

# Синхронные двигатели с регулированием частоты ТСУР

## Технические характеристики

По вопросам продаж и поддержки обращайтесь:

Алматы (727)345-47-04  
Ангарск (3955)60-70-56  
Архангельск (8182)63-90-72  
Астрахань (8512)99-46-04  
Барнаул (3852)73-04-60  
Белгород (4722)40-23-64  
Благовещенск (4162)22-76-07  
Брянск (4832)59-03-52  
Владивосток (423)249-28-31  
Владикавказ (8672)28-90-48  
Владимир (4922)49-43-18  
Волгоград (844)278-03-48  
Вологда (8172)26-41-59  
Воронеж (473)204-51-73  
Екатеринбург (343)384-55-89

Иваново (4932)77-34-06  
Ижевск (3412)26-03-58  
Иркутск (395)279-98-46  
Казань (843)206-01-48  
Калининград (4012)72-03-81  
Калуга (4842)92-23-67  
Кемерово (3842)65-04-62  
Киров (8332)68-02-04  
Коломна (4966)23-41-49  
Кострома (4942)77-07-48  
Краснодар (861)203-40-90  
Красноярск (391)204-63-61  
Курск (4712)77-13-04  
Курган (3522)50-90-47  
Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13  
Москва (495)268-04-70  
Мурманск (8152)59-64-93  
Набережные Челны (8552)20-53-41  
Нижний Новгород (831)429-08-12  
Новокузнецк (3843)20-46-81  
Ноябрьск (3496)41-32-12  
Новосибирск (383)227-86-73  
Омск (3812)21-46-40  
Орел (4862)44-53-42  
Оренбург (3532)37-68-04  
Пенза (8412)22-31-16  
Петрозаводск (8142)55-98-37  
Псков (8112)59-10-37  
Пермь (342)205-81-47

Ростов-на-Дону (863)308-18-15  
Рязань (4912)46-61-64  
Самара (846)206-03-16  
Санкт-Петербург (812)309-46-40  
Саратов (845)249-38-78  
Севастополь (8692)22-31-93  
Саранск (8342)22-96-24  
Симферополь (3652)67-13-56  
Смоленск (4812)29-41-54  
Сочи (862)225-72-31  
Ставрополь (8652)20-65-13  
Сургут (3462)77-98-35  
Сыктывкар (8212)25-95-17  
Тамбов (4752)50-40-97  
Тверь (4822)63-31-35

Тольятти (8482)63-91-07  
Томск (3822)98-41-53  
Тула (4872)33-79-87  
Тюмень (3452)66-21-18  
Ульяновск (8422)24-23-59  
Улан-Удэ (3012)59-97-51  
Уфа (347)229-48-12  
Хабаровск (4212)92-98-04  
Чебоксары (8352)28-53-07  
Челябинск (351)202-03-61  
Череповец (8202)49-02-64  
Чита (3022)38-34-83  
Якутск (4112)23-90-97  
Ярославль (4852)69-52-93

Россия +7(495)268-04-70

Казахстан +7(727)345-47-04

Беларусь +375-257-127-884

Узбекистан +998(71)205-18-59

Киргизия +996(312)96-26-47

эл.почта: [agy@nt-rt.ru](mailto:agy@nt-rt.ru) || сайт: <https://laeg.nt-rt.ru>

# Brief Introductions >>



The energy efficiency of the TCYP series Syn RM complies with IE5 efficiency class specified in IEC 60034-30-1 and Grade 1 specified in GB18613-2020.



Featuring a rotor with permanent magnets, the motor has higher efficiency and power density compared with induction motors.



The motor adopts a self-fan-cooling design, enabling speed regulation operation under the inverter without forced ventilation cooling. It exhibits excellent constant torque performance at low speeds and features high efficiency across the entire speed range.



The mounting dimensions of each frame size are consistent with those of induction motors and comply with IEC and relevant national standards, facilitating easy installation and use for customers.



## Applications >>

The product can be widely used in various transmission machinery industries, such as water pumps, fans, air compressors, machine tools, reducers, packaging machinery, mining machinery and construction machinery, etc.



Papermaking



Coal Mine

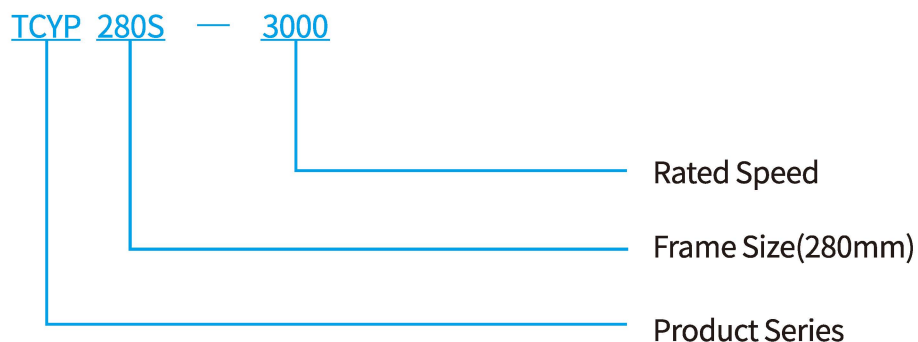


Cement



Sugaring

## Model Description



## Product Features



Specifications	Standard	Option
Frame Size	H80~H355	-
Rated Power	0.55~375kW	-
Rated Speed	750~3000r/min	-
Rated Voltage	380V	400V or Customisation on Demand
Efficiency Class	IE5 (GB1)	-
Duty	S1	Customisation on Demand
Installation Method	B3	B5, B35, V1, etc
Insulation Class	Class F (155°C)	Class H (180°C)
IP Grade	IP55	IP56, IP65, etc
Cooling Method	IC411	IC416, etc
Shell Structure	Cast Iron	Cast Aluminum (H80~H160)
Junction Box Location	Top Right	Right Side or Left Side
Bearing Lubrication	≤H180:Maintenance-free ≥H200:Using open type bearings and equipped with an oil filling and draining device	-
Optional Accessories	-	PTC, PT100, Heater, Encoder, etc
Operating Environment	Environment Temperature:-15°C~+40°C Altitude:<1000m	Customisation on Demand

## Technical Data(3000rpm)

Type	Power	Speed	Voltage	Current	Frequency	EFF.	P.F.	Out-of-step torque/ rated torque
	kW	rpm	V	A	Hz	%		
3000rpm								
TCYP80M1-3000	0.75	3000	380	1.7	100	86.3	0.82	1.65
TCYP80M2-3000	1.1	3000	380	2.4	100	87.8	0.83	1.65
TCYP90S-3000	1.5	3000	380	3.1	100	88.9	0.84	1.65
TCYP90L-3000	2.2	3000	380	4.5	100	90.2	0.85	1.65
TCYP100L-3000	3	3000	380	5.9	100	91.1	0.87	1.65
TCYP112M-3000	4	3000	380	7.7	100	91.8	0.88	1.65
TCYP132S1-3000	5.5	3000	380	10.5	100	92.6	0.88	1.65
TCYP132S2-3000	7.5	3000	380	14.3	100	93.3	0.88	1.65
TCYP160M1-3000	11	3000	380	20.5	100	94.0	0.89	1.65
TCYP160M2-3000	15	3000	380	27.8	100	94.5	0.89	1.65
TCYP160L-3000	18.5	3000	380	34.2	100	94.5	0.89	1.65
TCYP180M-3000	22	3000	380	40.6	100	95.1	0.89	1.65
TCYP200L1-3000	30	3000	380	55.1	100	95.5	0.89	1.65
TCYP200L2-3000	37	3000	380	67.7	100	95.8	0.89	1.65
TCYP225M-3000	45	3000	380	82.2	100	96.0	0.89	1.65
TCYP250M-3000	55	3000	380	100	100	96.2	0.89	1.65
TCYP280S-3000	75	3000	380	136	100	96.5	0.89	1.65
TCYP280M-3000	90	3000	380	163	100	96.6	0.89	1.65

## Technical Data(1500rpm)

Type	Power	Speed	Voltage	Current	Frequency	EFF.	P.F.	Out-of-step torque/ rated torque
	kW	rpm	V	A	Hz	%		
1500rpm								
TCYP80M1-1500	0.55	1500	380	1.3	75	86.7	0.74	1.65
TCYP80M2-1500	0.75	1500	380	1.8	75	88.2	0.74	1.65
TCYP90S-1500	1.1	1500	380	2.6	75	89.5	0.75	1.65
TCYP90L-1500	1.5	1500	380	3.4	75	90.4	0.76	1.65
TCYP100L1-1500	2.2	1500	380	4.8	75	91.4	0.79	1.65
TCYP100L2-1500	3	1500	380	6.4	75	92.1	0.80	1.65
TCYP112M-1500	4	1500	380	8.4	75	92.8	0.80	1.65
TCYP132S-1500	5.5	1500	380	11.5	75	93.4	0.80	1.65
TCYP132M-1500	7.5	1500	380	15.4	75	94.0	0.81	1.65
TCYP160M-1500	11	1500	380	21.9	75	94.6	0.83	1.65
TCYP160L-1500	15	1500	380	29.3	75	95.1	0.84	1.65
TCYP180M-1500	18.5	1500	380	35.6	75	95.3	0.85	1.65
TCYP180L-1500	22	1500	380	42.3	75	95.5	0.85	1.65
TCYP200L-1500	30	1500	380	57.4	75	95.9	0.85	1.65
TCYP225S-1500	37	1500	380	70.7	75	96.1	0.85	1.65
TCYP225M-1500	45	1500	380	85.8	75	96.3	0.85	1.65
TCYP250M-1500	55	1500	380	103	75	96.5	0.86	1.65
TCYP280S-1500	75	1500	380	139	75	96.7	0.87	1.65
TCYP280M-1500	90	1500	380	165	75	96.9	0.88	1.65
TCYP315S-1500	110	1500	380	204	75	97.0	0.89	1.65
TCYP315M-1500	132	1500	380	245	75	97.1	0.89	1.65
TCYP315L1-1500	160	1500	380	297	75	97.2	0.89	1.65
TCYP315L-1500	185	1500	380	350	75	97.4	0.90	1.65
TCYP315L2-1500	200	1500	380	382	75	97.4	0.90	1.65
TCYP355M1-1500	220	1500	380	420	75	97.4	0.90	1.65
TCYP355M2-1500	250	1500	380	477	75	97.4	0.90	1.65
TCYP355L1-1500	280	1500	380	535	75	97.4	0.90	1.65
TCYP355L2-1500	315	1500	380	601	75	97.4	0.90	1.65

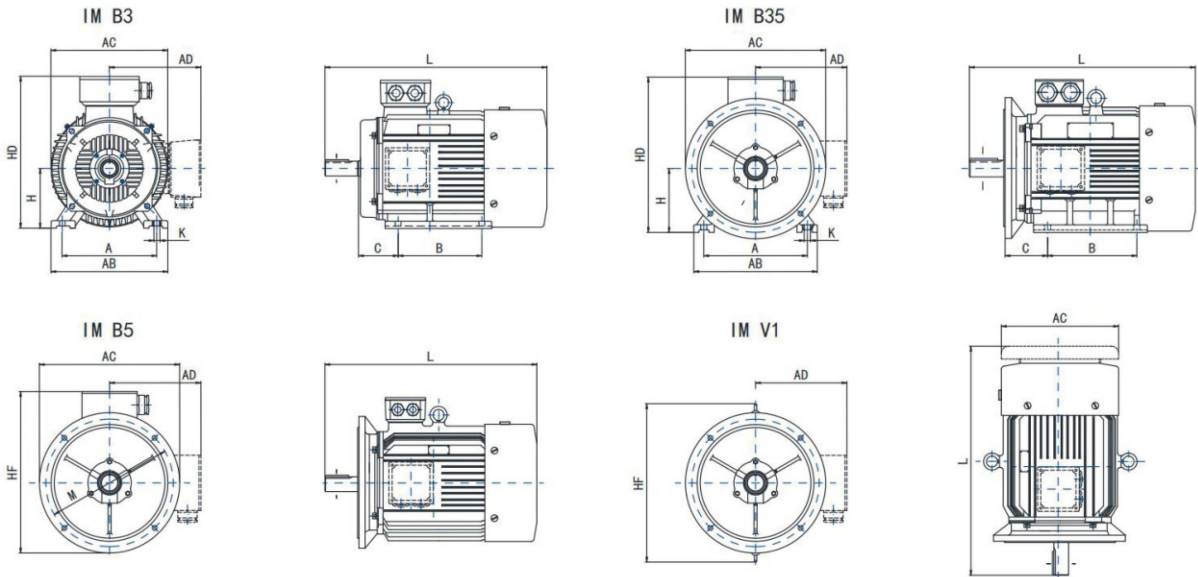
## Technical Data(1000rpm)

Type	Power	Speed	Voltage	Current	Frequency	EFF.	P.F.	Out-of-step torque/ rated torque
	kW	rpm	V	A	Hz	%		
1000rpm								
TCYP90S-1000	0.75	1000	380	2.0	50	85.7	0.70	1.65
TCYP90L-1000	1.1	1000	380	2.8	50	87.2	0.70	1.65
TCYP100L-1000	1.5	1000	380	3.7	50	88.4	0.71	1.65
TCYP112M-1000	2.2	1000	380	5.4	50	89.7	0.71	1.65
TCYP132S-1000	3	1000	380	7.3	50	90.6	0.71	1.65
TCYP132M1-1000	4	1000	380	9.5	50	91.4	0.72	1.65
TCYP132M2-1000	5.5	1000	380	12.9	50	92.2	0.72	1.65
TCYP160M-1000	7.5	1000	380	16.6	50	92.9	0.76	1.65
TCYP160L-1000	11	1000	380	23.8	50	93.7	0.77	1.65
TCYP180L-1000	15	1000	380	31.0	50	94.3	0.80	1.65
TCYP200L1-1000	18.5	1000	380	38.1	50	94.6	0.80	1.65
TCYP200L2-1000	22	1000	380	44.7	50	94.9	0.81	1.65
TCYP225M-1000	30	1000	380	59.9	50	95.3	0.82	1.65
TCYP250M-1000	37	1000	380	72.8	50	95.6	0.83	1.65
TCYP280S-1000	45	1000	380	88.3	50	95.8	0.83	1.65
TCYP280M-1000	55	1000	380	106	50	96.0	0.84	1.65
TCYP315S-1000	75	1000	380	145	50	96.3	0.84	1.65
TCYP315M-1000	90	1000	380	171	50	96.5	0.85	1.65
TCYP315L1-1000	110	1000	380	215	50	96.6	0.85	1.65
TCYP315L2-1000	132	1000	380	254	50	96.8	0.86	1.65
TCYP355M1-1000	160	1000	380	308	50	96.9	0.86	1.65
TCYP355M2-1000	185	1000	380	356	50	97.0	0.86	1.65
TCYP355M3-1000	200	1000	380	401	50	97.0	0.86	1.65
TCYP355L1-1000	220	1000	380	441	50	97.0	0.86	1.65
TCYP355L2-1000	250	1000	380	502	50	97.0	0.86	1.65

## Technical Data(750rpm)

Type	Power	Speed	Voltage	Current	Frequency	EFF.	P.F.	Out-of-step torque/ rated torque
	kW	rpm	V	A	Hz	%		
750rpm								
TCYP100L1-750	0.75	750	380	2.2	37.5	82.0	0.66	1.65
TCYP100L2-750	1.1	750	380	3.0	37.5	84.0	0.67	1.65
TCYP112M-750	1.5	750	380	4.0	37.5	85.5	0.69	1.65
TCYP132S-750	2.2	750	380	5.6	37.5	87.2	0.70	1.65
TCYP132M-750	3	750	380	7.6	37.5	88.4	0.70	1.65
TCYP160M1-750	4	750	380	9.8	37.5	89.4	0.71	1.65
TCYP160M2-750	5.5	750	380	13.2	37.5	90.4	0.72	1.65
TCYP160L-750	7.5	750	380	17.3	37.5	91.3	0.74	1.65
TCYP180L-750	11	750	380	25.2	37.5	92.2	0.74	1.65
TCYP200L-750	15	750	380	33.6	37.5	92.9	0.75	1.65
TCYP225S-750	18.5	750	380	41.3	37.5	93.3	0.75	1.65
TCYP225M-750	22	750	380	48.3	37.5	93.6	0.76	1.65
TCYP250M-750	30	750	380	64.6	37.5	94.1	0.77	1.65
TCYP280S-750	37	750	380	78.4	37.5	94.4	0.78	1.65
TCYP280M-750	45	750	380	95.1	37.5	94.7	0.78	1.65
TCYP315S-750	55	750	380	113	37.5	94.9	0.80	1.65
TCYP315M-750	75	750	380	154	37.5	95.3	0.80	1.65
TCYP315L1-750	90	750	380	182	37.5	95.5	0.81	1.65
TCYP315L2-750	110	750	380	228	37.5	95.7	0.81	1.65
TCYP355M1-750	132	750	380	273	37.5	95.9	0.81	1.65
TCYP355M2-750	160	750	380	326	37.5	96.1	0.82	1.65
TCYP355M3-750	185	750	380	376	37.5	96.2	0.82	1.65
TCYP355L-750	200	750	380	424	37.5	96.3	0.82	1.65

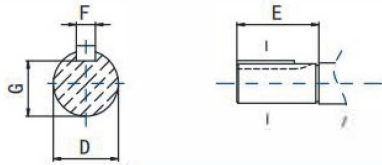
External and Mounting Dimensions



mm

Frame	External and Mounting Dimensions										L			
	A	B	C	H	K	AB	AC	AD	HD	HF	2P		≥4p	
											other	V1	other	V1
80M	125	100	50	80	10	165	175	145	220	—	305	—	305	—
90S	140	100	56	90	10	180	195	165	260	—	360	—	360	—
90L	140	125	56	90	10	180	195	165	260	—	390	—	390	—
100L	160	140	63	100	12	205	215	180	275	245	435	—	435	—
112M	190	140	70	112	12	230	240	190	300	265	470	—	470	—
132S	216	140	89	132	12	270	275	210	345	315	510	—	510	—
132M	216	178	89	132	12	270	275	210	345	315	560	—	560	—
160M	254	210	108	160	14.5	320	330	255	420	385	670	—	670	—
160L	254	254	108	160	14.5	320	330	255	420	385	700	—	700	—
180M	279	241	121	180	14.5	355	380	280	455	430	740	800	740	800
180L	279	279	121	180	14.5	355	380	280	455	430	790	850	790	850
200L	318	305	133	200	18.5	395	420	305	505	480	790	940	790	940
225S	356	286	149	225	18.5	435	470	335	560	535	—	—	830	905
225M	356	311	149	225	18.5	435	470	335	560	535	825	910	855	940
250M	406	349	168	250	24	490	510	370	615	595	915	1015	915	1015
280S	457	368	190	280	24	550	580	410	680	650	985	1150	985	1150
280M	457	419	190	280	24	550	580	410	680	650	1035	1385	1035	1385
315S	508	406	216	315	28	635	645	530	845	900	1180	1480	1290	1510
315M	508	457	216	315	28	635	645	530	845	900	1210	1590	1320	1260
315L	508	508	216	315	28	635	645	530	845	900	1210	1590	1320	1260
355M	610	560	254	355	28	730	710	655	1010	1010	1500	1750	1530	1780
355L	610	630	254	355	28	730	710	655	1010	1010	1500	1750	1530	1780
355	630	800	224	355	35	760	770	760	1130	1220	1870	2130	1920	2180

## Shaft Dimensions

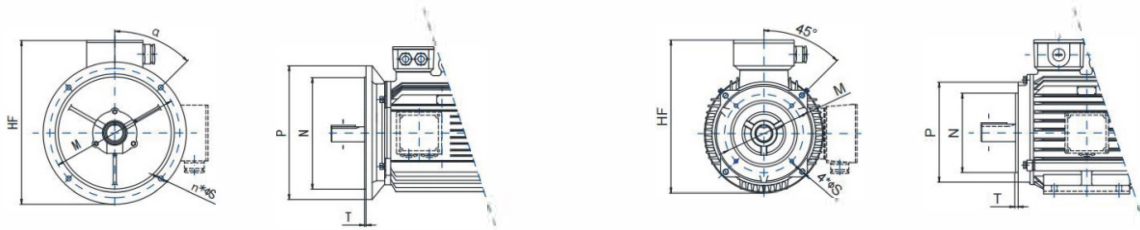


Frame	Poles	Shaft Dimensions			
		D	E	F	G
80	≥2	19	40	6	15.5
90	≥2	24	50	8	20
100	≥2	28	60	8	24
112	≥2	28	60	8	24
132	≥2	38	80	10	33
160	≥2	42	110	12	37
180	≥2	48	110	14	42.5
200	≥2	55	110	16	49
225	2	55	110	16	49
225	≥4	60	140	18	53

mm

Frame	Poles	Shaft Dimensions			
		D	E	F	G
250	2	60	140	18	53
	≥4	65	140	18	58
280	2	65	140	18	58
	≥4	75	140	20	67.5
315	2	65	140	18	58
	≥4	80	170	22	71
355M,L	2	75	140	20	67.5
	≥4	95	170	25	86
355	2	80	170	22	71
	≥4	110	210	28	100

## Flange Dimensions



Frame	Flange	B35, B5					
		M	N	P	T	α	n*ΦS
80,90	FF165	165	130	200	3.5	45	4*12
100,112	FF215	215	180	250	4	45	4*14.5
132	FF265	265	230	300	4	45	4*14.5
160,180	FF300	300	250	350	5	45	4*18.5
200	FF350	350	300	400	5	45	4*18.5
225	FF400	400	350	450	5	22.5	8*18.5
250,280	FF500	500	450	550	5	22.5	8*18.5
315	FF600	600	550	660	6	22.5	8*24
355M,L	FF740	740	680	800	6	22.5	8*24
355	FF840	840	780	900	6	22.5	8*24

mm

Frame	Flange	B34, B14				
		M	N	P	S	T
80	FT100	100	80	120	M6	3
90	FT115	115	95	140	M8	3
100,112	FT130	130	110	160	M8	3.5

## По вопросам продаж и поддержки обращайтесь:

Алматы (727)345-47-04  
Ангарск (3955)60-70-56  
Архангельск (8182)63-90-72  
Астрахань (8512)99-46-04  
Барнаул (3852)73-04-60  
Белгород (4722)40-23-64  
Благовещенск (4162)22-76-07  
Брянск (4832)59-03-52  
Владивосток (423)249-28-31  
Владикавказ (8672)28-90-48  
Владимир (4922)49-43-18  
Волгоград (844)278-03-48  
Вологда (8172)26-41-59  
Воронеж (473)204-51-73  
Екатеринбург (343)384-55-89

Иваново (4932)77-34-06  
Ижевск (3412)26-03-58  
Иркутск (395)279-98-46  
Казань (843)206-01-48  
Калининград (4012)72-03-81  
Калуга (4842)92-23-67  
Кемерово (3842)65-04-62  
Киров (8332)68-02-04  
Коломна (4966)23-41-49  
Кострома (4942)77-07-48  
Краснодар (861)203-40-90  
Красноярск (391)204-63-61  
Курск (4712)77-13-04  
Курган (3522)50-90-47  
Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13  
Москва (495)268-04-70  
Мурманск (8152)59-64-93  
Набережные Челны (8552)20-53-41  
Нижний Новгород (831)429-08-12  
Новокузнецк (3843)20-46-81  
Ноябрьск (3496)41-32-12  
Новосибирск (383)227-86-73  
Омск (3812)21-46-40  
Орел (4862)44-53-42  
Оренбург (3532)37-68-04  
Пенза (8412)22-31-16  
Петрозаводск (8142)55-98-37  
Псков (8112)59-10-37  
Пермь (342)205-81-47

Ростов-на-Дону (863)308-18-15  
Рязань (4912)46-61-64  
Самара (846)206-03-16  
Санкт-Петербург (812)309-46-40  
Саратов (845)249-38-78  
Севастополь (8692)22-31-93  
Саранск (8342)22-96-24  
Симферополь (3652)67-13-56  
Смоленск (4812)29-41-54  
Сочи (862)225-72-31  
Ставрополь (8652)20-65-13  
Сургут (3462)77-98-35  
Сыктывкар (8212)25-95-17  
Тамбов (4752)50-40-97  
Тверь (4822)63-31-35

Тольятти (8482)63-91-07  
Томск (3822)98-41-53  
Тула (4872)33-79-87  
Тюмень (3452)66-21-18  
Ульяновск (8422)24-23-59  
Улан-Удэ (3012)59-97-51  
Уфа (347)229-48-12  
Хабаровск (4212)92-98-04  
Чебоксары (8352)28-53-07  
Челябинск (351)202-03-61  
Череповец (8202)49-02-64  
Чита (3022)38-34-83  
Якутск (4112)23-90-97  
Ярославль (4852)69-52-93

Россия +7(495)268-04-70

Казахстан +7(727)345-47-04

Беларусь +375-257-127-884

Узбекистан +998(71)205-18-59

Киргизия +996(312)96-26-47

эл.почта: [agy@nt-rt.ru](mailto:agy@nt-rt.ru) || сайт: <https://laeg.nt-rt.ru>