

ISO 2858

CANNED MOTOR PUMPS

- Compliant to ISO 2858 Standards
- Market Leading Efficiency
- Low $NPSH_R$
- Efficient Low Flow, High Head Performance

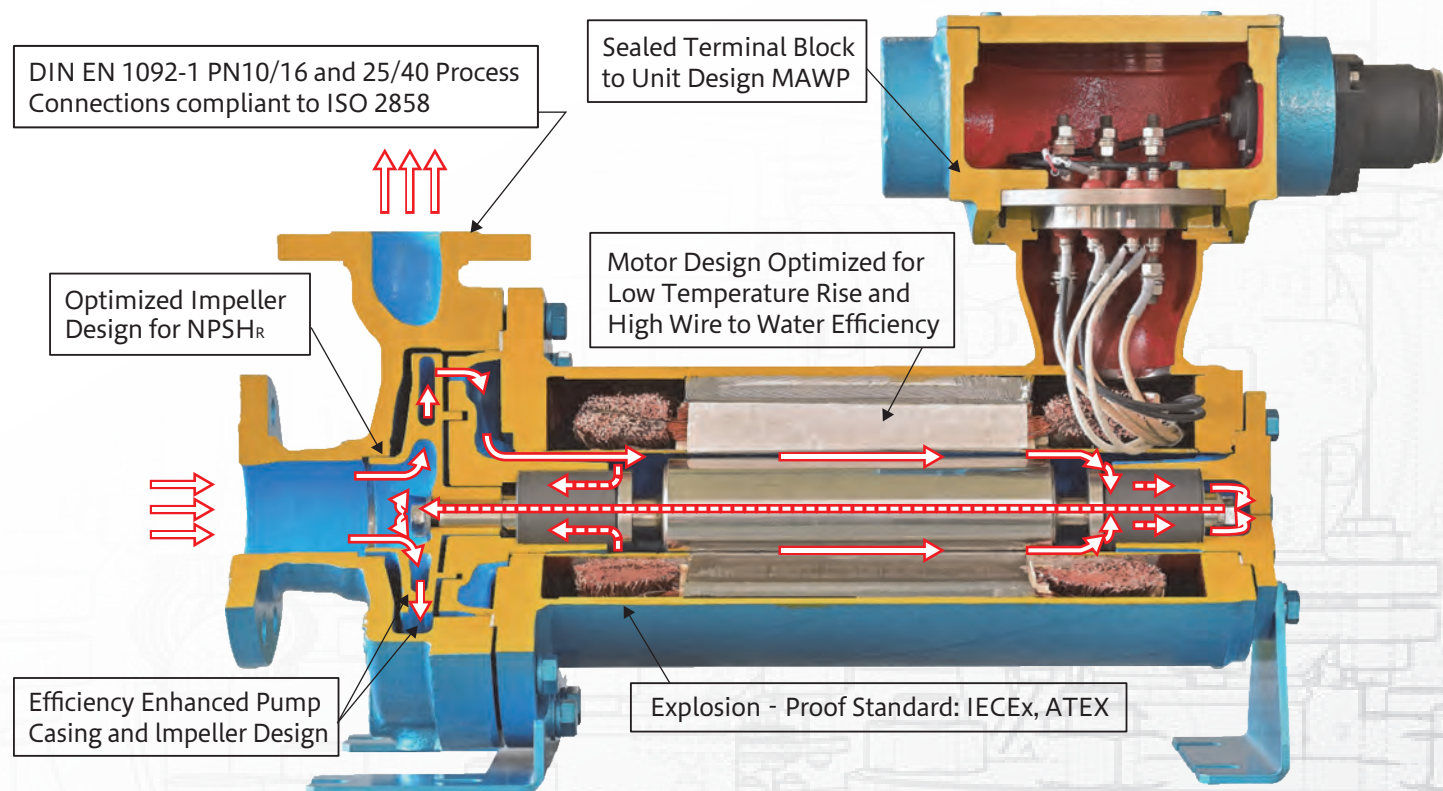


SAFE, EFFICIENT, COMPLIANT
AND STANDARD BY DESIGN.

RAISING THE STANDARD
FOR PROCESS PUMPS

FEATURES

TEIKOKU ISO 2858 PUMPS RANGE	
Temperature	-100 to 350°C
Viscosity	100cp
Design Pressure	2MPa
Motor Output (Max)	110kW
Wetted Materials	304SS, 316SS (others by request)



MOTOR CHARACTERISTICS		
Frequency	50Hz	
Voltage	3PH, 190~690VAC	
Power Inlet	M, NPT threaded	
Enclosure	Totally Enclosed Liquid Cooled (TELC)	
Insulation Classes	Thermal Class 220, 300 & 400 available	
Safety	CE Mark	
Explosion Proof	IECEx, ATEX (II B & II C)	
Materials	Stator Liner	304LSS, 316LSS, Alloy C
	Rotor Liner	304LSS, 316LSS, Alloy C
	Sleeve Bearings	Carbon Graphite Standard
		Silicon Carbide Coating Optional
	Shaft Sleeve Journals	Stellite Coating
		Tungsten Carbide Coating Optional
	Axial Thrust Collars	Stellite Coating
		Tungsten Carbide Coating Optional

※Combinations of ISO2858 with 60Hz are possible, please feel free to contact us.

DESIGNED FOR ZERO-LEAKAGE

TEIKOKU, the world's largest supplier of canned motor pumps, offers ISO 2858 compliant sealless pumps to drive market demands for standardization and long term sustainability in operations.

No newcomer to the field, TEIKOKU has provided customers with proven Canned Motor Pump solutions for more than 50 years. Over 700,000 units have been installed worldwide, covering every possible application.

TEIKOKU is unique in that it designs and manufactures both pumps and motors, thus ensuring users total quality control and matched hydraulic/driver performance.

The TEIKOKU Canned Motor Pump replaces conventional sealed pumps, providing safer, more economical operation through reduced long-term cost of ownership. This is especially advantageous when pumping hazardous, volatile, toxic, and hard to handle liquids.

TEIKOKU provides expertise in selecting a sealless solution best suited to a user's specific needs. TEIKOKU's experience encompasses horizontal standard pumps, vertical designs with either pump up or motor up configurations, pumps and motors jacketed for cooling or heating, self-priming volutes, submersible units, slurry designs, non-cooled, high temperature insulated motor pumps and more.

[illegible]

 Motor jacket available (Optional)

Motor jacket not available



Pump Size designation	Motor	Pump	a	h1	h2	m1	m2	n1	n2	n3	s1	s2	L	Wt (kg)
50 – 32 – 160	215/216/217 316/317	0305SC1	80	132	160	100	70	240	190	110	M12	M12	374 527	90 135
50 – 32 – 200	215/216/217 316/317 416/417	0305TC1	80	160	180	100	70	240	190	110	M12	M12	408 487 559	100 140 195
50 – 32 – 250	316/317 416/417 516 518	0305UC1	100	180	225	125	95	320	250	110	M12	M12	490 562 584 664	160 215 305 305
65 – 40 – 160	215/216/217 316/317	0406SC1	80	132	160	100	70	240	190	110	M12	M12	379 532	95 140
65 – 40 – 200	316/317 416/417 516 518	0406TC1	100	160	180	100	70	265	212	110	M12	M12	492 564 644 724	150 205 305 305
65 – 40 – 250	416/417 516 518 616 617	0406UC1	100	180	225	125	95	320	250	110	M12	M12	564 586 666 789 849	225 315 315 445 445
80 – 50 – 160	316/317	0508SC1	100	160	180	100	70	265	212	110	M12	M12	540	145
80 – 50 – 200	416/417 516 518	0508TC1	100	160	200	100	70	265	212	110	M12	M12	572 652 732	215 315 315
80 – 50 – 250	416/417 516 518 616 617	0508UC1	125	180	225	125	95	320	250	110	M12	M12	572 594 674 797 857	235 325 325 455 455
80 – 50 – 315	516 518 616 617	0508VC1	125	225	280	125	95	345	280	110	M12	M12	588 668 734 794	345 345 465 465
100 – 65 – 160	316/317 416/417 516 518	0610SC1	100	160	200	125	95	280	212	110	M12	M12	547 618 659 739	155 215 305 305
100 – 65 – 200	416/417 516 518 616 617	0610TC1	100	180	225	125	95	320	250	110	M12	M12	579 659 739 804 864	215 315 315 435 435
100 – 65 – 250	516 518 616 617 716 717	0610UC1	125	200	250	160	120	360	280	110	M16	M12	601 681 804 864 950 1060	325 325 455 455 645 645
100 – 65 – 315	616 617 716 717	0610VC1	125	225	280	160	120	400	315	110	M16	M12	747 807 889 999	465 465 655 655
125 – 80 – 200	516 518 616 617	0812TC1	125	180	250	125	95	345	280	110	M12	M12	670 750 815 875	325 325 455 455
125 – 80 – 250	616 617 716 717	0812UC1	125	225	280	160	120	400	315	110	M16	M12	815 875 961 1071	475 475 665 665
125 – 80 – 315	616 617 716 717	0812VC1	125	250	315	160	120	400	315	110	M16	M12	758 818 900 1010	475 475 665 665
125 – 100 – 200	516 518 616 617 716 717	1012TC1	125	200	280	160	120	360	280	110	M16	M12	670 750 815 875 961 1071	325 325 455 455 645 645
125 – 100 – 250	616 617 716 717	1012UC1	140	225	280	160	120	400	315	110	M16	M12	815 875 961 1071	475 475 665 665
125 – 100 – 315	616 617 716 717	1012VC1	140	250	315	160	120	400	315	110	M16	M12	758 818 900 1010	475 475 665 665

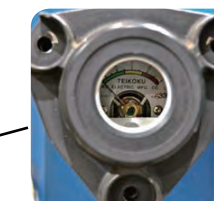
Pump Size designation	Motor	Pump	a	h1	h2	m1	m2	n1	n2	n3	s1	s2	L	Wt (kg)
50 – 32 – 160	4215/4241 4245 4341 4345	0305SC1	80	132	160	100	70	240	190	110	M12	M12	408 504 538 640	95 95 140 140
50 – 32 – 200	4215/4241 4245 4341 4345	0305TC1	80	160	180	100	70	240	190	110	M12	M12	408 504 487 590	105 105 145 145
50 – 32 – 250	4341 4345 4418 4515	0305UC1	100	180	225	125	95	320	250	110	M12	M12	490 593 612 644	165 165 225 305
65 – 40 – 160	4215/4241 4245 4341 4345	0406SC1	80	132	160	100	70	240	190	110	M12	M12	413 509 543 645	100 100 145 145
65 – 40 – 200	4341 4345 4418 4515	0406TC1	100	160	180	100	70	265	212	110	M12	M12	492 595 614 704	155 155 215 305
65 – 40 – 250	4345 4418 4515 4615	0406UC1	100	180	225	125	95	320	250	110	M12	M12	595 614 646 859	165 235 315 455
80 – 50 – 160	4245 4341 4345	0508SC1	100	160	180	100	70	265	212	110	M12	M12	517 551 653	105 150 150
80 – 50 – 200	4418 4515	0508TC1	100	160	200	100	70	265	212	110	M12	M12	622 712	225 315
80 – 50 – 250	4345 4418 4515 4615	0508UC1	125	180	225	125	95	320	250	110	M12	M12	603 622 654 867	165 245 325 465
80 – 50 – 315	4515 4615	0508VC1	125	225	280	125	95	345	280	110	M12	M12	648 804	345 475
100 – 65 – 160	4341 4345 4418 4515	0610SC1	100	160	200	125	95	280	212	110	M12	M12	558 660 658 719	160 160 225 305
100 – 65 – 200	4418 4515 4615	0610TC1	100	180	225	125	95	320	250	110	M12	M12	629 719 874	225 315 445
100 – 65 – 250	4418 4515 4615 4711 4715 4717	0610UC1	125	200	250	160	120	360	280	110	M16	M12	629 661 874 870 990 1060	245 325 465 635 635 635
100 – 65 – 315	4515 4615 4711 4715 4717	0610VC1	125	225	280	160	120	400	315	110	M16	M12	661 817 809 929 999	345 475 645 645 645
125 – 80 – 200	4418 4515 4615	0812TC1	125	180	250	125	95	345	280	110	M12	M12	640 730 885	225 325 465
125 – 80 – 250	4615 4711 4715 4717	0812UC1	125	225	280	160	120	400	315	110	M16	M12	885 881 1001 1071	485 655 655 655
125 – 80 – 315	4615 4711 4715 4717	0812VC1	125	250	315	160	120	400	315	110	M16	M12	828 820 940 1010	485 655 655 655
125 – 100 – 200	4418 4515 4615 4711 4715 4717	1012TC1	125	200	280	160	120	360	280	110	M16	M12	640 730 885 881 1001 1071	225 325 465 635 635 635
125 – 100 – 250	4615 4711 4715 4717	1012UC1	140	225	280	160	120	400	315	110	M16	M12	885 881 1001 1071	485 655 655 655
125 – 100 – 315	4615 4711 4715 4717	1012VC1	140	250	315	160	120	400	315	110	M16	M12	828 820 940 1010	485 655 655 655



TEIKOKU ROTARY GUARDIAN – TRG

The industry standard for sealless pump monitoring and reliability for over 40 years

1. Monitor current conditions
2. Develop data-based preventive maintenance schedules



On-Board Terminal Box Mount

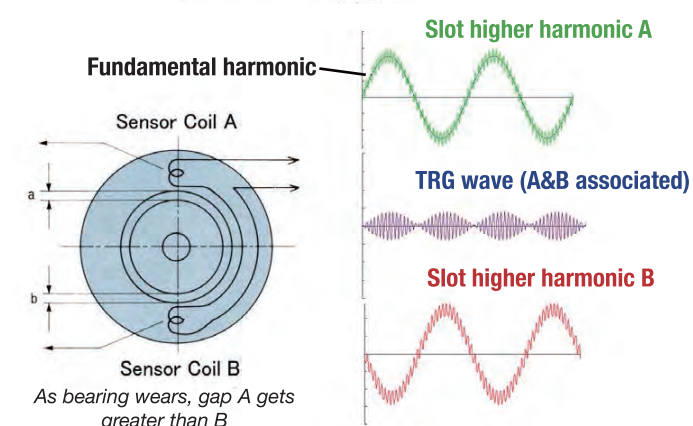
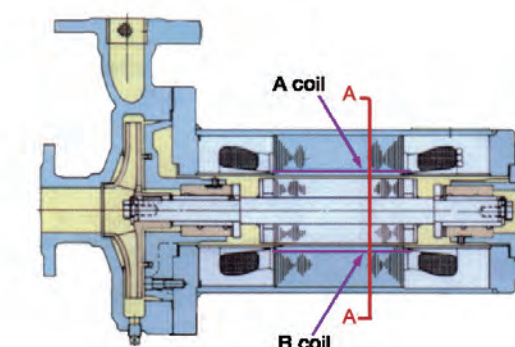
3. Monitors and indicates rate of radial bearing wear
4. Detects lost phase
5. Shows reverse rotation(Optional)



*US Patent No. 4211973 & 4334189

Principle of Operation

1. The TRG meter operates on the principle of induced voltage. A magnetic field is created in the TRG coils by the current flowing through the stator winding. In addition, a magnetic field is created by induced currents in the rotor.
2. When the rotor is perfectly centered in the stator, the two magnetic fields are essentially concentric or balanced.
3. When bearing wear occurs and the gap "B" between the rotor and stator decreases, a magnetic flux created by the imbalance in the magnetic fields causes an induced voltage in the TRG coils.
4. This voltage is indicated on the TRG voltmeter. The meter is mounted on the pump terminal box as standard but is available as remote panel-mount.



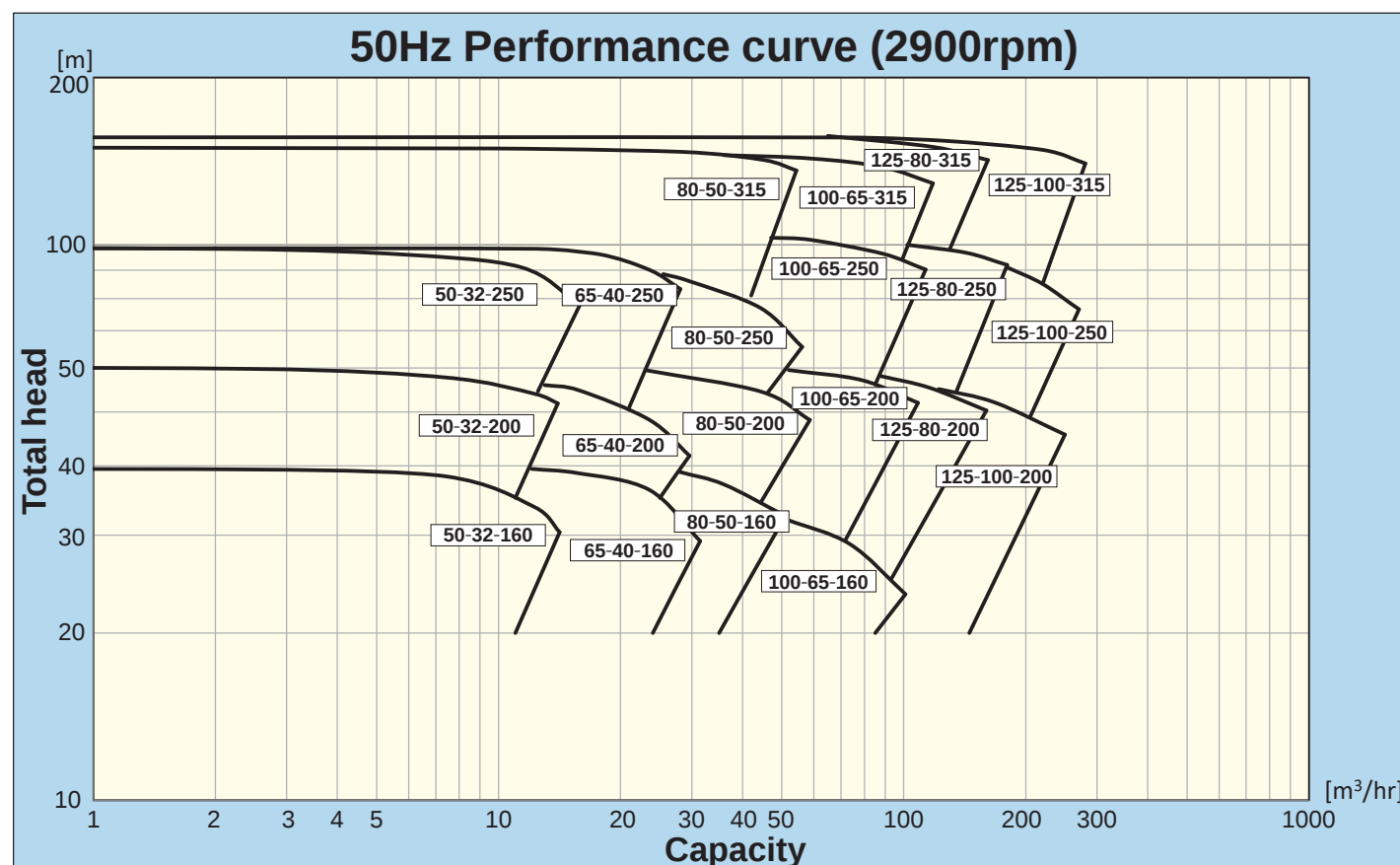
TRG with Phase Sequence Sensor in Operation

TRG initial indication varies from pump to pump. Users can record the initial value to establish a baseline. This determines a point from which to monitor the wear rate of the bearings and establishes preventative maintenance schedules.

TRG Indication Zone	Diagnosis	User Action
Green	Good	No Action
Yellow > 0.3v over baseline	Bearings Worn Caution Level	Plan Routine Maintenance
Red > 0.5v over baseline	Maintenance Required	Immediate Shutdown Replace Worn Parts

Optional TRG Converter

Converts signal into either analog 4-20mA or 1-5 VDC for various I&E control



DIMENSIONS

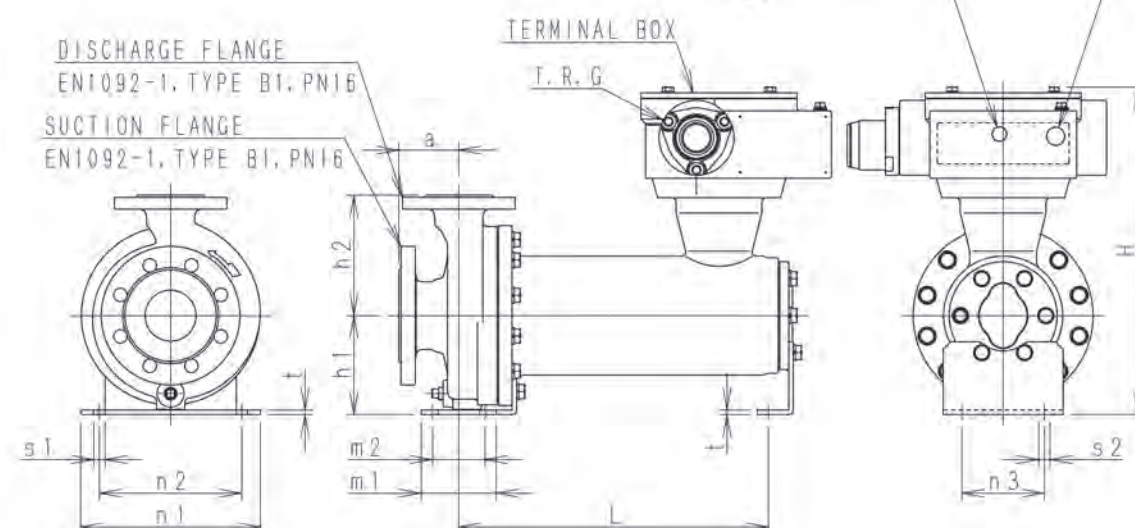
Pump size designation
example: 65-40-160

Impeller(nominal size)
Outlet(DISCHARGE FLANGE)
Inlet(SUCTION FLANGE)

SOURCE SIDE
TERMINAL BOX SIZE S:M25
M:M40
L:M50
PROTECTION SIDE
M20

TERMINAL BOX
T.R.G.

DISCHARGE FLANGE
EN1092-1, TYPE B1, PN16
SUCTION FLANGE
EN1092-1, TYPE B1, PN16





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