I-36063 Marostica (Vicenza) Italy
www.valco.eu

C- DRIVE INVERTER VARIABLE SPEED CONTROL WITH PROTECTIONS FOR ELECTRIC PUMPS

C-DRIVE Introduction
C-DRIVE is a variable frequency drive designed to control and protect pumping systems by varying the output frequency to the pump.
C-DRIVE can be applied to both new and existing pumping systems, and provides:
• energy and cost savings
• simplified installation and an overall lower pumping system cost
• longer life of the pumping system and relevant components
• improved reliability
C-DRIVE , when connected to any pump, manages the system operation to maintain a certain constant physical quantity (pressure, differential pressure, flow, temperature, etc.) regardless of the conditions of use. The pump is operated only when needed thus avoiding unnecessary energy consumption.
C-DRIVE at the same time is able to:
• protect the motor from overload and dry running
• implement soft start and soft stop to increase the system life and reduce current peaks
• provide an indication of current consumption, voltage, and power
• maintain a record of run time and display any errors and/or failures reported by the system
• control up to two additional pumps at a constant speed (Direct On Line)
• connect to other C-DRIVE units for combined operation
Through the use of inductive filters (optional) C-DRIVE eliminates dangerous surges that are induced in long cables, making C-DRIVE suitable for control of submersible pumps.

Types		Nominal motor power (HP)	Nominal motor power (kW)	Motor voltage	MAX DUTY CURRENT AT MOTOR (A)	MAX INPUT CURRENT (A)	DIMENSIONS IN mm lxwxh	WEIGHT IN kg
Vin 1~ 230V ±15% 50-60Hz	Vin 3~ 230/400V ±15% 50-60Hz							
C-DRIVE-1MT070		1,5	1,1	1 PH x Vin	9	15	181x181x228	4,0
		2,0	1,5	3 PH x Vin	7	15	181x181x228	4,0
C-DRIVE-1MT110		1,5	1,1	1 PH x Vin	9	20	181x181x228	4,3
		4,0	3,0	3 PH x Vin	11	20	181x181x228	4,3
	C-DRIVE-3T060	3,0	2,2	3 PH x Vin	6	10	181x181x228	4,4
	C-DRIVE-3T090	5,5	4,0	3 PH x Vin	9	13,5	181x181x228	4,4
	C-DRIVE-3T140	7,5	5,5	3 PH x Vin	14	16	260x260x180	7,0
	C-DRIVE-3T180	10,0	7,5	3 PH x Vin	18	21	260x260x180	7,0
	C-DRIVE-3T250	15,0	11,0	3 PH x Vin	25	31	260x260x180	7,0
	C-DRIVE-3T300	20,0	15,0	3 PH x Vin	30	35	260x260x180	7,2

Note: C-DRIVE-3T VOLTAGE SUPPLIES: 3PH 230 V with 3PH 230 V to motor or 3PH 400 V with 3PH 400 V to motor

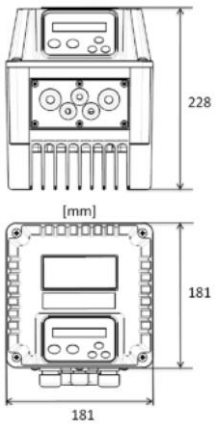
Operating conditions (limits of use)
Max ambient temperature at nominal current: 40 °C
Max altitude at nominal current: 1000 m
Degree of protection IP 55. auxiliary cooling fan of the C-DRIVE, used in wall mounted applications, has a protection degree of IP 54.

Technical characteristics
Settable digital outputs : N.O. or N.C. 1. Motor run signal 2. Alarm signal 3. DOL 1 pump signal 4. DOL 2 pump signal
Analog inputs, (10 or 15 Vdc): 1. 4-20 mA 2. 4-20 mA 3. 4-20 mA / 0 - 10 Vdc (settable) 4. 4-20 mA / 0 - 10 Vdc (settable) 4 digital inputs, settable as N.O or N.C, for motor run/stop
RS485 serial communication
Aluminium case

Others
Optional on demand: auxiliary cooling fan for remote installation
With C-DRIVE inverters is possible to realise booster sets with one or more pumps (up to 8) to be controlled at constant pressure with various combinations
•single pump driven directly by C-DRIVE and another 1 or 2 pumps directly connected to the mains DOL (Direct On Line)
•more pumps in parallel (up to 8),with each one driven by a C-DRIVE.

Not in scale

C-DRIVE 1MT070, 1MT110, 3T060, 3T090



C-DRIVE 3T140, 3T180, 3T250, 3T300