

# H2 SERIES - MULTI-PURPOSE DRIVE

The Benshaw H2 Series sets the new standard for variable frequency drives. It can be used as a general purpose industrial drive with V/hz or Vector control (with ratings for normal or heavy duty applications from 5-800HP). For fan and pumps applications, simply use the built-in macros designed to meet the basic requirements of the water/wastewater, irrigation and HVAC industries.

This multi-purpose drive complies with industries standards including UL/cUL, CE and has built-in EMC filters (standard in all 480V models). Compact, yet full-featured...the H2 Series is the ideal choice for OEMs, panel builders and end users.



## STANDARD FEATURES - HARDWARE

- Dual rating - Normal and Heavy Duty
- 240V: 7.5HP~25HP (ND), 5HP~20HP (HD)
- 480V: 7.5HP~800HP (ND), 5HP~600HP (HD)
- Protected Chassis IP20
- LCD Display/Keypad
- EMC Filter (480V only, 7.5-40HP and 150-800HP)
- Internal Brake IGBT (240V all, 480V  $\leq$  40HP)
- Single Phase Input (derating required)
- Plenum Rated

## STANDARD FEATURES - SOFTWARE

- Quick Start Menu on Power Up
- Control - V/Hz, Sensorless Vector Control, Slip Compensation
- Auto Tuning
- Macro Selection - Pump, Fan, or Constant Torque
- Torque Limits
- PID Control
- Regen Avoidance
- Kinetic Energy Buffering (KEB), Ride Through
- Decel Brake Control

## H2 SERIES PUMP / FAN SOFTWARE - STANDARD FEATURES

- PID control with sleep and wake-up, broken pipe and under load detection
- Multi Motor Control - One drive to control the starting and stopping of up to 5 auxiliary motors
- Lead/lag and alternating control
- Pre-fill and Soft-fill
- Standard BACnet and Metasys-N2
- Fire mode input
- Start and End Ramp - settings for quicker accel/decel times when below minimum speeds
- Decel Valve Ramp - Separate decel ramp frequency and time settings when stopping
- Time Event Scheduling - Program run times for 7 days operation
- Flow Compensation - Compensate for losses in long pipe lengths
- Backspin Timer
- Pump Clean Operation
- Load Tuning
- Drive Output Level Detection - Set warning/trip limits (current, power, others) to detect drive operation beyond limits
- Energy Saving Operation
- Oil Pump Starter Control ( compressor systems)

## COMMUNICATIONS

Standard: RS-485 Modbus - RTU, BACnet, Metasys-N2

Options: Ethernet/IP, Modbus - TCP, Lonworks

**WinDRIVE** - PC Based Software for Commissioning and Monitoring

## H2 SERIES - PRICING

### 230V

Model Number	Normal Duty 120% OL/1 min.		Heavy Duty 150% OL/1min.		Dimensions (inches)			Degree of Protection*	Weight (lbs)	DC Link Reactor	Dynamic Braking	List Price
	HP	Amps	HP	Amps	H	W	D					
VFD-RSI-007-H2-2C	7.5	22	5	17	9.13	6.30	7.13	IP20	7.3	No	Internal IGBT	\$1,200
VFD-RSI-010-H2-2C	10	30	7.5	24	9.13	6.30	7.13	IP20	7.3	No	Internal IGBT	\$1,400
VFD-RSI-015-H2-2C	15	42	10	32	9.13	6.30	7.13	IP20	7.3	No	Internal IGBT	\$1,500
VFD-RSI-020-H2-2C	20	56	15	46	11.42	7.09	8.08	IP20	10.1	No	Internal IGBT	\$2,100
VFD-RSI-25-H2-2C	25	69	20	60	13.78	8.66	8.79	IP20	15.7	No	Internal IGBT	\$2,600

\* For UL type 1 add conduit box option.

### 460V

Model Number	Normal Duty** 110/120% OL/1 min.		Heavy Duty 150% OL/1min.		Dimensions (inches)			Degree of Protection*	Weight (lbs)	DC Link Reactor	Dynamic Braking	List Price
	HP	Amps	HP	Amps	H	W	D					
VFD-RSI-007-H2-4C	7.5	12	5	8	9.13	6.30	7.13	IP20	7.3	No	Internal IGBT	\$1,150
VFD-RSI-010-H2-4C	10	16	7.5	12	9.13	6.30	7.13	IP20	7.3	No	Internal IGBT	\$1,200
VFD-RSI-015-H2-4C	15	24	10	15	9.13	6.30	7.13	IP20	7.4	No	Internal IGBT	\$1,400
VFD-RSI-020-H2-4C	20	30	15	22	11.42	7.09	8.08	IP20	10.1	No	Internal IGBT	\$1,900
VFD-RSI-025-H2-4C	25	38	20	28	11.42	7.09	8.08	IP20	10.6	No	Internal IGBT	\$2,300
VFD-RSI-030-H2-4C	30	45	25	35	13.78	8.66	8.79	IP20	16.5	No	Internal IGBT	\$2,650
VFD-RSI-040-H2-4C	40	61	30	41	13.78	8.66	8.79	IP20	16.5	No	Internal IGBT	\$2,800
VFD-RSI-050-H2-4C	50	75	40	55	17.72	10.83	11.18	IP20	57	Yes	External***	\$4,000
VFD-RSI-060-H2-4C	60	91	50	67	20.08	12.80	11.18	IP20	77	Yes	External***	\$5,000
VFD-RSI-075-H2-4C	75	107	60	81	20.08	12.80	11.18	IP20	77	Yes	External***	\$5,300
VFD-RSI-100-H2-4C	100	142	75	106	21.67	12.80	12.17	IP20	95	Yes	External***	\$6,700
VFD-RSI-125-H2-4C	125	169	100	136	21.67	12.80	12.17	IP20	95	Yes	External***	\$7,500
VFD-RSI-150-H2-4C	150	223**	125	169	27.80	11.81	15.20	IP20	123	Yes	External***	\$10,000
VFD-RSI-200-H2-4C	200	264**	150	195	27.80	11.81	15.20	IP20	123	Yes	External***	\$10,600
VFD-RSI-250-H2-4C	250	325**	200	255	27.76	14.96	15.59	IP20	165	Yes	External***	\$12,950
VFD-RSI-300-H2-4C	300	370**	250	303	27.76	14.96	15.59	IP20	165	Yes	External***	\$14,950
VFD-RSI-400-H2-4C	400	481**	300	375	36.34	16.77	17.32	IP20	265	Yes	External***	\$22,000
VFD-RSI-500-H2-4C	500	613**	400	478	39.37	23.62	19.69	IP20	409	Yes	External***	\$35,550
VFD-RSI-650-H2-4C	650	770**	500	591	39.37	23.62	19.69	IP20	409	Yes	External***	\$39,750
VFD-RSI-800-H2-4C	800	962**	600	740	41.50	30.55	19.67	IP20	584	Yes	External***	\$47,700

\* For UL type 1 add conduit box option.

\*\* Normal Duty 110%.

\*\*\* Requires External Braking (DBU and DBR), Consult Factory.