 Hz



Product Datasheet

COMPANY INTERNAL



KONGSBERG

PROTECTION

DESCRIPTION	VALUE
Protected by enclosure	IP56
Coil insulation class	H
Temperature sensors, coils	6 x PT100
Temperature sensors, bearings	2 x PT100
Temperature sensors, stator cooling	2 x PT100
Condensation	Heating elements and Self-indicating silica gel

COOLING

DESCRIPTION	VALUE
Motor cooling liquid	Water/glycol mixture, up to 52 % glycol
Flow rate stator cooler	70 l/min
Pressure drop stator cooler	0.3 bar
Cooling liquid temp.	Max 38°C
Total heat losses, nominal load	20 kW
	44 kW
Total heat losses, overload	

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
Rotor connection	Brattvaag spline in rotor
Brake	Without mechanical brake

ELECTRICAL DESIGN

DESCRIPTION	VALUE
Number of three phase cables between frequency drive and motor	4 or 6
Power cable sealing	6 Roxtec sealing modules, RM 60 ES B, cable outer diameter 28 – 54 mm
Shaft ground	Integrated in motor
Ground connections	Stainless steel bus inside terminal box for connection of ground cables and screens. Separate ground cable can be routed through the cable gland (outer cable diameter: 9.0 – 18.0 mm).
Encoder	Solid shaft encoder, Heidenhain ROC413
Anti-condensation heaters	230 V, Self-regulating heating cable, 900W at 10°C.

VARIOUS

DESCRIPTION	VALUE
Weight (approx.)	7 tonnes
Ambient temperature	-40°C /+50 °C