

# Electronic expansion valves series CX2 pulse width modulated with exchangeable orifices for high-pressure CO<sub>2</sub> applications can be used with EC2 display case controllers

## Features

- Pulse width modulated
- Shut-off function eliminates the necessity of a separate solenoid valve
- Dampened plunger reduces noise effects of water hammer
- One valve body can be combined with 6 orifices to make 7 capacity ranges up to 28.2 kW
- Long lifetime, high reliability
- Max. allowable pressure PS: 90 bar
- MOPD: 40 bar



## Selection Table

Type	Part No.	Description	Nominal capacity (kW) at 100% continuous open R 744
CX2-I00	801095	Valve: 3/8" x 1/2" ODF	28.2
EXO-004	801089	Orifice 4	17.9
EXO-003	801088	Orifice 3	11.8
EXO-002	801087	Orifice 2	7.0
EXO-001	801086	Orifice 1	5.2
EXO-000	801085	Orifice 0	2.6
EXO-00X	801084	Orifice X	1.5

**Note 1:** Nominal capacity at -10°C evaporating temperature, +10°C liquid temperature (45 bar) and 1K subcooling.  
For the selection of other operation conditions, please use Copeland Select software.

**Note 2:** The table quotes capacities at 100% duty cycle, i.e. valve is open continuously. However, it is recommended to operate the valve at partial loaded (50-80%) to allow for system load fluctuations. When used with an EC2 case controller, the valve operates with a 6 second pulse width cycle.

**Note 3:** CX2 is released as expansion valve and during operation of valve CO<sub>2</sub> must be feed in liquid phase to inlet of the valve.

## Accessories

Type	Part No.	Part No. (Multipack*)	Description	
ESC-M24VAC	801304	-	Coil 24 VAC / 50 Hz**	
ESC-W24VAC	801028	-	Coil 24 VAC / 50 Hz**	
ESC-W230VAC	801029	-	Coil 230 VAC / 50 Hz**	
ESC-M230VAC	801027	-	Coil 230 VAC / 50 Hz**	
ASC-N15	804570	804570M	Connector Cable Assembly	
ASC-N30	804571	804571M		1.5 m cable length
ASC-N60	804572	-		3.0 m cable length
Plug PG9	801012	-	Plug according to EN 175301 with cable gland	
Plug PG11	801013	-		
ESC-K01	801034	-	Screw cap (incl. 2x O-ring & fixing retainer)	

**Note:** \*) Multipack = 20 pcs

\*\* ) 50Hz coils have lower MOPD with 60Hz frequency.

## MOPD levels depending on supply voltage to coil

MOPD	Supply voltage to coil	Supply voltage to coil
65 bar	24 VAC nominal voltage	230 VAC nominal voltage
60 bar	24 VAC at -5% = 22.8 VAC	230 VAC at -5% = 218.5 VAC
50 bar	24 VAC at -10% = 21.6 VAC	230 VAC at -10% = 207 VAC
45 bar	24 VAC at -15% = 20.4 VAC	230 VAC at -15% = 195.5 VAC

**Note:** MOPD values are valid only for 50 Hz supply voltage operation.