

ORDER GUIDE AND TECHNICAL DETAILS

Model	Code	Typical cylinder application	Cylinder application	Application time in sec.	Displacement	Setting pressure	Max power consumption	Therm protection	Motor nominal power	Tank capacity	Weight*
CO1NU 12V CO1N 12V CO1NU 24V CO1N 24V	IT21313 IT12517 IT21314 IT12518	70 - 100 cc 4.27 - 6.1 cu.in	/	depending on the cylinder volume	360 cc/min 21.97 cu.in./min	50 bar 725 psi	7 A 4.5 A	10 A 10 A	60 W	0,55 lt 33,56in. cu	6.5 Kg 14.33 lb
CO2NU 12V CO2N 12V CO2NU 24V CO2N 24V	IT21315 IT12532 IT21316 IT12533	115 - 130 cc 6.1 - 7.93 cu.in	CTA40U CTA40	14,5	480 cc/min 29.30 cu.in./min	50 bar 725 psi	9.4 A 6 A	10 A 10 A	60 W	0,55 lt 33,56in. cu	6.5 Kg 14.33 lb
CO2/3NU 12V CO2/3N 12V CO2/3NU 24V CO2/3N 24V	IT21317 IT12521 IT21318 IT12522	130 - 220 cc 7.93 - 13.42 cu.in	CTA65U CTA65 CTA75U CTA75 CTA80U CTA80	14 15,6 17,9	720 cc/min 43.95 cu.in./min	50 bar 725 psi	16 A 10 A	20 A 16 A	100 W	0,95 lt 57,97in. cu	8.5 Kg 18.73 lb
CO3NU 12V CO3N 12V CO3NU 24V CO3N 24V	IT21319 IT15314 IT21320 IT12549	220 - 360 cc 13.42 - 21.96 cu.in	CTB110U CTB110 CTB130U CTB130 CTB145U CTB145	13,8 15,8 17,7	1220 cc/min 74.48 cu.in./min	50 bar 725 psi	18 A 12 A	20 A 16 A	100 W	0,95 lt 57,97in. cu	8.5 Kg 18.73 lb
CO4 12V CO4 24V	IT12559 IT11342	360 - 500 cc 21.96 - 30.5 cu.in	CTC200 CTC230	16 18	1860 cc/min 113.55 cu.in./min	45 bar 652 psi	18 A 10 A	20 A 16 A	150 W	3,0 lt 183in.cu	14 Kg 30.86 lb
CO4/5 12V CO4/5 24V	IT12555 IT12556	500 - 570 cc 30.50 - 34.77 cu.in	CTC200 CTC230 CTC300	12,3 14 18,4	2440 cc/min 148.96 cu.in./min	45 bar 652 psi	20 A 12 A	25 A 16 A	150 W	3,0 lt 183in.cu	14 Kg 30.86 lb
CO7 24V	IT12581	500 - 570 cc 30.50 - 34.77 cu.in	CTC300	21	2100 cc/min 128.20 cu.in./min	55 bar 797 psi	/ 18 A	/ 20 A	300 W	12,0 lt 732in.cu	25 Kg 55.11 lb
CO8 24V	IT12582	570 - 750 cc 34.77 - 45.75 cu.in	CTC300	15,7	2850 cc/min 173.99 cu.in./min	55 bar 797 psi	/ 21 A	/ 25 A	300 W	12,0 lt 732in.cu	25 Kg 55.11 lb
CO9 24V	IT12584	750 - 1000 cc 45.75 - 61.00 cu.in	CTC400 CTD310	16,6 14	3600 cc/min 219.78 cu.in./min	55 bar 797 psi	/ 21 A	/ 25 A	550 W	25,0 lt 1525in. cu	40 Kg 88.18 lb
CO10 24V	IT12497	1000 - 1200 cc 61.00 - 73.3 cu.in	CTC400 CTD310	13 10,9	4650 cc/min 283.88 cu.in./min	55 bar 797 psi	/ 30 A	/ 32 A	300 W	12,0 lt 732in.cu	40 Kg 88.18 lb
CO11 24V	IT12499	1200 - 1250 cc 73,28 - 76,27 cu.in	CTD450	16,3	4650 cc/min 283.88 cu.in./min	55 bar 797 psi	/ 35 A	/ 40 A	550 W	25,0 lt 1525in. cu	40 Kg 88.18 lb
CO12 24V	IT12500	1250 - 1350 cc 76,27 - 82,38 cu.in.	CTE600	14,6	5400 cc/min 329.4 cu.in./min	55 bar 797 psi	/ 35 A	/ 40 A	550 W	25,0 lt 1525in. cu	40 Kg 88,18 lb
CO13 24V	IT12502	1350 - 1750 cc 82,38 - 106,79 cu.in.	CTE600	11	7200 cc/min 439.2 cu.in./min	55 bar 797 psi	/ 40 A	/ 50 A	550 W	32,0 lt 1952in. cu	43 Kg 94,80 lb
CO14 24V	IT12503	1250 - 1350 cc 76,27 - 84,38 cu.in.	CTE600	12,5	6300 cc/min 384.3 cu.in./min	55 bar 797 psi	/ 55 A	/ 63 A	1100 W	32,0 lt 1952in. cu	43 Kg 94,80 lb
CO15 24V	IT12504	1750 - 2000 cc 106,79 - 122 cu.in.	CTE900	13	9150 cc/min 558.15 cu.in./min	55 bar 797 psi	/ 55 A	/ 63 A	1100 W	32,0 lt 1952in. cu	43 Kg 94,80 lb
CO16 24V	IT12507	2000 - 3900 cc 122 - 238 cu.in	CTE1200 CTF1600	13,3 19,5	11850 cc/min 722.85 cu.in./min	55 bar 797 psi	/ 65 A	/ 80 A	1100 W	32,0 lt 1952in. cu	43 Kg 94,80 lb

44 (\*) Weight is intended without oil.

## POWER-ASSISTED INBOARD STEERING SYSTEMS

The Twin Disc Power Assisted Steering system is the combination of innovation, reliability and comfort. The system provides prompt responsivity and total control with just 3.5 wheel turns lock-to-lock, even at high speeds (over 28 Knots). The compact design and reduced number of components (3 vs 6-7 in other brands) allows the system to be easy to install and service.

Twin Disc power-assisted steering assures maximum comfort, minimum effort, total efficiency in any sea condition.

### The System

The hydraulic helm pump is available in all displacements and mounting configurations (see help pump on page 9 for the model selection). Simple design with reduced dimensions for the steering cylinder, which are available either in anodized aluminum body (for applications up to 45'), or in a brass body for heavier applications, has the servo cylinder mounted directly to the main cylinder.

The Twin Disc power-assisted steering is completely independent from the vessel's main engines and all necessary power is provided by a single electrohydraulic power unit.

The system has all the necessary valves for the servo system in order to ensure safe steering (non-return valves, relief valves, etc.). It also includes an interface for the autopilot and a special device for the system automatic filling.

In order to ensure safety and total boat control in emergency conditions, the Twin Disc steering system automatically turns into a manual system if there is any problem with the unit.

### Features

- Totally independent from the vessel propulsion system
- Effortless navigation comfort in any condition
- High quality, safety and reliability
- Innovative concept and working principle
- 3 elements of the basic system vs. 6-7 elements in other brands
- Strong reduction of installation time (over 30% in comparison with competitors steering)
- Prompt responsiveness and total control in just 3.5 turns lock-to-lock (this number can be varied)
- Cooling system is not necessary
- Supplied with interface for the autopilot
- Special device for automatic filling of the system
- Bleeding procedure easy and fast
- Steering helm pump available in 5 displacements and 4 mounting configurations
- Provided with automatic manual back-up steering
- Simplified service and repair procedures (the system is not pressurized)
- Limited number of spare parts
- Helm pumps and cylinders meet ABYC standards and are CE approved
- Helm pumps are NMMA Type Approved

