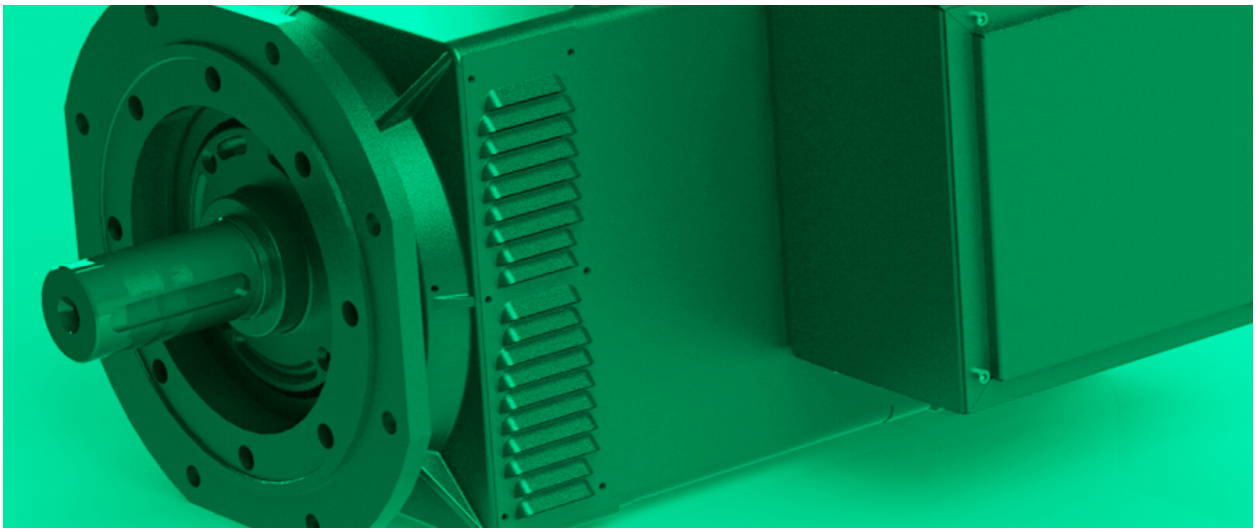
COMER®
Emotion in Motion

HY TETRAVEC SERIES CATALOGUE

PERMANENT MAGNET ASSISTED SYNCHRONOUS RELUCTANCE MOTORS
IP23 IPM-PMASR



COMER s.r.l.
Headquarter, Factory and Sales Department
Italy - 27029 Vigevano (PV)
Via Oroboni, 26/28
Ph. (+39) 0381 42661 Fax (+39) 0381 42662
info@comergroup.it
www.comergroup.it
www.facebook.com/ComerSrl
www.linkedin.com/company/comer-s.r.l./

September 2022

September 2022

OUR HISTORY

COMER is an industrial project set in motion at the end of the 1950's thanks to the creativity and determination of its three founders. Initially we built standard asynchronous motors, while over the years production has been evolving into the more specialized sector of direct current motors, becoming the core business till the mid-1990's.

POWERTECH
With the advent of modern frequency converters, we've begun a new design season that culminated in the POWERTECH series of high performance asynchronous motors. Starting in 2005, our R&D division has investigated and designed the first series of Permanent Magnet Torque motors with a very high number of poles - and synchronous generators to be used in the wind power sector. Later in 2010 was born the High Speed motors series, specifically conceived for rig test application in the automotive sector.

HERITAGE & INNOVATION
Today, many years after its foundation, we are an established Italian leader in the design and production of special asynchronous motors and permanent magnet synchronous motors and generators.

55

1967-2022

COMER high performance asynchronous motors are built according to the highest quality Standards and can be adopted in a wide range of applications. Our motors are provided with squirrel cage rotors with aluminum slots (or copper in the biggest frames). Available in both air and liquid cooling versions.

COMER high performance synchronous motors line is the result of a persistent research in the electromagnetic sector and use of advanced materials. The rotor is provided with permanent rare-earth magnets with outcome of compact and light motors, having extremely high torque and power values. Available in both air and liquid cooling versions.

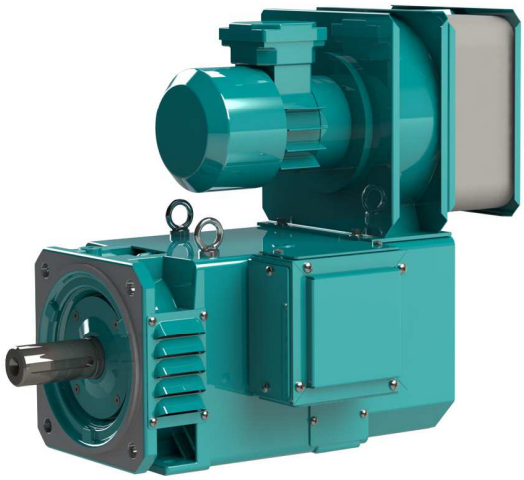
ISO 9001:2015
The whole production process is controlled inside the factory and certified by ISO 9000 Quality System since 1995, now ISO 9001:2015. At the end of manufacturing process, the motors and generators are tested on computerized test benches, equipped with inverters and energy recovery AFE device: in this way we protect the environment from CO_2 emissions and re-use the excess energy into the Factory needs.

THANK YOU FOR TRUSTING US
THESE FIRST 55 YEARS TOGETHER HAVE BEEN FANTASTIC!

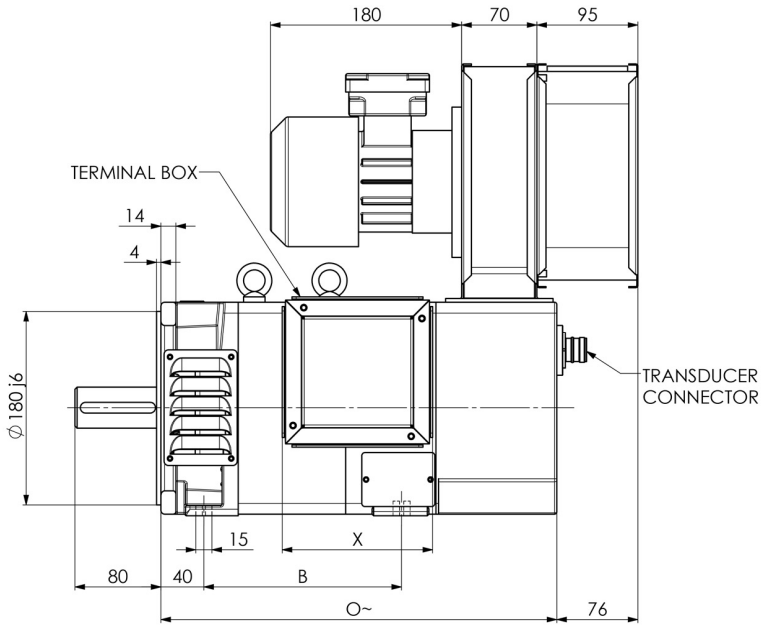
COMER®
Emotion in Motion

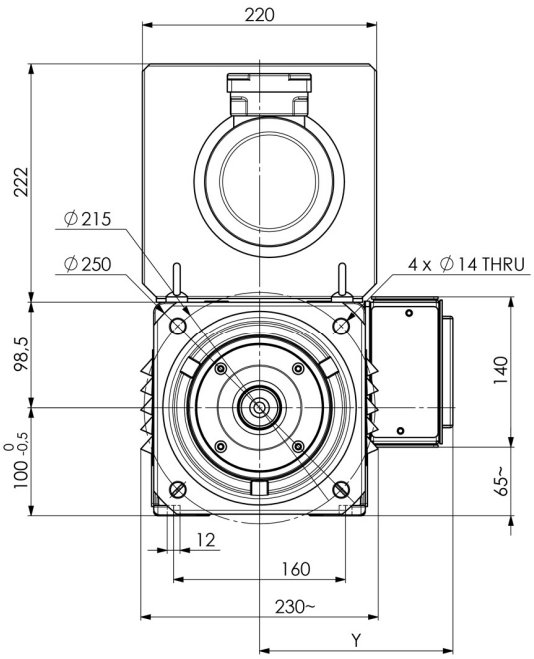
POWERTECH HY6 TETRAVEC 100R
IP23 IPM-PMASR SYNCHRONOUS MOTORS

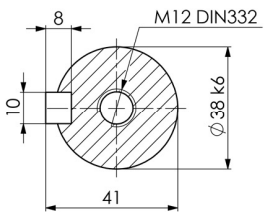
OVERVIEW



IP PROTECTION	IP23
THERMAL PROTECTION TYPE	PT100 (KLIXON, PTC on request)
BALANCING, VIBRATION GRADE (EN 60034-14 / VDE 0530 part 14)	A (B on request)
INSULATION CLASS	F
COOLING METHOD	IC06 (with filter on request)
STANDARD FAN DETAILS	3x230/400Vac 50Hz 0,95/0,55A 184W
Amb. Cond.	0 ÷ 40°C (32 ÷ 104°F) 1000m ASL
TRANSDUCER	ENCODER OR RESOLVER (on request)
MOUNTING FORM	B3, B35, or other on request
BRAKE	up to 95 Nm (on request)
DE BEARING	BALL (ROLLER on request)
NDE BEARING	BALL
MAX MECHANICAL SPEED BEMF MUST BE LESS THAN 500Vac	9000 r.p.m. (4500 r.p.m. roller bearing)
PAINTING SYSTEM	NITRO, POLYURETHANIC on request







unit [mm]

VARIABLE DIMENSIONS BY SIZE				
SIZE	B	O	X	Y
100R.1	184	375	140	180
100R.2	234	425	200	195
100R.3	284	475	200	195
100R.4	334	525	200	195
100R.5	384	575	200	195

POWERTECH HY6 TETRAVEC 100R

IP23 IPM-PMASR SYNCHRONOUS MOTORS

WINDINGS

at 400Vac (PWM>4kHz)

Speed values must be technically compatible with bearings type and applied accessories
A specific electrical protection is needed when maximum speed BEMF>500Vac to avoid high voltage issues due to system failures

HY6 TETRAVEC 100R.1

J=0,0128Kgm^2 Tmax=130Nm

Poles: 2p=6			DUTY S1					DUTY S6/40%			
Voltage	Speed	Freq.	Tn	In	Pn	Eff.	Max speed at Pn	Tol	Iol	Pol	Max speed at Tmax
V	RPM	HZ	Nm	A	kW	%	RPM	Nm	A	kW	RPM
335	1000	50,0	62	13,4	6,5	89,0	2500	81	17,2	8,5	1000
345	1700	85,0	60	21,0	10,7	92,0	3600	78	27,0	13,9	1700
370	2500	125,0	59	27,7	15,5	93,5	4200	77	35,0	20,2	2350

HY6 TETRAVEC 100R.2

J=0,0192Kgm^2 Tmax=190Nm

Poles: 2p=6			DUTY S1					DUTY S6/40%			
Voltage	Speed	Freq.	Tn	In	Pn	Eff.	Max speed at Pn	Tol	Iol	Pol	Max speed at Tmax
V	RPM	HZ	Nm	A	kW	%	RPM	Nm	A	kW	RPM
345	1000	50,0	93	19,5	9,7	90,0	2200	120	25,0	12,6	1000
360	1700	85,0	91	30,0	16,2	93,0	3000	118	38,6	21,1	1700
370	2500	125,0	90	41,5	23,5	94,0	3900	117	53,5	30,6	2400

HY6 TETRAVEC 100R.3

J=0,0264Kgm^2 Tmax=260Nm

Poles: 2p=6			DUTY S1					DUTY S6/40%			
Voltage	Speed	Freq.	Tn	In	Pn	Eff.	Max speed at Pn	Tol	Iol	Pol	Max speed at Tmax
V	RPM	HZ	Nm	A	kW	%	RPM	Nm	A	kW	RPM
330	1000	50,0	124	26,9	13,0	90,5	2650	161	34,4	16,9	1050
340	1700	85,0	121	42,0	21,5	93,5	3600	157	54,0	28,0	1550
345	2500	125,0	118	59,3	30,7	94,0	4300	152	75,7	39,9	2300

HY6 TETRAVEC 100R.4

J=0,0320Kgm^2 Tmax=320Nm

Poles: 2p=6			DUTY S1					DUTY S6/40%			
Voltage	Speed	Freq.	Tn	In	Pn	Eff.	Max speed at Pn	Tol	Iol	Pol	Max speed at Tmax
V	RPM	HZ	Nm	A	kW	%	RPM	Nm	A	kW	RPM
335	1000	50,0	155	33,1	16,2	91,0	2550	201	42,3	21,1	1050
340	1700	85,0	150	52,0	26,7	93,0	3700	195	66,9	34,7	1800
365	2500	125,0	145	67,5	38,0	94,0	4100	189	86,7	49,4	2450

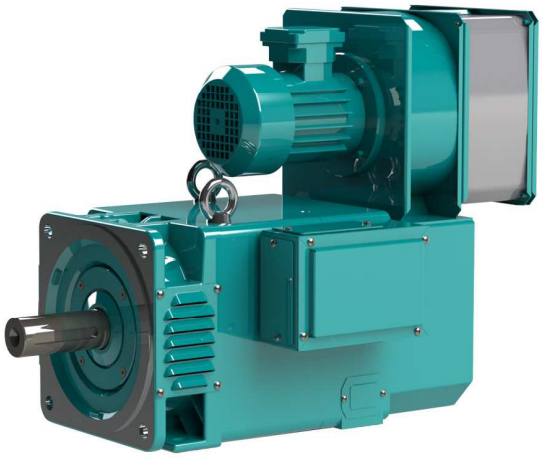
HY6 TETRAVEC 100R.5

J=0,0384Kgm^2 Tmax=390Nm

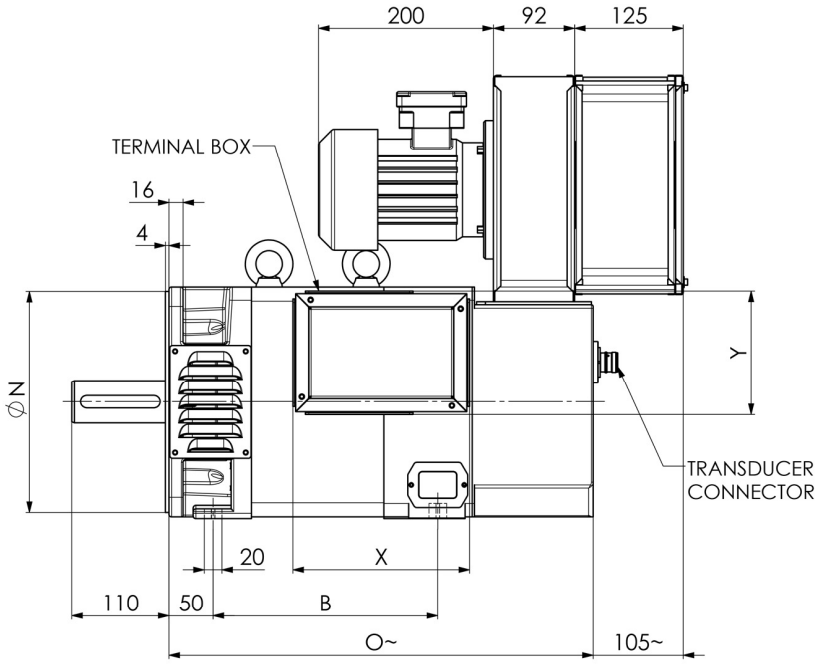
Poles: 2p=6			DUTY S1					DUTY S6/40%			
Voltage	Speed	Freq.	Tn	In	Pn	Eff.	Max speed at Pn	Tol	Iol	Pol	Max speed at Tmax
V	RPM	HZ	Nm	A	kW	%	RPM	Nm	A	kW	RPM
340	1000	50,0	186	39,1	19,5	91,0	2600	242	50,2	25,4	1050
355	1700	85,0	180	59,6	32,0	93,0	3350	234	76,4	41,6	1700
365	2500	125,0	172	80,0	45,0	94,0	3850	223	102,2	58,5	2500

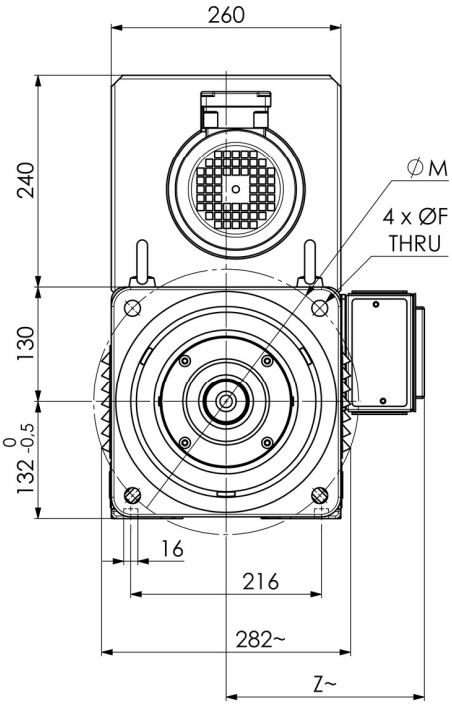
POWERTECH HY8 TETRAVEC 132R
IP23 IPM-PMASR SYNCHRONOUS MOTORS

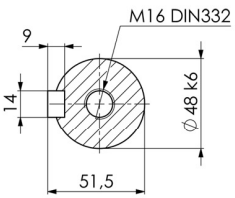
OVERVIEW



IP PROTECTION	IP23
THERMAL PROTECTION TYPE	PT100 (KLIXON, PTC on request)
BALANCING, VIBRATION GRADE (EN 60034-14 / VDE 0530 part 14)	A (B on request)
INSULATION CLASS	F
COOLING METHOD	IC06 (with filter on request)
STANDARD FAN DETAILS	3x230/400Vac 50Hz 1,9/1,1A 370W
Amb. Cond.	0 ÷ 40°C (32 ÷ 104°F) 1000m ASL
TRANSDUCER	ENCODER OR RESOLVER (on request)
MOUNTING FORM	B3, B35, or other on request
BRAKE	up to 300 Nm (on request)
DE BEARING	BALL (ROLLER on request)
NDE BEARING	BALL
MAX MECHANICAL SPEED BEMF MUST BE LESS THAN 500Vac	6500 r.p.m. (4000 r.p.m. roller bearing)
PAINTING SYSTEM	NITRO, POLYURETHANIC on request







unit [mm]

FLANGE DIMENSIONS		
M	N	F
265	230 j6	14
300	250 h6	18

VARIABLE DIMENSIONS BY SIZE					
SIZE	B	O	X	Y	Z
132R.1	254	480	200	140	225
132R.2	304	530	260	190	255
132R.3	354	580	260	190	255
132R.4	404	630	260	190	255
132R.5	454	680	260	190	255

POWERTECH HY8 TETRAVEC 132R

IP23 IPM-PMASR SYNCHRONOUS MOTORS

WINDINGS

at 400Vac (PWM>4kHz)

Speed values must be technically compatible with bearings type and applied accessories
A specific electrical protection is needed when maximum speed BEMF>500Vac to avoid high voltage issues due to system failures

HY8 TETRAVEC 132R.1

J=0,065Kgm^2 Tmax=400Nm

Poles: 2p=8			DUTY S1					DUTY S6/40%			
Voltage	Speed	Freq.	Tn	In	Pn	Eff.	Max speed at Pn	Tol	Iol	Pol	Max speed at Tmax
V	RPM	HZ	Nm	A	kW	%	RPM	Nm	A	kW	RPM
345	1000	66,7	210	43,2	22,0	91,5	2250	273	55,5	28,6	1000
360	1700	113,3	205	67,6	36,5	94,0	3150	267	87,0	47,5	1650
345	2500	166,7	190	94,9	49,8	94,5	4000	247	121	64,7	2500

HY8 TETRAVEC 132R.2

J=0,086Kgm^2 Tmax=530Nm

Poles: 2p=8			DUTY S1					DUTY S6/40%			
Voltage	Speed	Freq.	Tn	In	Pn	Eff.	Max speed at Pn	Tol	Iol	Pol	Max speed at Tmax
V	RPM	HZ	Nm	A	kW	%	RPM	Nm	A	kW	RPM
350	1000	66,7	280	57,7	29,3	92,0	2500	364	74,2	38,1	1000
380	1700	113,3	272	84,5	48,5	94,5	2850	354	108	63,1	1550
365	2500	166,7	250	117	65,5	95,0	3850	325	150	85,2	2400

HY8 TETRAVEC 132R.3

J=0,108Kgm^2 Tmax=660Nm

Poles: 2p=8			DUTY S1					DUTY S6/40%			
Voltage	Speed	Freq.	Tn	In	Pn	Eff.	Max speed at Pn	Tol	Iol	Pol	Max speed at Tmax
V	RPM	HZ	Nm	A	kW	%	RPM	Nm	A	kW	RPM
360	1000	66,7	350	69,0	36,6	92,0	2300	454	89	47,6	950
355	1700	113,3	340	112	60,5	94,5	3350	442	144	78,7	1650
340	2500	166,7	306	153	80,0	95,0	4300	397	195	104	2500

HY8 TETRAVEC 132R.4

J=0,129Kgm^2 Tmax=800Nm

Poles: 2p=8			DUTY S1					DUTY S6/40%			
Voltage	Speed	Freq.	Tn	In	Pn	Eff.	Max speed at Pn	Tol	Iol	Pol	Max speed at Tmax
V	RPM	HZ	Nm	A	kW	%	RPM	Nm	A	kW	RPM
340	1000	66,7	410	84,5	42,9	92,0	2400	533	109	55,8	900
375	1700	113,3	400	124	71,2	94,5	3000	520	158	93	1550
370	2500	166,7	357	163	93,5	95,5	4000	464	208	122	2300

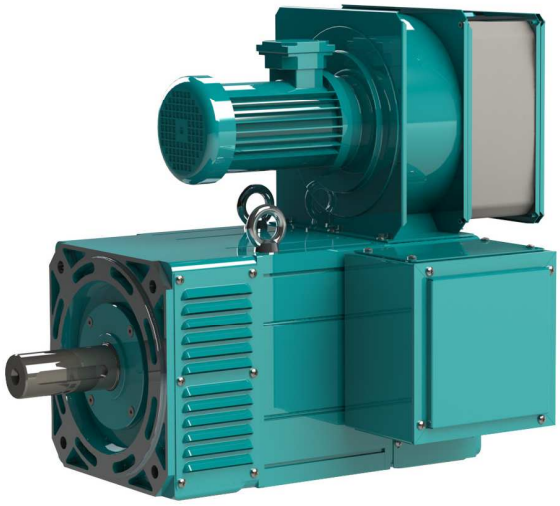
HY8 TETRAVEC 132R.5

J=0,151Kgm^2 Tmax=930Nm

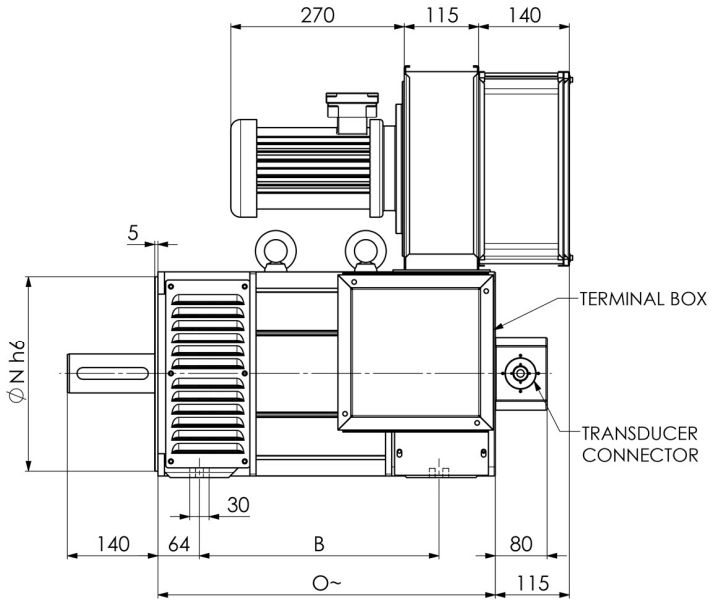
Poles: 2p=8			DUTY S1					DUTY S6/40%			
Voltage	Speed	Freq.	Tn	In	Pn	Eff.	Max speed at Pn	Tol	Iol	Pol	Max speed at Tmax
V	RPM	HZ	Nm	A	kW	%	RPM	Nm	A	kW	RPM
330	1000	66,7	470	99,5	49,2	92,5	2650	611	128	64,0	1000
365	1700	113,3	455	149	81,0	94,5	3650	592	191	105	1650
360	2500	166,7	405	194	106	95,5	4500	526	247	138	2250

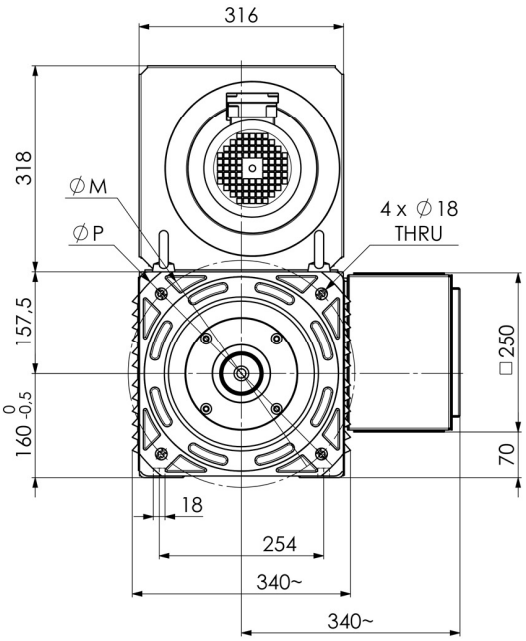
POWERTECH HY8 TETRAVEC 160R
IP23 IPM-PMASR SYNCHRONOUS MOTORS

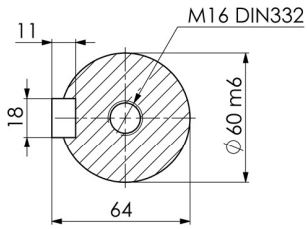
OVERVIEW



IP PROTECTION	IP23
THERMAL PROTECTION TYPE	PT100 (KLIXON, PTC on request)
BALANCING, VIBRATION GRADE (EN 60034-14 / VDE 0530 part 14)	A (B on request)
INSULATION CLASS	F
COOLING METHOD	IC06 (with filter on request)
STANDARD FAN DETAILS	3x230/400Vac 50Hz 3,8/2,2A 1,1kW
Amb. Cond.	0 ÷ 40°C (32 ÷ 104°F) 1000m ASL
TRANSDUCER	ENCODER OR RESOLVER (on request)
MOUNTING FORM	B3, B35, or other on request
BRAKE	up to 400 Nm (on request)
DE BEARING	BALL (ROLLER on request)
NDE BEARING	BALL (insulated on request)
MAX MECHANICAL SPEED BEMF MUST BE LESS THAN 500Vac	5000 r.p.m. (3500 r.p.m. roller bearing)
PAINTING SYSTEM	NITRO, POLYURETHANIC on request







FLANGE DIMENSIONS		
P	M	N
400	300	250
400	350	300

unit [mm]

VARIABLE DIMENSIONS BY SIZE		
SIZE	B	O
160R.1	370	520
160R.2	420	570
160R.3	470	620
160R.4	570	720
160R.5	620	770

POWERTECH HY8 TETRAVEC 160R

IP23 IPM-PMASR SYNCHRONOUS MOTORS

WINDINGS

at 400Vac (PWM>4kHz)

Speed values must be technically compatible with bearings type and applied accessories
A specific electrical protection is needed when maximum speed BEMF>500Vac to avoid high voltage issues due to system failures

HY8 TETRAVEC 160R.1

J=0,16Kgm^2 Tmax=800Nm

Poles: 2p=8			DUTY S1					DUTY S6/40%			
Voltage	Speed	Freq.	Tn	In	Pn	Eff.	Max speed at Pn	Tol	Iol	Pol	Max speed at Tmax
V	RPM	HZ	Nm	A	kW	%	RPM	Nm	A	kW	RPM
350	800	53,3	430	68,0	36,0	92,5	1500	560	89,5	46,8	850
385	1500	100,0	425	112	66,8	95,0	2100	555	145	86,8	1450
370	2200	146,7	400	158	92,0	95,5	3000	520	205	119,6	2150

HY8 TETRAVEC 160R.2

J=0,20Kgm^2 Tmax=1000Nm

Poles: 2p=8			DUTY S1					DUTY S6/40%			
Voltage	Speed	Freq.	Tn	In	Pn	Eff.	Max speed at Pn	Tol	Iol	Pol	Max speed at Tmax
V	RPM	HZ	Nm	A	kW	%	RPM	Nm	A	kW	RPM
350	800	53,3	540	85,0	45,3	93,0	1500	705	112	58,9	800
360	1500	100,0	535	149	84,0	95,0	2300	695	195	109	1500
345	2200	146,7	500	211	115	95,5	3350	650	275	150	2300

HY8 TETRAVEC 160R.3

J=0,25Kgm^2 Tmax=1200Nm

Poles: 2p=8			DUTY S1					DUTY S6/40%			
Voltage	Speed	Freq.	Tn	In	Pn	Eff.	Max speed at Pn	Tol	Iol	Pol	Max speed at Tmax
V	RPM	HZ	Nm	A	kW	%	RPM	Nm	A	kW	RPM
365	800	53,3	640	95,7	53,6	93,0	1450	830	125	69,7	800
380	1500	100,0	625	164	98,2	95,0	2100	815	214	128	1400
380	2200	146,7	575	220	132	96,0	2900	745	285	172	2050

HY8 TETRAVEC 160R.4

J=0,32Kgm^2 Tmax=1600Nm

Poles: 2p=8			DUTY S1					DUTY S6/40%			
Voltage	Speed	Freq.	Tn	In	Pn	Eff.	Max speed at Pn	Tol	Iol	Pol	Max speed at Tmax
V	RPM	HZ	Nm	A	kW	%	RPM	Nm	A	kW	RPM
350	800	53,3	830	130	69,5	93,5	1600	1080	170	90	850
350	1500	100,0	795	227	125	95,0	2500	1035	296	162	1550
365	2200	146,7	710	281	164	96,0	3200	925	365	213	2150

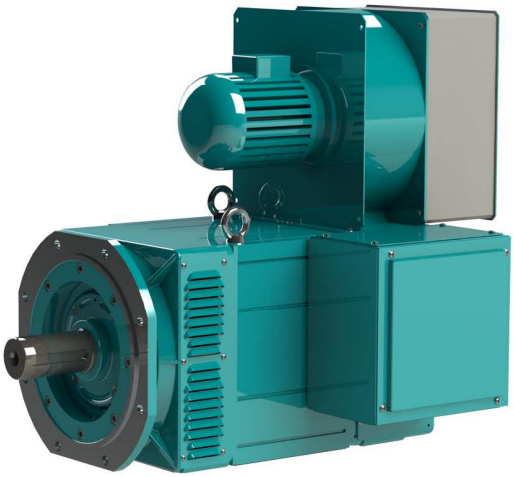
HY8 TETRAVEC 160R.5

J=0,37Kgm^2 Tmax=1800Nm

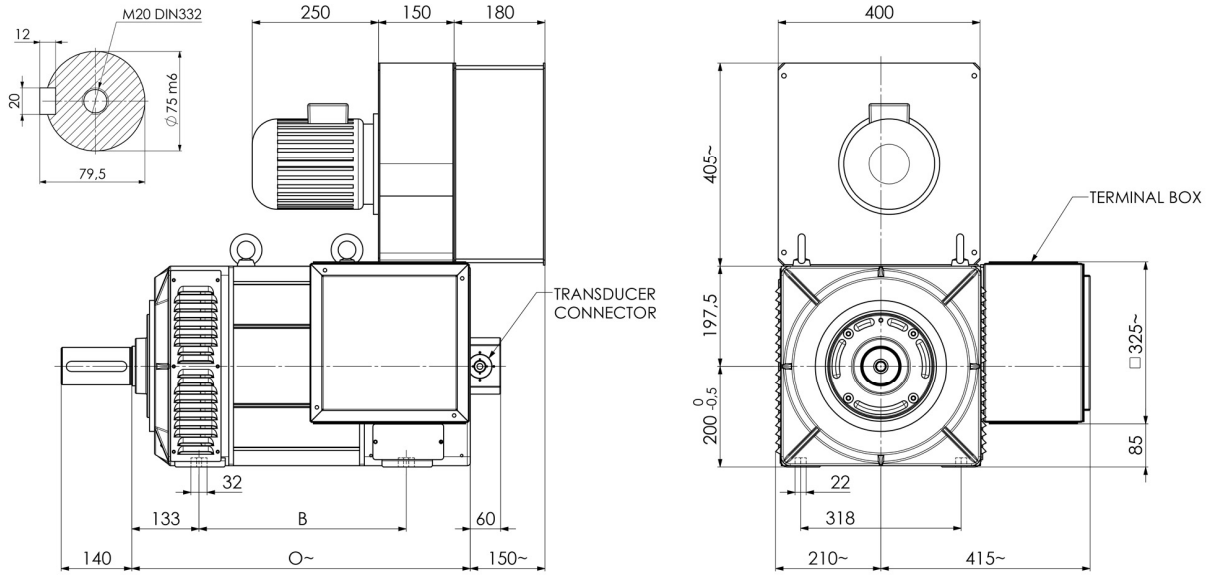
Poles: 2p=8			DUTY S1					DUTY S6/40%			
Voltage	Speed	Freq.	Tn	In	Pn	Eff.	Max speed at Pn	Tol	Iol	Pol	Max speed at Tmax
V	RPM	HZ	Nm	A	kW	%	RPM	Nm	A	kW	RPM
350	800	53,3	935	145	78,3	93,5	1650	1215	189	102	800
355	1500	100,0	890	250	140	95,5	2400	1155	323	182	1500
355	2200	146,7	800	321	184	96,0	3300	1040	416	239	2150

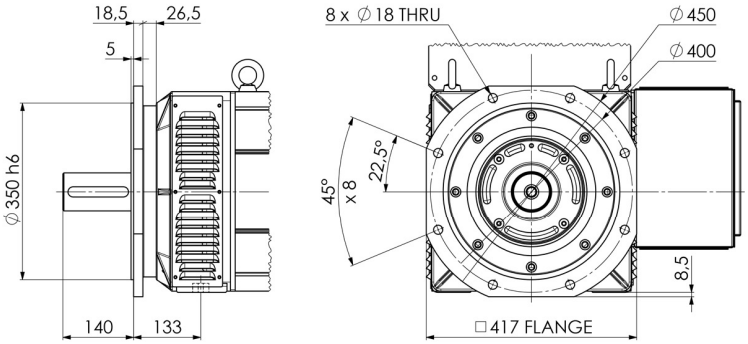
POWERTECH HY6 TETRAVEC 200R
IP23 IPM-PMASR SYNCHRONOUS MOTORS

OVERVIEW



IP PROTECTION	IP23
THERMAL PROTECTION TYPE	PT100 (KLIXON, PTC on request)
BALANCING, VIBRATION GRADE (EN 60034-14 / VDE 0530 part 14)	A (B on request)
INSULATION CLASS	F
COOLING METHOD	IC06 (with filter on request)
STANDARD FAN DETAILS	3x230/400Vac 50Hz 5,3/3,0A 1,5kW
Amb. Cond.	0 + 40°C (32 + 104°F) 1000m ASL
TRANSDUCER	ENCODER OR RESOLVER (on request)
MOUNTING FORM	B3, B35, or other on request
BRAKE	up to 600 Nm (on request)
DE BEARING	BALL (ROLLER on request)
NDE BEARING	BALL (insulated on request)
MAX MECHANICAL SPEED BEMF MUST BE LESS THAN 500Vac	4000 r.p.m. (3200 r.p.m. roller bearing)
PAINTING SYSTEM	NITRO, POLYURETHANIC on request





unit [mm]

VARIABLE DIMENSIONS BY SIZE		
SIZE	B	O
200R.1	410	670
200R.2	460	720
200R.3	510	770
200R.4	560	820
200R.5	660	920

POWERTECH HY6 TETRAVEC 200R
IP23 IPM-PMASR SYNCHRONOUS MOTORS

WINDINGS
at 400Vac (PWM>4kHz)

Speed values must be technically compatible with bearings type and applied accessories
A specific electrical protection is needed when maximum speed BEMF>500Vac to avoid high voltage issues due to system failures

HY6 TETRAVEC 200R.1

J=0,64Kgm^2 Tmax=1700Nm

Poles: 2p=6			DUTY S1					DUTY S6/40%			
Voltage	Speed	Freq.	Tn	In	Pn	Eff.	Max speed at Pn	Tol	Iol	Pol	Max speed at Tmax
V	RPM	HZ	Nm	A	kW	%	RPM	Nm	A	kW	RPM
360	800	40,0	1000	156	83,8	92,5	1900	1300	207	109	800
380	1400	70,0	940	235	138	94,5	2350	1220	304	179	1300
375	2000	100,0	880	314	184	95,0	3000	1145	412	239	1950

HY6 TETRAVEC 200R.2

J=0,77Kgm^2 Tmax=2000Nm

Poles: 2p=6			DUTY S1					DUTY S6/40%			
Voltage	Speed	Freq.	Tn	In	Pn	Eff.	Max speed at Pn	Tol	Iol	Pol	Max speed at Tmax
V	RPM	HZ	Nm	A	kW	%	RPM	Nm	A	kW	RPM
370	800	40,0	1200	179	100	92,5	1800	1560	236	131	850
360	1400	70,0	1120	294	164	94,5	2200	1455	384	213	1400
385	2000	100,0	1050	363	220	95,0	2700	1365	478	286	1850

HY6 TETRAVEC 200R.3

J=0,90Kgm^2 Tmax=2350Nm

Poles: 2p=6			DUTY S1					DUTY S6/40%			
Voltage	Speed	Freq.	Tn	In	Pn	Eff.	Max speed at Pn	Tol	Iol	Pol	Max speed at Tmax
V	RPM	HZ	Nm	A	kW	%	RPM	Nm	A	kW	RPM
375	800	40,0	1400	208	117	93,0	1800	1820	273	152	750
370	1400	70,0	1320	336	193	95,0	2200	1715	443	251	1400
375	2000	100,0	1230	440	258	95,5	3000	1600	576	335	1800

HY6 TETRAVEC 200R.4

J=1,02Kgm^2 Tmax=2700Nm

Poles: 2p=6			DUTY S1					DUTY S6/40%			
Voltage	Speed	Freq.	Tn	In	Pn	Eff.	Max speed at Pn	Tol	Iol	Pol	Max speed at Tmax
V	RPM	HZ	Nm	A	kW	%	RPM	Nm	A	kW	RPM
355	800	40,0	1530	240	128	93,5	1800	1990	312	167	800
365	1400	70,0	1470	383	215	95,0	2400	1910	503	280	1400
390	2000	100,0	1350	455	283	95,5	2750	1755	596	368	1800

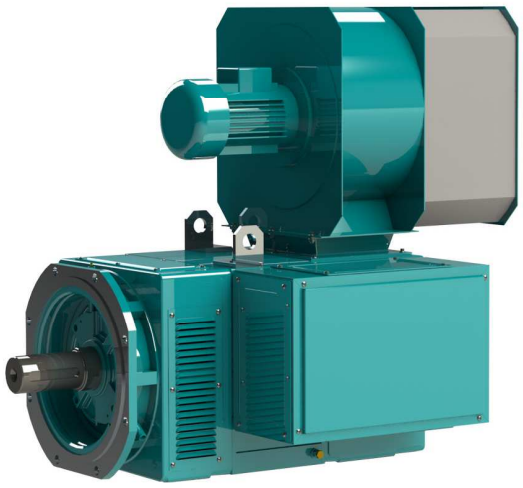
HY6 TETRAVEC 200R.5

J=1,27Kgm^2 Tmax=3400Nm

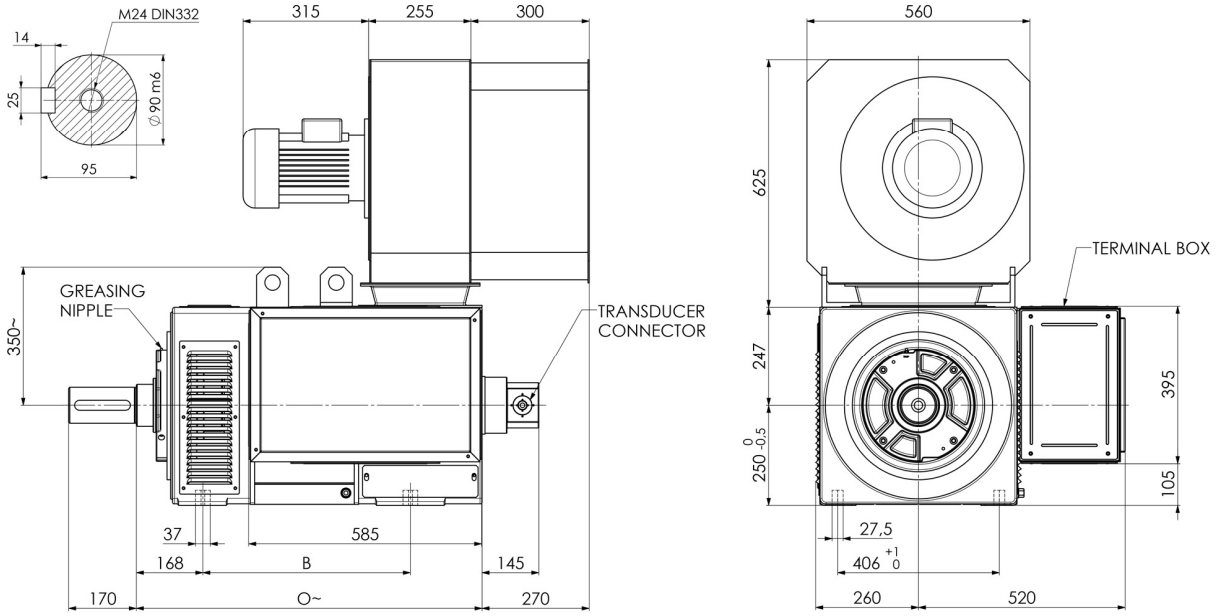
Poles: 2p=6			DUTY S1					DUTY S6/40%			
Voltage	Speed	Freq.	Tn	In	Pn	Eff.	Max speed at Pn	Tol	Iol	Pol	Max speed at Tmax
V	RPM	HZ	Nm	A	kW	%	RPM	Nm	A	kW	RPM
365	600	30,0	1860	211	117	93,0	1450	2420	278	152	600
390	1200	60,0	1815	377	228	95,0	2000	2360	496	296	1100
385	1800	90,0	1645	512	310	95,5	2450	2140	665	403	1750

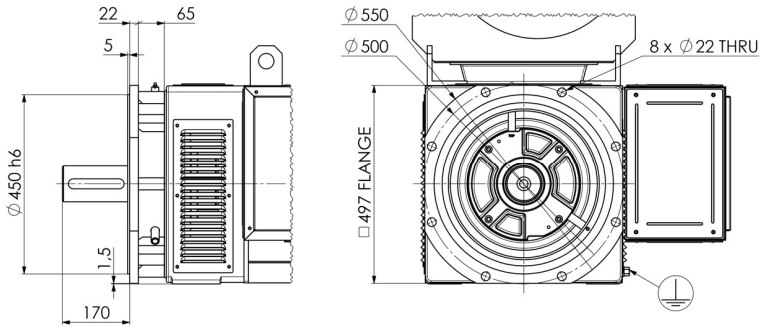
POWERTECH HY8 TETRAVEC 250R
IP23 IPM-PMASR SYNCHRONOUS MOTORS

OVERVIEW



IP PROTECTION	IP23
THERMAL PROTECTION TYPE	PT100 (KLIXON, PTC on request)
BALANCING, VIBRATION GRADE (EN 60034-14 / VDE 0530 part 14)	A (B on request)
INSULATION CLASS	F
COOLING METHOD	IC06 (with filter on request)
STANDARD FAN DETAILS	3x230/400Vac 50Hz 11,2/6,4A 3,0kW
Amb. Cond.	0 ÷ 40°C (32 ÷ 104°F) 1000m ASL
TRANSDUCER	ENCODER OR RESOLVER (on request)
MOUNTING FORM	B3, B35, or other on request
BRAKE	up to 2400 Nm (on request)
DE BEARING	BALL (ROLLER on request)
NDE BEARING	BALL (insulated on request)
MAX MECHANICAL SPEED BEMF MUST BE LESS THAN 500Vac	3500 r.p.m. (3000 r.p.m. roller bearing)
PAINTING SYSTEM	NITRO, POLYURETHANIC on request





unit [mm]

VARIABLE DIMENSIONS BY SIZE		
SIZE	B	O
250R.1	521	870
250R.2	571	920
250R.3	671	1020
250R.4	771	1120
250R.5	871	1220
250R.6	971	1320

POWERTECH HY8 TETRAVEC 250R

IP23 IPM-PMASR SYNCHRONOUS MOTORS

WINDINGS

at 400Vac (PWM>4kHz)

Speed values must be technically compatible with bearings type and applied accessories
A specific electrical protection is needed when maximum speed BEMF>500Vac to avoid high voltage issues due to system failures

HY8 TETRAVEC 250R.1

J=1,71Kgm^2 Tmax=3300Nm

Poles: 2p=8			DUTY S1					DUTY S6/40%			
Voltage	Speed	Freq.	Tn	In	Pn	Eff.	Max speed at Pn	Tol	Iol	Pol	Max speed at Tmax
V	RPM	HZ	Nm	A	kW	%	RPM	Nm	A	kW	RPM
360	600	40,0	1780	210	112	94,0	1800	2315	272	145	600
370	1200	80,0	1710	378	215	95,5	2400	2225	490	279	1100
350	1800	120,0	1645	582	310	96,0	2700	2140	754	403	1800

HY8 TETRAVEC 250R.2

J=2,05Kgm^2 Tmax=4000Nm

Poles: 2p=8			DUTY S1					DUTY S6/40%			
Voltage	Speed	Freq.	Tn	In	Pn	Eff.	Max speed at Pn	Tol	Iol	Pol	Max speed at Tmax
V	RPM	HZ	Nm	A	kW	%	RPM	Nm	A	kW	RPM
375	600	40,0	2140	242	134	94,5	1500	2780	313	175	550
385	1200	80,0	2050	432	258	95,5	2200	2665	558	335	1050
380	1800	120,0	1960	628	370	96,0	2550	2550	469	480	1500

HY8 TETRAVEC 250R.3

J=2,73Kgm^2 Tmax=5200Nm

Poles: 2p=8			DUTY S1					DUTY S6/40%			
Voltage	Speed	Freq.	Tn	In	Pn	Eff.	Max speed at Pn	Tol	Iol	Pol	Max speed at Tmax
V	RPM	HZ	Nm	A	kW	%	RPM	Nm	A	kW	RPM
380	600	40,0	2800	308	176	94,5	1500	3640	400	229	550
370	1200	80,0	2710	598	340	96,0	2200	3525	774	443	1150
375	1800	120,0	2550	816	480	96,5	2700	3315	1050	625	1650

HY8 TETRAVEC 250R.4

J=3,41Kgm^2 Tmax=6600Nm

Poles: 2p=8			DUTY S1					DUTY S6/40%			
Voltage	Speed	Freq.	Tn	In	Pn	Eff.	Max speed at Pn	Tol	Iol	Pol	Max speed at Tmax
V	RPM	HZ	Nm	A	kW	%	RPM	Nm	A	kW	RPM
375	600	40,0	3420	376	215	94,5	1450	4445	488	279	550
370	1200	80,0	3340	738	420	96,0	2300	4345	956	546	1150
390	1800	120,0	3185	978	600	96,5	2500	4140	1260	780	1550

HY8 TETRAVEC 250R.5

J=4,1Kgm^2 Tmax=8000Nm

Poles: 2p=8			DUTY S1					DUTY S6/40%			
Voltage	Speed	Freq.	Tn	In	Pn	Eff.	Max speed at Pn	Tol	Iol	Pol	Max speed at Tmax
V	RPM	HZ	Nm	A	kW	%	RPM	Nm	A	kW	RPM
390	600	40,0	4060	426	255	95,0	1300	5280	552	332	500
375	1200	80,0	3980	846	500	96,0	2200	5175	1105	650	1050
360	1800	120,0	3820	1225	720	96,5	2600	4965	1575	936	1600

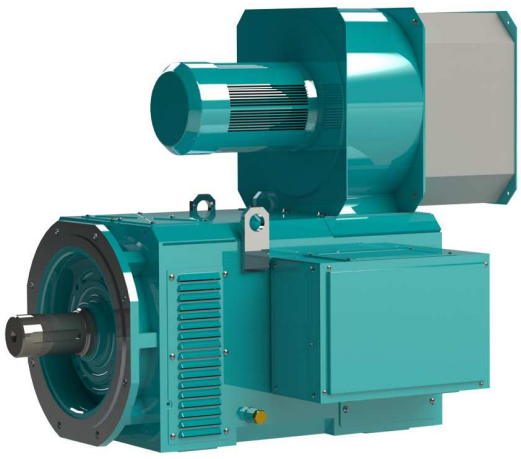
HY8 TETRAVEC 250R.6

J=4,78Kgm^2 Tmax=9000Nm

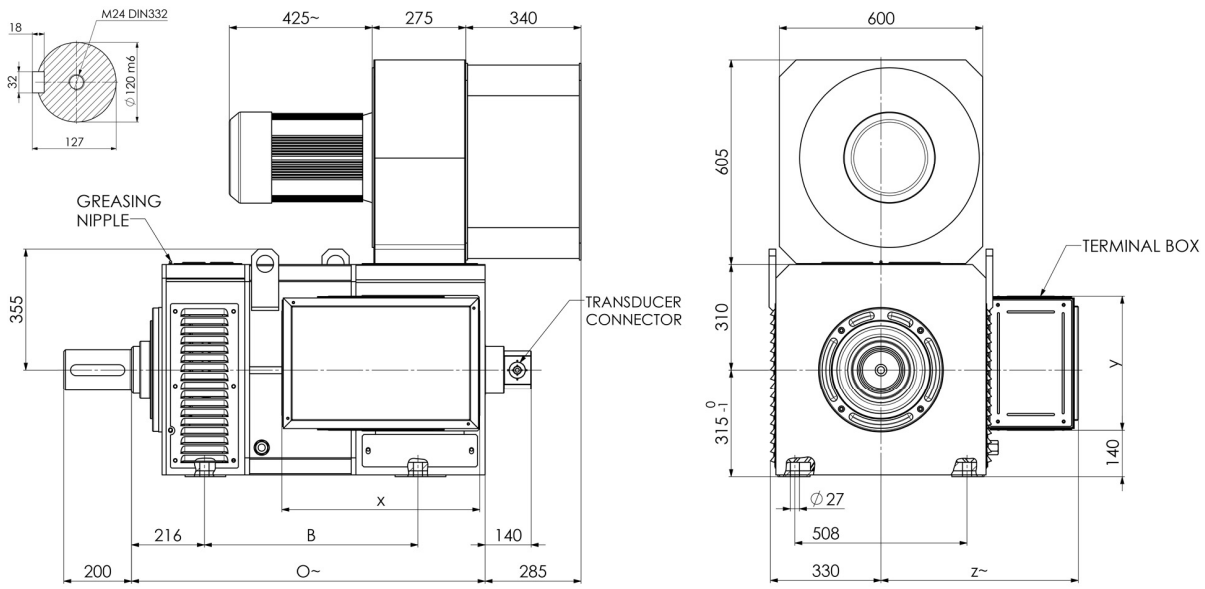
Poles: 2p=8			DUTY S1					DUTY S6/40%			
Voltage	Speed	Freq.	Tn	In	Pn	Eff.	Max speed at Pn	Tol	Iol	Pol	Max speed at Tmax
V	RPM	HZ	Nm	A	kW	%	RPM	Nm	A	kW	RPM
390	600	40,0	4770	500	300	95,0	1350	6200	648	390	500
380	1200	80,0	4670	984	587	96,0	1900	6070	1285	763	1100
370	1800	120,0	4460	1425	840	96,5	2600	5795	1825	1093	1600

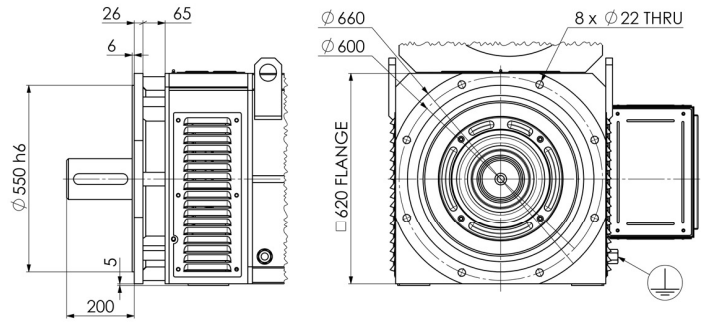
POWERTECH HY8 TETRAVEC 315R
IP23 IPM-PMASR SYNCHRONOUS MOTORS

OVERVIEW



IP PROTECTION	IP23
THERMAL PROTECTION TYPE	PT100 (KLIXON, PTC on request)
BALANCING, VIBRATION GRADE (EN 60034-14 / VDE 0530 part 14)	A (B on request)
INSULATION CLASS	F
COOLING METHOD	IC06 (with filter on request)
STANDARD FAN DETAILS	3x230/400Vac 50Hz 19,6/11,3A 5,5kW
Amb. Cond.	0 ÷ 40°C (32 ÷ 104°F) 1000m ASL
TRANSDUCER	ENCODER OR RESOLVER (on request)
MOUNTING FORM	B3, B35, or other on request
BRAKE	up to 2500 Nm (on request)
DE BEARING	BALL (ROLLER on request)
NDE BEARING	BALL (INSULATED)
MAX MECHANICAL SPEED BEMF MUST BE LESS THAN 500Vac	3200 r.p.m. (2400 r.p.m. roller bearing)
PAINTING SYSTEM	NITRO, POLYURETHANIC on request





TERMINAL BOX DIMENSIONS			
MOTOR CURRENT	x	y	z
TILL 1500 A	585	395	585
OVER 1500 A	645	534	585

unit [mm]

VARIABLE DIMENSIONS BY SIZE		
SIZE	B	O
315R.1	630	1050
315R.2	730	1150
315R.3	830	1250
315R.4	930	1350
315R.5	1030	1450
315R.6	1130	1550

POWERTECH HY8 TETRAVEC 315R

IP23 IPM-PMASR SYNCHRONOUS MOTORS

WINDINGS

at 400Vac (PWM>4kHz)

Speed values must be technically compatible with bearings type and applied accessories
A specific electrical protection is needed when maximum speed BEMF>500Vac to avoid high voltage issues due to system failures

HY8 TETRAVEC 315R.1

J=4,83Kgm^2 Tmax=7000Nm

Poles: 2p=8			DUTY S1					DUTY S6/40%			
Voltage	Speed	Freq.	Tn	In	Pn	Eff.	Max speed at Pn	Tol	Iol	Pol	Max speed at Tmax
V	RPM	HZ	Nm	A	kW	%	RPM	Nm	A	kW	RPM
350	600	40,0	3820	470	240	95,0	2050	4965	618	312	600
345	1200	80,0	3700	910	465	96,0	2400	4810	1195	604	1200
350	1800	120,0	3450	1225	650	96,0	2550	4485	925	845	1700

HY8 TETRAVEC 315R.2

J=6,44Kgm^2 Tmax=9300Nm

Poles: 2p=8			DUTY S1					DUTY S6/40%			
Voltage	Speed	Freq.	Tn	In	Pn	Eff.	Max speed at Pn	Tol	Iol	Pol	Max speed at Tmax
V	RPM	HZ	Nm	A	kW	%	RPM	Nm	A	kW	RPM
370	600	40,0	5020	576	315	95,5	1900	6525	760	410	550
365	1200	80,0	4780	1100	600	96,0	2300	6215	1440	781	1150
385	1800	120,0	4430	1410	835	96,5	2300	5760	1840	1085	1550

HY8 TETRAVEC 315R.3

J=8,1Kgm^2 Tmax=11500Nm

Poles: 2p=8			DUTY S1					DUTY S6/40%			
Voltage	Speed	Freq.	Tn	In	Pn	Eff.	Max speed at Pn	Tol	Iol	Pol	Max speed at Tmax
V	RPM	HZ	Nm	A	kW	%	RPM	Nm	A	kW	RPM
350	600	40,0	6290	770	395	95,5	2000	8175	1015	514	500
340	1200	80,0	5970	1460	750	96,0	2350	7760	1920	975	1050
385	1800	120,0	5520	1760	1040	96,5	2400	7175	2300	1352	1600

HY8 TETRAVEC 315R.4

J=9,65Kgm^2 Tmax=14000Nm

Poles: 2p=8			DUTY S1					DUTY S6/40%			
Voltage	Speed	Freq.	Tn	In	Pn	Eff.	Max speed at Pn	Tol	Iol	Pol	Max speed at Tmax
V	RPM	HZ	Nm	A	kW	%	RPM	Nm	A	kW	RPM
345	600	40,0	7560	926	475	95,5	2000	9830	1220	617	600
395	1200	80,0	7200	1525	905	96,5	2000	9360	2005	1176	1050
350	1800	120,0	6580	2325	1240	96,0	2500	8555	3040	1612	1750

HY8 TETRAVEC 315R.5

J=10,3Kgm^2 Tmax=16300Nm

Poles: 2p=8			DUTY S1					DUTY S6/40%			
Voltage	Speed	Freq.	Tn	In	Pn	Eff.	Max speed at Pn	Tol	Iol	Pol	Max speed at Tmax
V	RPM	HZ	Nm	A	kW	%	RPM	Nm	A	kW	RPM
375	600	40,0	8600	980	540	95,5	1600	11180	1280	702	550
370	1200	80,0	8200	1860	1030	96,5	2150	10660	2445	1339	1100
385	1800	120,0	7560	2285	1425	96,5	2250	9830	3000	1852	1500

HY8 TETRAVEC 315R.6

J=11,7Kgm^2 Tmax=18600Nm

Poles: 2p=8			DUTY S1					DUTY S6/40%			
Voltage	Speed	Freq.	Tn	In	Pn	Eff.	Max speed at Pn	Tol	Iol	Pol	Max speed at Tmax
V	RPM	HZ	Nm	A	kW	%	RPM	Nm	A	kW	RPM
365	600	40,0	9710	1115	610	95,5	1600	12625	1465	793	550
360	1200	80,0	9310	2140	1170	96,5	2000	12105	2825	1521	1150
390	1500	100,0	8910	2365	1400	96,5	2100	11585	3100	1819	1400

NOTES

COMER®
Emotion in Motion

NOTES

COMER®
Emotion in Motion

NOTES

COMER®
Emotion in Motion

NOTICE

Data, technical features, drawings, images are only as estimates and can be modified at any time and without previous notice. COMER declines any responsibility for direct and indirect damage that can be caused by possible mistakes in this catalogue. COMER reserves the right to modify at any time and without previous notice the data, drawings, electric and/or mechanic details, dimensions and images. All information in this catalogue are COMER's property, therefore their reproduction (total and partial), copying and disclosure are prohibited, unless expressly authorized.

AVVISO

Dati, prestazioni, disegni e immagini sono indicativi e possono essere modificati in qualsiasi momento senza preavviso. COMER declina ogni responsabilità per danni diretti o indiretti causati da eventuali errori nel presente catalogo. COMER si riserva il diritto di modificare in qualsiasi momento e senza preavviso i dati, i disegni, caratteristiche elettriche e/o meccaniche, le dimensioni e le immagini. Tutte le informazioni contenute in questo catalogo sono di proprietà COMER, sono vietate riproduzione (totale e parziale), copia e divulgazione se non espressamente autorizzate.

COMER s.r.l.
Headquarter, Factory and Sales Department
Italy - 27029 Vigevano (PV)
Via Oroboni, 26/28
Ph. (+39) 0381 42661 Fax (+39) 0381 42662
info@comergroup.it
www.comergroup.it
www.facebook.com/ComerSrl
www.linkedin.com/company/comer-s.r.l./

COMER®
Emotion in Motion

September 2022

September 2022