Lyrec SYNCHRONOUS MOTOR

TYPE SM 8/3A

- THE LYREC SYNCHRONOUS MOTOR, TYPE SM8/3A is designed for operation of turntables in disc cutting lathes and in professional transcription turntables.

- THE MOTOR IS DESIGNED AS A SOUND WHEEL where both stator and rotor are furnished with cogs, the number of which corresponds to the mains frequency and the desired number of revolutions per minute. In order to make the motor run at the three normally used revolutions, 78-45-33$^1/_3$ r.p.m., three systems have been placed above each other on a common shaft and only one system at a time is fed with current through a switch.

- BY MEANS OF A PRE-UNIT, TYPE SF16N, it is moreover possible to make the motor run at half the number of revolutions, 16 $^2/_3$-22$^1/_2$-39 r.p.m.

- THE SHAFT RUNS IN VERY ACCURATE BALL BEARINGS, specially mounted to obtain an absolutely stable running.

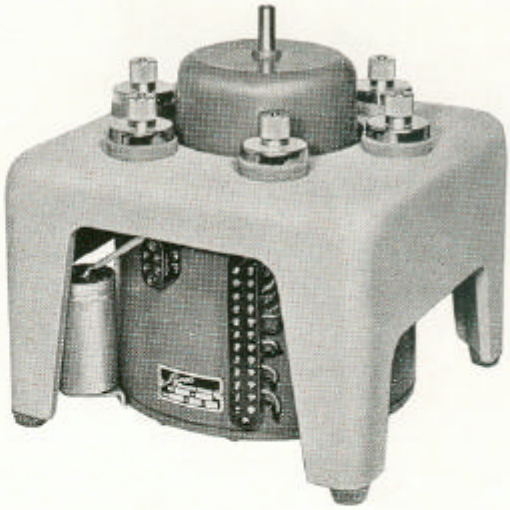
- THE SYNCHRONOUS MOTOR CANNOT START BY ITSELF, and therefore a small starting motor, by means of which the synchronous motor can be started, has been mounted on the motor shaft. By means of a push button the current for the auxiliary motor is kept connected until the synchronous motor has passed the synchronous number of revolutions, after which it runs into synchronism by itself.

- THE SYNCHRONOUS MOTOR SM8/3A is designed for connection of a four-wire, three-phase mains with a neutral wire. As a rule the motors are available for 220/380 volts, 50 c/s, but on request can be supplied for other voltages and frequencies.

- IF ONLY SINGLE-PHASE CURRENT IS AVAILABLE, the necessary voltages and phases for operation of the motor can, however, be obtained through connection of a phase-shifting condenser. The capacity of this condenser depends on the voltage and frequency, and the latter should therefore be quoted when ordering.

- AS THE NUMBER OF POLES should correspond with the number of revolutions, the synchronous motors are manufactured in two designs: type SM8/3A-50 for a 50 c/s mains and type SM8/3A-60 for a 60 c/s mains.

- THE MOTOR IS SUSPENDED IN A HEAVY CAST IRON CONSOLE by means of rubber bushings. In this way an essential reduction of mains frequency vibrations in the shaft is obtained. These vibrations, caused by the soft suspension and the comparatively big mass of the rotor, are transmitted to the stator. This console can be placed on the floor underneath the shaft of the turntable, and the motor shaft and the turntable shaft are to be interconnected by means of an intermediate shaft. In order to prevent the last remainder of mains frequency vibrations of the motor from entering the turntable, rubber bushings (for example universal coupling type 2004) should be inserted in both ends of the intermediate shaft.



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ELECTRO-ACOUSTIC EQUIPMENT

SPECIFICATION AND DATA

Synchronous Motor TYPE SM 8/3 A

Voltage: 220/380 volts (other voltages on request).
Frequency: 50 c/s for type SM 8/3 A-50.
60 c/s for type SM 8/3 A-60.
Consumption: 110 VA, 60 watts.
Rotational force: 10 kgcm.
R.P.M.: Type SM 8/3 A-50: 77.92 - 45.11 - 33.33.
Type SM 8/3 A-60: 78.26 - 45.00 - 33.33.

Shaft: 12 mm diameter.
Dimensions of motor: Diameter 215 mm (8 1/2").
Total height 300 mm (12").
Weight: 40 kilos (88 lbs.).
Dimensions of the console including motor: 30 × 30 cm (12" × 12").
total height 320 mm (12 3/4").
Weight of the console including motor: 55 kilos (120 lbs.).

Pre-Unit for 16 2/3 R.P.M. Type SF16N

Voltage: 220 volts single phase (other voltages on request).
Dimensions: 110 × 200 mm (4 1/2" × 8"), height 100 mm (4").
Weight: 2 kilos (4 lbs.).

Universal Joint Coupling, Type 2004

Clamping bushing in both ends for 12 mm shaft.
Diameter: 125 mm (5").
Total lenght: 130 mm (5 1/8").
Weight: 1.3 kilos (2 3/4 lbs.).

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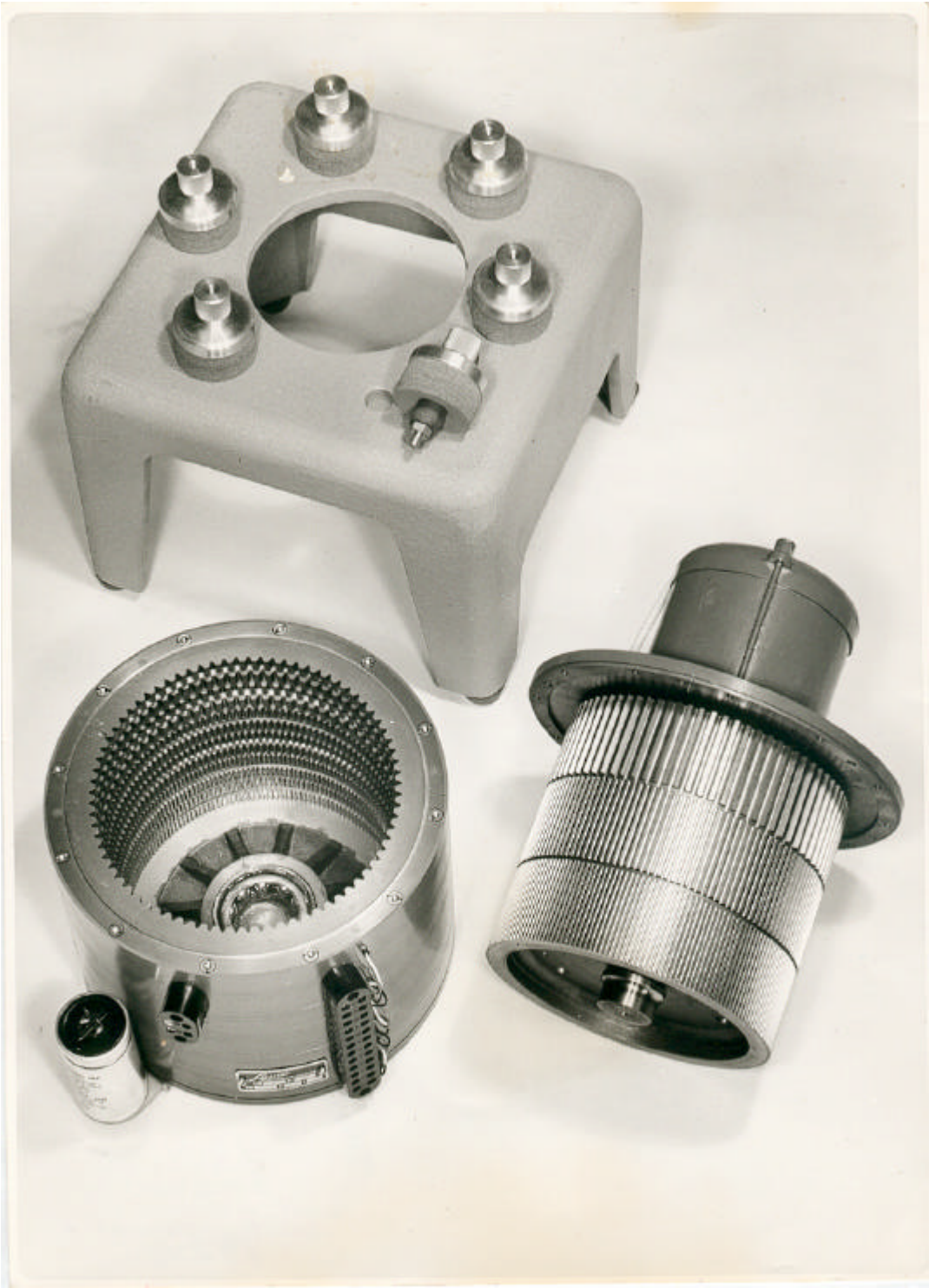
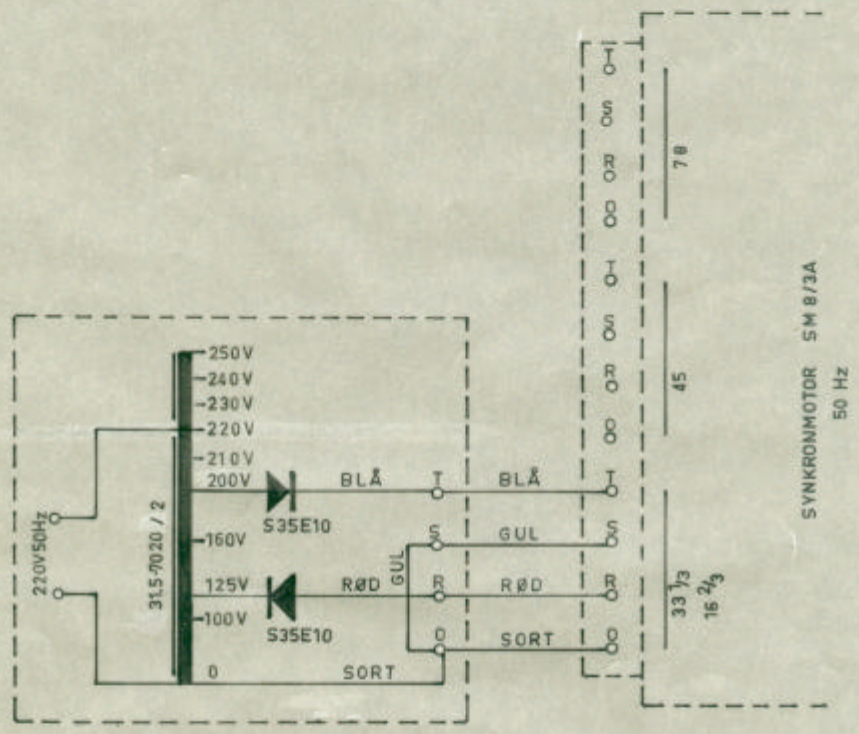
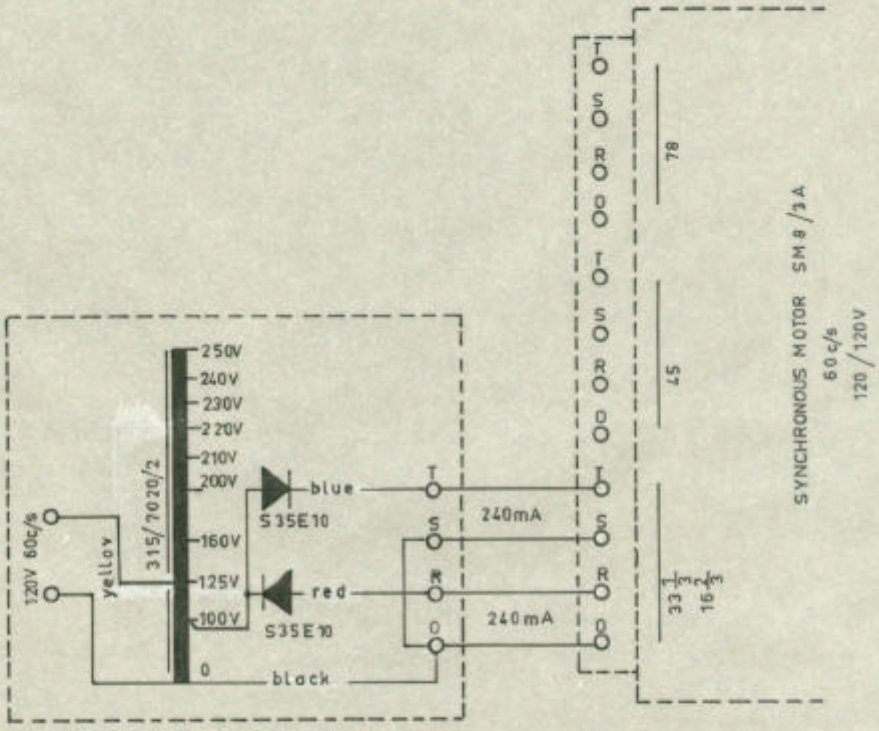
ELECTRO-ACOUSTIC EQUIPMENT

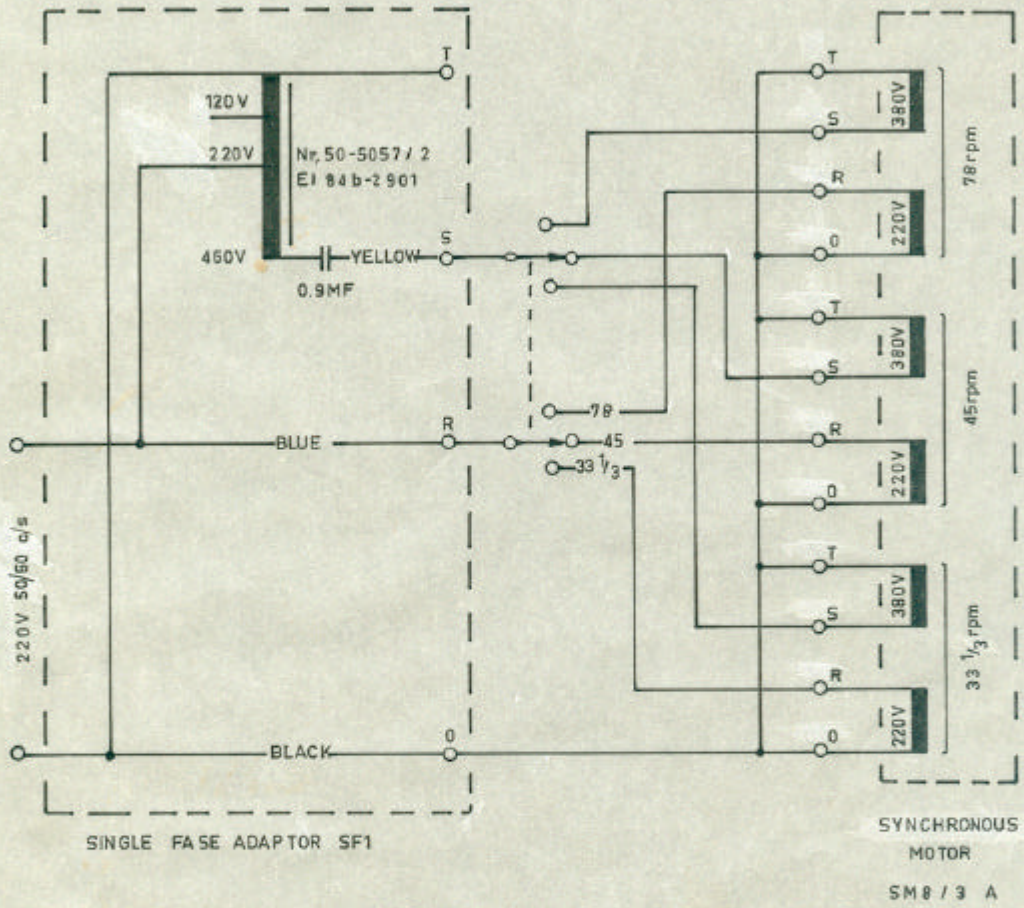




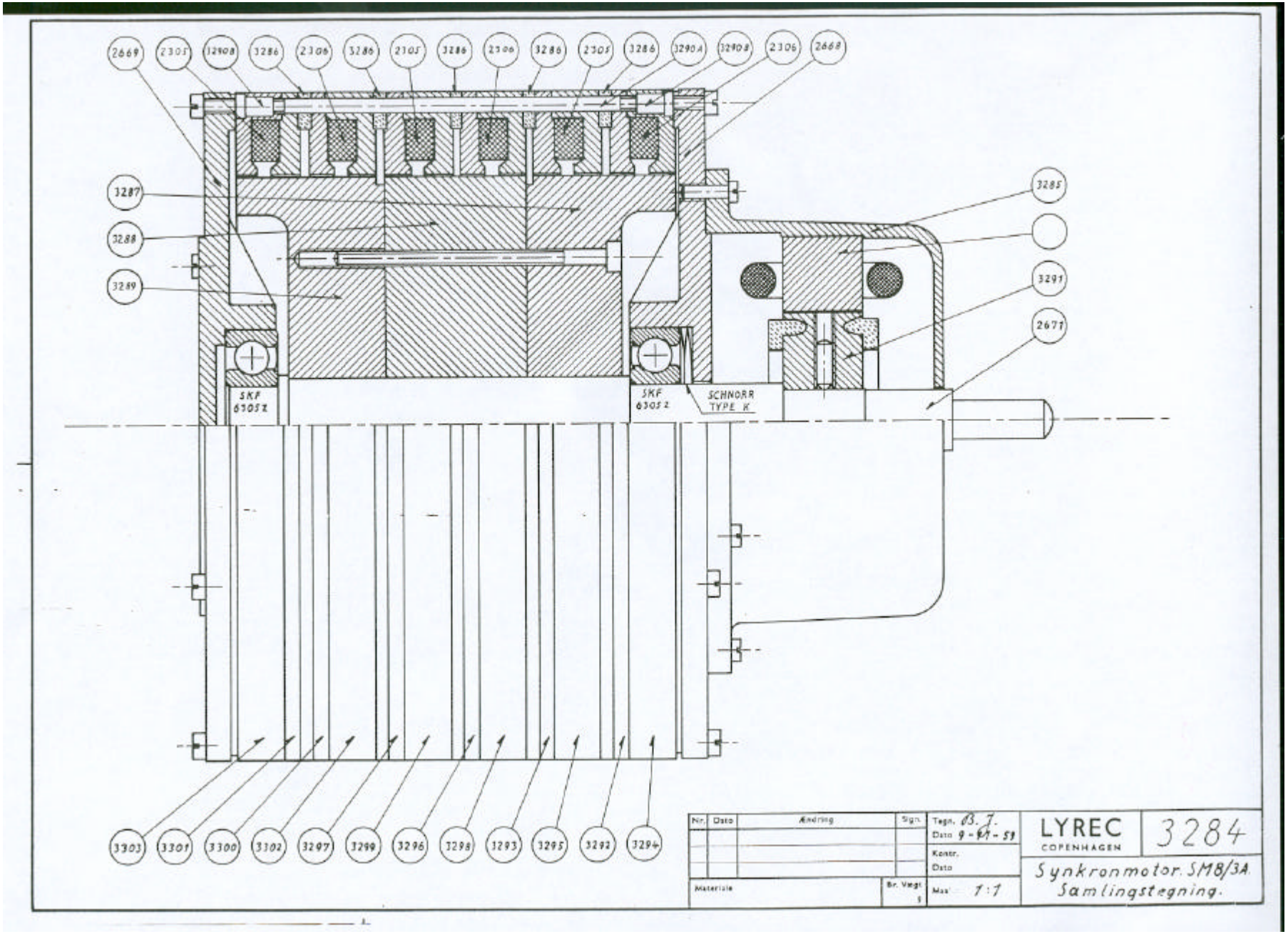
Nr.	Dato	Ændring	Sign.	Tegn. K.H. Dato 30.6.59	LYREC COPENHAGEN	3156
				Kontr. Dato	AGGREGAT F. 16 2/3 U/M Z. SYNKRONMOTOR SM 8/3 A 50Hz	
Materiale			Br. Vægt g	Maalest.		

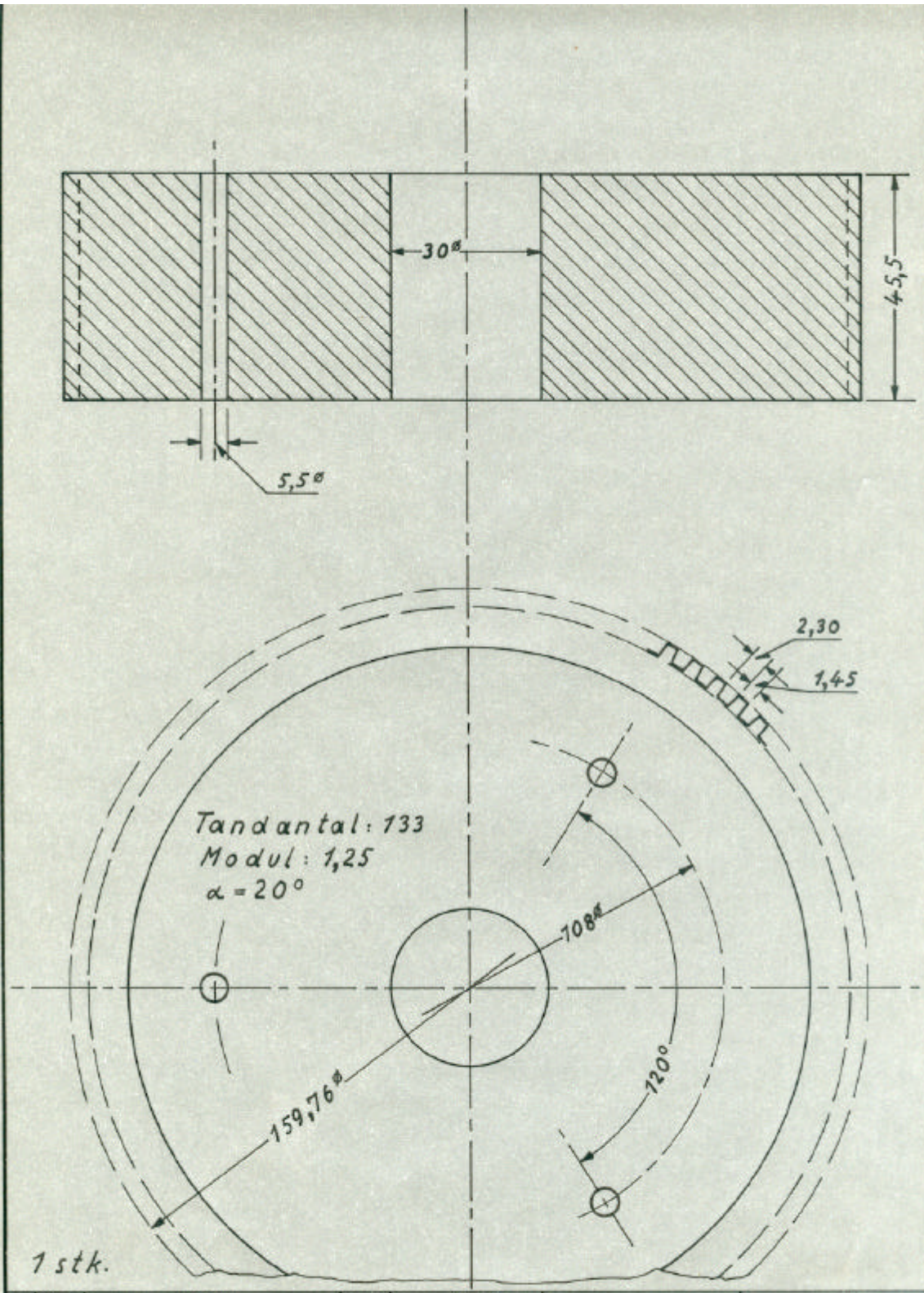


Nr.	Dato	Ændring	Sign.	Tegn. I.P. Dato 13·7·61	LYREC COPENHAGEN	472 A	3175
				Kontr. Dato	ADAPTER UNIT FOR 16 2/3 r.p.m. FOR SYNCHRONOUS MOTOR SM 8/3A 120/120V 60 c/s		
Materiale			Br. Vægt 9	Maalest.			

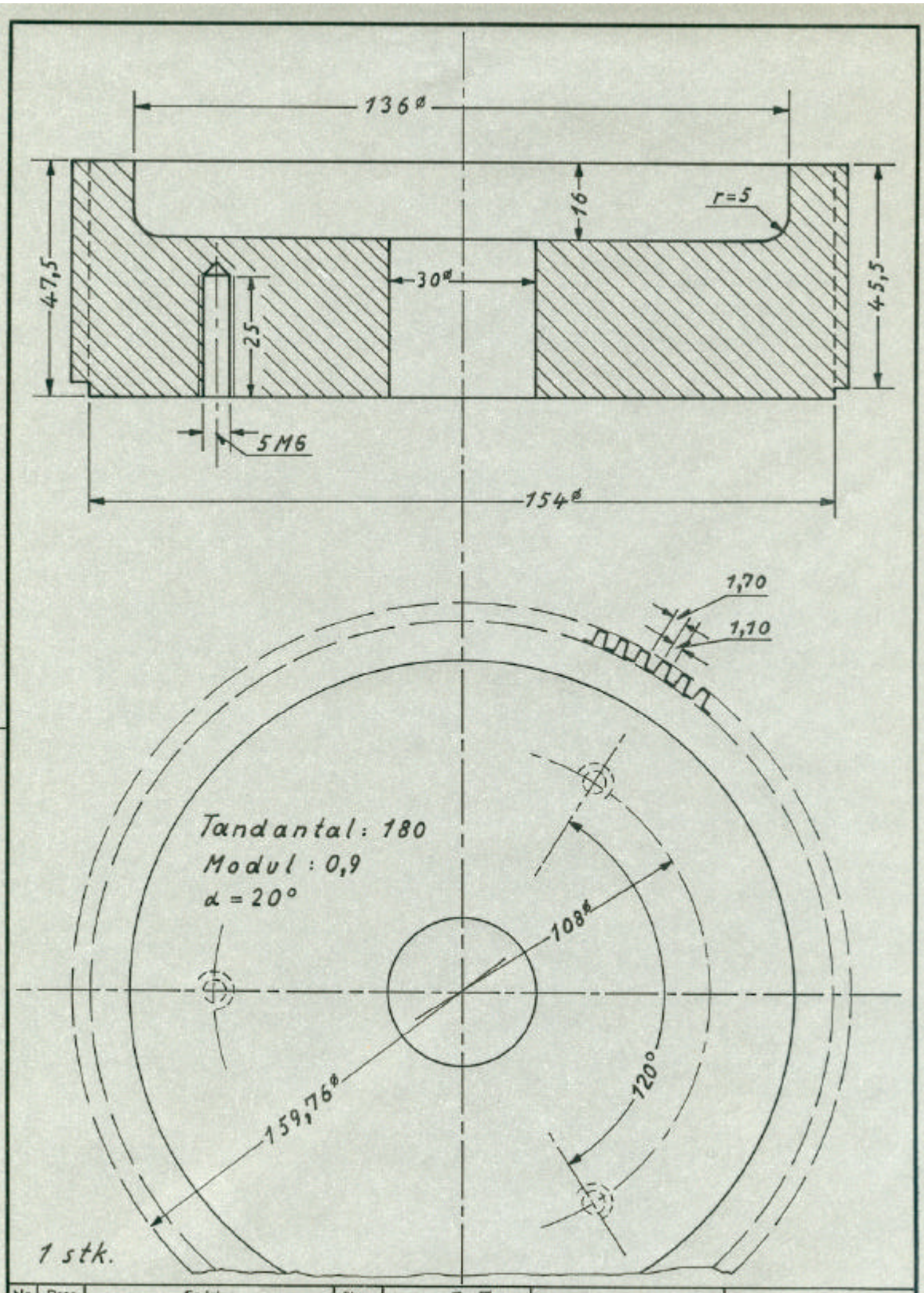


Nr.	Dato	Ændring	Sign.	Tegn. K.H. Dato 20.8.59	LYREC COPENHAGEN	3179
				Kontr. Dato	DIAGRAM SYNCHRONOUS MOTOR SM8/3A 220V 50/60c/s SINGLE PHASE	
Materiale			Br. Vægt 9	Maalest.		

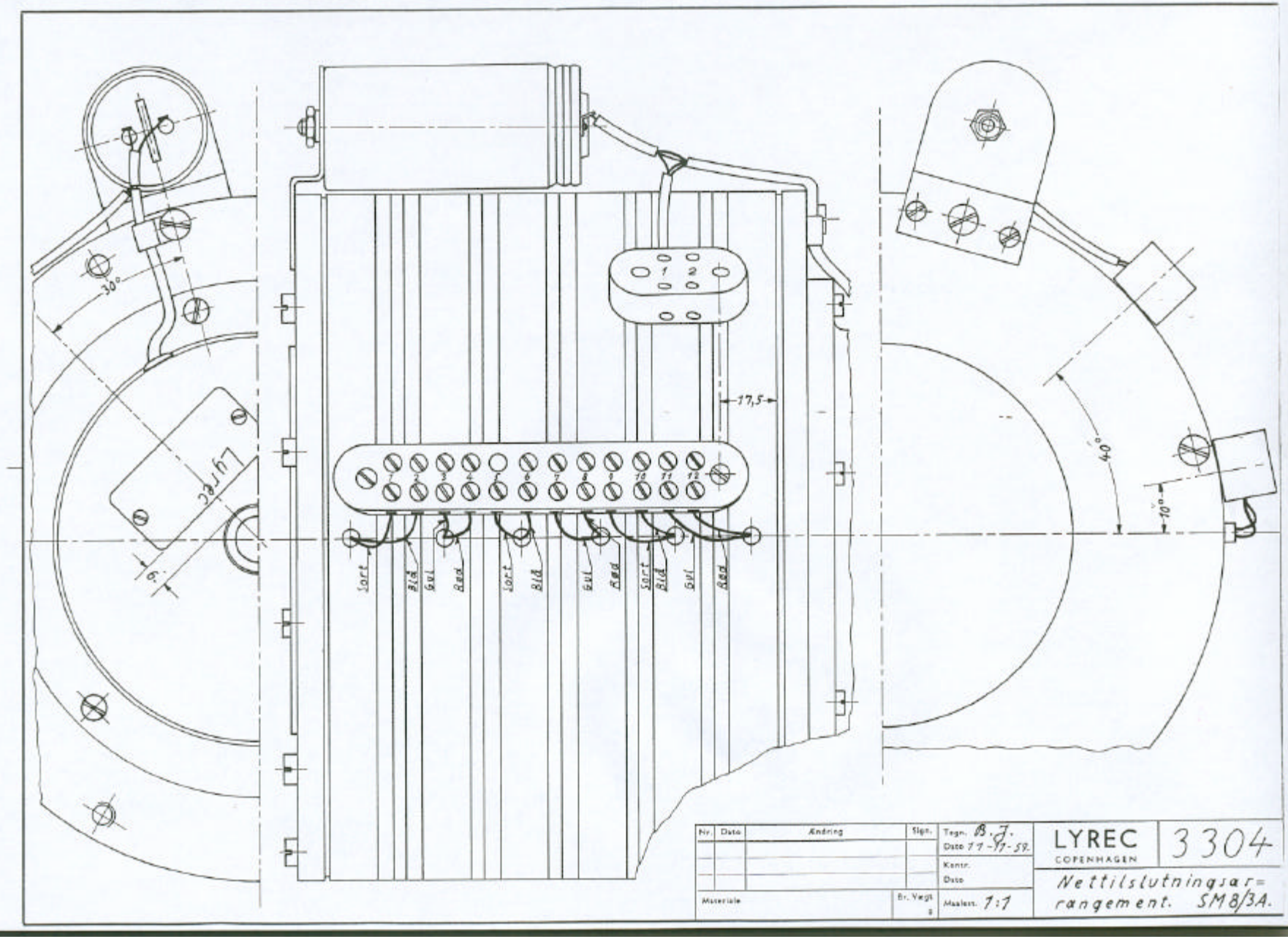

2669
2305
3290B
3286
2306
3286
2305
3286
2306
3286
2305
3286
3290A
3290B
2306
2668
3287
3288
3289
3285
3291
2671
SKF
6305Z
SKF
6305Z
SCHNORR
TYPE K
3303
3301
3300
3302
3297
3299
3296
3298
3293
3295
3292
3294
Nr.
Dato
Ændring
Sign.
Materiale
Br. Vægt
Tegn. B. J.
Dato 9-11-53
Konstr.
Dato
Mål 1:1
LYREC
COPENHAGEN
3284
Synkronmotor. SM8/3A.
Samlingstegning.



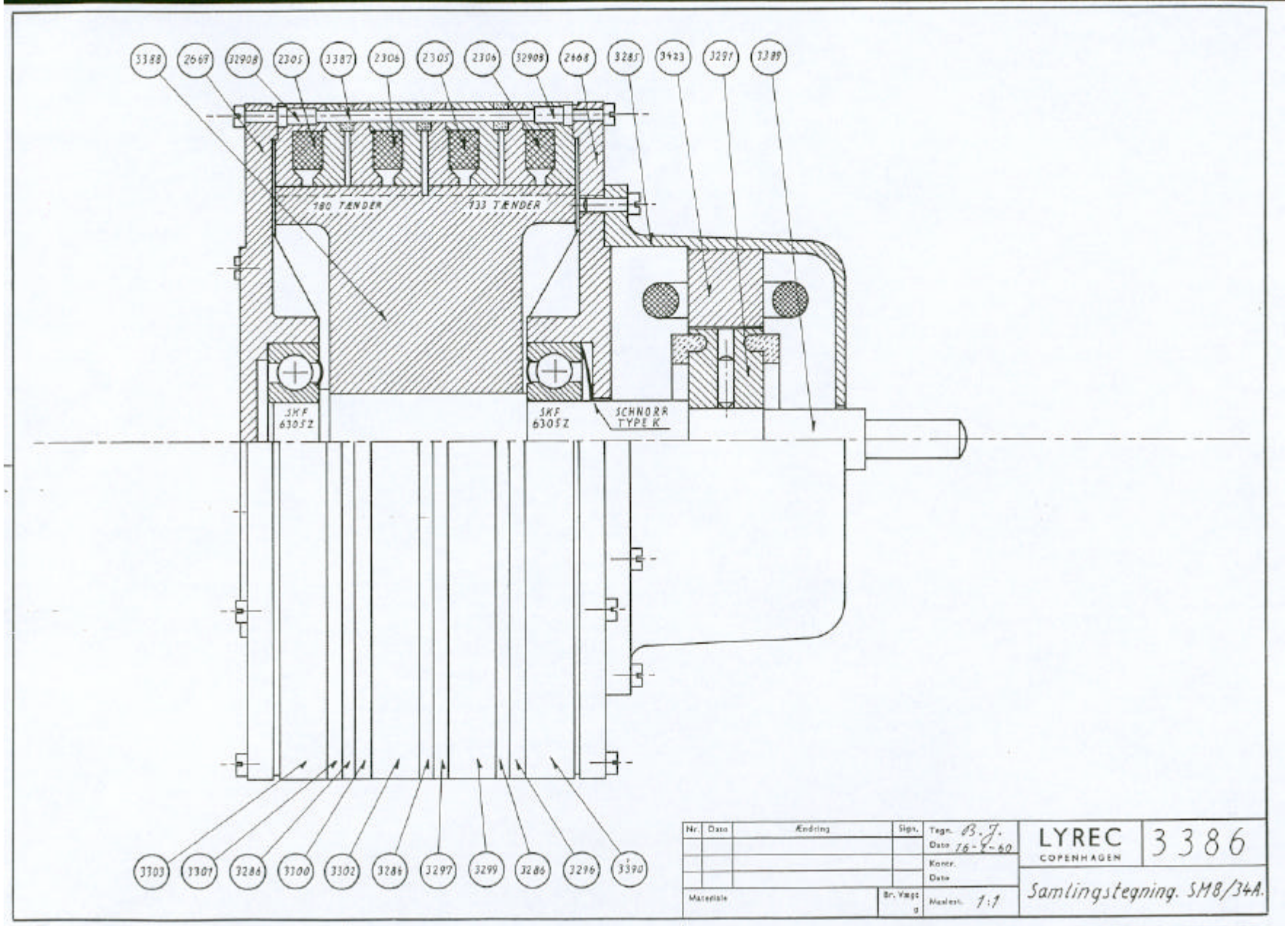
Nr.	Dato	Ændring	Sign.	Tegn. B. J. Dato 28-10-59	LYREC COPENHAGEN	3288
				Kontr. Dato	Rotor for 45 %m. SM8/3A.	
Materiale Stål 0,30.			Br. Vægt g	Maalest. 1:1		



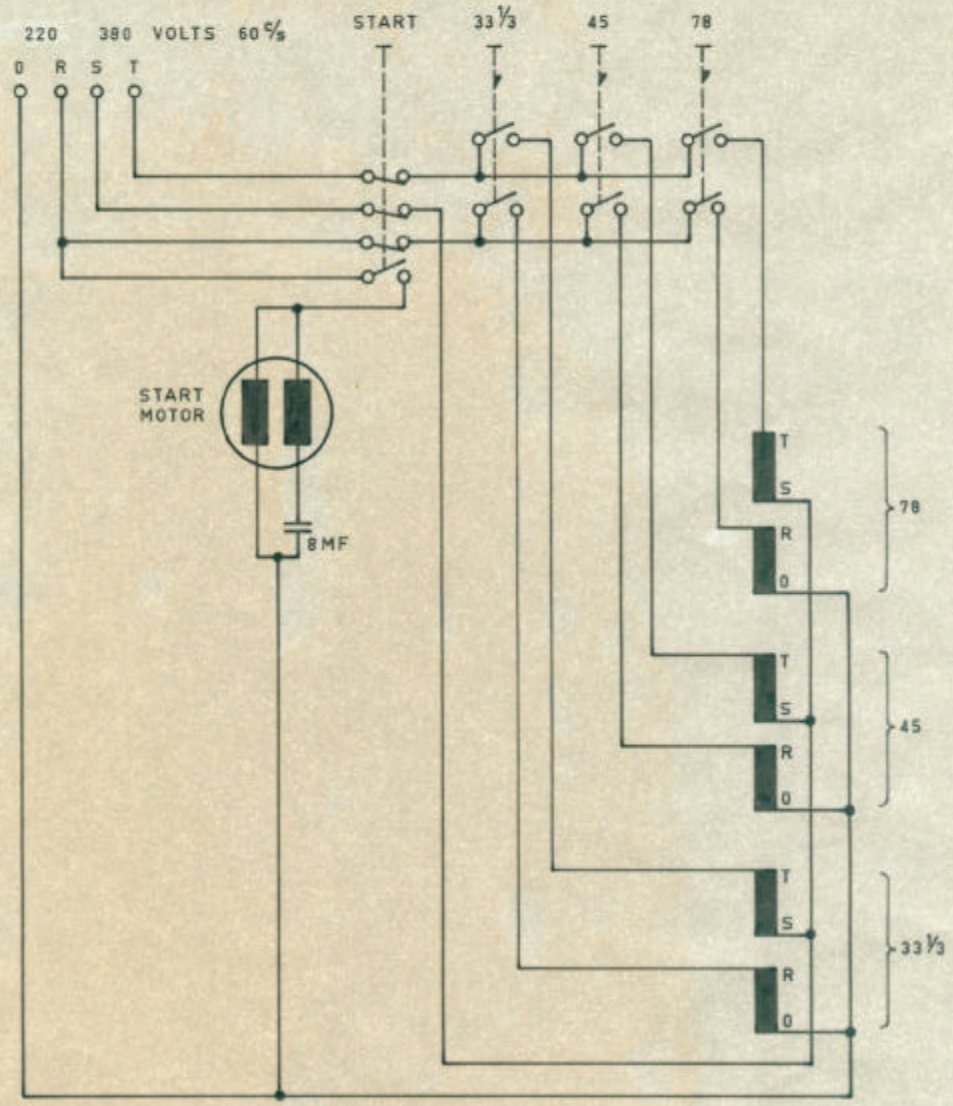
Nr.	Dato	Ændring	Sign.	Tegn. B.J. Dato 28-10-59	LYREC COPENHAGEN	3289
				Kontr. Dato	Rotor for 33⅓ %m. SM8/3A.	
Materiale Stål 0,30.			Br. Vægt g	Maalest. 1:1		



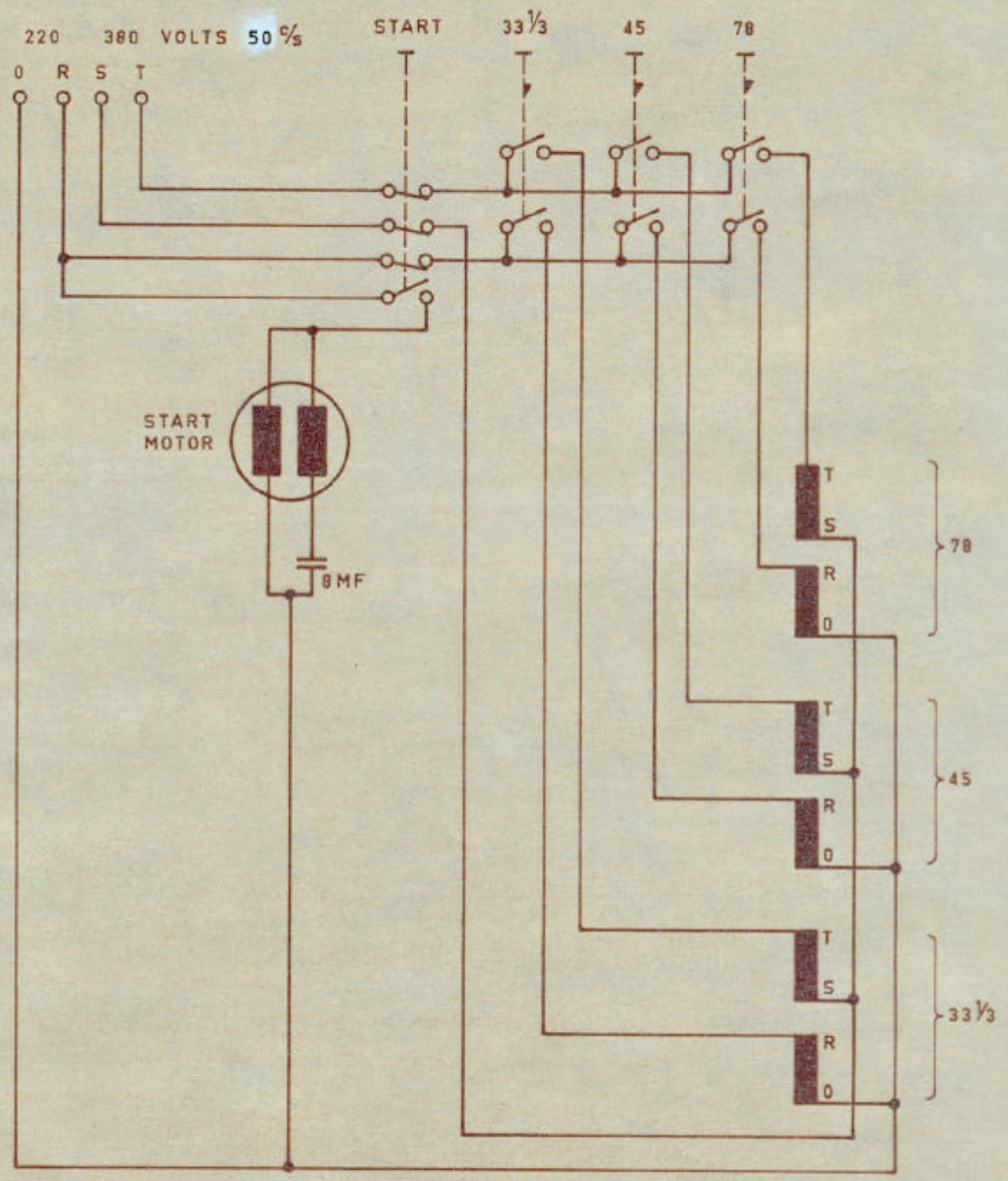
Nr.	Dato	Ændring	Sign.	Tegn. B. J. Dato 17-12-59.	LYREC COPENHAGEN	3304
				Kontr. Dato	Nettilslutningsar= rangement. SM8/3A.	
Materiale			Br. Vægt	Maaleks. 1:1		



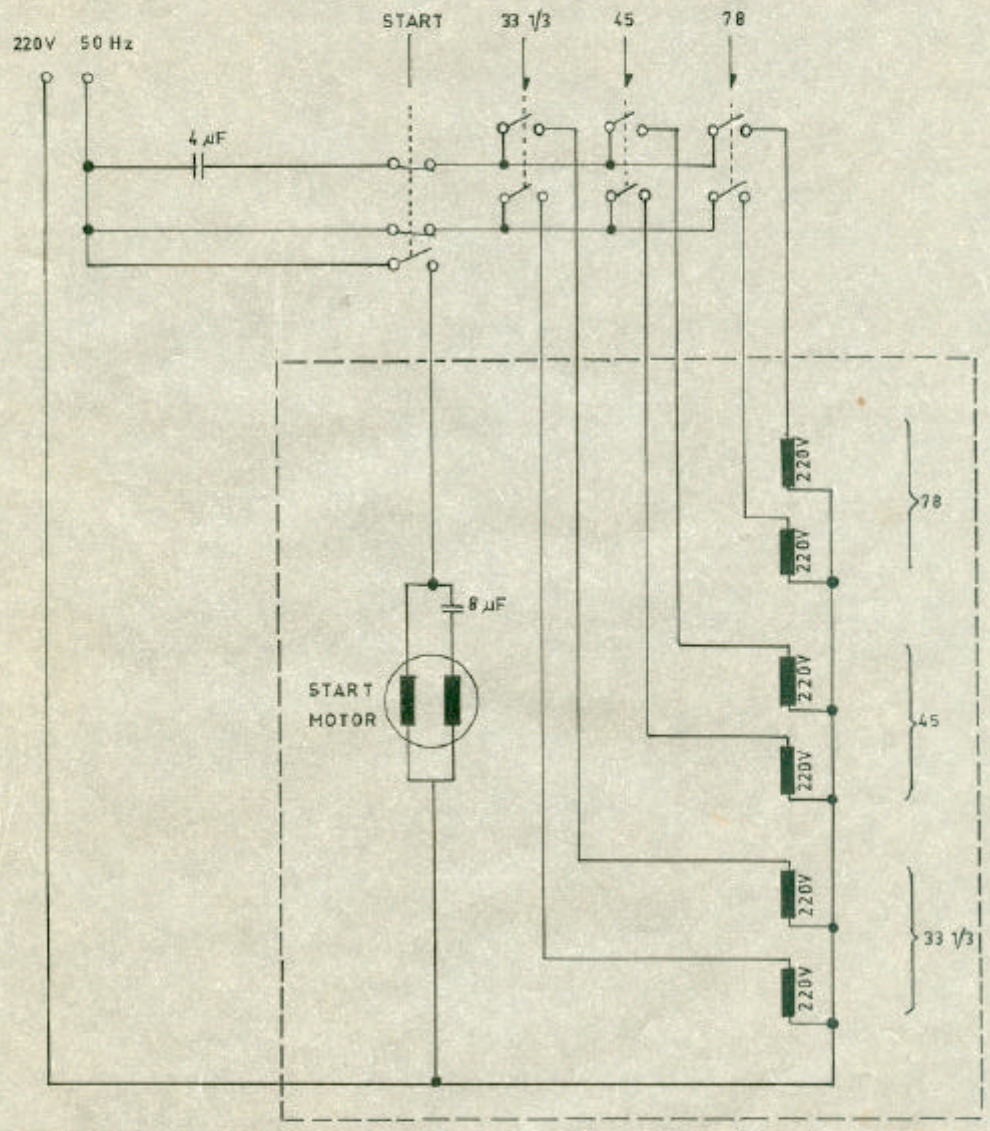
Nr.	Dato	Ændring	Sign.	Tegn. B. J. Dato 16-8-60	LYREC COPENHAGEN	3386
				Konstr. Dato		
Materiale			Br. Vægt g	Maalestk. 1:1	Samlingstegning. SM8/34A.	



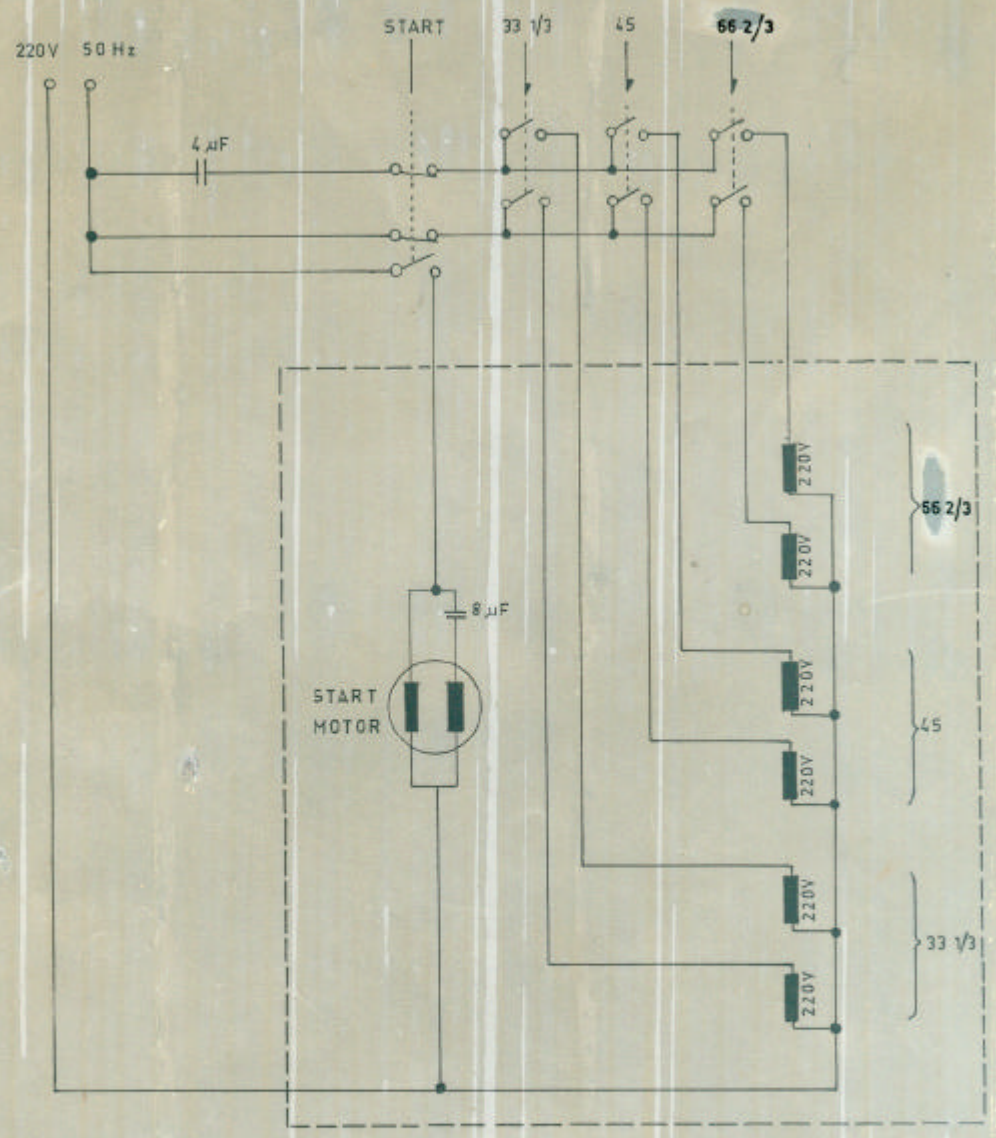
Nr.	Dato	Ændring	Sign.	Tegn. P.F.L. Dato 4·5·60	LYREC COPENHAGEN	472 3443
				Kontr. Dato 4·5·1960	SYNCHRONOUS MOTOR SM8/3A 220/380VOLTS 60 c/s	
Materiale			Br. Vægt g	Maalest.		



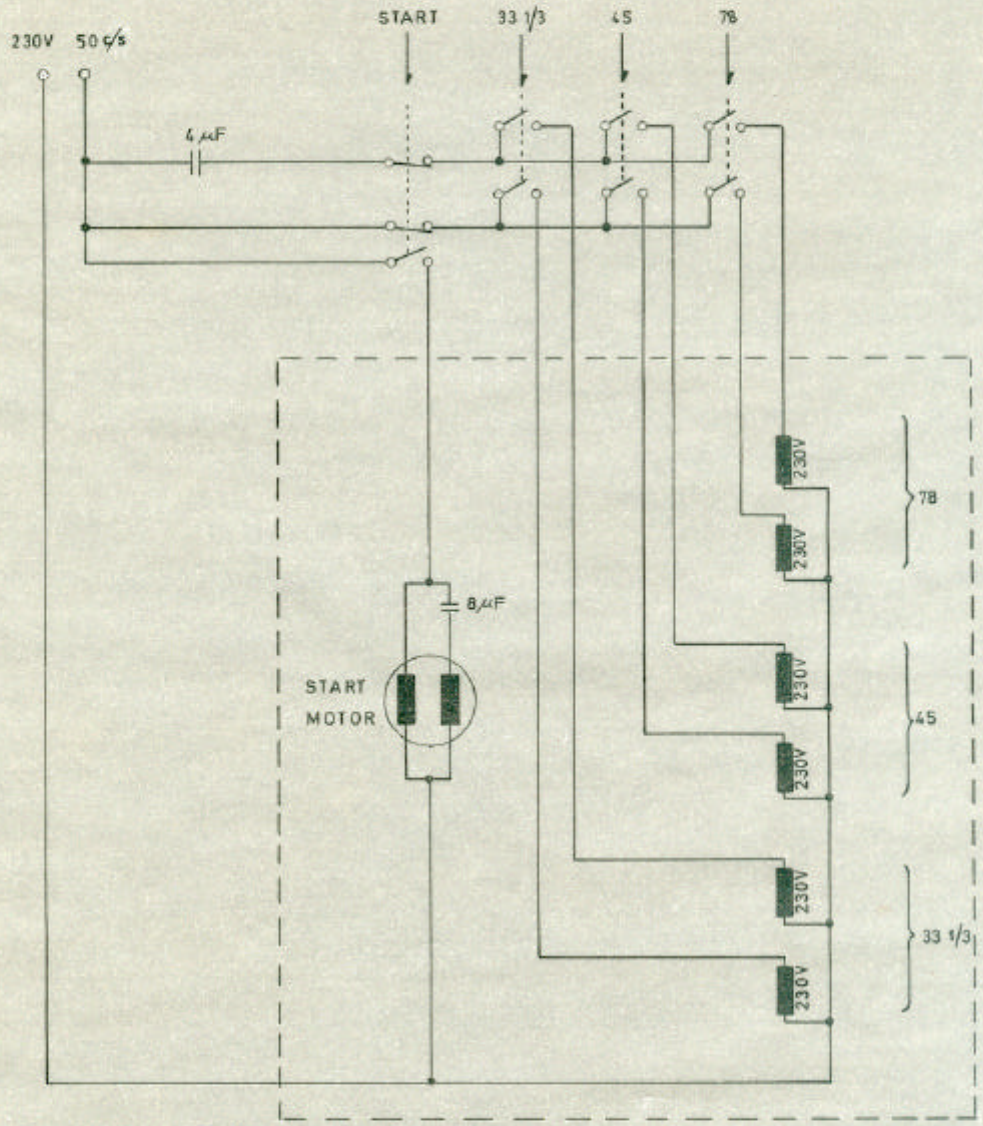
Nr.	Dato	Ændring	Sign.	Tegn. P.F.L. Dato 4·5·60	LYREC COPENHAGEN	472 3447
				Kontr. Dato 4·5·1960	SYNCHRONOUS MOTOR SM8/3A 220/380VOLTS 50 c/s	
Materiale			Br. Vægt g	Maalest.		



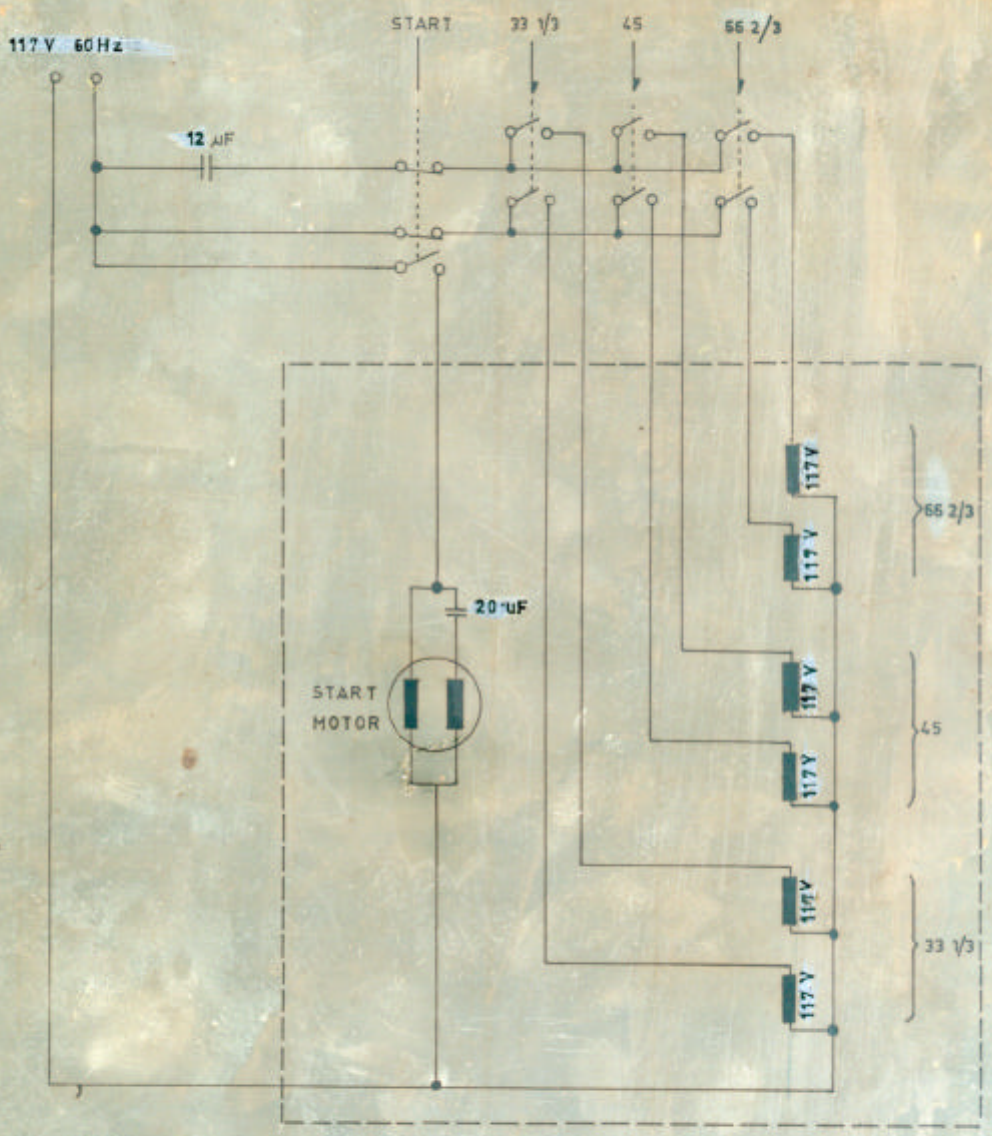
Nr.	Dato	Sign.	Ændring	A/S LYREC LYNGBY - DENMARK	Målst.	Tegn. U.L.	2-4-63
						Konf. √	
						Godk.	2/4 63
				SCHALTBILD SYNKRONMOTOR MIT STARTMOTOR TYP SM8/3A 220/220V 50Hz	Erst.		
					Mappe 472	3714	
					Ersts. af		



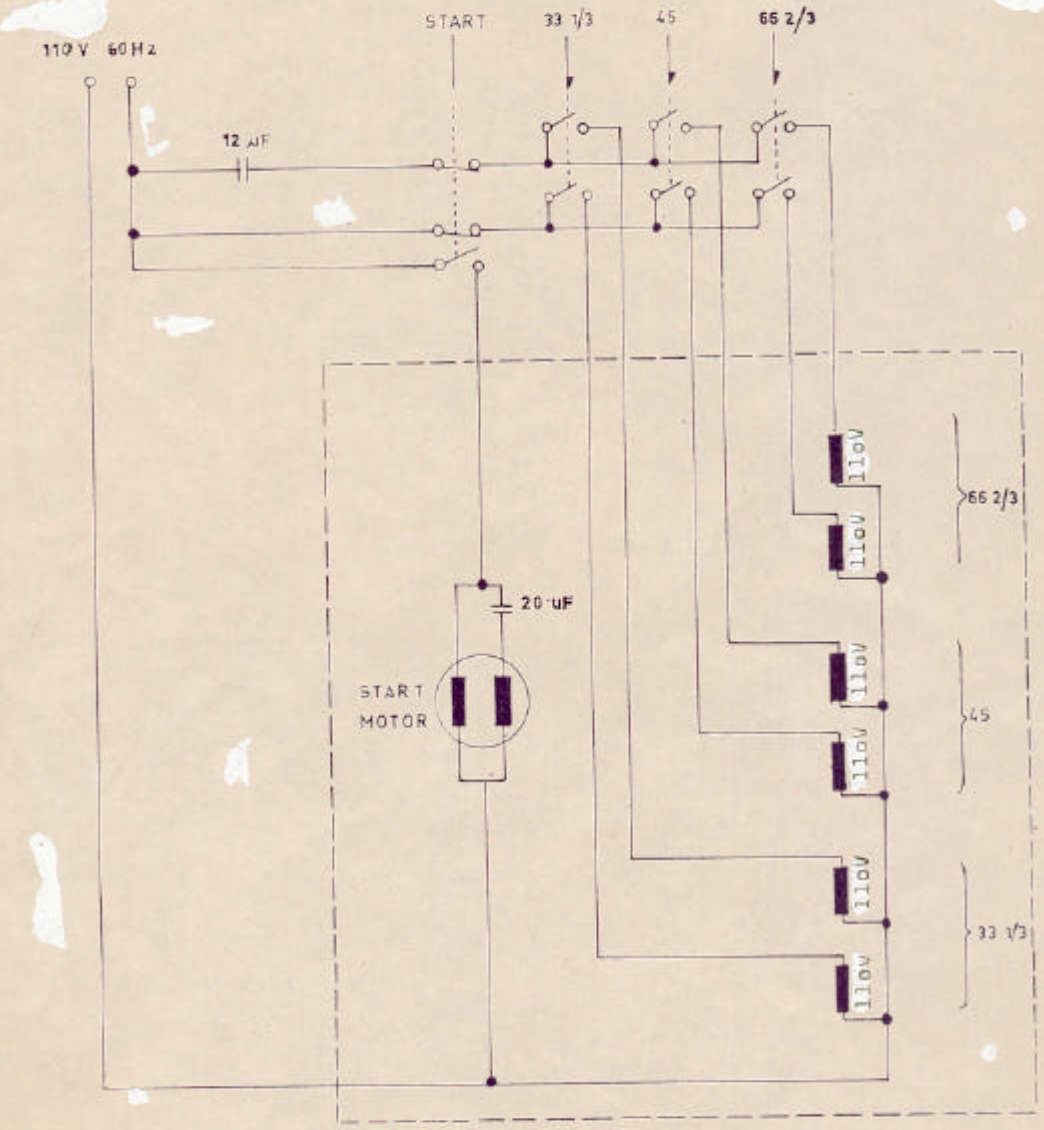
Nr.	Dato	Sign.	Ændring	LYREC LYNGBY - DENMARK	Målst.	Tegn. U.L. 2-4-73 Konf. ✓ Godk. 3/4 63
				SCHALTBILD SYNKRONMOTOR MIT STARTMOTOR TYP SM8/38 220/ 220V 50Hz	Erst. Mappe 472 Ersts. af	3714/2



				LYREC LYNGBY - DENMARK	Målst.	Tegn.	HM	22-4-65
						Konf.		
						Godk.		22/4 65
				SYNCHRONOUS MOTOR SM 8 / 3A 230 / 230 VOLTS 50 c/s	Erst.		
					Mappe 472	3714/2	
Nr.	Dato	Sign.	Ændring		Ersts. af		

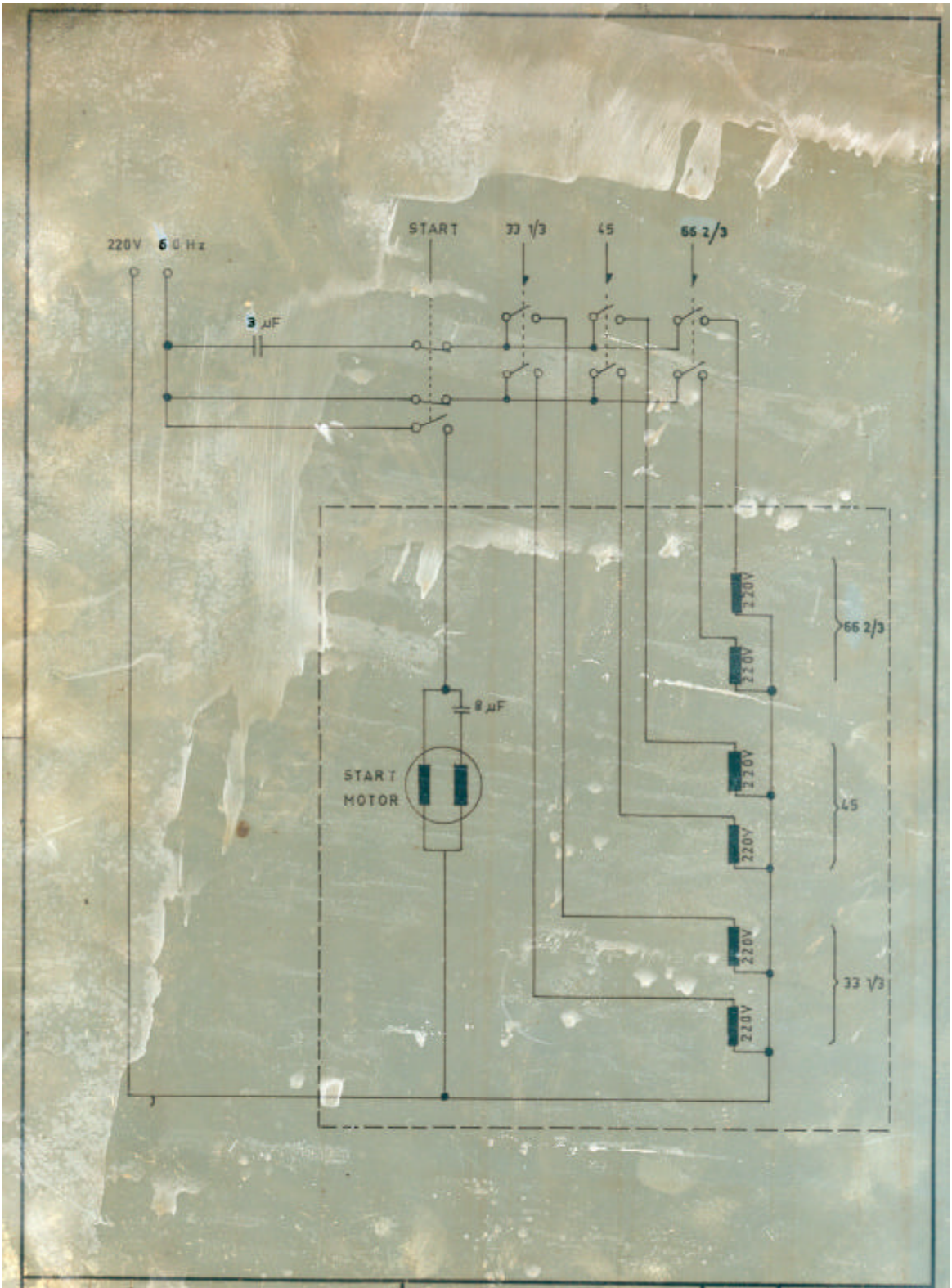


	% LYREC LYNGBY - DENMARK	Målst.	Tegn.	U.	2-4-74
			Konf.		
			Godk.		3/4-74
	SCHALTBILD SYNKRONMOTOR MIT STARTMOTOR TYP SM8/3B 117 / 117 V 60 Hz	Erst.			
		Mappe 472	3714/3		
Nr. Dato Sign. Ændring		Ersts. af			

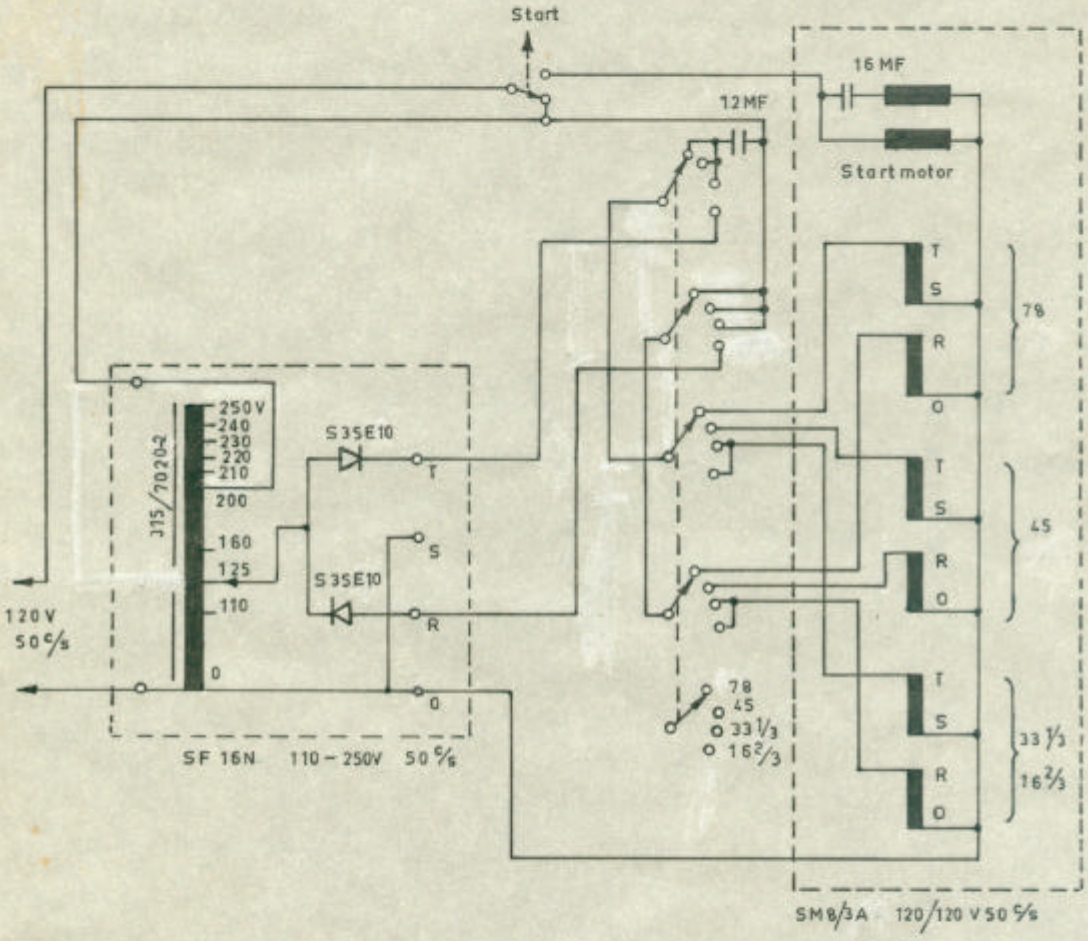


	A/S LYREC LYNGBY - DENMARK	Målst.	Tegn. U.L. 2-4-74 Konf. „ v Godk. 2/4 74
	SCHALTBILD SYNKRONMOTOR MIT STARTMOTOR TYP SM8/3B 110/110V 60Hz	Erst. Mappe 472 Ersts. af	3714/3

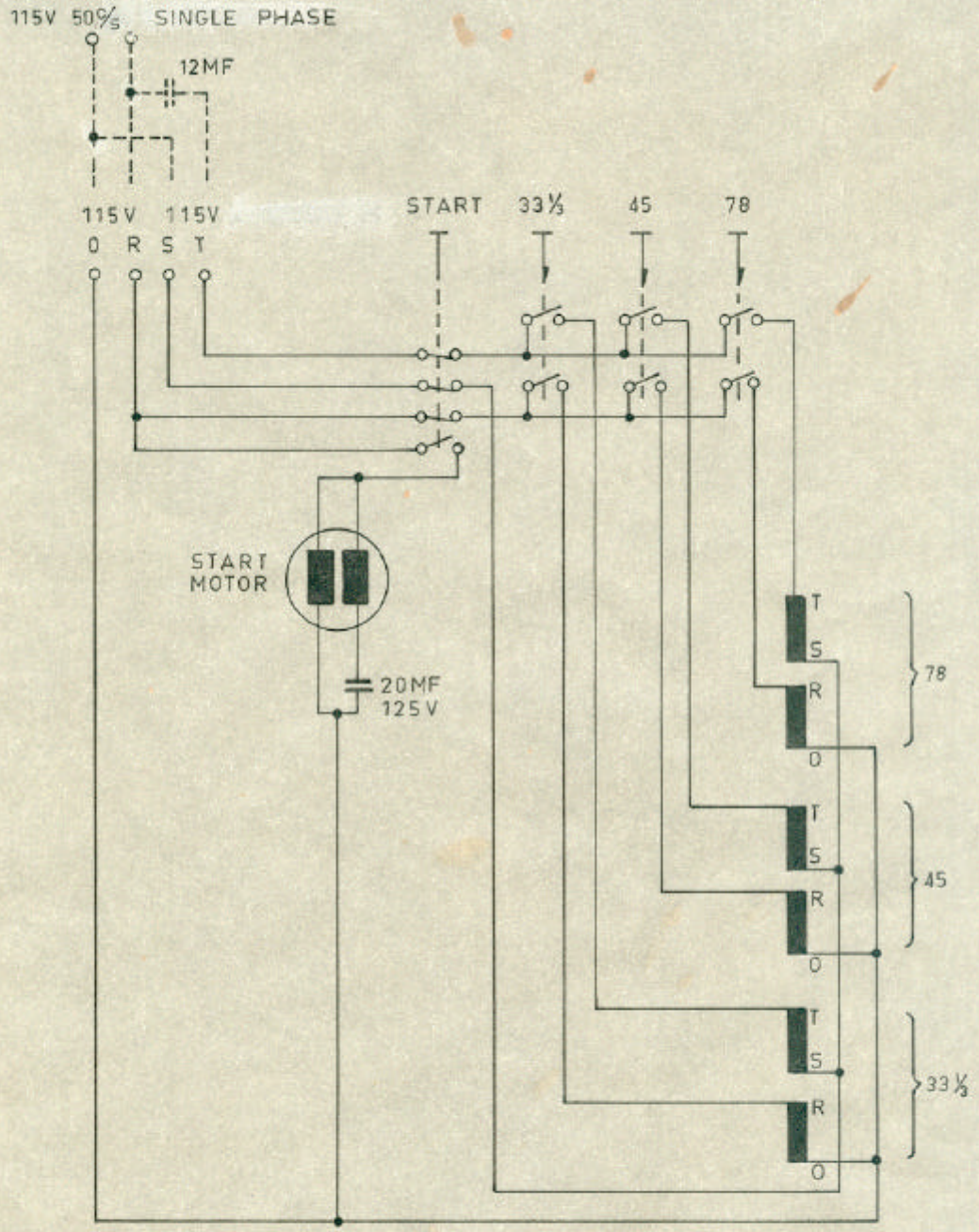
Nr. Dato Sign. Ændring



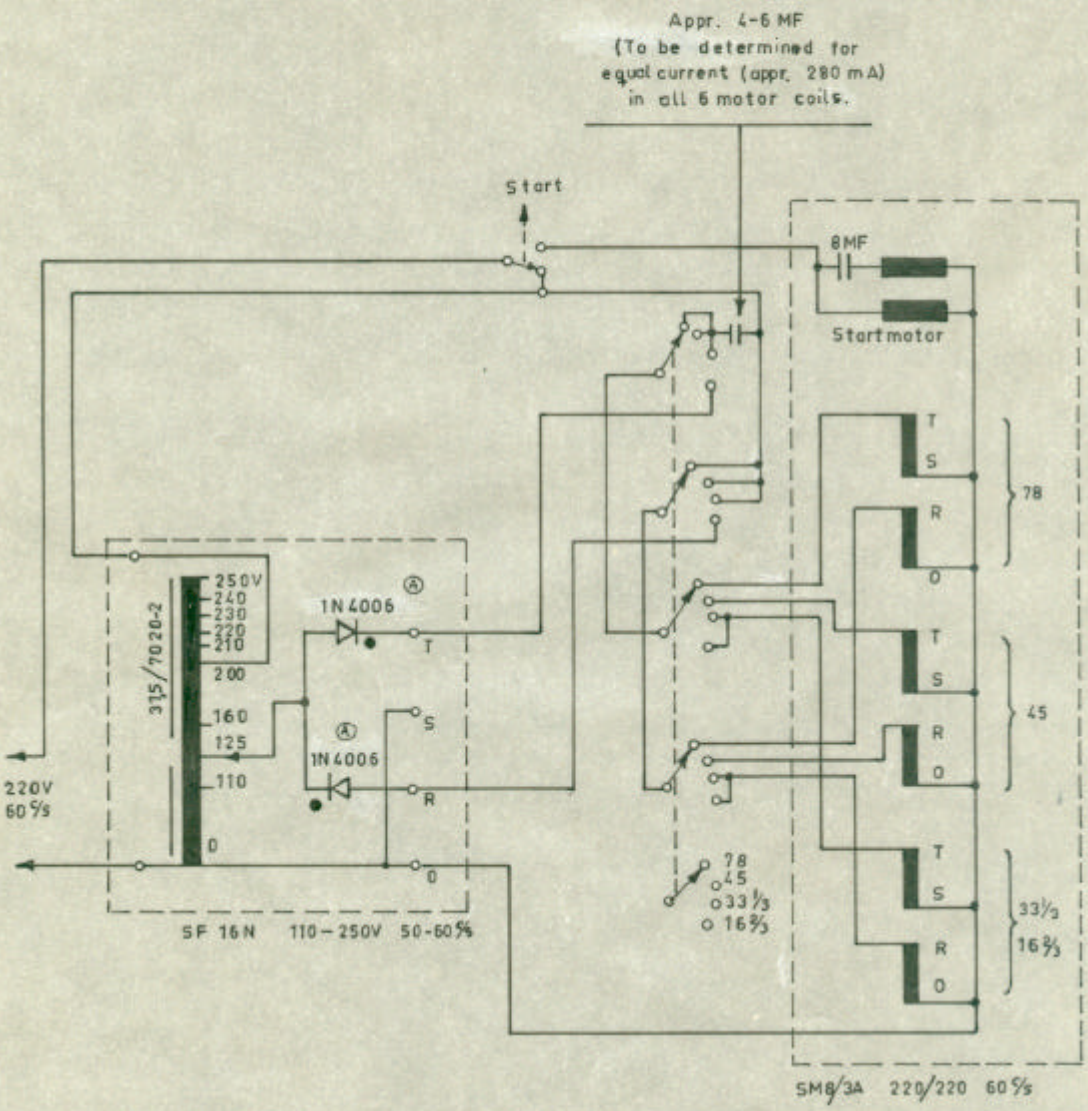
	LYREC LYNGBY - DENMARK	Målst.	Tegn.	U.L.	2-4-74
			Konf.		
			Godk.		2/4 74
Nr. Dato Sign. Ændring	SCHALTBILD SYNKRONMOTOR MIT STARTMOTOR TYP SM8/3B 220/ 220V 60Hz	Erst. Mappe 472 Ersts. af	3714/4		



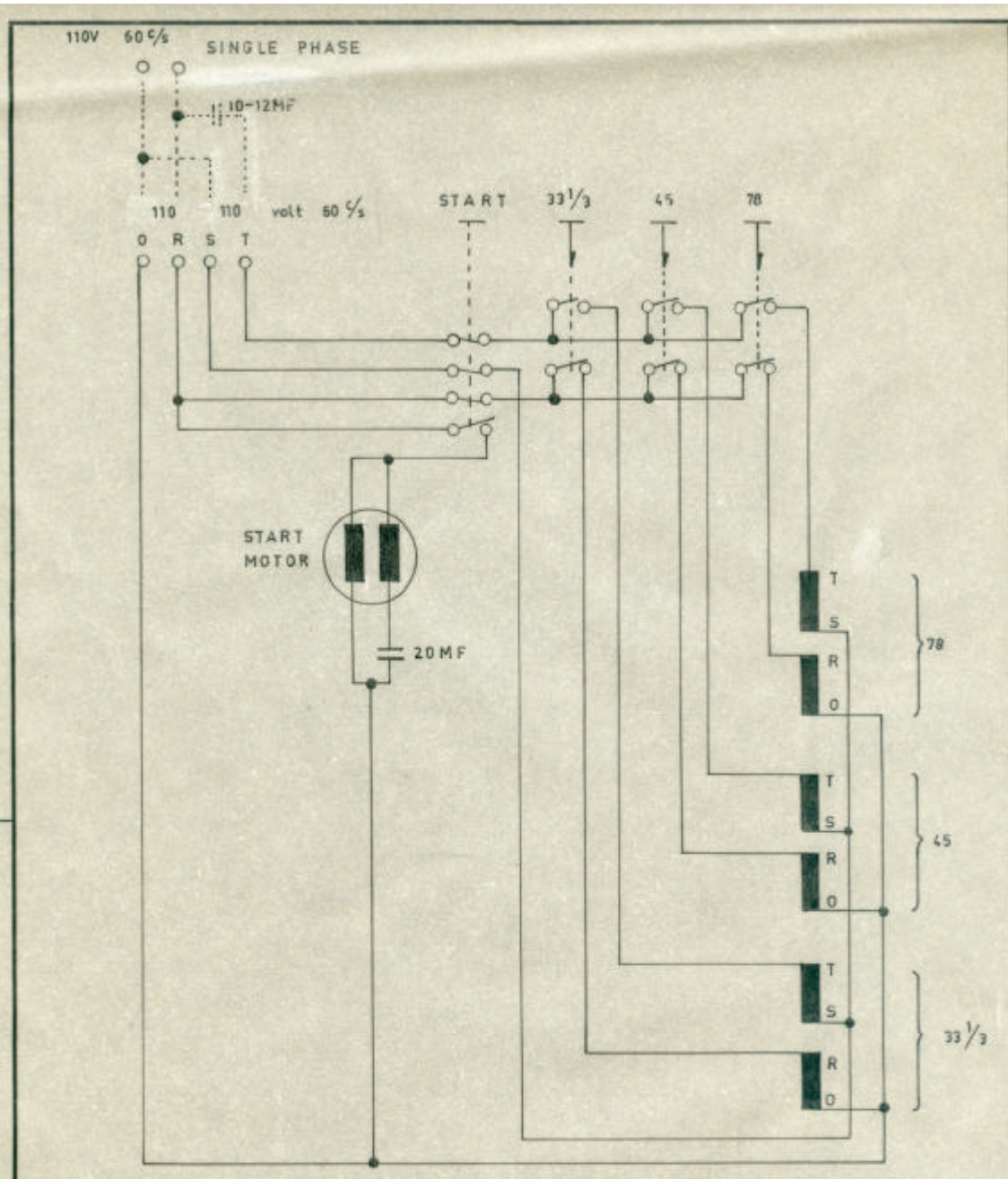
Nr.	Dato	Ændring	Sign.	Tegn. I P. Dato 22·6·61	LYREC COPENHAGEN	472A 3930
				Kontr. Dato 3/7 61	DIAGRAM SYNCHRONOUS MOTOR SM8/3A 120V 50 c/s AND ADAPTER FOR 16 2/3 prm	
Materiale			Br. Vægt g	Maalest.		



Nr.	Dato	Ændring	Sign.	Tegn. IH Dato 3-4-62	LYREC COPENHAGEN	472	4321
				Kontr. J Dato 8/5-62	SYNCHRONOUS MOTOR SM8/3A 115/115 VOLTS. 50 C/S.		
Materiale			Br. Vægt g	Maalest.			



Nr.	Dato	Ændring	Sign.	Tegn. IH. Dato 14.5.62	LYREC COPENHAGEN	472A 4369
					DIAGRAM	
A	1-69	P25E10 — 1N4006	EH	Kon	SYNCHRONOUS MOTOR SM8/3A	
A	23/11 64	S35E10 → P25E10		Da 14/5-62	220V 60~ AND ADAPTER FOR 16⅔rpm	
Materiale			Br. Vægt			



Nr.	Dato	Sign.	Ændring

LYREC
LYNGBY - DENMARK

SYNCHRONOUS MOTOR
SM8/3A
110/110 volt 60 c/s

Målst.	Tegn.	22/12-63
	Konf.	
	Godk.	13/2 63
Erst.		
Mappe 472		4933
Ersts. af		