

Dept./Issuer <b>RM/Sheriff Savás</b>	Confirmed by sign.	Reg. Nr. / Other reference <b>Product spec. No: 962 44 05 / EV 10/97</b>	Page <b>1/2</b>
Receiver <b>R/M, M, RM, PP, RL</b>		Date <b>97-07-14</b>	Issue <b>1</b>
Title, ex. report, protocol, information etc. <b>Product specification</b>	Matter <b>Motor KSV 5035/375, No. 962 44 05, Dimen. sketch: 80 55 08</b>		

## I. DESCRIPTION

This specification applies for motor KSV 5035/375. The motor has been designed mechanically and electrically for electrode feed in MIG - welding machines. With its good properties and high reliability the motor can also be used in many other applications.

## II. MECHANICAL DATA

**1. Housing ( Gear box ):** The motor has a housing of aluminium with high strength and good corrosion-resistance. The housing is provided with 3 studs for M6 fixing screws.

**2. Shafts and gear wheel:** The shafts of the armature and the gear wheel are made of free cutting steel with good anti-friction properties and high tensile strength of 800 N/mm<sup>2</sup>. The case-hardening of the gear wheel's shaft guarantees long useful life and effective torque transmission. The gear wheel is made of DELRIN 100 and has gear quality 10 fs acc. to DIN 3967.

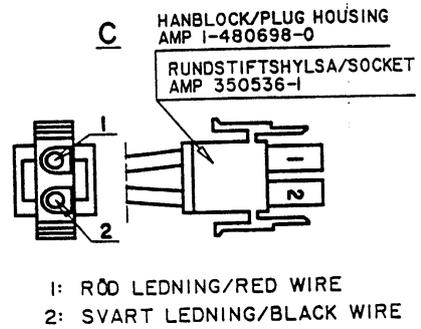
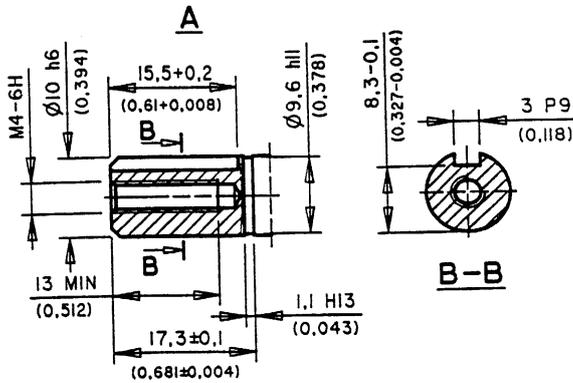
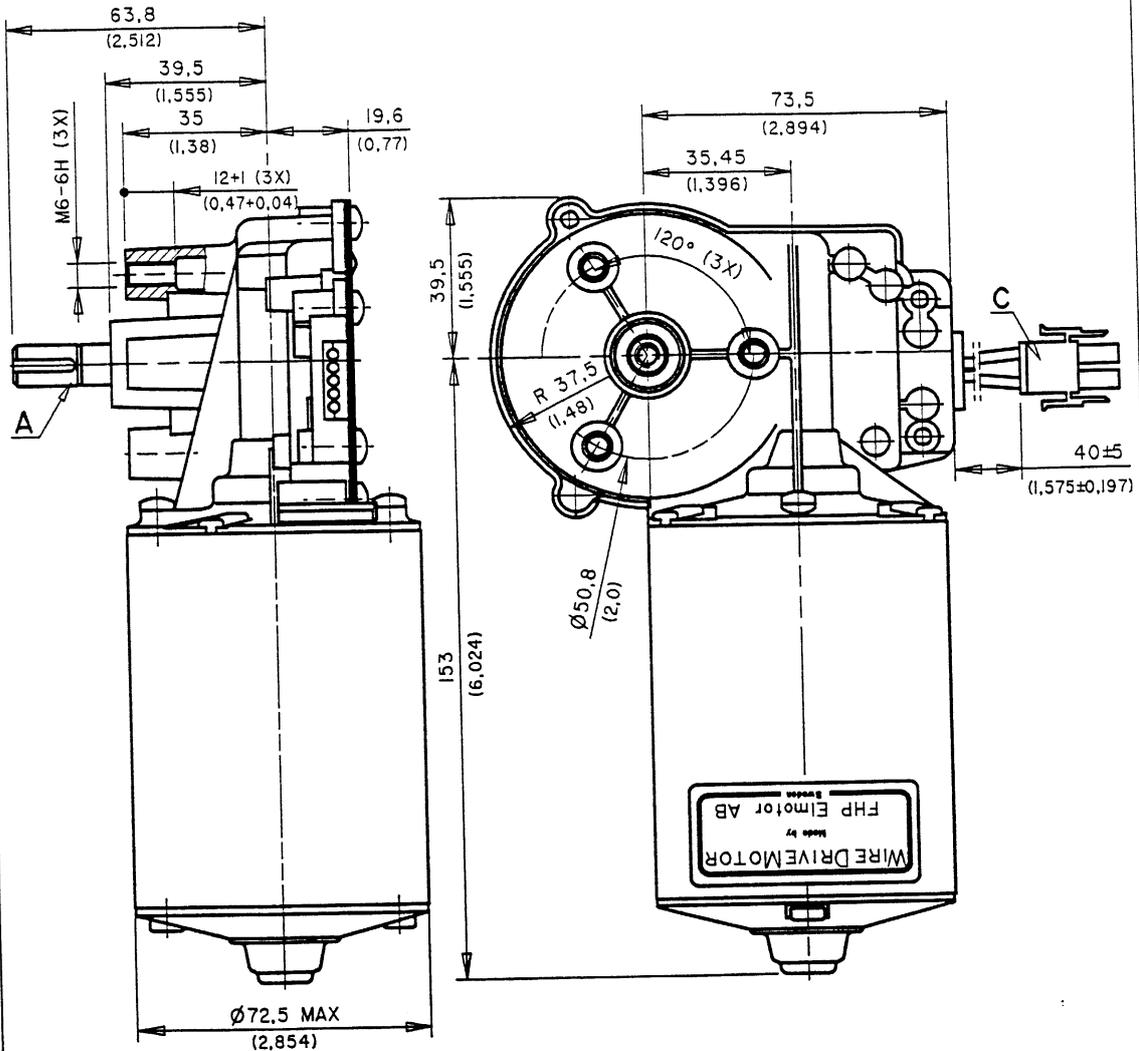
**3. Bearing and lubrication:** The shaft of the armature is mounted with a single row deep groove ball bearing type 2Z and one plain bearing. The gear wheel is mounted with 2 needle bearings. The ball- and needle bearings are filled with lithium-base grease which has good rustpreventing qualities. The plain bearing is made of porous sintered iron and it is filled with oil GL 2000.

## III. TECHNICAL DATA

No	Technical data	Design.	Unit	Value
1	Rated voltage	Un	V DC	24
2	Gear ratio ( 1 tooth worm )	i	n1/n2	49
3	Radial load on the shaft ( Max 21 mm (0,83 in) from the fixing plane )	Frad	N (lbf)	600 (135) max
4	<b>Test data at no-load - after 20 min. unloaded run in ( Ref. only ):</b>			
4.1	Speed	n	rpm	38±10%
4.2	Current	I	A	0,45 max
5	<b>FHP Test data - after 20 min. unloaded run in:</b>			
5.1	Torque	Mt	Nm (in-lbs)	1,5 (13,3)
5.2	Speed	nt	rpm	36±10%
5.3	Current	It	A	0,8 max
6	<b>Continuous operation:</b>			
6.1	Torque	Mk	Nm (in-lbs)	2,0 (17,7) max
6.2	Speed	nk	rpm	34±10%
6.3	Current	Ik	A	0,9 max
7	<b>Intermittent operation ( 60% ) - Cycle 3 minutes: 2 secs ON, 2 secs OFF. Downtime: 2 minutes:</b>			
7.1	Torque	Mkt	Nm (in-lbs)	3,5 (31) max
7.2	Speed	nkt	rpm	32±10%
7.3	Current	Ikt	A	1,3 max
8	Peak torque - 3 secs max.	Mtp	Nm (in-lbs)	23 (203,6) max
9	EMK - const. of the output shaft	Ke	V/100 rpm	66,7
10	Torque constant	Kt	Nm/A (in-lbs/A)	5,2 (46)
11	Armature resistance	R	ohm	2,0
12	Rotor inertia	J	kgm <sup>2</sup>	1,1.10 <sup>-4</sup>
13	Motor inductance	L	mH	6,2
14	Current limitation	Ib	A	5
15	Class of insulation	-	-	E
16	Degree of protection	-	-	IP 20
17	Noise	db	db (A)	-
18	Motor weight	-	kg	1,59

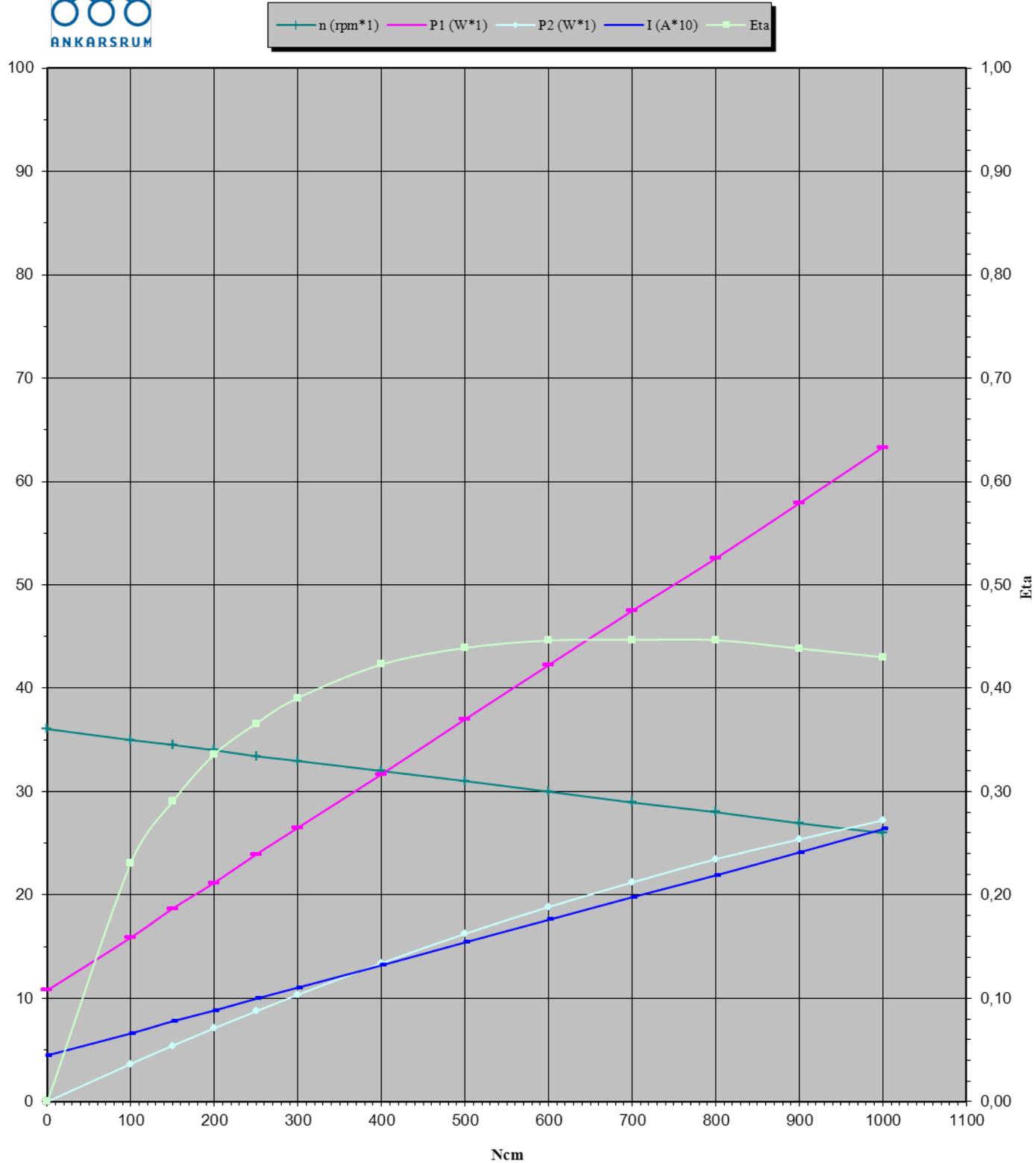
Dok.nr. A-16-2:1

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# Performance test



**Motortype:** KSV 5035/376

**File:** PT771.xls

**Sample:** 5035/375

**Testvoltage:** 24V DC **Rotation:** CCW

**Author:** ASUL/MJ

**Date:** 2005-07-06

CCW  $M_s$ : 36Nm (beräknad)