

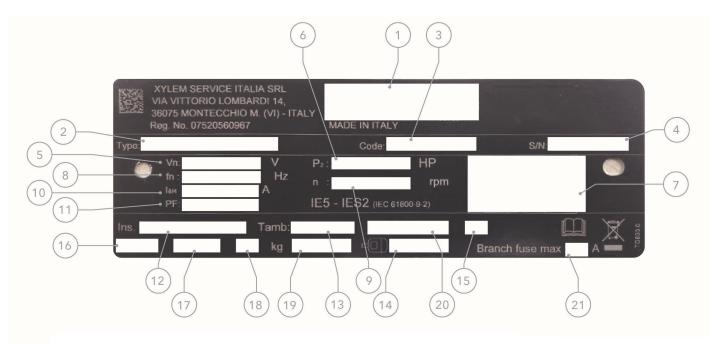


# hydrovar® X Smart Motor Specifications EXM213-215/3.075CH4

7.5 HP, 1200-2000 RPM, 3PH, 60HZ, 200-240V 213-215 Frame, TEFC

XY-hyXeXM-SUB-558 R1

#### hydrovar X Nameplate Legend



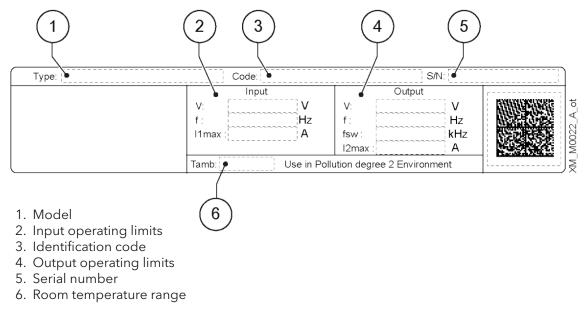
- 1. Certification markings (CE, UKCA, UL Recognized)
- 2. Motor type
- 3. Motor code
- 4. Unique motor serial number
- 5. Voltage range
- 6. Output power (kW / HP)
- 7. Full load rated PDS efficiency (motor and drive combined efficiency)
- 8. Frequency compatibility
- 9. Full load rated speed
- 10. Full load rated current range

- 11. Power factor
- 12. Insulation class
- 13. Ambient operating temperature
- 14. Non-drive end bearing
- 15. Service factor
- 16. IP environmental protection rating
- 17. NEMA environmental protection rating
- 18. Weight
- 19. Drive end bearing
- 20. Duty cycle rating
- 21. Circuit protection requirement

### hydrovar X Nameplate Information (representative example)\*

VIA VITTOR	RVICE ITALIA RIO LOMBAR ITECCHIO M 7520560967	DI 14,	_Y					
Type: EXM	1213-215/3.07	'5CH4		Code:		S/	′N:	
Vn:	3~ 200-240	V P2:	5.5	<b>kW</b> / 7.5	HP	PDS Eff. 230V	4/4	$(\mathbf{x})$
fn:	50/60	Hz n:	1500 -	2000	rpm	1500 rpm	89.4	$\bigcirc$
4/4:	21.6-20.4	А				1800 rpm	90.2	
PF:	0.93	IE	5 - IES2 (IEC	61800-9-2)		2000 rpm	90.1	
Ins. Cl. 158	5 (F) DV155	J Tamb:	-20 - 50° C	S1 - Continue	ous SF1		<b>i</b>	R
IP 55	ENC.4	kg	6310 <b>-ZZ</b>	6306	-ZZ	Branch fuse m	hax :0 A	

\*This is a representative example of the actual data that will be displayed on the Nameplate for the motor combination featured in this document.



## hydrovar X Data Plate Legend

## hydrovar X Data Plate Information (representative) image\*

Type: 10534396-0004	Code: 130141071				S/N: 93748WIM0000M		
XYLEM SERVICE ITALIA SRL VIA VITTORIO LOMBARDI 14, 36075 MONTECCHIO M. (VI) - ITALY Reg. No. 07520560967 MADE IN	V: f: l1max:	Input 3 ~ 200 – 480 50 / 60 24	V Hz A	V: f: fsw: l2max:	Output 0 ÷ VIn 0 ÷ 133 2 ÷ 12 24	V Hz kHz A	
GERMANY C E529771	Tamb:	-20 ÷ 50°C	Use in	Pollution	degree 2 Env	ironment	STARSSING

\*Data Plate contains values for the motor combinations specified in this document.

## Motor Type: EXM213-215/3.075CH4

NEMA Frame	Part Number	Weight lbs (kg)	
213-215T	130636651	84 (38)	
213-215TC	130636691	112 (51)	
213-215JM	130636731	112 (51)	
213-215JM (footed)	130638091	112 (51)	

## **Combined Motor and Drive Specifications**

Description		Va	lue	
Motor HP	7.5			
Enclosure	TEFC			
Frame Material	Frame Material Cast Iron/Aluminum			
Nominal Voltage @ Frequency	230V @ 60Hz			
XP Class	None			
XP Division	Not Applicable			
A mongy Approvals	UL	CE		
Agency Approvals	FCC	UKCA		
Insulation Class	F			
Bearing Grease Type	Polymer 400			
Lifting Lugs Standard				
Voltage	200-240 V (+/- 10%)			
Phase	3			
Input Current (200-240V)	21.6-20.4 A			
Power Factor	0.93			
	IP55			
Enclosure Rating	NEMA4			
	-4 to +122° F			
Tamb	-20 to +50° C			
DE Bearing	6310-ZZ			
ODE Bearing	6306-ZZ			
Duty Cycle	S1			

#### Combined Motor and Drive Performance (Nominal Voltage)<sup>1</sup>

Rated Speed	Torque (lb.ft)	Efficiency 100%	Efficiency 75%	Efficiency 50%	Sound Pressure dB(A) <sup>2</sup>
2000 RPM	19.37	90.1	90.4	90.1	55
1800 RPM	21.52	90.2	90.5	90.2	53
1500 RPM	25.82	89.4	89.7	89.5	48

<sup>1</sup>Motor may operate below 1500 RPM at partial load. Efficiency represents PDS (power-drive-system) efficiency.

<sup>2</sup>Sound power measured at 1m distance in no-load condition according to ISO 9614-2 and sound pressure values determined according to the ISO 11203 method. Sound pressure tolerance is +/- 2 dB for all voltages.

#### **Drive Features and Specifications**

Description	Value
Display	Graphic color display
Communication Protocols	MODBUS® RTU BACnet MS/TP
Mobile App	Bluetooth®
Control Modes	Actuator, Constant pressure, Proportional pressure, Proportional quadratic pressure,Constant flow, Constant temperature, Constant level
RS485 Ports	2
Analog Inputs	4
Analog Input Configuration	0-20 mA / 4-20 mA / 0-10V / 2-10V
Digital Inputs*	5
Analog Outputs	1
Analog Output Configuration	0-20 mA / 4-20 mA / 0-10V / 2-10V
Relay Output (Form C)*	2
10V Supply	1
Leakage Current	< 3.5 mA
Storage Temperature	-40 to +158° F -40 to +70° C
Altitude (without derating)	0 to 3281 ft [0-1000 m]
Humidity	Max 95% non-condensing

 $^{\ast}$  See Auxiliary Connections data on the next page for more detail.

## hydrovar X with Feet



## **Auxiliary Connections**

A WARNING REL. 1 REL. 2	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
250 VAC 0R 30 VAC 30 VAC 30 VDC 30 VDC	
000 000	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
40 41 42 43 44 45	NAMANANANAN NAMANA
Z Z R REL.1 REL.2	

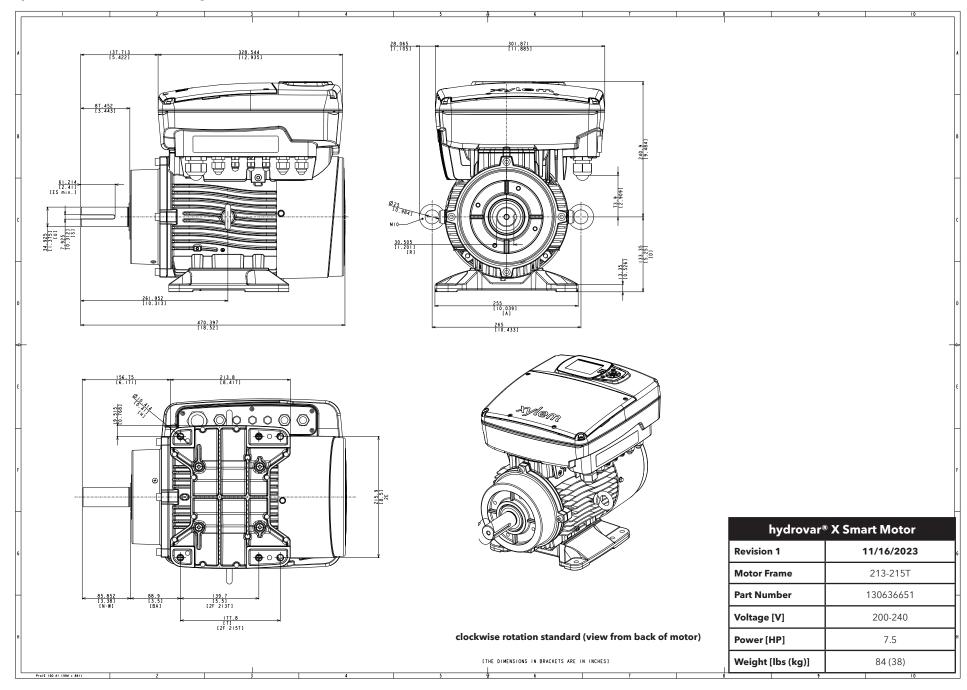
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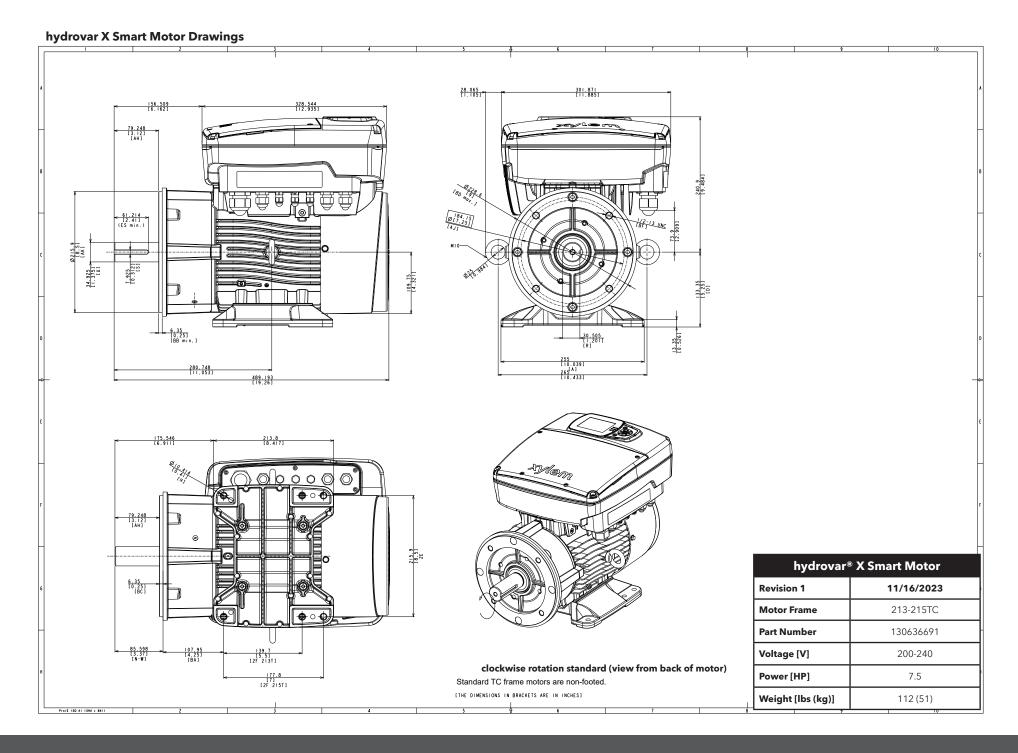
Position number	Name	Description	Default setting
1		Power supply +24 VDC, max. 60 mA (total, termi- nals 1 + 5)	
2	Analog input 1	Configurable Analog input 1	Pressure sensor 1
3		Electronic GND	
4	Reserved	For internal use, do not connect	-
5		Power supply +24 VDC, max. 60 mA (total, termi- nals 1 + 5)	
6	Analog input 2	Configurable Analog input 2	Not selected
7		Electronic GND	
8	External start/stop	Digital start/stop input, internal pull-up +24 VDC, contact current 6 mA	-
9		Electronic GND	
10	External lack of water	Low water level digital input, internal pull-up +24 VDC, contact current 6 mA	-
11		Electronic GND	
12	Digital Input 3	Configurable digital input 3, internal pull-up +24 VDC, contact current 6 mA	Emergency start at maximum
13		Electronic GND	speed
14		Configurable Analog output	
15	Analog output	Electronic GND	Motor Speed
16		Power supply +24 VDC, max. 60 mA (total, termi- nals 16 and 19)	
17	Analog input 3	Configurable Analog input 3	Not selected
18		Electronic GND	

## Auxiliary Connections (Continued)

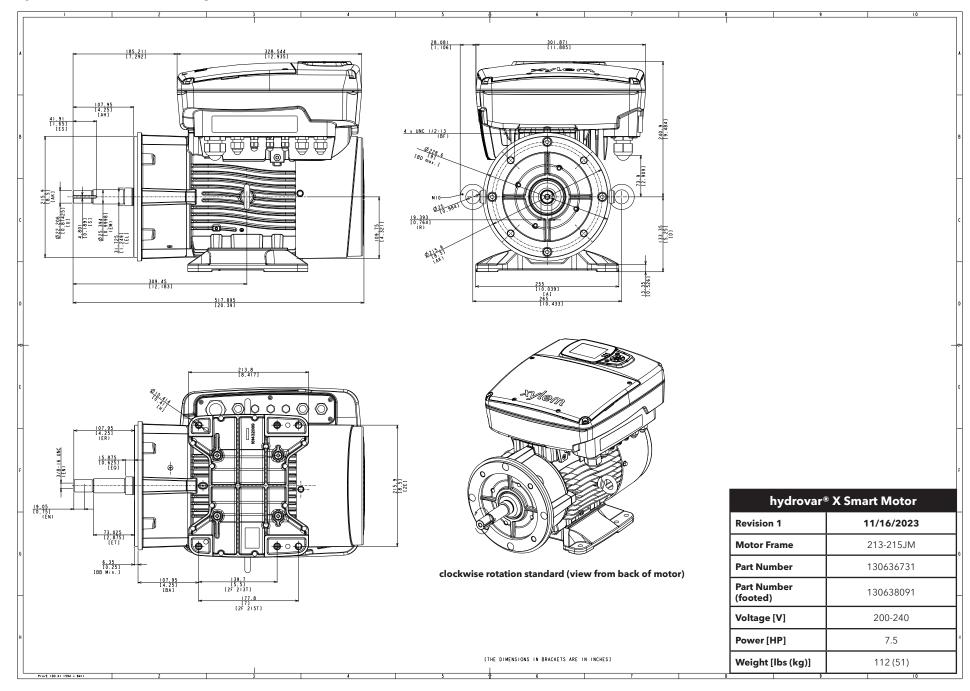
Position number	Name	Description	Default Setting
19		Power supply +24 VDC, max. 60 mA (total, terminals 16 and 19)	
20	Analog input 4	Configurable Analog input 4	Not selected
21		Electronic GND	
22	Digital input 4	Configurable digital input 4, internal pull -up +24 VDC, contact current 6mA	Not selected
23		Electronic GND	
24	Digital input 5	Configurable digital input 4, internal pull -up +24 VDC, contact current 6mA	Not selected
25		Electronic GND	
26		Power supply +10 VDC, max. 3 mA	
27	10 VDC power supply	Electronic GND	
28		RS485 port 1: RS485-1B N (-)	
29	Communication Bus 1	RS485 port 1: RS485-1A P (+)	Multipump
30		RS485 port 1: RS485-COM	
31		RS485 port 2: RS485-2B (-)	
32	Communication Bus 2	RS485 port 2: RS485-2A P (+)	MODBUS
33		RS485 port 2: RS485-COM	
34		RS485 port 1: RS485-1B N (-)	
35	Communication Bus 1	RS485 port 1: RS485-1A P (+)	Multipump
36		RS485 port 1: RS485-COM	
37		RS485 port 2: RS485-2B N (-)	
38	Communication Bus 2	RS485 port 2: RS485-2A P (+)	MODBUS
39		RS485 port 2: RS485-COM	
40		Configurable relay 1: normally open	
41	Relay 1	Configurable relay 1: normally closed	Error Reporting
42		Configurable relay 1: normally contact	
43		Configurable relay 2: normally open	
44	Relay 2	Configurable relay 2: normally closed	Motor start
45		Configurable relay 2: normally contact	

#### hydrovar X Smart Motor Drawings





#### hydrovar X Smart Motor Drawings



NOTES

## Xylem |'zīləm|

- 1) The tissue in plants that brings water upward from the roots;
- 2) a leading global water technology company.

We're a global team unified in a common purpose: creating advanced technology solutions to the world's water challenges. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. Our products and services move, treat, analyze, monitor and return water to the environment, in public utility, industrial, residential and commercial building services settings. Xylem also provides a leading portfolio of smart metering, network technologies and advanced analytics solutions for water, electric and gas utilities. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise with a strong focus on developing comprehensive, sustainable solutions.

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